# Board of Trustees Investment Committee

May 14, 2020, 9:00 am to 11:30 pm Via Zoom

## BOARD COMMITTEE MEETING LIVE AUDIO STREAM

#### **AGENDA**

9:00 – 9:30 a.m.

TAB 1 Defined Contribution Plan Review

9:30 - 10:00 a.m.

TAB 2 Defined Contribution Plan - Vendor Fee Benchmarking

10:00 – 10:45 a.m.

TAB 3 Performance Reviews and Asset Allocation Update – Managed Investment Pool (MIP), Defined Benefit Pension, and Operating Fund Portfolios

10:45 – 11:15 a.m.

TAB 4 MSCI Environmental, Social and Governance (ESG) Report Update

11:15 – 11:30 a.m.

TAB 5 Investment Policy Statement Update - MIP

Action items within the Committee purview are noted in green.

Items for Committee decisions and recommendations are noted in red.

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



## **AGENDA ITEM SUMMARY**

**1. NAME OF ITEM**: Defined Contribution Plan – Quarterly Review

2. INITIATED BY: Kelly A. Martin, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. OUTCOME: BOARD POLICY:

Primary Outcome: Section 709 - Investments

Enhance fiscal positioning

5. BACKGROUND:

Michael Pratico and Barry Schmitt, Senior Vice Presidents with CAPTRUST Financial Advisors, will provide a quarterly update regarding the Defined Contribution Plan at the May 14, 2020 Investment Committee meeting.

# University of Maine System 1st Quarter, 2020

# DEFINED CONTRIBUTION QUARTERLY REVIEW

### **CAPTRUST**

9030 Stony Point Parkway, Suite 540 Richmond, VA 23235

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

IN THIS REVIEW Period Ending 3.31.20 | Q1 20

University of Maine System

## **University of Maine System Defined Contribution Plans**

1st Quarter, 2020 Quarterly Review

prepared by:

Barron V. Schmitt

Principal | Financial Advisor

Michael S. Pratico

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 3.31.20 | Q1 20

University of Maine System

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Industry Updates...

## **EVALUATING IMPACT IN TIMES OF CRISIS**

Recent events have disrupted all facets of American life, including the defined contribution market. We gathered information from more than 15 recordkeepers concerning the impact on their businesses and changes in participant activity. Here is a summary of our findings.



#### **RECORDKEEPERS**

Recordkeepers are often the first line of defense for participants.

- Call volumes were up 15-20% on average, but call length was largely unchanged. Most added call center staff to compensate, but few extended hours.
- None reported service disruptions.
- Wait times were longer than normal; the average wait was 1-6 minutes, depending on the recordkeeper. Some have callback systems in place, which mitigated the impact.
- Most provided participants with online messages and resources about market volatility; some launched full education campaigns.
- Most implemented their business continuity plans as more employees worked from home, including call center representatives.
- Almost all have moved to 100% virtual meetings for plan sponsors and participants.



#### **PARTICIPANTS**

While activity was high, recordkeepers reported that most participants made no changes to their retirement accounts during this time.

- Alight reported levels of trading volume not seen since 2008 in its 401(k) index.<sup>1</sup>
- Recordkeepers reported a spike in movement away from equities to cash and fixed income; however, they noted that this was a small percentage of participants in their system, in some cases less than 1%.
- Participant call topics shifted from transactional to investments.
- Some decreased or discontinued their contributions, but most did not.
- Some noted lower levels of trading activity from investors in asset allocation vehicles, such as target date funds or managed accounts.

Source: CAPTRUST Research

<sup>1</sup> Alight Solutions 401(k) Index<sup>TM</sup> February 2020 Observations

## **EVALUATING IMPACT IN TIMES OF CRISIS**

During times of stress, investors typically move assets into what they feel are safe asset classes, such as money market, stable value, and fixed income funds. However, target date funds still hold the majority of assets in most defined contribution plans. CAPTRUST recently spoke with stable value, money market, core/core plus bond, and target date fund managers to get a sense for how each of these asset classes has fared.

#### TARGET DATE FUNDS

 Target date managers experienced a variance in performance driven by vintage year and glidepath type as shown below.<sup>1</sup>

YTD Returns	2025	2055
To Funds*	-21.52 to -16.74%	-30.96 to -26.31%
Through Funds*	-23.11 to -10.73%	-31.55 to -24.35%

• Generally, passive managers slightly outperformed active managers due to passive fixed income exposure.

### **MONEY MARKET FUNDS**

- Investors pulled more than \$85 billion from prime money market funds in one week as they sought to avoid gates and fees brought on by liquidity pressures.<sup>2</sup>
- Despite government action to increase liquidity and mitigate losses, some prime money market managers have had to inject money into their funds as a backstop.
- Yields are expected to drop meaningfully over the next 30 days due to the reduction in the fed funds rate.

Source: CAPTRUST Research

#### STABLE VALUE FUNDS

- Stable value managers experienced **5% to 10%** inflows, and they are using this cash to build liquidity buffers.
- In some cases, stable value managers are using these inflows to purchase deeply discounted securities.
- Healthy market-to-book ratios (101-102% pre-crisis), higher yields, and steady cash inflows have helped offset the impact of market losses on crediting rates.

#### CORE/CORE-PLUS BOND FUNDS

- Core bond funds have generally fared better than core-plus managers in this environment due to lower levels of fixed income sectors, such as high yield and emerging market debt.
- Managers that are positioned defensively with their corporate credit exposure have performed well relative to peers.
- YTD performance for core bond funds was -1.97% versus coreplus bond funds down -4.68%.<sup>3</sup>

\*For "to" funds, the allocation to stocks reaches its lowest level on the target date specified in the name of the fund. Meanwhile, "through" funds do not reach their lowest stock allocations until after the target date specified in the name of the fund and into retirement.

<sup>&</sup>lt;sup>1</sup> Morningstar. Performance range is for 2025 and 2055 vintages through March 20, 2020

<sup>&</sup>lt;sup>2</sup> Investment Company Institute, week ended March 18, 2020

<sup>&</sup>lt;sup>3</sup> Morningstar peer group averages through March 20, 2020

## CARES ACT IMPACTS RETIREMENT PLANS

The Coronavirus Aid, Relief, and Economic Security (CARES) Act is a \$2 trillion stimulus bill that is intended to help with a variety of issues resulting from the COVID-19 pandemic caused by the novel coronavirus. In addition to several provisions in the Act that expand access to defined contribution plan assets, some defined benefit plans may get funding relief.

## NEW WITHDRAWAL OPTION (DC plans)

#### **CARES Act Distributions**

- Penalty-free withdrawals up to \$100,000 for persons experiencing COVID-19-related events.<sup>1</sup>
- CARES withdrawals may be taken between January 1, 2020, and December 31, 2020.
- Participants can repay distributions over the three years following the distribution event.
- Employers may rely on participant certification.

#### **UPDATED LOAN PROVISIONS (DC plans)**

#### Participant Loan Changes

- Loan limits raised from \$50,000 to \$100,000.
- Borrowers can access the lesser of \$100,000 or 100% of their vested account balance.
- These features are available for 180 days starting March 27, 2020.

#### **Extension of Loan Repayments**

 One-year extension for loan payments due between March 27, 2020, and December 31, 2020.

#### OTHER RETIREMENT PROVISIONS

#### Required Minimum Distributions (DC plans)

 Required minimum distributions (RMDs) to be made in 2020 can be waived.

#### Funding Relief (DB plans)

- Allows for single-employer plans to delay RMDs otherwise due in 2020 until January 1, 2021, subject to interest charges.
- Allows for adjusted funding target attainment percentage from last plan year (before January 1, 2020) to apply for 2020 for the purposes of calculating benefit restrictions.

#### PLAN SPONSOR CONSIDERATIONS

- DC plan withdrawal and loan provisions are optional and settlor functions. Plan amendments can be made up until the last day of the plan year beginning after January 1, 2022, and plan sponsors should work with their recordkeeper to implement.
- DB plans should consult their actuaries for further guidance.

<sup>&</sup>lt;sup>1</sup> A COVID-19 related event is defined in the CARES Act.

## **COVID-19: WHAT CAN PLAN SPONSORS DO?**

During times of crisis, plan sponsors may not know what action to take to help their participants. Here are six areas for defined contribution plan sponsors to consider.



# INVESTMENT EDUCATION AND ADVICE

Make sure your participants have access to investment education tools and advice to help them make good decisions.



## **MONITOR ACTIONS**

Know how your recordkeeper, investment managers, and participants have reacted to market events.



## **INCREASED COMMUNICATION**

Communicate often with your participants regarding different facets of the plan (e.g., plan provisions, how to access account, ability to get help).



## **REVISIT PLAN PROVISIONS**

Keep up with government relief offered and how it could affect your plan. Talk to your plan's administrator about any changes needed to plan documents.



## PARTICIPANT DATA ACCURACY

Make sure you have the most up-to-date contact information for your participants.



## **REEVALUATE CHANGES**

Make sure your plan still meets any required investment minimums. Consider delaying any changes that require a blackout.

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## FIDUCIARY UPDATE

This quarter, we highlight two recent court cases with ERISA retirement plan implications and note actions plan sponsors may want to consider.

### INTEL V. SULYMA - SUPREME COURT DECISION

At issue was the question of when a person has "actual knowledge" of a fiduciary breach. Actual knowledge starts the clock ticking for a three-year statute of limitations for a fiduciary breach suit under ERISA (vs. the standard six years).

- Intel provided Sulyma all required disclosures and fund information and asked the Court to use the three-year statute of limitations, claiming that Sulyma had actual knowledge of how the plan investments were structured, which was the basis for the fiduciary breach suit. The Intel funds used hedging and private equity and lagged other funds with similar objectives.
- Sulyma received the disclosures and visited over 1,000 web pages for the Intel retirement plan. Sulyma testified he never read the disclosures or fund information provided by Intel and did not know what the funds contained.
- Intel asked the Court to enforce the three-year statute, which would have nullified the case, as it was brought after that period.
- The Supreme Court found that by never reading the information provided, Sulyma did not have "actual knowledge" of the fund's makeup, so the statute of limitations reverted to the six years prescribed under ERISA, and the case could be brought.

Case highlights contained here are provided for general information purposes 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.

## HARMON V. SHELL OIL, ET AL.

This litigation included some standard claims—poor investment performance and not leveraging size to reduce fees—but also added a few new claims.

- The one we are watching is the claim that Shell allowed Fidelity and its subsidiaries to use participants' "highly confidential" data to "aggressively market" other services to those participants and that the data is a plan asset subject to the fiduciary rules.
- Prior settlements for several universities contained agreements that limited this kind of activity, but, to our knowledge, this is the first time it has appeared in litigation.

#### **PLAN SPONSOR TAKEAWAYS**

- It may be difficult for fiduciaries to limit exposure through shorter limitation time frames based on the Intel decision.
- With plaintiff's attorneys analyzing how data is accessed and used, we anticipate this litigation trend will continue.
- Plan sponsors concerned about use of participant data by their recordkeepers should seek guidance from their ERISA attorneys.
- Be mindful of employees who raise questions about their personal information.

For more Fiduciary Updates, visit captrust.com/retirement-plans/.

## SECTION 2: MARKET COMMENTARY AND REVIEW

Period Ending 3.31.20 | Q1 20

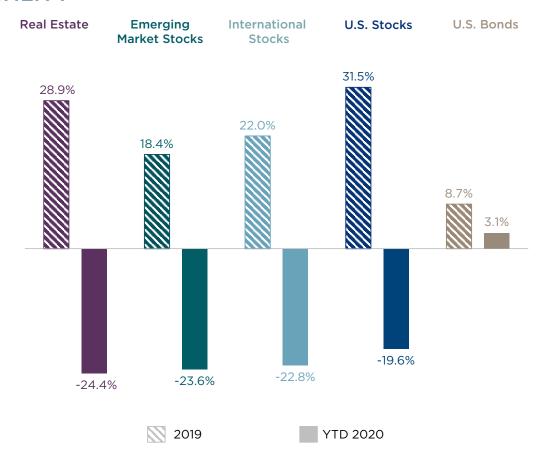
University of Maine System

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

## CORONAVIRUS SPARKS VOLATILITY

After a stellar 2019—when stocks and bonds both performed well—most asset classes fell in the first quarter. Following an initial surge driven by hopes for a trade truce with China, concerns about the coronavirus and its impact on global economic growth spooked investors. Later in the quarter, oil prices fell sharply on oversupply and a drop in demand, creating further uncertainty.

- After reaching an all-time high in mid-February, U.S. stocks fell as the coronavirus took root across the U.S.
- While all major stock markets around the world posted year-to-date declines, international developed and emerging market stocks lagged U.S. stocks.
- Bond performance was mixed. U.S. Treasurys benefited from the flight to safety, and the 10-year Treasury's yield hit an all-time low. Meanwhile, credit-related areas of the bond market slipped.
- While real estate typically performs well when interest rates decline, investors concerned about falling demand as the economy slows pushed prices lower.



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

## **DIGGING DEEPER: STOCKS AND BONDS**

## **Equities**

	Q1 2020	2019	Last 12 Months
U.S. Stocks	-19.6%	31.5%	-7.0%
- Q1 Best Sector: Technology	-11.9%	50.3%	10.4%
- Q1 Worst Sector: Energy	-50.5%	11.8%	-52.4%
International Stocks	-22.8%	22.0%	-14.4%
Emerging Market Stocks	-23.6%	18.4%	-17.7%

## **Fixed Income**

	03.31.20	12.31.19	03.29.19
1-Year U.S. Treasury Yield	0.17%	1.59%	2.40%
10-Year U.S. Treasury Yield	0.70%	1.92%	2.41%
	QTD 2020	YTD 2020	Last 12 Months
10-Year U.S. Treasury Total Return	11.93%	11.93%	18.26%

## **Equities - Relative Performance by Market Capitalization and Style**

	Q1	2020			2	019		Last 12 Months					
	Value	Blend	Growth		Value	Blend	Growth		Value	Blend	Growth		
Large	-26.7%	-19.6%	-14.1%	Large	26.5%	31.5%	36.4%	Large	-17.2%	-7.0%	0.9%		
Mid	-31.7%	-27.1%	-20.0%	Mid	27.1%	30.5%	35.5%	Mid	-24.1%	-18.3%	-9.4%		
Small	-35.7%	-30.6%	-25.8%	Small	22.4%	25.5%	28.5%	Small	-29.6%	-24.0%	-18.6%		

Asset class returns are represented by the following indexes: S&P 500 Index (U.S. stocks), MSCI EAFE Index (international stocks), and MSCI Emerging Markets Index (emerging market stocks). Relative performance by market capitalization and style is based upon the Russell US Style Indexes except for large-cap blend, which is based upon the S&P 500 Index. Sources: Bloomberg, U.S. Treasury

## **DIGGING DEEPER: FIXED INCOME MARKET**

Interest Rates	3 Months	2 Years	5 Years	10 Years	30 Years	Mortgage Rate
December 2019	1.55%	1.58%	1.69%	1.92%	2.39%	3.86%
March 2020	0.11%	0.23%	0.37%	0.70%	1.35%	3.86%
Change	-1.44%	-1.35%	-1.32%	-1.22%	-1.04%	0.00%

Treasury rates went into freefall in the first quarter after emergency rate cuts by the Federal Reserve. Despite the drop in Treasury rates, mortgage rates remained unchanged as spreads rose.

Bloomberg Barclays U.S. Aggregate Bond Index	Yield to Worst	Duration	Total Return Q1 2020	Spread	Treasury Rate	AA Spread	BBB Spread
December 2019	2.31%	5.87		0.39%	1.92%	0.50%	1.25%
March 2020	1.59%	5.69	3.15%	0.95%	0.64%	1.50%	3.60%
Change	-0.72%	-0.18		0.56%	-1.28%	1.00%	2.35%

Despite a spike in corporate spreads, the decline in Treasury rates pushed the index to a 3.15% return. The yield on the index declined below 2% with most Treasurys yielding well below 1%.

Bloomberg Barclays U.S. Long Credit Index	Yield to Worst	Duration	Total Return Q1 2020	Spread	Treasury Rate	AA Spread	BBB Spread
December 2019	3.63%	14.27		1.39%	2.24%	0.91%	1.76%
March 2020	3.91%	14.25	-4.65%	2.79%	1.13%	1.91%	3.56%
Change	0.28%	-0.02		1.40%	-1.11%	1.00%	1.80%

Even though Treasury rates declined more than 1%, the index declined 4.65% in the first quarter. While spreads widened for all credit qualities, BBB spreads were hit the hardest and were the primary detractor.

Sources: Bloomberg, U.S. Treasury, CAPTRUST Research

## **ECONOMIC OUTLOOK**

The emergence of an unprecedented threat has tilted the global economy into recession. Here, we provide our perspective on the balance between the significant headwinds created by the coronavirus and the tailwinds that could accelerate recovery.

#### **HEADWINDS**

#### A Novel Threat with Unprecedented Impact

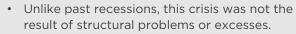
- A highly contagious coronavirus has created a global public health and economic crisis.
- Although New York has emerged as the epicenter within the U.S., the virus's spread is expected to reach across the country.
- Significant uncertainty remains: the extent and timing of peak impacts, future hotspots, the potential for outbreaks when lockdowns conclude, and a return in the fall.

### Social Distancing Leads to Economic Full Stop

- Efforts to slow the virus's spread shuttered large swaths of the economy as 95% of Americans were asked to remain at home.
- Early unemployment data indicate record-breaking job losses, with about 10 million new claims in the last two weeks of March.
- Economic models were not built for this kind of shock. Forecasts of 2020 GDP impacts range widely, from -5% to -25%, with unemployment swelling to between 12% and 22%.
- We expect that the economy will not trough until the growth rate of infections has peaked.

## **TAILWINDS**

#### A Stronger Starting Point





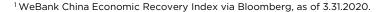
#### Massive Policy Response

- The global policy response has been swift and significant.
   Policymakers have committed to \$10 trillion in stimulus measures—more than 11% of global GDP.
- Within the U.S., the Federal Reserve cut its policy rate to near 0%, launched a massive asset-purchase program, and kicked off a range of other support programs. Meanwhile, Congress passed the CARES Act, a \$2 trillion relief package.

#### Signs of Recovery in China

- As the first In and first out of the COVID-19 crisis, the world's focus is on China to see how quickly economic activity rebounds and spot any signs of a second wave of infection.
- Early signals are positive. One gauge of economic activity based on alternative data sources shows that China returned to 86% of its normal level in March.<sup>1</sup>

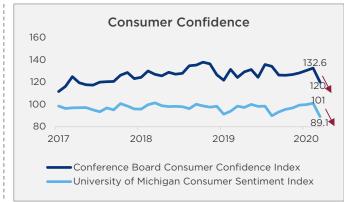
While the next several quarters look challenging and much uncertainty remains, it is important for long-term investors to remain invested, adapt to market changes, and seek out opportunities.



## **GLOBAL POLICY RESPONSE TO COVID-19**

There is often a delay between the onset of an economic problem and its appearance in economic data. This creates risk if this recognition lag leads to a policy response that is too late or sized incorrectly. As 95% of Americans stayed home to slow the coronavirus's spread, the economy's shutdown caused widespread income loss. Policymakers took decisive action, engaging more swiftly than during the financial crisis. Worldwide, policymakers have committed to \$10 trillion in stimulus measures—more than 11% of global gross domestic product (GDP).





February to March 2020	Central Bank Liquidity Injection		Government F	Fiscal Stimulus	Total Monetary and Fiscal Stimulus			
Region	\$ Billion	% of GDP	\$ Billion	% of GDP	\$ Billion	% of GDP		
U.S.	\$1,500	7.0%	\$2,756	12.9%	\$4,256	19.8%		
Eurozone	\$1,100	8.3%	\$480	3.6%	\$1,580	11.9%		
Japan	\$126	2.4%	\$184	3.6%	\$184	3.6%		
U.K.	\$387	14.1%	\$38	1.4%	\$425	15.5%		
China	\$1,153	8.0%	\$111	0.8%	\$1,264	8.9%		
Others*	\$406		\$4,984		\$1,948			
Total	\$4,672	5.4%	\$4,984	5.8%	\$9,655	11.1%		

<sup>\*</sup>Others include rest of world, World Bank, International Monetary Fund, and Asian Development Bank. Sources: Cornerstone Macro, Bloomberg

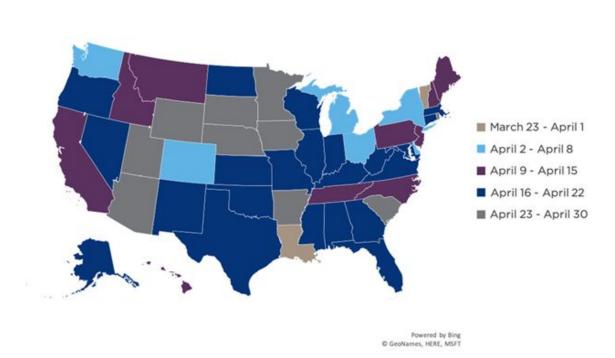
#### **OBSERVATIONS**

- Consumer confidence plunged at the end of March as unemployment data showed record job losses for the weeks ending March 21 and March 28.
- Yet even before these results were published, policymakers had already taken decisive action.
- The Fed cut its policy rate to near 0% and launched both asset-purchase and relief programs for businesses.
- Meanwhile, Congress passed the CARES Act, a \$2 trillion relief package.
- The combination of fiscal and monetary stimulus equates to approximately 20% of U.S. GDP.

# WIDESPREAD IMPACT, UNCERTAIN TIMING

Although New York quickly emerged as the epicenter within the U.S., the coronavirus and its impacts are expected to span the nation. The projected date of peak demand for hospital beds varies by state, suggesting a rolling pattern across the country. From a public health standpoint, this pattern would help tremendously, as vital equipment and supplies could be rotated to the locations of greatest need. Economically, the pattern could prolong the crisis as the virus rolls across the country, and we would not expect to see the economic data trough before the virus growth rate peaks.

## Date of Projected Peak Demand for Hospital Beds by State



Source: Institute for Health Metrics and Evaluation as of 04.07.2020

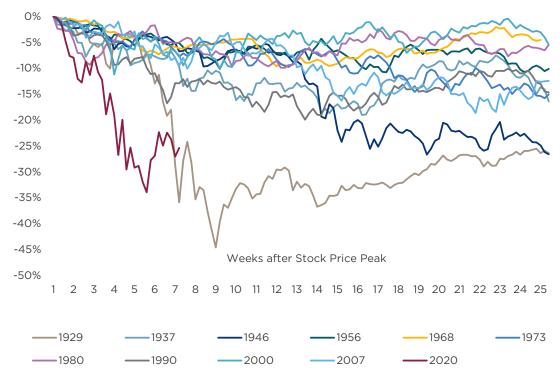
#### **OBSERVATIONS**

- Efforts to slow the spread of the virus and reduce peak demands on the healthcare system have created an economic standstill.
- While New York remains the epicenter of the crisis, hot spots are developing across the nation.
- According to one projection, 13% of states reached peak hospital bed demand during the week of April 2. Almost 20% will not peak until the end of April.
- Significant uncertainty remains.
   These projections assume social distancing policies remain in place through May. Outbreaks could reappear after policies relax or return in the fall.

## THE FASTEST BEAR

Relative to previous bear markets, 2020 is noteworthy in its speed and severity. Within the span of five weeks, the S&P 500 lost more than a third of its value, compared to an average of 13 months for prior bear markets of this magnitude, a testament to the unique nature of the crisis. Markets frequently decline faster than they recover: They take "the escalator up and the elevator down." But unlike prior recessions, this one began with an economy on sound footing, without the kinds of structural problems or market excesses seen in prior recessions.

# S&P 500 Index Performance in Past Recessions (Index Starts at 100 for Each Market Drawdown)



#### Source: Bloomberg.

### **OBSERVATIONS**

- Historically, stock market declines of more than 30% have required 13 months to reach that magnitude. This year, it occurred in less than five weeks. The only other examples of such a rapid selloff are in 1929 (Great Depression) and 1987 (Black Monday).
- The slope of the S&P 500's selloff is striking; it took just four weeks to decline by 20%. In six of the last 10 recessions, the 20% threshold was not reached within 25 weeks; the others required more than three months to reach this level (except for 1929).
- The economy began 2020 in good shape. Past recessions resulted from structural problems or excesses; today, banks are strong, and the Fed's efforts to improve market functioning have worked. This could suggest a rapid recovery as risks subside.

## FLOWS VS. FUNDAMENTALS

As coronavirus fears grew, many investors raced to convert securities to cash. This created a liquidity squeeze—not enough buyers and too many sellers. Even Treasury bonds, considered risk-free and normally a very well-behaved sector, experienced rising transaction costs.

Meanwhile, corporate bond investors must consider credit risk based upon business conditions, and these market conditions impacted some issuers more than others. In the rush to the exit, investors ignored fundamentals, causing some bond prices to be out of step with their true risk levels. Here, we examine price patterns for three similar bonds from different credit quality issuers—and with varying degrees of risk—to illustrate how prices can become dislocated from fundamentals.

	S&P Bond Rating	2020 High	2020 Low	Price Decline from High to Low	Price (as of 3.31.2020)	Price Decline from High to Current
Disney 10-Year Bond	А	\$103	\$94	-\$9	\$113	N/A
Dish DBS 10-Year Bond	B-	\$112	\$87	-\$25	\$103	-\$9
Tenneco 6-Year Bond	B-	\$93	\$52.50	-\$40.50	\$62.50	-\$30.50

#### **OBSERVATIONS**

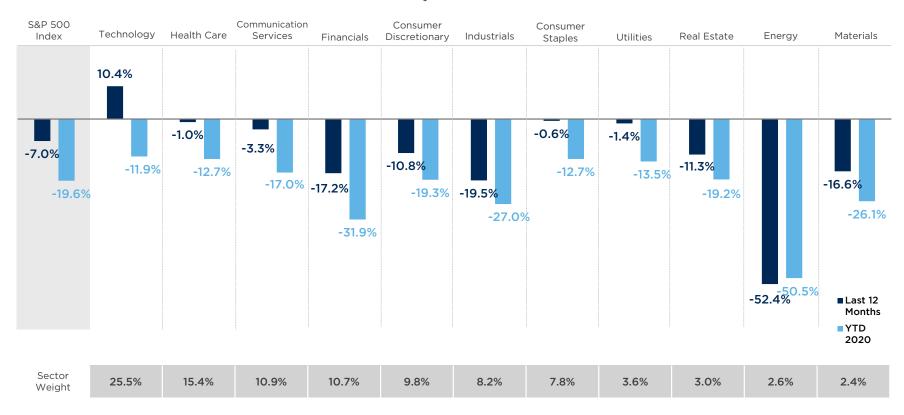
- Disney, a high-quality issuer, saw a modest decline in the price of its 10-year bond. While parts of its business are affected by the crisis, Disney is a diversified business with a powerful brand. In this case, price action overshot fundamentals, and the price quickly moved above its pre-crisis level.
- Dish Networks is a more speculative high-yield issuer with a business poised to benefit from more people at home watching TV. Dish saw the price of its 10-year bond decline by almost 22% before rebounding significantly by quarter end.
- Although rated the same as Dish, Tenneco's business is likely to face risks, including slower car sales and factory closures. Its 6-year bond's price fell more than 40%, with only a modest rebound as conditions improved near quarter end.

Source: Bloomberg.

## **DIGGING DEEPER: U.S. EQUITY MARKETS**

The S&P 500 Index is a market-capitalization-weighted index of U.S. large-cap stocks across a diverse set of industry sectors. The stocks represented in these 11 sectors generated a range of returns for the trailing 12-month period and the most recent quarter.

## Returns by S&P 500 Sector



All calculations are cumulative total return, not annualized, including dividends for the stated period. Past performance is not indicative of future returns. Source: Bloomberg

## ASSET CLASS RETURNS

Period Ending 3.31.20 | Q1 20

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD 2020
Large-Cap Growth 11.81%	Fixed Income 5.08%	Mid-Cap Growth 46.29%	Small-Cap Growth 29.09%	Fixed Income 7.84%	Mid-Cap Value 18.51%	Small-Cap Growth 43.30%	Mid-Cap Value 14.75%	Large-Cap Growth 5.67%	Small-Cap Value 31.74%	Large-Cap Growth 30.21%	Cash 1.87%	Large-Cap Growth 36.39%	Fixed Income 3.15%
International Equities 11.63%	Cash 1.51%	Large-Cap Growth 37.21%	Mid-Cap Growth 26.38%	Large-Cap Growth 2.64%	Small-Cap Value 18.05%	Mid-Cap Growth 35.74%	Large-Cap Value 13.45%	Fixed Income 0.55%	Mid-Cap Value 20.00%	International Equities 25.62%	Fixed Income 0.01%	Mid-Cap Growth 35.47%	Cash 0.57%
Mid-Cap Growth 11.43%	Small-Cap Value -28.92%	Small-Cap Growth 34.47%	Mid-Cap Value 24.75%	Large-Cap Value 0.39%	International Equities 17.90%	Small-Cap Value 34.52%	Large-Cap Growth 13.05%	Cash 0.05%	Large-Cap Value 17.34%	Mid-Cap Growth 25.27%	Large-Cap Growth -1.51%	Small-Cap Growth 28.48%	Large-Cap Growth -14.10%
Fixed Income 7.39%	Large-Cap Value -36.85%	Mid-Cap Value 34.21%	Small-Cap Value 24.50%	Cash 0.10%	Large-Cap Value 17.51%	Large-Cap Growth 33.48%	Mid-Cap Growth 11.90%	Mid-Cap Growth -0.20%	Small-Cap Growth 11.32%	Small-Cap Growth 22.17%	Mid-Cap Growth -4.75%	Mid-Cap Value 27.06%	Mid-Cap Growth -20.04%
Small-Cap Growth 7.05%	Mid-Cap Value -38.44%	International Equities 32.46%	Large-Cap Growth 16.71%	Mid-Cap Value -1.38%	Mid-Cap Growth 15.81%	Mid-Cap Value 33.46%	Fixed Income 5.97%	International Equities -0.39%	Mid-Cap Growth 7.33%	Large-Cap Value 13.66%	Large-Cap Value -8.27%	Large-Cap Value 26.54%	International Equities -22.72%
Cash 4.71%	Large-Cap Growth -38.44%	Small-Cap Value 20.58%	Large-Cap Value 15.51%	Mid-Cap Growth -1.65%	Large-Cap Growth 15.26%	Large-Cap Value 32.53%	Small-Cap Growth 5.60%	Small-Cap Growth -1.38%	Large-Cap Growth 7.08%	Mid-Cap Value 13.34%	Small-Cap Growth -9.31%	International Equities 22.66%	Small-Cap Growth -25.76%
Large-Cap Value -0.17%	Small-Cap Growth -38.54%	Large-Cap Value 19.69%	International Equities 8.21%	Small-Cap Growth -2.91%	Small-Cap Growth 14.59%	International Equities 23.29%	Small-Cap Value 4.22%	Large-Cap Value -3.83%	Fixed Income 2.65%	Small-Cap Value 7.84%	Mid-Cap Value -12.29%	Small-Cap Value 22.39%	Large-Cap Value -26.73%
Mid-Cap Value -1.42%	International Equities -43.06%	Fixed Income 5.24%	Fixed Income 5.89%	Small-Cap Value -5.50%	Fixed Income 4.22%	Cash 0.07%	Cash 0.03%	Mid-Cap Value -4.78%	International Equities 1.51%	Fixed Income 3.54%	Small-Cap Value -12.86%	Fixed Income 8.72%	Mid-Cap Value -31.71%
Small-Cap Value -9.78%	Mid-Cap Growth -44.32%	Cash 0.21%	Cash 0.13%	International Equities -11.73%	Cash 0.11%	Fixed Income -2.02%	International Equities -4.48%	Small-Cap Value -7.47%	Cash 0.33%	Cash 0.86%	International Equities -13.36%	Cash 2.28%	Small-Cap Value -35.66%
Small-Ca	ap Value Stock ap Growth Stoc ap Growth Stoc	cks (Russell 20	00 Growth)	Mid-0	Cap Growth St	tocks (Russell ' ocks (Russell N cks (Russell Mi	Mid-Cap Growt	th)	Fixed Inc		MSCI EAFE) erg Barclays U lonth Treasury		Bond)

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

## **INDEX PERFORMANCE**

Period Ending 3.31.20 | Q1 20

INDEXES	Q1 2020	YTD	2019	2018	2017	2016	2015	1 YEAR	3 YEAR	5 YEAR	10 YEAR
90-Day U.S. Treasury	0.57%	0.57%	2.28%	1.87%	0.86%	0.33%	0.05%	2.25%	1.83%	1.19%	0.64%
Bloomberg Barclays Government 1-3 Year	2.73%	2.73%	3.59%	1.58%	0.45%	0.87%	0.57%	5.37%	2.69%	1.84%	1.45%
Bloomberg Barclays Intermediate Govt	5.18%	5.18%	5.20%	1.43%	1.14%	1.05%	1.18%	8.93%	4.12%	2.77%	2.79%
Bloomberg Barclays Muni Bond	-0.63%	-0.63%	7.54%	1.28%	5.45%	0.25%	3.30%	3.85%	3.96%	3.19%	4.15%
Bloomberg Barclays Intermediate Govt/Credit	2.40%	2.40%	6.80%	0.88%	2.14%	2.08%	1.07%	6.88%	3.79%	2.76%	3.14%
Bloomberg Barclays Intermediate Credit	-2.35%	-2.35%	9.52%	0.01%	3.67%	3.68%	0.90%	3.28%	3.11%	2.65%	3.76%
Bloomberg Barclays Aggregate Bond	3.15%	3.15%	8.72%	0.01%	3.54%	2.65%	0.55%	8.93%	4.82%	3.36%	3.88%
Bloomberg Barclays Corporate IG Bond	-3.63%	-3.63%	14.54%	-2.51%	6.42%	6.11%	-0.68%	4.98%	4.20%	3.36%	4.92%
Bloomberg Barclays High Yield	-12.68%	-12.68%	14.32%	-2.08%	7.50%	17.13%	-4.47%	-6.94%	0.77%	2.78%	5.64%
Bloomberg Barclays Global Aggregate	-0.33%	-0.33%	6.84%	-1.20%	7.39%	2.09%	-3.15%	4.20%	3.55%	2.64%	2.47%
Bloomberg Barclays U.S. Long Corporate	-4.51%	-4.51%	23.89%	-7.24%	12.09%	10.97%	-4.61%	9.57%	6.66%	4.74%	7.30%
S&P 500	-19.60%	-19.60%	31.49%	-4.38%	21.83%	11.96%	1.38%	-6.98%	5.10%	6.73%	10.53%
Dow Jones Industrial Average	-22.73%	-22.73%	25.34%	-3.48%	28.11%	16.50%	0.21%	-13.38%	4.42%	6.86%	10.00%
NASDAQ Composite	-14.18%	-14.18%	35.23%	-3.88%	28.24%	7.50%	5.73%	-0.38%	9.21%	9.46%	12.37%
Russell 1000 Value	-26.73%	-26.73%	26.54%	-8.27%	13.66%	17.34%	-3.83%	-17.17%	-2.18%	1.90%	7.67%
Russell 1000	-20.22%	-20.22%	31.43%	-4.78%	21.69%	12.05%	0.92%	-8.03%	4.64%	6.22%	10.39%
Russell 1000 Growth	-14.10%	-14.10%	36.39%	-1.51%	30.21%	7.08%	5.67%	0.91%	11.32%	10.36%	12.97%
Russell Mid-Cap Value Index	-31.71%	-31.71%	27.06%	-12.29%	13.34%	20.00%	-4.78%	-24.13%	-5.97%	-0.76%	7.22%
Russell Mid-Cap Index	-27.07%	-27.07%	30.54%	-9.06%	18.52%	13.80%	-2.44%	-18.31%	-0.81%	1.85%	8.77%
Russell Mid-Cap Growth Index	-20.04%	-20.04%	35.47%	-4.75%	25.27%	7.33%	-0.20%	-9.45%	6.53%	5.61%	10.89%
MSCI EAFE	-22.72%	-22.72%	22.66%	-13.36%	25.62%	1.51%	-0.39%	-13.92%	-1.33%	-0.13%	3.20%
MSCI ACWI ex U.S.	-23.26%	-23.26%	22.13%	-13.78%	27.77%	5.01%	-5.25%	-15.14%	-1.48%	-0.17%	2.52%
Russell 2000 Value	-35.66%	-35.66%	22.39%	-12.86%	7.84%	31.74%	-7.47%	-29.64%	-9.51%	-2.42%	4.79%
Russell 2000	-30.61%	-30.61%	25.52%	-11.01%	14.65%	21.31%	-4.41%	-23.99%	-4.64%	-0.25%	6.90%
Russell 2000 Growth	-25.76%	-25.76%	28.48%	-9.31%	22.17%	11.32%	-1.38%	-18.58%	0.10%	1.70%	8.89%
MSCI Emerging Markets	-23.57%	-23.57%	18.90%	-14.25%	37.75%	11.60%	-14.60%	-17.36%	-1.25%	0.01%	1.04%
Dow Jones U.S. Real Estate Index	-24.39%	-24.39%	28.92%	-4.03%	9.84%	7.56%	2.14%	-16.74%	-0.15%	1.60%	7.89%
HFRX Absolute Return Index	-5.83%	-5.83%	4.37%	-0.49%	3.39%	0.31%	2.86%	-2.22%	0.16%	0.52%	0.69%
Consumer Price Index (Inflation)	-0.19%	-0.19%	2.29	1.91%	2.11%	2.07%	0.73%	1.51%	1.19%	1.74%	1.73%
BLENDED BENCHMARKS	Q1 2020	YTD	2019	2018	2017	2016	2015	1 YEAR	3 YEAR	5 YEAR	10 YEAR
25% S&P 500/5% MSCI EAFE/70% BB Agg	-4.19%	-4.19%	14.96%	-1.55%	8.93%	5.00%	0.92%	3.97%	4.86%	4.24%	5.71%
30% S&P 500/10% MSCI EAFE/60% BB Agg	-6.69%	-6.69%	16.79%	-2.44%	10.90%	5.43%	0.95%	2.02%	4.60%	4.27%	6.05%
35% S&P 500/15% MSCI EAFE/50% BB Agg	-9.14%	-9.14%	18.63%	-3.34%	12.90%	5.85%	0.97%	0.06%	4.32%	4.28%	6.37%
40% S&P 500/20% MSCI EAFE/40% BB Agg	-11.56%	-11.56%	20.48%	-4.25%	14.93%	6.26%	0.96%	-1.90%	4.01%	4.26%	6.66%
45% S&P 500/25% MSCI EAFE/30% BB Agg	-13.94%	-13.94%	22.33%	-5.17%	16.99%	6.65%	0.93%	-3.87%	3.68%	4.23%	6.93%
60% S&P 500/40% Bloomberg Barclays Agg	-10.25%	-10.25%	22.16%	-2.28%	14.25%	8.41%	1.40%	0.30%	5.60%	5.85%	8.27%

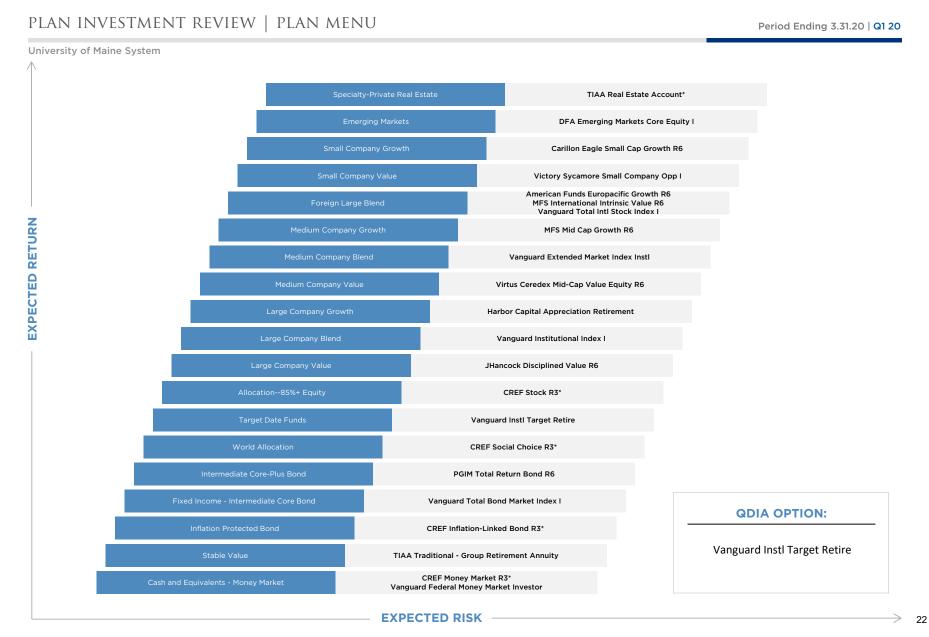
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## SECTION 3: PLAN INVESTMENT REVIEW

Period Ending 3.31.20 | Q1 20

University of Maine System

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



- \* These funds are missing performance data through 3/31/20
- \* CREF Money Market R3 This fund has a fee waiver through 12/31/20

## PLAN INVESTMENT REVIEW | EXECUTIVE ASSET SUMMARY

Period Ending 3.31.20 | Q1 20

University of Maine System

Plan Name	Plan/Contract Number	Plan Assets
University of Maine System Retirement Plan for Faculty and Professionals 403(b) DC	102965	\$1,165,803,144
University of Maine System Retirement Tax Deferred Annuity Plan 403(b) TDA	102966	\$169,689,161
University of Maine System Optional Retirement Savings 403(b)	102967	\$1,362,829
University of Maine System Optional Retirement Savings 401(a)	102968	\$1,001,117
University of Maine System Basic Retirement Plan for Classified Employees 403(b)	102969	\$36,785,363
University of Maine System Basic Retirement Plan for Classified Employees 401(a)	102970	\$69,455,889
University of Maine System Deferred Compensation Plan 457(b)	102971	\$32,860,600
	TOTALS	\$1.476.958.103



University of Maine System \*
Alternate Carrier Transfers In
Date Range January 1, 2020 - March 31, 2020





#### Disclosures

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 filings 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.

<sup>\* 7</sup> plans : 102965, 102966, 102967, 102968, 102969, 102970 & 102971

## Plan balances by fund

Period Ending 3.31.20 | Q1 20

University of Maine System

Allocation Name	Ticker	Re fe	University of Maine System etirement Plan or Faculty and Professionals 8(b) DC - 102965	M Re Def	University of laine System stirement Tax erred Annuity in 403(b) TDA-102966	Ma (Re	Optional etirement	Ma R	niversity of aine System Optional etirement rings 401(a) - 102968	Re <sup>-</sup>	Maine System Basic tirement Plan for Classified Employees 03(b) - 102969	Ret fo	aine System Basic irement Plan or Classified Employees 1(a) - 102970	M Co	University of aine System Deferred Ompensation Plan 457(b) - 102971	Grand Total	Percent to total
American Funds Europacific Growth R6	RERGX	\$	7,726,479	\$	1,143,511	\$	4,008	\$	2,912	\$	140,607	\$	182,766	\$	200,217	\$ 9,400,499	0.64%
Carillon Eagle Small Cap Growth R6	HSRUX	\$	4,799,216	\$	452,457	\$	3,365	\$	2,894	\$	146,398	\$	218,894	\$	144,628	\$ 5,767,851	0.39%
CREF Inflation-Linked Bond R3	QCILIX	\$	11,163,086	\$	2,267,792	\$	15,297	\$	16,018	\$	342,897	\$	732,361	\$	467,730	\$ 15,005,181	1.02%
CREF Money Market R3	QCMMIX	\$	53,721,787	\$	3,585,621	\$	12,590	\$	8,917	\$	2,442,800	\$	3,962,562	\$	1,510,328	\$ 65,244,605	4.42%
CREF Social Choice R3	QCSCIX	\$	30,826,377	\$	5,667,451	\$	33,699	\$	23,471	\$	939,233	\$	2,411,673	\$	1,513,220	\$ 41,415,124	2.80%
CREF Stock R3	QCSTIX	\$	146,892,063	\$	14,046,127	\$	136,440	\$	89,367	\$	2,636,558	\$	6,849,885	\$	1,584,677	\$ 172,235,116	11.66%
Default Loan	N/A	\$	17,253	\$	85,281	\$	-	\$	-	\$	-	\$	-	\$		\$ 102,534	0.01%
DFA Emerging Markets Core Equity I	DFCEX	\$	11,152,133	\$	1,385,915	\$	1,429	\$	11,394	\$	494,976	\$	873,923	\$	413,586	\$ 14,333,355	0.97%
Harbor Capital Appreciation Retirement	HNACX	\$	10,887,788	\$	1,636,343	\$	1,849	\$	1,494	\$	489,783	\$	1,215,606	\$	475,524	\$ 14,708,388	1.00%
JHancock Disciplined Value R6	JDVWX	\$	16,640,750	\$	1,839,902	\$	3,875	\$	8,132	\$	538,748	\$	898,104	\$	500,526	\$ 20,430,036	1.38%
Loan Balance	LOAN	\$	19,920	\$	-	\$	-	\$	-	\$	6,274	\$	-	\$	-	\$ 26,194	0.00%
MFS International Intrinsic Value R6	MINJX	\$	20,756,740	\$	2,979,719	\$	4,037	\$	16,018	\$	915,140	\$	1,773,828	\$	665,066	\$ 27,110,547	1.84%
MFS Mid Cap Growth R6	OTCKX	\$	9,740,593	\$	1,115,563	\$	563	\$	18,741	\$	374,086	\$	682,270	\$	311,368	\$ 12,243,184	0.83%
Frozen TIAA Annuities	NOAPRV	\$	71,448,839	\$	11,378,320	\$	196,084	\$	152,682	\$	2,508,382	\$	6,877,257	\$	1,672,812	\$ 94,234,376	6.38%
PGIM Total Return Bond R6	PTRQX	\$	26,994,543	\$	6,650,808	\$	4,834	\$	20,820	\$	1,157,840	\$	1,925,061	\$	1,334,713	\$ 38,088,618	2.58%
Self Directed Accounts	SDA	\$	36,151,929	\$	1,724,831	\$	-	\$	122,895	\$	2,117,440	\$	1,711,914	\$	749,232	\$ 42,578,240	2.88%
TIAA Real Estate Account	QREARX	\$	47,703,481	\$	10,599,189	\$	35,247	\$	50,174	\$	1,948,900	\$	3,495,388	\$	1,862,401	\$ 65,694,779	4.45%
TIAA Traditional - Group Retirement Annuity	TIAA#	\$	428,820,543	\$	63,441,070	\$	742,649	\$	300,041	\$	6,905,857	\$	15,136,396	\$	9,000,512	\$ 524,347,067	35.50%
Vanguard Extended Market Index Instl	VIEIX	\$	10,730,257	\$	2,004,890	\$	1,758	\$	366	\$	312,038	\$	552,439	\$	671,126	\$ 14,272,874	0.97%
Vanguard Federal Money Market Investor	VMFXX	\$	5,604,781	\$	346,515	\$	-	\$	-	\$	127,829	\$	385,911	\$	582,762	\$ 7,047,797	0.48%
Vanguard Institutional Index I	VINIX	\$	38,928,234	\$	9,048,897	\$	8,004	\$	2,891	\$	1,127,055	\$	2,077,923	\$	1,712,521	\$ 52,905,525	3.58%
Vanguard Retirement Series	N/A	\$	130,013,771	\$	19,696,390	\$	148,600	\$	110,615	\$	9,608,617	\$	15,117,803	\$	6,003,183	\$ 180,698,980	12.23%
Vanguard Total Bond Market Index I	VBTIX	\$	7,572,246	\$	2,481,927	\$	568	\$	14,130	\$	123,541	\$	326,519	\$	260,945	\$ 10,779,876	0.73%
Vanguard Total Intl Stock Index I	VTSNX	\$	14,082,053	\$	2,509,609	\$	2,802	\$	640	\$	522,516	\$	885,246	\$	515,626	\$ 18,518,492	1.25%
Victory Sycamore Small Company Opp I	VSOIX	\$	10,092,967	\$	1,577,728	\$	1,713	\$	24,323	\$	436,817	\$	610,939	\$	283,688	\$ 13,028,175	0.88%
Virtus Ceredex Mid-Cap Value Equity R6	SMVZX	\$	13,315,316	\$	2,023,308	\$	3,421	\$	2,183	\$	421,030	\$	551,221	\$	424,209	\$ 16,740,688	1.13%
Total		\$	1,165,803,144	\$	169,689,161	\$	1,362,829	\$	1,001,117	\$	36,785,363	\$	69,455,889	\$	32,860,600	\$ 1,476,958,103	100%

Period Ending 3.31.20 | Q1 20

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

		_	MARKET	VALUE -	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$8,129,320	0.62%	\$53,721,787	4.61%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$3,361,077	0.26%	\$5,604,781	0.48%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$427,531,728	32.61%	\$428,820,543	36.78%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$14,207,232	1.08%	\$11,163,086	0.96%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$6,320,933	0.48%	\$7,572,246	0.65%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$27,366,506	2.09%	\$26,994,543	2.32%
World Allocation	CREF Social Choice R3	\$35,544,566	2.71%	\$30,826,377	2.64%
Target Date Ret Income Moderate	Vanguard Instl Trgt Retire Inc Instl	\$6,068,596	0.46%	\$5,264,750	0.45%
Target Date 2015 Moderate	Vanguard Instl Trgt Retire 2015 Instl	\$6,956,395	0.53%	\$6,463,233	0.55%
Target Date 2020 Moderate	Vanguard Instl Trgt Retire 2020 Instl	\$16,795,458	1.28%	\$14,211,170	1.22%
Target Date 2025 Moderate	Vanguard Instl Trgt Retire 2025 Instl	\$20,619,050	1.57%	\$25,469,208	2.18%
Target Date 2030 Moderate	Vanguard Instl Trgt Retire 2030 Instl	\$19,422,867	1.48%	\$16,623,653	1.43%
Target Date 2035 Moderate	Vanguard Instl Trgt Retire 2035 Instl	\$20,819,922	1.59%	\$17,514,803	1.50%
Target Date 2040 Moderate	Vanguard Instl Trgt Retire 2040 Instl	\$23,931,974	1.83%	\$19,391,809	1.66%
Target Date 2045 Moderate	Vanguard Instl Trgt Retire 2045 Instl	\$15,225,321	1.16%	\$12,555,758	1.08%
Target Date 2050 Moderate	Vanguard Instl Trgt Retire 2050 Instl	\$10,558,817	0.81%	\$8,903,278	0.76%
Target Date 2055 Moderate	Vanguard Instl Trgt Retire 2055 Instl	\$3,622,960	0.28%	\$3,093,397	0.27%
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2060 Instl	\$569,656	0.04%	\$485,834	0.04%

CONTINUED...

Period Ending 3.31.20 | Q1 20

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

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2065 Instl	\$43,851	0.00%	\$36,878	0.00%
Allocation85%+ Equity	CREF Stock R3	\$195,835,513	14.94%	\$146,892,063	12.60%
Large Company Value	JHancock Disciplined Value R6	\$25,443,532	1.94%	\$16,640,750	1.43%
Large Company Blend	Vanguard Institutional Index I	\$82,898,696	6.32%	\$38,928,234	3.34%
Large Company Growth	Harbor Capital Appreciation Retirement	\$20,681,306	1.58%	\$10,887,788	0.93%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$19,605,581	1.50%	\$13,315,316	1.14%
Medium Company Blend	Vanguard Extended Market Index Insti	\$15,576,513	1.19%	\$10,730,257	0.92%
Medium Company Growth	MFS Mid Cap Growth R6	\$11,673,848	0.89%	\$9,740,593	0.84%
Foreign Large Blend	American Funds Europacific Growth R6	\$9,672,371	0.74%	\$7,726,479	0.66%
Foreign Large Blend	MFS International Intrinsic Value R6	\$24,978,214	1.91%	\$20,756,740	1.78%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$17,819,654	1.36%	\$14,082,053	1.21%
Small Company Value	Victory Sycamore Small Company Opp I	\$14,318,882	1.09%	\$10,092,967	0.87%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$6,508,214	0.50%	\$4,799,216	0.41%
Emerging Markets	DFA Emerging Markets Core Equity I	\$15,935,296	1.22%	\$11,152,133	0.96%
Specialty-Private Real Estate	TIAA Real Estate Account	\$54,664,345	4.17%	\$47,703,481	4.09%
Other Assets	Frozen TIAA Annuities	\$87,318,260	6.66%	\$71,448,839	6.13%
Self-Directed Brokerage	Self Directed Accounts	\$40,832,443	3.11%	\$36,151,929	3.10%
Loan	Default Loan	\$17,072	0.00%	\$17,253	0.00%

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Period Ending 3.31.20 | Q1 20

University of M	aine System Ret	rement Plan for F	aculty and Pro	fessionals 403(	b) DC -	102965
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			─ MARKET VALUE ─				
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2019	(%)	CURRENT	(%)	
Loan	Loan Balance		\$0	0.00%	\$19,920	0.00%	
		TOTALS	\$1,310,875,970	100%	\$1,165,803,144	100%	

Period Ending 3.31.20 | Q1 20

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

		— MARKET VALUE —			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$600,644	0.32%	\$3,585,621	2.11%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$125,105	0.07%	\$346,515	0.20%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$61,679,970	32.96%	\$63,441,070	37.39%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$2,577,255	1.38%	\$2,267,792	1.34%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$1,984,202	1.06%	\$2,481,927	1.46%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$7,327,538	3.92%	\$6,650,808	3.92%
World Allocation	CREF Social Choice R3	\$6,474,634	3.46%	\$5,667,451	3.34%
Target Date Ret Income Moderate	Vanguard Instl Trgt Retire Inc Instl	\$2,653,495	1.42%	\$2,438,857	1.44%
Target Date 2015 Moderate	Vanguard Instl Trgt Retire 2015 Instl	\$1,002,481	0.54%	\$937,756	0.55%
Target Date 2020 Moderate	Vanguard Instl Trgt Retire 2020 Instl	\$4,032,173	2.16%	\$3,646,227	2.15%
Target Date 2025 Moderate	Vanguard Instl Trgt Retire 2025 Instl	\$5,065,172	2.71%	\$5,013,528	2.95%
Target Date 2030 Moderate	Vanguard Instl Trgt Retire 2030 Instl	\$2,983,277	1.59%	\$3,609,686	2.13%
Target Date 2035 Moderate	Vanguard Instl Trgt Retire 2035 Instl	\$1,849,209	0.99%	\$1,530,869	0.90%
Target Date 2040 Moderate	Vanguard Instl Trgt Retire 2040 Instl	\$2,165,688	1.16%	\$1,717,747	1.01%
Target Date 2045 Moderate	Vanguard Instl Trgt Retire 2045 Instl	\$505,221	0.27%	\$385,191	0.23%
Target Date 2050 Moderate	Vanguard Instl Trgt Retire 2050 Instl	\$425,029	0.23%	\$334,898	0.20%
Target Date 2055 Moderate	Vanguard Instl Trgt Retire 2055 Instl	\$68,573	0.04%	\$72,711	0.04%
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2060 Instl	\$12,418	0.01%	\$8,920	0.01%

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Period Ending 3.31.20 | Q1 20

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

		_	─ MARKET VALUE ─		
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2065 Instl	\$0	0.00%	\$0	0.00%
Allocation85%+ Equity	CREF Stock R3	\$18,496,851	9.89%	\$14,046,127	8.28%
Large Company Value	JHancock Disciplined Value R6	\$2,818,352	1.51%	\$1,839,902	1.08%
Large Company Blend	Vanguard Institutional Index I	\$13,602,143	7.27%	\$9,048,897	5.33%
Large Company Growth	Harbor Capital Appreciation Retirement	\$2,848,880	1.52%	\$1,636,343	0.96%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$3,073,633	1.64%	\$2,023,308	1.19%
Medium Company Blend	Vanguard Extended Market Index Instl	\$2,844,364	1.52%	\$2,004,890	1.18%
Medium Company Growth	MFS Mid Cap Growth R6	\$1,310,577	0.70%	\$1,115,563	0.66%
Foreign Large Blend	American Funds Europacific Growth R6	\$1,429,055	0.76%	\$1,143,511	0.67%
Foreign Large Blend	MFS International Intrinsic Value R6	\$3,776,936	2.02%	\$2,979,719	1.76%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$3,174,245	1.70%	\$2,509,609	1.48%
Small Company Value	Victory Sycamore Small Company Opp I	\$2,291,655	1.22%	\$1,577,728	0.93%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$611,386	0.33%	\$452,457	0.27%
Emerging Markets	DFA Emerging Markets Core Equity I	\$2,024,623	1.08%	\$1,385,915	0.82%
Specialty-Private Real Estate	TIAA Real Estate Account	\$11,443,286	6.12%	\$10,599,189	6.25%
Other Assets	Frozen TIAA Annuities	\$13,704,955	7.32%	\$11,378,320	6.71%
Self-Directed Brokerage	Self Directed Accounts	\$2,040,149	1.09%	\$1,724,831	1.02%
Loan	Default Loan	\$84,370	0.05%	\$85,281	0.05%
	TOTAL	<b>.</b> \$ \$187,107,542	100%	\$169,689,161	100%

Period Ending 3.31.20 | Q1 20

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

		_	MARKET	VALUE -	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$5,915	0.39%	\$12,590	0.92%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$0	0.00%	\$0	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$764,451	50.68%	\$742,649	54.49%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$15,685	1.04%	\$15,296	1.12%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$630	0.04%	\$568	0.04%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$5,082	0.34%	\$4,834	0.35%
World Allocation	CREF Social Choice R3	\$39,274	2.60%	\$33,699	2.47%
Target Date Ret Income Moderate	Vanguard Instl Trgt Retire Inc Instl	\$47,960	3.18%	\$44,831	3.29%
Target Date 2015 Moderate	Vanguard Instl Trgt Retire 2015 Instl	\$16,037	1.06%	\$14,213	1.04%
Target Date 2020 Moderate	Vanguard Instl Trgt Retire 2020 Instl	\$58,590	3.88%	\$50,911	3.74%
Target Date 2025 Moderate	Vanguard Instl Trgt Retire 2025 Instl	\$6,886	0.46%	\$5,995	0.44%
Target Date 2030 Moderate	Vanguard Instl Trgt Retire 2030 Instl	\$35,117	2.33%	\$29,930	2.20%
Target Date 2035 Moderate	Vanguard Instl Trgt Retire 2035 Instl	\$3,257	0.22%	\$2,720	0.20%
Target Date 2040 Moderate	Vanguard Instl Trgt Retire 2040 Instl	\$0	0.00%	\$0	0.00%
Target Date 2045 Moderate	Vanguard Instl Trgt Retire 2045 Instl	\$0	0.00%	\$0	0.00%
Target Date 2050 Moderate	Vanguard Instl Trgt Retire 2050 Instl	\$0	0.00%	\$0	0.00%
Target Date 2055 Moderate	Vanguard Instl Trgt Retire 2055 Instl	\$0	0.00%	\$0	0.00%
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2060 Instl	\$0	0.00%	\$0	0.00%

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Period Ending 3.31.20 | Q1 20

University	of Maine	Systom	Ontional	Retirement	Savings	403(b)	- 102967
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			─ MARKET VALUE ─			
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2019	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2065 Instl		\$0	0.00%	\$0	0.00%
Allocation85%+ Equity	CREF Stock R3		\$183,313	12.15%	\$136,440	10.01%
Large Company Value	JHancock Disciplined Value R6		\$5,566	0.37%	\$3,875	0.28%
Large Company Blend	Vanguard Institutional Index I		\$11,594	0.77%	\$8,004	0.59%
Large Company Growth	Harbor Capital Appreciation Retirement		\$1,856	0.12%	\$1,849	0.14%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6		\$5,096	0.34%	\$3,421	0.25%
Medium Company Blend	Vanguard Extended Market Index Insti		\$2,335	0.15%	\$1,758	0.13%
Medium Company Growth	MFS Mid Cap Growth R6		\$681	0.05%	\$563	0.04%
Foreign Large Blend	American Funds Europacific Growth R6		\$5,343	0.35%	\$4,008	0.29%
Foreign Large Blend	MFS International Intrinsic Value R6		\$4,422	0.29%	\$4,037	0.30%
Foreign Large Blend	Vanguard Total Intl Stock Index I		\$3,743	0.25%	\$2,802	0.21%
Small Company Value	Victory Sycamore Small Company Opp I		\$2,426	0.16%	\$1,713	0.13%
Small Company Growth	Carillon Eagle Small Cap Growth R6		\$4,534	0.30%	\$3,365	0.25%
Emerging Markets	DFA Emerging Markets Core Equity I		\$1,775	0.12%	\$1,429	0.10%
Specialty-Private Real Estate	TIAA Real Estate Account		\$40,288	2.67%	\$35,247	2.59%
Other Assets	Frozen TIAA Annuities		\$236,519	15.68%	\$196,084	14.39%
Self-Directed Brokerage	Self Directed Accounts		\$0	0.00%	\$0	0.00%
		TOTALS	\$1,508,374	100%	\$1,362,829	100%

Period Ending 3.31.20 | Q1 20

University of Maine S	vetom Ontional	Detiroment Savings	101(2) - 102069
University of Maine 5	vstem Optional	Retirement Savings	401(a) - 102968

		- MARKET VALUE -			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$5,574	0.48%	\$8,917	0.89%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$0	0.00%	\$0	0.00%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$331,667	28.60%	\$300,041	29.97%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$16,120	1.39%	\$16,018	1.60%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$13,765	1.19%	\$14,130	1.41%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$21,432	1.85%	\$20,820	2.08%
World Allocation	CREF Social Choice R3	\$27,461	2.37%	\$23,471	2.34%
Target Date Ret Income Moderate	Vanguard Instl Trgt Retire Inc Instl	\$57,204	4.93%	\$53,840	5.38%
Target Date 2015 Moderate	Vanguard Instl Trgt Retire 2015 Instl	\$13,657	1.18%	\$11,687	1.17%
Target Date 2020 Moderate	Vanguard Instl Trgt Retire 2020 Instl	\$48,739	4.20%	\$42,336	4.23%
Target Date 2025 Moderate	Vanguard Instl Trgt Retire 2025 Instl	\$2,019	0.17%	\$1,758	0.18%
Target Date 2030 Moderate	Vanguard Instl Trgt Retire 2030 Instl	\$368	0.03%	\$314	0.03%
Target Date 2035 Moderate	Vanguard Instl Trgt Retire 2035 Instl	\$814	0.07%	\$680	0.07%
Target Date 2040 Moderate	Vanguard Instl Trgt Retire 2040 Instl	\$0	0.00%	\$0	0.00%
Target Date 2045 Moderate	Vanguard Instl Trgt Retire 2045 Instl	\$0	0.00%	\$0	0.00%
Target Date 2050 Moderate	Vanguard Instl Trgt Retire 2050 Instl	\$0	0.00%	\$0	0.00%
Target Date 2055 Moderate	Vanguard Instl Trgt Retire 2055 Instl	\$0	0.00%	\$0	0.00%
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2060 Instl	\$0	0.00%	\$0	0.00%

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Period Ending 3.31.20 | Q1 20

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

			─ MARKET VALUE —				
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2019	(%)	CURRENT	(%)	
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2065 Instl		\$0	0.00%	\$0	0.00%	
Allocation85%+ Equity	CREF Stock R3		\$120,650	10.40%	\$89,367	8.93%	
Large Company Value	JHancock Disciplined Value R6		\$12,326	1.06%	\$8,132	0.81%	
Large Company Blend	Vanguard Institutional Index I		\$5,824	0.50%	\$2,891	0.29%	
Large Company Growth	Harbor Capital Appreciation Retirement		\$1,623	0.14%	\$1,494	0.15%	
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6		\$3,852	0.33%	\$2,183	0.22%	
Medium Company Blend	Vanguard Extended Market Index Insti		\$517	0.04%	\$366	0.04%	
Medium Company Growth	MFS Mid Cap Growth R6		\$22,325	1.93%	\$18,741	1.87%	
Foreign Large Blend	American Funds Europacific Growth R6		\$4,678	0.40%	\$2,912	0.29%	
Foreign Large Blend	MFS International Intrinsic Value R6		\$18,497	1.59%	\$16,018	1.60%	
Foreign Large Blend	Vanguard Total Intl Stock Index I		\$917	0.08%	\$640	0.06%	
Small Company Value	Victory Sycamore Small Company Opp I		\$34,644	2.99%	\$24,323	2.43%	
Small Company Growth	Carillon Eagle Small Cap Growth R6		\$4,389	0.38%	\$2,894	0.29%	
Emerging Markets	DFA Emerging Markets Core Equity I		\$15,943	1.37%	\$11,394	1.14%	
Specialty-Private Real Estate	TIAA Real Estate Account		\$59,303	5.11%	\$50,174	5.01%	
Other Assets	Frozen TIAA Annuities		\$181,674	15.67%	\$152,682	15.25%	
Self-Directed Brokerage	Self Directed Accounts		\$133,725	11.53%	\$122,895	12.28%	
		TOTALS	\$1,159,708	100%	\$1,001,117	100%	

Period Ending 3.31.20 | Q1 20

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

		- MARKET VALUE -			
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Cash and Equivalents - Money Market	CREF Money Market R3	\$373,651	0.90%	\$2,442,800	6.64%
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$53,185	0.13%	\$127,828	0.35%
Stable Value	TIAA Traditional - Group Retirement Annuity	\$6,866,182	16.50%	\$6,905,857	18.77%
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$579,185	1.39%	\$342,897	0.93%
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$129,103	0.31%	\$123,541	0.34%
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$1,161,684	2.79%	\$1,157,840	3.15%
World Allocation	CREF Social Choice R3	\$1,094,085	2.63%	\$939,233	2.55%
Target Date Ret Income Moderate	Vanguard Instl Trgt Retire Inc Instl	\$467,189	1.12%	\$385,013	1.05%
Target Date 2015 Moderate	Vanguard Instl Trgt Retire 2015 Instl	\$660,575	1.59%	\$601,869	1.64%
Target Date 2020 Moderate	Vanguard Instl Trgt Retire 2020 Instl	\$2,167,248	5.21%	\$1,877,354	5.10%
Target Date 2025 Moderate	Vanguard Instl Trgt Retire 2025 Instl	\$2,318,848	5.57%	\$2,465,737	6.70%
Target Date 2030 Moderate	Vanguard Instl Trgt Retire 2030 Instl	\$1,476,628	3.55%	\$1,226,049	3.33%
Target Date 2035 Moderate	Vanguard Instl Trgt Retire 2035 Instl	\$1,040,941	2.50%	\$862,878	2.35%
Target Date 2040 Moderate	Vanguard Instl Trgt Retire 2040 Instl	\$1,287,603	3.09%	\$1,043,196	2.84%
Target Date 2045 Moderate	Vanguard Instl Trgt Retire 2045 Instl	\$629,380	1.51%	\$501,673	1.36%
Target Date 2050 Moderate	Vanguard Instl Trgt Retire 2050 Instl	\$316,252	0.76%	\$261,613	0.71%
Target Date 2055 Moderate	Vanguard Instl Trgt Retire 2055 Instl	\$339,771	0.82%	\$282,852	0.77%
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2060 Instl	\$109,252	0.26%	\$93,149	0.25%

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Period Ending 3.31.20 | Q1 20

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

		_	- MARKET VALUE -						
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)				
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2065 Instl	\$7,210	0.02%	\$7,236	0.02%				
Allocation85%+ Equity	CREF Stock R3	\$3,472,056	8.34%	\$2,636,558	7.17%				
Large Company Value	JHancock Disciplined Value R6	\$902,897	2.17%	\$538,748	1.46%				
Large Company Blend	Vanguard Institutional Index I	\$1,289,815	3.10%	\$1,127,055	3.06%				
Large Company Growth	Harbor Capital Appreciation Retirement	\$2,313,271	5.56%	\$489,783	1.33%				
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$608,577	1.46%	\$421,030	1.14%				
Medium Company Blend	Vanguard Extended Market Index Insti	\$438,567	1.05%	\$312,038	0.85%				
Medium Company Growth	MFS Mid Cap Growth R6	\$452,990	1.09%	\$374,086	1.02%				
Foreign Large Blend	American Funds Europacific Growth R6	\$171,969	0.41%	\$140,607	0.38%				
Foreign Large Blend	MFS International Intrinsic Value R6	\$1,064,739	2.56%	\$915,140	2.49%				
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$701,376	1.68%	\$522,516	1.42%				
Small Company Value	Victory Sycamore Small Company Opp I	\$623,906	1.50%	\$436,817	1.19%				
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$207,116	0.50%	\$146,398	0.40%				
Emerging Markets	DFA Emerging Markets Core Equity I	\$700,697	1.68%	\$494,976	1.35%				
Specialty-Private Real Estate	TIAA Real Estate Account	\$2,255,859	5.42%	\$1,948,900	5.30%				
Other Assets	Frozen TIAA Annuities	\$3,086,298	7.41%	\$2,508,382	6.82%				
Self-Directed Brokerage	Self Directed Accounts	\$2,252,294	5.41%	\$2,117,440	5.76%				
Loan	Default Loan	\$4,740	0.01%	\$0	0.00%				

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Period Ending 3.31.20 | Q1 20

			- MARKET VALUE -							
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2019	(%)	CURRENT	(%)				
Loan	Loan Fund		-	-	\$6,274	0.02%				
		TOTALS	\$41,625,140	100%	\$36,785,363	100%				

Period Ending 3.31.20 | Q1 20

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

		_	MARKET	VALUE -		
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)	
Cash and Equivalents - Money Market	CREF Money Market R3	\$1,018,254	1.29%	\$3,962,562	5.71%	
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$109,997	0.14%	\$385,911	0.56%	
Stable Value	TIAA Traditional - Group Retirement Annuity	\$15,121,286	19.10%	\$15,136,396	21.79%	
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$1,108,347	1.40%	\$732,361	1.05%	
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$308,509	0.39%	\$326,519	0.47%	
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$1,960,444	2.48%	\$1,925,061	2.77%	
World Allocation	CREF Social Choice R3	\$2,973,565	3.76%	\$2,411,673	3.47%	
Target Date Ret Income Moderate	Vanguard Instl Trgt Retire Inc Instl	\$936,209	1.18%	\$894,479	1.29%	
Target Date 2015 Moderate	Vanguard Instl Trgt Retire 2015 Instl	\$1,419,320	1.79%	\$1,214,740	1.75%	
Target Date 2020 Moderate	Vanguard Instl Trgt Retire 2020 Instl	\$3,047,795	3.85%	\$2,509,804	3.61%	
Target Date 2025 Moderate	Vanguard Instl Trgt Retire 2025 Instl	\$3,798,857	4.80%	\$3,866,731	5.57%	
Target Date 2030 Moderate	Vanguard Instl Trgt Retire 2030 Instl	\$2,494,237	3.15%	\$2,059,339	2.96%	
Target Date 2035 Moderate	Vanguard Instl Trgt Retire 2035 Instl	\$1,768,927	2.23%	\$1,464,056	2.11%	
Target Date 2040 Moderate	Vanguard Instl Trgt Retire 2040 Instl	\$1,812,619	2.29%	\$1,469,451	2.12%	
Target Date 2045 Moderate	Vanguard Instl Trgt Retire 2045 Instl	\$1,065,907	1.35%	\$830,066	1.20%	
Target Date 2050 Moderate	Vanguard Instl Trgt Retire 2050 Instl	\$530,597	0.67%	\$442,720	0.64%	
Target Date 2055 Moderate	Vanguard Instl Trgt Retire 2055 Instl	\$321,621	0.41%	\$278,779	0.40%	
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2060 Instl	\$96,173	0.12%	\$81,240	0.12%	

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Period Ending 3.31.20 | Q1 20

University of Maine	System Basic Retire	ment Plan for Classi	ified Employees 40	01(a) - 102970
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		_	MARKE	T VALUE -	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2065 Instl	\$6,515	0.01%	\$6,398	0.01%
Allocation85%+ Equity	CREF Stock R3	\$9,005,732	11.38%	\$6,849,885	9.86%
Large Company Value	JHancock Disciplined Value R6	\$1,408,992	1.78%	\$898,104	1.29%
Large Company Blend	Vanguard Institutional Index I	\$4,180,265	5.28%	\$2,077,923	2.99%
Large Company Growth	Harbor Capital Appreciation Retirement	\$2,063,983	2.61%	\$1,215,606	1.75%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6	\$825,380	1.04%	\$551,221	0.79%
Medium Company Blend	Vanguard Extended Market Index Insti	\$809,625	1.02%	\$552,439	0.80%
Medium Company Growth	MFS Mid Cap Growth R6	\$810,040	1.02%	\$682,270	0.98%
Foreign Large Blend	American Funds Europacific Growth R6	\$225,733	0.29%	\$182,766	0.26%
Foreign Large Blend	MFS International Intrinsic Value R6	\$2,019,170	2.55%	\$1,773,828	2.55%
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$1,193,286	1.51%	\$885,246	1.27%
Small Company Value	Victory Sycamore Small Company Opp I	\$856,010	1.08%	\$610,939	0.88%
Small Company Growth	Carillon Eagle Small Cap Growth R6	\$301,099	0.38%	\$218,894	0.32%
Emerging Markets	DFA Emerging Markets Core Equity I	\$1,209,663	1.53%	\$873,923	1.26%
Specialty-Private Real Estate	TIAA Real Estate Account	\$3,929,434	4.96%	\$3,495,388	5.03%
Other Assets	Frozen TIAA Annuities	\$8,510,025	10.75%	\$6,877,257	9.90%
Self-Directed Brokerage	Self Directed Accounts	\$1,904,743	2.41%	\$1,711,914	2.46%
	TOTAL	<b>.</b> \$ \$79,152,359	100%	\$69,455,889	100%

Period Ending 3.31.20 | Q1 20

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

		— MARKET VALUE —						
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2019	(%)	CURRENT	(%)			
Cash and Equivalents - Money Market	CREF Money Market R3	\$414,215	1.15%	\$1,510,328	4.60%			
Cash and Equivalents - Money Market	Vanguard Federal Money Market Investor	\$125,328	0.35%	\$582,762	1.77%			
Stable Value	TIAA Traditional - Group Retirement Annuity	\$8,807,621	24.39%	\$9,000,512	27.39%			
Inflation Protected Bond	CREF Inflation-Linked Bond R3	\$556,737	1.54%	\$467,730	1.42%			
Fixed Income - Intermediate Core Bond	Vanguard Total Bond Market Index I	\$265,366	0.73%	\$260,945	0.79%			
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$1,370,230	3.80%	\$1,334,713	4.06%			
World Allocation	CREF Social Choice R3	\$1,726,380	4.78%	\$1,513,220	4.60%			
Target Date Ret Income Moderate	Vanguard Instl Trgt Retire Inc Instl	\$599,378	1.66%	\$567,925	1.73%			
Target Date 2015 Moderate	Vanguard Instl Trgt Retire 2015 Instl	\$1,077,723	2.98%	\$1,017,826	3.10%			
Target Date 2020 Moderate	Vanguard Instl Trgt Retire 2020 Instl	\$1,501,061	4.16%	\$1,321,612	4.02%			
Target Date 2025 Moderate	Vanguard Instl Trgt Retire 2025 Instl	\$1,049,234	2.91%	\$1,256,403	3.82%			
Target Date 2030 Moderate	Vanguard Instl Trgt Retire 2030 Instl	\$806,872	2.23%	\$717,766	2.18%			
Target Date 2035 Moderate	Vanguard Instl Trgt Retire 2035 Instl	\$566,931	1.57%	\$505,304	1.54%			
Target Date 2040 Moderate	Vanguard Instl Trgt Retire 2040 Instl	\$466,254	1.29%	\$394,640	1.20%			
Target Date 2045 Moderate	Vanguard Instl Trgt Retire 2045 Instl	\$213,711	0.59%	\$175,731	0.53%			
Target Date 2050 Moderate	Vanguard Instl Trgt Retire 2050 Instl	\$51,341	0.14%	\$41,948	0.13%			
Target Date 2055 Moderate	Vanguard Instl Trgt Retire 2055 Instl	\$3,325	0.01%	\$3,222	0.01%			
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2060 Instl	\$877	0.00%	\$808	0.00%			

CONTINUED...

Period Ending 3.31.20 | Q1 20

University	of Maine	System	Deferred	Compensation	Plan 457	(h) - 102971
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			_	MARKET		
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2019	(%)	CURRENT	(%)
Target Date 2060+ Moderate	Vanguard Instl Trgt Retire 2065 Instl		\$0	0.00%	\$0	0.00%
Allocation85%+ Equity	CREF Stock R3		\$2,047,031	5.67%	\$1,584,677	4.82%
Large Company Value	JHancock Disciplined Value R6		\$728,733	2.02%	\$500,526	1.52%
Large Company Blend	Vanguard Institutional Index I		\$3,062,223	8.48%	\$1,712,521	5.21%
Large Company Growth	Harbor Capital Appreciation Retirement		\$922,815	2.56%	\$475,524	1.45%
Medium Company Value	Virtus Ceredex Mid-Cap Value Equity R6		\$604,679	1.67%	\$424,209	1.29%
Medium Company Blend	Vanguard Extended Market Index Instl		\$831,053	2.30%	\$671,126	2.04%
Medium Company Growth	MFS Mid Cap Growth R6		\$349,438	0.97%	\$311,368	0.95%
Foreign Large Blend	American Funds Europacific Growth R6		\$250,337	0.69%	\$200,217	0.61%
Foreign Large Blend	MFS International Intrinsic Value R6		\$823,093	2.28%	\$665,066	2.02%
Foreign Large Blend	Vanguard Total Intl Stock Index I		\$753,202	2.09%	\$515,626	1.57%
Small Company Value	Victory Sycamore Small Company Opp I		\$432,749	1.20%	\$283,688	0.86%
Small Company Growth	Carillon Eagle Small Cap Growth R6		\$198,221	0.55%	\$144,628	0.44%
Emerging Markets	DFA Emerging Markets Core Equity I		\$614,151	1.70%	\$413,586	1.26%
Specialty-Private Real Estate	TIAA Real Estate Account		\$2,167,162	6.00%	\$1,862,401	5.67%
Other Assets	Frozen TIAA Annuities		\$1,998,549	5.54%	\$1,672,812	5.09%
Self-Directed Brokerage	Self Directed Accounts		\$719,229	1.99%	\$749,232	2.28%
		TOTALS	\$36,105,245	100%	\$32,860,600	100%

Period Ending 3.31.20 | Q1 20

University of Maine System

INVESTMENT				QUANTI	TATIVE				QUALITATIVE		TOTALS	
	Risk-Adjusted Performance			eers mance	Style		Confidence		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												91
Intermediate Core-Plus Bond PGIM Total Return Bond R6					_	_						93
World Allocation CREF Social Choice R3										<u> </u>		98
Large Company Value JHancock Disciplined Value R6	<u> </u>	_	<u> </u>	_			_	_			_	78
Large Company Growth Harbor Capital Appreciation Retirement												100
Medium Company Value Virtus Ceredex Mid-Cap Value Equity R6												100
Medium Company Growth MFS Mid Cap Growth R6												100
Foreign Large Blend American Funds Europacific Growth R6												100

### **LEGEND**



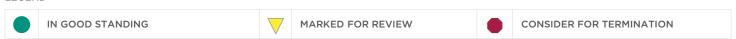
The CAPTRUST Investment Policy Monitor ("Scorecard") is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative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

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University of Maine System

INVESTMENT				QUALITATIVE		TOTALS						
	Risk-Ad Perfori			vs. Peers Performance		Style		Confidence		Fund	Overall	Total
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm		Score
Foreign Large Blend MFS International Intrinsic Value R6												100
Small Company Value Victory Sycamore Small Company Opp I												100
Small Company Growth Carillon Eagle Small Cap Growth R6	<u> </u>	_	_	_			_	_			_	78
Emerging Markets DFA Emerging Markets Core Equity I	_	_	_	_			_	_			•	67

### LEGEND



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University of Maine System

#### **TARGET DATE INVESTMENTS**

INVESTMENT	QUANTITATIVE							QUALITATIVE				TOTALS		
		Risk-Adjusted Performance		vs. Peers Performance		Glidepath		Glidepath		Underlying	Fund	Fund		Total
	3 Yr	5 Yr	3 Yr	5 Yr	% of Equities	Beta to Equities	Portfolio Construct.	Inv. Vehicles		Firm	Overall	Score		
Vanguard Instl Target Retire												96		

#### **CAPITAL PRESERVATION INVESTMENTS**

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

### CONTINUED...

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Relevant Peer Group; and Glidepath. Qualitative Scoring Areas for target date funds measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items. Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment which see 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 of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics, depending on the type of capital preservation option being evaluated, and may include quantitative criteria such as quality and experience of the Management Team and stewardship of the investment option's parent company. Passively Managed options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics. This mater

Period Ending 3.31.20 | Q1 20

University of Maine System

### **PASSIVE INVESTMENTS**

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

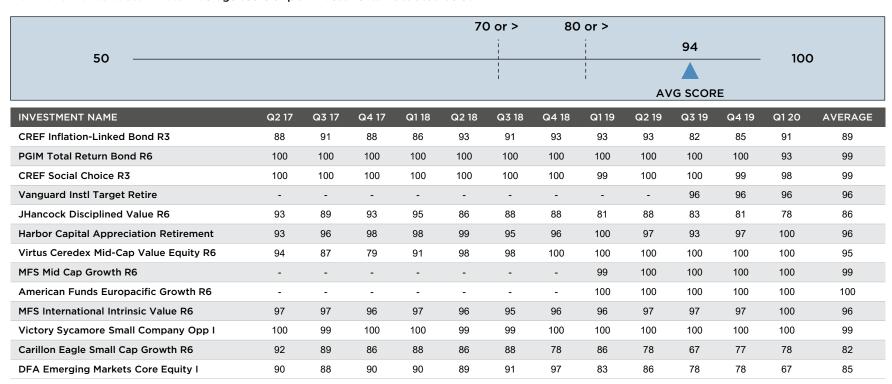
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## PLAN INVESTMENT REVIEW | PLAN PERFORMANCE MEASUREMENT

Period Ending 3.31.20 | Q1 20

University of Maine System

### Plan Performance Success Rate: Average score of plan investments illustrated below



### SUMMARY: Over the previous quarters the plan investment options have averaged a score of 94.

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

# INVESTMENT REVIEW | SELECT COMMENTARY

Period Ending 3.31.20 | Q1 20

University of Maine System

FUND MANAGEMENT ITEMS	COMMENTARY
American Funds EuroPacific Growth	
	Lara Pellini has been named a portfolio manager of the American Funds EuroPacific Growth Fund. Ms. Pellini has 17 years of investment experience, all with Capital Group. As part of the firm's succession planning, she has served as a portfolio manager on the EuroPacific Growth strategy on a trial basis for the past four years.
	Noriko Honda Chen and Gerald Du Manoir have been named portfolio managers of the American Funds EuroPacific Growth Fund. Noriko brings 28 years of investment experience, including 20 with Capital Group. Gerald brings 29 years of investment experience, 28 of which have been with Capital Group.
DFA Emerging Markets Core Equity	
	DFA Emerging Markets strategies no longer limit exposure to individual countries at 17.5% at the time of purchase.
	DFA has incorporated a new factor, the investment effect, to their investment process for this strategy. Their research on the behavior of small cap stocks with high investment, as measured by asset growth, suggests underperformance. Therefore, DFA strategies that invest in small cap stocks may now begin to exclude small cap stocks that have exhibited high growth in assets.
	In 2019 and Q1 2020, the strategy underperformed the benchmark and was near the bottom quartile of the peer group. Notably, this is the first time that the strategy has landed in the bottom quartile of the peer group in the last decade. The strategy's bias to value and small cap stocks has been a headwind in recent years, as growth stocks and large caps have led the market. Its profitability factor has been a modest positive. Although DFA has found that the three factors in its model have a positive impact over the long-term (10+ years), each factor can go through shorter periods when they are out of favor. This has been particularly true for the value factor in recent years. DFA believes that it is difficult to time these factors, especially value. They have seen value lag in the past, like the tech bubble in the late 1990s. The market environment can change quickly, so they maintain consistent exposure to each factor. We recommend that clients currently holding the strategy continue to do so.
John Hancock Disciplined Value	
	Co-CEO and CIO Jay Feeney became the sole CEO of Boston Partners, taking the lead role he had jointly shared with co-CEO Mark Donovan since 2008. Mr. Donovan, one of four portfolio managers to the John Hancock Disciplined Value Fund, will focus exclusively on his portfolio management responsibilities.

# INVESTMENT REVIEW | SELECT COMMENTARY

Period Ending 3.31.20 | Q1 20

University of Maine System

FUND MANAGEMENT ITEMS	COMMENTARY
MFS International Intrinsic Value	
Pil 3 international intrinsic value	
	Philip Evans has joined the portfolio management team of Benjamin Stone and Pablo de la Mata on the MFS International Intrinsic Value strategy. The addition of Mr. Evans is in preparation for the pending departure of Mr. de la Mata on 4/15/2022.
Vanguard Inch Tayant Detive	
Vanguard Instl Target Retire	
	Vanguard launched the Total International Bond II Index fund in February 2020. The fund will mirror the existing Total International Bond Index fund. It serves as an underlying investment for Vanguard's suite of target date funds and other funds of funds, replacing Total International Bond. It is not be available for direct purchase by investors, allowing Vanguard to segregate institutional and retail assets.

FUND FIRM ITEMS	COMMENTARY
TIAA-CREF	
	TIAA has consolidated the global equity investment teams of TIAA-CREF and Nuveen into one. As a result, several equity portfolio managers and other investment professionals have left the firm.
	Nuveen's President and Chief Investment Officer Jose Minaya recently became chief executive officer. Former President and CEO Vijay Advani transitioned to executive chairman.
Dimensional Fund Advisors	
	Lisa Dallmer recently joined DFA as chief operating officer, overseeing the finance, investment operations, and technology departments. Ms. Dallmer reports to Co-CEOs Dave Butler and Gerard O'Reilly.
Eagle Asset Management, Inc.	
	Carillon Executive Vice President Court James recently retired. Ed Rick, who joined the firm in 2014, has taken over the role of executive vice president of Carillon and head of Investments for Eagle.

### PLAN INVESTMENT REVIEW | TARGET DATE REVIEW

Period Ending 3.31.20 | Q1 20

University of Maine System

### **VANGUARD INSTITUTIONAL TARGET RETIREMENT**

**MEETING DATE: APRIL 21, 2020** 

### **FOCUS AREA**

### Organizational

#### COMMENTARY

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

#### Investments

#### COMMENTARY

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

### Performance and Positioning

#### COMMENTAR'

### Vanguard Institutional Target Retirement Performance Update:

Vanguard Institutional Target Retirement produced decent results in the first quarter as it mostly outperformed peers and was in-line with its benchmark.

- · Vanguard's glidepath is very close to the universe average for most vintages, so its strategic asset allocation did not produce any unexpected results.
- However, the series's at retirement vintage did underperform peers but this was in-line with expectations given its somewhat more aggressive 50% equity allocation at retirement.
- Overall, Institutional Target Retirement benefited from is use of passive investing as most active managers struggled relative to market benchmarks during the quarter.
- The series was especially helped by its fixed income portfolio as both its U.S. and international hedged bond allocations provided ballast to offset equity market losses in Q1.
- · Lastly, the series's exclusion of high yield debt was also accretive to performance as high yield experienced losses during the quarter.

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

Period Ending 3.31.20 | Q1 20

University of Maine System

INVESTMENT NAME	Q1 '20	YTD '20	2019	2018	2017	2016	2015	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
Vanguard Federal Money Market Investor	0.34%	0.34%	2.14%	1.78%	0.81%	0.30%	0.04%	1.90%	1.65%	1.08%	0.55%
ICE BofA ML US Treasury Bill 3 Mon USD	0.57%	0.57%	2.28%	1.87%	0.86%	0.33%	0.05%	2.25%	1.83%	1.19%	0.64%
STABLE VALUE											
TIAA Traditional - Group Retirement Annuity					Curr	rent Rate is 3	.00%				
ICE BofA ML US Treasury Bill 3 Mon USD	0.57%	0.57%	2.28%	1.87%	0.86%	0.33%	0.05%	2.25%	1.83%	1.19%	0.64%
Hueler Stable Value Index (gross)	0.60%	0.60%	2.26%	1.95%	1.79%	1.77%	1.69%	2.52%	2.30%	2.09%	2.17%
Vanguard Total Bond Market Index I	3.28%	3.28%	8.73%	-0.01%	3.57%	2.61%	0.41%	9.08%	4.84%	3.34%	3.86%
BBgBarc Aggregate Bond Index	3.15%	3.15%	8.72%	0.01%	3.54%	2.65%	0.55%	8.93%	4.82%	3.36%	3.88%
Intermediate Core Bond Universe	1.44%	1.44%	8.07%	-0.39%	3.23%	2.60%	0.01%	6.56%	3.80%	2.69%	3.49%
INTERMEDIATE CORE-PLUS BOND											
PGIM Total Return Bond R6	-2.84%	-2.84%	11.13%	-0.63%	6.71%	4.83%	0.09%	3.80%	3.98%	3.28%	4.86%
BBgBarc Aggregate Bond Index	3.15%	3.15%	8.72%	0.01%	3.54%	2.65%	0.55%	8.93%	4.82%	3.36%	3.88%
Intermediate Core Plus Bond Universe	-1.15%	-1.15%	9.00%	-0.71%	4.28%	3.91%	-0.51%	4.23%	3.27%	2.53%	3.86%

\*ANNUALIZED CONTINUED...

Period Ending 3.31.20 | Q1 20

University of Maine System

INVESTMENT NAME	Q1 '20	YTD '20	2019	2018	2017	2016	2015	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE RET INCOME MODERATE											
Vanguard Instl Trgt Retire Inc Instl	-5.88%	-5.88%	13.20%	-1.98%	8.54%	5.29%	-	0.92%	3.42%	-	-
Morningstar Lifetime Moderate Income Index	-7.69%	-7.69%	13.27%	-2.20%	8.55%	5.98%	-1.30%	-1.38%	2.73%	2.82%	4.64%
Retirement Income Moderate	-8.03%	-8.03%	13.33%	-3.55%	9.24%	4.86%	-1.30%	-1.64%	2.25%	2.24%	4.08%
TARGET DATE 2015 MODERATE											
Vanguard Instl Trgt Retire 2015 Instl	-7.39%	-7.39%	14.88%	-2.91%	11.50%	6.27%	-	-0.10%	3.67%	-	-
Morningstar Lifetime Moderate 2015 Index	-8.75%	-8.75%	16.29%	-3.54%	11.39%	7.10%	-1.73%	-1.23%	3.44%	3.44%	5.83%
2015 Moderate	-9.80%	-9.80%	15.19%	-4.18%	11.21%	6.15%	-1.38%	-2.90%	2.26%	2.61%	5.15%
TARGET DATE 2020 MODERATE											
Vanguard Instl Trgt Retire 2020 Instl	-10.74%	-10.74%	17.69%	-4.21%	14.13%	7.04%	-	-2.60%	3.32%	-	-
Morningstar Lifetime Moderate 2020 Index	-9.98%	-9.98%	17.73%	-4.16%	12.79%	7.66%	-1.88%	-1.99%	3.48%	3.58%	6.22%
2020 Moderate	-11.15%	-11.15%	16.57%	-4.93%	13.25%	6.10%	-1.33%	-3.79%	2.34%	2.72%	5.64%
TARGET DATE 2025 MODERATE											
Vanguard Instl Trgt Retire 2025 Instl	-12.94%	-12.94%	19.67%	-5.02%	15.94%	7.56%	-	-4.23%	3.12%	-	-
Morningstar Lifetime Moderate 2025 Index	-11.86%	-11.86%	19.36%	-4.90%	14.54%	8.39%	-2.06%	-3.44%	3.33%	3.66%	6.61%
2025 Moderate	-12.80%	-12.80%	18.33%	-5.54%	15.15%	6.78%	-1.38%	-4.90%	2.40%	2.94%	6.09%

\*ANNUALIZED CONTINUED...

Period Ending 3.31.20 | Q1 20

University of Maine System

INVESTMENT NAME	Q1 '20	YTD '20	2019	2018	2017	2016	2015	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2030 MODERATE											
Vanguard Instl Trgt Retire 2030 Instl	-14.77%	-14.77%	21.14%	-5.82%	17.57%	7.97%	-	-5.76%	2.85%	-	-
Morningstar Lifetime Moderate 2030 Index	-14.58%	-14.58%	21.24%	-5.82%	16.59%	9.26%	-2.30%	-5.79%	2.87%	3.57%	6.87%
2030 Moderate	-15.30%	-15.30%	20.55%	-6.43%	17.27%	7.27%	-1.36%	-6.92%	2.16%	2.97%	6.39%
TARGET DATE 2035 MODERATE											
Vanguard Instl Trgt Retire 2035 Instl	-16.51%	-16.51%	22.56%	-6.56%	19.14%	8.39%	-	-7.21%	2.57%	-	-
Morningstar Lifetime Moderate 2035 Index	-17.72%	-17.72%	23.04%	-6.82%	18.52%	10.07%	-2.58%	-8.69%	2.12%	3.29%	6.91%
2035 Moderate	-17.16%	-17.16%	22.37%	-7.33%	19.10%	7.72%	-1.45%	-8.30%	1.94%	3.00%	6.59%
TARGET DATE 2040 MODERATE											
Vanguard Instl Trgt Retire 2040 Instl	-18.24%	-18.24%	23.93%	-7.31%	20.73%	8.81%	-	-8.71%	2.27%	-	-
Morningstar Lifetime Moderate 2040 Index	-20.29%	-20.29%	24.35%	-7.65%	19.87%	10.61%	-2.83%	-11.16%	1.36%	2.93%	6.78%
2040 Moderate	-18.83%	-18.83%	23.69%	-7.90%	20.10%	7.53%	-1.39%	-9.75%	1.65%	2.82%	6.63%
TARGET DATE 2045 MODERATE											
Vanguard Instl Trgt Retire 2045 Instl	-19.90%	-19.90%	25.07%	-7.87%	21.47%	8.94%	-	-10.18%	1.82%	-	-
Morningstar Lifetime Moderate 2045 Index	-21.76%	-21.76%	24.97%	-8.17%	20.53%	10.84%	-3.03%	-12.64%	0.84%	2.63%	6.58%
2045 Moderate	-20.25%	-20.25%	24.39%	-8.42%	20.57%	7.89%	-1.89%	-11.11%	1.13%	2.51%	6.39%
TARGET DATE 2050 MODERATE											
Vanguard Instl Trgt Retire 2050 Instl	-19.87%	-19.87%	25.05%	-7.87%	21.47%	8.95%	-	-10.15%	1.83%	-	-
Morningstar Lifetime Moderate 2050 Index	-22.30%	-22.30%	25.09%	-8.41%	20.78%	10.89%	-3.19%	-13.22%	0.60%	2.47%	6.44%
2050 Moderate	-20.43%	-20.43%	24.67%	-8.33%	20.76%	7.77%	-1.60%	-11.18%	1.22%	2.58%	6.47%

\*ANNUALIZED CONTINUED...

Period Ending 3.31.20 | Q1 20

University of Maine System

INVESTMENT NAME	Q1 '20	YTD '20	2019	2018	2017	2016	2015	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2055 MODERATE											
Vanguard Instl Trgt Retire 2055 Instl	-19.87%	-19.87%	25.06%	-7.84%	21.47%	8.94%	-	-10.15%	1.83%	-	-
Morningstar Lifetime Moderate 2055 Index	-22.48%	-22.48%	25.05%	-8.57%	20.95%	10.90%	-3.34%	-13.45%	0.48%	2.37%	6.31%
2055 Moderate	-20.94%	-20.94%	24.48%	-8.95%	20.73%	8.35%	-1.65%	-11.79%	0.68%	2.26%	6.05%
TARGET DATE 2060+ MODERATE											
Vanguard Instl Trgt Retire 2060 Instl	-19.88%	-19.88%	25.13%	-7.88%	21.42%	8.94%	-	-10.11%	1.83%	-	-
Vanguard Instl Trgt Retire 2065 Instl	-20.01%	-20.01%	25.15%	-7.84%	-	-	-	-10.25%	-	-	-
Morningstar Lifetime Moderate 2060 Index	-22.58%	-22.58%	24.96%	-8.69%	21.06%	10.88%	-3.48%	-13.61%	0.39%	2.29%	-
2060+ Moderate	-20.66%	-20.66%	25.06%	-8.56%	20.72%	8.79%	-1.07%	-11.37%	1.07%	2.93%	-
LARGE COMPANY VALUE											
JHancock Disciplined Value R6	-29.37%	-29.37%	22.79%	-9.47%	19.33%	14.07%	-4.81%	-20.66%	-3.38%	0.39%	6.99%
Russell 1000 Value	-26.73%	-26.73%	26.54%	-8.27%	13.66%	17.34%	-3.83%	-17.17%	-2.18%	1.90%	7.67%
Large Value Universe	-26.69%	-26.69%	25.01%	-8.84%	15.88%	14.48%	-3.92%	-17.61%	-2.25%	1.29%	6.81%
LARGE COMPANY BLEND											
Vanguard Institutional Index I	-19.60%	-19.60%	31.46%	-4.42%	21.79%	11.93%	1.37%	-7.00%	5.08%	6.70%	10.50%
S&P 500 Index	-19.60%	-19.60%	31.49%	-4.38%	21.83%	11.96%	1.38%	-6.98%	5.10%	6.73%	10.53%
Large Blend Universe	-21.05%	-21.05%	28.90%	-6.47%	20.41%	10.40%	-0.59%	-9.90%	2.77%	4.49%	8.83%

\*ANNUALIZED CONTINUED...

Period Ending 3.31.20 | Q1 20

University of Maine System

INVESTMENT NAME	Q1 '20	YTD '20	2019	2018	2017	2016	2015	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
LARGE COMPANY GROWTH											
Harbor Capital Appreciation Retirement	-11.80%	-11.80%	33.39%	-0.96%	36.68%	-1.04%	10.99%	0.06%	12.90%	10.63%	12.84%
Russell 1000 Growth	-14.10%	-14.10%	36.39%	-1.51%	30.21%	7.08%	5.67%	0.91%	11.32%	10.36%	12.97%
Large Growth Universe	-15.07%	-15.07%	32.21%	-2.09%	28.17%	3.26%	3.62%	-3.28%	8.96%	7.82%	11.08%
MEDIUM COMPANY VALUE											
Virtus Ceredex Mid-Cap Value Equity R6	-34.06%	-34.06%	33.31%	-7.58%	11.98%	20.53%	-5.63%	-23.10%	-4.73%	0.58%	6.82%
Russell Mid Cap Value	-31.71%	-31.71%	27.06%	-12.29%	13.34%	20.00%	-4.78%	-24.13%	-5.97%	-0.76%	7.22%
Mid Value Universe	-32.57%	-32.57%	26.05%	-13.80%	13.34%	17.95%	-5.02%	-25.08%	-7.06%	-1.83%	5.66%
MEDIUM COMPANY BLEND											
Vanguard Extended Market Index Instl	-27.99%	-27.99%	28.05%	-9.35%	18.12%	16.15%	-3.24%	-20.50%	-1.90%	1.05%	8.26%
Russell Mid Cap	-27.07%	-27.07%	30.54%	-9.06%	18.52%	13.80%	-2.44%	-18.31%	-0.81%	1.85%	8.77%
Mid Blend Universe	-28.43%	-28.43%	26.98%	-12.01%	15.70%	14.02%	-4.78%	-20.63%	-3.93%	-0.85%	6.42%
MEDIUM COMPANY GROWTH											
MFS Mid Cap Growth R6	-16.05%	-16.05%	37.93%	1.21%	26.39%	4.75%	4.60%	-2.58%	11.47%	8.94%	12.09%
Russell Mid Cap Growth	-20.04%	-20.04%	35.47%	-4.75%	25.27%	7.33%	-0.20%	-9.45%	6.53%	5.61%	10.89%
Mid Growth Universe	-19.88%	-19.88%	33.77%	-5.55%	24.95%	5.91%	-0.57%	-9.86%	5.69%	4.91%	9.81%
FOREIGN LARGE BLEND											
American Funds Europacific Growth R6	-22.43%	-22.43%	27.40%	-14.91%	31.17%	1.01%	-0.48%	-12.70%	0.28%	0.91%	3.97%
MFS International Intrinsic Value R6	-13.45%	-13.45%	25.99%	-8.89%	27.25%	4.31%	6.85%	-2.80%	5.62%	5.72%	8.43%
Vanguard Total Intl Stock Index I	-24.31%	-24.31%	21.56%	-14.39%	27.55%	4.70%	-4.24%	-16.55%	-2.52%	-0.65%	2.09%
MSCI EAFE	-22.72%	-22.72%	22.66%	-13.36%	25.62%	1.51%	-0.39%	-13.92%	-1.33%	-0.13%	3.20%
Foreign Large Blend Universe	-23.56%	-23.56%	22.26%	-15.50%	25.32%	0.89%	-1.44%	-15.38%	-2.81%	-1.24%	2.25%

\*ANNUALIZED CONTINUED...

Period Ending 3.31.20 | Q1 20

University of Maine System

INVESTMENT NAME	Q1 '20	YTD '20	2019	2018	2017	2016	2015	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
SMALL COMPANY VALUE											
Victory Sycamore Small Company Opp I	-29.47%	-29.47%	26.94%	-8.26%	11.88%	30.04%	-0.39%	-19.32%	-2.79%	3.03%	8.21%
Russell 2000 Value	-35.66%	-35.66%	22.39%	-12.86%	7.84%	31.74%	-7.47%	-29.64%	-9.51%	-2.42%	4.79%
Small Value Universe	-36.73%	-36.73%	22.11%	-15.61%	9.04%	25.33%	-6.51%	-31.24%	-10.90%	-4.01%	4.08%
SMALL COMPANY GROWTH											
Carillon Eagle Small Cap Growth R6	-23.82%	-23.82%	25.90%	-10.06%	23.40%	10.45%	-0.39%	-18.51%	-1.09%	2.00%	9.01%
Russell 2000 Growth	-25.76%	-25.76%	28.48%	-9.31%	22.17%	11.32%	-1.38%	-18.58%	0.10%	1.70%	8.89%
Small Growth Universe	-23.97%	-23.97%	28.73%	-5.47%	22.35%	11.05%	-2.64%	-16.92%	2.41%	3.03%	9.04%
EMERGING MARKETS											
DFA Emerging Markets Core Equity I	-28.31%	-28.31%	16.04%	-15.25%	36.55%	12.35%	-14.86%	-23.40%	-5.39%	-2.01%	0.12%
MSCI Emerging Markets	-23.57%	-23.57%	18.90%	-14.25%	37.75%	11.60%	-14.60%	-17.36%	-1.25%	0.01%	1.04%
Emerging Markets Universe	-24.96%	-24.96%	20.67%	-16.56%	35.28%	8.23%	-13.52%	-18.27%	-2.87%	-1.03%	0.77%

### \*ANNUALIZED

## SECTION 4: FUND FACT SHEETS

Period Ending 3.31.20 | Q1 20

University of Maine System

**SECTION 4: FUND FACT SHEETS** 

Fund Fact Sheets.....

90 Day HS Troacury

### VANGUARD FEDERAL MONEY MARKET INVESTOR

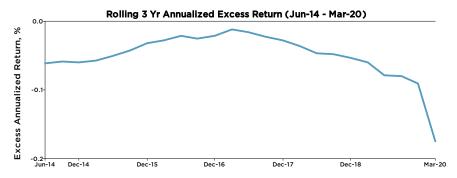
Period Ending 3.31.20 | Q1 20

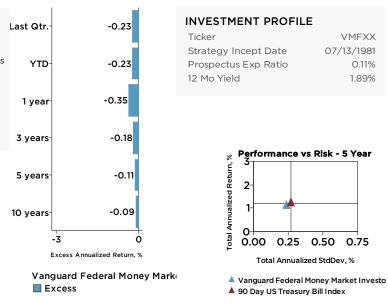
### **INDUSTRY ANALYSIS**

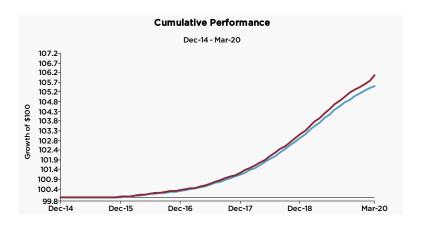
Interest rates have dropped substantially in 2020, particularly at the short-end of the yield curve. The key inducements being the two emergency cuts of the Fed Funds Rate in March, driving the target range to 0.00%-0.25%, and a strong demand for Treasurys as investors sought protection during equity market volatility. As money market funds invest in short-term securities, they will quickly follow rates down as new cash flows and cash generated from maturing bonds will be invested at these lower rates. There was additional volatility in the prime money market sector as liquidity became an issue for commercial paper securities. The Federal Reserve launched the Money Market Mutual Fund Liquidity Facility and Commercial Paper Funding Facility in an attempt to maintain liquidity in the commercial paper market and prevent losses for investors in prime money market funds.

	vanguard Federal Money Market Investor	Bill Index
TRAILING RETURNS		
Last Qtr.	0.34	0.57
YTD	0.34	0.57
1 Year	1.90	2.25
3 Years	1.65	1.83
5 Years	1.08	1.19
10 Years	0.55	0.64
CALENDAR RETURNS		
2019	2.14	2.28
2018	1.78	1.87
2017	0.81	0.86
2016	0.30	0.33
2015	0.04	0.05
KEY MEASURES / 5 YEA	R	
5 Year	0.24	0.27

Vanguard Endoral Monoy

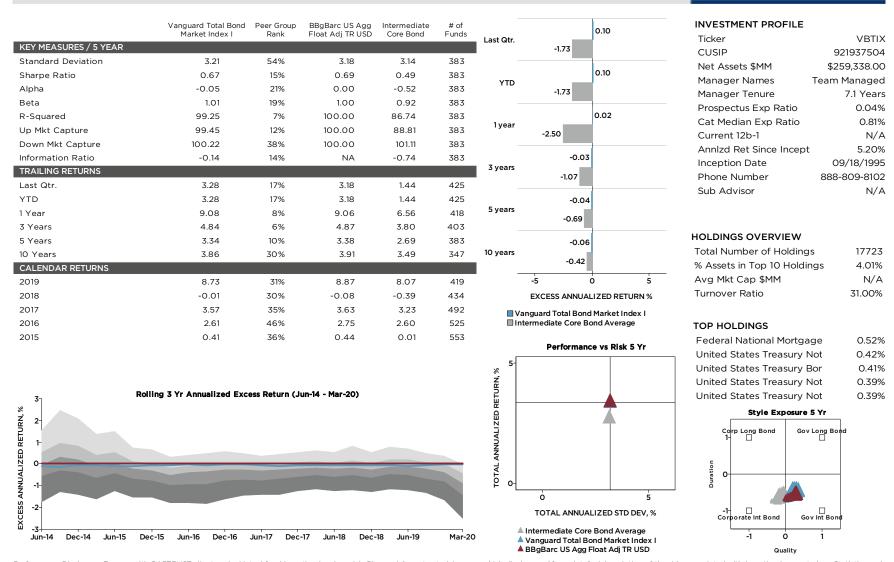






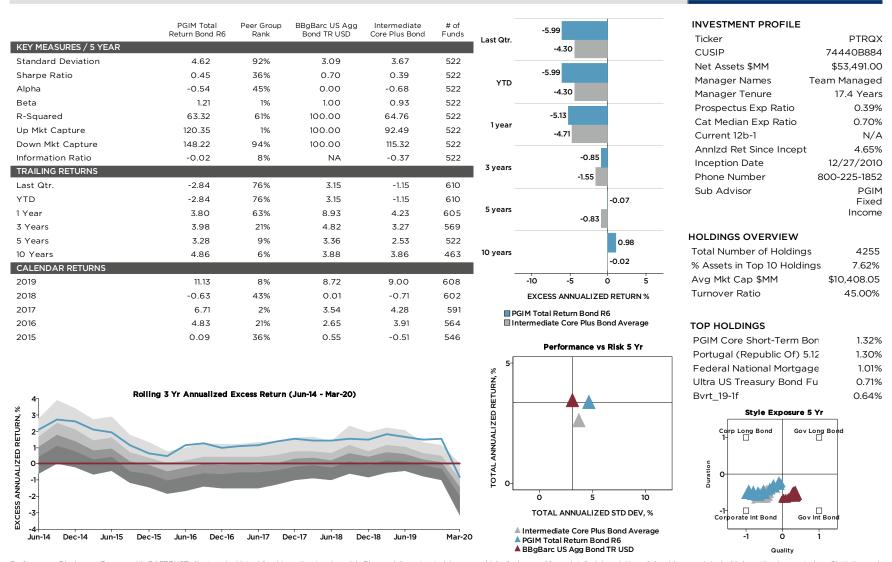
### VANGUARD TOTAL BOND MARKET INDEX I

Period Ending 3.31.20 | Q1 20



### PGIM TOTAL RETURN BOND R6

Period Ending 3.31.20 | Q1 20



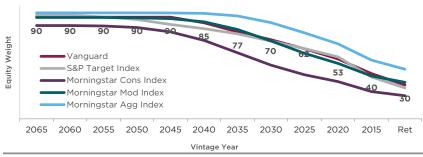
### VANGUARD INST TARGET RETIREMENT

Period Ending 3.31.20 | Q1 20

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

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

### Target Asset Allocation Glidepath per Vintage Year



Investment Profile									
% Open Architecture:	0%	Active/Passive:	Passive						
Inception Date:	6-26-2015	% Active:	0%						
Net Assets \$MM:	\$192,673	Manager Tenure:	4.83 years (longest)						
Manager Name:	Team	Expense Range:	0.09%						
Avg # of Holdings:	5	Investment Structure:	Mutual Fund						

### Dedicated Asset Class Granularity/Diversification

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

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

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<sup>\*</sup> Due to lack of track record, performance data for the Vanguard Target Retirement series is being used for the Vanguard Inst Target Retirement series.

## VANGUARD INST TARGET RETIREMENT

Period Ending 3.31.20 | Q1 20

### 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

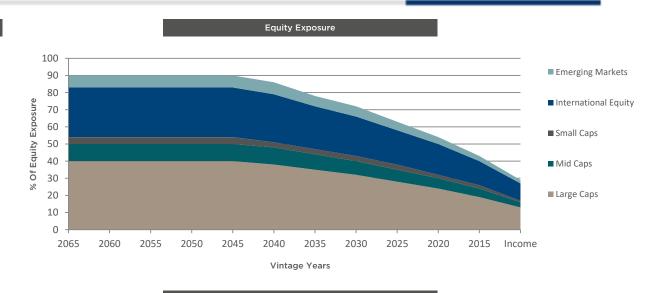
#### 2015:

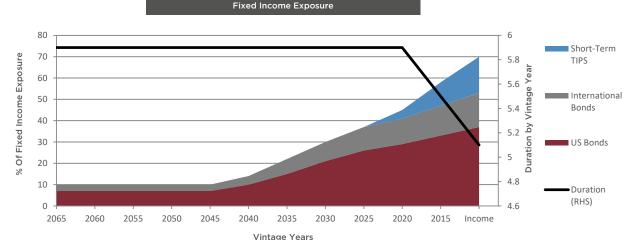
- Increased international stock allocation from 30% to 40%
- · Increased International bond allocation from 20% to 30%

#### Rationale:

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







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<sup>\*</sup> Due to lack of track record, performance data for the Vanguard Target Retirement series is being used for the Vanguard Inst Target Retirement series.

# TARGET DATE ANALYSIS

Period Ending 3.31.20 | Q120

	3 Year				5 Year			
	Beta	Sharpe	Up Capture	Down Capture		Sharpe	Up Capture	Down Capture
Vanguard Target Retirement 2015 Inv	0.88	0.29	94.27	83.54	0.91	0.40	95.23	88.63
Morningstar Target Date 2015	1.00	0.11	94.88	97.47	0.99	0.25	94.41	98.44
S&P Target Date 2015 TR	1.00	0.16	100.00	100.00	1.00	0.32	100.00	100.00

	3 Year				5 Year			
	Beta	Sharpe	Up Capture	Down Capture		Sharpe	Up Capture	Down Capture
Vanguard Target Retirement 2025 Inv	1.03	0.13	104.12	99.57	1.03	0.28	103.19	100.98
Morningstar Target Date 2025	0.96	0.09	94.50	93.25	0.97	0.21	94.62	97.13
S&P Target Date 2025 TR	1.00	0.07	100.00	100.00	1.00	0.25	100.00	100.00

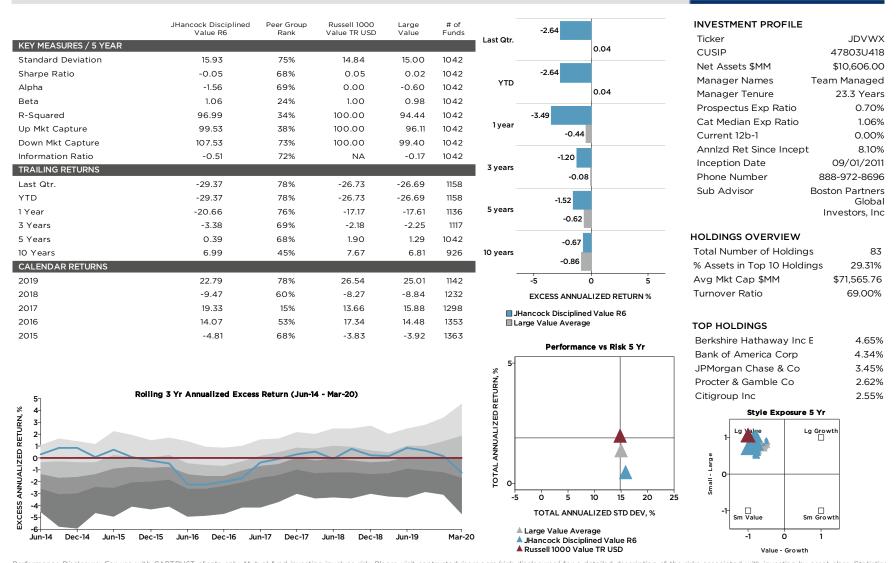
	3 Year				5 Year			
	Beta	Sharpe	Up Capture	Down Capture		Sharpe	Up Capture	Down Capture
Vanguard Target Retirement 2045 Inv	1.01	0.00	103.09	99.80	1.02	0.16	102.92	101.47
Morningstar Target Date 2045	0.99	-0.03	98.87	97.74	1.01	0.12	98.80	100.77
S&P Target Date 2045 TR	1.00	-0.04	100.00	100.00	1.00	0.15	100.00	100.00

<sup>\*</sup>Lowest cost share class shown

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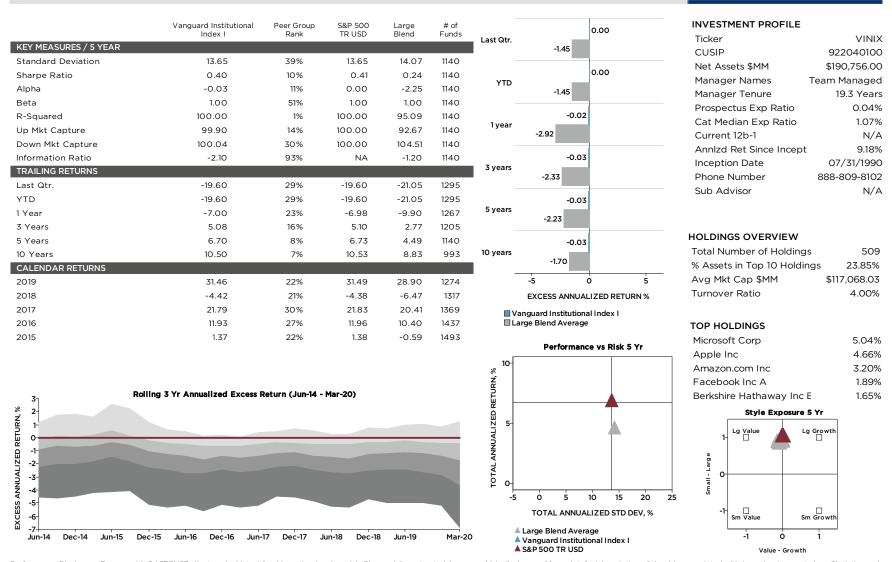
## JHANCOCK DISCIPLINED VALUE R6

Period Ending 3.31.20 | Q1 20



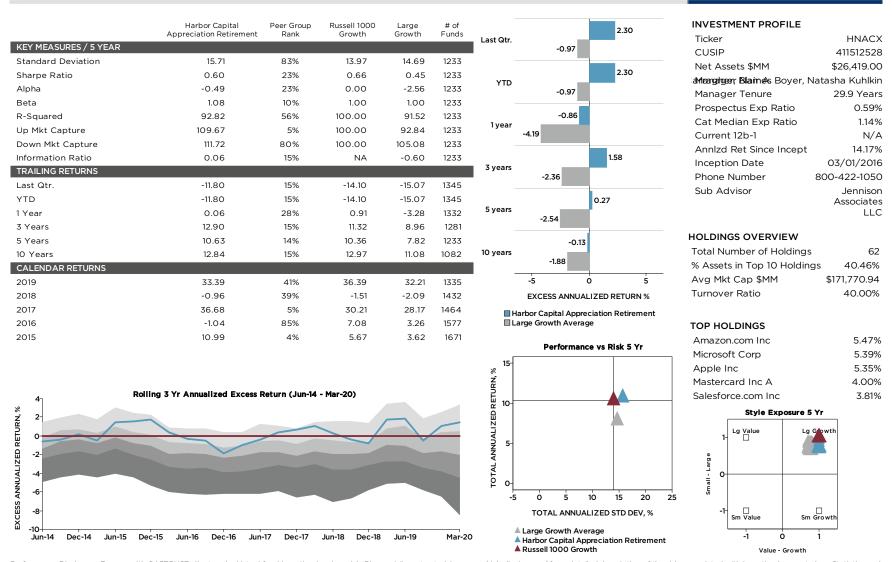
### VANGUARD INSTITUTIONAL INDEX I

Period Ending 3.31.20 | Q1 20



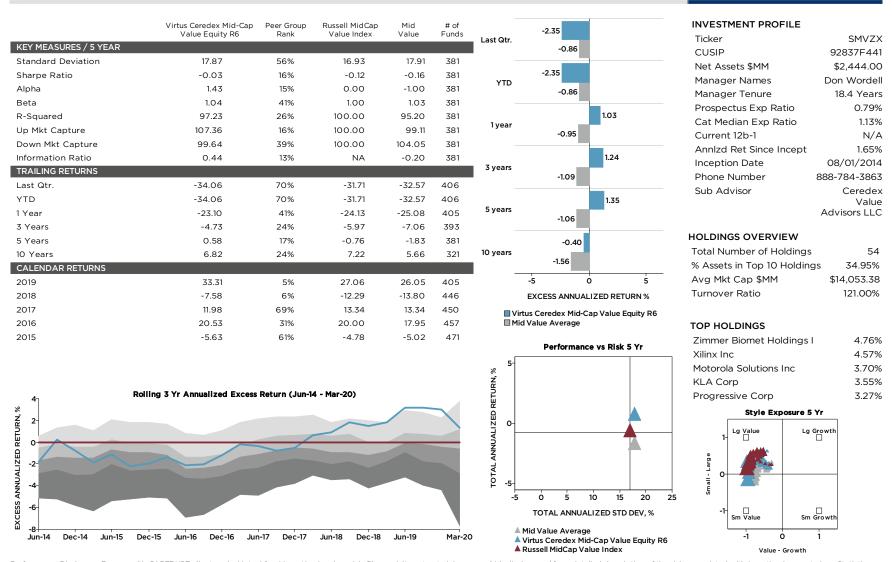
### HARBOR CAPITAL APPRECIATION RETIREMENT

Period Ending 3.31.20 | Q1 20



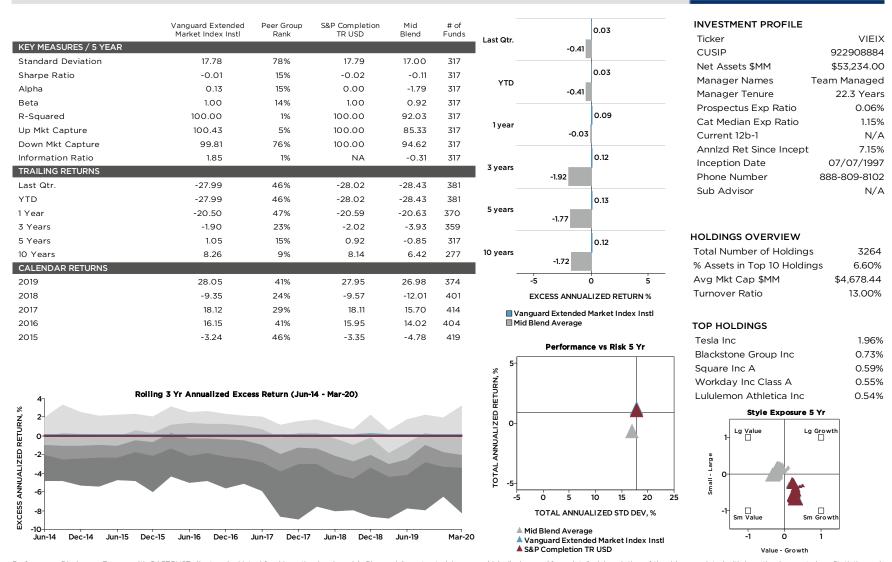
## VIRTUS CEREDEX MID-CAP VALUE EQUITY R6

Period Ending 3.31.20 | Q1 20



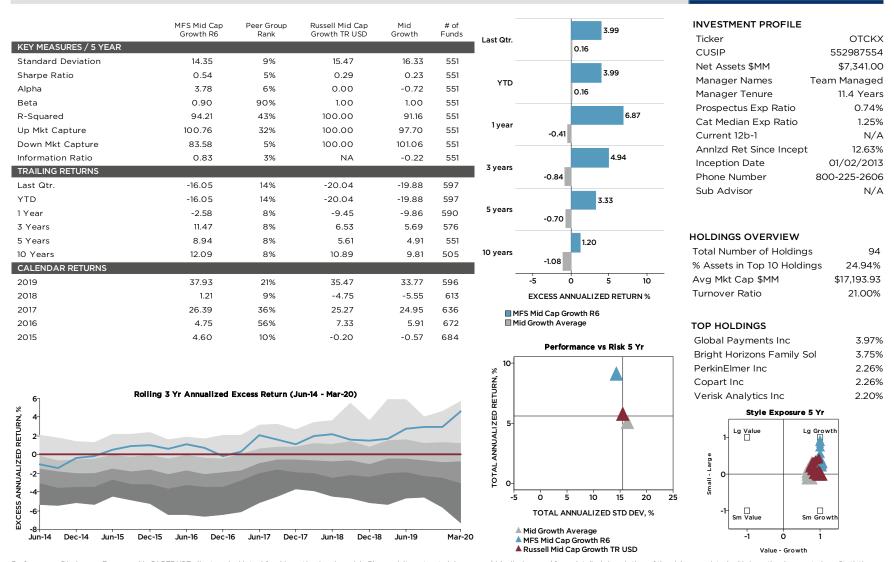
### VANGUARD EXTENDED MARKET INDEX INSTI

Period Ending 3.31.20 | Q120



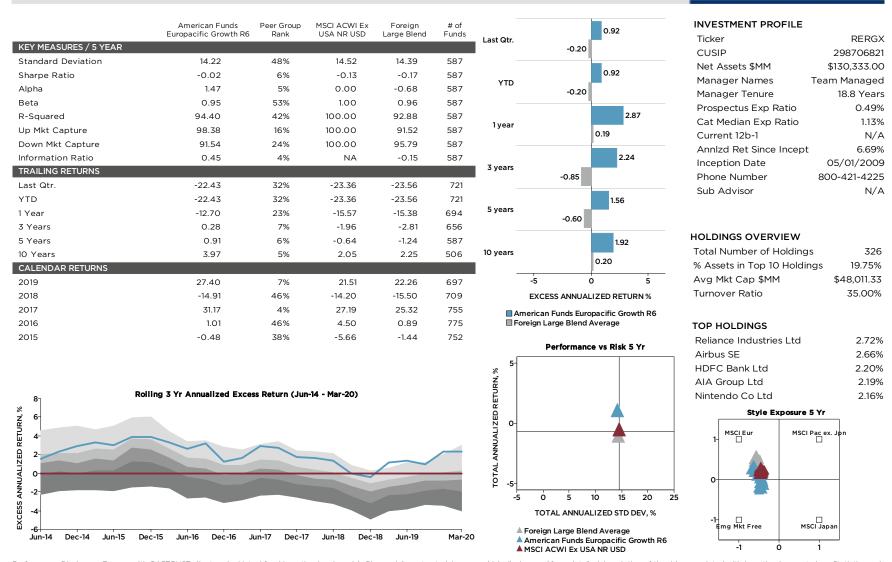
### MFS MID CAP GROWTH R6

Period Ending 3.31.20 | Q1 20



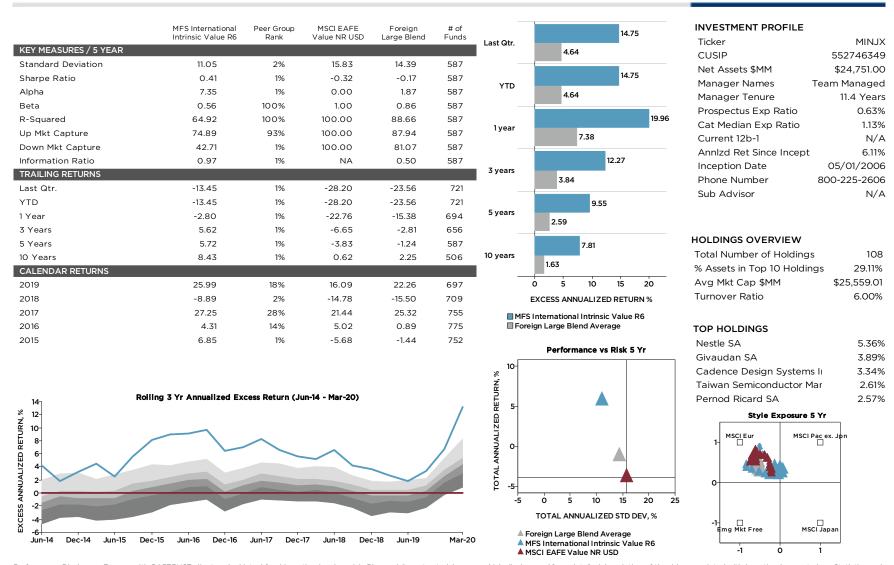
### AMERICAN FUNDS EUROPACIFIC GROWTH R6

Period Ending 3.31.20 | Q120



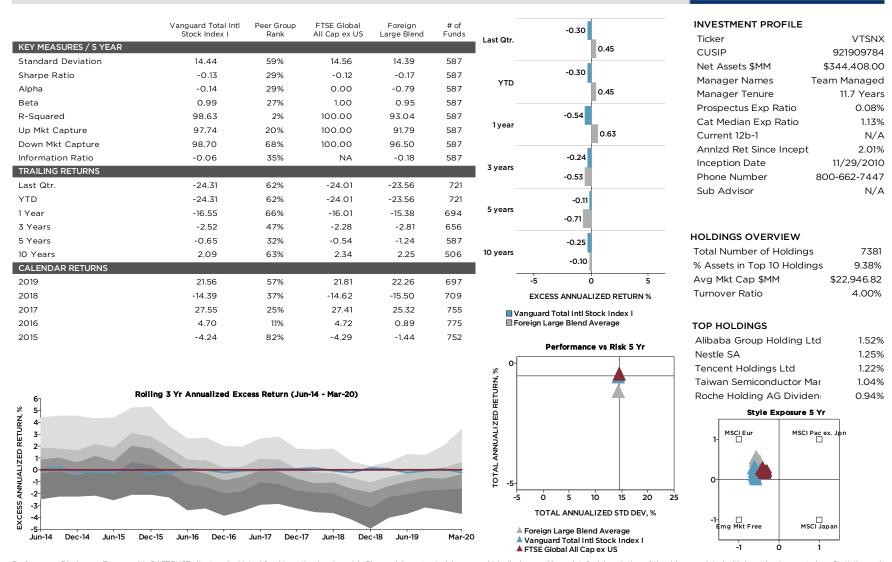
### MFS INTERNATIONAL INTRINSIC VALUE R6

Period Ending 3.31.20 | Q120



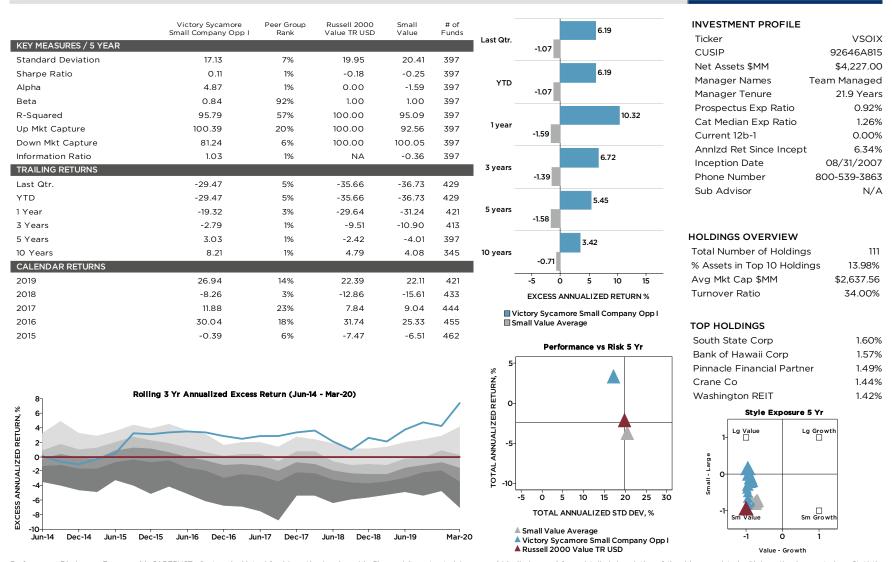
### VANGUARD TOTAL INTL STOCK INDEX I

Period Ending 3.31.20 | Q120



## VICTORY SYCAMORE SMALL COMPANY OPP I

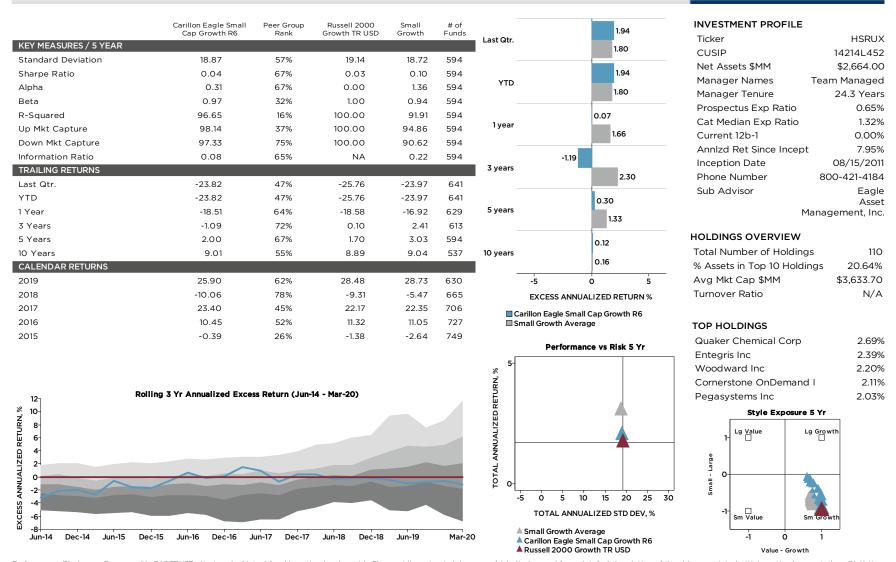
Period Ending 3.31.20 | Q1 20



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

### CARILLON EAGLE SMALL CAP GROWTH R6

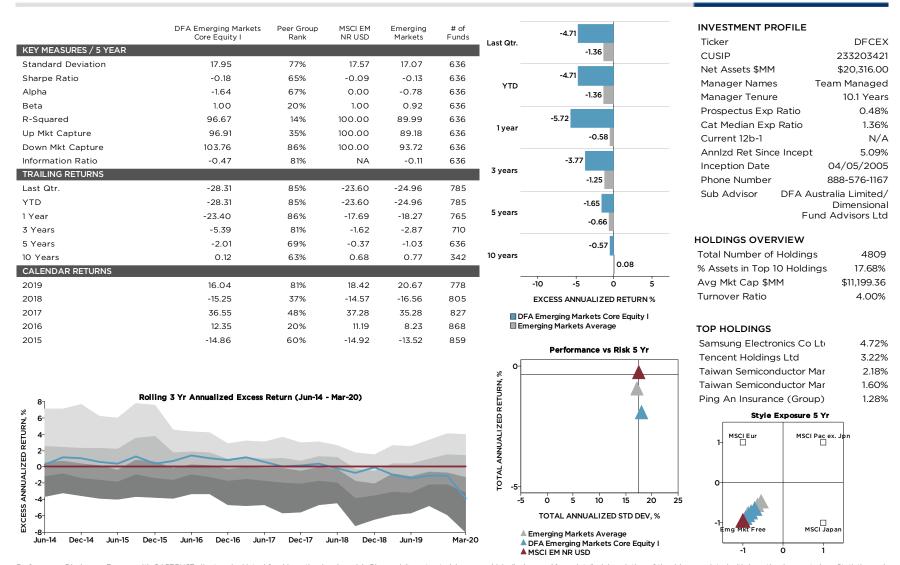
Period Ending 3.31.20 | Q1 20



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## DFA EMERGING MARKETS CORE EQUITY I

Period Ending 3.31.20 | Q1 20



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APPENDIX I	Period Ending 3.31.20   Q1 20
ti i Ei (Dix i	Period Ending 3.31.20   QI 20

University of Maine System

APPENDIX I
Manager Updates

### **Recent Performance**

- The strategy underperformed in 2019, landing in the bottom quartile of the peer group for the first time in the last decade. Its valuation discipline was a headwind, as the most expensive stocks within the benchmark outperformed the least expensive stocks by a wide margin.
- All of the underperformance occurred in the first half of the year. We were encouraged by the stabilization in performance during the second half of 2019 as the strategy saw some relief from the valuation headwind.
- However, the underperformance resumed in Q1 2020 with the strategy again landing in the bottom quartile of the peer group.
- Negative stock selection in healthcare, financials, and energy were the main detractors. Sector
  allocation also hurt due to an overweight to energy (the worst performing sector in the index)
  and an underweight to consumer staples and utilities (two of the best performing sectors in the
  index).
- This year, the market has rewarded firms with predictable earnings, regardless of valuation. This has been a headwind for the strategy's approach.

### **Prior Market Sell-Offs**

- Co-PMs Mark Donovan and David Pyle have managed the strategy since 1997 and 2005, respectively, and have been through multiple market cycles. While co-PMs Stephanie McGirr and David Cohen are newer to their roles, they each have more than 15 years of experience.
- The tech-driven market rally in 1998-1999 was a difficult period for the strategy. In 1998, the market ignored valuation and the strategy underperformed the benchmark by 16%. It also underperformed in 1999.
- The team stuck to their process and did not chase expensive stocks. After the dot-com bubble burst, the strategy outperformed the benchmark in 2000 and 2001 by 12% and 9.5%, respectively.
- The strategy outperformed in both the 2008 sell-off and 2009 rally, which was rare for value managers. In 2008, the benchmark declined 37%, while the strategy fell 33%. In 2009, the benchmark rose 20%, while the strategy increased 26%.
- The lessons learned from prior periods of underperformance are to be patient and not let the
  market backdrop alter their approach. They will not chase defensive sectors with high valuations
  and weak fundamentals such as utilities. In recent years, they have focused on avoiding
  overvalued stocks, which will eventually serve them well.

## **Positioning**

- The team was very active in Q1 with portfolio changes. The sell-off created buying opportunities
  for high-quality firms that had previously been too expensive for their approach, particularly in
  technology and communication services.
- The portfolio's traits have improved as profitability (return on equity) is now higher, while valuation is lower.
- They reduced energy exposure and are now underweight due to supply and demand concerns. They sold refiners such as Marathon and Valero.
- The strategy remains modestly overweight financials, but they reduced bank exposure due to near-term concerns about consumer credit. Longer-term, they believe banks are attractive due to strong capital levels and demand for liquidity and funding in the post-crisis recovery.
- They bought quality financial names such as Charles Schwab, Aflac, and Marsh and McLennan.
- In technology, they bought VMware (software) which is typically too expensive for them. They also bought Cisco and added to the Microsoft position.
- They increased healthcare exposure, specifically pharmaceuticals with new positions in Novartis and Johnson and Johnson.

## **Positioning**

- The team also bought beaten-down stocks that they believe were unduly punished in Q1, with declines of 50%+. They examined the balance sheets closely to understand if these firms can survive through the downturn.
- Examples are industrial stocks in packaging and auto parts, which are normally too expensive for their approach. They also bought retail and apparel names with strong brands and financial flexibility.
- They are positioning the portfolio with a balance between quality defensive stocks and more cyclical names.

### **CAPTRUST View**

- We are not recommending any client action at this time.
- The strategy has faced stylistic headwinds in recent years as it has a stricter valuation discipline
  vs. some of its peers. The team is not deviating from this approach, as it has paid off in prior
  recoveries.
- The numerous portfolio actions in Q1 could position the strategy well going forward. The team
  took advantage of the sell-off to upgrade portfolio quality and also buy stocks where the market
  may have overreacted. We will monitor the strategy in the coming quarters to assess the impact
  of these changes.

## CARILLON EAGLE SMALL CAP GROWTH

## In February 2020, CAPTRUST due diligence had an on-site meeting in Tampa with the Eagle investment team.

## **Team Update**

- The team has been stable in recent years, with the last analyst hire in 2017. Portfolio manager Bert Boksen is in his early 70s, but no has immediate retirement plans. Succession planning began in 2011 when Eric Mintz was named a co-PM on the mid and small growth strategies.
- Eric oversees about 40% of the portfolio (technology, industrials, energy, and materials) and is the clear successor whenever Bert retires. Although Bert's eventual retirement will be a significant event, we believe that the team has planned well for that transition.

## **Healthcare Sector**

- This is by far the largest sector in the small growth index (30% weight, including 13% biotech) so it is typically the swing factor in the strategy's annual performance.
- Healthcare was the strategy's largest contributor in 2018 and the largest detractor in 2019.
   Although biotech cost the strategy 190 basis points in 2019, the strategy has been roughly inline with the index's biotech return over the past five years.
- Since 2016, the team has a 75% success rate in binary outcomes in biotech. In biotech, they have smaller position sizes (0.5%) and a larger number of positions (20) to control risk.

## CARILLON EAGLE SMALL CAP GROWTH

## **Sell Discipline**

- The team tends to let their winners run, which has worked well over the long-term but can occasionally hurt performance as it did with several positions in 2018 and 2019.
- They are patient with a stock if the investment thesis is still valid and have owned some stocks for 10+ years. Annual portfolio turnover is about 25%, which is lower than many of their peers.

### **Recent Performance**

- Almost all of the strategy's 2019 underperformance occurred in Q3. Performance stabilized in Q4, as the strategy was in-line with the benchmark and near the top quartile in the peer group.
- The strategy outperformed the benchmark in the Q1 2020 sell-off and was in the top half of the peer group. Positive stock selection in healthcare, technology, and consumer discretionary were the main drivers.
- The financial sector was a significant detractor in 2019, but made a positive contribution in Q1 2020.
- Over the past five years, the strategy is slightly ahead of the benchmark and only trailing the peer group by a modest amount.

## CARILLON EAGLE SMALL CAP GROWTH

## **CAPTRUST View**

- We are not recommending any client action at this time.
- We are encouraged by the strategy's improved performance in the last two quarters. Despite stylistic headwinds due to its valuation sensitivity and sector neutral approach, the strategy is gradually regaining ground vs. the benchmark and peer group.
- This is an experienced and stable investment team that has been through multiple market cycles, so we believe that a patient approach with this strategy is appropriate.
- Since 2010, the strategy has been in the top half of the peer group in six out of ten years and in the bottom quartile of the peer group in only two years (2013 and 2018).
- While biotech can be a challenging area for small growth managers given the inherent volatility, we believe this team's long-term track record has been solid.

## DFA EMERGING MARKETS CORE

## **Investment Thesis**

- **Experienced Team**: DFA's team-based approach ensures that the strategy is not dependent on a particular portfolio manager.
- The firm's investment committee sets the overall investment policies and positioning of the strategies, while PMs are responsible for implementation. Portfolio managers focus on specific asset classes, but can also act as back-ups in other strategies.
- Unique Investment Process: The firm's research suggests that small-cap stocks, value stocks, and more profitable firms outperform over the long-term. DFA has found that these factors are persistent across time periods and pervasive across markets.
- The portfolio holds a large number of stocks (roughly 5,000) to provide diversification and reduce individual security risk. This is also the most efficient way to capture the size, value, and profitability premiums.
- This is an all-cap strategy that owns both growth and value stocks, but with a modest tilt towards value.
- **Consistent Performance**: Until recently, the strategy had posted consistent performance that remained in the top half of the peer group in most years.

## DFA EMERGING MARKETS CORE

## **Recent Performance**

- In 2019 and Q1 2020, the strategy underperformed the benchmark and was near the bottom quartile of the peer group. Notably, this is the first time that the strategy has landed in the bottom quartile of the peer group in the last decade.
- The strategy's bias to value and small cap stocks has been a headwind in recent years, as growth stocks and large caps have led the market. Its profitability factor has been a modest positive.
- Although DFA has found that the three factors in its model have a positive impact over the longterm (10+ years), each factor can go through shorter periods when they are out of favor. This has been particularly true for the value factor in recent years.
- Looking at rolling 10-year periods from 1927-2019, DFA found that the value factor outperformed growth 80-85% of the time. However, we are currently in one of those periods when value has not worked.
- Using that same data set, profitable firms outperform unprofitable firms about 90% of the time on a rolling 10-year basis while small caps outperform large caps about 70% of the time.

## DFA EMERGING MARKETS CORE

## **Recent Performance**

- DFA believes that it is difficult to time these factors, especially value. They have seen value lag in the past, like the tech bubble in the late 1990s. The market environment can change quickly, so they maintain consistent exposure to each factor.
- The Emerging Markets Core strategy has been significantly underweight China vs. the index until recently. For risk management, the strategy had a 17.5% cap on individual country weights.
- This had been a headwind for the strategy at times, such as Q1 2020 when China held up well. That cap has been lifted and the strategy's China exposure is now closer to neutral vs. the index, so it will not be an issue going forward.

## **CAPTRUST View**

- We are not recommending any client action at this time.
- The strategy has faced stylistic headwinds in the large cap, growth-driven market in recent years. In order to benefit from the value, small cap, and profitability factors, investors must have a long-term approach.
- While value stocks could see a short-term rebound following significant underperformance recently, it is too soon to tell whether it will be sustainable.

APPENDIX II

University of Maine System

Α	APPENDIX II
Υ	our CAPTRUST Service Team
G	Blossary of Terms
Е	valuation Methodology

## YOUR CAPTRUST SERVICE TEAM MEMBERS

Period Ending 3.31.20 | Q1 20

University of Maine System

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

GLOSSARY Period Ending 3.31.20 | Q1 20

#### **ALPHA**

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

#### **BATTING AVERAGE**

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

#### BETA

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

#### **CAPTURE RATIO**

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

#### **INFORMATION RATIO**

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

#### PERCENTILE RANK

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

#### RISK-ADJUSTED PERFORMANCE

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

#### **R-SQUARED**

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

#### **SHARPE RATIO**

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

#### STANDARD DEVIATION

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

#### TRACKING ERROR

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

#### TREYNOR RATIO

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

## INVESTMENT REVIEW | EVALUATION METHODOLOGY

Period Ending 3.31.20 | Q1 20

University of Maine System

## MARKED FOR REVIEW

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

#### CAPTRUST's Investment Policy Monitoring Methodology

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

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

captrust.com/investmentmonitoring

#### 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 50<sup>th</sup> 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: Defined Contribution Plan – Vendor Fee Benchmarking

2. INITIATED BY: Kelly A. Martin, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. OUTCOME: BOARD POLICY:

Primary Outcome: Section 709 - Investments

Enhance fiscal positioning

#### 5. BACKGROUND:

Michael Pratico and Barry Schmitt, Senior Vice Presidents with CAPTRUST Financial Advisors, will provide a Fee Benchmarking analysis of TIAA's administrative fees associated with the University of Maine System Defined Contribution Plans at the May 14, 2020 Investment Committee meeting.

## VENDOR FEE BENCHMARK

## UNIVERSITY OF MAINE SYSTEM

May 2020

## **Barry Schmitt**

Principal | Financial Advisor

## Mike Pratico

Senior Vice President | Financial Advisor

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- I. Executive Summary
- II. Evaluation
- III. Conclusion

### **EXECUTIVE SUMMARY**

## **Broad-based Provider Experience**

CAPTRUST's expertise is derived from over 1,700 institutional client relationships which spread across an extensive range of retirement plan service providers. In addition to day to day client related interactions, we also continuously monitor developments in the provider space as well as conduct in-depth meetings and annual due diligence.

ADP Retirement Services	ICMA-RC	Principal Financial Group
AIG	John Hancock Retirement Plan Services	Prudential Retirement Services
American Funds	JPMorgan Retirement Plan Services	Schwab Retirement Services
Ascensus Retirement Services	JULY Business Services	The Standard
Bank of America	Lincoln Financial Group	State Street Corporation
BNY Mellon	MassMutual	T. Rowe Price
Comerica	Milliman	TIAA
CUNA Mutual	Newport Group	Transamerica
Deferral.com	Nolan Financial	Truist
Empower Retirement	Northern Trust	US Bank
Fidelity Investments	OneAmerica	Vanguard
Findley	Paychex	Voya Financial

#### **EXECUTIVE SUMMARY**

## **Meeting Your Fiduciary Responsibilities**

The monitoring of fees for your plan service providers is a fiduciary function.

Fiduciaries are tasked with the responsibility of acting solely in the interest of plan participants and their beneficiaries with the exclusive purpose of providing benefits to those individuals.

It is critical that fiduciaries maintain documentation of the process used for identifying and monitoring their plan expenses.

Plan Sponsors are not obligated to choose the lowest-cost provider, but rather to ensure that fees are reasonable in light of the services being provided.

This analysis will assist with the fulfillment of your fiduciary responsibilities in this regard. In the pages to follow, we will demonstrate a documented process, the identification of plan expenses, and whether the costs are reasonable.

## FIDUCIARY DUTIES

Document the process

Identify plan expenses

Ensure costs are reasonable

### **EXECUTIVE SUMMARY**

## **Plan Information Summary**

Common drivers of pricing include plan assets, average account balance, number of participants, participation rate, cash flow, and administrative complexity. The below information was considered by prospective provider candidates when preparing their proposals.

GENERAL	
Current Provider	TIAA
Number of Plans	7
Plan Types	401(a), 403(b), 457(b)
Total Plan Assets as of 3.31.20	\$1.5 billion

PARTICIPATION	
Participants with Balances	11,965
Average Account Balance	\$123,400

#### **EVALUATION**

## **Evaluating Provider Fees**

Providers quote their fees differently. We have identified all fees and expenses and quantified them in a format that is easy to compare.

Mutual fund fees are charged in the form of expense ratios. Investment fund companies are permitted to rebate some of their fees to other plan service providers through transactions that are referred to as revenue sharing. Revenue sharing can be used to directly offset the administrative expenses of the plan.

Plan expenses are usually broken down into two categories: investment management and administrative expenses.

For purposes of this analysis, we have compared the administrative expenses of each prospective provider regardless of fund selection. However, an illustrative total cost is given based on a sample fund line-up to aid in the comparison. It is also important to note that varying revenue sharing agreements exist among providers.

Administrative expenses can be quoted as an asset based or per participant fee. Expenses can be paid by 1) the revenue sharing allotted; 2) billing to the participants from plan assets; 3) billing to the plan sponsor; or 4) a combination of these three options.

**Investment Management Expenses** are purely the costs of managing the fund, and revenue sharing is excluded.

Administrative Expenses are the costs associated with keeping the records of participants accounts and the services the provider offers to the plan.

## **EVALUATION**

## Expense Analysis - 3.31.20

Allocation Tier				<u>To</u>	tal Cost	Record	keeper Cost	
Asset Class	Investment Name	Combined Value	% Assets	Expe	Expense Ratio		Revenue Share	
Asset Class	investment Name	Combined value	// Assets	%	\$	%	\$	
World Allocation	CREF Social Choice R3	\$41,415,124	2.80%	0.24%	\$99,396	0.10%	\$41,415	
Target-Date Retirement	Vanguard Instl Trgt Retire Inc Instl	\$9,649,695	0.65%	0.09%	\$8,685	0.00%	\$0	
Target-Date 2015	Vanguard Instl Trgt Retire 2015 Instl	\$10,261,324	0.69%	0.09%	\$9,235	0.00%	\$0	
Target-Date 2020	Vanguard Instl Trgt Retire 2020 Instl	\$23,659,414	1.60%	0.09%	\$21,293	0.00%	\$0	
Target-Date 2025	Vanguard Instl Trgt Retire 2025 Instl	\$38,079,360	2.58%	0.09%	\$34,271	0.00%	\$0	
Target-Date 2030	Vanguard Instl Trgt Retire 2030 Instl	\$24,266,737	1.64%	0.09%	\$21,840	0.00%	\$0	
Target-Date 2035	Vanguard Instl Trgt Retire 2035 Instl	\$21,881,309	1.48%	0.09%	\$19,693	0.00%	\$0	
Target-Date 2040	Vanguard Instl Trgt Retire 2040 Instl	\$24,016,843	1.63%	0.09%	\$21,615	0.00%	\$0	
Target-Date 2045	Vanguard Instl Trgt Retire 2045 Instl	\$14,448,418	0.98%	0.09%	\$13,004	0.00%	\$0	
Target-Date 2050	Vanguard Instl Trgt Retire 2050 Instl	\$9,984,456	0.68%	0.09%	\$8,986	0.00%	\$0	
Target-Date 2055	Vanguard Instl Trgt Retire 2055 Instl	\$3,730,961	0.25%	0.09%	\$3,358	0.00%	\$0	
Target-Date 2060+	Vanguard Instl Trgt Retire 2060 Instl	\$669,950	0.05%	0.09%	\$603	0.00%	\$0	
Target-Date 2060+	Vanguard Instl Trgt Retire 2065 Instl	\$50,511	0.00%	0.09%	\$45	0.00%	\$0	
Allocation85%+ Equity	CREF Stock R3	\$172,235,116	11.66%	0.30%	\$516,705	0.10%	\$172,235	
Allocation Total		\$394,349,220	26.70%	0.20%	\$778,731	0.05%	\$213,650	

Passive Tier				<u>Tot</u>	al Cost	Record	<u>ceeper Cost</u>
Asset Class Investment Name Cor		Combined Value	% Assets	Expense Ratio		Revenue Share	
Asset Class	mvestment Name	Combined Value	70 7 155015	%	\$	%	\$
Intermediate Core Bond	Vanguard Total Bond Market Index I	\$10,779,876	0.73%	0.04%	\$3,773	0.00%	\$0
Large Blend	Vanguard Institutional Index I	\$52,905,525	3.58%	0.04%	\$18,517	0.00%	\$0
Mid-Cap Blend	Vanguard Extended Market Index Instl	\$14,272,874	0.97%	0.06%	\$8,564	0.00%	\$0
Foreign Large Blend	Vanguard Total Intl Stock Index I	\$18,518,492	1.25%	0.08%	\$14,815	0.00%	\$0
Passive Total		\$96,476,767	6.53%	0.05%	\$45,668	0.00%	\$0

## **EVALUATION**

## Expense Analysis - 3.31.20

Active Tier				<u>Tot</u>	tal Cost	Record	keeper Cost
Asset Class	Investment Name	Combined Value	% Assets	Expe	Expense Ratio		nue Share
Asset Class	investment Name	Combined Value	70 A33Ct3	%	\$	%	\$
Money Market - Taxable	CREF Money Market R3	\$65,244,605	4.42%	0.23%	\$146,800	0.10%	\$65,245
Money Market - Taxable	Vanguard Federal Money Market Investor	\$7,047,797	0.48%	0.11%	\$7,753	0.00%	\$0
Stable Value	TIAA Traditional (GRA)	\$524,347,067	35.50%	0.46%	\$2,411,997	0.15%	\$786,521
Intermediate Core-Plus Bond	PGIM Total Return Bond R6	\$38,088,618	2.58%	0.39%	\$148,546	0.00%	\$0
Inflation-Protected Bond	CREF Inflation-Linked Bond R3	\$15,005,181	1.02%	0.22%	\$33,011	0.10%	\$15,005
Large Value	JHancock Disciplined Value R6	\$20,430,036	1.38%	0.70%	\$143,010	0.00%	\$0
Large Growth	Harbor Capital Appreciation Retirement	\$14,708,388	1.00%	0.58%	\$85,309	0.00%	\$0
Mid-Cap Value	Virtus Ceredex Mid-Cap Value Equity R6	\$16,740,688	1.13%	0.79%	\$132,251	0.00%	\$0
Mid-Cap Growth	MFS Mid Cap Growth R6	\$12,243,184	0.83%	0.77%	\$94,273	0.00%	\$0
Foreign Large Growth	MFS International Intrinsic Value R6	\$9,400,499	0.64%	0.63%	\$59,223	0.00%	\$0
Foreign Large Growth	American Funds Europacific Growth R6	\$27,110,547	1.84%	0.49%	\$132,842	0.00%	\$0
Small Value	Victory Sycamore Small Company Opp I	\$13,028,175	0.88%	0.88%	\$114,648	0.00%	\$0
Small Growth	Carillon Eagle Small Cap Growth R6	\$5,767,851	0.39%	0.65%	\$37,491	0.00%	\$0
Diversified Emerging Mkts	DFA Emerging Markets Core Equity I	\$14,333,355	0.97%	0.52%	\$74,533	0.00%	\$0
Real Estate	TIAA Real Estate	\$65,694,779	4.45%	0.83%	\$545,267	0.24%	\$157,667
Other Assets	Non Approved Funds	\$94,234,376	6.38%	0.24%	\$229,978	0.10%	\$94,234
Active Total		\$943,425,147	63.88%	0.47%	\$4,396,931	0.12%	\$1,118,672

Self-Directed Brokerage \$42,578,240 2.88%  Loan \$128,728 0.01%

<sup>\*</sup>Plan totals do not include loan assets

 Revenue Credit:
 -0.025%
 -\$372,383
 -0.025%
 -\$372,383

 Total RK/Admin. Cost:
 0.065%
 \$959,939

 Total Plan Cost:
 0.33%
 \$4,848,947

\$1,332,322

#### FEE COMPARISON

CAPTRUST maintains expense data in a central proprietary database for evaluating administrative fees, derived from institutional client relationships which spread across an extensive range of retirement plan service providers. In addition to disclosing retirement plan fees, we also continuously monitor trends in provider pricing and mutual fund revenue. We track this data in a proprietary database that includes expense information on current clients in addition to provider bids for administrator searches and fee benchmarks. The expense data represents a diverse collection of plan sizes, locations, and industries.

Data Summary						
Year	Number of Projects	Total Price Points Evaluated	Total Number of Providers			
2015	97	450	25			
2016	136	657	28			
2017	152	731	31			
2018	152	575	34			
2019	173	708	36			
2020	41	178	30			

### **Driving Factors for Plan Complexity:**

- Payroll
- Participant advice
- Self-directed
- Plan design
- Company stock
- Frozen assets

#### **Driving Factors for Pricing:**

- Total plan assets
- · Total participants with a balance
- · Net contributions
- Plan complexity

Market Segment (in \$ millions)	Number of Projects
< \$5	78
\$5 - \$15	149
\$15 - \$25	102
\$25 - \$50	107
\$50 - \$100	117
\$100 - \$250	120
> \$250	78

Source: CAPTRUST Institutional Client Data - 2020

## SAMPLE EXPENSE RANGES FOR SIMILAR PLANS

## University of Maine System

Combined Plan Data	
Plan Assets	\$1.5 billion
Participants	11,965
Avg. Balance	\$123,400
Total RK/Admin. Fees	0.065%

## Sample TIAA Plans (CAPTRUST Clients)

Sample Plan A		Sample Plan B		Sample Plan C		Sample Plan D		
Plan Assets	\$1.9 billion	Plan Assets \$1.5 billio		Plan Assets	\$1.0 billion	Plan Assets	\$2.0 billion	
Participants	15,913	Participants	8,574	Participants	14,644	Participants	14,800	
Avg. Balance	\$119,400	Avg. Balance	\$169,300	Avg. Balance	\$69,000	Avg. Balance	\$134,400	
Admin. Expense	0.064%	Admin. Expense	0.085%	Admin. Expense	0.087%	Admin. Expense	0.048%	

Source: CAPTRUST Institutional Client Data - 2020

### FEE BENCHMARK SUMMARY

## **Conclusions**

- Identified total weighted plan cost of \$4,848,947 (or 0.33% of plan assets), with TIAA's administration & recordkeeping revenue at \$959,939 (or 0.065% of plan assets).
- Benchmarking the current plan expenses against the CAPTRUST database, administrative fees for comparable sized plans range from 0.05% to 0.09%.
- Based on the plan demographic information utilized to benchmark the plan against the industry, TIAA's current fees are within the current benchmark range.





## AGENDA ITEM SUMMARY

**1. NAME OF ITEM**: Performance Review and Asset Allocation Update –

Managed Investment Pool (MIP), Pension Fund and

Operating Fund

2. INITIATED BY: Kelly Martin, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. OUTCOME: BOARD POLICY:

Primary Outcomes: Section 709 - Investments

Enhance fiscal positioning

#### 5. BACKGROUND:

Kelly Regan and Jay Roney of NEPC will provide a brief overview of performance for all three portfolios for the quarter ended March 31, 2020.

NEPC will refer to the enclosed executive summary performance report during the May 14, 2020 Investment Committee meeting. The supplemental performance materials for the quarter ended March 31, 2020 are for reference purposes only and will not be reviewed during the meeting.

# FIRST QUARTER 2020 INVESTMENT REVIEW



## **UNIVERSITY OF MAINE SYSTEM**

May 14, 2020

Jay E. Roney, Partner Kelly Regan, Senior Consultant



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

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Pension Fund Performance Review	4
Managed Investment Pool Performance Review	5
Investment Manager Due Diligence	6
Appendix & Disclaimers	7



# **MARKET OUTLOOK**

NEPC, LLC —

## PERFORMANCE OVERVIEW

## **Q1 Market Summary**

Macro			Equity			Credit			Real Assets		
US Dollar	VIX	US 10-Yr	S&P 500	MSCI EAFE	MSCI EM	US Agg.	High Yield	Dollar EMD	Oil	Gold	REITS
	1									1	
2.8%	39.8	-124 bps	-19.6%	-22.8%	-23.6%	3.1%	-12.7%	-13.4%	-67.1%	4.0%	-25.5%

## Global risk assets declined during the quarter as markets digested the potential economic impact of COVID-19

Equities experienced the sharpest declines, with most major indices entering bear market territory in March

## Widespread stimulative fiscal and monetary policies have been implemented to help support economic growth

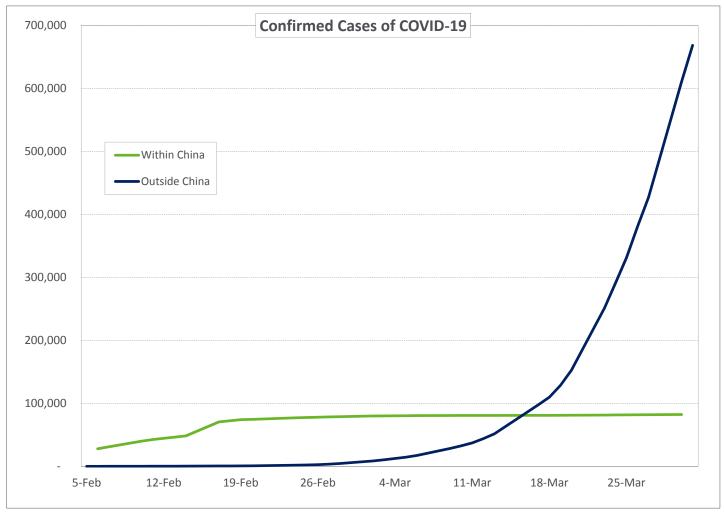
## Energy prices collapsed as tensions intensified between Saudi Arabia and Russia, leading to supply gluts and a sharp decline in prices

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



March 31, 2020

## **CONFIRMED COVID-19 CASES CONTINUE TO RISE**





Source: World Health Organization, FactSet
Data as of 3/31/2020

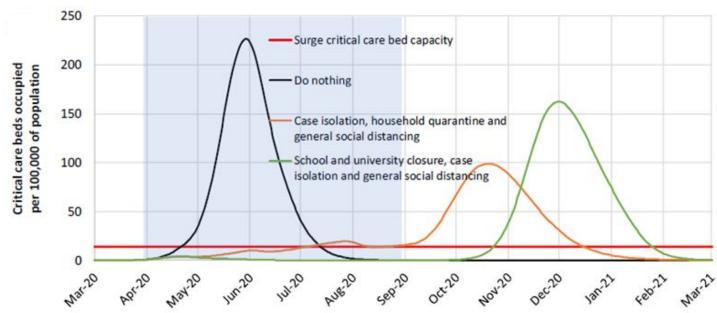
## DURATION OF CONTAINMENT POLICY IS UNCLEAR

#### Policymakers are focused on "bending the curve" and ensuring ICU bed capacity is not overwhelmed all at once by COVID-19 cases

COVID-19 containment efforts or suppression strategies are designed entirely with the goal of "bending the curve"

#### The duration of containment policies is the key unknown as the market struggles to discount the potential scale of the economic costs

The chart below is a modeling study reviewed by key policymakers in Europe and the US that estimates a potential 5-month containment policy could be needed to protect ICU bed capacity and may require variable containment strategies in late 2020 early 2021.



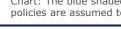


Chart: The blue shaded area represents the 5-month period in which these containment policies are assumed to remain in place. The redline is US critical care bed capacity

Source: Imperial College COVID-19 Response Team Data as of 03/16/2020

March 31, 2020

# ASSESSING THE ECONOMIC IMPACT

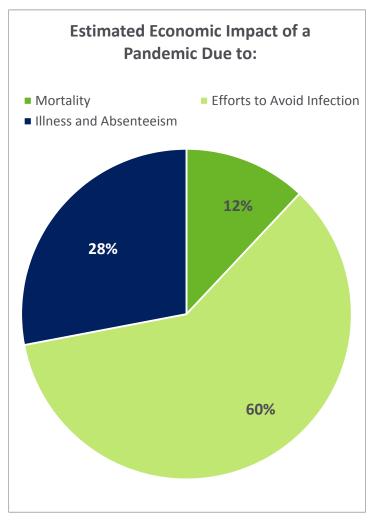
Based on a World Bank study the impact and severity of <u>containment</u> and <u>quarantine</u> is likely the largest economic cost from a pandemic

Restrictive containment strategies can lead to both a demand and a supply shock to economic activity

The weak economic data from China shows how swift the decline can be

The unknown is the duration of the containment strategy and whether the economic impact is short-term or has a longer-term economic impact on consumer consumption

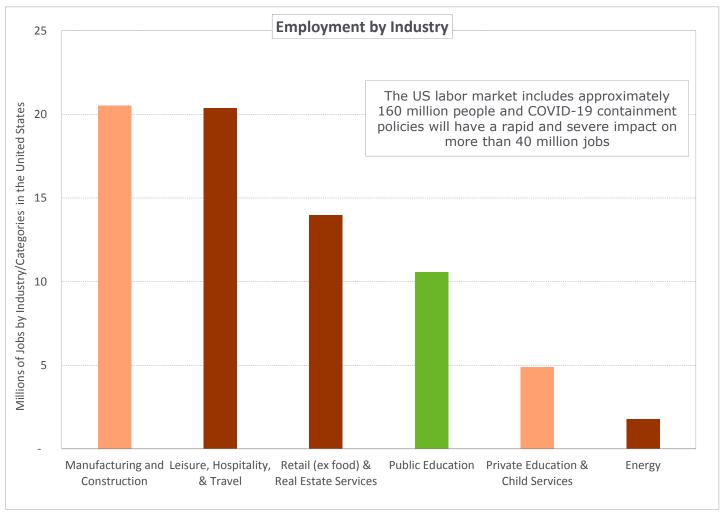
The COVID-19 case fatality rate is estimated at 1-3% and largely depends on the ability to "bend the curve"

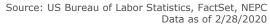






# CONTAINMENT STRATEGIES IMPACT EMPLOYMENT







# A REAL TIME LOOK AT THE ECONOMIC IMPACT

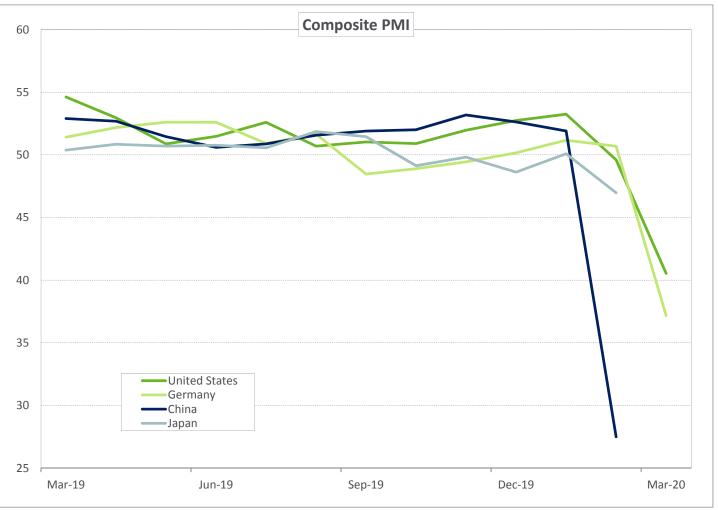
# The data below shows the year-over-year change in seated diners at restaurants on OpenTable in different cities and countries

Location	23-Mar	21-Mar	19-Mar	17-Mar	15-Mar	13-Mar	11-Mar	9-Mar	7-Mar	5-Mar	3-Mar	1-Mar
Global	-100%	-99%	-96%	-83%	-47%	-36%	-19%	-14%	-4%	-7%	-9%	0%
Australia	-100%	-54%	-53%	-43%	-12%	-8%	-10%	-10%	-3%	-8%	-6%	4%
Canada	-100%	-100%	-99%	-94%	-47%	-40%	-19%	-13%	-9%	-4%	-7%	-7%
Germany	-100%	-100%	-98%	-90%	-46%	-28%	-11%	-10%	4%	-6%	0%	9%
Ireland	-100%	-99%	-99%	-86%	-75%	-51%	-27%	-10%	-5%	-15%	-7%	10%
Mexico	-95%	-91%	-78%	-62%	-35%	-16%	-15%	-19%	-2%	-6%	-10%	-7%
United Kingdom	-100%	-100%	-91%	-82%	-31%	-26%	-14%	-18%	-3%	-12%	-11%	-2%
London	-100%	-100%	-100%	-89%	-43%	-36%	-19%	-22%	-7%	-13%	-10%	-2%
United States	-100%	-100%	-98%	-84%	-48%	-36%	-19%	-14%	-3%	-5%	-9%	2%
Atlanta	-100%	-100%	-97%	-93%	-44%	-35%	-14%	1%	1%	-9%	-21%	8%
Boston	-100%	-100%	-100%	-100%	-70%	-56%	-30%	-14%	-1%	11%	-10%	1%
Chicago	-100%	-100%	-100%	-100%	-53%	-37%	-27%	-25%	4%	-11%	-16%	1%
Dallas	-100%	-100%	-100%	-100%	-42%	-35%	-12%	-15%	-1%	0%	-6%	11%
Las Vegas	-100%	-100%	-100%	-88%	-48%	-32%	-13%	-11%	-7%	-9%	-31%	-17%
New York	-100%	-100%	-100%	-100%	-69%	-61%	-36%	-18%	-10%	-9%	-12%	-2%
Portland	-100%	-100%	-100%	-100%	-54%	-41%	-20%	-16%	-3%	3%	-3%	9%
San Francisco	-100%	-100%	-100%	-100%	-72%	-53%	-43%	-41%	-18%	-22%	-24%	-18%



Source: OpenTable, <a href="https://www.opentable.com/state-of-industry">https://www.opentable.com/state-of-industry</a>; Data includes online reservations, phone reservations, and walk-ins

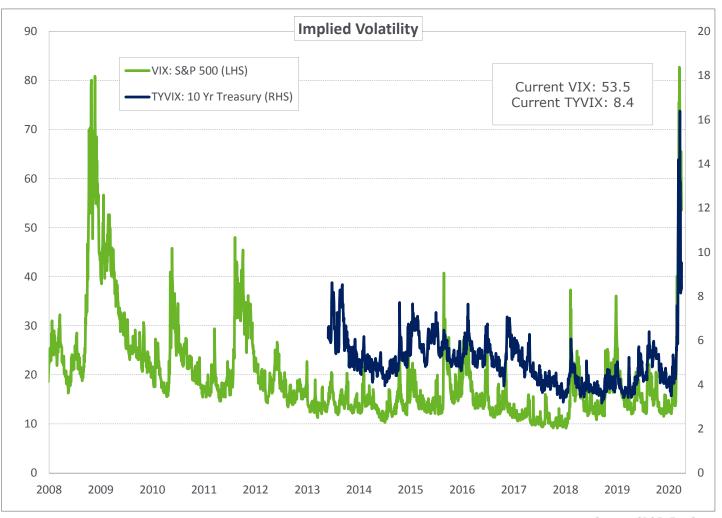
# **GLOBAL ECONOMY EXPECTED TO CONTRACT**

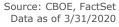






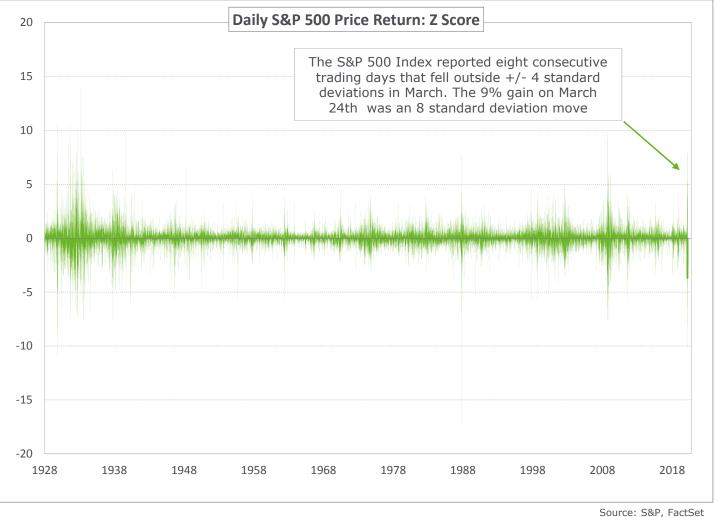
# **CORRELATIONS AND VOLATILITY ARE ELEVATED**







# **ABNORMALLY LARGE PRICE MOVEMENTS**





Source: S&P, FactSet Calculated of as 1/04/28 - 3/31/2020

# **US EQUITY DURING MARKET DELEVERAGING**

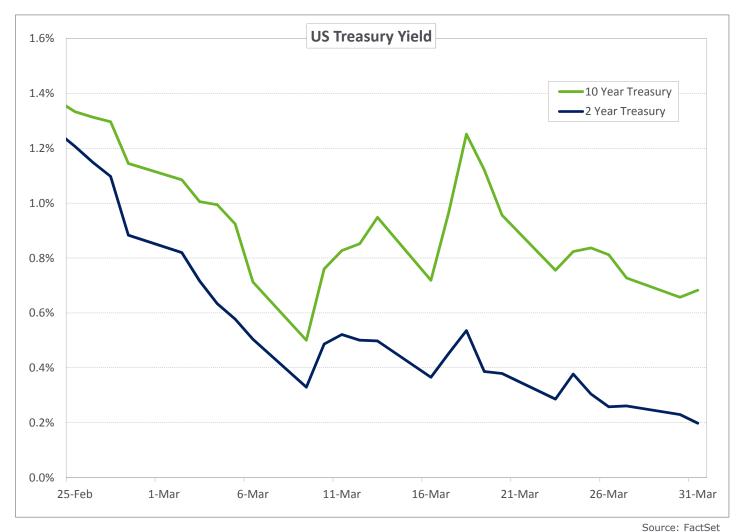




Financial Crisis represents S&P returns from 9/1/2008 – 3/9/2009; Wall Street Crash represents Dow Jones returns from 8/30/1929 – 2/26/1930; COVID-19 represents S&P returns from 1/23/2020 (representing the start of the Wuhan, China lockdown) – 3/31/2020



# **U.S. TREASURY YIELDS ARE STRESSED**





Data as of 3/31/2020

# **CREDIT SPREADS HAVE WIDENED**





Source: Bloomberg, FactSet Data as of 3/31/2020

# MONETARY AND FISCAL RESPONSES

Fed Action	Description
Fed Rate Cuts	The Fed cut rates in two emergency sessions by a total of 1.50% to a range of 0.00% - 0.25%.
Balance Sheet Expansion	The Fed announced an unlimited expansion of the balance sheet to support the US economy. This move expanded on previous announcements for smaller QE denominations
Liquidity Support Facilities	The Fed announced additional measures to ensure market liquidity, including facilities to support money market funds, commercial paper, and broad credit support systems
Credit Support Facilities	The Fed established programs aimed at supporting consumers and businesses, such as the Term Asset-Backed Securities Loan Facility (TALF) and a Main Street Business Lending Program. These programs provide preferential borrower agreements, such as deferred interest and principal payments, for consumers and small businesses.

US Government Action	Description
Families First Coronavirus Response Act	The bill was passed to provide sick leave, expand food assistance and unemployment benefits, and provide additional protection for health care employees
Fiscal Stimulus Package	Congress is finalizing a \$2 trillion economic stimulus package aimed at providing direct financial assistance, expanded benefits programs, and loans to individuals, small businesses, and industries impacted by COVID-19



# **KEY MARKET THEMES OVERVIEW**

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 or disrupted and generate market volatility. The conclusion of a theme likely alters both market dynamics and our market outlook. Our intent is for clients to be aware of these themes and understand their implications for asset allocation and portfolio implementation.

#### **NEPC** currently has four Key Market Themes:

Virus Trajectory

**Permanent Interventions** 

China Transitions Globalization Backlash



# **ASSESSING THE KEY MARKET THEMES**

#### 3/31/20 Assessment

#### Virus **Permanent** China Globalization **Transitions Trajectory Interventions Backlash Dominant** Change in Status: -Change in Status: Change in Status: -Change in Status: -Virus Trajectory is Globally, significant Trade tensions have China's economy the dominant force monetary and fiscal waned as COVID-19 was at a standstill **Emerging** driving market and stimulus has been concerns take on a for much of the economic outcomes. aimed at lessening greater focus. quarter as the The theme looks to the economic impact country attempted reflect the unknown of COVID-19. The influence and to contain the virus. path of a pandemic temperature of the In the US, the Fed cut Manufacturing PMI but also the timing Neutral theme will likely rates by 150 bps and fell into deep of how economies increase in coming broadly expanded contractionary recover. The quarters as countries the balance sheet territory to 35.7 in duration of social reassess supply with unlimited QE February. distancing policies is chains and consider purchases and vast **Fading** a key unknown as locally sourced China's total exports lending facilities to increased COVID-19 contracted 17.2% medical supplies. aid market liquidity. testing is needed to for the first two Congress also passed define an exposure months of the year. **Dormant** a \$2T relief package. baseline.



## VIRUS AND ECONOMIC PATHS ARE ALIGNED

#### The COVID-19 pandemic has brought global economic activity to a halt

Economic data releases in the US and globally will be historically poor over the next quarter with levels of contraction in GDP not seen since the late 1940s

The intensity of social distancing policies has significantly disrupted consumer spending patterns and the labor market with US unemployment rate likely near 15%

# Virus Trajectory looks to reflect the unknown path of a pandemic but also the timing and ability of economies to restart throughout the world

The duration and scope of social distancing policies is the key unknown as the market struggles to discount the potential scale of short and long-term economic costs

# Investor focus likely to shift along a continuum of health risks and economic costs should we see COVID-19 infection rates escalate

Increased COVID-19 testing is needed to define an exposure baseline to inform potential trajectory of health risks vs economic costs

#### **Continuum of Virus and Economic Paths**

**Health Risk:** Localizing Infections, Managing Healthcare Capacity, and Limiting Waves of Outbreaks Striking Balance Between Health Risk and Economic Cost of Social Distancing Policies **Economic Cost:** Restart economic activity by opening schools, healing the labor market, stimulating consumer spending levels

# Represents an incredibly wide range of outcomes and a swift movement through the continuum could accelerate a "V-shaped recovery"

A lengthy economic shutdown or harmful second virus wave could inhibit transition along the continuum leading to self-reinforcing downward economic spiral



# POTENTIAL OUTCOMES AND IMPLICATIONS

	Description	Market Implications
Base Case	Virus containment efforts aimed at slowing the spread of COVID-19 will result in a global recession, but the shape and trajectory of a recovery is unknown.  Increased monetary and fiscal stimulus offset some of the economic disruption, but economic growth and labor markets are likely to take longer to normalize than historical recessions may suggest.	Market volatility remains at elevated levels for the next 6+ months. Low interest rates are here to stay but likely increased volatility around the path of inflation with large deflationary pressures paired with a potentially stimulative fiscal response. While uncertainty remains high, long-term opportunities may be available for investors willing to take on greater equity and credit risk. Market impact of Virus Trajectory looks to recede within 12 months.
Economic Depression	2 year period of extreme economic disruption characterized by unemployment levels greater than 20% and falling consumer spending levels. Waves of intense social distancing periods damage consumer confidence, limiting economic activity during times of less restrictive social distancing measures. Massive government fiscal relief measures look to plug holes in GDP but lack of economic dynamism reduces productivity and "creative destruction".	Combined fiscal and monetary policies are MMT-like and impact global currency regimes with outsized volatility with relative benefits to the yuan and dollar. Extreme deflationary pressures offer value for nominal government debt for local currency investors (e.g. US Treasuries). Overall represents the largest economic disruption of our lifetime across industries and countries. Patience is required as equity markets reprice and credit default cycle is elevated. Maintaining liquidity is a first order priority, but look to allocate surplus liquidity levels to distressed investments and large-cap equities following extreme market repricing.
V is for Victorynot Virus	Combination of targeted social distancing, summer lull, better testing, and human resilience lead to a quick path of economic recovery, even before vaccine availability. Unprecedented policy action is enough to fill the economic gap during shutdown and by late summer the world economy restarts as economic activity normalizes.	Strongly positive for all cyclical assets. Provides path for moderately higher inflation in mediumand long-term and fiscal policy is stimulative. The world turns back to worries of populism, political friction, and developed world demographics. The relative brevity of the shutdown limits moves to shift away from globalization.



## POTENTIAL ACTIONS FOR INVESTORS

# Maintain discipline with a rebalancing approach aimed at preserving long-term strategic targets to risk assets

#### Maintain one quarter of spending needs in cash

A focus on liquidity remains paramount

#### Consider increasing targets to risk assets from a strategic viewpoint

Ensure higher risk targets fit within organizational risk tolerance

Market recovery from bottom has been significant...better timing may become available

Long-term expected difference between safe and risky assets is attractive

#### Favor US and EM over EAFE among public market equity

Strong virus response and massive Fed/Fiscal intervention support quicker US recovery

Virus response and long-term expected return (over 10%) support EM equity

#### Within betas, look to rotate the risk profile and increase risk posture

Carve out fixed income allocations to Credit Opportunities and Distressed Investments

Consider a shift to lower quality credit like high yield and EMD

Shift hedged equity exposure to higher beta strategies

Investigate high conviction, capacity-constrained strategies for access



# ASSET ALLOCATION UPDATE

NEPC, LLC —

# **ASSET ALLOCATION UPDATE**

- NEPC revised forward-looking return/risk assumptions as of March 31, 2020
- Forward-looking asset class returns are higher and materially differ from the prior quarter in terms of the range of potential outcomes
  - Risky asset assumptions up after Q1 losses, with cash and Treasury assumptions down
- The expected returns for the MIP portfolio are higher than communicated at the February meeting
  - Pension and Operating are slightly lower

	MIP Policy Target	Pension Policy Target	Operating Fund Policy Target
Cash	0%	3%	30%
Total Cash	0%	3%	30%
Large Cap Equities	17%	0%	0%
Small/Mid Cap Equities	7%	0%	0%
Int'l Equities (Unhedged)	10%	0%	0%
Int'l Sm Cap Equities (Unhedged)	4%	0%	0%
Emerging Int'l Equities	4%	0%	0%
Emerging Int'l Sm Cap Equities	4%	3%	0%
Global Equity	10%	30%	10%
Hedge Funds - Long/Short	6%	5%	5%
Total Equity	61%	38%	15%
TIPS	4%	4%	0%
Core Bonds	7%	26%	8%
Bank Loans	5%	5%	7%
Absolute Return Fixed Income	5%	5%	7%
Short TIPS (1-5 yr)	4%	4%	0%
Short Treasuries (1-3 yr)	0%	0%	13%
Short Credit (1-3 yr)	0%	0%	13%
Total Fixed Income	24%	43%	48%
Core Real Estate	0%	8%	0%
Total Real Assets	0%	8%	0%
GMO Global Balanced	8%	0%	0%
Newton Global Real Return	8%	8%	4%
PIMCO All Asset	0%	0%	4%
Total Multi Asset	15%	8%	8%
Expected Return 10 yrs	6.2%	4.8%	2.9%
Expected Return 30 yrs	6.7%	5.5%	3.6%
Alpha Assumption	0.5%	0.5%	0.3%
Total Expected Return	7,2%	6.0%	3,9%
Target Return	7.5%	6.25%	4.0%
Standard Dev	12.1%	8.2%	3.7%



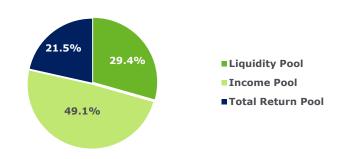
# OPERATING FUND PERFORMANCE REVIEW

NEPC, LLC —

## **EXECUTIVE SUMMARY**

#### **ASSET ALLOCATION**

Plan Assets: \$279.4 Million



FU	IND PERI	FORMANC	E: NET OI	FEES		
	QTR (%)	FYTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
COMPOSITE	-3.9	-1.4	0.6	1.9	1.8	2.3
ALLOCATION INDEX	-3.0	-0.5	1.2	2.5	2.1	2.3

#### **FUND COMMENTS**

#### **Asset Allocation**

The Fund's assets as of March 31, 2020 were \$279.4 million. This represents a \$20.1 million increase from the previous quarter.

The Liquidity Pool (29.4% vs. 30.0%), Income Pool (49.1% vs. 47.5%) and Total Return Pool (21.5% vs. 22.5%) are within policy 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 -3.9% during the first quarter and -1.4% fiscal year-to-date. Manager underperformance during the quarter was mostly due to managers with credit exposure as credit spreads widened. The Fund's downside protection managers faired well and added significant relative value versus benchmarks (Lighthouse and Newton). Four out of six active managers ranked above median versus peers during the quarter.

#### RECENT ACTIONS/RECOMMENDATIONS

#### **Recent Actions**

None.

#### Recommendations

There are no recommendations at this time.

#### **Investment Manager Updates**

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



# **OPERATING FUND PERFORMANCE REVIEW**

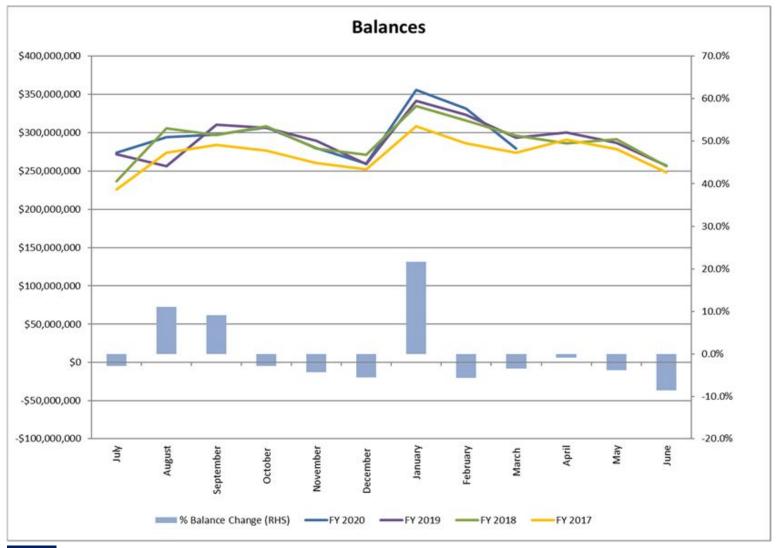
Ending March 31, 2020

Ending March 31, 2020																
	Market Value (\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Operating Funds Composite	\$279,389,407	100.0%	100.0%		-3.9		-1.4		0.6		1.9		1.8		2.3	
Allocation Index					-3.0		-0.5		1.2		2.5		2.1		2.3	
Liquidity Pool Composite	\$82,026,576	29.4%	30.0%		0.5		1.5		2.1		1.6		1.1		0.7	
State Pool	\$44,936,144	16.1%			0.6		1.7		2.3		1.8		1.2		0.7	
BOA General Fund	\$5,030,600	1.8%			0.1		0.3		0.7		0.6		0.3			
Federated Gov't Obligations	\$23,484,428	8.4%			0.3		1.3		1.9		1.6					
JP Morgan US Gov't Money Market Fund	\$8,575,404	3.1%			0.3		1.3		1.9		1.6					
FTSE T-Bill 3 Months TR					0.4		1.4		2.0		1.7		1.1		0.6	
Income Pool Composite	\$137,275,839	49.1%	47.5%		-2.0		-0.2		1.7		1.9		1.9		2.4	
Income Research + Management	\$77,606,176	27.8%	26.0%	eV US Short Duration Fixed Inc	0.3	48	1.7	47	3.1	47	2.1	59	1.7	58		
BBgBarc US Govt/Credit 1-3 Yr. TR					1.7		3.0		4.5		2.6		1.9		1.6	
BlackRock Strategic Income Opportunities	\$19,592,214	7.0%	7.0%	eV US Enh Fixed Inc	-5.8	99	-3.5	99	-1.0	99	1.5	99				
3-Month Libor Total Return USD					0.4		1.4		2.1		2.1		1.5		0.9	
Loomis Sayles Bank Loans	\$18,775,663	6.7%	7.0%	eV US Bank Loan Fixed Inc	-11.6	37	-9.5	48	-8.1	46	-0.9	54	0.8	63	2.7	91
Loomis Bank Loans Custom Index					-10.9		-8.3		-6.6		-0.1		1.5		3.4	
Vanguard Total Bond Market Instl' Fund	\$21,301,786	7.6%	7.5%	eV All US Fixed Inc	3.3	7	5.8	7	9.1	9	4.9	12	3.3	21	3.9	48
BBgBarc US Aggregate TR					3.1		5.7		8.9		4.8		3.4		3.9	
Total Return Pool Composite	\$60,086,992	21.5%	22.5%		-14.7		-9.6		-6.8		1.0		1.8		3.8	
Lighthouse	\$14,963,446	5.4%	5.0%	eV Alt - Long/Short Equity	-2.9	25	2.3	15	5.0	14	3.4	38				
Credit Suisse Long Shrt Eqt USD					-11.2		-6.6		-5.4		1.4		1.1		3.6	
Newton Global Real Return	\$11,066,146	4.0%	4.0%	eV Global TAA	-9.2	21	-6.8	18	-2.9	14	1.6	22				
60% MSCI ACWI (Net)/ 40% BBgBarc Global	Ag				-13.3		-8.2		-4.9		2.6		3.0		4.7	
PIMCO All Asset	\$10,338,509	3.7%	4.0%	eV Global TAA	-16.0	71	-13.0	78	-10.6	72	-1.0	66	1.1	31	3.4	61
Blended Index					-2.9		0.1		3.3		3.5		3.4		4.5	
Vanguard Total World Stock Index	\$23,718,891	8.5%	9.5%	eV Global All Cap Equity	-22.3	63	-15.3	56	-12.3	56	1.1	50	2.8	46		
FTSE Global All Cap Index					-22.2		-15.1		-12.2		1.2		1.9		4.5	



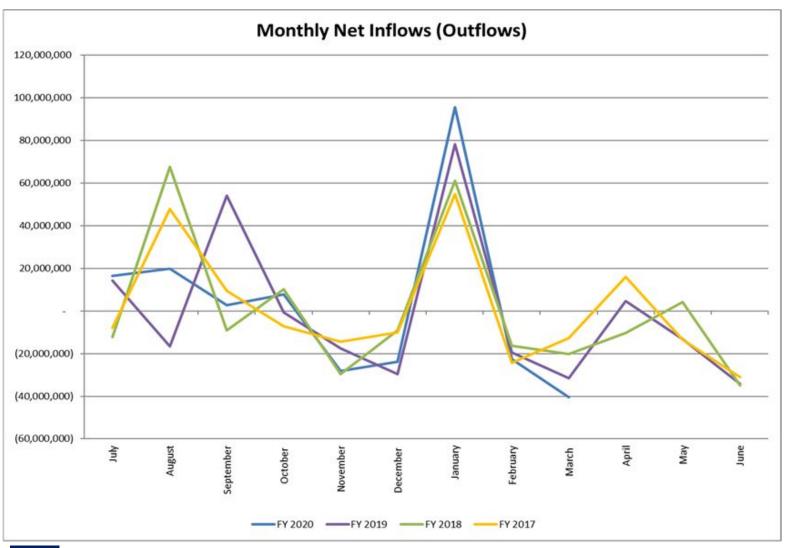
March 31, 2020

# **BALANCES AND MONTHLY CHANGES**





# MONTHLY NET INFLOWS (OUTFLOWS)





# PENSION FUND PERFORMANCE REVIEW

NEPC, LLC —

## **EXECUTIVE SUMMARY**

#### **ASSET ALLOCATION** Plan Assets: \$23.7 Million ■Global Equity 3.3% 8.6% **■** Emerging Equity **■**Core Bonds 5.2% **TIPS** 28.9% 7.4% **■**Bank Loans ■ Absolute Return 4.8% **■GAA** 5.0% 27.29 ■ Hedge Funds 7.0% ■ Real Estate Cash

	FUND	PERFORM	ANCE: NE	T OF FEES		
	QTR (%)	FYTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
COMPOSITE	-6.8	-2.3	0.3	3.0	2.8	4.9
ALLOC. INDEX	-8.9	-4.6	-2.1	2.9	3.1	5.2
POLICY INDEX	-9.0	-4.6	-1.9	3.1	3.4	5.6

#### **FUND COMMENTS**

#### **Asset Allocation**

The Fund's assets were \$23.7 million as of March 31, 2020 a \$2.7 million decrease during the first quarter. During the quarter, there was a net cash outflow of \$1 million and investment losses of \$1.7 million. All asset classes are within policy ranges.

#### **Performance (Net of Fees)**

The Fund returned -6.8% in the  $1^{\text{st}}$  quarter and -2.3% fiscal year-to-date.

During the quarter, managers outperformed by 2.1% (Composite vs. Allocation Index). The Fund's asset allocation and managers are conservative and downside protection managers faired well and provided relative value versus benchmarks (Walter Scott, Mondrian, Newton and Lighthouse). Five out of six active managers ranked at or above median versus peers during the quarter.

#### RECENT ACTIONS/RECOMMENDATIONS

#### **Recent Actions**

Rebalancing was provided over the quarter to cover benefit payments and expenses.

#### **Recommendations**

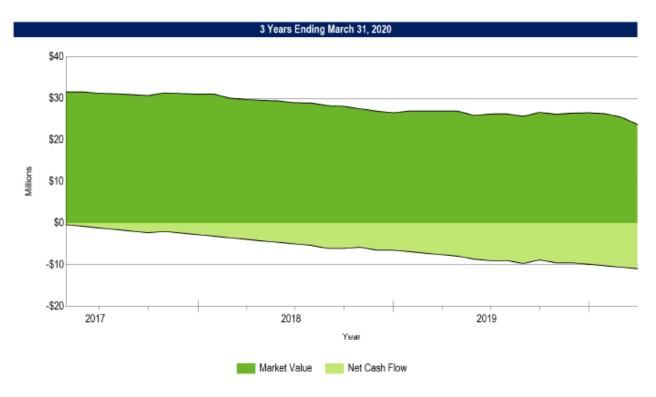
There are no recommendations at this time.

#### **Investment Manager Updates**

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



# **ASSET GROWTH SUMMARY**



	Quarter-To-Date	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$26,521,927	\$26,231,215	\$26,926,834	\$31,582,299
Net Cash Flow	-\$1,044,270	-\$1,942,441	-\$3,349,631	-\$10,931,671
Net Investment Change	-\$1,716,177	-\$527,294	\$184,277	\$3,110,852
Ending Market Value	\$23,761,480	\$23,761,480	\$23,761,480	\$23,761,480



# PENSION PERFORMANCE OVERVIEW

Ending March 31, 2020																
	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rani
Pension Composite	\$23,761,480	100.0%	100.0%		-6.8		-2.3		0.3		3.0		2.8		4.9	
Allocation Index					-8.9		-4.6		-2.1		2.9		3.1		5.2	
Policy Index					-9.0		-4.6		-1.9		3.1		3.4		5.6	77
Total Global Equity	\$6,867,180	28.9%	30.0%	eA Global All Cap Equity	-16.6	24										
MSCI World					-21.1		-13.8		-10.4		1.9		3.2		6.6	
Walter Scott Global Equity Fund	\$6,867,180	28.9%	30.0%	eA Global All Cap Equity	-16.6	24										
MSCI World					-21.1		-13.8		-10.4		1.9		3.2		6.6	
Emerging Markets Equity	\$608,428	2.6%	3.0%	eV Emg Mkts Equity Net Median	-23.0	28	-18.5	40	-21.1	68	-7.5	88	-5.7	99		
MSCI Emerging Markets					-23.6		-18.2		-17.7		-1.6		-0.4		0.7	
Mondrian EM Small Cap	\$608,428	2.6%	3.0%	eV Emg Mkts Equity	-23.0	28	-18.5	40	-21.1	68	-7.5	88	-5.7	99		
MSCI Emerging Markets Small Cap					-31.4		-28.3	9	-29.0		-9.6		-5.2		-1.3	
Total Fixed Income	\$10,417,756	43.8%	43.0%	eV All US Fixed Inc Net Median	-0.1	46	2.2	37	5.0	35	3.5	38	2.8	41	3.9	45
BBgBarc US Aggregate TR					3.1		5.7		8.9		4.8	12	3.4	20	3.9	47
Vanguard Total Bond Market Index	\$6,455,446	27.2%	26.0%	eV US Core Fixed Inc	3.3	13	5.8	11	9.1	12	4.8	16	3.3	35		
BBgBarc US Aggregate TR					3.1		5.7		8.9		4.8	16	3.4	32	3.9	56
Vanguard Inflation-Protected Securities	\$822,862	3.5%	3.5%	eV US TIPS / Inflation Fixed Inc	1.9	11	3.9	14	6.8	16						
BBgBarc US TIPS TR					1.7		3.9		6.9		3.5	9	2.7	20	3.5	21
Vanguard Short-Term Inflation-Protected Securities - VTS	\$820,566	3.5%	3.5%	eV US TIPS / Inflation Fixed Inc	-0.7	65	0.8	77								
BBgBarc US TIPS 1-5 Yr TR					-0.7		0.7		2.5		1.6	83	1.6	89	1.6	99
BlackRock Strategic Income Opportunities	\$1,129,203	4.8%	5.0%	eV US Enh Fixed Inc	-5.8	99	-3.5	99	-0.9	99						
3-Month Libor Total Return USD					0.4		1.4		2.1		2.1	98	1.5	99	0.9	
Bain Capital Senior Loan Fund	\$1,189,679	5.0%	5.0%	eV US Bank Loan Fixed Inc	-12.4	58	-10.7	61	-9.3	59						
Credit Suisse Leveraged Loans					-13.2		-10.9		-9.5		-0.7	50	1.2	41	3.3	27



# PENSION PERFORMANCE OVERVIEW

Ending March 31, 2020

	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total GAA	\$1,766,636	7.4%	8.0%	eV Global TAA Net Median	-9.2	21	-6.8	17	-2.2	8	1.5	23	1.3	24	3.3	67
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg					-14.3		-9.0		-5.7		2.5		3.0		4.9	
Newton Global Real Return	\$1,766,636	7.4%	8.0%	eV Global TAA	-9.2	21	-6.8	17	-2.9	14	1.6	22				
60% MSCI ACWI (Net) / 40% FTSE WGBI					-12.4		-7.6		-4.1		2.9		3.2		4.6	
Total Alternative Investments	\$1,251,161	5.3%	5.0%		-2.9	25	2.3	15	5.0	14	2.7	42	1.8	51	2.2	77
HFRI Fund of Funds Composite Index					-7.3		-5.4		-3.9		0.5		0.3		1.9	
Lighthouse	\$1,251,161	5.3%	5.0%	eV Alt - Long/Short Equity	-2.9	25	2.3	15	5.0	14	3.4	38				
Credit Suisse Long Shrt Eqt USD					-11.2		-6.6		-5.4		1.4		1.1		3.6	
Total Real Assets	\$2,034,803	8.6%	8.0%													
Principal	\$2,034,803	8.6%	8.0%		0.3		3.2		4.5		6.7		8.3		11.3	-
NCREIF ODCE					1.0		3.8		4.9		6.8		8.5		11.4	
Total Cash	\$815,517	3.4%	3.0%													
Distribution Account	\$815,517	3.4%	3.0%		0.1		0.9		1.4		1.4		0.8		0.4	
91 Day T-Bills					0.4		1.3		1.9		1.7		1.1		0.6	



# MANAGED INVESTMENT POOL PERFORMANCE REVIEW

NEPC, LLC -

## **EXECUTIVE SUMMARY**



	MIP PER	FORMAN	ICE: NET	OF FEES		
	QTR (%)	FYTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
COMPOSITE	-16.1	-11.3	-9.0	0.1	1.2	4.3
ALLOC. INDEX	-15.3	-10.0	-7.5	1.4	2.2	4.7
POLICY INDEX	-15.7	-10.4	-7.8	1.6	2.6	5.0
RANK (E&F \$100- 500M)	76	79	83	91	94	92

#### **FUND COMMENTS**

#### **Asset Allocation**

MIP assets were \$308.8 million as of March 31, 2020, a \$59.3 million decrease over the quarter. During the quarter there were \$619 thousand in net cash outflows and investment losses of \$58.7 million. All asset classes are within policy ranges.

#### Performance (Net of Fees)

The Fund returned -16.1% in the 1<sup>st</sup> quarter and -11.3% fiscal year-to-date, ranking in the 76<sup>th</sup> and 79<sup>th</sup> percentiles, respectively.

The Portfolio's exposure to small cap and credit detracted from results. However, the Portfolios's downside protection managers faired well and added significant relative value versus benchmarks (Morgan Stanley, Kabouter, Mondrian, Lighthouse and Newton). Six out of 13 active managers ranked at or above median versus peers during the quarter.

#### RECENT ACTIONS/RECOMMENDATIONS

#### **Recent Actions**

Rebalancing was provided over the quarter to raise cash from fixed income and rebalance to equities and the newly approved asset allocation.

The Committee approved the termination of Globeflex Int'l Equity and the funding of Walter Scott Global Equity strategy. The transactions will occur during the second quarter of 2020.

#### Recommendations

There are no recommendations at this time

#### **Investment Manager Updates**

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



March 31, 2020

# MIP PERFORMANCE OVERVIEW

	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rani
MIP Composite	\$308,773,846	100.0%	100.0%		-16.1	76	-11.3	79	-9.0	83	0.1	91	1.2	94	4.3	92
Allocation Index					-15.3	72	-10.0	65	-7.5	67	1.4	72	2.2	72	4.7	84
Policy Index					-15.7	74	-10.4	66	-7.8	76	1.6	70	2.6	53	5.0	75
InvMetrics All E&F \$100mm - \$500mm Net Median					-13.8		-9.0		-6.5		2.1		2.6		5.6	
Total Domestic Large Cap	\$67,947,639	22.0%	22.0%	eV US Large Cap Core Equity	-19.6	39	-10.9	30	-7.1	34	5.0	23	6.7	14	10.4	14
S&P 500					-19.6		-10.8		-7.0		5.1		6.7		10.5	
SSgA S&P 500	\$67,947,639	22.0%	22.0%	eV US Large Cap Core Equity	-19.6	39	-10.9	30	-7.1	34	5.0	23	6.7	14	10.5	14
S&P 500					-19.6		-10.8		-7.0		5.1		6.7		10.5	
Total Domestic Small/Mid Cap	\$21,134,972	6.8%	8.0%	eV US Small-Mid Cap Equity	-32.0	68	-25.7	62	-23.8	62	-4.3	58	-0.5	58	7.4	48
Russell 2500					-29.7		-24.7		-22.5		-3.1		0.5		7.7	
Westfield Capital	\$11,576,592	3.7%	4.0%	eV US Small-Mid Cap Growth Equity	-25.3	78	-16.8	52	-13.6	64	3.1	67	2.9	73	9.8	55
Russell 2500 Growth					-23.2		-17.8		-14.4		3.4		3.6		10.1	
DFA	\$9,558,380	3.1%	4.0%	eV US Small Cap Value Equity	-39.2	85	-34.7	83	-34.1	84	-12.1	83	-4.7	81		
Russell 2000 Value					-35.7		-30.6		-29.6		-9.5		-2.4		4.8	
Total International Equity (including emerging markets)	\$69,765,994	22.6%	25.0%	eV All ACWI ex-US Equity	-23.9	56	-20.1	69	-18.7	74	-4.6	79	-2.2	82	1.8	84
MSCI EAFE					-22.8		-17.4		-14.4		-1.8		-0.6		2.7	
Morgan Stanley	\$18,835,568	6.1%	6.5%	eV All EAFE Equity	-20.4	20	-16.0	29	-13.9	32	-1.6	40	-0.7	54	2.8	71
Globeflex	\$16,953,647	5.5%	6.5%	eV All EAFE Equity	-27.2	72	-24.3	88	-24.1	91	-6.7	89	-2.7	86	1.8	86
MSCI EAFE					-22.8		-17.4		-14.4		-1.8		-0.6		2.7	
Kabouter International Opportunities Offshore Fund II	\$14,702,625	4.8%	5.0%	eV EAFE Small Cap Equity	-23.1	7	-19.3	31	-14.4	9						
MSCI EAFE Small Cap					-27.5		-19.5		-18.1		-2.9		1.0		4.8	
Emerging Markets Equity	\$19,274,154	6.2%	7.0%	eV Emg Mkts Equity	-24.6	46	-20.6	55	-20.4	63	-5.7	75	-3.6	88		
MSCI Emerging Markets					-23.6	36			-17.7		-1.6		-0.4		0.7	
Aberdeen Emerging Mrkts	\$9,790,109	3.2%	3.5%	eV Emg Mkts Equity	-26.1	60	-22.5	71	-19.8	56	-4.1	65	-1.5	61	1.6	40
MSCI Emerging Markets					-23.6		-18.2		-17.7		-1.6		-0.4		0.7	
Mondrian EM Small Cap	\$9,484,045	3.1%	3.5%	eV Emg Mkts Equity	-23.0	28	-18.5	40	-21.1	68	-7.5	88	-5.7	99		
MSCI Emerging Markets Small Cap					-31.4		-28.3		-29.0		-9.6		-5.2		-1.3	



# **MIP PERFORMANCE OVERVIEW**

As of	March	31,	2020
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	Market Value(\$)	% of Portfolio	Policy %	Universe	Qtr (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fixed Income	\$75,146,238	24.3%	24.0%	eV All US Fixed Inc	-4.1	72	-1.9	75	0.4	74	2.1	66	2.1	65	4.1	40
BBgBarc US Aggregate TR					3.1		5.7		8.9		4.8		3.4		3.9	
Commonfund	\$21,457,656	6.9%	7.0%	eV US Core Fixed Inc	-2.1	95	0.8	94	3.9	94	3.5	89	2.8	83	4.2	36
BBgBarc US Aggregate TR					3.1		5.7		8.9		4.8		3.4		3.9	
Vanguard Inflation-Protected Securities	\$11,560,789	3.7%	3.5%	eV US TIPS / Inflation Fixed Inc	1.9	11	3.9	14	6.8	16	3.3	36				
BBgBarc US TIPS TR					1.7		3.9		6.9		3.5		2.7		3.5	
Vanguard Short-Term Inflation-Protected Securities	\$11,387,345	3.7%	3.5%	eV US TIPS / Inflation Fixed Inc Net Median	-0.7	65	0.8	77	2.4	81						
BBgBarc US TIPS 1-5 Yr TR					-0.7		0.7		2.5		1.6		1.6		1.6	
Blackrock Strategic Income Opportunities	\$16,177,857	5.2%	5.0%	eV US Enh Fixed Inc	-5.8	99	-3.5	99	-0.9	99						
3-Month Libor Total Return USD					0.4		1.4		2.1		2.1		1.5		0.9	
Bain Capital Senior Loan Fund	\$14,562,592	4.7%	5.0%	eV US Bank Loan Fixed Inc	-12.4	58	-10.7	61	-9.3	59						
Credit Suisse Leveraged Loans					-13.2		-10.9		-9.5		-0.7		1.2		3.3	
Total GAA	\$47,626,303	15.4%	15.0%	eV Global TAA	-12.9	50	-10.1	58	-7.4	53	-0.4	55	0.2	54	2.5	81
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg					-14.3		-9.0		-5.7		2.5		3.0		4.9	
GMO Global Absolute Return	\$22,660,311	7.3%	7.5%	eV Global TAA	-16.6	72	-13.5	79	-12.2	78	-2.1	76	-0.6	69	2.5	82
Blended Index					-2.9		0.1		3.3		3.5		3.4		4.5	
Newton Global Real Return	\$24,965,992	8.1%	7.5%	eV Global TAA	-9.2	21	-6.8	17	-2.9	14	1.6	22				
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg					-13.3		-8.2		-4.9		2.6		3.0		4.7	
Total Hedge Funds	\$20,384,154	6.6%	6.0%		-2.9	25	2.3	15	5.0	14	2.7	42	1.7	52	2.0	78
HFRI Fund of Funds Composite Index					-7.3		-5.4		-3.9		0.5		0.3		1.9	
Lighthouse	\$20,384,154	6.6%	6.0%	eV Alt - Long/Short Equity	-2.9	25	2.3	15	5.0	14	3.4	38				
Credit Suisse Long Shrt Eqt USD					-11.2		-6.6		-5.4		1.4		1.1		3.6	
Private Equity	\$1,989,667	0.6%	0.0%		0.0		2.1		6.4		9.8		9.3			
Landmark Equity Partners XV	\$1,989,667	0.6%	0.0%		0.0		2.1		6.4		9.8		9.3			
Cambridge Associates US All PE (1 Qtr Lag)					4.0		9.0		14.3		14.1		12.1		13.8	
Total Cash	\$4,778,879	1.5%	0.0%													
Distribution Account	\$4,778,879	1.5%	0.0%		0.1		0.9		1.5		1.4		0.8		0.5	
91 Day T-Bills					0.4		1.3		1.9		1.7		1.1		0.6	



# PRIVATE MARKETS UPDATE

- The System invests in one private market manager, committing capital for longer time periods to obtain illiquidity premiums and exposure to alternative markets
- Landmark Equity Partners XV
  - Secondary Private Equity fund, purchasing interests in venture capital, growth equity and buyout funds, and to a lesser extent, special situation and energy funds
  - Strategy is diversified, investing in ~200 partnerships
  - Fund has a 4 year investment period and 10 year term
  - The System committed \$5 million in 2014 and has a remaining commitment of \$1.8 million
  - Since inception, the strategy has an IRR of 13.0%, net of fees (9/30/19)



# INVESTMENT MANAGER DUE DILIGENCE

NEPC, LLC -

# **DUE DILIGENCE MONITOR**

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

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

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.					



# APPENDIX & DISCLAIMERS

NEPC, LLC —

# 2020 FIRST QUARTER HAPPENINGS AT NEPC

From everyone at NEPC, we hope your families and loved ones are safe and healthy during these difficult times. Please know that we remain vigilant in our oversight of your investments as the world focuses on the challenges ahead.

At NEPC, our goal is twofold: to help steer your investment programs through this market turmoil and identify opportunities that may arise from the tumult. Please see below the investment views published by NEPC related to the COVID-19 outbreak. To stay up-to-date on our COVID-19 content, please view <a href="https://info.nepc.com/covid-19">https://info.nepc.com/covid-19</a>.

#### **COVID-19 CONTENT**

- Taking Stock: China in the Time of Coronavirus (COVID-19)
- Taking Stock: The Implications of COVID-19 and the February 2020 Market Correction
- · Taking Stock: Acting Amid Uncertainty
- Taking Stock: Corporate Pension Plans in the Time of COVID-19
- Taking Stock: The Ides of Fed Intervention
- Taking Stock: Pension Investor Flash Poll
- · Negative Interest Rates: Here to Stay
- COVID-19: Business & Market Perspectives Webinar Replay
- COVID-19 and NEPC's Market Perspectives Webinar Replay



# 2020 FIRST QUARTER HAPPENINGS AT NEPC

#### **NEPC INSIGHTS**

- · Taking Stock: NEPC's Fourth Quarter Pension Monitor
- Taking Stock: Will the SECURE Act Finally Make Lifetime Income More Than Just a Buzzword?
- · Taking Stock: Late Cycle Dynamics, an NEPC Key Market Theme
- · Taking Stock: Permanent Interventions, an NEPC Key Market Theme
- Taking Stock: China Transitions, an NEPC Key Market Theme
- · Taking Stock: Globalization Backlash, an NEPC Key Market Theme
- NEPC's Asset Allocation Letter: 2020: Taking a Leap of Faith Into a New Decade
- · 2019 Fourth Quarter Market Thoughts
- · The Three Pillars of a Successful Investment Plan for Endowments and Foundations
- NEPC's 2019 Defined Contribution Plan & Fee Survey
- NEPC's 2019 Defined Contribution Plan & Fee Survey Recording
- Private Wealth: Getting the Most Out of Your Custodian
- · Taking Stock: NEPC's February 2020 Pension Monitor

#### WEBINAR REPLAYS

- · Webinar Replay: 8th Defined Benefit Plan Trends Survey
- NEPC 2020 Market Outlook Webinar
- · Webinar Replay: SECURE Act Webinar with Morgan Lewis
- Fireside Chat with Mellody Hobson: "Is the Investment Industry Ready to be Color Brave™?"



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

#### **GLOSSARY OF TERMS**

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

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

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

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

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

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

#### Formula:

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

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

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

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

#### Formula:

Calculation Average (X-Y)/Downside Deviation (X-Y) \* 2 Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills) **Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

#### Formula:

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

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

#### Formula:

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

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

 $Downside Capture = Total Return (Fund Returns)/Total Returns (BMR eturn) \ when Benchmark < 0$ 

Data Source: InvestorForce



# INFORMATION DISCLAIMER AND REPORTING METHODOLOGY

#### **Information Disclaimer**

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

#### Reporting Methodology

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



# FIRST QUARTER 2020 SUPPLEMENTAL PERFORMANCE



# UNIVERSITY OF MAINE SYSTEM MANAGED INVESTMENT POOL

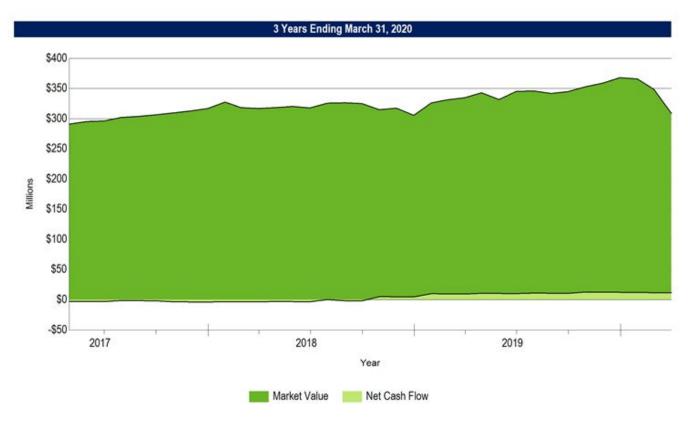
May 14, 2020

Jay E. Roney, Partner Kelly Regan, Senior Consultant



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

# **ASSET GROWTH SUMMARY**



	Last Three Months	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$368,050,846	\$345,152,104	\$334,811,139	\$289,953,967
Net Cash Flow	-\$619,017	\$1,489,974	\$2,163,103	\$11,784,212
Net Investment Change	-\$58,657,984	-\$37,868,232	-\$28,200,397	\$7,035,666
Ending Market Value	\$308,773,846	\$308,773,846	\$308,773,846	\$308,773,846

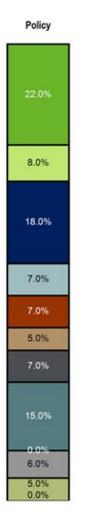


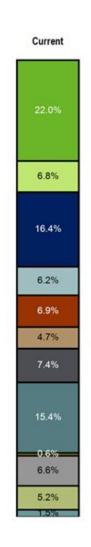
# **CASH FLOW SUMMARY**

	3 Months Ending March 31, 2020											
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value						
Aberdeen Emerging Mrkts	\$13,254,683	\$0	-\$31,645	-\$31,645	-\$3,432,929	\$9,790,109						
Bain Capital Senior Loan Fund	\$15,124,870	\$1,500,000	-\$19,996	\$1,480,004	-\$2,042,282	\$14,562,592						
Blackrock Strategic Income Opportunities	\$17,178,823	\$0	-\$22,434	-\$22,434	-\$978,532	\$16,177,857						
Commonfund	\$25,180,735	\$0	-\$3,209,719	-\$3,209,719	-\$513,360	\$21,457,656						
DFA	\$14,207,064	\$1,000,000	-\$11,875	\$988,125	-\$5,636,809	\$9,558,380						
Distribution Account	\$1,791,377	\$6,056,001	-\$3,070,490	\$2,985,511	\$1,990	\$4,778,879						
Globeflex	\$23,289,308	\$0	-\$37,627	-\$37,627	-\$6,298,034	\$16,953,647						
GMO Global Absolute Return	\$27,099,707	\$0	-\$62,145	-\$62,145	-\$4,377,251	\$22,660,311						
Kabouter International Opportunities Offshore Fund II	\$19,126,748	\$0	-\$42,651	-\$42,651	-\$4,381,473	\$14,702,625						
Landmark Equity Partners XV	\$1,970,704	\$60,939	-\$41,976	\$18,963	\$0	\$1,989,667						
Lighthouse	\$20,998,756	\$0	\$0	\$0	-\$614,602	\$20,384,154						
Mondrian EM Small Cap	\$12,319,113	\$0	-\$55,655	-\$55,655	-\$2,779,413	\$9,484,045						
Morgan Stanley	\$23,668,907	\$0	-\$50,353	-\$50,353	-\$4,782,985	\$18,835,568						
Newton Global Real Return	\$27,496,693	\$0	-\$53,103	-\$53,103	-\$2,477,598	\$24,965,992						
SSgA S&P 500	\$84,556,334	\$0	-\$18,317	-\$18,317	-\$16,590,378	\$67,947,639						
Vanguard Inflation-Protected Securities	\$12,845,012	\$0	-\$1,502,212	-\$1,502,212	\$217,989	\$11,560,789						
Vanguard Short-Term Inflation-Protected Securities	\$12,372,130	\$0	-\$901,210	-\$901,210	-\$83,575	\$11,387,345						
Westfield Capital	\$15,569,883	\$31,062	-\$135,610	-\$104,548	-\$3,888,743	\$11,576,592						
Total	\$368,050,846	\$8,648,003	-\$9,267,019	-\$619,017	-\$58,657,984	\$308,773,846						



#### **ASSET CLASS ALLOCATIONS**





	Asset Allocation vs. Target													
	Current	Policy	Current	Difference	Policy Range	Within Range								
Large Cap Equity	\$67,947,639	22.0%	22.0%	0.0%	17.0% - 27.0%	Yes								
Small/Mid Cap Equity	\$21,134,972	8.0%	6.8%	-1.2%	3.0% - 13.0%	Yes								
International Equity	\$50,491,840	18.0%	16.4%	-1.6%	8.0% - 28.0%	Yes								
Emerging Markets Equity	\$19,274,154	7.0%	6.2%	-0.8%	0.0% - 14.0%	Yes								
Core Bonds	\$21,457,656	7.0%	6.9%	-0.1%	2.0% - 12.0%	Yes								
Bank Loans	\$14,562,592	5.0%	4.7%	-0.3%	0.0% - 10.0%	Yes								
TIPS	\$22,948,134	7.0%	7.4%	0.4%	0.0% - 14.0%	Yes								
Global Asset Allocation	\$47,626,303	15.0%	15.4%	0.4%	10.0% - 20.0%	Yes								
Private Equity	\$1,989,667	0.0%	0.6%	0.6%	0.0% - 5.0%	Yes								
Hedge Funds	\$20,384,154	6.0%	6.6%	0.6%	0.0% - 10.0%	Yes								
Absolute Return	\$16,177,857	5.0%	5.2%	0.2%	0.0% - 10.0%	Yes								
Cash	\$4,778,879	0.0%	1.5%	1.5%	0.0% - 10.0%	Yes								
Total	\$308,773,846	100.0%	100.0%											

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



#### **ASSET CLASS ALLOCATIONS**

Policy	Current	ι	ook Through
22.0%	22.0%		23.0%
8.0%	6.8%		6.9%
18.0%	16.4%		19.8%
7.0%	6.2%		
7.0%	6.9%		8.5%
5.0%	4.7%	7	8.1%
7.0%	7.4%		7.5%
15.0%	15.4%		5.3% 0.6% 1.1%
0.0%	6.6%		9.8%
6.0%			1.4%
5.0% 0.0%	5.2%	s	7.2%

A:	sset Allocation		
	Policy	Current	Look Through
Large Cap Equity	22.0%	22.0%	23.0%
Small/Mid Cap Equity	8.0%	6.8%	6.9%
International Equity	18.0%	16.4%	19.8%
Emerging Markets Equity	7.0%	6.2%	8.5%
Core Bonds	7.0%	6.9%	8.1%
Bank Loans	5.0%	4.7%	
TIPS	7.0%	7.4%	7.5%
Multi-Sector Fixed Income			5.3%
Fixed Income - Emerging			0.6%
Global Bonds			1.1%
Global Asset Allocation	15.0%	15.4%	
Private Equity	0.0%	0.6%	0.7%
Hedge Funds	6.0%	6.6%	9.8%
Absolute Return	5.0%	5.2%	
Real Assets			1.4%
Cash	0.0%	1.5%	7.2%
Total	100.0%	100.0%	100.0%

Net Asset Allocation breaks out the exposure of GAA managers.

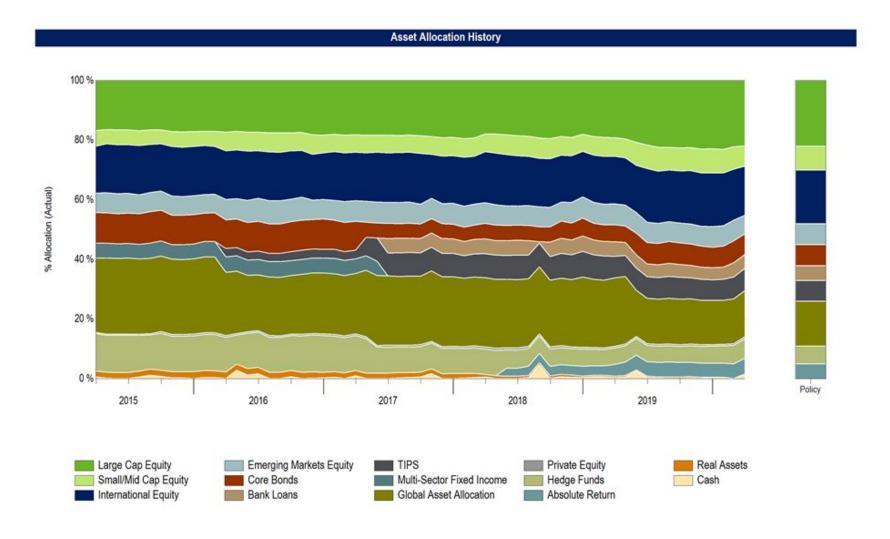
Asset class weights may not add up to 100% due to rounding.

The 60% MSCI ACWI/40% CITI WGBI Index is broken down into the following categories: 34.0% Domestic Equities, 18.8% Int'l Equities, 7.2% Emerging Equities, 16.5% US Treasury Bonds, 11.9% European Government Bonds, 7.3% Japanese Debt, 2.1% United Kingdom Bonds and 2.3% Developing Market Bonds.

Diversified Fixed Income bucket includes: multi-sector fixed income., non-U.S. fixed income, and emerging fixed income.

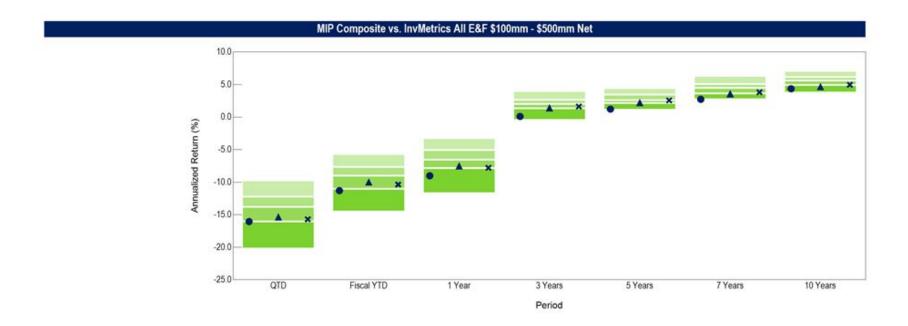


#### **ASSET ALLOCATION HISTORY**





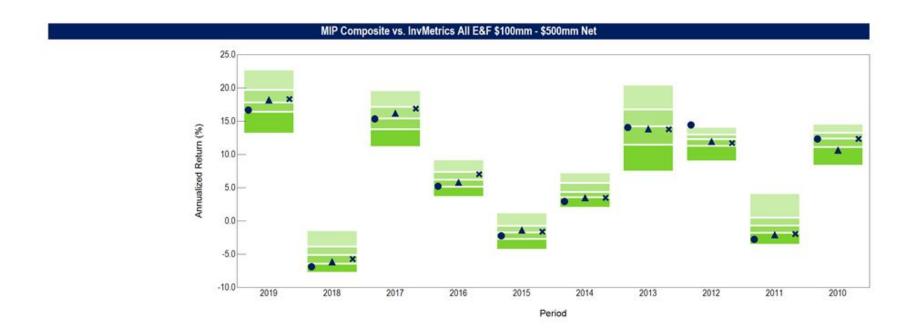
# **RETURNS VS. PEER UNIVERSE**



	Return (Rank)													
5th Percentile	-9.7		-5.7		-3.3		4.0		4.4		6.3		7.1	
25th Percentile	-12.2		-7.7		-5.0		2.7		3.5		5.1		6.2	
Median	-13.8		-9.0		-6.5		2.1		2.6		4.5		5.6	
75th Percentile	-16.0		-11.0		-7.8		1.4		2.2		3.6		5.0	
95th Percentile	-20.2		-14.5		-11.7		-0.4		1.1		2.7		3.8	
# of Portfolios	109		109		109		104		97		93		83	
MIP Composite	-16.1	(76)	-11.3	(79)	-9.0	(83)	0.1	(91)	1.2	(94)	2.7	(96)	4.3	(92)
Allocation Index	-15.3	(72)	-10.0	(65)	-7.5	(67)	1.4	(72)	2.2	(72)	3.6	(77)	4.7	(84)
Policy Index	-15.7	(74)	-10.4	(66)	-7.8	(76)	1.6	(70)	2.6	(53)	3.8	(68)	5.0	(75)



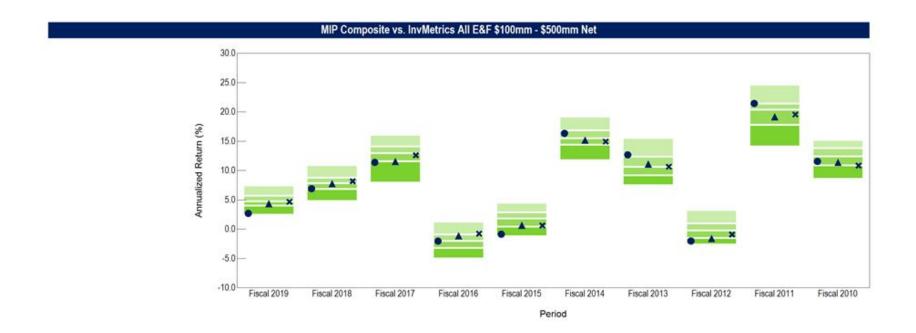
# **RETURNS VS. PEER UNIVERSE**



	Return (Ra	ank)																		
5th Percentile	22.7		-1.4		19.6		9.2		1.3		7.3		20.5		14.1		4.2		14.6	
25th Percentile	19.7		-3.8		17.2		7.4		-0.7		5.7		16.8		13.0		0.5		13.3	
Median	17.9		-5.1		15.4		6.2		-1.7		4.4		14.2		12.3		-0.6		12.4	
75th Percentile	16.4		-6.4		13.8		5.2		-2.7		3.6		11.5		11.3		-1.8		11.1	
95th Percentile	13.1		-7.8		11.1		3.6		-4.3		2.0		7.4		9.0		-3.6		8.3	
# of Portfolios	190		231		177		186		142		98		75		78		75		70	
MIP Composite	16.7	(71)	-6.9	(86)	15.3	(53)	5.2	(75)	-22	(64)	2.9	(86)	14.1	(54)	14.4	(3)	-2.8	(90)	12.3	(53)
Allocation Index	18.2	(47)	-6.1	(71)	16.2	(37)	5.8	(58)	-1.4	(44)	3.5	(77)	13.9	(57)	11.9	(58)	-2.1	(79)	10.7	(83)
Policy Index	18.3	(44)	-5.7	(61)	16.9	(29)	7.0	(36)	-1.6	(48)	3.5	(78)	13.8	(57)	11.7	(64)	-2.0	(78)	12.3	(51)



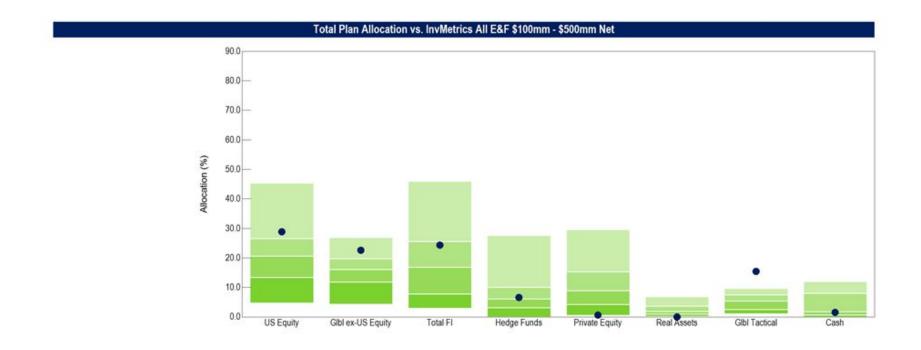
# **RETURNS VS. PEER UNIVERSE**



	Return (R	ank)																		
5th Percentile	7.4		10.9		16.1		1.2		4.5		19.2		15.5		3.3		24.7		15.2	
25th Percentile	5.8		8.8		14.1		-0.9		2.9		16.9		12.4		1.0		21.4		13.8	
Median	4.8		7.9		13.0		-2.0		1.9		15.5		10.7		-0.2		20.4		12.4	
75th Percentile	4.0		6.9		11.6		-3.2		0.4		14.5		9.2		-1.5		17.8		10.9	
95th Percentile	2.5		4.8		8.0		-4.9		-1.2		11.8		7.6		-2.6		14.1		8.6	
# of Portfolios	273		170		180		157		130		83		81		75		73		69	
MIP Composite	2.7	(94)	6.9	(74)	11.4	(78)	-2.0	(52)	-0.9	(94)	16.3	(32)	12.7	(23)	-2.0	(88)	21.4	(24)	11.6	(64)
Allocation Index	4.4	(68)	7.8	(54)	11.6	(76)	-1.1	(29)	0.7	(70)	15.2	(63)	11.1	(45)	-1.6	(83)	19.2	(66)	11.4	(68)
Policy Index	4.7	(54)	8.2	(43)	12.6	(59)	-0.8	(24)	0.6	(70)	14.9	(65)	10.7	(50)	-0.9	(66)	19.6	(60)	10.8	(80)



# **ALLOCATIONS VS. PEER UNIVERSE**



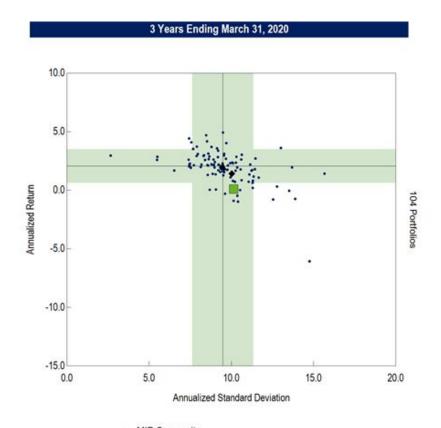
	5th Percentile
	25th Percentile
	Median
	75th Percentile
	95th Percentile
	# of Portfolios
•	MIP Composite

Percentile
an
Percentile
Percentile
ortfolios

45.4		26.9		45.9		27.6		29.5		6.8		9.6		12.0	
26.6		19.8		25.7		10.2		15.4		3.7		7.6		8.0	
20.7		16.1		16.9		6.2		9.0		2.0		5.4		1.9	
13.5		11.9		7.8		3.2		4.3		1.0		2.6		0.8	
4.8		4.4		3.0		0.0		0.7		0.3		1.1		0.0	
78		90		93		44		79		35		10		87	
28.9	(21)	22.6	(12)	24.3	(28)	6.6	(44)	0.6	(96)	0.0	(99)	15.4	(1)	1.5	(60)



# **TOTAL PLAN RISK/RETURN - 3 YEAR**



3 Years Ending March 31, 2020													
	Anlzd Ret	Rank	Anlzd Std Dev	Rank									
MIP Composite	0.1%	91	10.1%	68									
Allocation Index	1.4%	72	10.0%	65									
Policy Index	1.6%	70	10.3%	73									
InvMetrics All E&F \$100mm - \$500mm Net Median	2.1%		9.5%										

3 Years Ending March 31, 2020								
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank				
MIP Composite	-0.2	92	-0.1	92				
Allocation Index	0.0	73	0.0	73				
Policy Index	0.0	70	0.0	70				
InvMetrics All E&F \$100mm - \$500mm Net Median	0.0		0.0					

<sup>\*</sup>Returns are net of fees.



MIP Composite

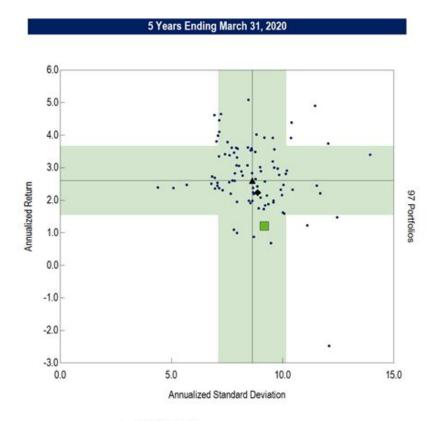
Allocation Index

Universe Median

<sup>68%</sup> Confidence Interval

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

# **TOTAL PLAN RISK/RETURN - 5 YEAR**



5 Years Ending March 31, 2020									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank					
MIP Composite	1.2%	94	9.2%	67					
Allocation Index	2.2%	72	8.9%	59					
Policy Index	2.6%	53	9.1%	65					
InvMetrics All E&F \$100mm - \$500mm Net Median	2.6%		8.6%	-					

5 Years Ending March 31, 2020									
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank					
MIP Composite	0.0	93	0.0	93					
Allocation Index	0.1	70	0.1	71					
Policy Index	0.2	64	0.2	61					
InvMetrics All E&F \$100mm - \$500mm Net Median	0.2		0.2						

<sup>\*</sup>Returns are net of fees.



MIP Composite

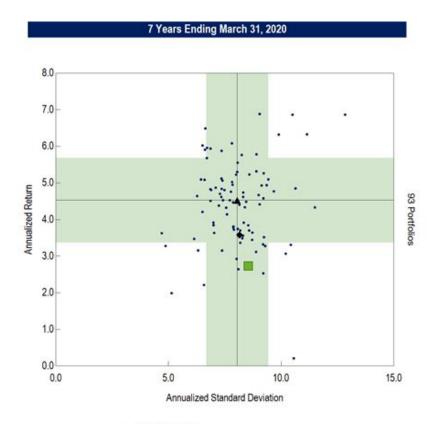
Allocation Inde

Universe Median

<sup>68%</sup> Confidence Interval

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

# **TOTAL PLAN RISK/RETURN - 7 YEAR**



7 Years Ending March 31, 2020									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank					
MIP Composite	2.7%	96	8.5%	69					
Allocation Index	3.6%	77	8.2%	56					
Policy Index	3.8%	68	8.3%	61					
nvMetrics All E&F \$100mm - \$500mm Net Median	4.5%		8.1%	-					

7 Years Ending March 31, 2020									
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank					
MIP Composite	0.2	96	0.2	97					
Allocation Index	0.3	78	0.4	78					
Policy Index	0.4	75	0.4	69					
InvMetrics All E&F \$100mm - \$500mm Net Median	0.5		0.5						

<sup>\*</sup>Returns are net of fees.



MIP Composite

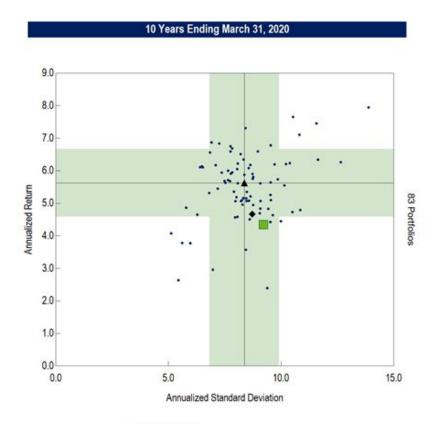
Allocation Index

Universe Median

<sup>68%</sup> Confidence Interval

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

# **TOTAL PLAN RISK/RETURN - 10 YEAR**



10 Years Ending March 31, 2020									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank					
MIP Composite	4.3%	92	9.2%	74					
Allocation Index	4.7%	84	8.7%	64					
Policy Index	5.0%	75	8.8%	68					
InvMetrics All E&F \$100mm - \$500mm Net Median	5.6%		8.4%						

10 Years Ending March 31, 2020								
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank				
MIP Composite	0.4	92	0.5	93				
Allocation Index	0.5	85	0.6	81				
Policy Index	0.5	76	0.6	69				
InvMetrics All E&F \$100mm - \$500mm Net Median	0.6		0.7					

<sup>\*</sup>Returns are net of fees.



MIP Composite

Allocation Index

Universe Median

<sup>68%</sup> Confidence Interval

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

# **TOTAL PLAN PERFORMANCE DETAIL**

	Market Value (\$)	% of Portfolio	Policy %	3 Mo( (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
MIP Composite	308,773,846	100.0	100.0	-16.1	-11.3	-9.0	0.1	1.2	2.7	4.3
Allocation Index				-15.3	-10.0	-7.5	1.4	2.2	3.6	4.7
Policy Index				-15.7	-10.4	-7.8	1.6	2.6	3.8	5.0
Total Domestic Large Cap	67,947,639	22.0	22.0	-19.6	-10.9	-7.1	5.0	6.7	9.4	10.4
S&P 500				-19.6	-10.8	-7.0	5.1	6.7	9.6	10.5
SSgA S&P 500	67,947,639	22.0	22.0	-19.6	-10.9	-7.1	5.0	6.7	9.5	10.5
S&P 500				-19.6	-10.8	-7.0	5.1	6.7	9.6	10.5
Total Domestic Small/Mid Cap	21,134,972	6.8	8.0	-32.0	-25.7	-23.8	-4.3	-0.5	4.2	7.4
Russell 2500				-29.7	-24.7	-22.5	-3.1	0.5	4.9	7.7
Westfield Capital	11,576,592	3.7	4.0	-25.3	-16.8	-13.6	3.1	2.9	7.0	9.8
Russell 2500 Growth				-23.2	-17.8	-14.4	3.4	3.6	8.1	10.1
DFA	9,558,380	3.1	4.0	-39.2	-34.7	-34.1	-12.1	-4.7	0.8	
Russell 2000 Value				-35.7	-30.6	-29.6	-9.5	-2.4	1.8	4.8
Total International Equity (including emerging markets)	69,765,994	22.6	25.0	-23.9	-20.1	-18.7	-4.6	-2.2	-0.5	1.8
MSCI EAFE				-22.8	-17.4	-14.4	-1.8	-0.6	1.8	2.7
Morgan Stanley	18,835,568	6.1	6.5	-20.4	-16.0	-13.9	-1.6	-0.7	1.2	2.8
Globeflex	16,953,647	5.5	6.5	-27.2	-24.3	-24.1	-6.7	-2.7	0.2	1.8
MSCI EAFE				-22.8	-17.4	-14.4	-1.8	-0.6	1.8	2.7
Kabouter International Opportunities Offshore Fund II	14,702,625	4.8	5.0	-23.1	-19.3	-14.4				
MSCI EAFE Small Cap				-27.5	-19.5	-18.1	-2.9	1.0	3.3	4.8
Emerging Markets Equity	19,274,154	6.2	7.0	-24.6	-20.6	-20.4	-5.7	-3.6	-3.5	
MSCI Emerging Markets				-23.6	-18.2	-17.7	-1.6	-0.4	-0.4	0.7
Aberdeen Emerging Mrkts	9,790,109	3.2	3.5	-26.1	-22.5	-19.8	-4.1	-1.5	-2.1	1.6
MSCI Emerging Markets				-23.6	-18.2	-17.7	-1.6	-0.4	-0.4	0.7
Mondrian EM Small Cap	9,484,045	3.1	3.5	-23.0	-18.5	-21.1	-7.5	-5.7		
MSCI Emerging Markets Small Cap				-31.4	-28.3	-29.0	-9.6	-5.2	-3.5	-1.3
Total Fixed Income	75,146,238	24.3	24.0	-4.1	-1.9	0.4	2.1	2.1	2.5	4.1
BBgBarc US Aggregate TR				3.1	5.7	8.9	4.8	3.4	3.2	3.9
Commonfund	21,457,656	6.9	7.0	-2.1	0.8	3.9	3.5	2.8	3.0	4.2
BBgBarc US Aggregate TR				3.1	5.7	8.9	4.8	3.4	3.2	3.9
Vanguard Inflation-Protected Securities	11,560,789	3.7	3.5	1.9	3.9	6.8	3.3			
BBgBarc US TIPS TR				1.7	3.9	6.9	3.5	2.7	1.4	3.5
Vanguard Short-Term Inflation-Protected Securities	11,387,345	3.7	3.5	-0.7	0.8	2.4				
BBgBarc US TIPS 1-5 Yr TR				-0.7	0.7	2.5	1.6	1.6	0.7	1.6
Blackrock Strategic Income Opportunities	16,177,857	5.2	5.0	-5.8	-3.5	-0.9				
3-Month Libor Total Return USD				0.4	1.4	2.1	2.1	1.5	1.1	0.9
Bain Capital Senior Loan Fund	14,562,592	4.7	5.0	-12.4	-10.7	-9.3				
Credit Suisse Leveraged Loans				-13.2	-10.9	-9.5	-0.7	1.2	2.0	3.3



#### **TOTAL PLAN PERFORMANCE DETAIL**

	Market Value (\$)	% of Portfolio	Policy %	3 Mo Fi (%)	iscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total GAA	47,626,303	15.4	15.0	-12.9	-10.1	-7.4	-0.4	0.2	1.2	2.5
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-14.3	-9.0	-5.7	2.5	3.0	4.0	4.9
GMO Global Absolute Return	22,660,311	7.3	7.5	-16.6	-13.5	-12.2	-2.1	-0.6	0.7	2.5
Blended Index				-2.9	0.1	3.3	3.5	3.4	3.2	4.5
Newton Global Real Return	24,965,992	8.1	7.5	-9.2	-6.8	-2.9	1.6			
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				-13.3	-8.2	-4.9	2.6	3.0	3.9	4.7
Total Hedge Funds	20,384,154	6.6	6.0	-2.9	2.3	5.0	2.7	1.7	2.2	2.0
HFRI Fund of Funds Composite Index				-7.3	-5.4	-3.9	0.5	0.3	1.8	1.9
Lighthouse	20,384,154	6.6	6.0	-2.9	2.3	5.0	3.4			
Credit Suisse Long Shrt Eqt USD				-11.2	-6.6	-5.4	1.4	1.1	3.5	3.6
Private Equity	1,989,667	0.6	0.0	0.0	2.1	6.4	9.8	9.3		
Landmark Equity Partners XV	1,989,667	0.6	0.0	0.0	2.1	6.4	9.8	9.3		
Cambridge Associates US All PE (1 Qtr Lag)				4.0	9.0	14.3	14.1	12.1	13.3	13.8
Total Cash	4,778,879	1.5	0.0							
Distribution Account	4,778,879	1.5	0.0	0.1	0.9	1.5	1.4	0.8	0.6	0.5
91 Day T-Bills				0.4	1.3	1.9	1.7	1.1	0.8	0.6

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% JPMEMBI+

Returns are net of manager fees.

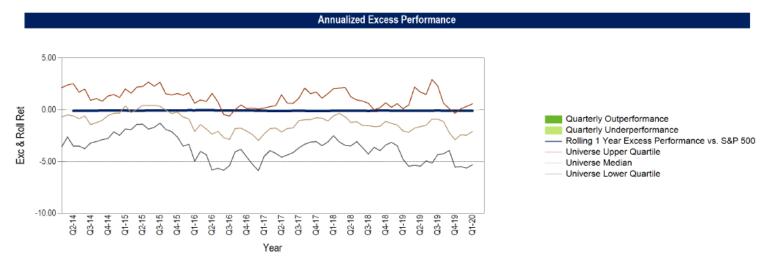
John Hancock Timber fully liquidated on 12/27/2019.

Lighthouse market value is preliminary as of 3/31/20.

Cash account includes \$434 currently being held in the TCW account.



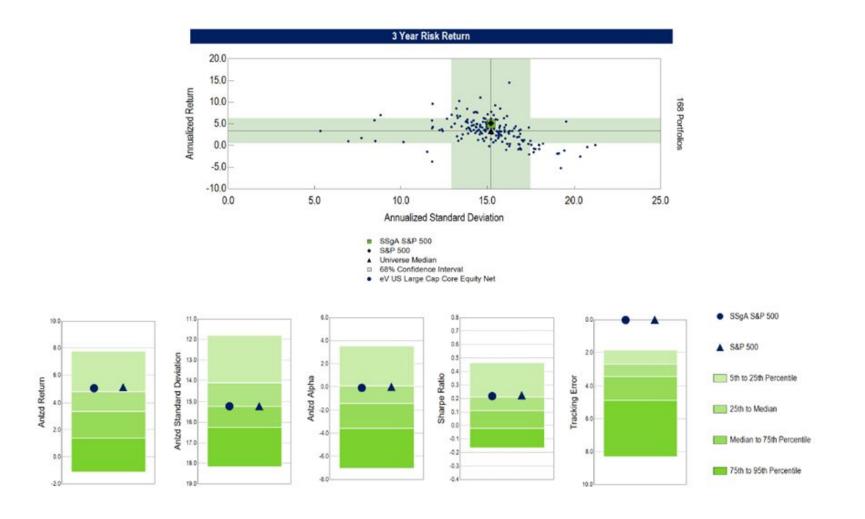
#### **SSGA S&P 500**







#### **SSGA S&P 500**





#### **SSGA S&P 500**

Characteristics		
	Portfolio	S&P 500
Number of Holdings	505	505
Weighted Avg. Market Cap. (\$B)	264.4	267.1
Median Market Cap. (\$B)	17.6	17.6
Price To Earnings	17.1	17.0
Price To Book	3.7	3.7
Price To Sales	2.7	2.6
Return on Equity (%)	27.3	27.3
Yield (%)	2.3	2.3
Beta		1.0
R-Squared		1.0

Equity Sector Attribution									
			Attribution Effects		R	Returns		ector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Danaharah	
	Ellects	Ellect	Ellect	Ellects	Portiolio	benchmark	Fortiolio	Benchmark	
Energy	-0.1%	0.0%	-0.1%	0.0%	-50.4%	-50.4%	2.7%	2.5%	
Materials	0.0%	0.0%	0.0%	0.0%	-26.2%	-26.3%	2.4%	2.4%	
Industrials	0.0%	0.0%	0.0%	0.0%	-27.0%	-27.0%	8.2%	8.2%	
Consumer Discretionary	-0.1%	-0.1%	0.0%	0.0%	-19.3%	-18.8%	9.8%	10.2%	
Consumer Staples	-0.1%	0.0%	0.0%	0.0%	-12.7%	-12.2%	7.8%	8.5%	
Health Care	0.0%	0.0%	0.0%	0.0%	-12.7%	-12.6%	15.4%	14.9%	
Financials	0.0%	0.0%	0.0%	0.0%	-32.0%	-31.6%	10.9%	11.3%	
Information Technology	0.0%	0.0%	0.0%	0.0%	-11.9%	-11.9%	25.5%	25.0%	
Communication Services	0.0%	0.0%	0.0%	0.0%	-16.9%	-16.6%	10.8%	10.8%	
Utilities	0.0%	0.0%	0.0%	0.0%	-13.5%	-13.5%	3.6%	3.4%	
Real Estate	0.0%	0.0%	0.0%	0.0%	-19.4%	-19.5%	3.0%	2.9%	
Cash	0.0%	-	-	-	-	-	0.0%	0.0%	
Unclassified	0.0%	-	-	-	-	-	0.0%	0.0%	
Portfolio	-0.2%	= -0.2%	+ 0.0%	+ 0.0%	-19.6%	-19.4%	100.0%	100.0%	

<sup>\*</sup>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.

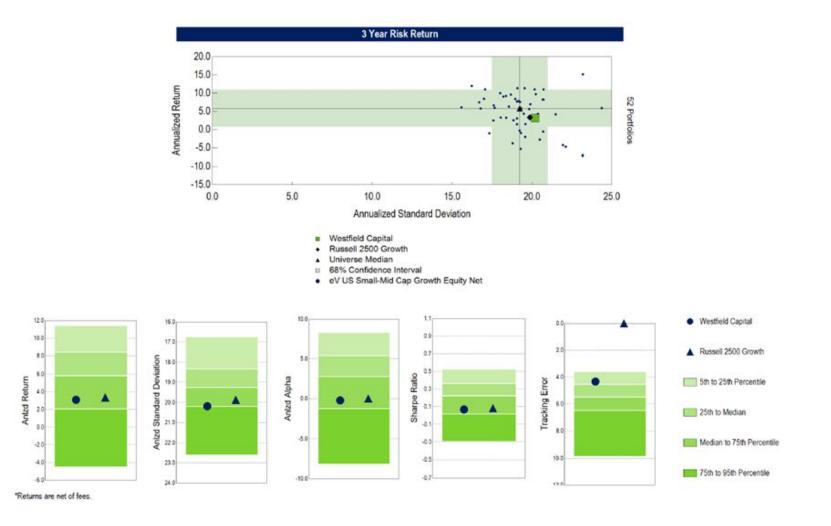


#### **WESTFIELD CAPITAL**





#### **WESTFIELD CAPITAL**





# **WESTFIELD CAPITAL**

Characteristics		
	Portfolio	Russell 2500 Growth
Number of Holdings	73	1,407
Weighted Avg. Market Cap. (\$B)	8.6	5.4
Median Market Cap. (\$B)	5.8	0.9
Price To Earnings	20.1	20.6
Price To Book	4.3	4.2
Price To Sales	3.6	2.8
Return on Equity (%)	12.3	4.8
Yield (%)	0.7	0.9
Beta		1.0
R-Squared		1.0

Top Positive Contributors						
	Relative					
	Contribution %	Return %				
ACCELERON PHARMA	0.9%	69.5%				
DEXCOM	0.3%	23.1%				
ZEBRA TECHNOLOGIES 'A'	0.2%	-28.1%				
EQUITY LIFESTYLE PROPS.	0.1%	-17.8%				
ANAPLAN	0.1%	-42.3%				
IDEX	0.1%	-19.5%				
OLD DOMINION FGT.LINES	0.0%	3.9%				
SCIENCE APPS.INTL.	0.0%	-13.9%				
ETSY	0.0%	-13.2%				
IRONWOOD PHARMS.CL.A	0.0%	-24.2%				

Top Negative Contributors						
	Relative Contribution %	Return %				
ELDORADO RESORTS	-1.2%	-75.9%				
BRIXMOR PROPERTY GROUP	-1.0%	-55.4%				
DIAMONDBACK ENERGY	-1.0%	-71.6%				
PBF ENERGY CL.A	-1.0%	-77.2%				
ON SEMICONDUCTOR	-0.9%	-49.0%				
ESSENT GROUP	-0.7%	-49.1%				
FLOWSERVE	-0.7%	-51.6%				
EXPEDIA GROUP	-0.7%	-47.8%				
FIVE BELOW	-0.7%	-45.0%				
MERITOR	-0.7%	-49.4%				

			Equit	ty Sector Attribution	1			
			Attribution Effects			Returns	Ending S	ector Weights
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-1.6%	0.0%	-1.3%	-0.3%	-75.1%	-66.7%	0.0%	0.2%
Materials	-0.4%	-0.5%	0.0%	0.0%	-43.2%	-29.9%	2.1%	3.3%
Industrials	0.8%	0.8%	0.1%	-0.1%	-25.2%	-29.8%	16.5%	16.0%
Consumer Discretionary	-0.7%	-0.9%	0.1%	0.1%	-42.3%	-35.5%	8.7%	10.8%
Consumer Staples	-0.4%	-0.6%	0.0%	0.2%	-52.0%	-24.6%	0.0%	2.2%
Health Care	1.4%	1.8%	-0.2%	-0.2%	-7.8%	-15.1%	31.0%	27.2%
Financials	-1.0%	-0.8%	0.0%	-0.3%	-35.7%	-23.4%	6.3%	6.1%
Information Technology	-1.0%	-1.0%	0.0%	0.0%	-22.0%	-17.9%	29.0%	26.8%
Communication Services	-0.4%	-0.4%	0.0%	-0.1%	-40.6%	-27.4%	2.4%	2.6%
Utilities	-0.1%	-	-0.1%	-		-8.5%	0.0%	0.9%
Real Estate	-0.3%	-0.5%	0.0%	0.2%	-37.7%	-25.5%	3.8%	4.0%
Cash	0.8%	0.0%	0.8%	0.0%	0.4%	-	0.3%	0.0%
Portfolio	-3.0%	= -2.1%	+ -0.6%	+ -0.3%	-26.2%	-23.2%	100.0%	100.0%

<sup>\*</sup>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**

#### **Top 10 Holdings** Holdings Based Style Trail (5 Years) Portfolio Statistics Market Capitalization Breakdown Time Period: 4/30/2015 to 3/31/2020 Fund Portf 3 Month Fund Index Index Weight % Ret % # of Holdings 1,468 1,391 Market Cap Giant % 0.5 E-mini S&P 500 Futures Mar20 0.96 % Asset in Top 10 Holdings 6.5 6.5 Market Cap Large % 0.6 Tech Data Corp 0.68 -8.88 Turnover Ratio % 16.0 34.2 Market Cap Mid % 13.0 Reliance Steel & Aluminum Co 0.67 -26.34 69.3 AECOM P/E Ratio 12.1 10.1 Market Cap Small % 52.5 0.67 -30.79 P/B Ratio 1.1 0.9 Market Cap Micro % 12.3 17.7 People's United Financial Inc 0.62 -33.57 LT Earn Growth 12.4 9.3 Average Market Cap (mil) 2,229.4 1,496.7 Post Holdings Inc. 0.61 -23.95 7.3 -38.79 Hist Earn Growth 3.4 Arrow Electronics Inc. 0.61 Quanta Services Inc 0.58 -22.06 12 Mo Yield 2.2 Toll Brothers Inc 0.56 -51.00 Perrigo Co PLC 0.53 -6.48

Historical Sector Allocations (5 Years)

- Russell 2000 Value TR USD

\*DFA US Targeted Value I

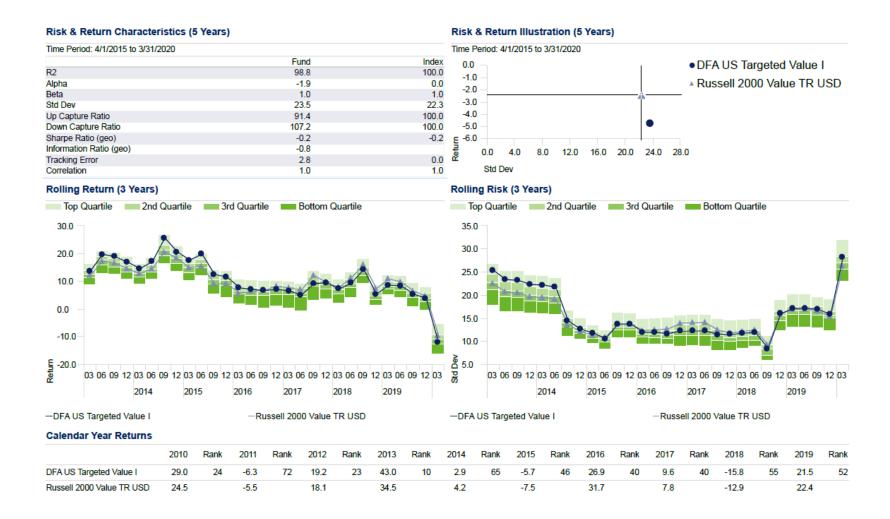
#### 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 8/2015 2/2016 8/2016 2/2017 8/2017 2/2018 8/2018 2/2019 8/2019 2/2020 -Utilities % -Communication Services % -Real Estate % -Materials % ■Information Technology % -Industrials % -Healthcare % = Financials % -Energy % -Consumer Staples % Consumer Discretionary %

#### Attribution (Quarter)

	Portfolio Weights			Benchmark Return			Active Return
Communication Services	3.01	2.21	-40.83	-36.79	-0.01	-0.13	-0.13
Consumer Discretionary	13.69	9.75	-48.73	-48.69	-0.57	-0.02	-0.58
Consumer Staples	4.00	2.66	-28.66	-18.14	0.25	-0.43	-0.18
Energy	7.24	4.93	-65.82	-62.12	-0.74	-0.30	-1.03
Financials	26.99	30.30	-37.55	-37.03	0.04	-0.14	-0.11
Health Care	4.96	5.09	-23.15	-25.37	0.00	0.11	0.11
Industrials	19.63	12.67	-36.74	-35.83	-0.01	-0.18	-0.19
Information Technology	11.29	9.78	-28.91	-24.33	0.17	-0.50	-0.32
Materials	6.59	4.50	-39.84	-41.07	-0.11	0.09	-0.02
Real Estate	0.22	11.53	-36.16	-34.45	-0.13	0.00	-0.14
Utilities	0.20	6.27	-6.89	-14.03	-1.19	0.01	-1.18
Attribution Total	97.81	99.67	-39.51	-35.73	-2.30	-1.48	-3.78
Cash	1.10	0.00					
Other	0.93	0.00					
Missing Performance	0.16	0.33					
Total	100.00	100.00					
Expense Ratio			0.06	0.00			
Residual(Reported - Attribution + Expense)			0.38	0.07			



#### **DFA US TARGETED VALUE I**





# MORGAN STANLEY INTERNATIONAL EQUITY I

#### Market Capitalization Breakdown **Top Ten Holdings** Holdings Based Style Trail (5 Years) **Portfolio Statistics** Fund Index Port 3 Month Time Period: 4/30/2015 to 3/31/2020 Fund Index Weight % Return # of Holdings 62 918 Market Cap Giant % 44.1 44.5 39.5 Reckitt Benckiser Group PLC -6.08 4.18 % Asset in Top 10 Holdings 32.8 13.4 Market Cap Large % 47.7 16.0 GlaxoSmithKline PLC -19.10 3.48 Market Cap Mid % 7.4 Turnover Ratio % 20.0 0.0 SAP SE 3.41 -16.48 P/E Ratio 20.0 13.9 Market Cap Small % 0.8 0.0 Henkel AG & Co KGaA Participating Preferred -22.39 P/B Ratio 1.3 Market Cap Micro % 3.41 7.8 Average Market Cap 53,414.2 38,282.1 Fresenius SE & Co KGaA 3.35 -33.90 LT Earn Growth Hist Earn Growth 0.3 Equity Region Developed % 99.5 Sanofi SA 3.21 -12.59 0.5 RELX PLC -14.92 12 Mo Yield 2.5 Equity Region Emerging % 4.1 3.12 British American Tobacco PLC -18.56 2.93 Safran SA 2.93 -43.09 Kirin Holdings Co Ltd 2.82 -9.97

#### Sector Attribution (Quarter)

Morgan Stanley Inst International Eq.( - MDCI EAPE NR USD)

	Portfolio Weights	Benchmark Weights			Allocation Effect	Selection Effect	Active Return
Communication Services	2.20	5.24	1.76	-17.95	-0.14	0.41	0.27
Consumer Discretionary	1.66	11.42	-29.03	-26.87	0.41	-0.03	0.38
Consumer Staples	27.95	11.35	-15.95	-13.43	1.55	-0.69	0.87
Energy	4.63	4.54	-17.59	-36.05	-0.02	0.92	0.90
Financials	15.06	18.40	-34.34	-31.57	0.29	-0.47	-0.18
Health Care	18.71	12.49	-17.67	-8.54	0.87	-1.65	-0.78
Industrials	12.86	14.92	-26.95	-26.23	0.06	-0.07	-0.01
Information Technology	11.70	7.19	-14.55	-17.64	0.24	0.35	0.59
Materials	3.61	6.91	-11.96	-26.73	0.14	0.53	0.68
Real Estate	0.00	3.55		-27.51	0.17	0.00	0.17
Utilities	0.00	3.96		-13.12	-0.36	0.00	-0.36
Attribution Total	98.39	99.98	-20.22	-22.74	3.22	-0.70	2.52
Cash	1.61	0.00					
Other	0.00	0.02					
Total	100.00	100.00					

#### Region Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active Return
Asia - Developed	8.57	4.66	-18.10	-19.65	0.12	0.13	0.26
Asia - Emerging	4.04	0.45	-11.27	-34.52	-0.46	0.98	0.52
Australasia	0.00	7.08		-32.23	0.67	0.00	0.67
Canada	6.53	0.00	-6.16		1.04	0.00	1.04
Europe - ex Euro	6.92	14.82	-12.40	-13.90	-0.68	0.10	-0.58
Eurozone	39.15	30.88	-26.98	-26.63	-0.33	-0.16	-0.49
Japan	11.13	24.64	-14.58	-16.77	-0.81	0.26	-0.55
Middle East	0.00	0.47		-18.94	-0.02	0.00	-0.02
United Kingdom	21.31	16.01	-19.78	-28.62	-0.35	1.96	1.61
United States	0.76	0.97	-17.08	-24.41	0.00	0.06	0.06
Attribution Total	98.39	99.98	-20.22	-22.74	-0.82	3.34	2.52
Cash	1.61	0.00					
Other	0.00	0.02					
Total	100.00	100.00					

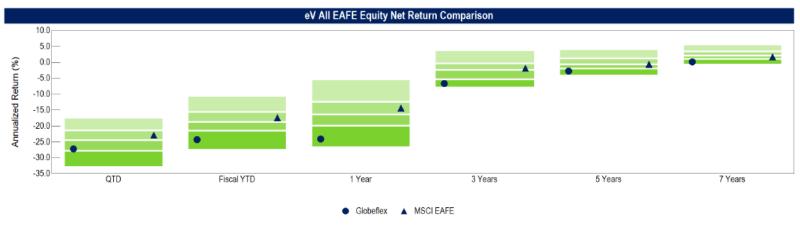


# MORGAN STANLEY INTERNATIONAL EQUITY I

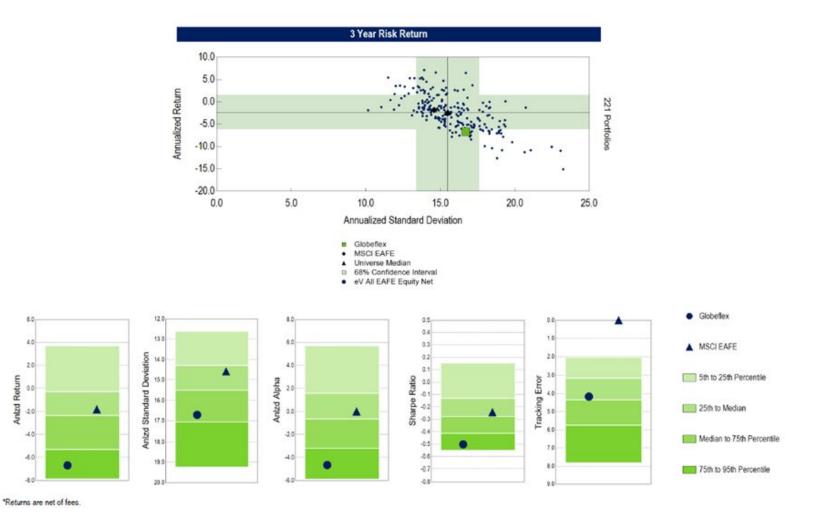














Anlzd Return

Characteristics		
	Portfolio	MSCI EAFE
Number of Holdings	146	918
Weighted Avg. Market Cap. (\$B)	25.2	55.6
Median Market Cap. (\$B)	5.2	8.2
Price To Earnings	11.5	13.9
Price To Book	2.1	2.5
Price To Sales	1.0	1.2
Return on Equity (%)	18.0	14.5
Yield (%)	4.2	3.9
Beta		1.0
R-Squared		1.0

Top Positive Contributors						
	Relative					
	Contribution %	Return %				
NOVARTIS 'R'	0.1%	-9.9%				
MUENCHENER RUCK.	0.1%	-32.6%				
GLAXOSMITHKLINE	0.1%	-19.2%				
TAKEDA PHARMACEUTICAL	0.1%	-21.1%				
GALENICA SANTE	0.1%	10.4%				
NICHI-IKO PHARM.	0.0%	6.6%				
TOTAL	0.0%	-27.3%				
TECAN 'R'	0.0%	6.9%				
MEIJI HOLDINGS	0.0%	5.7%				
FUJIFILM HOLDINGS	0.0%	5.6%				

Top Negative Contributors						
	Relative					
	Contribution %	Return %				
SUNCOR ENERGY	-0.9%	-51.3%				
OMV	-0.8%	-50.9%				
PEUGEOT	-0.7%	-44.2%				
CENOVUS ENERGY	-0.6%	-80.1%				
EXOR ORD	-0.6%	-33.5%				
SIGNIFY	-0.5%	-37.9%				
CANADIAN NATURAL RES.	-0.5%	-56.7%				
CI FINANCIAL	-0.5%	-40.6%				
REDROW	-0.4%	-54.8%				
ACS ACTIV.CONSTR.Y SERV.	-0.4%	-50.4%				

	Equity Sector Attribution							
			Attribution Effects		Return	S	Ending Sector	Weights
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-1.9%	-0.6%	-0.5%	-0.8%	-49.5%	-35.0%	1.9%	4.0%
Materials	-0.2%	0.1%	0.0%	-0.2%	-29.0%	-26.9%	6.0%	6.7%
Industrials	-1.9%	-1.0%	-0.3%	-0.7%	-34.0%	-26.4%	20.2%	14.2%
Consumer Discretionary	-0.9%	-1.8%	0.2%	0.7%	-42.2%	-26.9%	7.4%	11.1%
Consumer Staples	-0.6%	0.1%	-0.7%	0.1%	-14.9%	-13.5%	5.5%	12.7%
Health Care	0.8%	0.1%	0.8%	0.0%	-7.6%	-8.5%	21.3%	14.3%
Financials	0.9%	0.3%	0.6%	0.1%	-30.5%	-31.8%	10.7%	16.5%
Information Technology	-0.2%	-0.1%	0.0%	-0.1%	-20.9%	-17.8%	8.4%	7.6%
Communication Services	0.2%	0.1%	0.1%	0.0%	-16.0%	-18.0%	10.8%	5.5%
Utilities	-0.5%	-0.5%	0.1%	-0.1%	-26.3%	-13.1%	4.7%	4.2%
Real Estate	-0.3%	-0.4%	0.0%	0.0%	-36.4%	-25.6%	3.0%	3.2%
Cash	0.0%	-	-	-	-	-	0.0%	0.0%
Portfolio	-4.5% =	-3.7% +	0.3% +	-1.0%	-27.1%	-22.6%	100.0%	100.0%

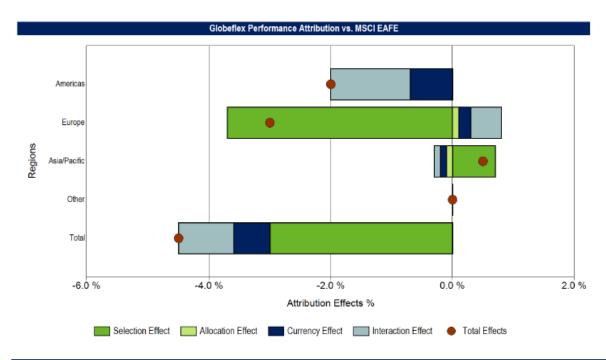
<sup>\*</sup>Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of period portfolio. Results may differ from actual performance. Returns are net of fees.



Country Allocation							
	Manager	Index	Manager	Index			
	Ending Allocation (USD)	Ending Allocation (USD)	Return (USD)	Return (USD)			
Americas							
Canada	9.3%	0.0%	-37.8%	-27.5%			
Total-Americas	9.3%	0.0%	-37.8%	-			
Europe							
Austria	0.9%	0.2%	-39.4%	-42.9%			
Belgium	0.6%	0.9%	-16.9%	-32.6%			
Denmark	1.5%	2.2%	-7.5%	-7.8%			
Finland	0.8%	1.0%	-34.9%	-18.9%			
France	6.7%	10.7%	-35.5%	-27.0%			
Germany	7.5%	8.2%	-25.3%	-27.2%			
Ireland	0.6%	0.6%	-21.0%	-27.1%			
Italy	4.6%	2.2%	-34.2%	-29.1%			
Netherlands	4.6%	4.2%	-34.9%	-20.5%			
Norway	2.0%	0.5%	-48.8%	-33.3%			
Portugal	1.6%	0.2%	-34.7%	-13.1%			
Spain	3.7%	2.6%	-43.8%	-29.8%			
Sweden	2.8%	2.8%	-18.8%	-21.3%			
Switzerland	5.5%	10.7%	-1.0%	-11.1%			
United Kingdom	11.5%	15.1%	-33.3%	-28.4%			
Total-Europe	54.8%	61.9%	-29.9%	-24.0%			

	Country A Manager Ending Allocation (USD)	Index	Manager Return (USD)	Index Return (USD)
AsiaPacific				
Australia	5.6%	5.9%	-25.5%	-33.2%
Hong Kong	1.3%	3.8%	-24.8%	-17.3%
Japan	26.1%	26.3%	-16.4%	-16.8%
Korea*	2.4%	0.0%	-18.5%	-22.6%
Singapore	0.5%	1.2%	-21.9%	-28.2%
Total-AsiaPacific	35.8%	37.5%	-18.9%	-20.3%
Totals				
Developed	97.6%	100.0%	-27.4%	-22.6%
Emerging*	2.4%	0.0%	-18.5%	





	Ret	urns and End	ing Weights			Attribution Effects					
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total		
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects		
Totals											
Americas	-37.8%		9.3%	0.0%	0.0%	0.0%	-0.7%	-1.3%	-2.0%		
Europe	-29.9%	-24.0%	54.8%	61.9%	-3.7%	0.1%	0.2%	0.5%	-3.0%		
Asia/Pacific	-18.9%	-20.3%	35.8%	37.5%	0.7%	-0.1%	-0.1%	-0.1%	0.5%		
Other		-18.0%	0.0%	0.6%		0.0%	0.0%		0.0%		
Total	-27.1%	-22.6%	100.0%	100.0%	-3.0%	0.0%	-0.6%	-0.9%	-4.5%		
Totals											
Developed	-27.4%	-22.6%	97.6%	100.0%	-4.2%	0.0%	-0.5%	0.1%	-4.6%		
Emerging*	-18.5%		2.4%	0.0%	0.0%	0.0%	-0.1%	0.2%	0.1%		



# **KABOUTER INT'L OPPS OFFSHORE FUND II**

SECTOR ATTRIBUTION W/CURRENCY												
	Average Weight			Contribution to Return			Total Return		Attribution Analysis			
	Port. Average Weight	Bench. Average Weight	Variation in Average Weight	To Peturn	Bench. Contrib. To Return	Variation in Contribution To Return	Port. Total Return	Bench. Total Return	Total ⊨πect	Allocation Effect ( Local )	Selection Effect ( Local )	Total Currency Effect
Total	100.00	100.00		-23.68	-27.66	3.98	-23.68	-27.66	3.98	3.60	0.20	0.18
Communication Services	0.00	4.61	-4.61	0.01	-1.26	1.27	9.88	-27.10	-0.06	-0.05	-0.01	-0.01
Consumer Discretionary	3.60	12.02	-8.42	-2.73	-4.42	1.69	-62.69	-34.77	-0.62	0.84	-1.36	-0.11
Consumer Staples	1.38	6.41	-5.03	-0.16	-0.57	0.42	-14.86	-13.23	-0.96	-0.91	-0.08	0.03
Energy		2.17	-2.17		-1.16	1.16		-50.02	0.60	0.55	_	0.05
Etf	1.52		1.52	-0.56	-	-0.56	-28.02	_	-0.04	-0.02	-	-0.02
Financials	7.60	10.76	-3.16	-3.00	-3.28	0.28	-36.58	-30.57	-0.56	0.08	-0.57	-0.07
Health Care	19.27	7.68	11.60	-1.69	-0.83	-0.86	-12.85	-14.76	2.26	1.78	0.20	0.28
Industrials	18.80	21.02	-2.22	-6.22	-6.50	0.28	-31.36	-30.89	-0.22	0.08	-0.26	-0.04
Information Technology	26.89	10.45	16.44	-5.32	-2.49	-2.83	-20.30	-25.78	1.98	0.44	1.70	-0.17
Materials	7.79	7.99	-0.20	-0.65	-2.07	1.42	-11.90	-27.67	1.29	-0.01	1.05	0.25
Real Estate	5.40	14.15	-8.76	-1.94	-4.64	2.71	-26.63	-26.86	0.07	0.20	0.00	-0.14
Utilities	7.75	2.61	5.14	-1.41	-0.42	-0.99	-20.21	-15.97	0.29	0.64	-0.48	0.12

<sup>\*</sup>Returns are gross of fees



Source: Kabouter

# ABERDEEN EMERGING MARKET EQUITY

#### Market Capitalization Breakdown **Top Ten Holdings** Holdings Based Style Trail (5 Years) **Portfolio Statistics** Fund Time Period: 4/30/2015 to 3/31/2020 Fund Index Port 3 Month Weight % Return 67.9 51.5 # of Holdings 59 1,404 Market Cap Giant % Tencent Holdings Ltd 1.76 % Asset in Top 10 Holdings 42.7 28.5 Market Cap Large % 26.6 34.4 -17.20 Taiwan Semiconductor Manufacturing Co Ltd 7.65 12.8 Turnover Ratio % Market Cap Mid % 5.5 -16.09 Samsung Electronics Co Ltd Participating Preferred 7.24 P/E Ratio 14.8 11.8 Market Cap Small % 0.0 -16.88 Ping An Insurance (Group) Co. of China Ltd Class H 4.17 1.3 Market Cap Micro % 0.0 P/B Ratio Housing Development Finance Corp Ltd 3.41 -36.13 8.4 Average Market Cap 48,075.4 32,456.1 LT Earn Growth 2.62 -13.79 28.0 27.2 Hist Earn Growth 5.2 Equity Region Developed % China Resources Land Ltd 2.61 -17.09 72.0 12 Mo Yield 2.4 Equity Region Emerging % Naspers Ltd Class N -12.72 Vale SA ADR 2.23 -37.20 Kweichow Moutai Co Ltd 2.13 -7.77

Aberdeen Emerging Markets Insti - MSCI EM NR USD

### Sector Attribution (Quarter)

	Portfolio Weights	Benchmark Weights			Allocation Effect	Selection Effect	Active Return
Communication Services	11.38	11.47	-9.09	-9.61	-0.02	0.06	0.03
Consumer Discretionary	11.98	14.36	-27.10	-18.04	-0.12	-1.09	-1.22
Consumer Staples	9.36	6.35	-26.17	-19.81	0.11	-0.60	-0.49
Energy	4.17	5.61	-50.19	-39.50	0.25	-0.51	-0.26
Financials	29.05	23.83	-33.34	-31.07	-0.40	-0.62	-1.03
Health Care	1.14	2.96	2.41	-8.48	-0.26	0.09	-0.16
Industrials	2.27	5.20	-37.37	-28.12	0.15	-0.22	-0.07
Information Technology	17.48	16.05	-16.79	-17.86	0.07	0.18	0.25
Materials	7.22	7.22	-28.40	-30.28	0.00	0.16	0.16
Real Estate	4.68	2.88	-29.27	-26.40	-0.06	-0.15	-0.20
Utilities	0.00	2.59		-26.00	0.07	0.00	0.07
Attribution Total	98.74	98.52	-26.23	-23.31	-0.21	-2.71	-2.92
Cash	1.26	0.00					
Other	0.00	0.05					
Missing Performance	0.00	1.43					
Total	100.00	100.00					

### Region Attribution (Quarter)

	Portfolio Weights	Benchmark Weights	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Active
Africa	2.71	4.52	-25.39	-39.41	0.30	0.41	0.71
Asia - Developed	22.02	24.21	-16.29	-20.58	-0.04	0.88	0.83
Asia - Emerging	48.46	49.89	-21.28	-16.90	-0.14	-2.07	-2.20
Europe - Emerging	4.32	4.16	-33.44	-34.17	-0.04	0.03	0.00
Eurozone	2.34	0.33	-16.18	-41.66	-0.42	0.67	0.25
Latin America	17.75	10.92	-51.27	-45.91	-1.61	-1.14	-2.75
Middle East	0.00	4.14		-23.06	-0.01	0.00	-0.01
United States	1.14	0.34	2.41	-20.37	0.02	0.23	0.25
Attribution Total	98.74	98.52	-26.23	-23.31	-1.93	-0.98	-2.92
Cash	1.26	0.00					
Other	0.00	0.05					
Missing Performance	0.00	1.43					
Total	100.00	100.00					



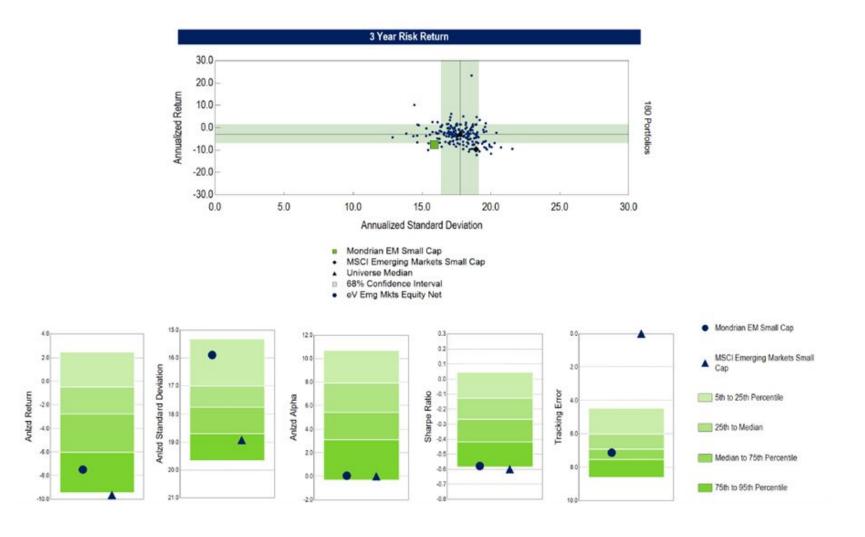
# ABERDEEN EMERGING MARKET EQUITY













Characteristics		
	Portfolio	MSCI Emerging Markets Small Cap
Number of Holdings	109	1,644
Weighted Avg. Market Cap. (\$B)	1.4	1.0
Median Market Cap. (\$B)	0.9	0.5
Price To Earnings	15.4	10.1
Price To Book	2.9	2.2
Price To Sales	2.4	0.9
Return on Equity (%)	19.4	12.8
Yield (%)	2.6	3.8
Beta		1.0
R-Squared		1.0

Top Positive Contributors				
	Relative			
	Contribution %	Return %		
MICROPORT SCIENTIFIC	1.2%	91.0%		
SHANGHAI PHICHEM MRA.'A'	0.3%	24.2%		
AJANTA PHARMA	0.2%	32.3%		
GREENTOWN SER.GP.	0.2%	11.0%		
THUNDER SFTW.TECH.'A'	0.2%	14.2%		
ABDULLAH AL OTHAIM MKTS.	0.1%	13.7%		
LEENO INDUSTRIAL	0.1%	10.7%		
CLEAR MEDIA	0.1%	8.9%		
GRANULES INDIA	0.1%	10.3%		
AREZZO INDUSTRIA E ON	0.1%	-55.3%		

Top Negative Contributors				
	Relative			
	Contribution %	Return %		
LEMON TREE HOTELS	-0.9%	-67.6%		
MONETA MONEY BANK	-0.7%	-45.2%		
D&L INDUSTRIES	-0.7%	-48.1%		
WILSON SONS BDR (BSP)	-0.7%	-50.8%		
TEGMA GESTAO LOGISTICA ON	-0.7%	-57.4%		
PHOENIX MILLS	-0.6%	-35.4%		
VARUN BEVERAG	-0.6%	-29.5%		
ASTER DM HEALTHCARE	-0.6%	-44.2%		
KANSAI NEROLAC PAINTS	-0.5%	-29.9%		
PVR	-0.5%	-41.0%		

Equity Sector Attribution								
			Attribution Effects		F	Returns	Ending S	ector Weights
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.5%	0.7%	0.1%	-0.2%	-9.3%	-41.0%	1.1%	2.0%
Materials	1.3%	1.2%	0.0%	0.1%	-19.7%	-31.6%	9.3%	11.1%
Industrials	2.6%	2.3%	-0.2%	0.6%	-20.0%	-37.0%	17.5%	12.9%
Consumer Discretionary	1.0%	0.8%	0.1%	0.2%	-32.9%	-40.0%	12.7%	12.5%
Consumer Staples	0.9%	0.3%	0.7%	-0.1%	-19.4%	-25.2%	15.1%	6.3%
Health Care	1.6%	0.4%	0.9%	0.3%	-7.2%	-13.9%	14.6%	10.9%
Financials	0.6%	0.0%	0.4%	0.2%	-40.7%	-38.4%	4.5%	8.6%
Information Technology	0.9%	1.8%	-0.3%	-0.6%	-13.0%	-23.8%	11.6%	18.1%
Communication Services	0.6%	0.5%	0.0%	0.0%	-14.6%	-28.5%	2.8%	4.0%
Utilities	0.1%	-0.1%	-0.1%	0.2%	-34.3%	-33.5%	2.9%	4.9%
Real Estate	0.2%	0.2%	0.1%	-0.1%	-34.3%	-34.9%	4.9%	7.6%
Cash	0.5%	0.0%	0.5%	0.0%	0.4%	-	2.5%	0.0%
Portfolio	10.8%	= 8.1%	+ 2.0%	+ 0.7%	-20.6%	-31.4%	99.5%	99.1%

<sup>\*</sup>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.



### Sector Allocation

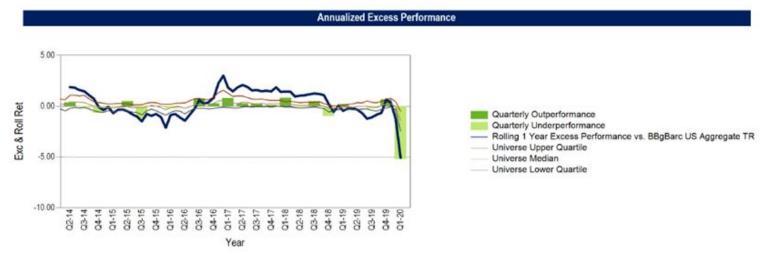
	Fund	MSCI EM SC
Communication Services	2.7	4.2
Consumer Discretionary	12.4	12.8
Consumer Staples	14.7	6.4
Energy	1.1	2.0
Financials	4.9	8.7
Health Care	16.5	11.0
Industrials	17.1	12.9
Information Technology	11.3	18.2
Materials	9.2	11.1
Real Estate	4.8	7.9
Utilities	2.8	4.9
Cash	2.4	-
TOTAL	100.0	100.0

### **Country Allocation**

	Fund	MSCI EM SC
Latin America	8.0	11.3
Brazil Mexico Peru	3.8 2.2 2.0	7.1 2.4
Europe, Middle East & Africa	13.9	13.0
Czech Republic Estonia Kuwait Poland Saudi Arabia Slovenia South Africa UAE United Kingdom	1.0 1.2 1.6 2.7 4.1 0.5 0.7 1.3 0.8	0.1 - 1.0 3.0 - 3.4 0.6
Asia	75.7	75.8
North Asia	36.1	54.1
China/Hong Kong South Korea Taiwan	17.9 7.4 10.8	13.1 17.6 23.4
South Asia	39.5	21.2
India Indonesia Malaysia Philippines Thailand	25.9 4.1 3.2 4.2 2.1	12.4 1.4 3.2 0.8 3.5
Cash	2.4	-
TOTAL	100.0	100.0

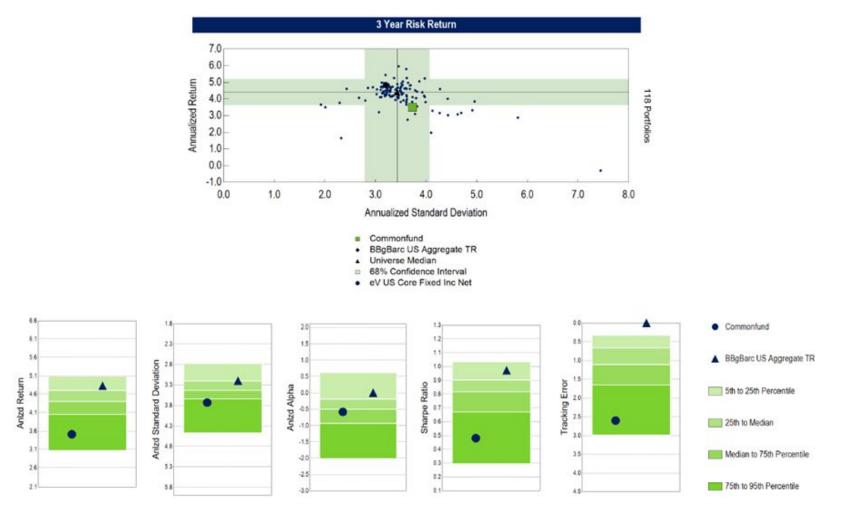


Source: Mondrian



















# Multi-Strategy Bond Fund: Investment Managers

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



Source: Commonfund

### **VANGUARD INFLATION PROTECTED SECURITIES**



### **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 2012 2013 2014 2015 2016 2017 2018 2019 Derivative % Cash & Equivalents % =Securitized %

Government %

### Top Holdings

	Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	4.94
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.47
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.42
United States Treasury Notes 0.25%	BOND - GOV'T INFLATION PROTECTED	3.40
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.40
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.38
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.38
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.34
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.33
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.31

Detail



Corporate %

Source: Morningstar

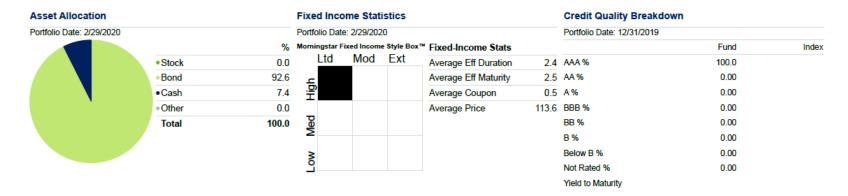
-Municipal %

### **VANGUARD INFLATION PROTECTED SECURITIES**

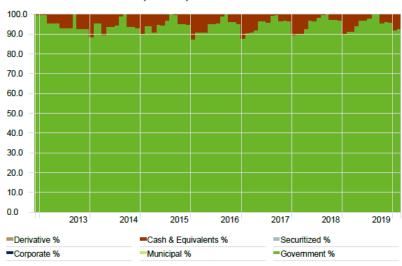




### **VANGUARD SHORT-TERM TIPS**



### **Historical Sector Allocations (10 Years)**



### **Top Holdings**

	Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.51
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	6.49
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.44
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	6.40
United States Treasury Notes 0.25%	BOND - GOV'T INFLATION PROTECTED	6.35
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	6.34
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.31
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.26
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.25
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.08

Detail



### **VANGUARD SHORT-TERM TIPS**

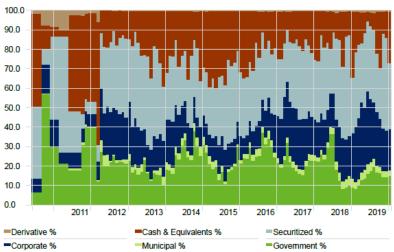
#### Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 4/1/2015 to 3/31/2020 Time Period: 4/1/2015 to 3/31/2020 Fund Index Vanguard Shrt-Term Infl-Prot Sec Idx Ins 1.8 99.2 100.0 1.5 ▲ BBgBarc U.S. Treasury TIPS 1-5Y TR USD 0.0 Alpha 0.0 1.2 Beta 0.9 1.0 0.9 Std Dev 1.5 1.7 0.6 Up Capture Ratio 94.5 100.0 0.3 87.4 Down Capture Ratio 100.0 € 0.0 Sharpe Ratio (geo) 0.3 0.3 Information Ratio (geo) -0.20.3 0.6 0.9 1.2 1.5 1.8 2.1 0.0 0.2 0.0 Tracking Error Correlation 1.0 1.0 Rolling Risk (3 Years) Rolling Returns (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 10.0 10.0 7.5 8.0 5.0 6.0 2.5 4.0 0.0 2.0 -2.5 0.0 Std Dev 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 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 2014 2015 2016 2017 2018 2019 2014 2015 2016 2017 2018 2019 -Vanguard Shrt-Term Infl-Prot Sec Idx Ins -BBgBarc U.S. Treasury TIPS 1-5Y TR USD -Vanguard Shrt-Term Infl-Prot Sec Idx Ins -BBgBarc U.S. Treasury TIPS 1-5Y TR USD Calendar Year Returns 2010 2011 Rank 2012 Rank 2013 2014 2015 2016 2017 Rank 2018 Rank 2019 Rank Vanguard Shrt-Term Infl-Prot Sec Idx Ins -1.5 -1.1-0.22.8 8.0 4.8 93 BBgBarc U.S. Treasury TIPS 1-5Y TR USD 3.9 4.9 2.7 -2.0 -1.1 -0.1 3.1 8.0 0.4 5.1



### **BLACKROCK STRATEGIC INCOME**



### **Historical Sector Allocations (10 Years)**

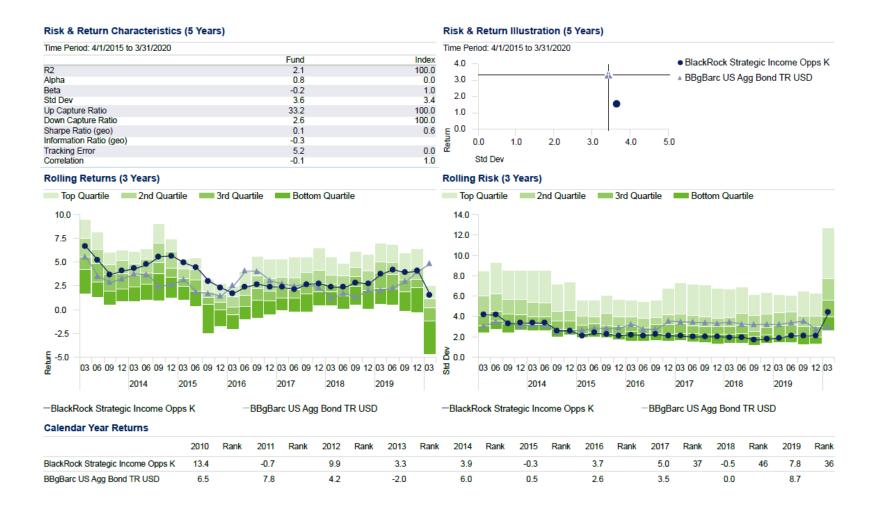


### Top Holdings

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.5%	BOND - GOV'T INFLATION PROTECTED	5.28
BlackRock Liquidity T-Fund Instl	MUTUAL FUND - MONEY MARKET	1.73
India (Republic of) 7.17%	BOND - GOV'T/TREASURY	1.07
Government National Mortgage Association 3.5%	BOND - GOV'T AGENCY PASS-THRU	0.96
Indonesia (Republic of) 8.25%	BOND - GOV'T/TREASURY	0.57
Russian Federation 8.5%	BOND - GOV'T/TREASURY	0.52
Federal National Mortgage Association 4%	BOND - GOV'T AGENCY PASS-THRU	0.51
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	0.49
India (Republic of) 7.27%	BOND - GOV'T/TREASURY	0.46
China (People's Republic Of) 3.29%	BOND - GOV'T/TREASURY	0.46

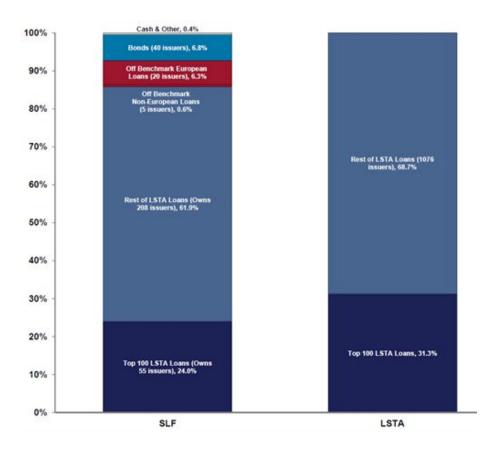


### **BLACKROCK STRATEGIC INCOME**





### **BAIN CAPITAL SENIOR LOAN FUND**



Top 5 Winners & Losers		
Winners		
Issuer	bps	
Ascena Retail Group	5	
Hearthside Food Solutions	3	
La Financiere Atalian S.A.	3	
KIK Custom Products	3	
Travelport	2	
Rest of Winners	45	
Total Winners	61	
Losers		
Issuer	bps	
Algoma Steel	(29)	
Murray Energy	(11)	
Party City	(5)	
OGF	(4)	
NPC International	(3)	
Rest of Losers	(53)	
Total Losers	(105)	

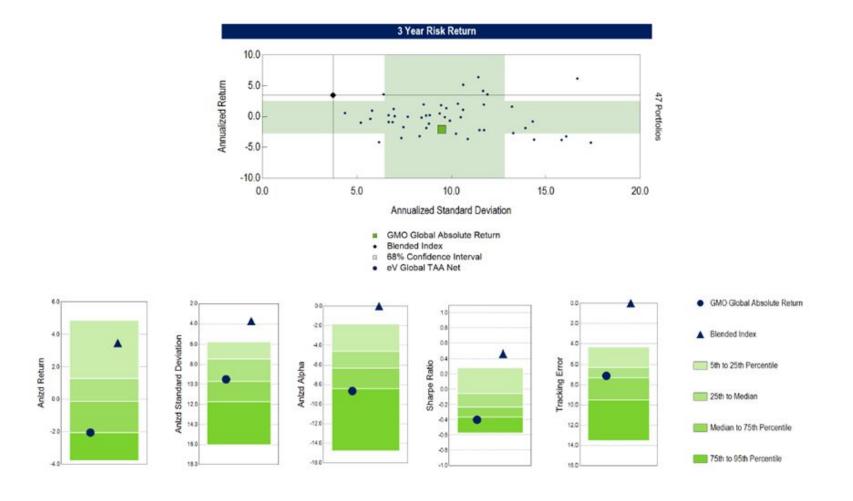


Source: Bain Capital

Note: Data as of 12.31.19

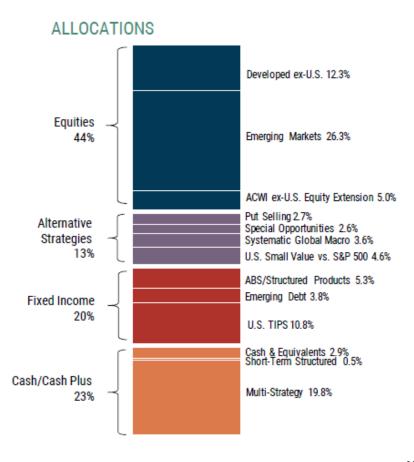








### **Strategy Composition**

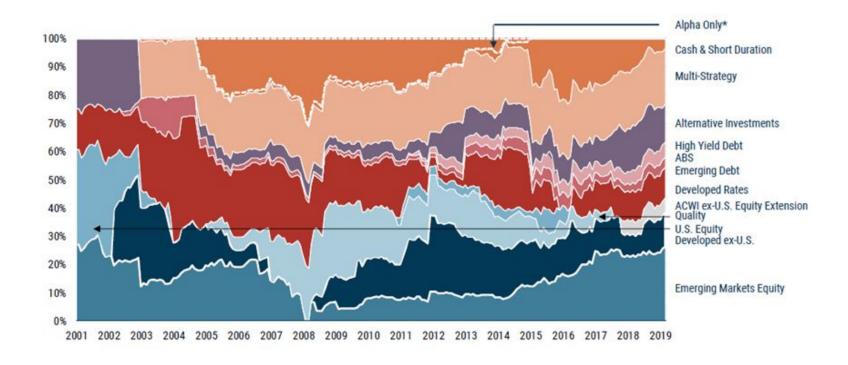


Source: GMO



Note: Data as of 12.31.19

### **Allocation History**

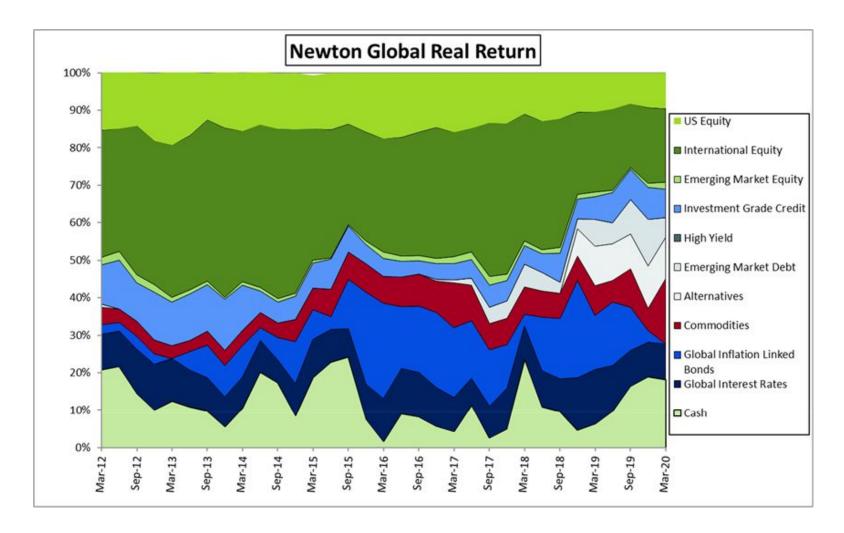


Source: GMO



Note: Data as of 12.31.19

### **NEWTON GLOBAL REAL RETURN**





Source: Newton

# LIGHTHOUSE GLOBAL LONG/SHORT

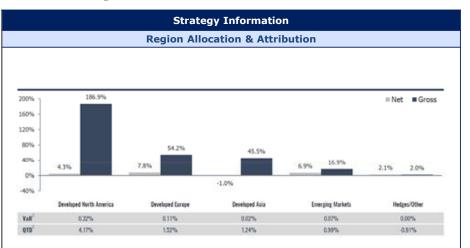
General Fund Information					
Fund Name	Lighthouse Global Long	Lighthouse Global Long/Short Fund			
Manageme nt Company	Lighthouse Investment	Lighthouse Investment Partners, LLC			
Location	Palm Beach, FL				
Firm AUM	\$13.3 billion <b>Strategy</b> Fund of Fund				
Fund AUM	\$1.1 billion Sub- Strategy Long/Short Equi				
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			

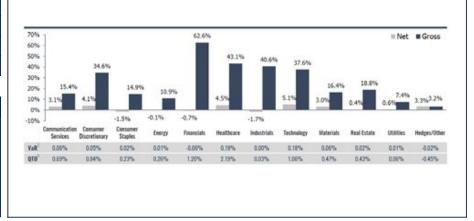
### **Investment Strategy**

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.



### Sector Allocation & Attribution





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

# LIGHTHOUSE GLOBAL LONG/SHORT



# LANDMARK EQUITY PARTNERS XV

General Fund Information					
Fund Name	Landmark Equity Partners	s XV			
General Partner	Landmark Partners				
Main Address	10 Mill Pond Lane, Simsb	ury, CT 06070			
Target Fund Size	\$2.5B	Expected Final Close	Up to 15 months after Initial Closing		
Capital Raised	\$3.25B	Closes to Date	Yes		
Investment Period	3-4 years	3-4 years Minimum Investment			
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 Strategy						
Investment Strategy	<ul> <li>Landmark XV's primary objective is to acquire interests in private equity investments through secondary transactions.</li> <li>Landmark will build a diversified portfolio of private equity partnership interests diversified by strategy, geography and vintage year.</li> <li>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.</li> </ul>						
Target Net Returns	Landmark aims to return a 1.6x-1.8x net multiple and a 15%- 20% net IRR	Direct or fund Fund of funds (secondary interest					
Investment Style	Secondary	Target Fund	May use up to 10% leverage on				
		Leverage	aggregate commitment amount				
Target Asset Types	Secondary investments in limited partnership interests	Target Geographies	Global (primary focus North America and Europe)				
		Target Deal No stated minimi or maximums					

Fur	nd Sourcing and Asset Management Capabilities
Sourcing Capabilities	<ul> <li>Reactive deal flow is attributed to inbound leads from limited partners, general partners and intermediaries - generally in the form of an auction.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>
Value Add	<ul> <li>Focus on sourcing exclusive transactions should on average produce pricing that is lower than the prices available in the auction channel.</li> <li>Strives to arrange preferred structures to protect downside while preserving commensurate upside participation.</li> <li>Proactive sourcing model allows the investment team more time and better access to data to conduct due diligence.</li> </ul>



# **APPENDIX**

NEPC, LLC —

### **GLOSSARY OF TERMS**

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

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

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

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

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

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

### Formula:

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

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

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

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

### Formula:

Calculation Average (X-Y)/Downside Deviation (X-Y) \* 2 Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills) **Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

### Formula:

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

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

### Formula:

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

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

 $Downside Capture = Total Return (Fund Returns)/Total Returns (BMR eturn) \ when Benchmark < 0$ 

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.



# FIRST QUARTER 2020 SUPPLEMENTAL PERFORMANCE



# UNIVERSITY OF MAINE SYSTEM PENSION PLAN

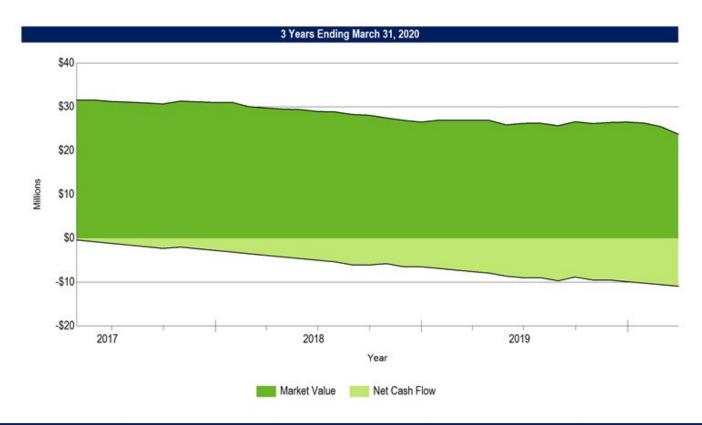
May 14, 2020

Jay E. Roney, Partner Kelly Regan, Senior Consultant



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

# **ASSET GROWTH SUMMARY**



	Quarter-To-Date	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$26,521,927	\$26,231,215	\$26,926,834	\$31,582,299
Net Cash Flow	-\$1,044,270	-\$1,942,441	-\$3,349,631	-\$10,931,671
Net Investment Change	-\$1,716,177	-\$527,294	\$184,277	\$3,110,852
Ending Market Value	\$23,761,480	\$23,761,480	\$23,761,480	\$23,761,480

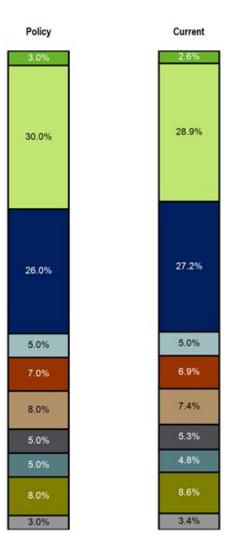


# **CASH FLOW SUMMARY**

	Quarter Ending March 31, 2020					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Bain Capital Senior Loan Fund	\$1,357,588	\$0	-\$1,685	-\$1,685	-\$166,224	\$1,189,679
BlackRock Strategic Income Opportunities	\$1,199,069	\$0	-\$1,566	-\$1,566	-\$68,301	\$1,129,203
Distribution Account	\$79,405	\$1,957,497	-\$1,221,670	\$735,826	\$286	\$815,517
Lighthouse	\$1,288,884	\$0	\$0	\$0	-\$37,724	\$1,251,161
Mondrian EM Small Cap	\$1,143,837	\$0	-\$357,082	-\$357,082	-\$178,327	\$608,428
Newton Global Real Return	\$1,945,713	\$0	-\$3,758	-\$3,758	-\$175,319	\$1,766,636
Principal	\$2,126,944	\$0	-\$100,000	-\$100,000	\$7,859	\$2,034,803
Vanguard Inflation-Protected Securities	\$942,397	\$0	-\$135,161	-\$135,161	\$15,626	\$822,862
Vanguard Short-Term Inflation-Protected Securities - VTSPX	\$921,872	\$0	-\$95,089	-\$95,089	-\$6,217	\$820,566
Vanguard Total Bond Market Index	\$7,149,324	\$0	-\$921,194	-\$921,194	\$227,316	\$6,455,446
Walter Scott Global Equity Fund	\$8,366,893	\$200,000	-\$364,561	-\$164,561	-\$1,335,152	\$6,867,180
Total	\$26,521,927	\$2,157,497	-\$3,201,767	-\$1,044,270	-\$1,716,177	\$23,761,480



# **ASSET ALLOCATION**



Asset Allocation vs. Target						
	Current	Policy	Current	Difference	Policy Range	Within Range
Emerging Markets Equity	\$608,428	3.0%	2.6%	-0.4%	0.0% - 7.0%	Yes
Global Equity	\$6,867,180	30.0%	28.9%	-1.1%	25.0% - 35.0%	Yes
Core Bonds	\$6,455,446	26.0%	27.2%	1.2%	20.0% - 30.0%	Yes
Bank Loans	\$1,189,679	5.0%	5.0%	0.0%	0.0% - 10.0%	Yes
TIPS	\$1,643,428	7.0%	6.9%	-0.1%	0.0% - 14.0%	Yes
Global Asset Allocation	\$1,766,636	8.0%	7.4%	-0.6%	5.0% - 13.0%	Yes
Hedge Funds	\$1,251,161	5.0%	5.3%	0.3%	0.0% - 10.0%	Yes
Absolute Return	\$1,129,203	5.0%	4.8%	-0.2%	0.0% - 10.0%	Yes
Real Estate	\$2,034,803	8.0%	8.6%	0.6%	0.0% - 10.0%	Yes
Cash	\$815,517	3.0%	3.4%	0.4%	0.0% - 10.0%	Yes
Total	\$23,761,480	100.0%	100.0%			

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



# **ASSET ALLOCATION**

Policy	Current	Look Through
3.0%	2.6%	0.7%
30.0%	28.9%	28.6%
		3.9%
26.0%	27.2%	27.7%
5.0%	5.0%	5.0%
7.0%	6.9%	6.9%
8.0%	7.4%	0.4% 0.74% 6.1%
5.0%	5.3%	4.8%
5.0%	4.8%	8.6%
8.0%	8.6%	1.3%
3.0%	3.4%	5.3%

	Asset Allocation		
	Policy	Current	Look Through
Large Cap Equity	-		0.7%
International Equity			28.6%
Emerging Markets Equity	3.0%	2.6%	3.9%
Global Equity	30.0%	28.9%	
Core Bonds	26.0%	27.2%	27.7%
Bank Loans	5.0%	5.0%	5.0%
TIPS	7.0%	6.9%	6.9%
Fixed Income - Emerging			0.4%
Global Bonds			0.7%
Global Asset Allocation	8.0%	7.4%	
Hedge Funds	5.0%	5.3%	6.1%
Absolute Return	5.0%	4.8%	4.8%
Real Estate	8.0%	8.6%	8.6%
Real Assets			1.3%
Cash	3.0%	3.4%	5.3%
Total	100.0%	100.0%	100.0%

Net Asset Allocation breaks out the exposure of GAA and Global Equity managers.

Asset class weights may not add up to 100% due to rounding.

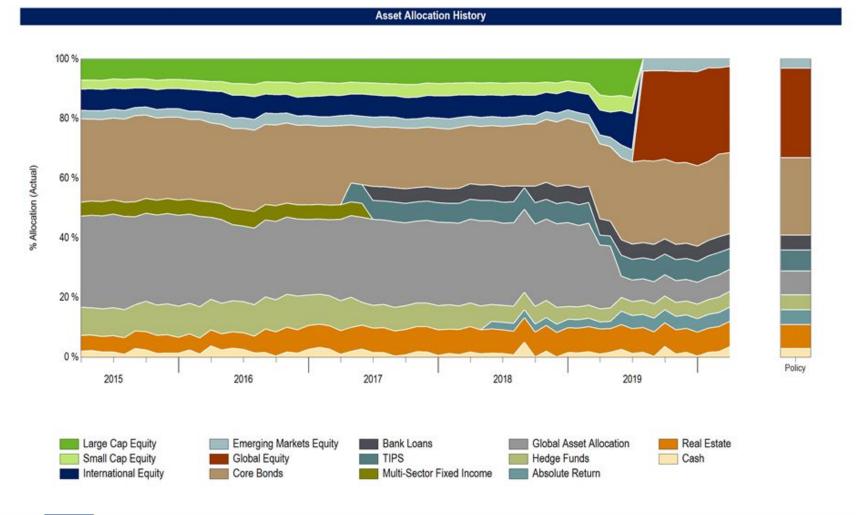
The 60% MSCI ACWI/40% CITI WGBI Index is broken down into the following categories: 34.0% Domestic Equities, 18.8% Int'l Equities, 7.2% Emerging Equities, 16.5% US Treasury Bonds, 11.9% European Government Bonds, 7.3% Japanese Debt, 2.1% United Kingdom Bonds and 2.3% Developing Markets Bonds.

Emerging Markets Equity bucket includes Emerging Markets Small Cap.

TIPS bucket includes: TIPS and Short Term TIPS.

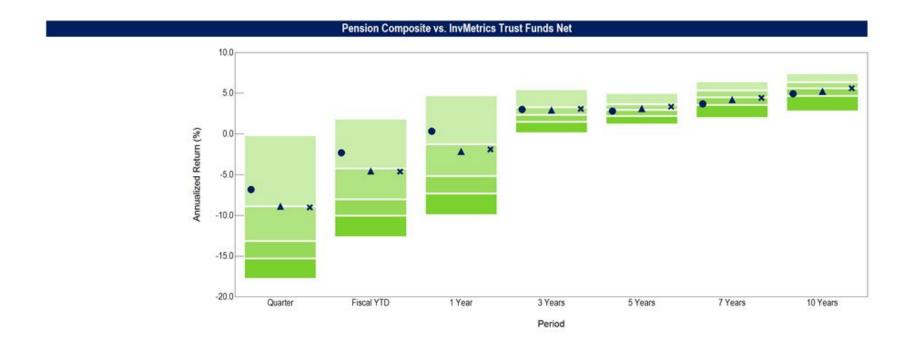


# **ASSET ALLOCATION HISTORY**





# **RETURNS VS. PEER UNIVERSE**



	Return (Rank)													
5th Percentile	-0.2		1.9		4.7		5.5		5.0		6.5		7.5	
25th Percentile	-8.9		-4.2		-1.2		3.3		3.7		5.4		6.4	
Median	-13.1		-8.0		-5.1		2.4		3.0		4.5		5.6	
75th Percentile	-15.3		-10.0		-7.3		1.5		2.2		3.6		4.7	
95th Percentile	-17.8		-12.7		-9.9		0.1		1.2		2.0		2.8	
# of Portfolios	1,700		1,682		1,673		1,561		1,417		1,267		1,058	
Pension Composite	-6.8	(20)	-2.3	(19)	0.3	(20)	3.0	(32)	2.8	(57)	3.7	(72)	4.9	(69)
Allocation Index	-8.9	(26)	-4.6	(26)	-2.1	(29)	2.9	(34)	3.1	(44)	4.2	(60)	5.2	(61)
Policy Index	-9.0	(26)	-4.6	(27)	-1.9	(28)	3.1	(31)	3.4	(35)	4.4	(53)	5.6	(51)



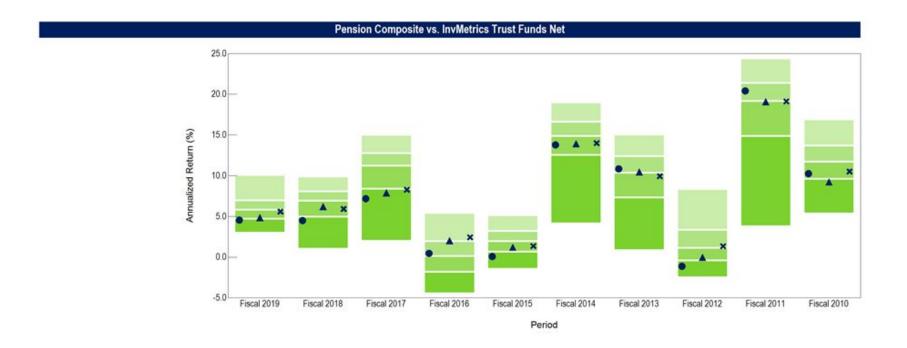
# **RETURNS VS. PEER UNIVERSE**



	Return (R	ank)																		
5th Percentile	22.8		0.7		18.0		9.4		2.1		11.2		20.6		14.8		7.4		15.1	
25th Percentile	20.1		-2.8		15.7		7.9		0.3		6.6		16.7		13.0		2.8		13.3	
Median	18.0		-4.4		14.1		6.7		-0.9		5.0		13.4		11.7		0.6		11.9	
75th Percentile	14.8		-5.8		11.4		5.3		-2.3		3.6		8.7		9.8		-1.0		10.0	
95th Percentile	6.7		-7.5		3.5		2.3		-4.2		1.5		0.3		4.3		-3.2		5.0	
# of Portfolios	3,295	3	3,627		2,518		2,446		2,339		2,007		1,709		1,539		1,403		1,326	
Pension Composite	13.6	(80)	-3.3	(32)	10.0	(80)	5.0	(80)	-1.1	(54)	3.2	(82)	11.8	(60)	13.7	(14)	-2.7	(92)	12.1	(47)
Allocation Index	14.0	(79)	-3.5	(35)	12.6	(67)	5.2	(77)	0.0	(32)	4.3	(64)	13.0	(53)	11.2	(60)	0.1	(57)	10.2	(73)
Policy Index	14.7	(76)	-3.5	(34)	12.4	(69)	6.1	(64)	-0.1	(34)	4.4	(62)	13.1	(52)	11.2	(60)	0.8	(47)	12.2	(47)



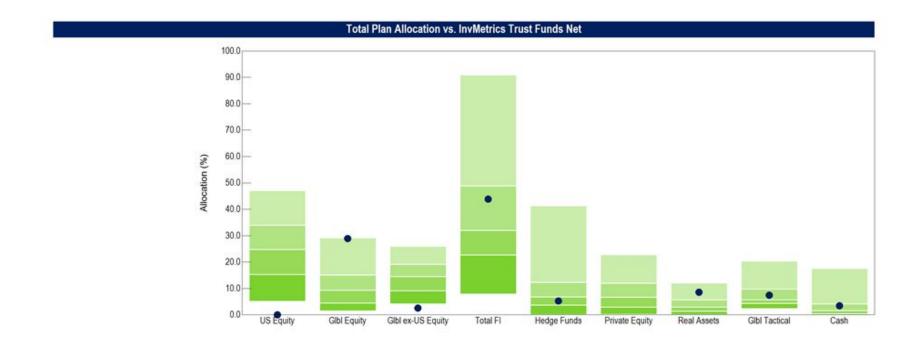
### **RETURNS VS. PEER UNIVERSE**



	Return (R	tank)																		
5th Percentile	10.1		9.9		15.0		5.4		5.1		19.0		15.0		8.4		24.4		16.9	
25th Percentile	7.0		8.1		12.8		2.0		3.3		16.6		12.4		3.4		21.4		13.7	
Median	5.9		7.0		11.2		0.1		2.0		14.9		10.4		1.2		19.2		11.7	
75th Percentile	4.7		5.0		8.4		-1.8		0.7		12.6		7.4		-0.4		14.9		9.6	
95th Percentile	3.0		1.0		2.0		-4.4		-1.4		4.2		0.9		-2.4		3.8		5.4	
# of Portfolios	3,804		2,424		2,780		2,289		2,198		1,565		1,828		1,431		1,362		1,279	
Pension Composite	4.6	(79)	4.5	(78)	7.2	(81)	0.5	(46)	0.1	(84)	13.8	(66)	10.8	(44)	-1.1	(86)	20.4	(36)	10.3	(70)
Allocation Index	4.9	(73)	6.2	(63)	7.9	(78)	2.0	(25)	1.2	(67)	13.9	(65)	10.5	(49)	0.0	(70)	19.1	(51)	9.2	(78)
Policy Index	5.6	(57)	5.9	(67)	8.3	(76)	2.4	(21)	1.4	(64)	14.0	(64)	9.9	(55)	1.3	(48)	19.1	(51)	10.5	(67)



### **ALLOCATIONS VS. PEER UNIVERSE**

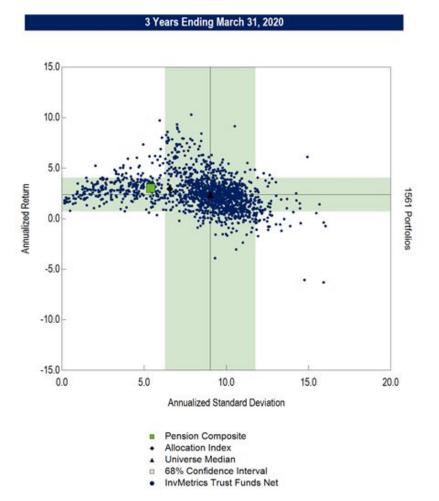


•	Pension Compos
	# of Portfolios
	95th Percentile
	75th Percentile
	Median
	25th Percentile
	5th Percentile

47.1		29.1		26.0		90.9		41.3		22.8		12.1		20.3		17.6	
34.0		15.1		19.2		49.0		12.4		12.1		5.8		9.9		4.3	
24.8		9.4		14.6		32.1		6.8		6.8		3.0		5.7		1.7	
15.4		4.6		9.2		22.7		3.8		3.0		1.4		4.5		0.5	
5.2		1.5		4.2		8.0		0.1		0.3		0.1		2.5		0.0	
872		338		1,026		1,311		382		417		236		174		1,137	
0.0	(99)	28.9	(6)	2.6	(99)	43.8	(30)	5.3	(62)	**	**	8.6	(15)	7.4	(36)	3.4	(30)



# **TOTAL PLAN RISK/RETURN - 3 YEAR**



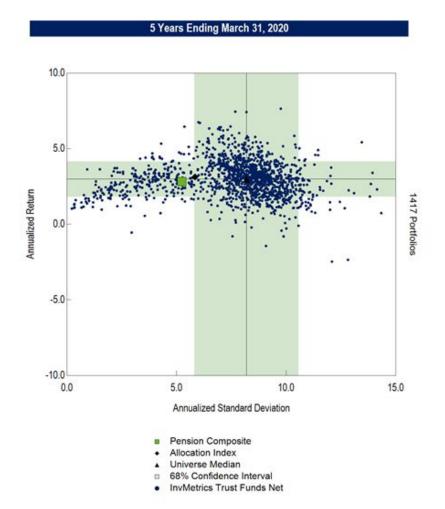
3	Years Ending Mar	ch 31, 2020		
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Pension Composite	3.0%	32	5.4%	16
Allocation Index	2.9%	34	6.6%	21
Policy Index	3.1%	31	6.6%	21
InvMetrics Trust Funds Net Median	2.4%	-	9.0%	

3 Years Ending March 31, 2020										
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank						
Pension Composite	0.2	25	0.2	25						
Allocation Index	0.2	31	0.2	31						
Policy Index	0.2	29	0.2	29						
InvMetrics Trust Funds Net Median	0.1	-	0.1							

<sup>\*</sup>Returns are net of fees.



# **TOTAL PLAN RISK/RETURN - 5 YEAR**



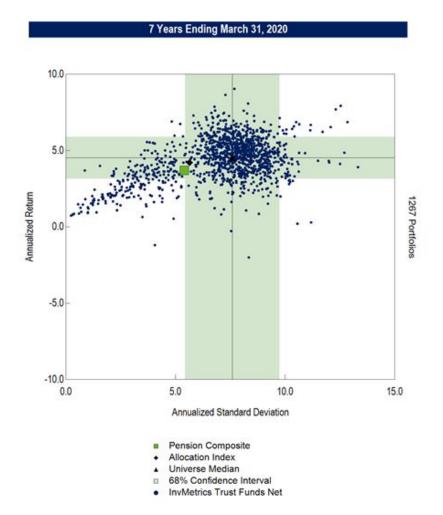
5 Years Ending March 31, 2020										
	Anlzd Ret	Rank	Anlzd Std Dev	Rank						
Pension Composite	2.8%	57	5.2%	17						
Allocation Index	3.1%	44	5.8%	19						
Policy Index	3.4%	35	5.9%	20						
InvMetrics Trust Funds Net Median	3.0%		8.2%							

5 Years Ending March 31, 2020										
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank						
Pension Composite	0.3	35	0.4	29						
Allocation Index	0.3	31	0.4	30						
Policy Index	0.4	27	0.4	25						
InvMetrics Trust Funds Net Median	0.2	-	0.3	-						

<sup>\*</sup>Returns are net of fees.



# **TOTAL PLAN RISK/RETURN - 7 YEAR**



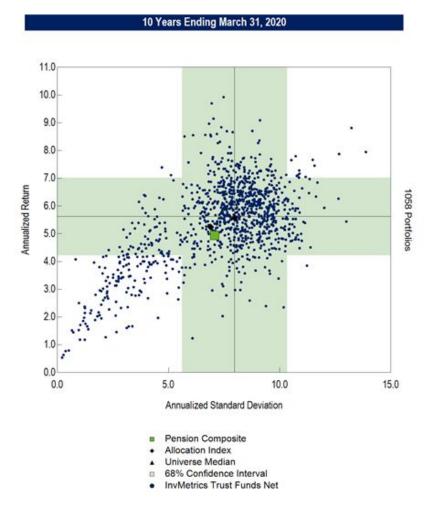
7	Years Ending Mar	ch 31, 2020		
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Pension Composite	3.7%	72	5.4%	19
Allocation Index	4.2%	60	5.6%	20
Policy Index	4.4%	53	5.7%	20
InvMetrics Trust Funds Net Median	4.5%		7.6%	

7 Years Ending March 31, 2020										
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank						
Pension Composite	0.5	48	0.7	25						
Allocation Index	0.6	33	0.7	26						
Policy Index	0.6	28	0.7	22						
InvMetrics Trust Funds Net Median	0.5	-	0.6	-						

<sup>\*</sup>Returns are net of fees.



# **TOTAL PLAN RISK/RETURN - 10 YEAR**



10	Years Ending Ma	rch 31, 2020	)	
	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Pension Composite	4.9%	69	7.1%	31
Allocation Index	5.2%	61	6.9%	29
Policy Index	5.6%	51	6.8%	27
InvMetrics Trust Funds Net Median	5.6%	-	8.0%	-

10 Years Ending March 31, 2020										
	Sharpe Ratio	Rank	Sortino Ratio RF	Rank						
Pension Composite	0.6	61	0.8	43						
Allocation Index	0.7	47	0.9	36						
Policy Index	0.7	33	1.0	22						
InvMetrics Trust Funds Net Median	0.7	-	0.8							

<sup>\*</sup>Returns are net of fees.



### **TOTAL PLAN PERFORMANCE DETAIL**

	Market Value (\$)	% of Portfolio	Policy %	3 Mo Fi (%)	iscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Pension Composite	23,761,480	100.0	100.0	-6.8	-2.3	0.3	3.0	2.8	3.7	4.9
Allocation Index				-8.9	-4.6	-2.1	2.9	3.1	4.2	5.2
Policy Index				-9.0	-4.6	-1.9	3.1	3.4	4.4	5.6
Total Global Equity	6,867,180	28.9	30.0	-16.6	-	-	-	-		
MSCI World				-21.1	-13.8	-10.4	1.9	3.2	5.8	6.6
Walter Scott Global Equity Fund	6,867,180	28.9	30.0	-16.6						
MSCI World				-21.1	-13.8	-10.4	1.9	3.2	5.8	6.6
Emerging Markets Equity	608,428	2.6	3.0	-23.0	-18.5	-21.1	-7.5	-5.7	-4.9	
MSCI Emerging Markets				-23.6	-18.2	-17.7	-1.6	-0.4	-0.4	0.7
Mondrian EM Small Cap	608,428	2.6	3.0	-23.0	-18.5	-21.1	-7.5	-5.7		
MSCI Emerging Markets Small Cap				-31.4	-28.3	-29.0	-9.6	-5.2	-3.5	-1.3
Total Fixed Income	10,417,756	43.8	43.0	-0.1	2.2	5.0	3.5	2.8	2.6	3.9
BBgBarc US Aggregate TR				3.1	5.7	8.9	4.8	3.4	3.2	3.9
Vanguard Total Bond Market Index	6,455,446	27.2	26.0	3.3	5.8	9.1	4.8	3.3		
BBgBarc US Aggregate TR				3.1	5.7	8.9	4.8	3.4	3.2	3.9
Vanguard Inflation-Protected Securities	822,862	3.5	3.5	1.9	3.9	6.8				
BBgBarc US TIPS TR				1.7	3.9	6.9	3.5	2.7	1.4	3.5
Vanguard Short-Term Inflation-Protected Securities - VTSPX	820,566	3.5	3.5	-0.7	0.8					
BBgBarc US TIPS 1-5 Yr TR				-0.7	0.7	2.5	1.6	1.6	0.7	1.6
BlackRock Strategic Income Opportunities	1,129,203	4.8	5.0	-5.8	-3.5	-0.9				
3-Month Libor Total Return USD				0.4	1.4	2.1	2.1	1.5	1.1	0.9
Bain Capital Senior Loan Fund	1,189,679	5.0	5.0	-12.4	-10.7	-9.3				
Credit Suisse Leveraged Loans				-13.2	-10.9	-9.5	-0.7	1.2	2.0	3.3
Total GAA	1,766,636	7.4	8.0	-9.2	-6.8	-2.2	1.5	1.3	1.9	3.3
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				-14.3	-9.0	-5.7	2.5	3.0	4.0	4.9
Newton Global Real Return	1,766,636	7.4	8.0	-9.2	-6.8	-2.9	1.6			
60% MSCI ACWI (Net) / 40% FTSE WGBI	, ,			-12.4	-7.6	-4.1	2.9	3.2	3.8	4.6
Total Alternative Investments	1,251,161	5.3	5.0	-2.9	2.3	5.0	2.7	1.8	2.6	2.2
HFRI Fund of Funds Composite Index	, , , ,			-7.3	-5.4	-3.9	0.5	0.3	1.8	1.9
Lighthouse	1,251,161	5.3	5.0	-2.9	2.3	5.0	3.4			
Credit Suisse Long Shrt Egt USD	,,,,,,			-11.2	-6.6	-5.4	1.4	1.1	3.5	3.6
Total Real Assets	2,034,803	8.6	8.0			***				
Principal	2,034,803	8.6	8.0	0.3	3.2	4.5	6.7	8.3	9.6	11.3
NCREIF ODCE	_,000,,000			1.0	3.8	4.9	6.8	8.5	9.9	11.4
Total Cash	815,517	3.4	3.0			***				
Distribution Account	815,517	3.4	3.0	0.1	0.9	1.4	1.4	0.8	0.6	0.4
91 Day T-Bills	010,011	<b>V.</b> 1	0.0	0.4	1.3	1.9	1.7	1.1	0.8	0.4

Fiscal YTD begins 7/1

Returns are net of manager fees. Lighthouse is preliminary as of 3/31/2020.



# WALTER SCOTT GLOBAL EQUITY FUND

### PORTFOLIO CHARACTERISTICS

	Portfolio
Number of Securities	49
Operating Margin	17.8%
ROE	18.9%
Net Debt to Equity	30%
P/E Ratio	21.2x
Dividend Yield	1.9%
Active Share	85%
Portfolio Turnover (12 months)	5%

Source: Walter Scott, Factset & MSCI. Portfolio Characteristics are subject to change and are based on a Walter Scott Global Equity representative portfolio as at 31/03/20.

Net Debt to Equity figure(s) exclude securities from the financial sector.

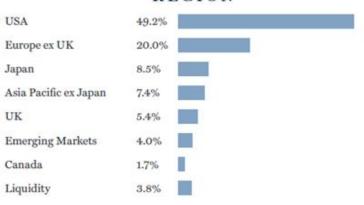
SECTOR

	SECTO	I
Information technology	28.1%	
Healthcare	22.5%	
Consumer discretionary	11.6%	1
Consumer staples	9.9%	
Industrials	8.3%	
Communication services	4.0%	
Materials	4.0%	
Financials	3.0%	
Energy	2.4%	
Utilities	2.4%	
Liquidity	3.8%	

#### TOP TEN STOCKS

Stock	% of portfolio
Microsoft Corporation	3.5
Keyence	3.3
Novo Nordisk	3.2
Roche	3.1
AIA Group	3.0
Taiwan Semiconductor	2.9
Mastercard	2.8
Adobe	2.7
Nestlé	2.5
Inditex	2.4

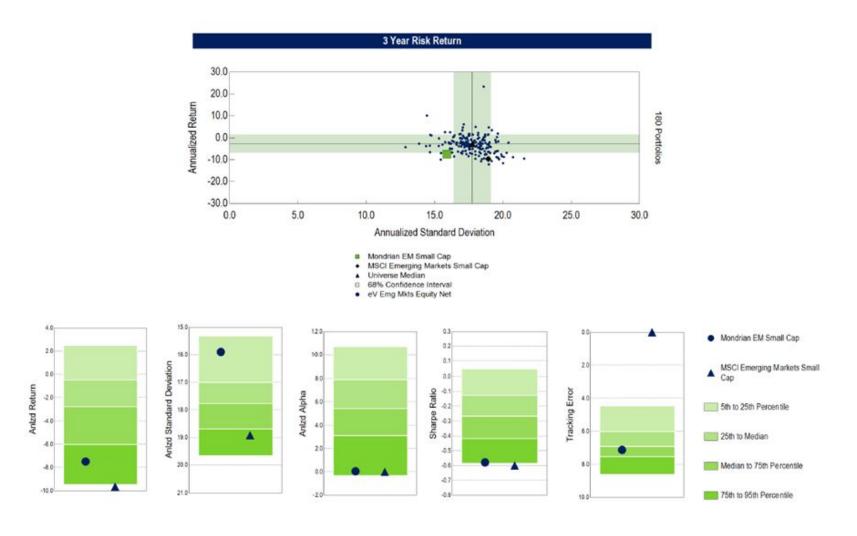
#### REGION













Characteristics		
	Portfolio	MSCI Emerging Markets Small Cap
Number of Holdings	109	1,644
Weighted Avg. Market Cap. (\$B)	1.4	1.0
Median Market Cap. (\$B)	0.9	0.5
Price To Earnings	15.4	10.1
Price To Book	2.9	2.2
Price To Sales	2.4	0.9
Return on Equity (%)	19.4	12.8
Yield (%)	2.6	3.8
Beta		1.0
R-Squared		1.0

Top Positive Contributors		
	Relative Contribution	Return %
	%	rectair 70
MICROPORT SCIENTIFIC	1.2%	91.0%
SHANGHAI PHICHEM MRA.'A'	0.3%	24.2%
AJANTA PHARMA	0.2%	32.3%
GREENTOWN SER.GP.	0.2%	11.0%
THUNDER SFTW.TECH.'A'	0.2%	14.2%
ABDULLAH AL OTHAIM MKTS.	0.1%	13.7%
LEENO INDUSTRIAL	0.1%	10.7%
CLEAR MEDIA	0.1%	8.9%
GRANULES INDIA	0.1%	10.3%
AREZZO INDUSTRIA E ON	0.1%	-55.3%

Top Negative Contributors Relative		
	Contribution %	Return %
LEMON TREE HOTELS	-0.9%	-67.6%
MONETA MONEY BANK	-0.7%	-45.2%
D&L INDUSTRIES	-0.7%	-48.1%
WILSON SONS BDR (BSP)	-0.7%	-50.8%
TEGMA GESTAO LOGISTICA ON	-0.7%	-57.4%
PHOENIX MILLS	-0.6%	-35.4%
VARUN BEVERAG	-0.6%	-29.5%
ASTER DM HEALTHCARE	-0.6%	-44.2%
KANSAI NEROLAC PAINTS	-0.5%	-29.9%
PVR	-0.5%	-41.0%

Equity Sector Attribution								
			Attribution Effects		Returns		Ending Sector \	Weights
	Total	Selection	Allocation	Interaction				
	Effects	Effect	Effect	Effects	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.5%	0.7%	0.1%	-0.2%	-9.3%	-41.0%	1.1%	2.0%
Materials	1.3%	1.2%	0.0%	0.1%	-19.7%	-31.6%	9.3%	11.1%
Industrials	2.6%	2.3%	-0.2%	0.6%	-20.0%	-37.0%	17.5%	12.9%
Consumer Discretionary	1.0%	0.8%	0.1%	0.2%	-32.9%	-40.0%	12.7%	12.5%
Consumer Staples	0.9%	0.3%	0.7%	-0.1%	-19.4%	-25.2%	15.1%	6.3%
Health Care	1.6%	0.4%	0.9%	0.3%	-7.2%	-13.9%	14.6%	10.9%
Financials	0.6%	0.0%	0.4%	0.2%	-40.7%	-38.4%	4.5%	8.6%
Information Technology	0.9%	1.8%	-0.3%	-0.6%	-13.0%	-23.8%	11.6%	18.1%
Communication Services	0.6%	0.5%	0.0%	0.0%	-14.6%	-28.5%	2.8%	4.0%
Utilities	0.1%	-0.1%	-0.1%	0.2%	-34.3%	-33.5%	2.9%	4.9%
Real Estate	0.2%	0.2%	0.1%	-0.1%	-34.3%	-34.9%	4.9%	7.6%
Cash	0.5%	0.0%	0.5%	0.0%	0.4%	-	2.5%	0.0%
Unclassified	0.0%	-	0.0%	-	-	-31.4%	0.5%	0.9%
Portfolio	10.8% =	8.1% +	2.0%	+ 0.7%	-20.6%	-31.4%	100.0%	100.0%



#### Sector Allocation

	Fund	MSCI EM SC
Communication Services	2.7	4.2
Consumer Discretionary	12.4	12.8
Consumer Staples	14.7	6.4
Energy	1.1	2.0
Financials	4.9	8.7
Health Care	16.5	11.0
Industrials	17.1	12.9
Information Technology	11.3	18.2
Materials	9.2	11.1
Real Estate	4.8	7.9
Utilities	2.8	4.9
Cash	2.4	-
TOTAL	100.0	100.0

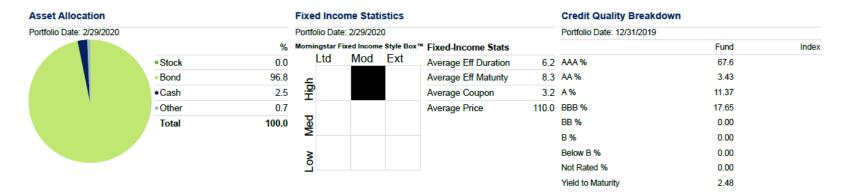
### **Country Allocation**

	Fund	MSCI EM SC
Latin America	8.0	11.3
Brazil Mexico Peru	3.8 2.2 2.0	7.1 2.4
Europe, Middle East & Africa	13.9	13.0
Czech Republic Estonia Kuwait Poland Saudi Arabia Slovenia South Africa UAE United Kingdom	1.0 1.2 1.6 2.7 4.1 0.5 0.7 1.3 0.8	0.1 - 1.0 3.0 - 3.4 0.6
Asia	75.7	75.8
North Asia	36.1	54.1
China/Hong Kong South Korea Taiwan	17.9 7.4 10.8	13.1 17.6 23.4
South Asia	39.5	21.2
India Indonesia Malaysia Philippines Thailand	25.9 4.1 3.2 4.2 2.1	12.4 1.4 3.2 0.8 3.5
Cash	2.4	-
TOTAL	100.0	100.0

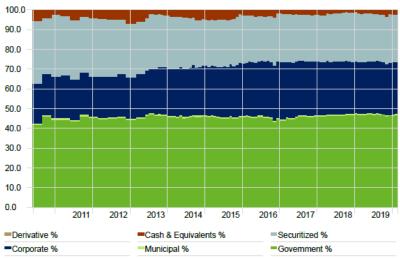


Source: Mondrian

### **VANGUARD TOTAL BOND MARKET I**



#### **Historical Sector Allocations (10 Years)**



#### Top Holdings

		Detail Holding	Portfolio Weighting %
		Туре	
	Vanguard Market Liquidity Inv	MUTUAL FUND - MONEY MARKET	2.53
	Federal National Mortgage Association 3%	BOND - GOV'T AGENCY PASS-THRU	0.52
Ц	United States Treasury Notes 2%	BOND - GOV'T/TREASURY	0.42
Ш	United States Treasury Bonds 2.38%	BOND - GOV'T/TREASURY	0.41
H	United States Treasury Notes 2.88%	BOND - GOV'T/TREASURY	0.39
Н	United States Treasury Notes 2%	BOND - GOV'T/TREASURY	0.39
Ц	United States Treasury Notes 1.62%	BOND - GOV'T/TREASURY	0.39
Ш	United States Treasury Notes 1.38%	BOND - GOV'T/TREASURY	0.38
П	United States Treasury Notes 2.12%	BOND - GOV'T/TREASURY	0.38
	United States Treasury Bonds 2.88%	BOND - GOV'T/TREASURY	0.37



### **VANGUARD TOTAL BOND MARKET I**

#### Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 4/1/2015 to 3/31/2020 Time Period: 4/1/2015 to 3/31/2020 Fund Index Vanguard Total Bond Market Index I 4.0 R2 99.8 100.0 ▲ BBgBarc US Agg Bond TR USD 3.0 Alpha -0.1 0.0 Beta 1.0 1.0 2.0 Std Dev 3.5 3.4 Up Capture Ratio 101.2 100.0 1.0 Down Capture Ratio 105.0 100.0 € 0.0 0.6 0.6 Sharpe Ratio (geo) Information Ratio (geo) -0.1 1.0 2.0 3.0 4.0 0.0 8 Tracking Error 0.2 0.0 Std Dev 1.0 1.0 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 8.0 4.5 4.0 6.0 3.5 4.0 3.0 2.5 2.0 2.0 Std Dev 0.0 Egg 1.5 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 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 2014 2015 2016 2017 2018 2019 2014 2016 2018 2019 2015 2017 -BBgBarc US Agg Bond TR USD -Vanguard Total Bond Market Index I -Vanguard Total Bond Market Index I -BBgBarc US Agg Bond TR USD Calendar Year Returns 2010 Rank 2011 Rank 2012 Rank 2013 Rank 2014 Rank 2015 Rank 2016 Rank 2017 Rank 2018 Rank 2019 Rank Vanguard Total Bond Market Index I 6.6 70 4.2 -2.167 30 28 2.6 55 30 33 7.7 11 5.9 0.4 3.6 0.0 8.7 BBgBarc US Agg Bond TR USD 6.5 7.8 4.2 -2.0 6.0 0.5 2.6 3.5 8.7 0.0



### **VANGUARD INFLATION PROTECTED SECURITIES**



#### **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 2011 2012 2013 2014 2015 2016 2017 2018 2019 Derivative % -Cash & Equivalents % Securitized % Corporate % -Municipal % Government %

#### Top Holdings

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	4.94
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.47
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.42
United States Treasury Notes 0.25%	BOND - GOV'T INFLATION PROTECTED	3.40
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.40
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	3.38
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	3.38
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.34
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.33
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	3.31

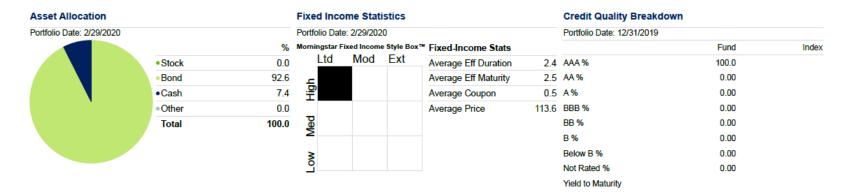


### **VANGUARD INFLATION PROTECTED SECURITIES**





### **VANGUARD SHORT-TERM TIPS**



#### **Historical Sector Allocations (10 Years)**

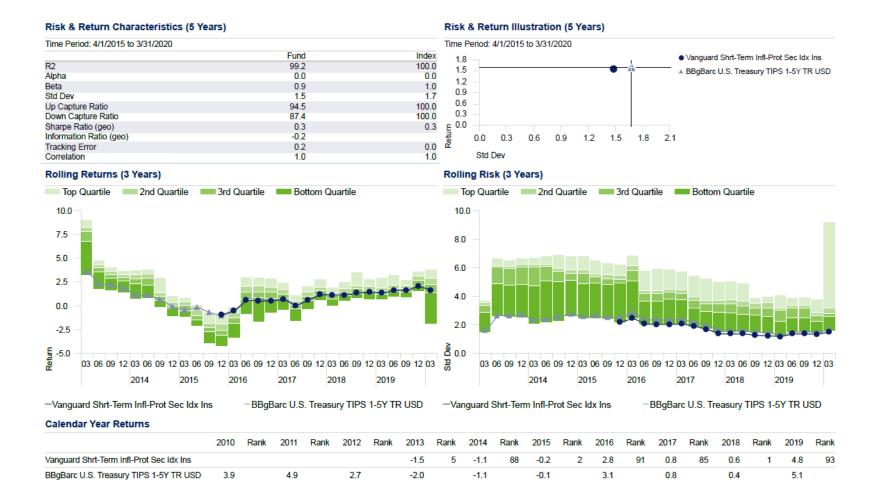


#### Top Holdings

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.51
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	6.49
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.44
United States Treasury Notes 0.38%	BOND - GOV'T INFLATION PROTECTED	6.40
United States Treasury Notes 0.25%	BOND - GOV'T INFLATION PROTECTED	6.35
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	6.34
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.31
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.26
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.25
United States Treasury Notes 0.12%	BOND - GOV'T INFLATION PROTECTED	6.08

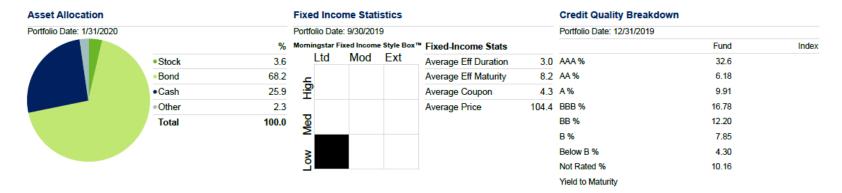


### **VANGUARD SHORT-TERM TIPS**

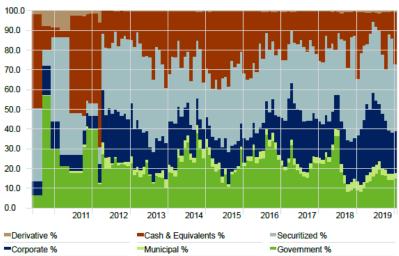




### **BLACKROCK STRATEGIC INCOME**



# **Historical Sector Allocations (10 Years)**



#### **Top Holdings**

	Holding Type	Portfolio Weighting %
United States Treasury Notes 0.5%	BOND - GOV'T INFLATION PROTECTED	5.28
BlackRock Liquidity T-Fund Instl	MUTUAL FUND - MONEY MARKET	1.73
India (Republic of) 7.17%	BOND - GOV'T/TREASURY	1.07
Government National Mortgage Association 3.5%	BOND - GOV'T AGENCY PASS-THRU	0.96
Indonesia (Republic of) 8.25%	BOND - GOV'T/TREASURY	0.57
Russian Federation 8.5%	BOND - GOV'T/TREASURY	0.52
Federal National Mortgage Association 4%	BOND - GOV'T AGENCY PASS-THRU	0.51
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	0.49
India (Republic of) 7.27%	BOND - GOV'T/TREASURY	0.46
China (People's Republic Of) 3.29%	BOND - GOV'T/TREASURY	0.46

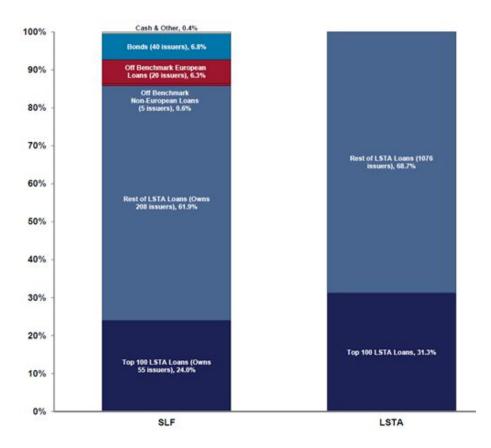


### **BLACKROCK STRATEGIC INCOME**

Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 4/1/2015 to 3/31/2020 Time Period: 4/1/2015 to 3/31/2020 Fund Index BlackRock Strategic Income Opps K 4.0 2.1 100.0 ▲ BBgBarc US Agg Bond TR USD Alpha 8.0 3.0 0.0 Beta -0.2 1.0 2.0 Std Dev 3.6 3.4 Up Capture Ratio 33.2 100.0 1.0 Down Capture Ratio 2.6 100.0 <u></u> 0.0 Sharpe Ratio (geo) 0.1 0.6 -0.3 Information Ratio (geo) 0.0 1.0 2.0 3.0 4.0 5.0 5.2 0.0 Tracking Error Std Dev Correlation -0.1 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 10.0 14.0 12.0 7.5 10.0 5.0 8.0 2.5 6.0 0.0 -2.5 2.0 -5.0 0.0 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 03 Std 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 2014 2015 2016 2017 2018 2019 2014 2015 2016 2017 2018 2019 -BlackRock Strategic Income Opps K -BBgBarc US Agg Bond TR USD -BBgBarc US Agg Bond TR USD -BlackRock Strategic Income Opps K Calendar Year Returns 2010 2011 Rank 2012 Rank 2013 Rank 2014 Rank 2015 2016 Rank 2017 Rank 2018 Rank 2019 Rank BlackRock Strategic Income Opps K -0.75.0 13.4 9.9 3.3 3.9 -0.3 3.7 37 -0.546 7.8 36 BBgBarc US Agg Bond TR USD 6.5 7.8 4.2 -2.0 6.0 0.5 2.6 3.5 0.0 8.7



### **BAIN CAPITAL SENIOR LOAN FUND**



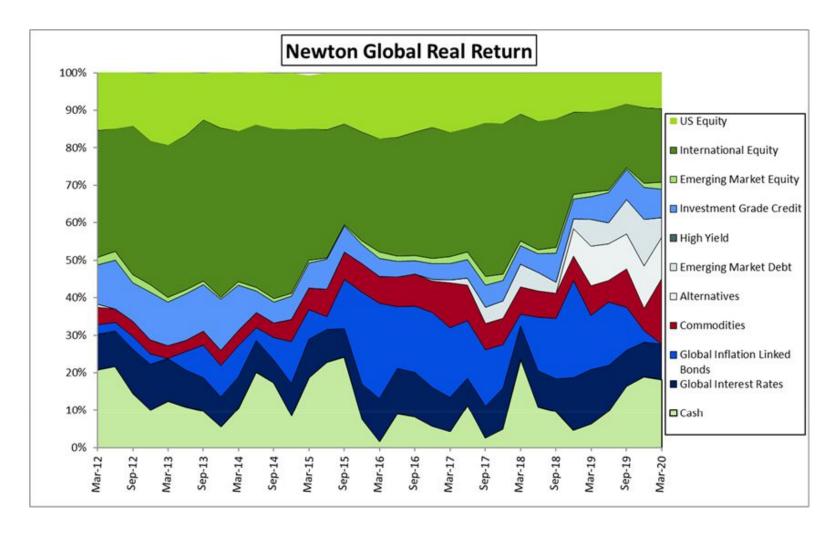
Top 5 Winners & Losers Winners					
Ascena Retail Group	5				
Hearthside Food Solutions	3				
La Financiere Atalian S.A.	3				
KIK Custom Products	3				
Travelport	2				
Rest of Winners	45				
Total Winners	61				
Losers					
Issuer	bps				
Algoma Steel	(29)				
Murray Energy	(11)				
Party City	(5)				
OGF	(4)				
NPC International	(3)				
Rest of Losers	(53)				
Total Losers	(105)				



Source: Bain Capital

Note: Data as of 12.31.19

### **NEWTON GLOBAL REAL RETURN**





Source: Newton

# LIGHTHOUSE GLOBAL LONG/SHORT

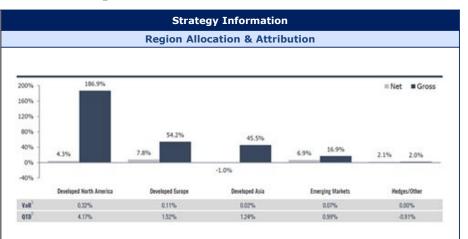
General Fund Information					
Fund Name	Lighthouse Global Long/Short Fund				
Manageme nt Company	Lighthouse Investment Partners, LLC				
Location	Palm Beach, FL				
Firm AUM	\$13.3 billion	Strategy	Fund of Fund		
Fund AUM	\$1.1 billion	Sub- Strategy	Long/Short Equity		
Portfolio Managers	Ethan Baron	Direct or FOF	FOF		

Terms					
Share Class					
Minimum Investment	\$1 million				
Managemen t 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				

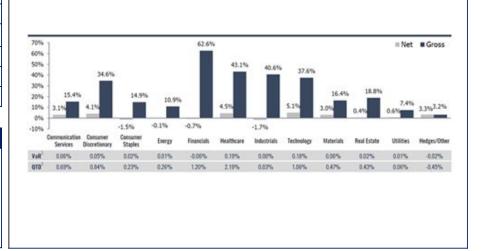
#### **Investment Strategy**

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.



#### Sector Allocation & Attribution





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

### LIGHTHOUSE GLOBAL LONG/SHORT





### PRINCIPAL U.S. PROPERTY

## 1Q2020 key statistics

Inception date January, 1982

Gross asset value \$10.36 billion

Net asset value \$8.08 billion

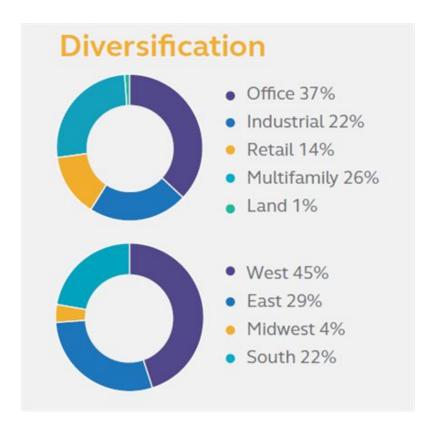
Number of investments 133

Number of markets 41

Core portfolio occupancy\* 96.4%

Cash to gross assets 1.9%

Leverage ratio\*\* 19.8%





Source: Principal

# **APPENDIX**

NEPC, LLC —

#### **GLOSSARY OF TERMS**

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

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

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

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

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

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

#### Formula:

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

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

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

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

#### Formula:

Calculation Average (X-Y)/Downside Deviation (X-Y) \* 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.

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

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

Data Source: InvestorForce



# INFORMATION DISCLAIMER AND REPORTING METHODOLOGY

#### **Information Disclaimer**

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

#### **Reporting Methodology**

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



# FIRST QUARTER 2020 SUPPLEMENTAL PERFORMANCE



# UNIVERSITY OF MAINE SYSTEM OPERATING FUND

May 14, 2020

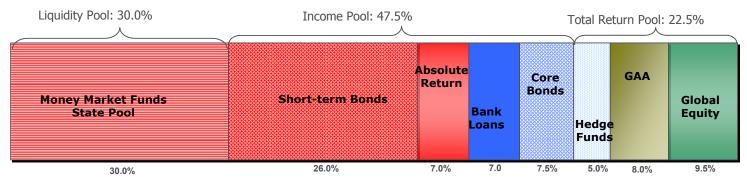
Jay E. Roney, Partner Kelly Regan, Senior Consultant



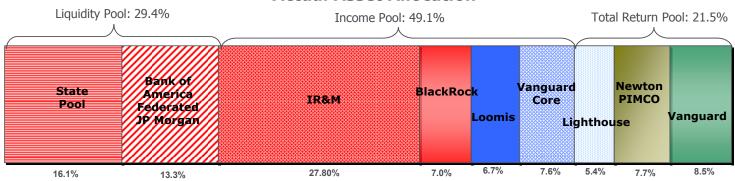
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

### **TOTAL FUND ASSET ALLOCATION**





#### Actual Asset Allocation



\*May not add up to 100% due to rounding



### **TOTAL PLAN PERFORMANCE DETAIL**

	Market Value (\$)	f Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Operating Funds Composite	279,389,407	100.0	100.0	-3.9	-1.4	0.6	1.9	1.8	1.8	2.3
Allocation Index				-3.0	-0.5	1.2	2.5	2.1	2.1	2.3
Liquidity Pool Composite	82,026,576	29.4	30.0	0.5	1.5	2.1	1.6	1.1	0.8	0.7
State Pool	44,936,144	16.1		0.6	1.7	2.3	1.8	1.2	0.9	0.7
BOA General Fund	5,030,600	1.8		0.1	0.3	0.7	0.6	0.3	0.3	
Federated Gov't Obligations	23,484,428	8.4		0.3	1.3	1.9	1.6	-		
JP Morgan US Gov't Money Market Fund	8,575,404	3.1		0.3	1.3	1.9	1.6	-		
FTSE T-Bill 3 Months TR				0.4	1.4	2.0	1.7	1.1	0.8	0.6
Income Pool Composite	137,275,839	49.1	47.5	-2.0	-0.2	1.7	1.9	1.9	1.8	2.4
Income Research + Management	77,606,176	27.8	26.0	0.3	1.7	3.1	2.1	1.7	1.5	
BBgBarc US Govt/Credit 1-3 Yr. TR				1.7	3.0	4.5	2.6	1.9	1.6	1.6
BlackRock Strategic Income Opportunities	19,592,214	7.0	7.0	-5.8	-3.5	-1.0	1.5	-		
3-Month Libor Total Return USD				0.4	1.4	2.1	2.1	1.5	1.1	0.9
Loomis Sayles Bank Loans	18,775,663	6.7	7.0	-11.6	-9.5	-8.1	-0.9	0.8	1.4	2.7
Loomis Bank Loans Custom Index				-10.9	-8.3	-6.6	-0.1	1.5	2.2	3.4
Vanguard Total Bond Market Instl' Fund	21,301,786	7.6	7.5	3.3	5.8	9.1	4.9	3.3	3.2	3.9
BBgBarc US Aggregate TR				3.1	5.7	8.9	4.8	3.4	3.2	3.9
Total Return Pool Composite	60,086,992	21.5	22.5	-14.7	-9.6	-6.8	1.0	1.8	2.4	3.8
Lighthouse	14,963,446	5.4	5.0	-2.9	2.3	5.0	3.4	_		
Credit Suisse Long Shrt Eqt USD				-11.2	-6.6	-5.4	1.4	1.1	3.5	3.6
Newton Global Real Return	11,066,146	4.0	4.0	-9.2	-6.8	-2.9	1.6	-		
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				-13.3	-8.2	-4.9	2.6	3.0	3.9	4.7
PIMCO All Asset	10,338,509	3.7	4.0	-16.0	-13.0	-10.6	-1.0	1.1	0.9	3.4
Blended Index				-2.9	0.1	3.3	3.5	3.4	3.2	4.5
Vanguard Total World Stock Index	23,718,891	8.5	9.5	-22.3	-15.3	-12.3	1.1	2.8	5.1	_
FTSE Global All Cap Index				-22.2	-15.1	-12.2	1.2	1.9	3.9	4.5

Returns are net of manager fees.

State Pool and Lighthouse market values are preliminary for March 31, 2020.

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

Fiscal YTD begins 7/1

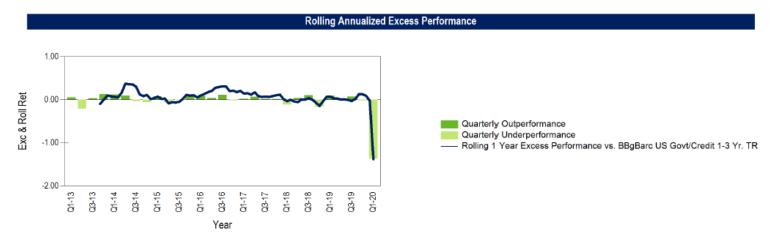
Blended Index: 40% BC Aggregate / 30% BC U.S. TIPS 1-10YR / 10% S&P 500 / 10% BC High Yield / 10% JPM EMBI+

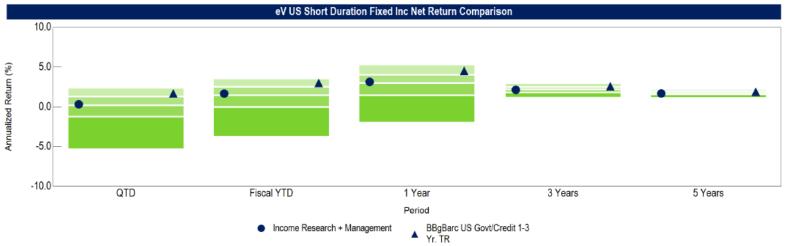
Loomis Bank Loans Custom Index blends performance of "S&P/LSTA Leveraged Loan Index" before 9/1/2014 and "S&P/LSTA Leveraged BB Loan Index" after 9/1/2014.

Composite excludes external loans.



### **INCOME RESEARCH + MANAGEMENT**

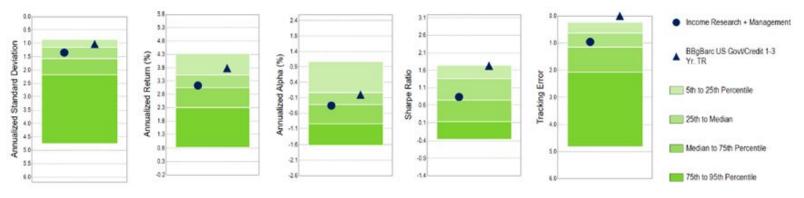






### **INCOME RESEARCH + MANAGEMENT**







### **INCOME RESEARCH + MANAGEMENT**





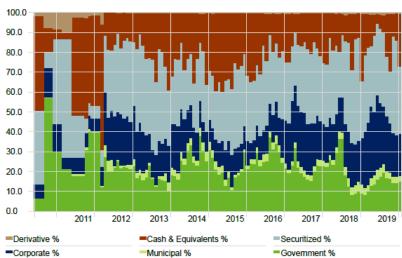




### **BLACKROCK STRATEGIC INCOME**

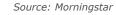


#### **Historical Sector Allocations (10 Years)**



#### **Top Holdings**

	Detail Holding Type	Portfolio Weighting %
United States Treasury Notes 0.5%	BOND - GOV'T INFLATION PROTECTED	5.28
BlackRock Liquidity T-Fund Instl	MUTUAL FUND - MONEY MARKET	1.73
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Federal National Mortgage Association 4%	BOND - GOV'T AGENCY PASS-THRU	0.51
United States Treasury Notes 0.62%	BOND - GOV'T INFLATION PROTECTED	0.49
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China (People's Republic Of) 3.29%	BOND - GOV'T/TREASURY	0.46





### **BLACKROCK STRATEGIC INCOME**

#### Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 4/1/2015 to 3/31/2020 Time Period: 4/1/2015 to 3/31/2020 Fund Index 4.0 BlackRock Strategic Income Opps K 2.1 100.0 ▲ BBgBarc US Agg Bond TR USD Alpha 3.0 0.8 0.0 Beta -0.2 1.0 2.0 Std Dev 3.6 3.4 100.0 Up Capture Ratio 33.2 1.0 100.0 Down Capture Ratio 2.6 0.0 E Sharpe Ratio (geo) 0.1 0.6 Information Ratio (geo) -0.3 1.0 2.0 3.0 4.0 5.0 0.0 Tracking Error 5.2 -0.1 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 10.0 14.0 12.0 7.5 10.0 5.0 8.0 2.5 6.0 0.0 -2.5 2.0 Std 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 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 2014 2015 2016 2017 2018 2019 2014 2015 2016 2017 2018 2019 -BlackRock Strategic Income Opps K -BBgBarc US Agg Bond TR USD -BlackRock Strategic Income Opps K BBgBarc US Agg Bond TR USD Calendar Year Returns 2010 Rank 2011 Rank 2012 2013 Rank 2014 Rank 2015 2016 Rank 2017 Rank 2018 2019 Rank -0.3 BlackRock Strategic Income Opps K 13.4 -0.79.9 3.3 3.9 3.7 5.0 37 -0.5 7.8 36 BBgBarc US Agg Bond TR USD 6.5 4.2 -2.0 0.5 2.6 3.5 0.0 8.7



# **LOOMIS SAYLES BANK LOANS**

HOLDINGS BY INDUSTRY	(%)
Media Entertainment	9.2
Technology	8.5
Building Materials	6.6
Consumer Cyclical Services	6.3
Industrials - Other	5.4
Consumer Products	4.5
Chemicals	4.2
Healthcare	4.2
Cable Satellite	4.2
Automotive	3.4
Pharmaceuticals	3.2
P&C	2.8
Food & Beverage	2.8
Restaurants	2.4
Financial Other	2.3

Gaming	2.1
Retailers	2.1
Aerospace/Defense	2.1
Transportation Services	1.9
Leisure	1.5
Electric	1.3
Environmental	1.3
Lodging	1.1
Packaging	1.0
Diversified Manufacturing	1.0
Home Construction	0.8
Refining	0.8
Internet & Data	0.8
Health Insurance	0.7
Banking	0.7

Retail REITS	0.7
Other Reits	0.7
Wireless	0.6
Finance Companies	0.6
Metals and Mining	0.6
Construction Machinery	0.5
Railroads	0.4
Brokerage	0.4
Midstream	0.4
Office Reits	0.3
Oil Field Services	0.3
Energy - Integrated	0.2
Cash & Equivalents	4.9
Cash & Equivalents	4

## CREDIT QUALITY (%)

2000	Portfolio	S&P/LST: Leveraged Loan Inde
AA	18	
A		
BBB	5.5	9.4
BB	51.1	23.9
В	36.6	58.2
CCC & Lower	2.0	6.8
Not Rated	-	1.7
Cash & Equivalents	4.9	
Second Lien		3.4
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 (%)

inancial Itility	Portfolio				
Industrial	84.6				
Financial	9.1				
Utility	1.3				
Cash & Equivalents	4.9				

### COUNTRY DISTRIBUTION (%)

THE RESIDENCE OF THE PERSON	
Canada	Portfolio
United States	90.3
Canada	2.9
Other	6.8

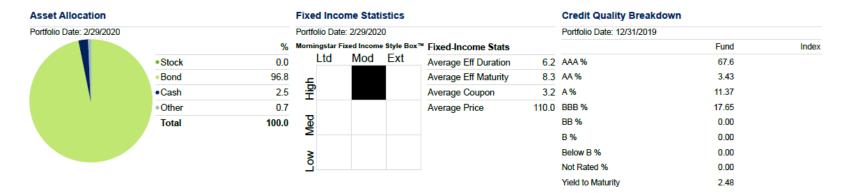
## TOP FIVE HOLDINGS (%)

	Portfolio
Burger King Corporation	1.3
Nielsen Finance LLC	1.0
CommScope, Inc.	1.0
Nomad Foods Europe Midco Limited	0.9
Virgin Media Bristol LLC	0.9

Source: Loomis Sayles



# **VANGUARD TOTAL BOND MARKET I**



#### **Historical Sector Allocations (10 Years)**

#### 100.0 90.0 0.08 70.0 60.0 50.0 40.0 30.0 20.0 10.0 2011 2012 2013 2014 2015 2016 2017 2018 2019 Derivative % -Cash & Equivalents % =Securitized % Corporate % -Municipal % =Government %

#### **Top Holdings**

	Detail Holding Type	Portfolio Weighting %
Vanguard Market Liquidity Inv	MUTUAL FUND - MONEY MARKET	2.53
Federal National Mortgage Association 3%	BOND - GOV'T AGENCY PASS-THRU	0.52
United States Treasury Notes 2%	BOND - GOV'T/TREASURY	0.42
United States Treasury Bonds 2.38%	BOND - GOV'T/TREASURY	0.41
United States Treasury Notes 2.88%	BOND - GOV'T/TREASURY	0.39
United States Treasury Notes 2%	BOND - GOV'T/TREASURY	0.39
United States Treasury Notes 1.62%	BOND - GOV'T/TREASURY	0.39
United States Treasury Notes 1.38%	BOND - GOV'T/TREASURY	0.38
United States Treasury Notes 2.12%	BOND - GOV'T/TREASURY	0.38
United States Treasury Bonds 2.88%	BOND - GOV'T/TREASURY	0.37



Source: Morningstar

# **VANGUARD TOTAL BOND MARKET I**

#### Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 4/1/2015 to 3/31/2020 Time Period: 4/1/2015 to 3/31/2020 Fund Index 4.0 Vanguard Total Bond Market Index I 99.8 100.0 Alpha BBgBarc US Agg Bond TR USD 3.0 -0.1 0.0 Beta 1.0 1.0 2.0 Std Dev 3.5 3.4 Up Capture Ratio 101.2 100.0 1.0 Down Capture Ratio 105.0 100.0 0.0 ع Sharpe Ratio (geo) 0.6 0.6 Information Ratio (geo) -0.1 2.0 4.0 0.0 1.0 3.0 Tracking Error 0.2 0.0 1.0 Std Dev Correlation 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 8.0 4.5 4.0 6.0 3.5 3.0 2.5 2.0 2.0 Std Dev 0.0 Refu 1.5 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 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 2014 2015 2016 2017 2018 2019 2014 2015 2016 2017 2018 2019 -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 2010 Rank 2011 Rank 2012 Rank 2013 Rank 2014 Rank 2015 Rank 2016 Rank 2017 Rank 2018 Rank 2019 Rank Vanguard Total Bond Market Index I 6.6 -2.130 0.4 28 62 30 8.7 33 70 7.7 4.2 5.9 2.6 3.6 0.0 BBgBarc US Agg Bond TR USD 6.5 7.8 4.2 -2.0 6.0 0.5 2.6 3.5 0.0 8.7



Source: Morningstar

# LIGHTHOUSE GLOBAL LONG/SHORT

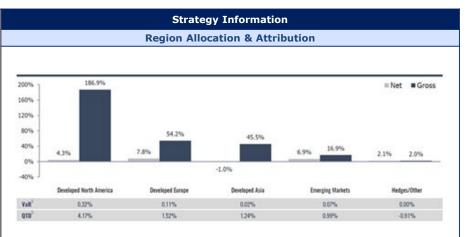
	General Fund	I Informatio	n								
Fund Name	Lighthouse Global Long	Lighthouse Global Long/Short Fund									
Manageme nt Company	Lighthouse Investment	Lighthouse Investment Partners, LLC									
Location	Palm Beach, FL	Palm Beach, FL									
Firm AUM	\$13.3 billion	Strategy	Fund of Fund								
Fund AUM	\$1.1 billion	Sub- Strategy	Long/Short Equity								
Portfolio Managers	Ethan Baron	Direct or FOF	FOF								

	Terms
Share Class	
Minimum Investment	\$1 million
Managemen t 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

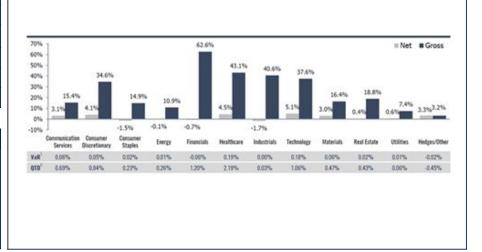
#### **Investment Strategy**

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.



#### Sector Allocation & Attribution





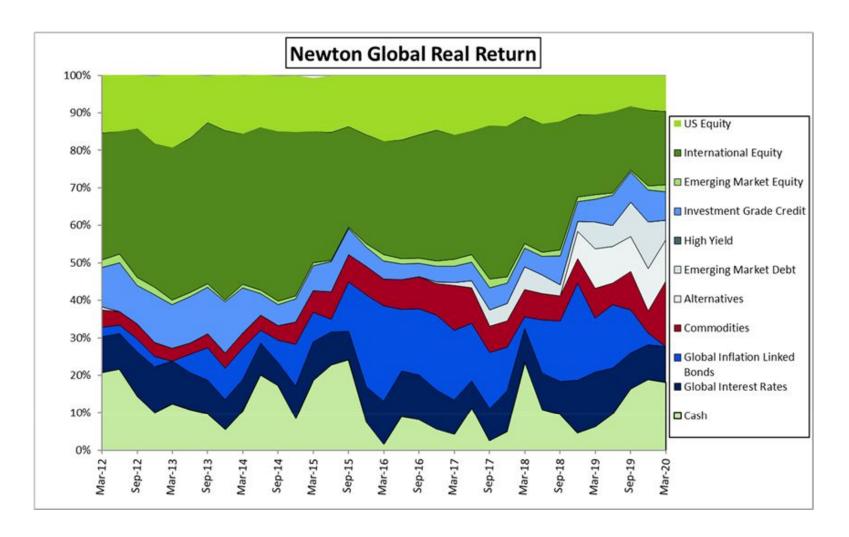
For more information please see NEPC's Investment Due Diligence Report and Operational Due Diligence Report

# LIGHTHOUSE GLOBAL LONG/SHORT





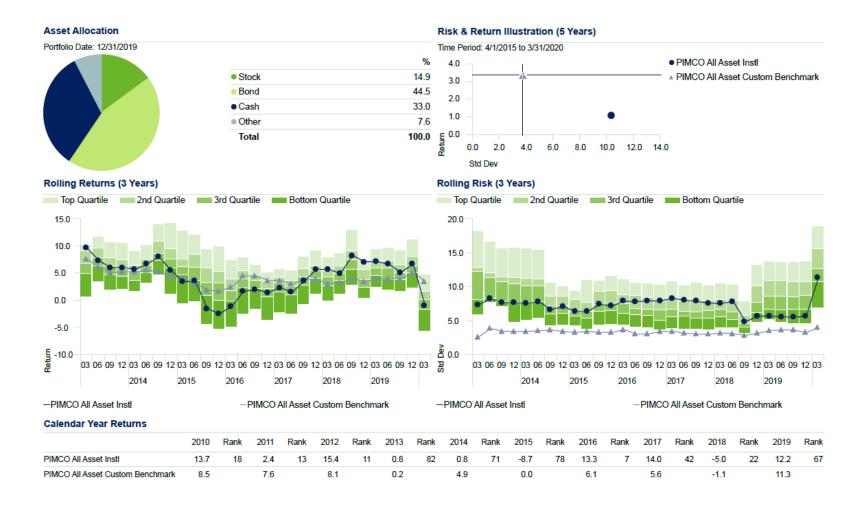
# **NEWTON GLOBAL REAL RETURN**





Source: Newton

# **PIMCO ALL ASSET**





Source: Morningstar

# **PIMCO ALL ASSET**

	All Asset Fund																
Total Fund Net Assets (\$US MM)	14,574.5																
	6/38/2014	12/31/2014	6/30/2015	12/31/2015	6/30/2016	12/31/2016	6/30/2017	12/31/2017	6/30/2018	12/31/2018	3/31/2019	6/30/2019	9/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/20
Third Pillar	78.71%	74.17%	85.75%	81,91%	81.04%	74.27%	70.05%	70.82%	74,15%	74.69%	79.97%	79.70%	79.83%	80.38%	79.13%	78.91%	77.513
Emerging Markets Equities	12,81%	11.83%	13.67%	14.11%	22.17%	18.77%	17.50%	17.76%	18.35%	22.87%	23.58%	24.91%	25.77%	26.19%	23.80%	22.56%	20.441
RAE Emerging Markets Fund		-			4.22%	4.63%	4.47%	5.33%	5.31%	6.68%	7.40%	8.70%	10.75%	11.36%			
IAE PLUS EMG Fund	5.99%	4.12%	4.73%	4.65%	6.11%	3.30%	3.70%	6.41%	9.14%	11.95%	11.07%	12.08%	10.54%	10.27%			
RAE Low Volatility PLUS EMG Fund	6.80%	7.70%	8.94%	9.46%	11.83%	10.74%	9.33%	5.76%	2.97%	3.30%	3.23%	2.84%	2.77%	2.79%			
EqS Emerging Markets Fund	0.02%	0.02%	-		The second				activities continu	-				1000			
RAFI Dynamic Multi-Factor EM Equity ETF					144.1			0.26%	0.92%	0.94%	0.97%	1.30%	1.69%	1.76%			
Commodities and REITs	8.76%	9.09%	0.56%	5.62%	6.53%	525%	8.29%	10.66%	10.41%	8.46%	0.42%	E.00%	E 03%	8.02%	7.73%	7.88%	9.03%
CommoditiesPLUS™ Strategy Fund	3.03%	3.06%	2.19%	1.68%	3.12%	3.47%	4.05%	5.38%	4.72%	3.25%	3.43%	3,70%	4.02%	4,40%			
CommodityRealReturn Strategy Fund®	1.00%	3.97%	2.18%	1.62%	0.89%	0.53%	1.05%	1.08%	1.10%	1.21%	1.04%	1.00%	0.98%	0.99%			
RealEstateRealReturn Strategy Fund	4.06%	2.86%	1.99%	2.23%	1.53%	1.26%	3.19%	4.20%	4.59%	4.02%	3.95%	3.36%	3.03%	2.62%			
Emerging Warkets Bonds	19.86%	18.03%	22.45%	20.83%	17.67%	19.97%	20.65%	20.11%	18.62%	17.72%	18.43%	15.47%	34,44%	13.94%	14.01%	14.19%	13.029
Emerging Local Bond Fund	7.42%	9.10%	9.79%	8.48%	6.94%	6.98%	8.76%	6.44%	5.70%	5.73%	4.42%	3.93%	2.95%	2.49%			
Emerging Markets Currency and Short-Term Investments Fund	7.10%	9.05%	12.29%	11.94%	10.73%	12.99%	13.80%	13.66%	12.92%	11.99%	11.00%	11.54%	11.49%	11.45%			
Imerging Markets Bond Fund	3.90%	0.47%	0.29%	0.32%	1000000	12.007	10.00.0	10.00	1000000	11.00	11,000	11,047,0	1010000	11,4474			
Emerging Markets Corporate Bond Fund	1.43%	0.20%	0.07%	0.09%									- 1				
redit	20.00	14215	15 22 10	15.32%	17.72%	17.46%	14.06%	12.40%	12.17%	A 16%	8.48%	7.36%	6.64%	5.00%	E 0.14L	5.12%	5.24%
ligh Yield Fund	1.11%	2.64%	2.88%	2.53%	2.90%	2.35%	1.01%	0.59%	0.58%	1.03%	1.06%	0.71%	0.00%	0.00%	100000	- Control of the Cont	Illinoisoble
ligh Yield Spectrum Fund	3.69%	2.90%	3.20%	3.84%	4.67%	4.04%	2.50%	1.55%	1.59%	1.59%	1.62%	1.40%	1.18%	0.97%			
ncome Fund	10.28%	6.21%	6.01%	6.34%	7.51%	7.63%	6.62%	6.27%	7.00%	5.54%	5.80%	5.25%	5.36%	4.92%			
Oversified Income Fund										TITOSITA							
ow Duration Income Fund	3.21%	0.10%	0.21%	0.24%	0.57%	0.49%	0.15%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
									Transport.								
Senior Floating Rate Fund	1.79%	2.30%	2.61%	2.07%	2.06%	2.34%	3.81%	3.99%	2.99%	0.00%	0.00%	0.00%	0.00%	0.00%			
Convertible Fund						-			167	-							
Suropean Convertible Fund					((4))	-						-		(A)			
Global Bends	1.21%	0.35%	1.07%	1,17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
nternational Bond Fund (Unhedged)	0.26%	0.30%	0.30%	0.29%	160	-	-			21		-	774	11.644			
Global Advantage Strategy Fund	0.95%	0.05%	0.76%	0.88%								-					
Global Bond Opportunities Fund (Unhedged)	400			17.0	0.000	4.0				4.5	- 1	- 10	///	(4.0			
nflation Linked Bonds	0.90%	2.73%	7.88%	7,50%	3.21%	3.85%	3.97%	3.76%	2.61%	1,93%	7.33%	6.73%	7.15%	7.09%	9.24%	9.79%	1.65%
Real Return Fund	0.29%	1.38%	1.29%	0.81%	0.18%	3.19%	3.53%	3.32%	2.16%	1.49%	1.26%	1.06%	1.27%	1.82%			
ong-Term Real Return Fund	0.53%	1.27%	6.50%	6.99%	2.91%	0.54%	0.44%	0.43%	0.44%	0.44%	6.07%	5.67%	5.88%	6.17%			
3lobal Advantage® Inflation-Linked Bond ETF	0.08%	0.08%	0.08%	0.10%	0.12%	0.12%			4					(4)			
Memative Strategies	13.34%	10.33%	19.09%	17.05%	14.74%	8.98%	5.65%	6.16%	12.00%	18.54%	16.74%	17.16%	17.91%	18.36%	19.32%	19.36%	19.025
lynamic Bond Fund	2.53%	1.79%	2.44%	2.08%	1.96%	-		7	00	1.58%	1.53%	1.49%	0.99%	0.97%			
Credit Opportunities Bond Fund	2.78%	0.76%	0.44%	0.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
Aortgage Opportunities and Bond Fund	0.55%	0.61%	0.66%	0.74%	0.78%	0.74%	0.72%	0.69%	0.71%	0.74%	0.71%	0.79%	0.82%	0.80%			
FRENDS Managed Futures Strategy Fund	0.16%	0.19%	0.20%	0.26%	0.29%	0.30%	0.28%	0.29%	0.29%	1.08%	1.02%	1.00%	1.01%	0.97%			
iqS Long/Short Fund	0.47%	0.49%	0.25%		1.00		-	- 1			+	- 2					
RAE Worldwide Long/Short PLUS Fund		3.08%	7.49%	7.96%	7.28%	5.73%	3.06%	3.03%	5.15%	6.25%	6.76%	6.40%	8.61%	6.62%			
RAE Fundamental Advantage PLUS Fund	2.62%	4.84%	3.75%	2.62%	2.20%	1.06%	1.59%	2.14%	5.85%	5.88%	6.72%	7.48%	8.48%	9.00%			
VAE Worldwide Fundamental Adv PLUS Fund	4.24%	4.57%	3.86%	3.16%	2.23%	1,15%											

Source: PIMCO



# **PIMCO ALL ASSET**

	6/30/2014	12/51/2014	6/30/2015	12/31/2015	(#30/2016	12/31/2016	6/30/2017	12/31/2017	6/30/2018	12/31/2018	3/31/2019	6/30/2019	9/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020
Second Pillar	9.05%	13.80%	6.15%	10.78%	10.63%	14.67%	20.07%	19.88%	19.91%	19.63%	13.93%	13.84%	14.06%	13.81%	15.02%	15.58%	12.44%
US Core Bonds	3.10%	4.58%	3.17%	3.66%	6.28%	4,68%	7.71%	7.21%	6.46%	4.17%	4.55%	4.16%	3.54%	3.48%	3.63%	3.81%	3.53%
Total Return Fund	3.07%	2.25%	1.39%	1.65%	3.41%	1.92%	4.44%	4.90%	4.25%	2.07%	2.49%	2.16%	1.83%	1.81%			
Investment Grade Credit Bond Fund	0.02%	2.34%	1.78%	2.01%	2.87%	2.76%	3.26%	2.30%	2.21%	2.09%	2.07%	2.00%	1.71%	1.66%			
Mortgage-Backed Securities Fund																	
GNMA and Government Securities Fund	-		-			-					-	-	1.				
US Long Maturity Bonds	4.82%	7.70%	1.52%	2.31%	2.65%	5.30%	8.63%	8.70%	8.22%	9.56%	5.11%	6.33%	6.74%	6.74%	7.48%	7.50%	4.83%
Extended Duration Fund					0.42%	1.51%	2.91%	3.13%	3.52%	4.61%	2.83%	3.47%	4.35%	4.10%			
Long-Term US Government Fund	0.27%	3.91%	0.00%	0.00%	1.18%	2.41%	4.42%	4.29%	3.45%	3.64%	0.97%	1.50%	1.62%	1.68%			
Long-Term Credit Bond Fund	4.20%	1.93%	0.57%	0.88%	0.27%	0.17%											
Long Duration Total Return Fund	0.35%	1.86%	0.95%	1.42%	0.68%	1.20%	1.30%	1.28%	1.20%	1.31%	1.31%	1.36%	0.76%	0.96%			
Short-Term Bonds	1.13%	1.52%	1.46%	4.81%	1.80%	4.69%	3.73%	3.97%	5.23%	5.91%	4.27%	3.35%	3.78%	3.59%	3.92%	3.67%	4.09%
Low Duration Fund	0.94%	0.53%	0.87%	1.54%	1.26%	2.44%	3.37%	3.34%	4.89%	5.33%	3,93%	3.01%	3.46%	3.02%			
Low Duration Exchange Traded Fund	0.20%	0.22%	0.24%	0.19%		-					- 2						
Short Term Fund	0.00%	0.00%				-											
Government Money Market Fund		0.80%	0.35%		0.54%	2.26%	0.37%	0.63%	0.34%	0.56%	0.34%	0.34%	0.32%	0.55%			
Money Market Fund				3.13%													
Net Short Duration Instruments	-0.01%	-0.02%	-0.01%	-0.04%	0.00%	-0.01%	-0.01%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.03%			
First Pillar	12.24%	12.03%	8.10%	7.32%	8.33%	11.06%	9.88%	9.30%	5.95%	5.68%	6.10%	6.46%	6.11%	5.81%	5.85%	5.51%	10.05%
US Equities	1.12%	4.03%	2.38%	1.53%	0.55%	0.28%	0.25%	0.27%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.93%
RAE PLUS Fund	0.03%	0.55%	0.21%												- AND COLUMN		I I I I I I I I I I I I I I I I I I I
RAE Low Volatility PLUS Fund	0.41%	2.70%	1.74%	1.21%	0.55%	0.25%	0.25%	0.27%	0.28%								
RAE PLUS Small Fund	0.65%	0.74%	0.43%	0.32%						- 2			10.	7.00			
StocksPLUS® Small Fund	0.02%	0.02%		7.6			-		100	- 2				020			
Fundamental IndexPLUS™		0.00%		17.27				12	1.0	2			102	77.27			
StocksPLUS® Fund	0.00%	0.00%												0.00			
StocksPLUS® Absolute Return Fund	0.01%	0.01%									-	-					
Developed ex-US Equities	11/12%	8.00%	5.73%	6.79%	7.78%	10.81%	9.62%	9.03%	6.67%	5.68%	6.10%	6.46%	6.11%	5.81%	5.85%	5.51%	9.07%
RAE PLUS International Fund	3.16%	3.01%	1.60%	1.51%	1.56%	2.51%	3.45%	3.43%	0.50%	0.91%	0.96%	1.33%	1.15%	1.18%			
RAE Low Volatility PLUS Intl Fund	5.73%	3.79%	4.13%	4.24%	3.35%	5.31%	2.50%	1.80%	1.83%	1.73%	1.92%	1.91%	1.86%	1.88%			
StocksPLUS® International Fund (USD-Hedged)	0.01%	0.01%	4.10.0	0.05%	2.58%	2.83%	2.94%	3.02%	3.08%	3.04%	3.21%	3.22%	3.11%	10000000			
StocksPLUS® International Fund (Unhedged)	0.02%	0.02%			0.29%	0.16%	0.73%	0.77%	0.26%					2.74%			
EqS Global Dividend Fund	0.01%	0.01%						10000000	Programme and the second	**				personal rep			
EqS Pathfinder Fund	2.19%	1.16%															

Source: PIMCO



# **VANGUARD TOTAL WORLD STOCK INDEX I**

			man (c	Years)	Po	ortfolio St	atistics	•			Market Capitalization	Breakdo	own	Top 10 Hold	ings			
ime P	eriod: 4/30	/2015 to 3	/31/2020						Fund	Index		Fund	Index				Portf Weight %	3 Mor
					# 0	of Holdings			8,406	7,135	Market Cap Giant %	44.2	40.2	Microsoft Corp			2.34	0
					96	Asset in Top	10 Hold	ings	11.2	10.8	Market Cap Large %	31.7	33.7	Apple Inc			2.32	-13
		10			Tu	mover Ratio	96		7.0		Market Cap Mid %	18.5	19.7	Amazon.com Inc			1.49	5
		-			P/E	E Ratio			17.0	12.7	Market Cap Small %	5.1	5.6	Facebook Inc A			0.88	-18
		_				B Ratio			2.0		Market Cap Micro %	0.5		Cmt Market Liqui			0.84	-10
					1000									AND DESCRIPTION OF THE PARTY OF			100000	3.
						Earn Growt			9.4	8.1	Average Market Cap (mil)	44,140.1 2	3,043.3	Alphabet Inc Clas	s C		0.79	-13
					His	st Earn Grov	wth		7.0	0.9				Alphabet Inc A			0.75	-13
					12	Mo Yield			2.9					JPMorgan Chase	& Co		0.69	-34
														Alibaba Group He	olding Ltd ADR	1	0.69	-6
														Johnson & Johns	on		0.68	-9
	rical Sec	tor Allo	cations	(5 Year	s)						Attribution (Quarter)	)	Po	ortfolio Benchma	rk Portfolio B	enchmark A	Viocation S	Selection A
0.0	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary	3	W	eights Weigh 8.12 10.86	-16.85 -23.25	enchmark A Return	Allocation S Effect	
0.0	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples		W	eights Weigh 8.12 10.86 7.57	-16.85 -23.25 -14.47			ALTERNATION CO.
0.0	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy		W	eights Weigh 8.12 10.86 7.57 4.58	-16.85 -23.25 -14.47 -44.84			
0.0	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy Financials		W	eights Weigh 8.12 10.86 7.57 4.58 15.72	-16.85 -23.25 -14.47 -44.84 -31.64			
0.0 -	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy		W	eights Weigh 8.12 10.86 7.57 4.58	-16.85 -23.25 -14.47 -44.84			
0.0	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy Financials Health Care		W	eights Weigh 8.12 10.86 7.57 4.58 15.72 11.36	-16.85 -23.25 -14.47 -44.84 -31.64 -11.55			
0.0 -	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy Financials Health Care Industrials Information Technology Materials		W	eights Weigh 8.12 10.86 7.57 4.58 15.72 11.36 10.90 17.18 4.84	s Return -16.85 -23.25 -14.47 -44.84 -31.64 -11.55 -27.00 -14.28 -27.70			
0.0 -	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy Financials Health Care Industrials Information Technology Materials Real Estate		W	eights Weigh 8.12 10.86 7.57 4.58 15.72 11.36 10.90 17.18 4.84 3.95	s Return -16.85 -23.25 -14.47 -44.84 -31.64 -11.55 -27.00 -14.28 -27.70 -25.89			CALLES CALL
00.0 - 0.0 - 0.0 - 0.0 - 0.0 - 0.0 -	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy Financials Health Care Industrials Information Technology Materials Real Estate Utilities		W	eights Weight 8.12 10.86 7.57 4.58 15.72 11.36 10.90 17.18 4.84 3.95 3.38	s Retum -16.85 -23.25 -14.47 -44.84 -31.64 -11.55 -27.00 -14.28 -27.70 -25.89 -15.01			ALTERNATION CO.
0.0 -	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy Financials Health Care Industrials Information Technology Materials Real Estate Utilities Unclassified		W	eights Weight 8.12 10.86 7.57 4.58 15.72 11.36 10.90 17.18 4.84 3.95 3.38 0.01	18 Return -16.85 -23.25 -14.47 -44.84 -31.64 -11.55 -27.00 -14.28 -27.70 -25.89 -15.01 -8.32			
00.0	rical Sec	tor Allo	cations	(5 Year	s)						Communication Services Consumer Discretionary Consumer Staples Energy Financials Health Care Industrials Information Technology Materials Real Estate Utilities Unclassified Attribution Total		W	eights Weight 8.12 10.86 7.57 4.58 15.72 11.36 10.90 17.18 4.84 3.95 3.38 0.01 98.46	s Retum -16.85 -23.25 -14.47 -44.84 -31.64 -11.55 -27.00 -14.28 -27.70 -25.89 -15.01			CALLES CALL
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Source: Morningstar

# **VANGUARD TOTAL WORLD STOCK INDEX I**

#### Risk & Return Characteristics (5 Years) Risk & Return Illustration (5 Years) Time Period: 4/1/2015 to 3/31/2020 Time Period: 4/1/2015 to 3/31/2020 Fund Index Vanguard Total World Stock Index I 4.0 R2 96.6 100.0 ▲ FTSE Global All Cap ex US TR USD 3.0 2.9 Alpha 0.0 Beta 0.9 2.0 1.0 Std Dev 15.8 16.5 1.0 102.6 Up Capture Ratio 100.0 0.0 77.9 100.0 Down Capture Ratio 0.1 1.0ء ع Sharpe Ratio (geo) -0.11.0 Information Ratio (geo) 6.0 9.0 12.0 15.0 18.0 21.0 Tracking Error 3.1 0.0 1.0 Std Dev Correlation 1.0 Rolling Return (3 Years) Rolling Risk (3 Years) Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile 22.5 25.0 20.0 15.0 15.0 10.0 0.0 5.0 0.0 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 gg 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 2015 2016 2017 2018 2019 2014 2015 2016 2017 2018 2019 2014 -Vanguard Total World Stock Index I -FTSE Global All Cap ex US TR USD -Vanguard Total World Stock Index I -FTSE Global All Cap ex US TR USD Calendar Year Returns 2010 2012 2013 Rank 2014 2016 2017 2019 Rank Rank 2011 Rank Rank 2015 Rank Rank 2018 Rank Vanguard Total World Stock Index I 13.1 -7.7 17.4 23.0 -1.9 18 24.2 -9.7 52 26.8 43 FTSE Global All Cap ex US TR USD 17.9 15.9 -14.4 13.2 -14.0-3.1-4.0 5.0 27.8 22.2



Source: Morningstar

# **APPENDIX**

NEPC, LLC —

# **GLOSSARY OF TERMS**

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

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

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

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

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

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

#### Formula:

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

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

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

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

#### Formula:

Calculation Average (X-Y)/Downside Deviation (X-Y) \* 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.

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

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

Data Source: InvestorForce



# INFORMATION DISCLAIMER AND REPORTING METHODOLOGY

#### **Information Disclaimer**

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

#### Reporting Methodology

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





# **AGENDA ITEM SUMMARY**

1. NAME OF ITEM: MSCI Environmental, Social and Governance (ESG) Update

2. INITIATED BY: Kelly A. Martin, Chair

3. BOARD INFORMATION: X BOARD ACTION:

4. OUTCOME: BOARD POLICY:

Primary Outcome: Section 709 - Investments

Enhance fiscal positioning

## 5. BACKGROUND:

Kelly Regan and Jay Roney of NEPC will provide a brief review of the enclosed ESG update at the May 14, 2020 Investment Committee meeting.

# **ESG REPORT**



# **UNIVERSITY OF MAINE SYSTEM**

May 14, 2020

Jay E. Roney, Partner Kelly Regan, Senior Consultant



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

# SUMMARY

NEPC, LLC —

# 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
- Incorporated ESG language into the Managed Investment Pool (MIP) investment policy statement in September 2016
- Periodically monitors fossil fuel exposure in the MIP
- Contracted with MSCI to complete an annual report to evaluate the MIP's equity and fixed income holdings with regards to ESG factors
- Evaluated managers who incorporate ESG considerations into their investment process during manager search review process
  - Bain Bank Loans, Kabouter International Small Cap, Walter Scott and JO Hambro are new managers that evaluate ESG in their investment process

# Additional information about the MIP portfolio is below:

Fifteen out of 17 investment managers are PRI signatories

# The following slides provide a summary of the MSCI ESG Report

- Overall the MIP's absolute ESG scores have improved versus last year
- However, in some areas, the MIP's scores declined on a relative basis versus benchmarks



# MIP PORTFOLIO SUMMARY

- The MIP Overall ESG Score improved by almost 70 points since monitoring ESG in 2017. Improvement in social and governance holdings were the drivers.
- The overall score of the MIP Portfolio is 5.81 which is in-line with the broad benchmark but falls below the ESG benchmark

		ent hmark	Client ESG Benchmark		UMS MIP 2020		UMS MIP 2019		UMS M	IP 2018	UMS MIP 2017	
Summary	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight
Weighted Average ESG Score	5.82	100%	6.64	100%	5.81	100%	5.62	100%	5.53	100%	5.14	100%
<b>Absolute Pillar Scores</b>												
Environment	5.35	24%	5.72	24%	5.30	23%	5.33	24%	5.37	26%	5.29	28%
Social	5.04	41%	5.44	41%	5.00	41%	4.97	40%	4.73	41%	4.33	42%
Governance	5.60	36%	5.90	36%	5.60	36%	5.68	36%	5.41	33%	5.28	30%

- The majority of the MIP's holdings are covered by MSCI Research (~87%)
- The analysis excludes Landmark (Private Investments)
- Scores are based on a scale from 0-10 with 10 being the best
- Client Benchmark is 70% MSCI ACWI/30% Barclays Aggregate
- Client ESG Benchmark is 70% MSCI ACWI ESG/30% Barclays Aggregate ESG



# **ENVIRONMENTAL SCORES**

	_	ent nmark		t ESG hmark	UMS M	IP 2020	UMS M	IP 2019	UMS M	IP 2018	UMS M	IP 2017
Key Issues - Environment	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight
Climate Change												
Carbon Emissions	7.15	3.6%	7.51	3.7%	6.77	3.9%	6.38	4.2%	6.52	3.9%	6.23	3.8%
Energy Efficiency	n/a	0.0%	n/a	0.0%	n/a	0.0%	n/a	0.0%	n/a	0.0%	7.26	0.9%
Insuring Climate Change	4.95	0.4%	5.72	0.4%	4.95	0.4%	4.42	0.4%	4.64	0.5%	4.60	0.6%
Product Carbon Footprint	6.21	1.3%	7.51	1.2%	6.10	1.2%	5.17	0.9%	6.01	1.5%	5.48	1.9%
<b>Environmental Opportunities</b>												
Clean Tech	4.72	3.3%	4.92	3.4%	4.40	4.0%	4.65	3.3%	4.83	4.8%	4.85	5.2%
Green Building	5.76	1.0%	6.17	0.9%	5.41	0.9%	5.19	1.0%	5.11	1.0%	5.62	1.1%
Renewable Energy	5.52	0.5%	5.73	0.5%	5.93	0.4%	5.62	0.3%	5.30	0.4%	5.34	0.5%
Natural Resource Use												
Biodiversity and Land Use	4.35	1.6%	4.88	1.5%	4.16	1.3%	3.82	1.8%	3.90	1.7%	3.31	2.0%
Financing Environmental Impact	6.30	1.7%	6.27	1.6%	5.13	0.8%	4.91	0.6%	5.21	0.6%	5.47	0.6%
Raw Material Sourcing	5.57	0.8%	6.05	1.0%	5.40	0.8%	5.51	0.7%	5.48	1.2%	5.35	1.7%
Water Stress	4.31	2.2%	4.84	2.0%	4.08	2.3%	5.55	1.9%	5.47	2.3%	5.61	2.4%
Waste Management												
Electronic Waste	4.13	0.2%	5.91	0.1%	4.74	0.2%	4.81	0.2%	4.84	0.3%	6.57	0.3%
Packaging Material & Waste	6.20	0.2%	7.48	0.2%	5.61	0.3%	5.48	0.2%	5.73	0.4%	6.39	0.5%
Toxic Emissions & Waste	4.88	2.7%	5.40	2.7%	4.81	2.8%	4.71	3.2%	4.76	3.6%	4.60	4.1%
Overall Environmental Score	5.47	19.3%	5.94	19.1%	5.18	19.3%	5.18	18.7%	5.27	22.1%	5.23	25.5%

- The overall Environmental score remained the same YOY
- Highlighted in green are factors where the MIP portfolio outperforms the broad benchmark
- Highlighted in green/blue are factors where the MIP portfolio outperforms both the ESG and broad benchmark



# **SOCIAL SCORES**

	_	ent hmark		t ESG hmark	UMS M	IP 2020	UMS M	IP 2019	UMS M	IP 2018	UMS M	IP 2017
Key Issues - Social	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight
Human Capital												
Controversial Sourcing	6.75	0.6%	6.82	0.5%	6.46	0.8%	6.64	0.8%	7.12	0.8%	6.24	0.9%
Health & Safety	5.58	2.3%	6.01	2.3%	5.55	2.6%	5.24	3.0%	5.39	3.2%	5.17	3.6%
Human Capital Development	4.48	9.1%	4.97	9.3%	4.23	9.3%	4.09	7.9%	4.19	8.1%	4.08	7.6%
Labor Management	4.13	4.5%	4.75	4.3%	4.42	4.9%	4.30	4.8%	4.18	4.6%	3.97	5.4%
Supply Chain Labor Standards	4.83	1.1%	5.12	0.8%	5.05	1.0%	5.01	1.1%	4.09	1.1%	4.04	1.7%
Product Safety												
Chemical Safety	4.17	1.1%	4.66	1.4%	4.05	1.3%	3.78	1.2%	3.31	1.9%	3.04	2.6%
Financial Product Safety	4.87	2.2%	5.05	2.2%	5.05	1.4%	4.70	1.3%	4.93	1.5%	4.56	1.5%
Insuring Health & Demographic Risk	4.51	0.4%	5.08	0.4%	4.30	0.4%	4.28	0.3%	4.29	0.4%	4.46	0.4%
Privacy & Data Security	5.50	6.3%	5.99	6.3%	5.44	6.5%	4.70	5.8%	4.29	5.8%	3.68	5.1%
Product Safety & Quality	3.73	3.9%	3.91	3.4%	4.28	5.0%	4.38	4.5%	3.98	4.9%	3.47	5.4%
Responsible Investment	5.53	0.9%	6.18	0.8%	5.43	0.9%	5.43	0.8%	5.38	0.9%	5.59	1.0%
Social Opportunities												
Access to Communications	6.04	0.4%	6.28	0.4%	5.56	0.3%	5.93	0.4%	5.84	0.5%	5.48	0.5%
Access to Finance	4.54	2.2%	4.64	2.2%	4.20	1.4%	4.28	1.5%	4.42	1.5%	4.41	1.6%
Access to Healthcare	5.25	0.6%	5.66	0.7%	4.97	0.8%	4.62	1.0%	4.76	1.1%	4.82	1.2%
Opportunities in Nutrition & Health	5.26	0.9%	5.37	1.2%	4.96	1.1%	4.84	0.8%	4.87	1.1%	4.94	1.2%
Overall Social Score	4.75	36.5%	5.16	35.9%	4.73	37.6%	4.55	35.2%	4.43	37.3%	4.15	39.7%

- Social factors have the highest weighting in the MIP portfolio. The overall Social score improved YOY.
- Highlighted in green are factors where the MIP portfolio outperforms the broad benchmark
- Highlighted in green/blue are factors where the MIP portfolio outperforms both the ESG and broad benchmark



# **GOVERNANCE SCORES**

	Client Benchmar			t ESG hmark	UMS MIP 2020		UMS MIP 2019		UMS MIP 2018		UMS MIP 201	
Key Issues - Governance	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight	Score	Weight
<b>Business Ethics</b>												
Anticompetitive Practices	3.63	0.7%	3.58	0.8%	3.61	0.4%	3.67	0.4%	3.49	0.5%	3.66	0.5%
Business Ethics & Fraud	3.38	0.8%	3.58	0.7%	3.51	0.6%	3.72	0.6%	3.42	0.6%	3.23	0.5%
Corruption & Instability	4.54	5.7%	5.32	5.3%	4.38	6.5%	4.24	6.5%	4.61	6.0%	4.70	5.8%
Corporate Governance												
Corporate Governance	5.73	17.8%	5.86	17.6%	5.90	16.2%	5.75	16.2%	5.30	16.3%	5.22	17.0%
Government & Public Policy												
Financial System Instability	3.63	2.0%	4.42	2.0%	4.20	1.3%	4.34	1.3%	4.37	1.5%	3.98	1.5%
Overall Governance Score	5.20	26.9%	5.34	26.3%	5.20	25.0%	5.20	24.9%	5.00	24.9%	4.96	25.2%

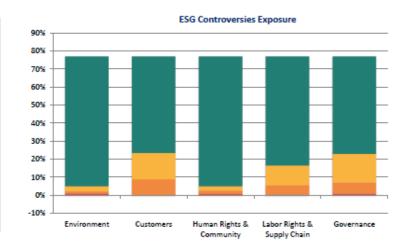
- Governance factor has the second largest weighting in the MIP portfolio and the score remained the same YOY and is in-line to the broad benchmark and slightly below the ESG benchmark.
- The biggest contributor to the score is Corporate Governance, the MIP portfolio outperforms both the broad and ESG benchmark.
- Highlighted in green are factors where the MIP portfolio outperforms the broad benchmark
- Highlighted in blue are factors where the MIP portfolio outperforms the ESG broad benchmark

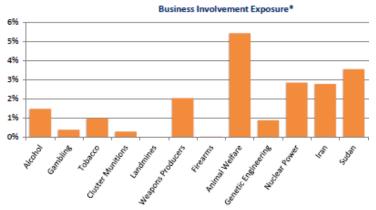


# CONTROVERSY AND BUSINESS INVOLVEMENT EXPOSURE

		GROSS PORTFOLIO	WEIGHT
Percentage of portfolio covered			76.69%
EXPOSURE OF ESG CONTROVERSIES COVERAGE			
		NET PORTFOLI	O WEIGHT
	Red	Orange	Yellow
Environment	0.85%	1.30%	2.80%
Customers	0.00%	8.82%	14.609
Human Rights & Community	0.58%	1.87%	2.50%
Labor Rights & Supply Chain	0.31%	5.24%	10.859
Governance	0.74%	6.22%	15.909

 Very low weights in the MIP Portfolio to highly (red) controversial companies. Environment and Human Rights controversy exposure is the lowest





- Animal Welfare is the most common business involvement and makes up 5% of the MIP portfolio (similar to 2019)
- 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.



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

# **FULL REPORT**

NEPC, LLC —

# **ESG Portfolio Analytics**

Prepared for: University of Maine System

Portfolio Name: UMS Managed Investment Pool

Benchmarked ESG Index: Client ESG Benchmark

Benchmarked Market Index: Client Benchmark

**December 31, 2019** 



<sup>\*</sup> 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**

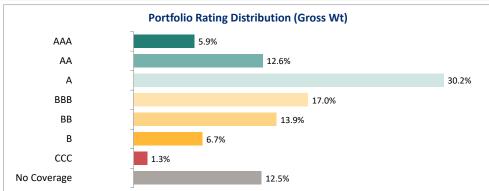
**UMS Managed** 

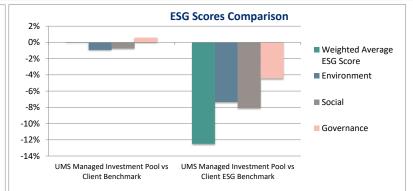
#### **University of Maine System - UMS Managed Investment Pool**

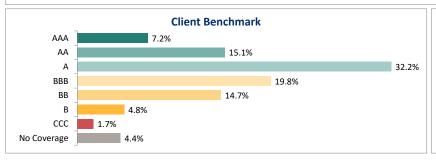
**UMS Managed** 

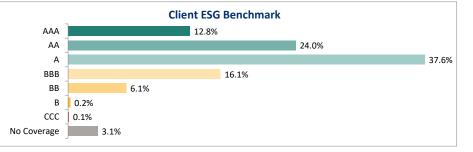
	Client B	enchmark	Client ESG	i Benchmark	UMS Managed	Investment Pool	1	nvestment Pool vs Client Benchmark	lı	nvestment Pool vs Client ESG Benchmark
SUMMARY	SCORE*	WEIGHT**	SCORE	WEIGHT	SCORE	WEIGHT		SCORE C	ОМРА	RISON
% Covered by ESG Research (Gross)		95.57%		96.86%		86.94%				
Weighted Average ESG Score	5.82	100.00%	6.64	100.00%	5.81	100.00%	$\leftrightarrow$	-0.05%	<b>\</b>	-12.50%
ABSOLUTE PILLAR SCORES										
Environment	5.35	23.61%	5.72	23.74%	5.30	22.95%	$\leftrightarrow$	-0.92%	<b>V</b>	-7.34%
Social	5.04	40.74%	5.44	40.52%	5.00	41.30%	$\leftrightarrow$	-0.74%	<b>V</b>	-8.08%
Governance	5.60	35.65%	5.90	35.74%	5.64	35.75%	$\leftrightarrow$	0.58%	$\leftrightarrow$	-4.44%

#### **ESG RATINGS**











<sup>\*</sup> 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

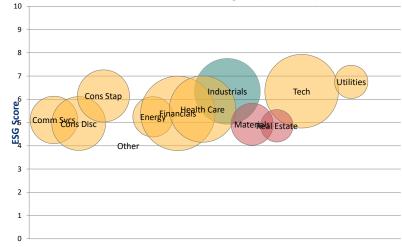
**UMS Managed** 

#### **University of Maine System - UMS Managed Investment Pool**

**UMS Managed** 

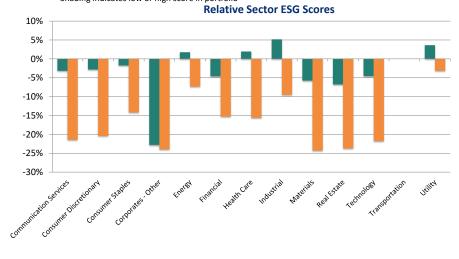
							11	nvestment Poo	ol I	Investment Pool
					UMS N	lanaged		vs Client		vs Client ESG
	Client Be	enchmark	Client ESG	Benchmark	Investme	ent Pool*		Benchmark		Benchmark
SECTOR ESG SCORES	SCORE	WEIGHT	SCORE WEIGHT		SCORE	WEIGHT	SCORE CO		OMPAF	RISON
Communication Services	5.28	6.20%	6.51	6.11%	5.11	5.82%	$\leftrightarrow$	-3.17%	<b>4</b>	-21.42%
Consumer Discretionary	5.10	7.66%	6.22	7.82%	4.96	7.46%	$\leftrightarrow$	-2.83%	4	-20.38%
Consumer Staples	6.25	6.05%	7.16	5.82%	6.14	7.00%	$\leftrightarrow$	-1.73%	$\downarrow$	-14.17%
Corporates - Other 1	5.18	0.10%	5.26	0.10%	4.00	0.00%	Ψ	-22.79%	$\downarrow$	-23.95%
Energy	5.16	4.38%	5.66	3.89%	5.25	4.21%	$\leftrightarrow$	1.75%	$\downarrow$	-7.34%
Financial	5.65	20.02%	6.37	19.78%	5.39	14.21%	$\leftrightarrow$	-4.61%	$\downarrow$	-15.27%
Health Care	5.47	8.01%	6.61	7.98%	5.58	11.33%	$\leftrightarrow$	1.95%	Ψ.	-15.59%
Industrial	6.03	8.23%	7.01	8.02%	6.34	11.04%	1	5.17%	Ψ.	-9.53%
Materials	5.23	3.94%	6.51	3.75%	4.93	4.58%	Ψ	-5.75%	Ψ.	-24.27%
Real Estate	5.21	2.90%	6.37	2.71%	4.86	2.74%	4	-6.77%	4	-23.70%
Technology	6.65	10.86%	8.11	10.81%	6.35	13.90%	$\leftrightarrow$	-4.57%	4	-21.76%
Transportation	4.87	0.07%	5.06	0.07%	N/A	0.00%		NA		NA
Utility	6.51	3.93%	6.97	3.96%	6.75	2.89%	$\leftrightarrow$	3.63%	$\leftrightarrow$	-3.19%
Overall	5.75	82.34%	6.74	80.80%	5.70	85.16%		-0.87%		-15.48%

#### Portfolio ESG Scores & Weights (Bubble size)



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

#### \*Shading indicates low or high score in portfolio



■ UMS Managed Investment Pool vs Client Benchmark

■ UMS Managed Investment Pool vs Client ESG Benchmark

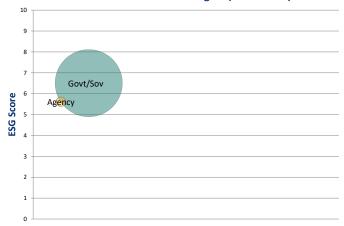


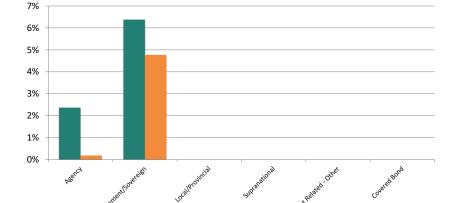
# Sector Breakdown - Government Related & Securitized

# MSCI ESG Portfolio Analytics University of Maine System - UMS Managed Investment Pool

		enchmark		Benchmark	UMS Ma	ent Pool		MS Managed vestment Poo vs Client Benchmark	ol Ir	JMS Managed nvestment Pool vs Client ESG Benchmark		
SECTOR ESG SCORES	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE COMPARISON		RISON		
Government Related												
Agency	5.49	0.82%	5.61	0.82%	5.62	0.31%	$\leftrightarrow$	2.37%	$\leftrightarrow$	0.19%		
Government/Sovereign	6.11	14.63%	6.21	15.99%	6.50	14.52%	1	6.38%	$\leftrightarrow$	4.77%		
Local/Provincial	7.06	1.01%	7.07	1.12%	N/A	0.00%		NA		NA		
Supranational	5.73	0.19%	5.83	0.20%	N/A	0.00%		NA		NA		
Government Related - Other	4.42	0.20%	4.52	0.19%	N/A	0.00%		NA		NA		
Securitized												
Covered Bond	6.72	0.81%	6.82	0.88%	N/A	0.00%		NA		NA		
Securitized - Other				rage of securitized asse have recourse to the is								
Overall	6.14	17.65%	6.24	19.19%	6.49	14.84%		5.57%		3.94%		

#### Portfolio ESG Scores & Weights (Bubble size)





**Relative Sector ESG Scores** 



<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Fiscal Investment & Loan Agency and Government Guaranteed.

 $<sup>^{\</sup>rm 3}$  Asset Backed Security and Mortgage Backed Security.

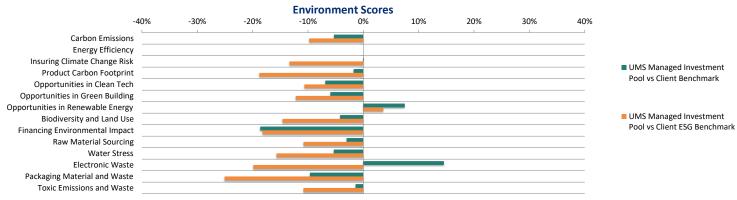
<sup>■</sup> UMS Managed Investment Pool vs Client Benchmark

<sup>■</sup> UMS Managed Investment Pool vs Client ESG Benchmark

# **ESG Ratings Key Issue Breakdown - Environment**

# MSCI ESG Portfolio Analytics University of Maine System - UMS Managed Investment Pool

	Client B	enchmark	Client ESG	Benchmark		lanaged ent Pool*		UMS Managed nvestment Poo vs Client Benchmark		UMS Managed Investment Pool vs Client ESG Benchmark
KEY ISSUE SCORES - ENVIRONMENT	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE C	OMPAR	RISON
Climate Change										
Carbon Emissions	7.15	3.59%	7.51	3.71%	6.77	3.94%	<b>1</b>	-5.31%	4	-9.80%
Energy Efficiency	N/A	0.00%	N/A	0.00%	N/A	0.00%		NA		NA
Insuring Climate Change Risk	4.95	0.41%	5.72	0.40%	4.95	0.44%	$\leftrightarrow$	0.10%	Ψ	-13.35%
Product Carbon Footprint	6.21	1.25%	7.51	1.20%	6.10	1.17%	$\leftrightarrow$	-1.76%	Ψ	-18.78%
<b>Environmental Opportunities</b>										
Opportunities in Clean Tech	4.72	3.29%	4.92	3.41%	4.40	3.97%	4	-6.87%	4	-10.65%
Opportunities in Green Building	5.76	1.04%	6.17	0.91%	5.41	0.92%	<b>4</b>	-5.95%	4	-12.21%
Opportunities in Renewable Energy	5.52	0.50%	5.73	0.49%	5.93	0.35%	1	7.49%	$\leftrightarrow$	3.59%
Natural Resource Use										
Biodiversity and Land Use	4.35	1.57%	4.88	1.47%	4.16	1.30%	$\leftrightarrow$	-4.21%	Ψ	-14.62%
Financing Environmental Impact	6.30	1.65%	6.27	1.59%	5.13	0.76%	4	-18.62%	Ψ	-18.22%
Raw Material Sourcing	5.57	0.81%	6.05	0.97%	5.40	0.83%	$\leftrightarrow$	-3.03%	4	-10.81%
Water Stress	4.31	2.16%	4.84	1.98%	4.08	2.26%	<b>4</b>	-5.33%	4	-15.68%
Waste Management										
Electronic Waste	4.13	0.22%	5.91	0.09%	4.74	0.21%	1	14.56%	Ψ	-19.89%
Packaging Material and Waste	6.20	0.20%	7.48	0.19%	5.61	0.27%	4	-9.65%	Ψ	-25.06%
Toxic Emissions and Waste	4.88	2.64%	5.40	2.67%	4.81	2.84%	$\leftrightarrow$	-1.40%	<b>\</b>	-10.83%
Overall IVA Environment Pillar	5.47	19.32%	5.94	19.08%	5.18	19.25%		-5.46%		-12.83%





# **ESG Ratings Key Issue Breakdown - Social**

# MSCI ESG Portfolio Analytics University of Maine System - UMS Managed Investment Pool

**UMS Managed** 

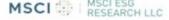
**UMS Managed** 

								Investment Poo	ol	Investment Pool
						UMS Managed		vs Client		vs Client ESG
		Client Benchmark	Clier	nt ESG Benchmark		nvestment Pool*		Benchmark		Benchmark
KEY ISSUE SCORES - SOCIAL	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE CON	<b>IPARIS</b>	NC
Human Capital										
Controversial Sourcing	6.75	0.62%	6.82	0.46%	6.4	0.76%	$\leftrightarrow$	-4.22%	<b>4</b>	-5.19%
Health and Safety	5.58	2.33%	6.01	2.27%	5.5	2.61%	$\leftrightarrow$	-0.57%	<b>V</b>	-7.66%
Human Capital Development	4.48	9.06%	4.97	9.25%	4.23	9.26%	1	-5.50%	<b>V</b>	-14.83%
Labor Management	4.13	4.45%	4.75	4.25%	4.4	4.88%	1	6.87%	<b>V</b>	-7.06%
Supply Chain Labor Standards	4.83	1.06%	5.12	0.80%	5.0	1.00%	$\leftrightarrow$	4.58%	$\leftrightarrow$	-1.32%
Product Safety										
Chemical Safety	4.17	1.12%	4.66	1.39%	4.0	1.30%	$\leftrightarrow$	-2.90%	<b>V</b>	-12.99%
Financial Product Safety	4.87	2.21%	5.05	2.17%	5.0	1.42%	$\leftrightarrow$	3.69%	$\leftrightarrow$	-0.02%
Insuring Health and Demographic Risk	4.51	0.41%	5.08	0.35%	4.30	0.42%	$\leftrightarrow$	-4.68%	<b>V</b>	-15.47%
Privacy and Data Security	5.50	6.34%	5.99	6.31%	5.4	4 6.50%	$\leftrightarrow$	-1.09%	<b>V</b>	-9.16%
Product Safety and Quality	3.73	3.89%	3.91	3.36%	4.2	5.00%	1	14.63%	<b>1</b>	9.55%
Responsible Investment	5.53	0.87%	6.18	0.79%	5.43	0.90%	$\leftrightarrow$	-1.73%	<b>V</b>	-12.06%
Social Opportunities										
Access to Communications	6.04	0.37%	6.28	0.36%	5.50	0.30%	_ ↓	-7.85%	<b>V</b>	-11.43%
Access to Finance	4.54	2.21%	4.64	2.19%	4.20	1.41%	_ ↓	-7.51%	<b>V</b>	-9.64%
Access to Health Care	5.25	0.61%	5.66	0.73%	4.9	7 0.80%	1	-5.30%	<b>4</b>	-12.18%
Opportunities in Nutrition and Health	5.26	0.92%	5.37	1.17%	4.9	5 1.07%	1	-5.82%	<b>4</b>	-7.64%
Overall IVA Social Pillar	4.75	36.45%	5.16	35.86%	4.73	37.61%		-0.35%		-8.31%



■ UMS Managed Investment Pool vs Client Benchmark

UMS Managed Investment Pool vs Client ESG Benchmark

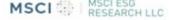


# **ESG Ratings Key Issue Breakdown - Governance**

# MSCI ESG Portfolio Analytics University of Maine System - UMS Managed Investment Pool

	Client Be	enchmark	Client ESG	Benchmark		Managed nent Pool*		UMS Managed nvestment Pool vs Client Benchmark	lı	UMS Managed nvestment Pool vs Client ESG Benchmark
KEY ISSUE SCORES - GOVERNANCE	SCORE	WEIGHT	SCORE	WEIGHT	SCORE	WEIGHT		SCORE (		RISON
Business Ethics										
Anticompetitive Practices	3.63	0.69%	3.58	0.75%	3.61	0.67%	$\leftrightarrow$	-0.76%	$\leftrightarrow$	0.64%
Business Ethics and Fraud	3.38	0.80%	3.58	0.68%	3.51	0.70%	$\leftrightarrow$	3.85%	$\leftrightarrow$	-1.89%
Corruption and Instability	4.54	5.69%	5.32	5.32%	4.38	6.37%	$\leftrightarrow$	-3.56%	<b>4</b>	-17.71%
Corporate Governance										
Corporate Governance	5.73	17.75%	5.86	17.55%	5.90	19.34%	$\leftrightarrow$	2.89%	$\leftrightarrow$	0.58%
Government and Public Policy										
Financial System Instability	3.63	1.97%	4.42	1.95%	4.20	1.25%	1	15.61%	$\leftrightarrow$	-4.96%
Overall IVA Governance Pillar	5.20	26.90%	5.52	26.25%	5.37	28.33%		3.17%		-2.80%

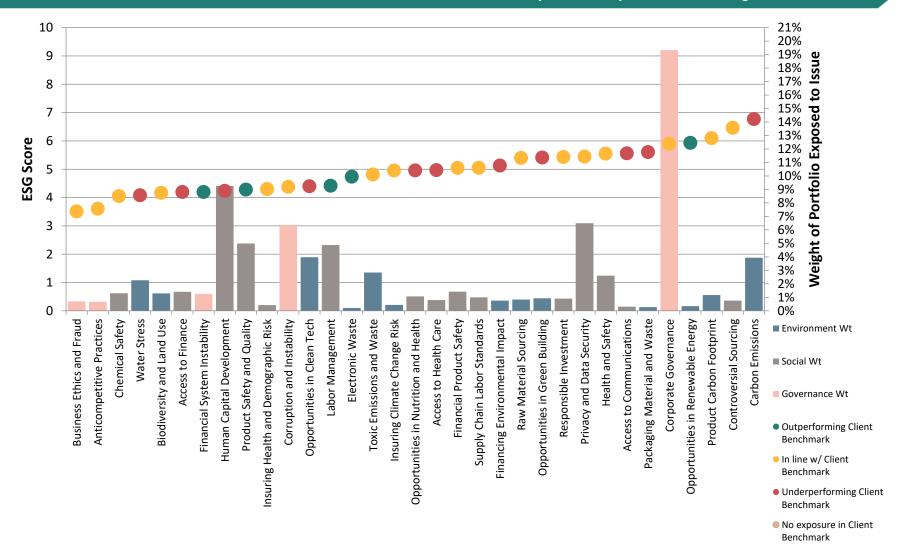
# Anticompetitive Practices Business Ethics and Fraud Corruption and Instability Corporate Governance Financial System Instability Governance Governance Scores -40% -30% -20% -10% 0% 10% 20% 30% 40% -40% UMS Managed Investment Pool vs Client Benchmark UMS Managed Investment Pool vs Client ESG Benchmark



# **ESG Ratings Key Issue Summary (Portfolio)**

**MSCI ESG Portfolio Analytics** 

#### **University of Maine System - UMS Managed Investment Pool**





Holdir	ngs Breakdown - Long Positions		University of Maine Syster	MSCI ESG Portfolio Analytic n - UMS Managed Investment Poo
.OWEST ES	G RATED POSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	WELLS FARGO & COMPANY	0.20%	Financial	CCC
2	VALE S.A.	0.09%	Materials	CCC
3	SUZUKI MOTOR CORPORATION	0.06%	Consumer Discretionary	CCC
4	OLYMPUS CORPORATION	0.06%	Health Care	CCC
5	GENERAL MOTORS COMPANY	0.06%	Consumer Discretionary	CCC
6	KEPCO PLANT SERVICE & ENGINEERING CO., LTD	0.05%	Industrial	CCC
7	INTERNATIONAL MEAL COMPANY ALIMENTACAO S.A	0.05%	Consumer Discretionary	CCC
8	TEGMA GESTAO LOGISTICA S.A.	0.05%	Industrial	CCC
9	ZIMMER BIOMET HOLDINGS, INC.	0.03%	Health Care	CCC
10	ANHUI CONCH CEMENT COMPANY LIMITED	0.03%	Materials	CCC
IIGHEST ES	SG RATED POSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	MICROSOFT CORPORATION	1.24%	Technology	AAA
2	SAP SE	0.39%	Technology	AAA
3	CAE INC.	0.30%	Industrial	AAA
4	TELEPERFORMANCE SE	0.26%	Industrial	AAA
5	RELX PLC	0.24%	Industrial	AAA
6	ACCENTURE PUBLIC LIMITED COMPANY	0.21%	Technology	AAA
7	FERGUSON PLC	0.16%	Industrial	AAA
8	AXA SA	0.14%	Financial	AAA
9	NVIDIA CORPORATION	0.14%	Technology	AAA
10	SALESFORCE.COM, INC.	0.14%	Technology	AAA
ARGEST P	OSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	MICROSOFT CORPORATION	1.24%	Technology	AAA
2	APPLE INC.	1.13%	Technology	A
3	UNITED STATES OF AMERICA	0.75%	Government/Sovereign	A
4	AMAZON.COM, INC.	0.71%	Consumer Discretionary	ВВ
5	AIA GROUP LIMITED	0.50%	Financial	ВВВ
6	FACEBOOK, INC.	0.48%	Communication Services	ВВВ
7	UNITED STATES OF AMERICA	0.48%	Government/Sovereign	A
8	BERKSHIRE HATHAWAY INC.	0.42%	Financial	ВВ
9	JPMORGAN CHASE & CO.	0.41%	Financial	ВВ
10	SAP SE	0.39%	Technology	AAA



# Holdings Breakdown - Short Positions University of Maine System - UMS Managed Investment Pool

LOWEST ES	G RATED POSITIONS IN PORTFOLIO			
RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	UNITED STATES STEEL CORPORATION	-0.003%	Materials	CCC
2	INTRADO CORPORATION	-0.005%	Industrial	В
3	CALUMET SPECIALTY PRODUCTS PARTNERS, L.P.	-0.001%	Energy	В
4	TENET HEALTHCARE CORPORATION	-0.01%	Health Care	ВВ
5	SPRINT CAPITAL CORPORATION	-0.01%	Communication Services	BB
6	< <no a="" below="" company="" rating="">&gt;</no>	-	-	-

RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	U.S. CONCRETE, INC.	-0.002%	Materials	A
2	< <no above="" bb="" company="" rating="">&gt;</no>	-	-	-

RANK	ISSUER NAME	PORTFOLIO WEIGHT	SECTOR	RATING
1	TENET HEALTHCARE CORPORATION	-0.01%	Health Care	BB
2	SPRINT CAPITAL CORPORATION	-0.01%	Communication Services	BB
3	INTRADO CORPORATION	-0.005%	Industrial	В
4	UNITED STATES STEEL CORPORATION	-0.003%	Materials	CCC
5	U.S. CONCRETE, INC.	-0.002%	Materials	A
6	CALUMET SPECIALTY PRODUCTS PARTNERS, L.P.	-0.001%	Energy	В
7	< <no company="" coverage="" in="" portfolio="" the="" with="">&gt;</no>	-	-	-



# **ESG Controversies Exposure**

MSCI ESG Portfolio Analytics
University of Maine System - UMS Managed Investment Pool

#### CORPORATE POSITIONS IN PORTFOLIO WITH THE MOST CONTROVERSY EXPOSURE

RANK*	SISSUER NAME	PORTFOLIO WEIGHT	SECTOR (GICS)	ENVIRONMENT	CUSTOMERS	HUMAN RIGHTS & COMMUNITY		GOVERNANCE
1	VALE S.A.	0.09%	Materials	•	•	•	•	•
2	FREEPORT-MCMORAN INC.	0.03%	Materials	•	•	•	•	•
3	VALE OVERSEAS LIMITED	0.00%	Materials	•	•	•	•	•
4	VALE OVERSEAS LIMITED	0.00%	Materials	•	•	•	•	•
5	BHP GROUP PLC	0.12%	Materials	•	•	•	•	•
6	BHP GROUP LIMITED	0.03%	Materials	•	•	•	•	
7	VOLKSWAGEN AG	0.01%	Consumer Discretionary	•	•	•	•	•
8	VOLKSWAGEN AG	0.01%	Consumer Discretionary	•	•	•	•	•
9	VOLKSWAGEN GROUP OF AMERICA FINANCE, LLC	0.01%	Consumer Discretionary	•	•	•	•	•
10	PORSCHE AUTOMOBIL HOLDING SE	0.00%	Consumer Discretionary	•	•	•	•	•

# ESG CONTROVERSIES COVERAGE

	GROSS PORTFOLIO WEIGHT
Percentage of portfolio covered	76.69%

#### **EXPOSURE OF ESG CONTROVERSIES COVERAGE**

	NET PORTFOLIC		
	Red	Orange	Yellow
Environment	0.85%	1.30%	2.80%
Customers	0.00%	8.82%	14.60%
Human Rights & Community	0.58%	1.87%	2.50%
Labor Rights & Supply Chain	0.31%	5.24%	10.85%
Governance	0.74%	6.22%	15.90%

#### **ESG Controversies Exposure** 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% -10% Labor Rights & Environment Customers Human Rights & Governance Supply Chain Community



<sup>\*</sup> Sorted by count of red, orange, then yellow flags, and then portfolio weight.

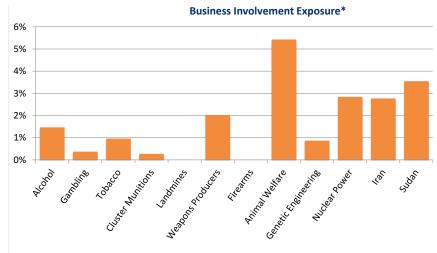
# **Business Involvement Screening Research**

# MSCI ESG Portfolio Analytics University of Maine System - UMS Managed Investment Pool

LARGEST C	ORPORATE POSITIONS WITH BUSINESS INVOLVEMENT EXPOSURE			
RANK	COMPANY NAME	PORTFOLIO WEIGHT	SECTOR (GICS)	BUSINESS INVOLVEMENT
1	BERKSHIRE HATHAWAY INC.	0.42%	Financial	Animal Welfare; Nuclear Power
2	SAMSUNG ELECTRONICS CO,.LTD	0.37%	Technology	Sudan
3	JOHNSON & JOHNSON	0.36%	Health Care	Animal Welfare
4	NOVARTIS AG	0.35%	Health Care	Sudan
5	RECKITT BENCKISER GROUP PLC	0.31%	Consumer Staples	Animal Welfare
6	GLAXOSMITHKLINE PLC	0.31%	Health Care	Animal Welfare
7	BAYER AKTIENGESELLSCHAFT	0.31%	Health Care	Animal Welfare; Genetic Engineering
8	CAE INC.	0.30%	Industrial	Weapons Producers
9	THE PROCTER & GAMBLE COMPANY	0.29%	Consumer Staples	Animal Welfare
10	EXXON MOBIL CORPORATION	0.28%	Energy	Animal Welfare

#### **BUSINESS INVOLVEMENT EXPOSURE ANALYSIS**

	NET PORTFOLIO WEIGHT
Alcohol	1.47%
Gambling	0.37%
Tobacco	0.96%
Cluster Munitions	0.27%
Landmines	0.00%
Weapons Producers	2.03%
Firearms	0.01%
Animal Welfare	5.43%
Genetic Engineering	0.87%
Nuclear Power	2.84%
Iran	2.77%
Sudan	3.55%



<sup>\*</sup> This is a subset of a wider range of business activities for which research is available.



# **Screen Definition**

# **MSCI ESG Portfolio Analytics**

# **University of Maine System - UMS Managed 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	<ul> <li>Companies that manufacture landmines whole systems or components.</li> <li>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.</li> <li>Companies that are 50 percent or more owned by a company with landmine involvement.</li> </ul>
Weapons Producers	<ul> <li>Companies that derive revenue from the production of biological or chemical weapons and related systems and components.</li> <li>Companies that derive 5% or more of revenues from the manufacture of conventional weapons and related systems and components.</li> <li>Companies that derive 2% or more of revenue from the production of nuclear weapons and related systems and components.</li> </ul>
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	<ul> <li>Global Sanctions - State of Florida Sudan</li> <li>Global Sanctions - Sudan Focus</li> <li>Global Sanctions - State of Illinois Sudan</li> <li>Global Sanctions - State of New Jersey Sudan</li> <li>Global Sanctions - State of Oregon Sudan</li> </ul>



**MSCI ESG Portfolio Analytics** 

### **University of Maine System - UMS Managed 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	~6,500 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.



MSCI ESG Portfolio Analytics

#### **University of Maine System - UMS Managed Investment Pool**

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# AGENDA ITEM SUMMARY

1. NAME OF ITEM: Investment Policy Statements Update

2. INITIATED BY: Kelly Martin, Chair

3. BOARD INFORMATION: BOARD ACTION: X

# 4. BACKGROUND:

NEPC and Staff have reviewed the Investment Policy Statements (IPS) for the Managed Investment Pool, Pension Fund and Operating Fund. The MIP policy was updated using tracking changes and is enclosed for your review and approval as well as a clean version with all changes accepted. Updates include changes related to asset allocation and the MIP minimum long-term return assumption. There are no recommended changes for the Pension Fund and Operating Fund policies. Therefore, those IPS have not been included with these materials. Copies are however available on the web at: <a href="https://www.maine.edu/finance/policies-procedures-and-reports/investment-guidelines/">https://www.maine.edu/finance/policies-procedures-and-reports/investment-guidelines/</a>

#### 5. TEXT OF PROPOSED RESOLUTION:

That Board of Trustees acting through the Investment Committee, approves the updated Investment Policy Statement for the Managed Investment Pool.

# University of Maine System Executive Summary - Investment Guidelines and Objectives Managed Investment Pool (Including Endowments) Approved by Investment Committee May 14, 2020

Minimum Long Term Return Assumption: 7.25%

Risk Tolerance: Moderate

FY20 and FY21 Spending Policy 4.50%<sup>1</sup>

**Asset Allocation:** 

ASSET CLASS	TARGET %	PERMISSIBLE RANGE %	TARGET <u>BENCHMARK</u>
Equity	55%	45 - 65%	
Domestic Large Cap	17	12 - 22	S&P 500
Domestic Small/Mid Cap	7	2 - 12	Russell 2500
International	10	5 - 15	MSCI EAFE
International Small Cap	4	0 – 10	MSCI EAFE SC
Emerging	3.5	0 - 7	MSCI EM
Emerging Small Cap	3.5	0 - 7	MSCI EM SC
Global Equity	10	5-15	MSCI World
Fixed Income	24%	15 - 35%	
Domestic Core	7	2 - 12	BBgBarc US Aggregate
Bank Loans	5	0 - 10	Credit Suisse Leveraged Loan
TIPS	3.5	0 - 7	BBgBarc US TIPS
Short Term TIPS	3.5	0 - 7	BBgBarc US 1-5 Year TIPS
Absolute Return Fixed Income	5	0 - 10	3 Month Libor
Other	21%	10 - 30%	
Global Asset Allocation	15	10 - 20	65% MSCI ACWI (Net) / 35% BBgBarc Global Agg
Hedge Funds	6	0 - 10	Credit Suisse Long Short Equity
Private Equity	0	0 - 5	Cambridge Private Equity 1 Quarter Lag
Cash	0%	0 - 10%	

#### **Evaluation Benchmarks:**

Total return for the Pool shall be regularly compared to the Allocation Index\* and the Policy Index\*\*. While it is anticipated that there will be fluctuations in the Pool's value, the Pool assets should at a minimum produce a nominal long-term rate of return of 7.25%.

The investment performance of money managers shall be measured against the investment performance of other managers with similar investment styles (e.g., Large cap growth equity manager against other large cap growth managers). Furthermore, investment performance will also be measured against an appropriate index benchmark (e.g., small cap equity managers will be measured against the Russell 2000 Index).

\*Allocation Index: Calculated by taking the actual asset class weights, at the previous month end, multiplied by the return of the respective passive benchmark over the current month. Measures the effectiveness of deviating from target weights.

\*\*Policy Index: Calculated by taking the target asset class weights times the return of the respective passive benchmark (calculated monthly). Measures the effectiveness of Pool Structure.

<sup>&</sup>lt;sup>1</sup> 4.5% spending rate for fiscal year 2021 was approved by the Board of Trustees at their December 2, 2019 meeting. Of this rate, 125 basis points is charged (unless expressly prohibited by the donor) for management and administration by the University of Maine and the University of Southern Maine while UMS Governance and University Services charges 25 basis points. Such fees are charged on each entity's respective endowments only. The resulting endowment distribution rate for FY2021 is \$15.05558. The FY20 spending rate was also 4.5% equating to a rate per share of \$14.65570.

# University of Maine System Investment Guidelines and Objectives Managed Investment Pool (Including Endowments) Approved by Investment Committee May 28, 2019`

# **INTRODUCTION**

This statement of Investment Guidelines and Objectives was developed to assist the University of Maine System (UMS) in carrying out its fiduciary responsibilities related to funds held for others and for the conservation and use of the assets of the Endowment Fund.

The System uses a pooled investment approach. The Managed Investment Pool (The "Pool") includes the following four components:

- Endowments of the University of Maine System (except where the donor requires the funds to be separately invested) and endowments for:
  - University of Maine at Fort Kent Foundation,
  - o University of Southern Maine Foundation,
  - o John L. Martin Scholarship Fund, Inc.,
- The University of Maine School of Law Foundation.
- The UMS Other Post Employment Benefit (OPEB) Trust, and
- Maine Maritime Academy endowments.

These guidelines are issued for the guidance of fiduciaries and other interested parties, including the Investment Committee of the Board of Trustees (the Committee), investment managers, internal management, third party investors, and consultants in the course of investing the assets of the Pool. The guidelines may be amended by the Committee both upon their own initiative and upon consideration of the advice and recommendations of the investment managers and fund professionals. Proposed modifications should be documented in writing to the Committee.

To this end, the investment guidelines will:

- Establish formal but flexible investment parameters that incorporate prudent asset allocation and achievable total return goals.
- Outline the investment responsibilities of the Committee, the investment managers, the custodian, and the investment consultant.
- Provide a mechanism for regular communication between UMS and all parties with responsibility for fund investments.

The investment goals and objectives for the Managed Investment Pool and hence investment decisions, are determined for the benefit of the UMS. The Pool is operated under the guidelines set forth herein and applicable laws.

It is expected that these guidelines will be reviewed at least annually to ensure that it continues to provide effective guidelines for the management of the Pool.

# **ENDOWMENT FUNDS**

The UMS Endowment Fund has been established in order to support the operations of the institution.

For budget purposes, the annual spending amount is calculated using a 3-year market value average with a % spending rate applied. The Committee will annually approve the endowment spending rate and resulting distribution amount per share.

# **THIRD PARTY INVESTORS**

The University may allow affiliated or non-affiliated organizations to invest in the Pool if in its judgment the acceptance of assets of a particular entity by the Pool can be said to further public higher education in Maine and to serve the educational needs of citizens of Maine. Such criteria is consistent with the purpose of UMS as broadly stated in its charter "to maintain and support a cohesive structure of public higher education in the State of Maine..." and with the Board's duty to "[p]lan strategies for programs and allocation of resources that most effectively serve the educational needs of the citizens of this State."

Any entity permitted to invest in the Pool must agree to the terms and conditions specified in the University of Maine System Managed Investment Pool Custodial and Investment Agreement. Assets accepted for investment by the Pool from outside the UMS typically will be assets of the general endowment fund or other funds of a charitable organization but may also be other funds as described in the sub-paragraphs of section 3(c)(10)(B) of the Investment Company Act of 1940.

Notwithstanding investment by third parties in the Pool, the investment goals and objectives of the Pool are determined for the benefit of the UMS and, as a result, the investment interests and decisions of the Pool on behalf of UMS may not always coincide with those of third party investors.

### **STATEMENT OF GOALS AND OBJECTIVES**

The statement of Investment Guidelines and Objectives is set forth to provide an appropriate set of goals and objectives for the Pool's assets and to define guidelines within which the investment managers may formulate and execute their investment decisions.

Within the specific guidelines presented below, the investment managers shall exercise full investment discretion. However, assets must be managed with the care, skill, prudence and diligence that a prudent investment professional in similar circumstances would exercise. Investment practices must comply with the applicable laws and regulations.

By agreeing to manage assets on behalf of the Pool, an investment manager accepts the provisions of this Statement applicable to such investment manager and assets being managed by such investment manager.

The Pool's primary investment goals are outlined below:

- Maximum total return, consistent with prudent investment management, is the primary goal of the Pool. Return, as used herein, includes income plus realized and unrealized gains and losses on Pool assets. In addition, assets of the Pool shall be invested to ensure that principal is preserved and enhanced over time, both in real and nominal terms.
- 2. Total return for the Pool shall be regularly compared to the Allocation Index and the Policy Index. While it is anticipated that there will be fluctuations in the Pool's value, the Pool assets should at a minimum produce a nominal long-term rate of return of 7.25%, net of all expenses.
- 3. Total portfolio risk exposure and risk-adjusted returns will be regularly evaluated and compared with other Endowments, the Allocation Index, and the Policy Index. Risk-

- adjusted returns for the Pool and for individual managers are expected to consistently rank in the top third of comparable funds or managers, respectively.
- 4. Performance of this Pool will be evaluated on a regular basis. Consideration will be given to the degree to which performance results meet the goals and objectives as herewith set forth. Normally, results are evaluated over a full market cycle, but shorter-term results will be regularly reviewed and earlier action taken if in the best interest of the Pool.
- 5. Companies that include environmental, social and governance (ESG) factors into their decision making process may benefit from improved long term value creation. As a result, the Committee will consider ESG principles and incorporate ESG analysis into investment decisions such as asset allocation and manager selection.

#### **INVESTMENT GUIDELINES**

#### Asset Allocation

The Pool will be diversified both by asset class (e.g. equities, bonds, cash equivalents, foreign securities) and within asset classes (e.g., by country, economic sector, industry, quality, and size). The purpose of diversification is to minimize unsystematic risk, and to provide reasonable assurance that no single security or class of securities will have a disproportionate impact on the total Pool.

In order to have a reasonable probability of consistently achieving the Pool's return objectives, the Committee has adopted the asset allocation policy outlined below.

If any asset class weighting is outside its respective permissible range at the end of any calendar quarter, the Investment Consultant will advise the Committee at the next Committee meeting. In addition, University of Maine System Staff will bring the portfolio into compliance with these guidelines as promptly and prudently as possible.

ASSET CLASS	TARGET %	PERMISSIBLE RANGE %	TARGET BENCHMARK
Equity	55%	45 - 65%	
Domestic Large Cap	17	12 - 22	S&P 500
Domestic Small/Mid Cap	7	2 - 12	Russell 2500
International	10	5 - 15	MSCI EAFE
International Small Cap	4	0 – 10	MSCI EAFE SC
Emerging	3.5	0 - 7	MSCI EM
Emerging Small Cap	3.5	0 - 7	MSCI EM SC
Global Equity	10	5 - 15	MSCI World
Fixed Income	24%	15 - 35%	
Domestic Core	7	2 - 12	BBgBarc US Aggregate
Bank Loans	5	0 - 10	Credit Suisse Leveraged Loan
TIPS	3.5	0 - 7	BBgBarc US TIPS
Short Term TIPS	3.5	0 - 7	BBgBarc US 1-5 Year TIPS
Absolute Return Fixed Income	5	0 - 10	3 Month Libor
Other	21%	10 - 30%	
Global Asset Allocation	15	10 - 20	65% MSCI ACWI (Net) / 35% BBgBarc Global Agg
Hedge Funds	6	0 - 10	Credit Suisse Long Short Equity
Private Equity	0	0 - 5	Cambridge Private Equity 1 Quarter Lag
Cash	0%	0 - 10%	

# **Equities**

**Risk:** Return objectives should be achieved without assuming undue risk. The risk (as measured by the standard deviation of returns) and the risk-adjusted return of this portfolio will be compared to the same measures for an appropriate universe of Equity managers and that of the appropriate index.

**Diversification:** No more than 6% at cost and 8% of the equity portfolio's market value may be invested in one company. Deviations from this policy are allowed upon specific approval from the Committee. Care and consideration should be taken to ensure that the entire equity portfolio is adequately diversified by individual holdings and sector weights.

**Use of Cash:** The manager is expected to be fully invested in equities. This notwithstanding, the Committee understands that some liquidity in the portfolio is necessary to facilitate trading, and does not place an explicit restriction on the holding of cash equivalents. The custodian bank's short term investment fund (STIF) is an allowed investment, as are other cash equivalents, provided they carry a Standard and Poor's rating of at least A-1 or an equivalent rating.

#### Fixed Income

**Risk:** Return objectives should be achieved without assuming undue risk. The risk (as measured by the standard deviation of returns) and the risk-adjusted return of this portfolio will be compared to the same measures for an appropriate universe of Fixed Income managers and that of the appropriate index.

**Diversification:** The securities of any issuer, excepting the U.S. government and U.S. government agencies, shall not constitute more than 5% of the portfolio at any time. Up to 10% of the Pool may be invested in international bonds and currency exposure may be hedged or unhedged at the manager's discretion.

**Duration:** The average effective duration of the fixed income portfolio may not differ by more than one year from the duration of the applicable benchmark. For example, a core bond fund will be evaluated against the Barclays Capital Aggregate index.

**Quality:** The overall quality rating of fixed income portfolio will be at least one full quality rating within the applicable benchmarks quality rating as rated by Standard and Poor's (or equivalent). For example, if the Barclays Capital Aggregate has a credit rating of AA, a core bond fund should fall in the range of A to AAA.

**Use of Cash:** The manager is expected to be fully invested in fixed income securities. The custodian bank STIF is an allowed investment, as are other cash equivalents, provided they carry a Standard and Poor's rating of at least A-1 or an equivalent rating.

#### Other Asset Classes, Strategies, and Investment Managers

From time to time the Committee may make additional diversifying investments in other asset classes or securities such as, Real Estate, Timber, Commodities, Private Equity and Hedge Funds. The Committee shall approve any such investment prior to implementation and shall restrict these investments to specific investment managers.

# Hedge Funds

Investments in hedge funds are permitted. Hedge funds represent a broad set of mandates and strategies that focus primarily on the liquid equity, fixed income and derivatives markets, but they may also include allocations, to a smaller extent, to investments that are less liquid. These mandates may employ long strategies, short selling and derivatives to protect against market downturns and/or profits from anticipated market movements.

The primary objective of these strategies is to provide positive absolute return throughout a market cycle (cash return + incremental spread), as well as provide increased diversification to the portfolio.

Each investment should fall within the expected risk and return characteristics historically displayed by domestic fixed income and public domestic equity investments. Leverage may be employed provided the risk of the portfolio remains within the target guidelines.

#### Hedge Fund Guidelines

- *Diversification* investments should be made through diversified hedge fund programs.
- Liquidity initial lock-up periods should not exceed one year; subsequent allowable redemption periods should not be less frequent than annual.
- *Transparency* investments should be made only in funds that provide adequate transparency to the underlying securities/funds held by the fund.
- Leverage funds may employ reasonable amounts of leverage (except for at the fund level as described in the excluded investments section) to the extent they adhere to targeted risk/return objectives.
- Correlation funds added to the Pool in this asset class should exhibit low correlation with traditional stock and bond indices
- Reporting investments may only be made in funds that adhere to strict reporting guidelines that fall within that required by the Pool.

#### **Excluded Investments**

Certain investments are ineligible for inclusion within this Pool:

- *UBTI* investments in transactions that would generate unrelated business taxable income ("UBTI") to the Pool.
- Prohibited transactions investments or transactions that would be non-exempt prohibited transactions under Section 406 of ERISA or Section 4975 of the Internal Revenue Code.
- Self-dealing securities of the investment manager, their parent or subsidiary companies (excluding money market funds) or any other security that could be considered a self-dealing transaction.
- Leverage when investing in fund of hedge funds (FOHF), the manager may not employ leverage at the master fund level
- Unrelated Speculation derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial vehicle unless such exposures would be allowed by a portfolio's investment guidelines if created with non-derivative securities.
- Coal Companies separate account managers shall not invest in coal companies.

#### **Derivatives**

Where appropriate, investment managers may use derivative securities for the following reasons:

- Hedging. To the extent that the portfolio is exposed to clearly defined risks and there are derivative contracts that can be used to reduce those risks, the investment managers are permitted to use such derivatives for hedging purposes, including cross-hedging of currency exposures.
- Creation of Market Exposures. Investment managers are permitted to use derivatives to replicate the risk/return profile of an asset or asset class provided that the guidelines for the investment manager allow for such exposures to be created with the underlying assets themselves.
- Management of Country and Asset Allocation Exposure. Managers charged with tactically changing the exposure of their portfolio to different countries and/or asset classes are permitted to use derivative contracts for this purpose.

By way of amplification, it is noted that the following two uses of derivatives are prohibited unless approved by the Committee:

- 1. Leverage. Derivatives shall not be used to magnify overall portfolio exposure to an asset, asset class, interest rate, or any other financial vehicle beyond that which would be allowed by a portfolio's investment guidelines if derivatives were not used.
- 2. *Unrelated Speculation*. Derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial vehicle unless such exposures would be allowed by a portfolio's investment guidelines if created with non-derivative securities.

#### **Commingled Funds**

The Committee may elect to invest assets of the Pool in commingled funds, in recognition of the benefits of commingled funds as investment vehicles (i.e., the ability to diversify more extensively than in a small, direct investment account and the lower costs which can be associated with these funds). The Committee recognizes that they may not be permitted to give specific policy directives to a fund whose policies are already established; therefore, the Committee is relying on the Investment Consultant to assess and monitor the investment policies of such funds to ascertain whether they are appropriate.

### **Distributions**

Investment managers should assume that withdrawals may be made from the Pool from time to time by the University of Maine System. Appropriate liquidity should be maintained to fund these withdrawals without impairing the investment process. The Committee or the designated representatives shall alert investment managers to anticipate liquidity needs of the Pool.

#### PERFORMANCE STANDARDS AND EVALUATION

Investment managers are expected to achieve the performance objectives that have been agreed to prior to engagement, by investing in those assets they were engaged to invest in. Performance comparisons will be made on a net of fees and risk-adjusted basis. Manager performance will be periodically reviewed to ensure compliance with these standards.

The investment performance of money managers shall be measured (e.g., total return and risk adjusted return) against the investment performance of other managers with similar

investment styles (e.g., Large cap growth equity manager against other large cap growth managers). Furthermore, investment performance will also be measured (e.g., total return and risk adjusted return) against an appropriate index benchmark (e.g., small cap equity managers will be measured against the Russell 2000 Index).

Performance reports shall be compiled quarterly and communicated to the Committee for review. Consideration shall be given to the extent to which the investment results are consistent with the investment objectives, goals, risk and guidelines as set forth in this statement. The Committee intends to evaluate individual manager performance over a complete market cycle, but reserves the right to terminate a manager for any reason including the following:

- 1. Investment performance that is significantly less than anticipated given the discipline employed and the risk parameters established, or unacceptable justification of poor results.
- 2. Investing in asset classes other than the asset classes for which the manager was engaged.
- 3. Failure to adhere to any aspect of this statement of investment policy, including communication and reporting requirements.
- 4. Significant qualitative changes to the investment management organization.

Investment managers will be reviewed regularly regarding performance, personnel, strategy, research capabilities, organizational and business matters, and other qualitative factors that may impact their ability to achieve the desired investment results.

#### **RESPONSIBILITIES**

#### **Investment Committee**

The Committee acknowledges its fiduciary responsibility for the conservation and prudent management of the funds. More specifically, its responsibilities include:

**Compliance:** To comply with the provisions of all pertinent federal and state regulations and rulings.

**Standards:** To develop investment objectives, asset allocation targets, investment guidelines, and performance measurement standards which are consistent with the needs of the funds.

**Appointments:** To evaluate and appoint investment managers to invest and manage fund assets. In addition, to appoint custodians and investment consultants.

**Communication:** To communicate investment goals, objectives, and standards to investment managers, including any material changes that may subsequently occur.

Manager Funding: To deploy existing assets and new monies to investment managers.

**Evaluation:** To review and evaluate investment results in the context of established standards of performance and adherence to the investment guidelines.

**Corrective Action:** To take whatever action is deemed prudent and appropriate when the investment manager fails to meet mutually accepted performance standards or significantly violates the investment guidelines.

The University of Maine System staff will assist the Committee in carrying out their duties.

#### Investment Manager

In recognition of their role as fiduciaries of the funds, investment managers must assume the following responsibilities:

**Investment Responsibility:** To make all investment decisions with respect to the assets under its management. The investment managers pledge to invest only in those asset classes they were engaged to invest in. Investment managers are to make reasonable efforts to control risk, and will be evaluated regularly to ensure that the risk assumed is commensurate with the given investment style and objective.

**Compliance:** To comply with this statement and any other written instructions provided by the Committee. Furthermore, to comply with all federal and state regulations pertaining to the investment of such assets.

**Trading:** To comply with CFA Institute soft dollar standards. The investment manager recognizes that brokerage is the property of the client and that it has an ongoing duty to ensure the quality of transactions effected on behalf of its client. This includes, seeking to obtain best execution, minimizing transaction costs, and using client brokerage to benefit the client.

**Voting of Proxies:** Responsibility for the exercise of ownership rights through proxy voting shall rest solely with the investment managers, who shall exercise this responsibility strictly for the long-term economic benefit of the fund and beneficiaries. Additionally, investment managers shall maintain a written annual report of the proxy votes for all shares of stock in companies held in the fund's investment program. These reports shall specifically note and explain any instances where proxies were not voted in accordance with standing policy.

**Notification of Changes:** To inform the Committee of any material changes in the manager's outlook, policy, investment strategy and portfolio structure, or tactics or in the firm's structure including ownership, financial condition and changes in portfolio management personnel.

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### **Investment Consultant**

The consultant will provide the Committee with objective advice. The responsibilities include:

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All new monies received by investment manager(s) after the adoption of this statement of Investment Guidelines and Objectives shall conform to the Statement. To the extent that Pool assets are not currently managed in accordance with this Statement, the investment manager shall conform in all respects to this Statement within 60 days of its receipt hereof.

# **AMENDMENTS**

The Committee may amend this Statement, subject to the approval of the Committee. The Committee, through the University of Maine System, also reserves the right to direct the investment managers to take any appropriate actions, whether or not consistent with this Statement, if market conditions, liquidity needs or other circumstances so indicate.

# University of Maine System Executive Summary - Investment Guidelines and Objectives Managed Investment Pool (Including Endowments) Approved by Investment Committee May 2814, 20192020

Minimum Long Term Return Assumption: 7.507.25%

Risk Tolerance: Moderate

FY18 FY20 and FY19 FY21 Spending Policy 4.50%<sup>1</sup>

#### **Asset Allocation:**

ASSET CLASS	TARCET 9/	PERMISSIBLE	TARGET
ASSET CLASS	TARGET %	RANGE %	<u>BENCHMARK</u>
Equity	55%	45 - 65%	
Domestic Large Cap	<u>17<del>22</del></u>	<u> 12<del>17</del> - 22<del>27</del> </u>	S&P 500
Domestic Small/Mid Cap	<u>7</u> 8	<u>2</u> 3 - <u>12</u> 13	Russell 2500
International	<u>10</u> 13	<del>8</del> 5 - <del>18</del> 15	MSCI EAFE
International Small Cap	<u>4</u> 5	0 – 10	MSCI EAFE SC
Emerging	3.5	0 - 7	MSCI EM
Emerging Small Cap	3.5	0 - 7	MSCI EM SC
Global Equity	<u>10</u>	<u>5-15</u>	MSCI World
Fixed Income	24%	15 - 35%	
Domestic Core	7	2 - 12	BBgBarc US Aggregate
Bank Loans	5	0 - 10	Credit Suisse Leveraged Loan
TIPS	3.5	0 - 7	BBgBarc US TIPS
Short Term TIPS	3.5	0 - 7	BBgBarc US 1-5 Year TIPS
Absolute Return Fixed Income	5	0 - 10	3 Month Libor
Other	240/	10 - 30%	
Global Asset Allocation	<b>21%</b> 15	10 - 30% 10 - 20	659/ MSCL ACWL (Not) / 259/
Global Asset Allocation	15	10 - 20	65% MSCI ACWI (Net) / 35% BBgBarc Global Agg
Real Assets	0	0-6	NCREIF Timberland
Hedge Funds	6	0 - 10	Credit Suisse Long Short Equity
Drivata Fauity	0	0 5	Cambridge Private Equity 1
Private Equity	0	0 - 5	Quarter Lag
Cash	0%	0 - 10%	

#### **Evaluation Benchmarks:**

Total return for the Pool shall be regularly compared to the Allocation Index\* and the Policy Index\*\*. While it is anticipated that there will be fluctuations in the Pool's value, the Pool assets should at a minimum produce a nominal long-term rate of return of 7.2550%.

The investment performance of money managers shall be measured against the investment performance of other managers with similar investment styles (e.g., Large cap growth equity manager against other large cap growth managers). Furthermore, investment performance will also be measured against an appropriate index benchmark (e.g., small cap equity managers will be measured against the Russell 2000 Index).

\*Allocation Index: Calculated by taking the actual asset class weights, at the previous month end, multiplied by the return of the respective passive benchmark over the current month. Measures the effectiveness of deviating from target weights.

<sup>&</sup>lt;sup>1</sup> 4.5% spending rate for fiscal year 202<u>01</u> was approved by the Board of Trustees at their December 2<del>0</del>, 2019 meeting. Of this rate, 125 basis points is charged (unless expressly prohibited by the donor) for management and administration by the University of Maine and the University of Southern Maine while UMS Governance and University Services charges 25 basis points. Such fees are charged on each entity's respective endowments only. The resulting endowment distribution rate for FY202<u>01</u> is \$14.6557015.05558. The FY19 FY20 spending rate was also 4.5% equating to a rate per share of \$14.9578714.65570.

\*\*Policy Index: Calculated by taking the target asset class weights times the return of the respective passive benchmark (calculated monthly). Measures the effectiveness of Pool Structure.

# University of Maine System Investment Guidelines and Objectives Managed Investment Pool (Including Endowments) Approved by Investment Committee May 28, 2019

#### INTRODUCTION

This statement of Investment Guidelines and Objectives was developed to assist the University of Maine System (UMS) in carrying out its fiduciary responsibilities related to funds held for others and for the conservation and use of the assets of the Endowment Fund.

The System uses a pooled investment approach. The Managed Investment Pool (The "Pool") includes the following four components:

- Endowments of the University of Maine System (except where the donor requires the funds to be separately invested) and endowments for:
  - o University of Maine at Fort Kent Foundation,
  - University of Southern Maine Foundation.
  - John L. Martin Scholarship Fund, Inc.,
- The University of Maine School of Law Foundation,
- The UMS Other Post Employment Benefit (OPEB) Trust, and
- Maine Maritime Academy endowments.

These guidelines are issued for the guidance of fiduciaries and other interested parties, including the Investment Committee of the Board of Trustees (the Committee), investment managers, internal management, third party investors, and consultants in the course of investing the assets of the Pool. The guidelines may be amended by the Committee both upon their own initiative and upon consideration of the advice and recommendations of the investment managers and fund professionals. Proposed modifications should be documented in writing to the Committee.

To this end, the investment guidelines will:

- Establish formal but flexible investment parameters that incorporate prudent asset allocation and achievable total return goals.
- Outline the investment responsibilities of the Committee, the investment managers, the custodian, and the investment consultant.
- Provide a mechanism for regular communication between UMS and all parties with responsibility for fund investments.

The investment goals and objectives for the Managed Investment Pool and hence investment decisions, are determined for the benefit of the UMS. The Pool is operated under the guidelines set forth herein and applicable laws.

It is expected that these guidelines will be reviewed at least annually to ensure that it continues to provide effective guidelines for the management of the Pool.

#### **ENDOWMENT FUNDS**

The UMS Endowment Fund has been established in order to support the operations of the institution.

For budget purposes, the annual spending amount is calculated using a 3-year market value average with a % spending rate applied. The Committee will annually approve the endowment spending rate and resulting distribution amount per share.

# **THIRD PARTY INVESTORS**

The University may allow affiliated or non-affiliated organizations to invest in the Pool if in its judgment the acceptance of assets of a particular entity by the Pool can be said to further public higher education in Maine and to serve the educational needs of citizens of Maine. Such criteria is consistent with the purpose of UMS as broadly stated in its charter "to maintain and support a cohesive structure of public higher education in the State of Maine..." and with the Board's duty to "[p]lan strategies for programs and allocation of resources that most effectively serve the educational needs of the citizens of this State."

Any entity permitted to invest in the Pool must agree to the terms and conditions specified in the University of Maine System Managed Investment Pool Custodial and Investment Agreement. Assets accepted for investment by the Pool from outside the UMS typically will be assets of the general endowment fund or other funds of a charitable organization but may also be other funds as described in the sub-paragraphs of section 3(c)(10)(B) of the Investment Company Act of 1940.

Notwithstanding investment by third parties in the Pool, the investment goals and objectives of the Pool are determined for the benefit of the UMS and, as a result, the investment interests and decisions of the Pool on behalf of UMS may not always coincide with those of third party investors.

### **STATEMENT OF GOALS AND OBJECTIVES**

The statement of Investment Guidelines and Objectives is set forth to provide an appropriate set of goals and objectives for the Pool's assets and to define guidelines within which the investment managers may formulate and execute their investment decisions.

Within the specific guidelines presented below, the investment managers shall exercise full investment discretion. However, assets must be managed with the care, skill, prudence and diligence that a prudent investment professional in similar circumstances would exercise. Investment practices must comply with the applicable laws and regulations.

By agreeing to manage assets on behalf of the Pool, an investment manager accepts the provisions of this Statement applicable to such investment manager and assets being managed by such investment manager.

The Pool's primary investment goals are outlined below:

- Maximum total return, consistent with prudent investment management, is the primary goal of the Pool. Return, as used herein, includes income plus realized and unrealized gains and losses on Pool assets. In addition, assets of the Pool shall be invested to ensure that principal is preserved and enhanced over time, both in real and nominal terms.
- Total return for the Pool shall be regularly compared to the Allocation Index and the Policy Index. While it is anticipated that there will be fluctuations in the Pool's value, the Pool assets should at a minimum produce a nominal long-term rate of return of 7.25%, net of all expenses.
- 3. Total portfolio risk exposure and risk-adjusted returns will be regularly evaluated and compared with other Endowments, the Allocation Index, and the Policy Index. Risk-

- adjusted returns for the Pool and for individual managers are expected to consistently rank in the top third of comparable funds or managers, respectively.
- 4. Performance of this Pool will be evaluated on a regular basis. Consideration will be given to the degree to which performance results meet the goals and objectives as herewith set forth. Normally, results are evaluated over a full market cycle, but shorter-term results will be regularly reviewed and earlier action taken if in the best interest of the Pool.
- 5. Companies that include environmental, social and governance (ESG) factors into their decision making process may benefit from improved long term value creation. As a result, the Committee will consider ESG principles and incorporate ESG analysis into investment decisions such as asset allocation and manager selection.

#### **INVESTMENT GUIDELINES**

#### Asset Allocation

The Pool will be diversified both by asset class (e.g. equities, bonds, cash equivalents, foreign securities) and within asset classes (e.g., by country, economic sector, industry, quality, and size). The purpose of diversification is to minimize unsystematic risk, and to provide reasonable assurance that no single security or class of securities will have a disproportionate impact on the total Pool.

In order to have a reasonable probability of consistently achieving the Pool's return objectives, the Committee has adopted the asset allocation policy outlined below.

If any asset class weighting is outside its respective permissible range at the end of any calendar quarter, the Investment Consultant will advise the Committee at the next Committee meeting. In addition, University of Maine System Staff will bring the portfolio into compliance with these guidelines as promptly and prudently as possible.

ASSET CLASS	TARGET %	PERMISSIBLE RANGE %	TARGET <u>BENCHMARK</u>
Equity Domestic Large Cap Domestic Small/Mid Cap International International Small Cap Emerging Emerging Small Cap Global Equity	55% 2217 87 1310 54 3.5 3.5	<b>45 - 65%</b> 17-12 - 2722  32 - 1312  85 - 1815  0 - 10  0 - 7  0 - 7  5 - 15	S&P 500 Russell 2500 MSCI EAFE MSCI EAFE SC MSCI EM MSCI EM SC MSCI World
Fixed Income  Domestic Core Bank Loans TIPS Short Term TIPS Absolute Return Fixed Income	<b>24%</b> 7 5 3.5 3.5 5	15 - 35% 2 - 12 0 - 10 0 - 7 0 - 7 0 - 10	BBgBarc US Aggregate Credit Suisse Leveraged Loan BBgBarc US TIPS BBgBarc US 1-5 Year TIPS 3 Month Libor
Other Global Asset Allocation Real Assets	<b>21%</b> 15 <del>0</del>	<b>10 - 30%</b> 10 - 20	65% MSCI ACWI (Net) / 35% BBgBarc Global Agg NCREIF Timberland
Hedge Funds Private Equity	6 0	0 - 10 0 - 5	Credit Suisse Long Short Equity Cambridge Private Equity 1 Quarter Lag

Cash 0% 0 - 10%

# **Equities**

**Risk:** Return objectives should be achieved without assuming undue risk. The risk (as measured by the standard deviation of returns) and the risk-adjusted return of this portfolio will be compared to the same measures for an appropriate universe of Equity managers and that of the appropriate index.

**Diversification:** No more than 6% at cost and 8% of the equity portfolio's market value may be invested in one company. Deviations from this policy are allowed upon specific approval from the Committee. Care and consideration should be taken to ensure that the entire equity portfolio is adequately diversified by individual holdings and sector weights.

**Use of Cash:** The manager is expected to be fully invested in equities. This notwithstanding, the Committee understands that some liquidity in the portfolio is necessary to facilitate trading, and does not place an explicit restriction on the holding of cash equivalents. The custodian bank's short term investment fund (STIF) is an allowed investment, as are other cash equivalents, provided they carry a Standard and Poor's rating of at least A-1 or an equivalent rating.

#### Fixed Income

**Risk:** Return objectives should be achieved without assuming undue risk. The risk (as measured by the standard deviation of returns) and the risk-adjusted return of this portfolio will be compared to the same measures for an appropriate universe of Fixed Income managers and that of the appropriate index.

**Diversification:** The securities of any issuer, excepting the U.S. government and U.S. government agencies, shall not constitute more than 5% of the portfolio at any time. Up to 10% of the Pool may be invested in international bonds and currency exposure may be hedged or unhedged at the manager's discretion.

**Duration:** The average effective duration of the fixed income portfolio may not differ by more than one year from the duration of the applicable benchmark. For example, a core bond fund will be evaluated against the Barclays Capital Aggregate index.

**Quality:** The overall quality rating of fixed income portfolio will be at least one full quality rating within the applicable benchmarks quality rating as rated by Standard and Poor's (or equivalent). For example, if the Barclays Capital Aggregate has a credit rating of AA, a core bond fund should fall in the range of A to AAA.

**Use of Cash:** The manager is expected to be fully invested in fixed income securities. The custodian bank STIF is an allowed investment, as are other cash equivalents, provided they carry a Standard and Poor's rating of at least A-1 or an equivalent rating.

#### Other Asset Classes, Strategies, and Investment Managers

From time to time the Committee may make additional diversifying investments in other asset classes or securities such as, Real Estate, Timber, Commodities, Private Equity and Hedge Funds. The Committee shall approve any such investment prior to implementation and shall restrict these investments to specific investment managers.

#### Hedge Funds

Investments in hedge funds are permitted. Hedge funds represent a broad set of mandates and strategies that focus primarily on the liquid equity, fixed income and derivatives markets, but they may also include allocations, to a smaller extent, to investments that are less liquid. These mandates may employ long strategies, short selling and derivatives to protect against market downturns and/or profits from anticipated market movements.

The primary objective of these strategies is to provide positive absolute return throughout a market cycle (cash return + incremental spread), as well as provide increased diversification to the portfolio.

Each investment should fall within the expected risk and return characteristics historically displayed by domestic fixed income and public domestic equity investments. Leverage may be employed provided the risk of the portfolio remains within the target guidelines.

#### Hedge Fund Guidelines

- *Diversification* investments should be made through diversified hedge fund programs.
- Liquidity initial lock-up periods should not exceed one year; subsequent allowable redemption periods should not be less frequent than annual.
- *Transparency* investments should be made only in funds that provide adequate transparency to the underlying securities/funds held by the fund.
- Leverage funds may employ reasonable amounts of leverage (except for at the fund level as described in the excluded investments section) to the extent they adhere to targeted risk/return objectives.
- Correlation funds added to the Pool in this asset class should exhibit low correlation with traditional stock and bond indices
- Reporting investments may only be made in funds that adhere to strict reporting guidelines that fall within that required by the Pool.

#### **Excluded Investments**

Certain investments are ineligible for inclusion within this Pool:

- *UBTI* investments in transactions that would generate unrelated business taxable income ("UBTI") to the Pool.
- Prohibited transactions investments or transactions that would be non-exempt prohibited transactions under Section 406 of ERISA or Section 4975 of the Internal Revenue Code.
- Self-dealing securities of the investment manager, their parent or subsidiary companies (excluding money market funds) or any other security that could be considered a self-dealing transaction.
- Leverage when investing in fund of hedge funds (FOHF), the manager may not employ leverage at the master fund level
- Unrelated Speculation derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial vehicle unless such exposures would be allowed by a portfolio's investment guidelines if created with non-derivative securities.
- Coal Companies separate account managers shall not invest in coal companies.

#### **Derivatives**

Where appropriate, investment managers may use derivative securities for the following reasons:

- Hedging. To the extent that the portfolio is exposed to clearly defined risks and there are derivative contracts that can be used to reduce those risks, the investment managers are permitted to use such derivatives for hedging purposes, including cross-hedging of currency exposures.
- Creation of Market Exposures. Investment managers are permitted to use derivatives to replicate the risk/return profile of an asset or asset class provided that the guidelines for the investment manager allow for such exposures to be created with the underlying assets themselves.
- Management of Country and Asset Allocation Exposure. Managers charged with tactically changing the exposure of their portfolio to different countries and/or asset classes are permitted to use derivative contracts for this purpose.

By way of amplification, it is noted that the following two uses of derivatives are prohibited unless approved by the Committee:

- 1. Leverage. Derivatives shall not be used to magnify overall portfolio exposure to an asset, asset class, interest rate, or any other financial vehicle beyond that which would be allowed by a portfolio's investment guidelines if derivatives were not used.
- 2. *Unrelated Speculation*. Derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial vehicle unless such exposures would be allowed by a portfolio's investment guidelines if created with non-derivative securities.

#### **Commingled Funds**

The Committee may elect to invest assets of the Pool in commingled funds, in recognition of the benefits of commingled funds as investment vehicles (i.e., the ability to diversify more extensively than in a small, direct investment account and the lower costs which can be associated with these funds). The Committee recognizes that they may not be permitted to give specific policy directives to a fund whose policies are already established; therefore, the Committee is relying on the Investment Consultant to assess and monitor the investment policies of such funds to ascertain whether they are appropriate.

### **Distributions**

Investment managers should assume that withdrawals may be made from the Pool from time to time by the University of Maine System. Appropriate liquidity should be maintained to fund these withdrawals without impairing the investment process. The Committee or the designated representatives shall alert investment managers to anticipate liquidity needs of the Pool.

#### PERFORMANCE STANDARDS AND EVALUATION

Investment managers are expected to achieve the performance objectives that have been agreed to prior to engagement, by investing in those assets they were engaged to invest in. Performance comparisons will be made on a net of fees and risk-adjusted basis. Manager performance will be periodically reviewed to ensure compliance with these standards.

The investment performance of money managers shall be measured (e.g., total return and risk adjusted return) against the investment performance of other managers with similar

investment styles (e.g., Large cap growth equity manager against other large cap growth managers). Furthermore, investment performance will also be measured (e.g., total return and risk adjusted return) against an appropriate index benchmark (e.g., small cap equity managers will be measured against the Russell 2000 Index).

Performance reports shall be compiled quarterly and communicated to the Committee for review. Consideration shall be given to the extent to which the investment results are consistent with the investment objectives, goals, risk and guidelines as set forth in this statement. The Committee intends to evaluate individual manager performance over a complete market cycle, but reserves the right to terminate a manager for any reason including the following:

- 1. Investment performance that is significantly less than anticipated given the discipline employed and the risk parameters established, or unacceptable justification of poor results.
- 2. Investing in asset classes other than the asset classes for which the manager was engaged.
- 3. Failure to adhere to any aspect of this statement of investment policy, including communication and reporting requirements.
- 4. Significant qualitative changes to the investment management organization.

Investment managers will be reviewed regularly regarding performance, personnel, strategy, research capabilities, organizational and business matters, and other qualitative factors that may impact their ability to achieve the desired investment results.

# **RESPONSIBILITIES**

#### **Investment Committee**

The Committee acknowledges its fiduciary responsibility for the conservation and prudent management of the funds. More specifically, its responsibilities include:

**Compliance:** To comply with the provisions of all pertinent federal and state regulations and rulings.

**Standards:** To develop investment objectives, asset allocation targets, investment guidelines, and performance measurement standards which are consistent with the needs of the funds.

**Appointments:** To evaluate and appoint investment managers to invest and manage fund assets. In addition, to appoint custodians and investment consultants.

**Communication:** To communicate investment goals, objectives, and standards to investment managers, including any material changes that may subsequently occur.

Manager Funding: To deploy existing assets and new monies to investment managers.

**Evaluation:** To review and evaluate investment results in the context of established standards of performance and adherence to the investment guidelines.

**Corrective Action:** To take whatever action is deemed prudent and appropriate when the investment manager fails to meet mutually accepted performance standards or significantly violates the investment guidelines.

The University of Maine System staff will assist the Committee in carrying out their duties.

#### Investment Manager

In recognition of their role as fiduciaries of the funds, investment managers must assume the following responsibilities:

**Investment Responsibility:** To make all investment decisions with respect to the assets under its management. The investment managers pledge to invest only in those asset classes they were engaged to invest in. Investment managers are to make reasonable efforts to control risk, and will be evaluated regularly to ensure that the risk assumed is commensurate with the given investment style and objective.

**Compliance:** To comply with this statement and any other written instructions provided by the Committee. Furthermore, to comply with all federal and state regulations pertaining to the investment of such assets.

**Trading:** To comply with CFA Institute soft dollar standards. The investment manager recognizes that brokerage is the property of the client and that it has an ongoing duty to ensure the quality of transactions effected on behalf of its client. This includes, seeking to obtain best execution, minimizing transaction costs, and using client brokerage to benefit the client.

**Voting of Proxies:** Responsibility for the exercise of ownership rights through proxy voting shall rest solely with the investment managers, who shall exercise this responsibility strictly for the long-term economic benefit of the fund and beneficiaries. Additionally, investment managers shall maintain a written annual report of the proxy votes for all shares of stock in companies held in the fund's investment program. These reports shall specifically note and explain any instances where proxies were not voted in accordance with standing policy.

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