

# TRUSTEES OF THE PUBLIC LIBRARY OF THE CITY OF BOSTON

## Meeting of the Trustees Finance and Audit Committee

Tuesday, November 12, 2019 at 8:00 a.m.

Central Library in Copley Square, Kirstein Business Library-Exchange

700 Boylston Street, Boston, MA 02116

### AGENDA

#### I. Welcome

*Evelyn Arana-Ortiz, Chair*

#### II. Review and Approval of Meeting Minutes from October 1, 2019

*Evelyn Arana-Ortiz, Chair*

#### III. Review and Approval of Contracts

*Evelyn Arana-Ortiz, Committee Chair*

##### A. Approval of Retrospective Conversion Vendor Contract

*Ellen Donaghey, Chief Financial Officer*

*Tom Blake, Manager of Content Discovery*

**VOTED: “that, the Trustees Finance and Audit Committee of the Boston Public Library approve The Donahue Group, Incorporated of 41 Mechanic Street, Windsor Connecticut 06095 for the second phase of the Retrospective Conversion pilot program contract in the amount of eighty four thousand nine hundred ninety nine dollars and eighty six cents (\$84,999.86) to create and upload MARC records for Boston Public Library books not presently represented in the Library’s online catalog.”**

##### B. Arrowstreet Inc Vendor Contract

*Ellen Donaghey, Chief Financial Officer*

**VOTED: “that, the Trustees Finance and Audit Committee of the Public Library of the City of Boston approve Arrowstreet Inc of 10 Post Office Square, Boston Massachusetts 02109, an architecture and design company, for a contract in the amount of forty thousand dollars (\$40,000) to provide design services for items to be sold at the Boston Public Library gift store.”**

##### C. Contract for EDTech Strategies, LLC

*Ellen Donaghey, Chief Financial Officer*

*Kurt Mansperger, Chief Technology Officer*

**VOTED: “that, the Trustees Finance and Audit Committee of the Public Library of the City of Boston approve a contract with EdTech Strategies, LLC of 4805 147th Street, Urbandale, Iowa 50323, in the amount of forty thousand dollars (\$40,000) to assist with the development of the eRate Funding Year 2020 submission.”**

##### D. Contract for Snow Plowing Services

*Ellen Donaghey, Chief Financial Officer*

*Eamon Shelton, Director of Operations*

**VOTED: “that, the Trustees Finance and Audit Committee of the Public Library of the City of Boston approve a contract with Anzalone Construction, PO Box 2622,**

**Woburn, Massachusetts 01888, in the amount of forty thousand dollars (\$40,000) to plow certain Boston Public Library Properties.”**

- E. Pilot Program with the Cooperative Education program at Northeastern University  
*Ellen Donaghey, Chief Financial Officer*  
*Lisa Pollack Chief of Communications*

**VOTED: “that, the Trustees Finance and Audit Committee of the Public Library of the City of Boston approve a pilot program with the Cooperative Education program at Northeastern University, 360 Huntington Avenue, Boston, MA in the amount of fifteen thousand dollars (\$15,000). The purpose of this pilot program will be to provide career experience to a Northeastern student for six months, and to offer Library departments the opportunity to undertake small projects for which they would not otherwise have the capacity.”**

- F. Vote for open contract to respond to book cleaning/mold remediation  
*Laura Irmscher, Chief of Collections*

**VOTED: “that, the Trustees Finance and Audit Committee of the Public Library of the City of Boston authorize a contract with BELFOR Property Restoration at 138 Bartlett Street, Marlborough, MA 01752, not to exceed one hundred thousand dollars (\$100,000) to respond as needed to clean certain items in the Research Collection, authorization to end with award to vendor selected through an open bid process.”**

- IV. **Review of Asset Allocation Impact Related Investments**  
*Sebastian Grzejka, NEPC*
- V. **New Business**
- VI. **Public Comment**
- VII. **Adjournment**

Next meeting is scheduled for Thursday, January 16, 2020 at Central Library, 8:00 a.m.  
*\*Meeting is subject to change*

**Trustees of the Public Library of the City of Boston**  
Robert Gallery, Chair; Evelyn Arana-Ortiz, Vice Chair  
Zamawa Arenas, Jabari Asim, Ben Bradlee, Jr., Cheryl Cronin, Linda Dorcena Forry,  
Priscilla Douglas, John Hailer, Jeff Hawkins, Rep. Chynah Tyler

President, David Leonard  
Clerk of the Board, Pamela Carver

This is an open meeting; the public is welcome to attend; for information: [www.bpl.org](http://www.bpl.org)

# **TRUSTEES OF THE PUBLIC LIBRARY OF THE CITY OF BOSTON**

## **Meeting of the Trustees Finance and Audit Committee**

Tuesday, October 1, 2019 at 8:00 a.m.  
Central Library in Copley Square, Kirstein Business Library-Exchange  
700 Boylston Street, Boston, MA 02116

### **DRAFT MINUTES**

A meeting of the Boston Public Library Trustees Finance and Audit Committee was held on Tuesday, October 1, 2019 at the Central Library in the Kirstein Business Library-Exchange.

All members were present at the meeting including: Committee Chair Evelyn Arana-Ortiz and Committee members, John Hailer, Zamawa Arenas, and President David Leonard.

Also present were Boston Public Library staff including Ellen Donaghey, Chief Financial Officer, Pamela Carver, Clerk of the Board, other BPL staff members, and members of the public.

The meeting of the Trustees Finance and Audit Committee (“Committee”) was called to order at 8:01 a.m. with a roll call and determined there was a quorum. The first matter of business was review and approval of Meeting Minutes from March 14, 2019 and April 19, 2019. With no edits or comments, the meeting minutes were approved.

Next, Mr. Matthew Hunt from CliftonLarsonAllen, was asked to review the Draft Financial Statements for FY19. Mr. Hunt said the auditing process was similar to previous years, the audit started in August and went smoothly. He thanked the Boston Public Library staff for their timeliness and responsiveness in responding to the auditors’ requests. He reported that it is CliftonLarsonAllen’s policy not to include the auditor’s opinion in the draft financial statement. It is expected that the rating will be “Unmodified,” which is the highest available.

In describing the Financial Highlights of the report, Mr. Hunt pointed to the General Fund noting it remained steady with a slight increase and the performance was good overall.

He then reported balances in each of the General Fund categories: Restricted Fund (programs and general trust holdings); Unassigned and Assigned Funds (state aid, and enterprise funds from special events which saw a 12% increase this year).

He also detailed revenues in the following categories: Intergovernmental Revenues; Special Events; Fees and Fines for Services; Gifts; and Investment Income which he noted had a significant increase due to improved markets and trends.

Mr. Hunt continued, pointing out the books expense included digital and printed books, and noted the General Fund expenses, have been as high as \$7 million in recent years but were \$5 million in FY19. These expenses included: Salaries and Benefits; Books and Related materials; Programs; Administrative costs such as Contractual Services and Utilities; and Equipment, Furniture and Repairs and Maintenance. The fluctuation may be due to some non-occurring items such as salaries. Ms. Donaghey explained some salaries and other expenses that were initially planned to be paid by the Fund for the Boston Public Library were moved to the City budget as the Library had a surplus in its city budget. This was done with the approval of the City’s Office of Management and Budget.

Mr. Hunt concluded his report by adding that the vote of the financial statements is the only missing piece for approval of the statements.

The Chair called for a motion, it was duly made and seconded and,

**VOTED: “that the Trustees Finance and Audit Committee recommend the Trustees of the Public Library of the City of Boston approve the Boston Public Library’s Draft Financial Statements for the Fiscal Year Ending June 30, 2019.”**

The Trustees engaged in a discussion about the differences between patrons’ experiences today versus ten years ago and how we anticipate it to be in the future. Also, they had a few questions about the apparent decrease in collections spending, and more specifically the decrease in electronic purchases. Ms. Donaghey and Ms. Irmischer explained that, overall, spending goes up for collections each year, and that the figures reviewed in the financial report do not include funds expended from the City budget but rather just the Trustees funds. They suggested this be a matter of discussion at a full board meeting in the future.

Ms. Laura Irmischer, Chief of Collections was asked to explain the contract for BELFOR Property Restoration. She explained that in preparation of the rare books renovation the Library had to move a number of collections and during this, discovered a small collection of older books that, while not part of a special collections, did need to be assessed and moved. These books have accumulated a large amount of dust and need to be cleaned, before being packed and stored until the renovation is complete. BELFOR has been used in the past and she is confident in their work. With no questions or comments, a motion was duly made and seconded, and

**VOTED: “that, the Trustees Finance and Audit Committee of the Public Library of the City of Boston authorize a contract with BELFOR Property Restoration not to exceed fifty five thousand dollars (\$55,000) for the moving, cleaning, and storage of certain items in the Research Collection.”**

Next, Ms. Ellen Donaghey reviewed the gifts, grants, and donations. She highlighted the funds raised by the Library’s inaugural Boston Marathon team, which totaled almost \$140,000 and will be used to support afterschool programming. She also noted the City-Wide Friends’ donation had been deposited shortly after the start of FY20 so is not reflected in this gift report. She also noted a significant increase from the Associates of the Boston Public Library. There were no questions or comments.

Ms. Arana-Ortiz asked for new business and Public Comment for which there was none.

With no further business, the meeting was adjourned at 8:40 a.m.

Respectfully submitted,

Pamela R. Carver

# **Branch Snow Plow List**

**For**

**FY-19**

## **BPL Branch Locations / Sanding & Snowplowing Services**

**Brighton Br.** 40 Academy Hill Road, Brighton, MA 02135 / 617-782-6032

**Codman Sq. Br.** 690 Washington Street, Dorchester, MA 02124 / 617-436-8214

**East Boston Br.** 365 Bremen Street, East Boston, MA 02128 / 617-569-0271

**Grove Hall Br.** 41 Geneva Avenue, Roxbury, MA 02121 / 617-427-3337  
(Library Lot Only)

**Honan – Allston Br.** 300 North Harvard Street, Allston, MA 02134 / 617-787-6313

**Hyde Park Br.** 35 Harvard Avenue, Hyde Park, MA 02136 / 617-361-2524

**Mattapan Br.** 1350 Blue Hill Avenue, Mattapan, MA 02126 / 617-928-9218

**West End Br.** 151 Cambridge Street, Boston, MA 02114 / 617-523-3957

# TRUSTEE MEETING MATERIALS

## BOSTON PUBLIC LIBRARY



November 12, 2019

Sebastian Grzejka, CAIA, Senior Consultant

Marisa Gorman, Consulting Analyst



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

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# EXECUTIVE SUMMARY

NEPC, LLC

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# GOALS & OBJECTIVES

## Investment Return Objective

**“Total return, consistent with prudent investment management, is the primary goal of the Fund. Total return, as used herein, includes income plus realized and unrealized gains and losses on Fund assets.”**

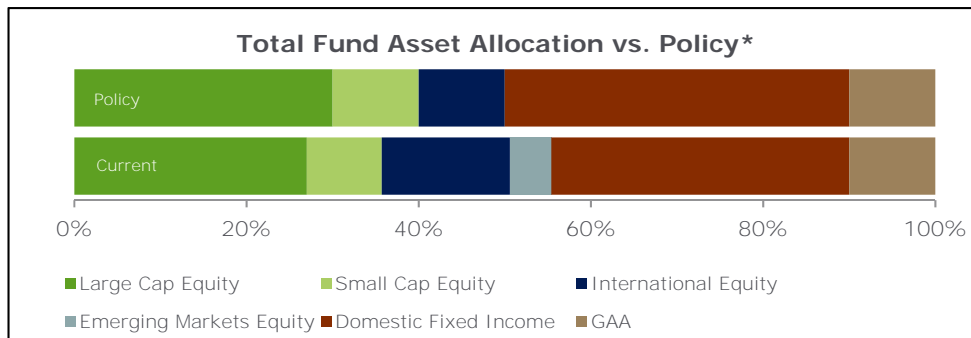
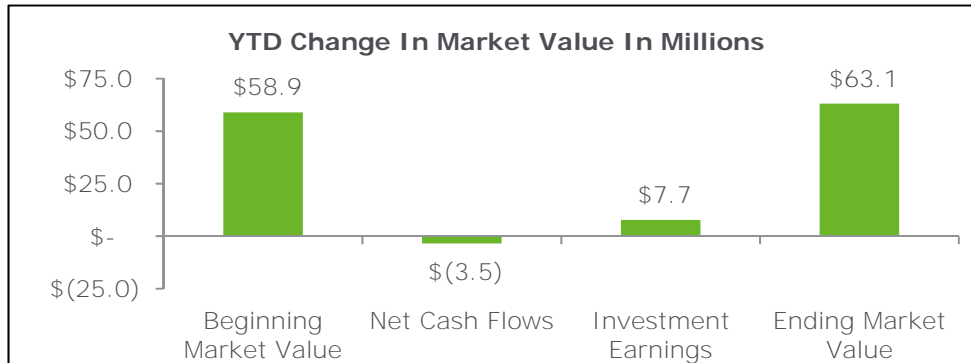
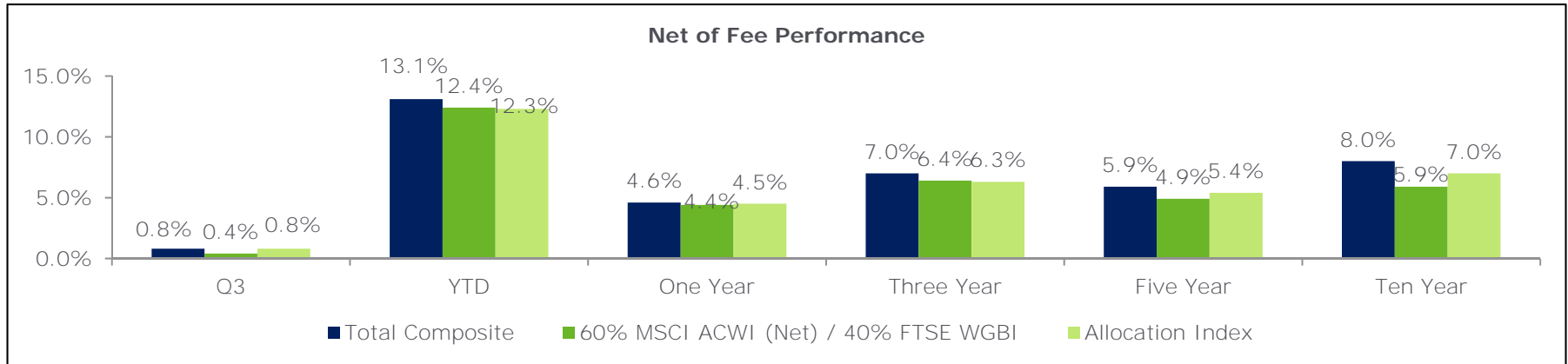
**“Assets of the Fund shall be invested to ensure that principal is preserved and enhanced over time, both in real and nominal terms.”**

## Risk Tolerance

- **Time Horizon:** The Fund has a long-term time horizon; results are evaluated over a three to five year time horizon. Shorter term results will be regularly reviewed and corrective action will be taken if in the best interest of the Fund.
- **Liquidity Needs and Cash Flows:** Cash flows are relatively infrequent, but funds are occasionally drawn to meet operational needs
- **Capital Preservation:** In order to meet the Fund's goals and objectives, the portfolio has been structured with a conservative total return approach, which provides some exposure to growth assets, but also provides some protection in stressed environments



# TOTAL FUND EXECUTIVE SUMMARY



## Q3 Results

- **Meeting 11/12/2019**
  - Review of Asset Allocation
  - Thematic Equity Manager Search to identify a potential impact related investment strategy
- **Top Contributors to Performance**
  - The Domestic Fixed Income composite was the strongest contributor to the portfolio in Q3, with a total composite return of 1.8%
  - SSgA Hedged EAFE Index added 2.4% to performance, which was the strongest in the portfolio in absolute terms
  - Segall Bryant & Hamill Small Cap outperformed its benchmark by 300 bps, adding 0.6% to the portfolio this quarter
- **Top Detractors from Performance**
  - Earnest International Investment Trust was the largest detractor to the portfolio in Q3 returning -2.2%, underperforming the benchmark by 40 basis points



\*Boston Public Library is working towards a new policy target of: 25% Domestic Equity, 20% International Equity, 5% Emerging Markets Equity, 30% Fixed Income, and 20% Multi Asset. The asset allocation and implementation will be reviewed during today's meeting with NEPC.













# 2019 ASSET ALLOCATION REVIEW

NEPC, LLC

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# PERFORMANCE OVERVIEW

## Q3 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
											
3.4%	1.4	-32 bps	1.7%	-1.1%	-4.2%	2.3%	1.3%	1.5%	-7.0%	4.4%	7.4%

**Global central banks shifted toward easier monetary policy, providing support for risk-assets, even as uncertainty around trade and slowing global growth continue to temper returns**

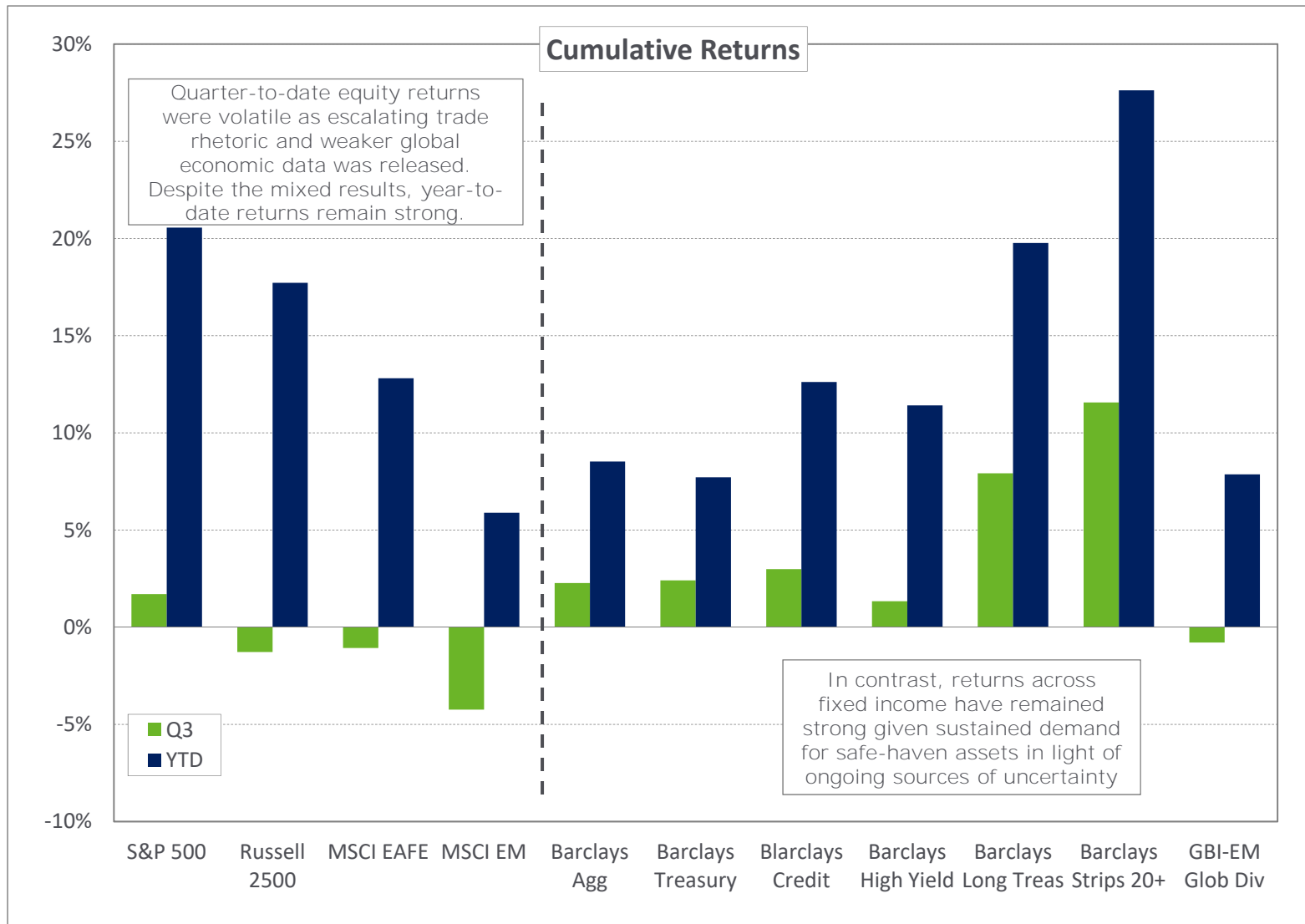
**The decline in global yields also reflected these concerns – leading to positive returns across safe-haven fixed income. Within credit, spreads were relatively flat, but broadly remain below medians**

**Oil experienced a volatile month as geopolitical concerns influenced spot prices following a bombing of Saudi Arabia's oil infrastructure**

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



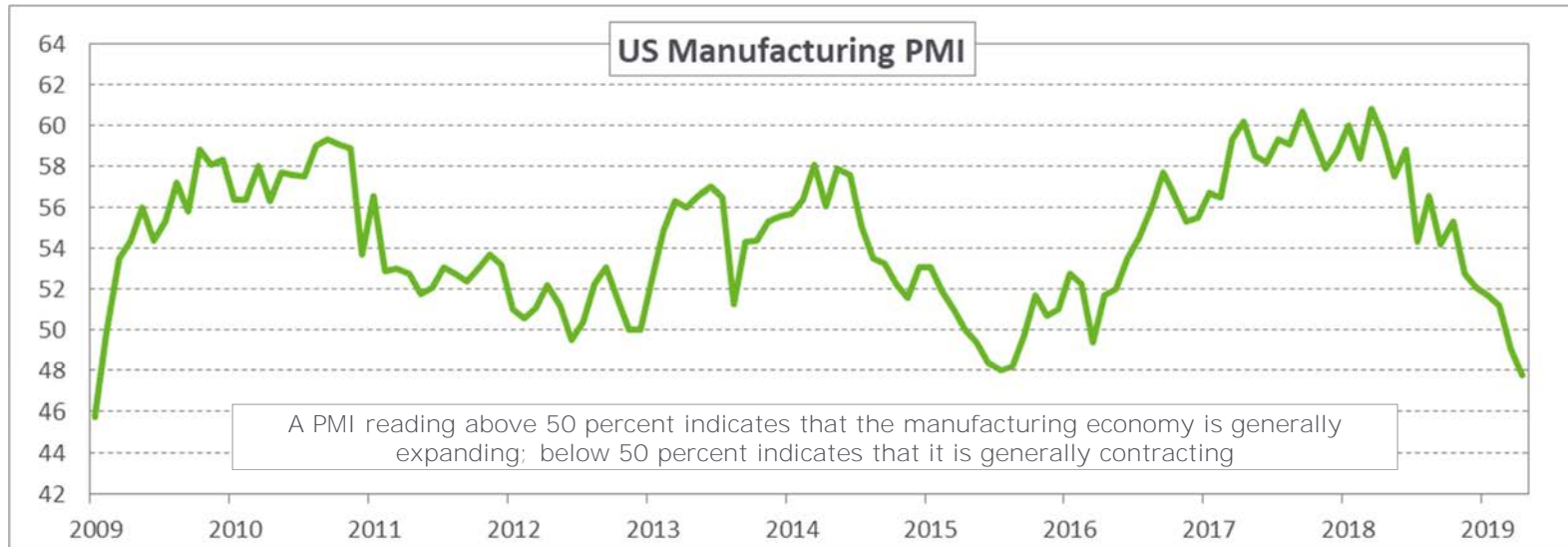
# YTD RETURNS HAVE BEEN STRONG, QTD MIXED



Source: S&P, Russell, MSCI, Barclays, JP Morgan, FactSet; as of 09/30/2019

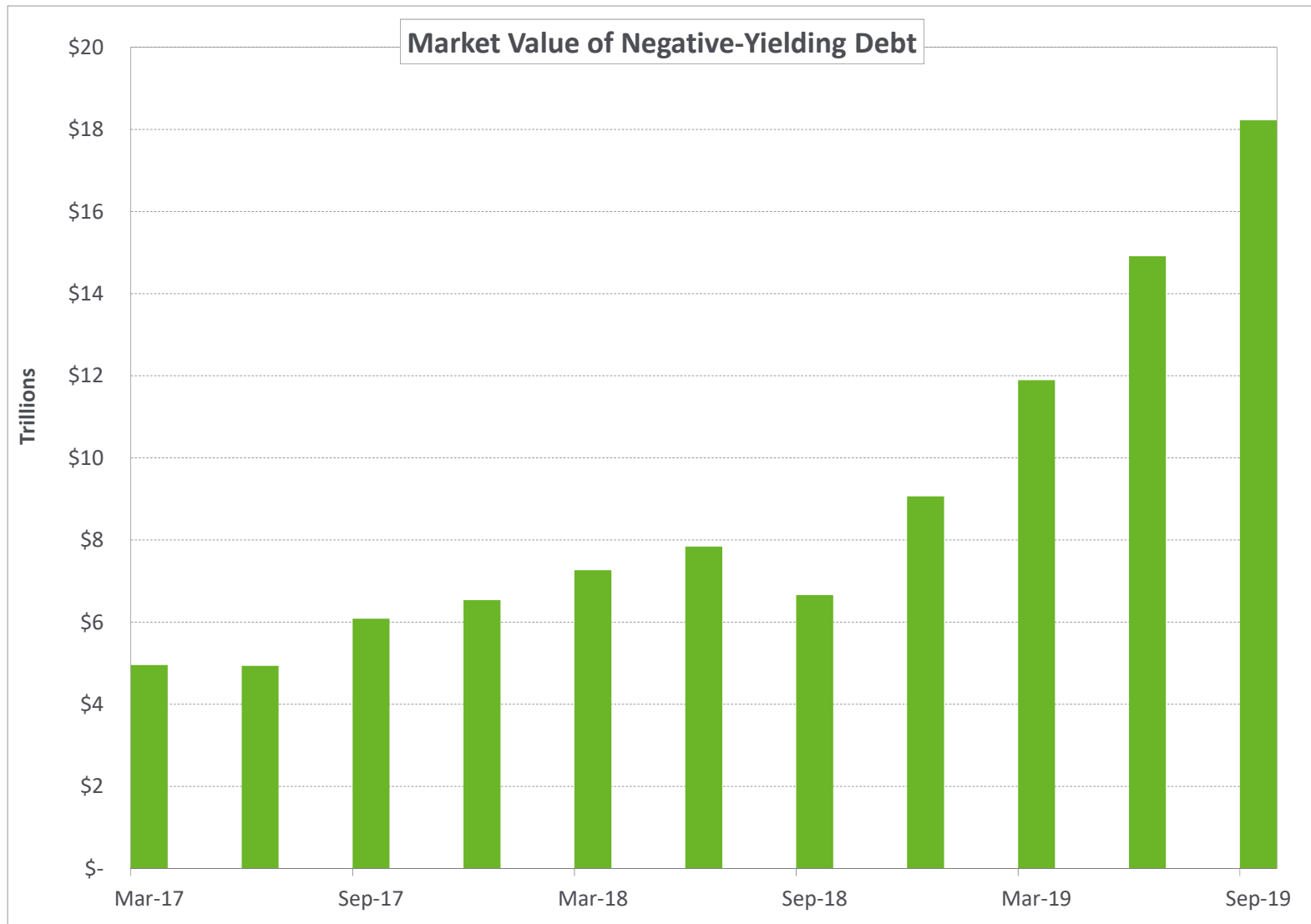


# US MANUFACTURING AND THE CONSUMER



Source Top: PMI, FactSet  
Source Bottom: Conference Board Consumer Confidence Index, FactSet

# NEGATIVE YIELDS CONTINUE TO SPREAD



Source: FactSet

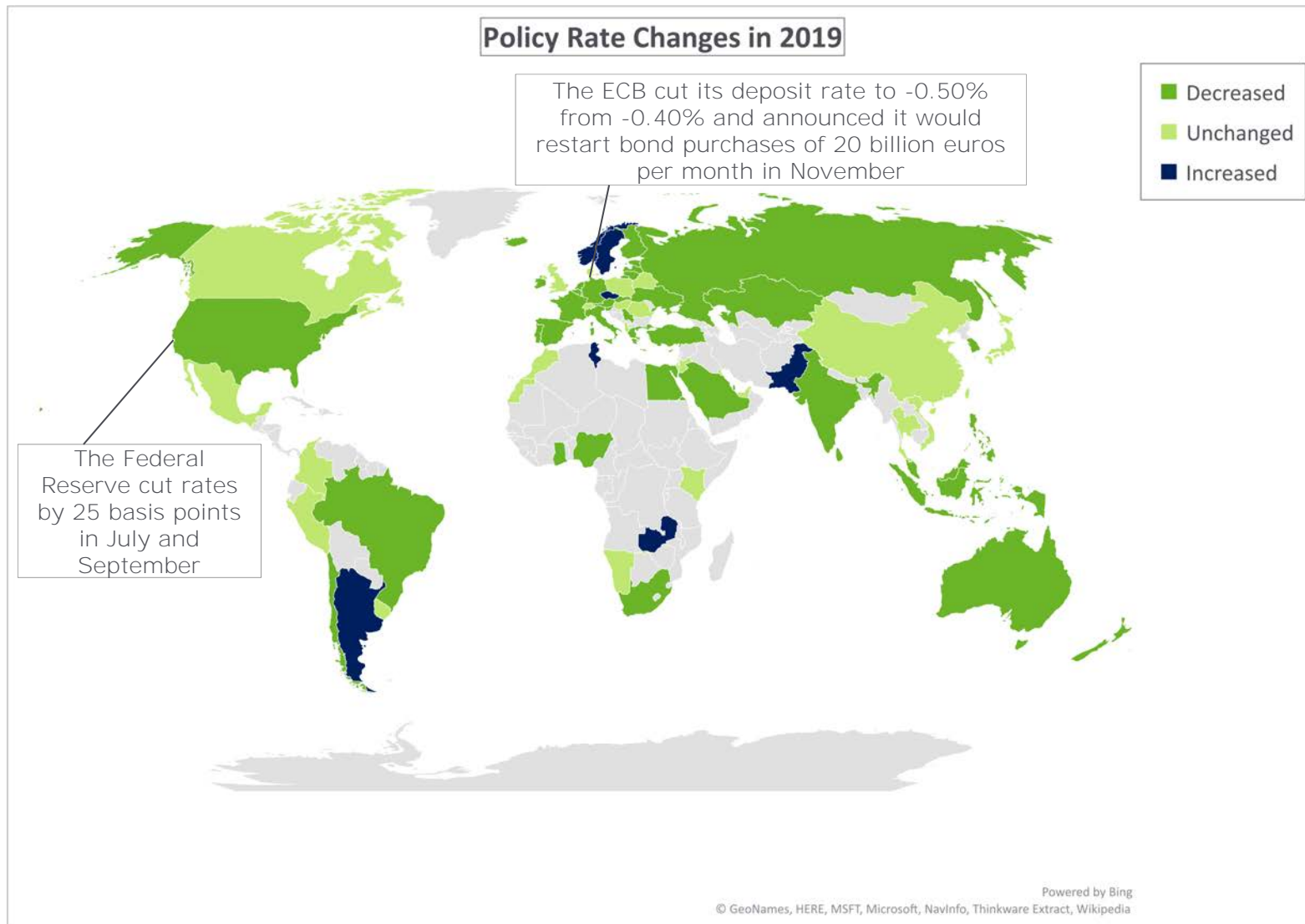


# 2019 TRADE TIMELINE





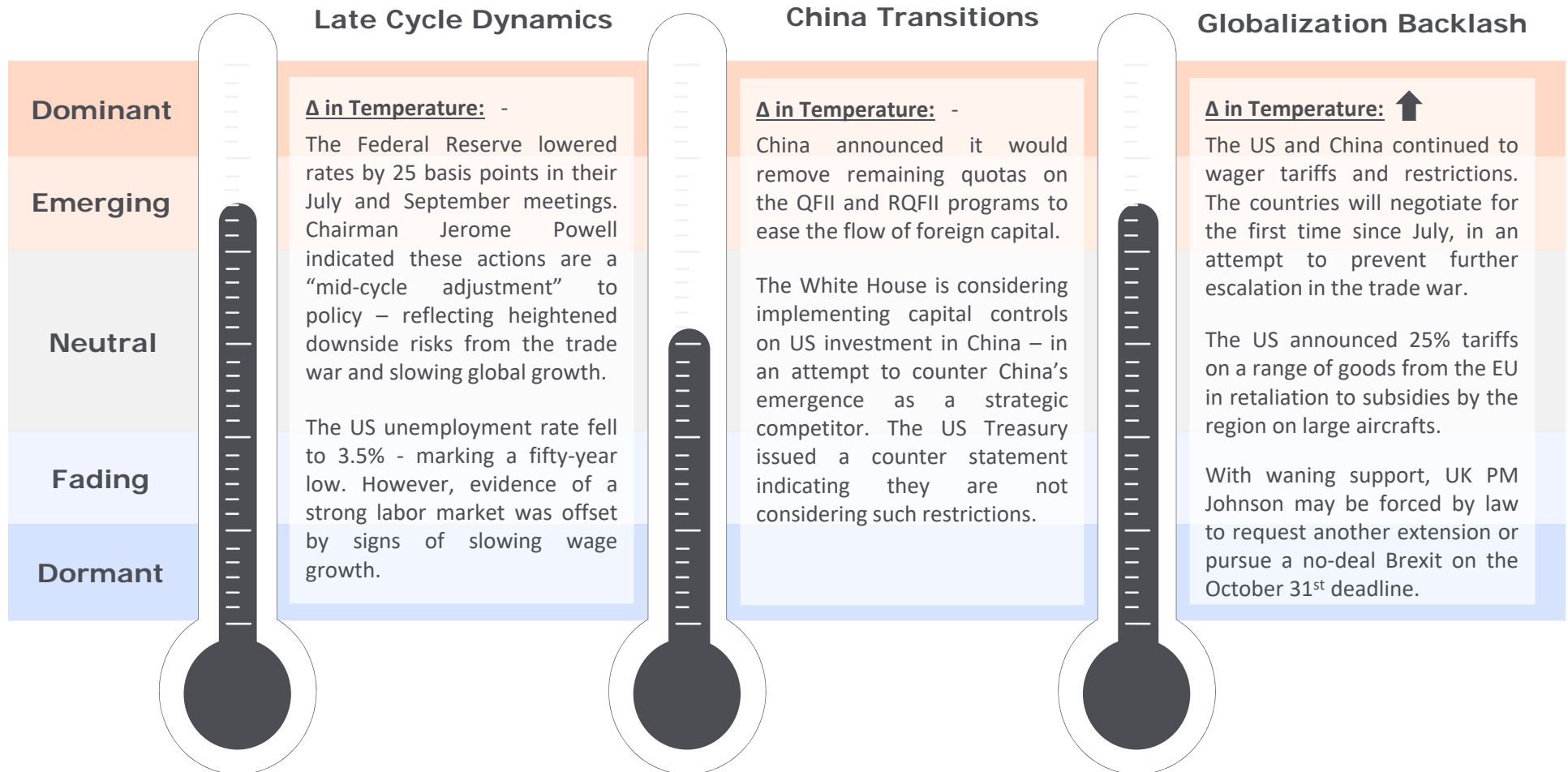
# A SHIFT TOWARD EASIER MONETARY POLICY



Source: FactSet

# ASSESSING THE KEY MARKET THEMES

## Current Temperature



# CAPITAL MARKET ASSUMPTION PREVIEW

	Asset Class Return Expectations (5-7 Yr)	2019 Assumption	Potential 2020 Changes
	Cash	2.50%	Lower
	US Inflation	2.25%	Lower
Equity	Large Cap Equities	6.00%	Lower
	International Equities (Unhedged)	6.75%	Lower
	Emerging International Equities	9.25%	Flat
	Private Equity*	10.01%	Lower
Rates/Credit	Treasuries	2.50%	Lower
	Core Bonds*	3.04%	Lower
	Municipal Bonds 1-10 Year	3.00%	Lower
	High Yield Bonds	5.25%	Lower
	Private Debt*	7.60%	Lower
Real Assets	Commodities	4.25%	Lower
	REITs	6.75%	Lower
	Core Real Estate	6.00%	Lower to Flat
Multi-Asset	US 60/40*	5.07%	Lower
	Global 60/40*	5.08%	Lower
	Hedge Funds*	5.74%	Lower

\*Each calculated as a blend of other asset classes



# **BPL ASSET ALLOCATION REVIEW**

NEPC, LLC

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# ASSET ALLOCATION REVIEW - SUMMARY

- **NEPC prepares an asset allocation update for the Boston Public Library on an annual basis**
  - The goal is to provide updated Risk and Return Assumptions based on NEPC's newest asset allocation outlook
  - Secondly, the analysis allows for the reaffirmation or approach of the Fund relative to stated goals and objectives
- **In 2018, the Committee approved a new target allocation which looked to balance risks and opportunities**
  - As part of that, a number of changes were made to the implementation, including adding emerging markets, multi sector fixed income
  - There are still some areas outstanding to complete the implementation, such as GAA
- **However, at the last meeting, the Committee discussed the potential to add impact investment related strategies to the portfolio**
  - Specifically, divestment from the SSgA EAFE Hedged Index fund was discussed due to the exposure of some of the holdings in the index
  - If the Committee proceeds, NEPC's preferred implantation of this would be via an active global equity manager
    - This would bring the portfolio in line with recommended regional targets
  - We have provided two sample mixes which discuss this option
- **Alternatively, if no change to the allocation is desired, the current approach remains appropriate**
  - The last step in this implementation would be to review an additional GAA manager



# BPL ASSET ALLOCATION REVIEW

	Current Target	Mix A	Mix B
Large Cap Equities	20%	18%	18%
Small/Mid Cap Equities	5%	5%	5%
Int'l Equities	20%	14%	15%
Emerging Int'l Equities	5%	5%	6%
Global Equity	0%	8%	10%
<b>Total Equity</b>	<b>50%</b>	<b>50%</b>	<b>54%</b>
TIPS	10%	10%	10%
Core Bonds	10%	10%	12%
Diversified Fixed Income	10%	10%	8%
<b>Total Fixed Income</b>	<b>30%</b>	<b>30%</b>	<b>30%</b>
Global Asset Allocation	10%	10%	8%
PIMCO All Asset	10%	10%	8%
<b>Total Multi Asset</b>	<b>20%</b>	<b>20%</b>	<b>16%</b>
<b>Expected Return 5-7 yrs</b>	<b>5.9%</b>	<b>6.0%</b>	<b>6.0%</b>
<b>Standard Dev</b>	<b>10.9%</b>	<b>10.9%</b>	<b>11.4%</b>
<b>Sharpe Ratio (5-7 years)</b>	<b>0.31</b>	<b>0.32</b>	<b>0.31</b>

\*Based on NEPCs 2019 5-7 Year Asset Class Assumptions

\*\*Returns are beta only and do not include the potential value add from active management

The current target represents a conservative total return approach.

The portfolio was recently adjusted to achieve a stronger risk adjusted return and be better positioned to take advantage of current market opportunities.

Given recent discussions around impact investing and the potential for resulting manager changes, we have profiled two options for consideration should this occur.

Mix A looks to achieve a dual goal of maintaining the current risk and return profile, as well as including an allocation to impact strategies through a global equity allocation.

In order to achieve the desired characteristics, both US and Non US equity have been reduced in favor of Global equity, which has the ability to allocate across both regions.

Mix B represents a slightly more aggressive mix, however, also incorporates the impact investing theme through the global equity allocation.

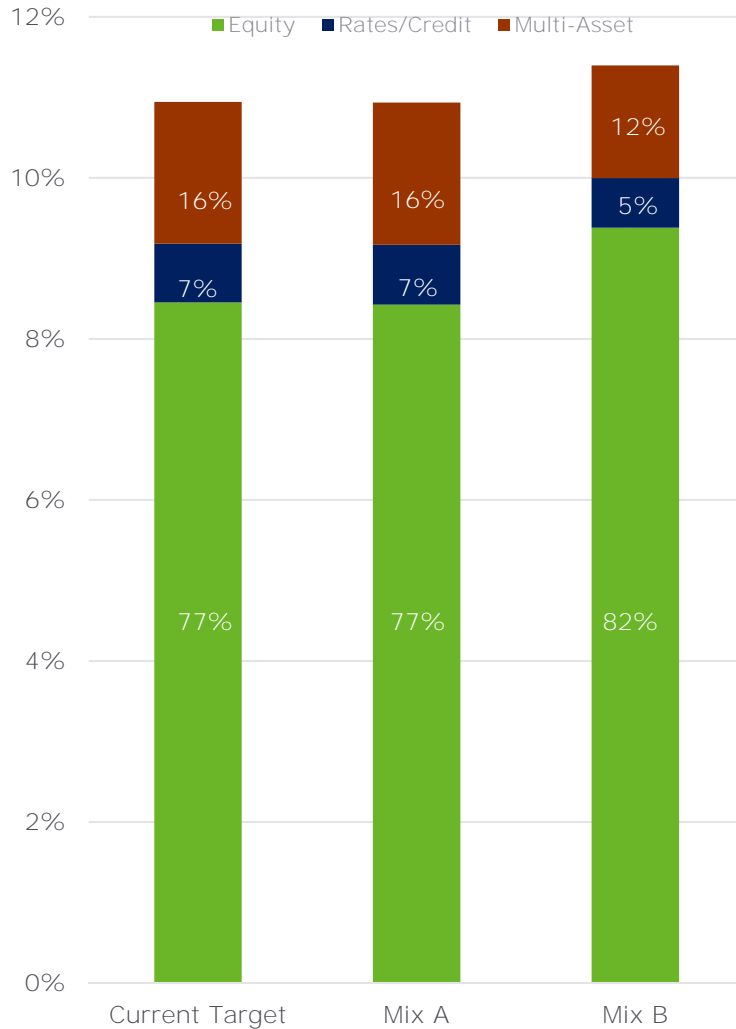
Further this mix increases equity overall, adjusts fixed income towards higher quality core bonds and lastly reduces GAA.

The resulting portfolio has a slightly higher return target to current, along with a higher standard deviation.

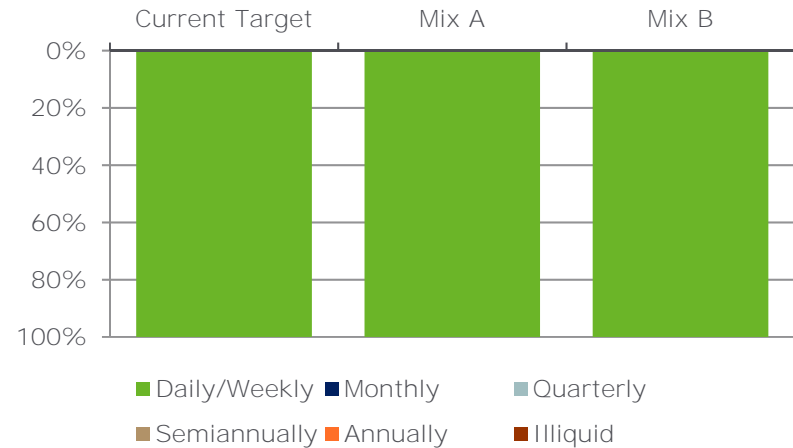


# OTHER RISK CONSIDERATIONS

## Asset Risk Budgeting - Risk



## Liquidity



## Commentary

- **From a liquidity perspective, the Fund is very liquid, with 100% available within a month**
  - This is inline across mixes
- **The Current Target and Mix A have similar risk profiles**
- **In Mix B, credit and multi-asset risk decrease and are replaced by equity risk**



Note: due to rounding, total may not sum to 100

# REMAINING IMPLEMENTATION FOR CURRENT TARGET

	Market Value	Current Weight in Fund	Target Weight	Over/Under%	Recommendation	New Market Value	New Weight
<b>Composite</b>	<b>\$ 63,141,384</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>\$ -</b>	<b>\$ 63,141,384</b>	<b>100.0%</b>
<b>Total US Equity</b>	<b>\$ 22,555,338</b>	<b>35.7%</b>	<b>25.0%</b>	<b>10.7%</b>	<b>\$ (5,500,000)</b>	<b>\$ 17,055,338</b>	<b>27.0%</b>
SSgA SRI S&P 500	\$ 10,040,940	15.9%	10.0%	5.9%	\$ (3,500,000)	\$ 6,540,940	10.4%
Diamond Hill Large Cap	\$ 6,990,479	11.1%	10.0%	1.1%	\$ -	\$ 6,990,479	11.1%
Segall Bryant Small Cap	\$ 5,523,919	8.7%	5.0%	3.7%	\$ (2,000,000)	\$ 3,523,919	5.6%
<b>Total Non US Equity</b>	<b>\$ 12,431,066</b>	<b>19.7%</b>	<b>25.0%</b>	<b>-5.3%</b>	<b>\$ 3,500,000</b>	<b>\$ 15,931,066</b>	<b>25.2%</b>
Earnest International Equity	\$ 6,151,229	9.7%	15.0%	-5.3%	\$ 3,500,000	\$ 9,651,229	15.3%
SSgA Hedge EAFE Index	\$ 3,246,129	5.1%	5.0%	0.1%	\$ -	\$ 3,246,129	5.1%
UBS Emerging Markets HALO	\$ 3,033,708	4.8%	5.0%	-0.2%	\$ -	\$ 3,033,708	4.8%
<b>Total Fixed Income</b>	<b>\$ 21,837,290</b>	<b>34.6%</b>	<b>30.0%</b>	<b>4.6%</b>	<b>\$ (4,250,000)</b>	<b>\$ 17,587,290</b>	<b>27.9%</b>
IRM Core Bond	\$ 8,552,191	13.5%	10.0%	3.5%	\$ (4,250,000)	\$ 4,302,191	6.8%
SSgA TIPS	\$ 6,678,299	10.6%	10.0%	0.6%	\$ -	\$ 6,678,299	10.6%
Manulife	\$ 6,606,800	10.5%	10.0%	0.5%	\$ -	\$ 6,606,800	10.5%
<b>Total Multi Asset</b>	<b>\$ 6,317,690</b>	<b>10.0%</b>	<b>20.0%</b>	<b>-10.0%</b>	<b>\$ 6,250,000</b>	<b>\$ 12,567,690</b>	<b>19.9%</b>
PIMCO All Asset	\$ 6,317,690	10.0%	10.0%	0.0%	\$ -	\$ 6,317,690	10.0%
Multi Asset Manager TBD	\$ -	0.0%	10.0%	-10.0%	\$ 6,250,000	\$ 6,250,000	9.9%



Data as of September 30, 2019



# HYPOTHETICAL FULL IMPLEMENTATION – MIX A

	Market Value	Current Weight in Fund	Target Weight	Over/Under%	Recommendation	New Market Value	New Weight
<b>Composite</b>	<b>\$ 63,141,384</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>\$ -</b>	<b>\$ 63,141,384</b>	<b>100.0%</b>
<b>Total US Equity</b>	<b>\$ 22,555,338</b>	<b>35.7%</b>	<b>23.0%</b>	<b>12.7%</b>	<b>\$ (6,700,000)</b>	<b>\$ 15,855,338</b>	<b>25.1%</b>
SSgA SRI S&P 500	\$ 10,040,940	15.9%	8.0%	7.9%	\$ (4,500,000)	\$ 5,540,940	8.8%
Diamond Hill Large Cap	\$ 6,990,479	11.1%	10.0%	1.1%	\$ -	\$ 6,990,479	11.1%
Segall Bryant Small Cap	\$ 5,523,919	8.7%	5.0%	3.7%	\$ (2,200,000)	\$ 3,323,919	5.3%
<b>Total Non US Equity</b>	<b>\$ 12,431,066</b>	<b>19.7%</b>	<b>27.0%</b>	<b>-7.3%</b>	<b>\$ 4,700,000</b>	<b>\$ 17,131,066</b>	<b>27.1%</b>
Earnest International Equity	\$ 6,151,229	9.7%	14.0%	-4.3%	\$ 2,500,000	\$ 8,651,229	13.7%
SSgA Hedge EAFE Index	\$ 3,246,129	5.1%	0.0%	5.1%	\$ (3,246,129)	\$ -	0.0%
UBS Emerging Markets HALO	\$ 3,033,708	4.8%	5.0%	-0.2%	\$ -	\$ 3,033,708	4.8%
Global Equity Manager TBD	\$ -	0.0%	8.0%	-8.0%	\$ 5,446,129	\$ 5,446,129	8.6%
<b>Total Fixed Income</b>	<b>\$ 21,837,290</b>	<b>34.6%</b>	<b>30.0%</b>	<b>4.6%</b>	<b>\$ (4,250,000)</b>	<b>\$ 17,587,290</b>	<b>27.9%</b>
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SSgA TIPS	\$ 6,678,299	10.6%	10.0%	0.6%	\$ -	\$ 6,678,299	10.6%
Manulife	\$ 6,606,800	10.5%	10.0%	0.5%	\$ -	\$ 6,606,800	10.5%
<b>Total Multi Asset</b>	<b>\$ 6,317,690</b>	<b>10.0%</b>	<b>20.0%</b>	<b>-10.0%</b>	<b>\$ 6,250,000</b>	<b>\$ 12,567,690</b>	<b>19.9%</b>
PIMCO All Asset	\$ 6,317,690	10.0%	10.0%	0.0%	\$ -	\$ 6,317,690	10.0%
Multi Asset Manager TBD	\$ -	0.0%	10.0%	-10.0%	\$ 6,250,000	\$ 6,250,000	9.9%



Data as of September 30, 2019

# THEMATIC EQUITY SEARCH BOOK

NEPC, LLC

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# FIRM AND PRODUCT SUMMARY

Firm/Product	Firm/Team Comments	Investment Style/Strategy	Performance Expectations	Portfolio Positioning	Other Comments
<b>Thematic Equity</b>					
Impax Asset Management - Env. Leaders	<p>Impax was founded in 1998 by Ian Simm. They manage 7 products with \$11bn in AUM out of their office in London or \$15bn if you count the Pax assets in New Hampshire.</p> <p>Impax shares are listed on the London Stock Exchange. In 2006 BNP Paribas Asset Management became a 25% shareholder.</p>	<p>The Impax Leaders investment focus is based on business exposure to various thematic opportunities within the Resource Optimization markets. This equates to 29 sub-sectors. The Impax Leaders Fund requires at least 20% of a holding's business content to be derived from environmental products or services.</p> <p>The Leaders Fund is an all cap growth product, exposed to many industries.</p>	In light of its higher growth exposure, this fund may lag when value markets are outperforming, and do well when growth stocks are too.	The fund uses the MSCI ACWI as its benchmark, finding best ideas that fit their mandate whether in emerging or developed markets.	
Impax Asset Management - Env. Specialists	Impax Asset Mgmt. has been dedicated to investing in environmental markets since founding in 1998.	Multi-thematic, GARP, fundamental bottom up, strategy with top down macro considerations.	Should perform well on announcements and implementation of environmental legislation and in growth environments, when commodity prices are high or rising.	55-65 global stocks, focused on resource efficiency, predominantly small and mid cap.	2017 UNPRI assessment: A+ Policies, Processes, Practices, and Governance.

## NEPC INVESTMENT THESIS

Firm/Product	NEPC Investment Thesis
<b>Thematic Equity</b>	
Impax Asset Management - Env. Leaders	Leaders value add is its multi-thematic approach in many meaningful ESG areas. The fund is exposed to at least 6 of the UN SDG codes or 29 subsectors. Its holdings are unique and focused offering a very differentiated, positive impact product.
Impax Asset Management - Env. Specialists	The Impax Specialist strategies value add is attributable to their focus on environmental markets investing, fundamental research process and top down thematic macro overlay. The fund is exposed to at least 6 of the UN SDG codes or 29 subsectors. Its holdings are unique and focused offering a very differentiated, positive impact product. Additionally, Impax has performed considerable work to quantify net carbon offset, renewable electricity generated, water treated or provided and materials recovered and waste treated at a portfolio level.



# FIRM COMPARISON SUMMARY

Firm Name	Location	Year Firm Founded	Total Assets Under Mgmt (\$MM)	% Employee Owned	% Parent Owned	Parent Company Name	% Publicly Held	% Other Ownership
Thematic Equity								
Impax Asset Management LLC	London, England	1971	18,458	0	100	Impax Asset Management Group plc	0	0

Firm Name	Registered Investment Advisor	GIPS Compliant	Past or Pending Litigation	Firm uses Placement Agent
Thematic Equity				
Impax Asset Management LLC	Yes	Yes	No	Yes



# PRODUCT COMPARISON

Firm/Product	Inception Date	AUM (\$MM)	# of Portfolio Managers	# of Research Analysts	# of Traders
<b>Thematic Equity</b>					
Impax Asset Management - Env. Leaders	2008	3,595	2	14	1
Impax Asset Management - Env. Specialists	2002	2,378	1	14	1

Firm/Product	Vehicle Proposed	Liquidity In	Liquidity Out	Reported Fee for \$6.00 mm	Reported Fee in (bps)
<b>Thematic Equity</b>					
Impax Asset Management - Env. Leaders	Commingled Fund	Daily	Daily	58,800.00	98
Impax Asset Management - Env. Specialists	Commingled Fund	Monthly	Monthly	66,000.00	110

Firm/Product	PRI Signatory (Y/N)	Strategy is Managed with ESG Considerations (Y/N)
<b>Thematic Equity</b>		
Impax Asset Management - Env. Leaders	Yes	Yes
Impax Asset Management - Env. Specialists	Yes	Yes



# PRODUCT COMPARISON

Firm/Product	Internal ESG Research Utilized (Y/N)	Third Party ESG Research Utilized (Y/N)	Manager Explanation of Research Methodologies Used
<b>Thematic Equity</b>			
Impax Asset Management - Env. Leaders	Yes	Yes	<p>Impax conducts proprietary in-house ESG research, headed by Lisa Beauvilain (Head of Sustainability &amp; ESG), an experienced member of the investment team who is dedicated to ESG research. Company ESG characteristics are continually discussed across the team and ESG is a standing item on the weekly Investment Committee agenda. Impax uses the following research tools to augment the core proprietary bottom-up ESG research conducted in house:</p> <p>External specialist ESG research providers: MSCI ESG Manager (Intangible Value Analysis/IVA), MSCI ESG Controversy Rating, Sustainalytics (quarterly UN Global Compact Screen), ISS (Proxy voting and governance research). Databases: Bloomberg (ESG data, litigation and controversy data), CDP (CO 2 data), ENDS Europe (environmental policy data). Sell-side analysis: CLSA (Asian sustainability and governance research), Kepler Cheuvreux (sustainability research), Morgan Stanley (ESG and sustainability research). Importantly, while the ESG research team is informing and leading the ESG analysis and discussion around ESG outcomes, outstanding questions and concerns are continuously discussed with the portfolio managers. Ultimately, all companies have to be approved by the Investment Committee on both a financial and an ESG basis as part of Impax's research and approval process.</p>

# EQUITY PRODUCT COMPARISON

Firm/Product	Primary Equity Capitalization	Current Number of Holdings	Typical Holdings	Wgt'd. Avg. Mkt. Cap (\$MM)	Median Mkt. Cap (\$MM)	Annual Turnover (%)	Max Cash Position (%)	Typical Cash (%)
Thematic Equity								
Impax Asset Management - Env. Leaders	Mid-Large Cap	50	60	28,028	11,351	NA*	5	2
Impax Asset Management - Env. Specialists	Small Cap	62	60	6,187	4,324	NA*	5	2

\*Not Provided

Firm/Product	% Portfolio in Market Cap Range:						
	> \$50 Billion (%)	\$15-50 Billion (%)	\$7.5-15 Billion (%)	\$1.5-7.5 Billion (%)	\$750-1.5 Billion (%)	\$400-750 Million (%)	< \$400 Million (%)
Thematic Equity							
Impax Asset Management - Env. Leaders	14	40	21	26	0	0	0
Impax Asset Management - Env. Specialists	0	7	25	60	3	2	3



# EQUITY STYLE AND SECTOR CHARACTERISTICS

Firm/Product	Earnings Yield	Dividend Yield	EPS Growth	Fundamental Beta	Book/Price	Return on Equity
Thematic Equity						
Impax Asset Management - Env. Leaders	6.78	2.03	9.82	1.11	0.36	18.91
Impax Asset Management - Env. Specialists	5.60	1.74	12.75	1.13	0.34	16.25

Firm/Product	Consumer Discretionary (%)	Consumer Staples (%)	Energy (%)	Financials (%)	Health Care (%)	Industrials (%)	Info. Tech. (%)	Materials (%)	Real Estate (%)	Comm. Serv. (%)	Utilities (%)	Other (%)
Thematic Equity												
Impax Asset Management - Env. Leaders	5.9	0.0	0.0	0.0	8.3	49.8	11.9	14.1	0.0	0.0	9.9	0.0
Impax Asset Management - Env. Specialists	2.7	0.0	0.3	0.0	1.4	46.4	20.1	11.7	2.5	0.0	14.3	0.7





# TRAILING PERIOD RETURNS - (NET OF FEES)

	Benchmark	Qtr	YTD	1 Year	3 Year	5 Year	7 Year	10 Year
<b>Thematic Equity</b>								
Impax Asset Management - Env. Leaders	1	4.9%	20.3%	8.9%	11.9%	5.9%	11.2%	9.5%
Impax Asset Management - Env. Specialists	1	5.6%	22.7%	7.7%	11.6%	5.9%	11.2%	8.6%
<b>Actual Return</b>								
1 MSCI ACWI-ND		3.6%	16.2%	5.7%	11.6%	6.2%	9.9%	10.1%
2 MSCI World-ND		4.0%	17.0%	6.3%	11.8%	6.6%	10.6%	10.7%

# CALENDAR YEAR RETURNS AND EXCESS RETURNS - (NET OF FEES)

	Bench mark	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<b>Thematic Equity</b>											
Impax Asset Management - Env. Leaders	1	-14.1%	26.9%	10.8%	-2.0%	-3.0%	31.8%	20.5%	-13.5%	10.6%	35.4%
Impax Asset Management - Env. Specialists	1	-15.3%	25.6%	13.5%	-0.6%	-4.8%	34.7%	12.2%	-19.0%	8.2%	44.0%

	Bench mark	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<b>Thematic Equity</b>											
Impax Asset Management - Env. Leaders	1	-4.7%	3.0%	3.0%	0.3%	-7.1%	9.0%	4.4%	-6.2%	-2.1%	0.7%
Impax Asset Management - Env. Specialists	1	-5.9%	1.6%	5.6%	1.8%	-8.9%	11.9%	-3.9%	-11.7%	-4.5%	9.4%

## Actual Index Return

1 MSCI ACWI-ND	-9.4%	24.0%	7.9%	-2.4%	4.2%	22.8%	16.1%	-7.3%	12.7%	34.6%
2 MSCI World-ND	-8.7%	22.4%	7.5%	-0.9%	4.9%	26.7%	15.8%	-5.5%	11.8%	30.0%

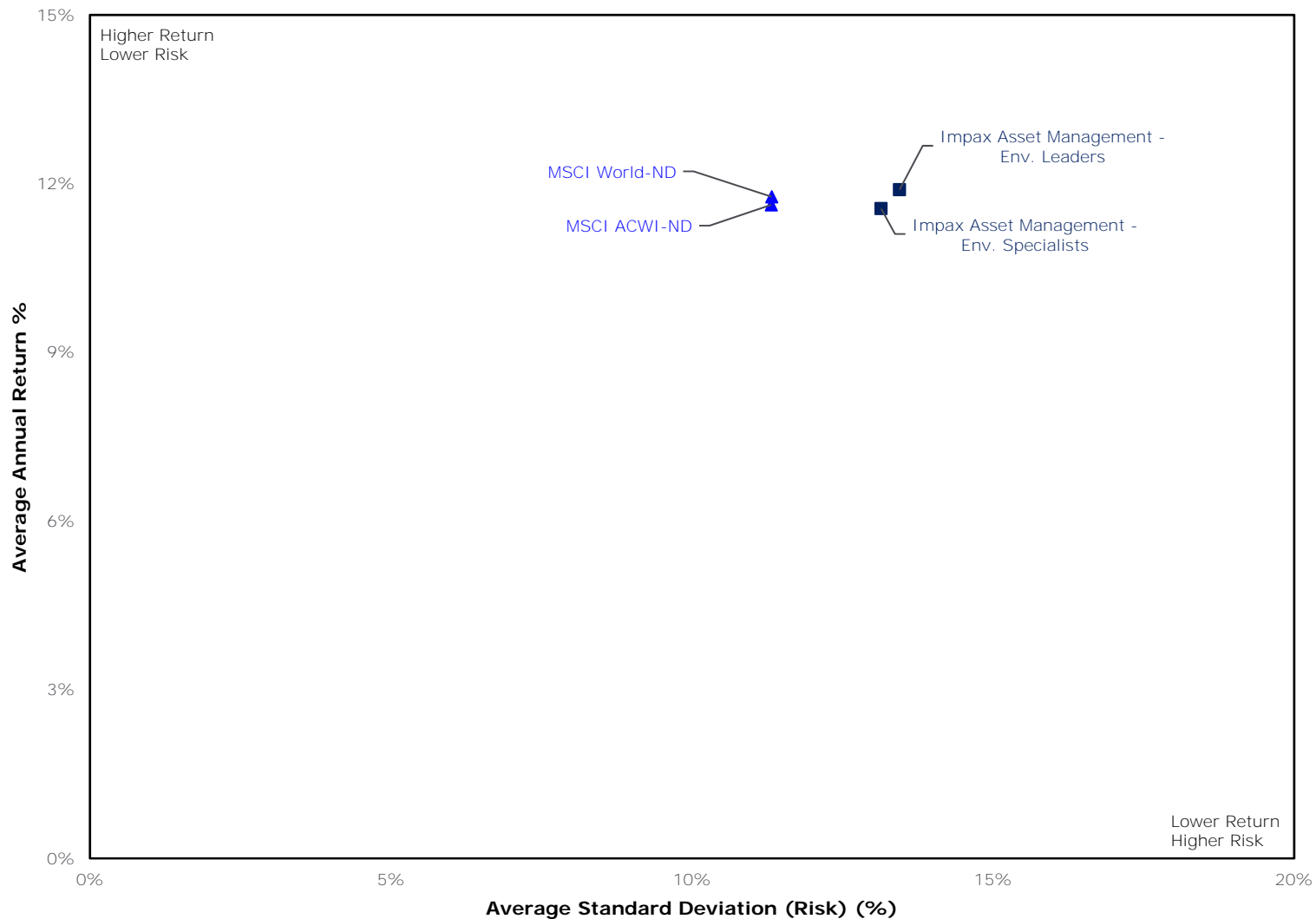


Manager Excess Return: > 3%, between 0% and 3%, between -0% and -3%, < -3%

Past performance is no guarantee of future results

Performance as of June 30, 2019

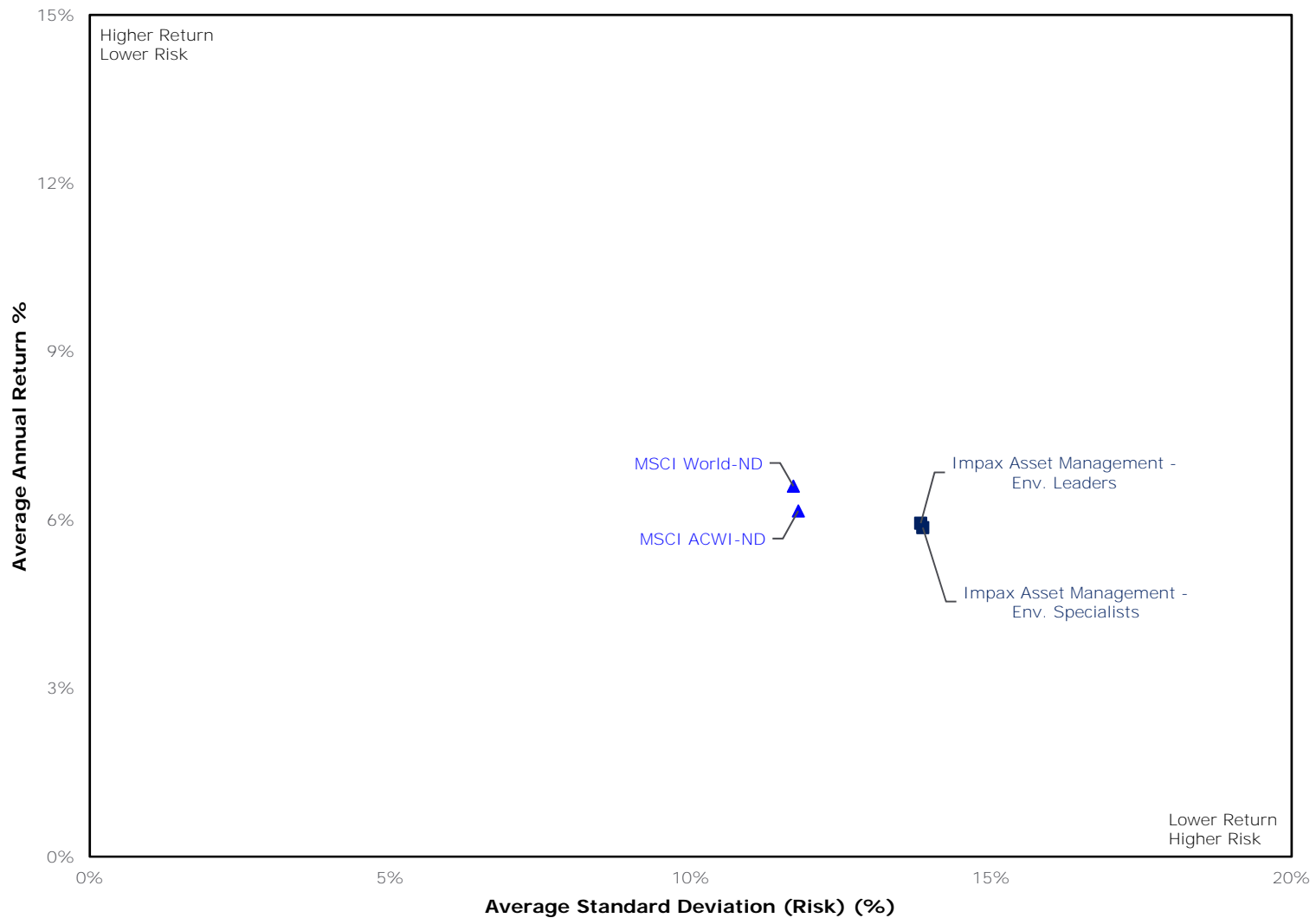
# 3 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



Past performance is no guarantee of future results

Performance as of June 30, 2019

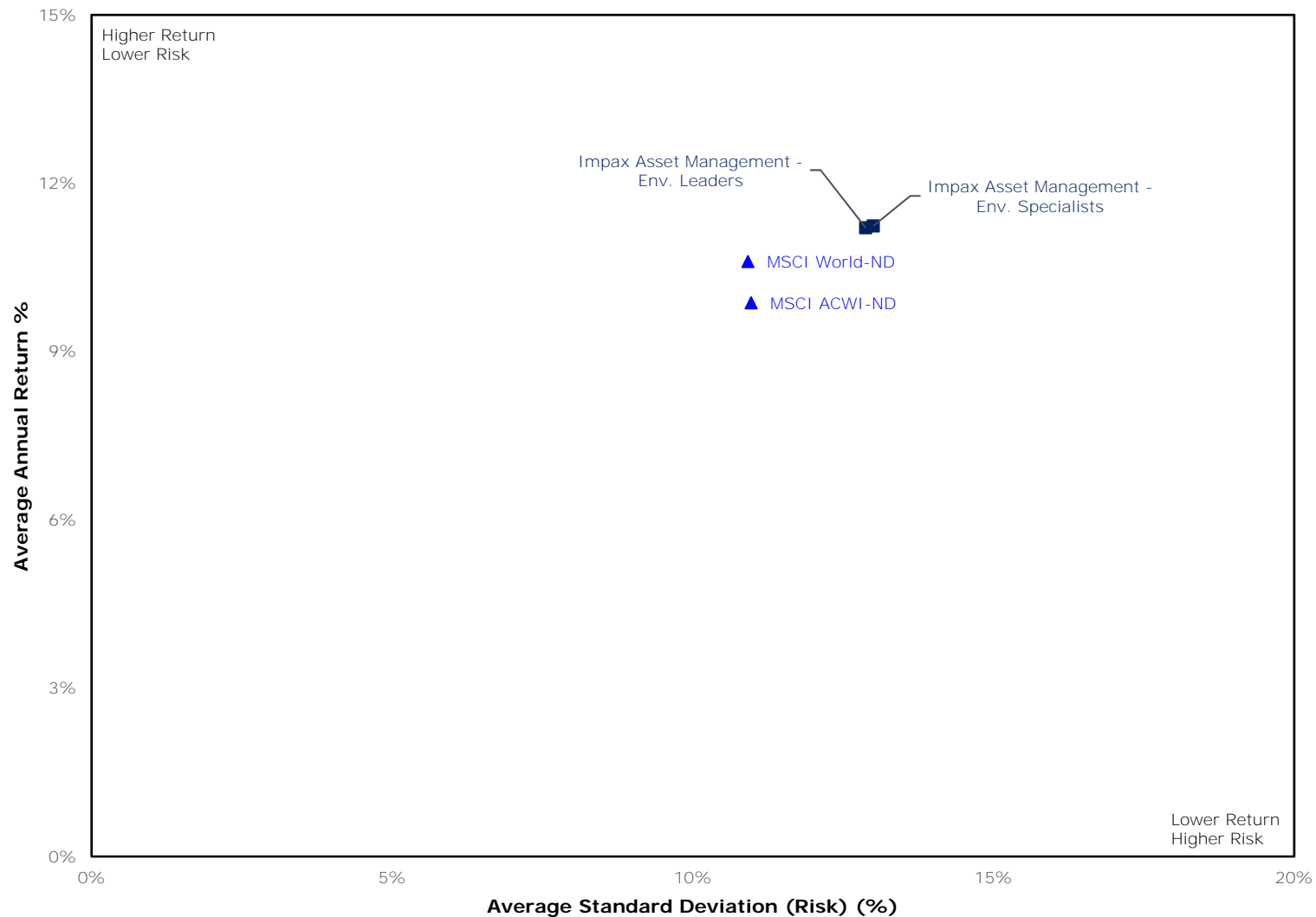
# 5 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



Past performance is no guarantee of future results

Performance as of June 30, 2019

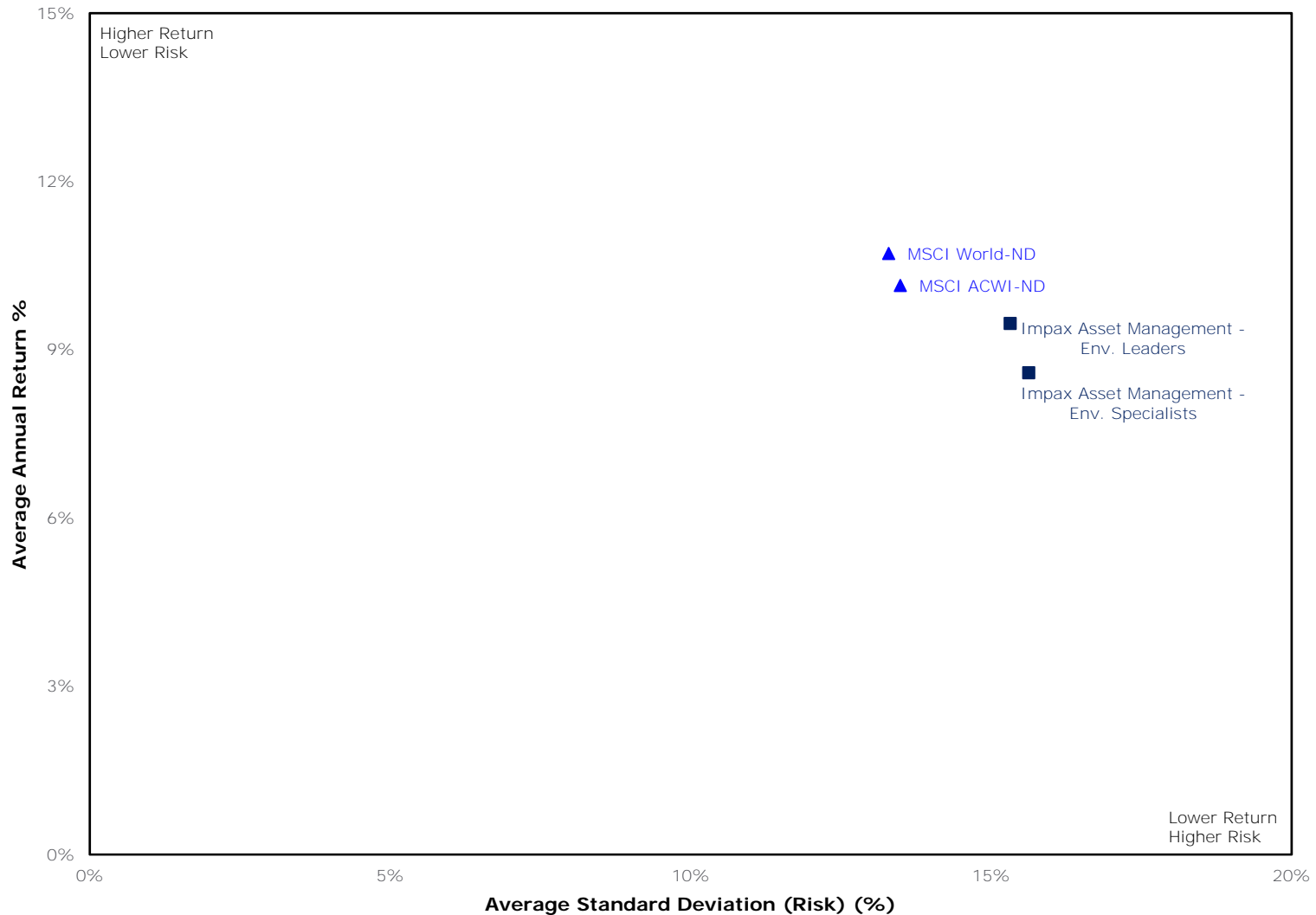
# 7 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



Past performance is no guarantee of future results

Performance as of June 30, 2019

# 10 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



Past performance is no guarantee of future results

Performance as of June 30, 2019

# INVESTMENT FIRM/PRODUCT PROFILE

## **Impax Asset Management LLC Impax Leaders Strategy**

**John Lutz, Research Analyst**  
**Source: NEPC and eVestment**  
**August 2019**

### **Firm Description**

Impax Asset Management is an investment firm, managing and advising on approximately US\$4.5 billion primarily for institutional clients through both listed and private equity strategies. Impax is a wholly owned subsidiary of Impax Asset Management Group plc, whose shares are listed on the London Stock Exchange's AIM. Major shareholders include BNP Paribas Investment Partners 24.9%, Rathbone Investment Managers 5.6% and DIAM Company 4.3%. Impax management and staff own approximately 36%.

### **NEPC Investment Thesis**

Leaders value add is its multi-thematic approach in many meaningful ESG areas. The fund is exposed to at least 6 of the UN SDG codes or 29 subsectors. Its holdings are unique and focused offering a very differentiated, positive impact product.

### **People**

The investment team consists of Impax founder Ian Simm, and 2 co-heads of Equities. In addition there are 10 dedicated PM/Analysts. These are supported by Lisa Beauvilain, the head of Sustainability and ESG, as well as two investment risk analysts. All analysts do both fundamental and ESG analysis, and every holding has a lead and support analyst. They see the ESG work as an additional tool to help them understand a company - not to screen it out.

The main portfolio managers for Leaders Strategy are Bruce Jenkyn-Jones, and Hubert Aarts.

### **Philosophy**

Impax was founded in response to the many global issues and trends affecting the world: population dynamics, resource scarcity, inadequate infrastructure and environmental constraints. They foresaw increasing investment opportunities as companies attempt to solve and address these issues and trends. As these markets are often volatile in light of corporate activity, innovation and legislative risks, mis-pricing events occur, providing further opportunities.



# INVESTMENT FIRM/PRODUCT PROFILE

## **Impax Asset Management LLC** **Impax Leaders Strategy**

### **Investment Strategy**

Impax uses both top down and bottom up research. From the top down they will use screens (and themes) to make sure each company fits various criteria. From there an analyst will do a brief screening of financials. If the team decides it makes sense to move forward, the lead analyst will apply the Impax '10 step approach', a detailed list of criteria they must look at in depth. They will also do financial analysis which gets measured in their proprietary Viper analytics and helps them determine intrinsic value.

A summary report must also be written, and the idea will then be debated by entire investment team. If it is approved, the investment team agrees on a valuation and stock strategy. PM's Bruce Jenkyn-Jones (Co-Head of Listed Equities), Hubert Aarts (Co-Head of Listed Equities) and Ian Simm (Chief Executive) have a veto over decisions regarding the 'A' List of investable stocks.

### **Portfolio**

The portfolio is typically around 50 holdings with less than 25% annual turnover. Regional and sector allocations are mostly driven from the bottom up. Emerging markets exposure is limited to 20%.

### **Performance Expectations**

This growth oriented fund will likely perform well when the economy and markets are doing well and lag during slower growth or defensive/value markets.



# BIOGRAPHIES OF KEY PROFESSIONALS

## **Impax Asset Management LLC** **Impax Leaders Strategy**

### **Bruce Jenkyn-Jones, Managing Director**

Mr. Jenkyn-Jones is a Managing Director and Co-Head of Listed Equities along with Hubert Aarts. Together they are responsible for the development of the investment process, research and team. Jenkyn-Jones has an active role in the day to day management of all Impax listed equity portfolios and serves as co Portfolio Manager for our Specialists, Leaders, and Water strategies. Jenkyn-Jones joined Impax in 1999 where he worked initially on venture capital investments before developing the listed equity business.

Before joining Impax, Jenkyn-Jones worked as a utilities analyst at Bankers Trust and as an environmental consultant for Environmental Resources Management (ERM). Bruce has an MBA from IESE (Barcelona), an MSc in Environmental Technology from Imperial College and a degree in Chemistry from Oxford.

### **Hubert Aarts, Managing Director**

Mr. Aarts is a Managing Director and Co-Head of Listed Equities along with Bruce Jenkyn-Jones. Hubert is Co-Portfolio Manager for Impax's Leaders and Water Strategies. Hubert also leads Impax's macro-economic research process.

Aarts started his career in the investment industry in 1990 and joined Impax in January 2007. He has extensive experience investing in Pan-European equities as a portfolio manager at MeesPierson and Merrill Lynch Investment Managers, where he chaired the European Sector Strategy Group. Aarts joined Impax from Cambrian Capital Partners LLP where he was a partner and portfolio manager of the Curallium fund, and Incremental Leveraged hedge funds. Hubert has a Master's degree in Economics and Business Administration from Maastricht University.





# BIOGRAPHIES OF KEY PROFESSIONALS

## **Impax Asset Management LLC** **Impax Leaders Strategy**

### **David Winborne, Portfolio Manager**

David joined Impax in September 2015 as a senior portfolio manager on the listed equity team, and his responsibilities include co-management of the Global Opportunities strategy. He arrived from the in-house asset management team at Tesco Pension Investment, where he had joint responsibility for the successful development, launch and management of a new global equities investment platform. Prior to this, David was a fund manager at Sarasin & Partners, where he was responsible for the firm's Asia Pacific Equity fund and for contributing investment recommendations to Sarasin's flagship thematic Global Equity fund. After graduating from the University of Bath, David began his career at Insight Investment on the Global Equities graduate scheme in 2003 as a global equity analyst.

# INVESTMENT FIRM/PRODUCT PROFILE

## **Impax Asset Management LLC Impax Specialists Strategy**

**John Lutz, Research Analyst**  
**Source: NEPC and eVestment**  
**August 2018**

### **Firm Description**

Impax Asset Management is an investment firm, managing and advising on approximately US\$4.5 billion primarily for institutional clients through both listed and private equity strategies. Impax is a wholly owned subsidiary of Impax Asset Management Group plc, whose shares are listed on the London Stock Exchange's AIM. Major shareholders include BNP Paribas Investment Partners 24.9%, Rathbone Investment Managers 5.6% and DIAM Company 4.3%. Impax management and staff own approximately 36%.

### **NEPC Investment Thesis**

The Impax Specialist strategies value add is attributable to their focus on environmental markets investing, fundamental research process and top down thematic macro overlay. The fund is exposed to at least 6 of the UN SDG codes or 29 subsectors. It's holdings are unique and focused offering a very differentiated, positive impact product. Additionally, Impax has performed considerable work to quantify net carbon offset, renewable electricity generated, water treated or provided and materials recovered and waste treated at a portfolio level.

### **People**

Impax Specialist Strategy portfolio construction team comprises co-portfolio managers Bruce Jenkyn-Jones, Jon Forster and PM/analyst Justin Winter. The three are supported by a team of nine portfolio managers and analysts and a dedicated ESG professional.

### **Philosophy**

The Impax Specialist team believe that mispricings are prevalent among companies focusing on resource optimization on account of a companies high level of corporate activity, low levels of sell side coverage, rapid technological innovation and regulatory momentum. The team believes that companies focusing across energy efficiency, alternative energy, water, waste/resource recovery, food and agriculture related markets will benefit from the long term trends of rising global populations and wealth, changing demographic, urbanization, increasing consumption and the resultant increases in resource demand.



# INVESTMENT FIRM/PRODUCT PROFILE

## **Impax Asset Management LLC** **Impax Specialists Strategy**

### **Investment Strategy**

The investment team applies a primary screen to the universe of investable companies to ensure they meet the criteria for inclusion in the universe. Inclusion in the primary universe is predicated on the environmental product or service comprising more than 50% of group revenue, profitability or invested capital. Should a company meet the initial criteria, the securities financial performance and censuses earnings are reviewed by a lead analyst. If deeper due diligence is warranted the lead analyst begins a 10 Step review of the security. The first 6 steps relate to Business Fundamentals: 1. Investment Theme and Thesis, 2. Market, 3. Technology, 4. Business model and strategy, 5. Management, and 6. ESG. The next two steps relate to Market Dynamics: 7. Ownership and Trading, and 8. Intrinsic value. The final two steps are related to an investments Outlook: 9. Risks and Issues, and 10. Catalysts for share price movement.

Impax utilizes a proprietary modeling software called Viper Analytics, to generate an intrinsic value for each company. These models apply a discount rate to future cash flows to evaluate whether a stock is likely to make a return on the capital it has invested that is higher than the cost of running its assets. In addition other methodologies including a sum of the parts model is incorporated for businesses with cash flows from discrete or disparate business and multiples analysis to aid in determining earnings power for cyclical companies. A full ESG risk analysis is performed on each security in the investable universes. Governance parameters are driven by country level rules and codes, which environmental and social parameters are defined at a sector level. Following the ESG assessment, IMPAX sorts the universe into the following categories: Excellent, Good and Average all of which are investable; Fair which places a cap on position sizing; and Excluded which are not investable.

A summary paper outlining the key qualitative and quantitative issues uncovered during the research process is then produced. The investment team debates the research in more detail during the weekly Investment Committee meeting and determines if the company is worthy of being on the A' List of investable stocks.

Co-Heads of Listed Equity, Bruce Jenkyn-Jones and Hubert Aarts, and Chief Executive Ian Simm, have a veto over decisions regarding the A' List of investable stocks.



# INVESTMENT FIRM/PRODUCT PROFILE

## **Impax Asset Management LLC** **Impax Specialists Strategy**

The portfolio construction team of Bruce Jenkyn-Jones, Jon Forster and Justin Winter are responsible for building and maintaining the Specialist Strategy utilizing the 'A' list of investable stocks, subject to risk and ESG constraints.

The inputs to the Macro Overlay process that drive economic analysis, country, and sector weighting decisions are: Macro-economic analysis conducted quarterly, Microeconomic and technology, Legislation, and Valuation. Each input is measured and each sub sector is allocated a ranking of overall absolute attractiveness.

### **Portfolio**

Portfolio construction delivers a high conviction, low turnover portfolio of 55-65 small and mid cap holdings, with a minimum 50% business exposure to resource optimization.

### **Performance Expectations**

The strategy should perform well when there is a positive outlook for industrial capex, growth is favored vs value, announcements and implementation of environmental legislation are prevalent, when energy prices are high or rising, or when price of certain commodities including metals and paper are high.



# BIOGRAPHIES OF KEY PROFESSIONALS

## **Impax Asset Management LLC** **Impax Specialists Strategy**

### **Bruce Jenkyn-Jones, Managing Director**

Mr. Jenkyn-Jones is a Managing Director and Co-Head of Listed Equities along with Hubert Aarts. Together they are responsible for the development of the investment process, research and team. Jenkyn-Jones has an active role in the day to day management of all Impax listed equity portfolios and serves as co Portfolio Manager for our Specialists, Leaders, and Water strategies. Jenkyn-Jones joined Impax in 1999 where he worked initially on venture capital investments before developing the listed equity business.

Before joining Impax, Jenkyn-Jones worked as a utilities analyst at Bankers Trust and as an environmental consultant for Environmental Resources Management (ERM). Bruce has an MBA from IESE (Barcelona), an MSc in Environmental Technology from Imperial College and a degree in Chemistry from Oxford.

### **Hubert Aarts, Managing Director**

Mr. Aarts is a Managing Director and Co-Head of Listed Equities along with Bruce Jenkyn-Jones. Hubert is Co-Portfolio Manager for Impax's Leaders and Water Strategies. Hubert also leads Impax's macro-economic research process.

Aarts started his career in the investment industry in 1990 and joined Impax in January 2007. He has extensive experience investing in Pan-European equities as a portfolio manager at MeesPierson and Merrill Lynch Investment Managers, where he chaired the European Sector Strategy Group. Aarts joined Impax from Cambrian Capital Partners LLP where he was a partner and portfolio manager of the Curialium fund, and Incremental Leveraged hedge funds. Hubert has a Master's degree in Economics and Business Administration from Maastricht University.

### **Jon Forster, Portfolio Manager**

Jon co-manages the Environmental Specialists listed equity strategy. Jon has many years of investment experience working with both private and quoted companies. Following his graduation from Leeds University in Management Studies, he spent four years working on acquisitions at HSBC Investment Bank.

Subsequently, he spent two years as a consultant to venture capital investor Alchemy Partners with particular focus on manufacturing and resource management companies before joining Impax in 2000.

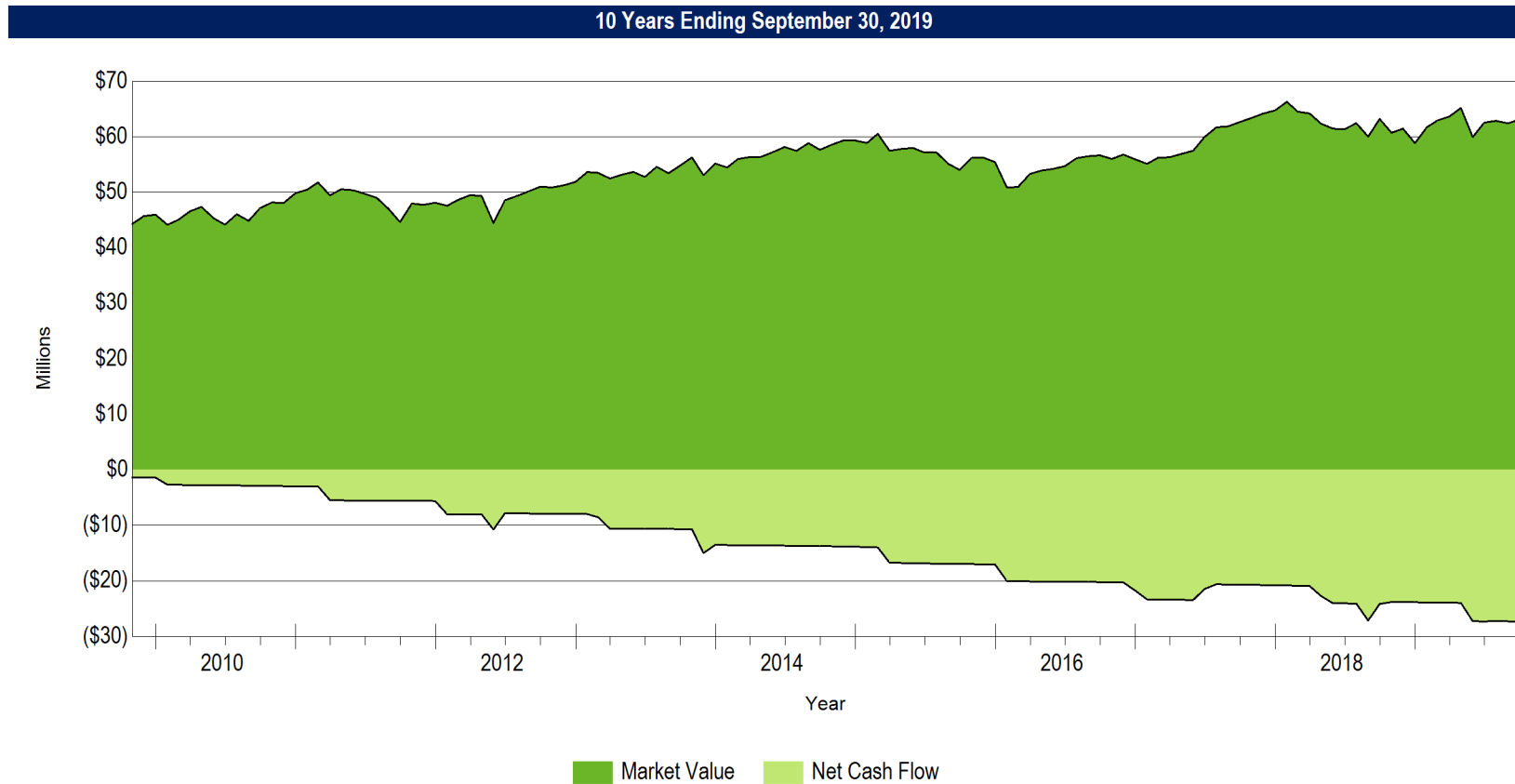


# APPENDIX

NEPC, LLC

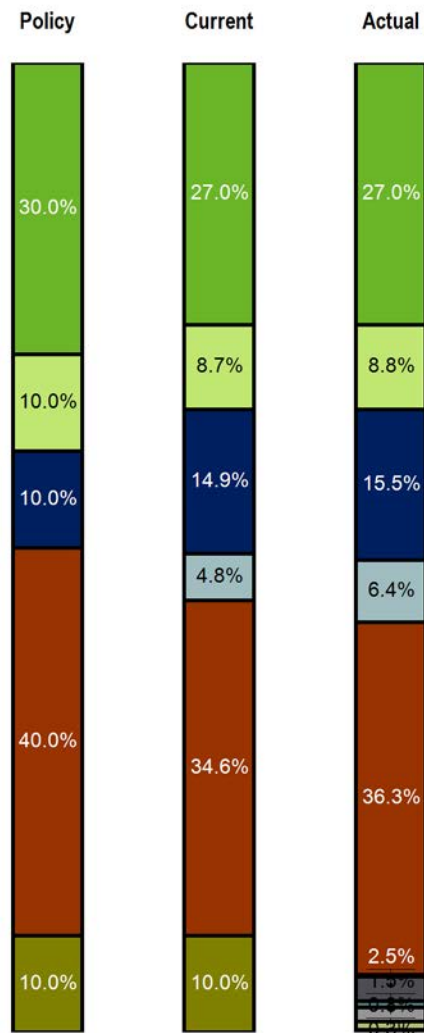
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# TOTAL FUND ASSET GROWTH SUMMARY



	Last Three Months	Year-To-Date	One Year	Three Years	Five Years	Seven Years	Ten Years
Beginning Market Value	\$62,571,258	\$58,870,507	\$63,226,715	\$56,670,820	\$57,663,226	\$51,020,362	\$46,089,345
Net Cash Flow	\$64,524	-\$3,229,906	-\$2,836,025	-\$6,186,967	-\$12,132,233	-\$17,517,507	-\$25,129,941
Net Investment Change	\$505,602	\$7,500,783	\$2,750,694	\$12,657,532	\$17,610,391	\$29,638,530	\$42,181,981
Ending Market Value	\$63,141,384	\$63,141,384	\$63,141,384	\$63,141,384	\$63,141,384	\$63,141,384	\$63,141,384

# TOTAL FUND ASSET ALLOCATION VS. POLICY TARGETS



Allocation vs. Targets and Policy				
	Current Balance	Policy	Current Allocation	Actual
Large Cap Equity	\$17,031,419	30.0%	27.0%	27.0%
Small Cap Equity	\$5,523,919	10.0%	8.7%	8.8%
International Equity	\$9,397,359	10.0%	14.9%	15.5%
Emerging Markets Equity	\$3,033,708	--	4.8%	6.4%
Domestic Fixed Income	\$21,837,290	40.0%	34.6%	36.3%
High Yield	--	--	--	0.2%
Fixed Income - Emerging	--	--	--	2.5%
Global Bonds	--	--	--	0.7%
Balanced - GAA	\$6,317,690	10.0%	10.0%	--
Hedge Funds	--	--	--	1.5%
Real Assets	--	--	--	0.8%
Cash	--	--	--	0.3%
<b>Total</b>	<b>\$63,141,384</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Equity → 57.7%

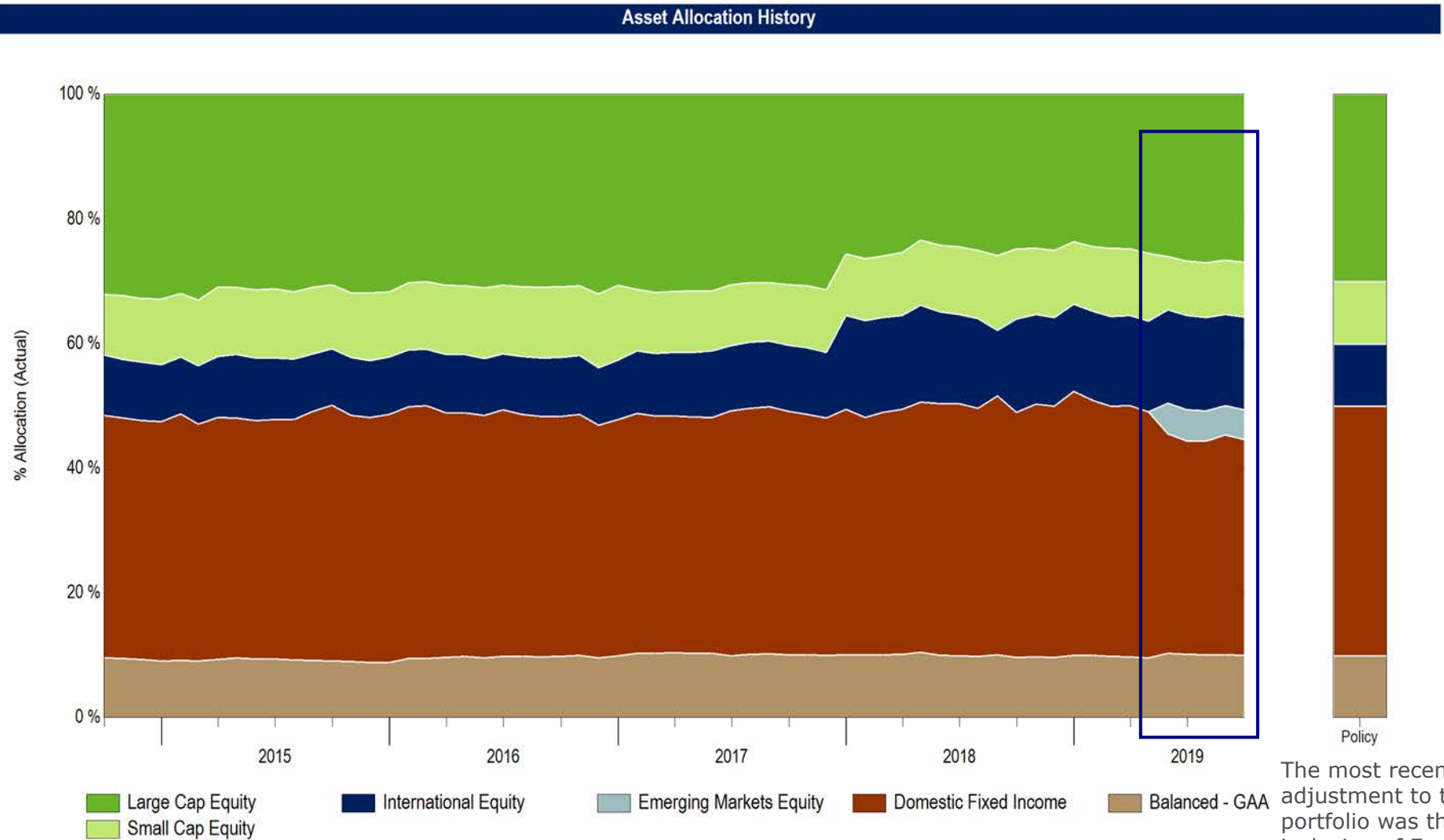
Fixed Income → 39.7%

Cash/Other → 2.6%

PIMCO All Asset Fund is broken out by allocation.



# TOTAL FUND ASSET ALLOCATION HISTORY



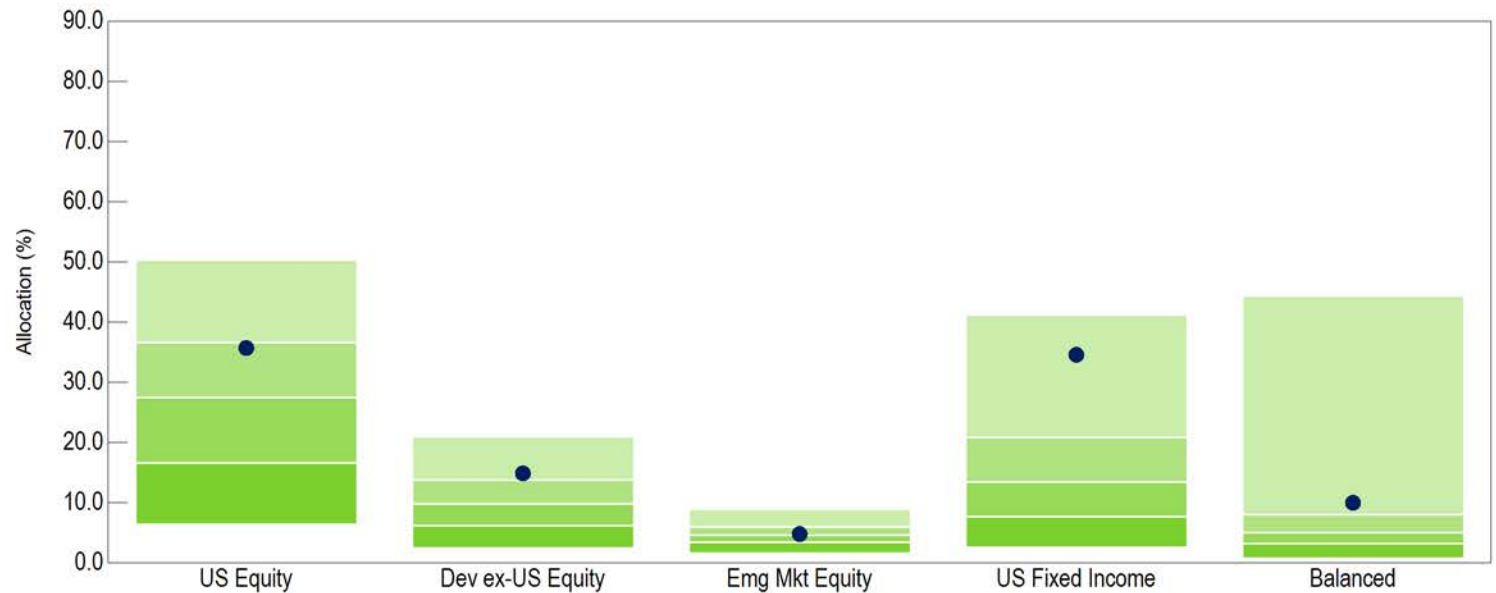
The most recent adjustment to the portfolio was the inclusion of Emerging Markets Equity (UBS)

# ASSET ALLOCATION BY MANAGER

Asset Allocation by Manager							
As Of September 30, 2019							
	Total Market Value	% of Portfolio	Large Cap Equity	Small Cap Equity	International Equity	Emerging Markets Equity	Domestic Fixed Income
Composite							Balanced - GAA
Total Domestic Equity							
SSgA SRI S&P 500	\$10,040,940	15.9%	\$10,040,940				
Diamond Hill Large Cap Class Y Shares	\$6,990,479	11.1%	\$6,990,479				
Segall Bryant & Hamill Small Cap	\$5,523,919	8.7%		\$5,523,919			
Total Non-US Equity							
Total International Equity							
Earnest International Investment Trust Fund	\$6,151,229	9.7%			\$6,151,229		
SSgA Hedged EAFE Index	\$3,246,129	5.1%			\$3,246,129		
Total Emerging Markets Equity							
UBS EME HALO	\$3,033,708	4.8%				\$3,033,708	
Total Domestic Fixed Income							
IR&M Core Bond Fund II	\$8,552,191	13.5%					\$8,552,191
SSgA Treasury Inflation Protected Securities	\$6,678,299	10.6%					\$6,678,299
Manulife Asset Management	\$6,606,800	10.5%					\$6,606,800
Total Balanced - GAA							
PIMCO All Asset	\$6,317,690	10.0%					\$6,317,690
<b>Total</b>	<b>\$63,141,384</b>	<b>100.0%</b>	<b>\$17,031,419</b>	<b>\$5,523,919</b>	<b>\$9,397,359</b>	<b>\$3,033,708</b>	<b>\$21,837,290</b>

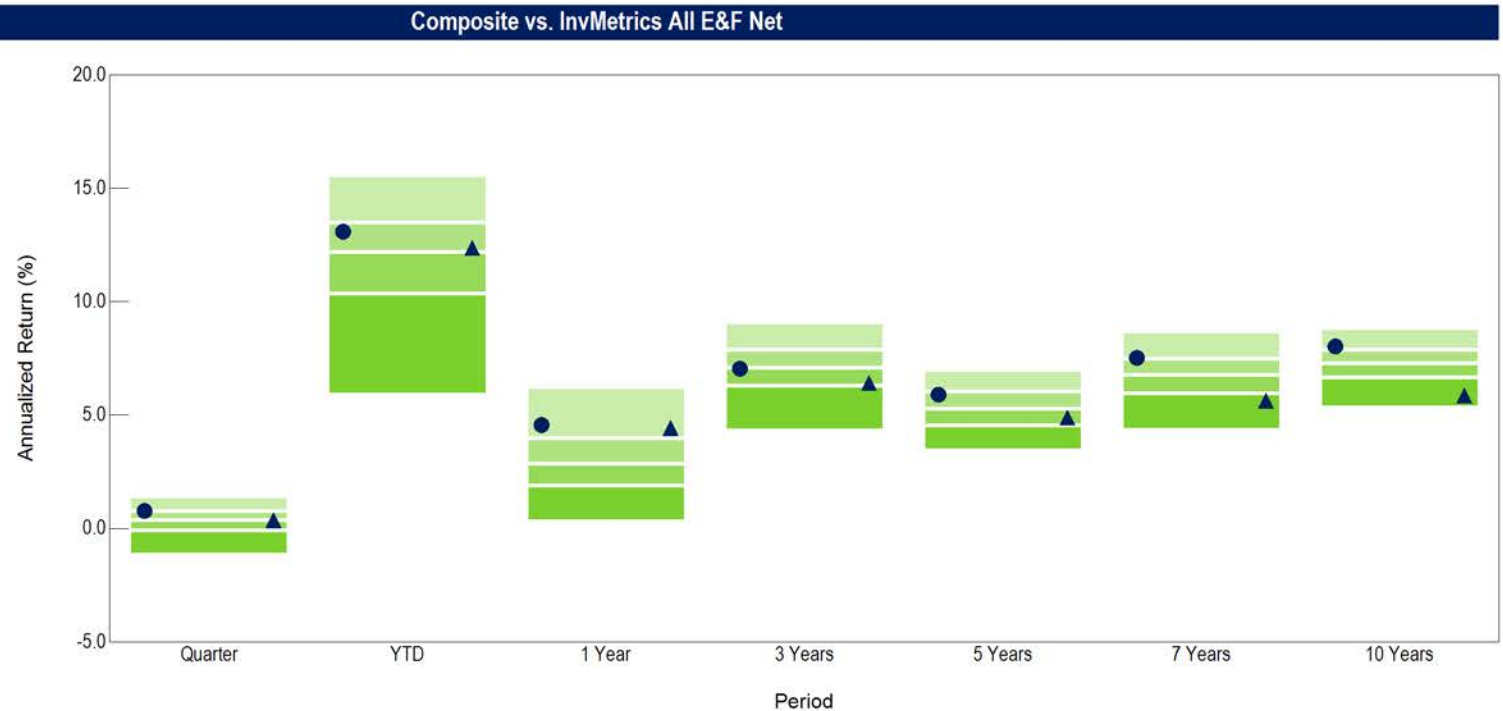
# TOTAL FUND ALLOCATION VS. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics All E&F Net  
As of September 30, 2019



	US Equity		Dev ex-US Equity		Emg Mkt Equity		US Fixed Income		Balanced	
Allocation (Rank)	50.4		21.0		8.9		41.2		44.3	
5th Percentile	16.7		2.6		1.8		2.7		0.9	
25th Percentile	27.6		9.9		4.7		7.8		5.2	
Median	36.7		13.8		6.0		13.5		8.1	
75th Percentile	50.4		21.0		8.9		21.0		44.3	
95th Percentile	50.4		21.0		8.9		41.2		44.3	
# of Portfolios	458		404		412		409		78	
Composite	35.7	(27)	14.9	(19)	4.8	(48)	34.6	(7)	10.0	(21)

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE



		Return (Rank)													
5th Percentile		1.4		15.6		6.2		9.1		7.0		8.7		8.8	
25th Percentile		0.8		13.5		4.0		7.9		6.0		7.5		7.9	
Median		0.4		12.2		2.9		7.1		5.3		6.8		7.3	
75th Percentile		-0.1		10.4		1.9		6.3		4.6		6.0		6.7	
95th Percentile		-1.2		5.9		0.3		4.3		3.5		4.4		5.3	
# of Portfolios		952		935		923		830		727		634		517	
●	Composite	0.8	(25)	13.1	(33)	4.6	(18)	7.0	(53)	5.9	(30)	7.5	(25)	8.0	(21)
▲	60% MSCI ACWI (Net) / 40% FTSE WGBI	0.4	(52)	12.4	(47)	4.4	(20)	6.4	(71)	4.9	(65)	5.6	(83)	5.9	(91)

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

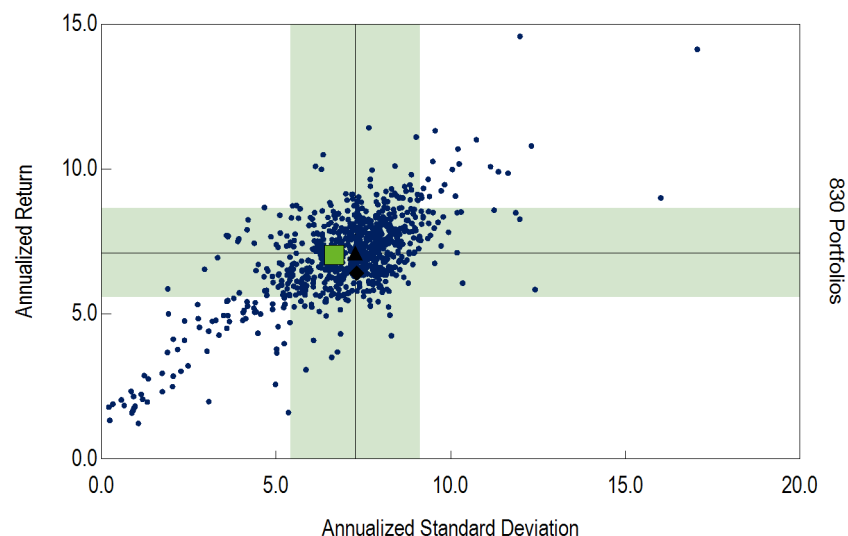
Composite vs. InvMetrics All E&F Net



		Return (Rank)																			
5th Percentile		-0.2	19.1	9.2	1.0	7.5	21.3	14.6	3.4	14.9	28.4										
25th Percentile		-3.8	16.6	7.6	-0.6	5.6	17.0	13.1	0.4	13.3	24.4										
Median		-5.4	14.9	6.5	-1.8	4.4	14.0	12.0	-0.8	12.1	21.4										
75th Percentile		-6.6	13.1	5.3	-2.9	3.3	11.0	10.9	-2.1	10.8	17.9										
95th Percentile		-8.2	6.2	3.0	-4.6	1.6	4.8	8.0	-4.3	7.3	10.9										
# of Portfolios		1,146	848	863	768	655	472	459	411	381	360										
●	Composite	-5.4	(51)	13.3	(74)	9.1	(6)	-2.1	(56)	7.6	(5)	17.2	(24)	13.5	(19)	1.5	(16)	11.9	(54)	18.1	(74)
▲	60% MSCI ACWI (Net) / 40% FTSE WGBI	-5.8	(59)	17.1	(18)	5.5	(71)	-2.6	(70)	2.3	(89)	11.4	(72)	10.3	(81)	-1.8	(70)	10.0	(84)	21.3	(51)

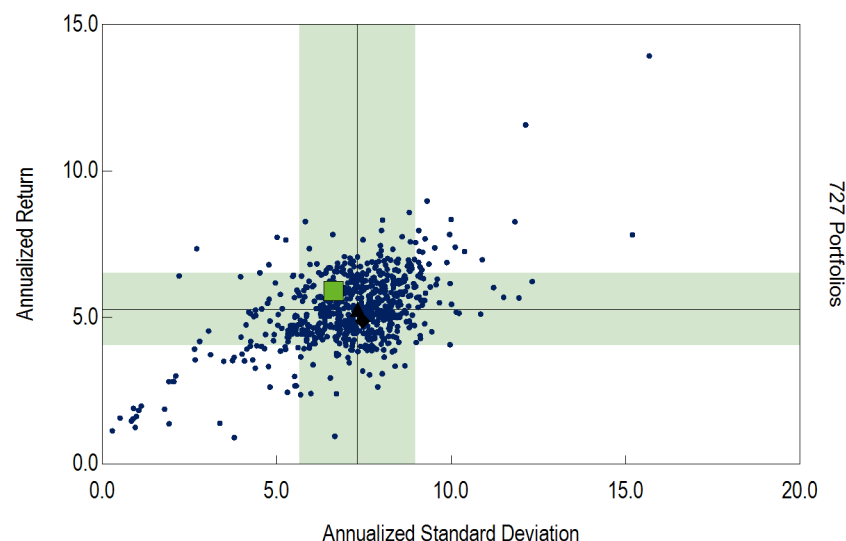
# TOTAL FUND RISK/RETURN - 3 AND 5 YEARS

3 Years Ending September 30, 2019



- Composite
- ◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics All E&F Net

5 Years Ending September 30, 2019

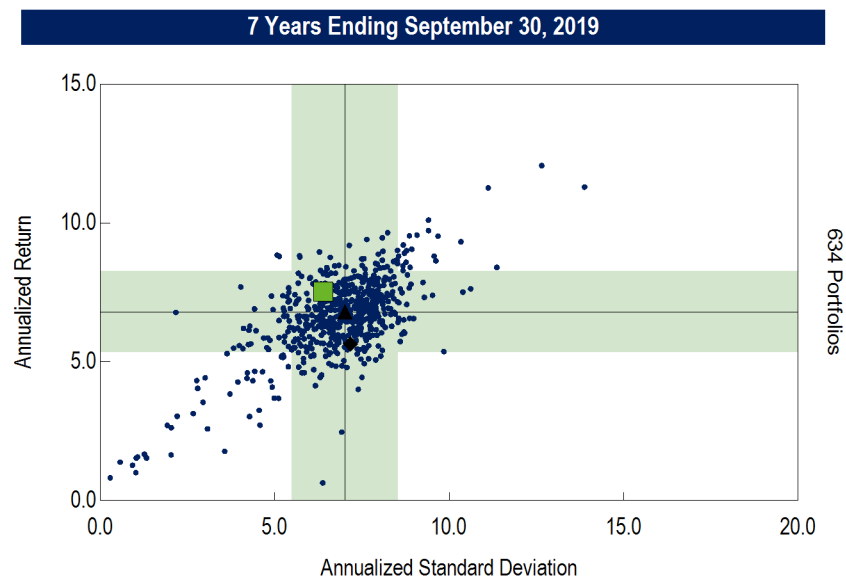


- Composite
- ◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics All E&F Net

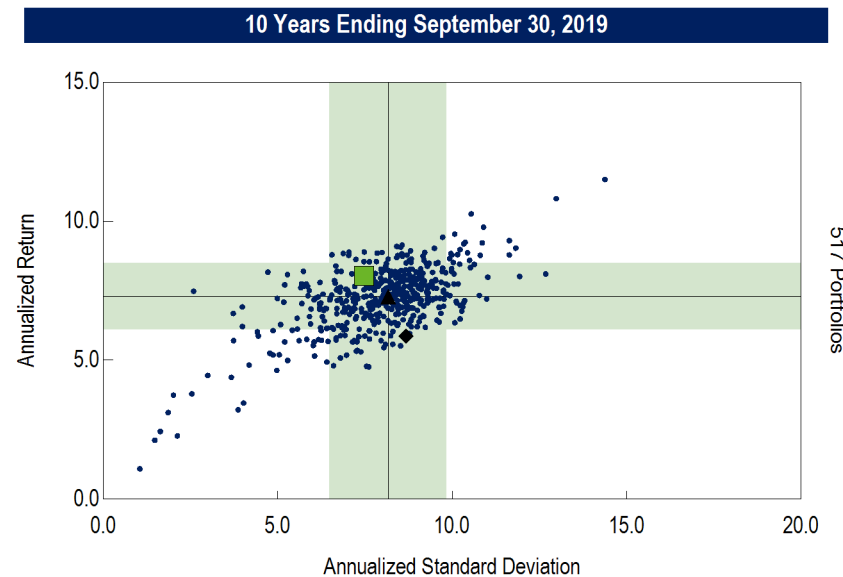
3 Years Ending September 30, 2019						
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Composite	7.04%	53	6.66%	34	0.82	38
60% MSCI ACWI (Net) / 40% FTSE WGBI	6.41%	71	7.31%	51	0.67	79

5 Years Ending September 30, 2019						
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Composite	5.90%	30	6.63%	29	0.74	18
60% MSCI ACWI (Net) / 40% FTSE WGBI	4.88%	65	7.46%	54	0.52	74

# TOTAL FUND RISK/RETURN - 7 AND 10 YEARS



- Composite
- ◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics All E&F Net



- Composite
- ◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics All E&F Net

7 Years Ending September 30, 2019						
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Composite	7.52%	25	6.40%	31	1.06	13
60% MSCI ACWI (Net) / 40% FTSE WGBI	5.63%	83	7.18%	55	0.69	90

10 Years Ending September 30, 2019						
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Composite	8.02%	21	7.48%	33	1.00	16
60% MSCI ACWI (Net) / 40% FTSE WGBI	5.86%	91	8.67%	66	0.62	98

# TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	Ending September 30, 2019								Inception (%)	Inception Date
				3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)			
Composite	63,141,384	100.0	100.0	0.8	13.1	4.6	7.0	5.9	7.5	8.0	9.3	Jan-81	
60% MSCI ACWI (Net) / 40% FTSE WGBI				0.4	12.4	4.4	6.4	4.9	5.6	5.9	--	Jan-81	
Total Domestic Equity	22,555,338	35.7	40.0										
SSgA SRI S&P 500	10,040,940	15.9	20.0	1.9	21.7	5.7	14.2	11.3	13.7	13.5	14.3	Jan-09	
S&P 500				1.7	20.6	4.3	13.4	10.8	13.3	13.2	14.1	Jan-09	
Diamond Hill Large Cap Class Y Shares	6,990,479	11.1	10.0	1.1	22.4	5.9	--	--	--	--	9.4	May-17	
Russell 1000 Value				1.4	17.8	4.0	9.4	7.8	11.3	11.5	7.5	May-17	
Segall Bryant & Hamill Small Cap	5,523,919	8.7	10.0	0.6	19.4	-2.1	10.7	--	--	--	7.6	Jan-15	
Russell 2000				-2.4	14.2	-8.9	8.2	8.2	10.4	11.2	6.5	Jan-15	
Total Non-US Equity	12,431,067	19.7	--										
Total International Equity	9,397,359	14.9	10.0										
Earnest International Investment Trust Fund	6,151,229	9.7	10.0	-2.2	11.7	-3.2	6.6	3.0	--	--	2.6	May-14	
MSCI ACWI ex USA				-1.8	11.6	-1.2	6.3	2.9	5.0	4.5	2.3	May-14	
SSgA Hedged EAFE Index	3,246,129	5.1		2.4	18.0	4.2	--	--	--	--	4.2	Oct-18	
MSCI EAFE 100% USD Hedged				2.3	17.8	4.2	10.4	7.3	10.5	7.7	4.2	Oct-18	
Total Emerging Markets Equity	3,033,708	4.8	--										
UBS EME HALO	3,033,708	4.8		-3.3	--	--	--	--	--	--	3.7	Jun-19	
MSCI Emerging Markets				-4.2	5.9	-2.0	6.0	2.3	2.4	3.4	1.7	Jun-19	
Total Domestic Fixed Income	21,837,290	34.6	40.0										
IR&M Core Bond Fund II	8,552,191	13.5		2.0	7.4	8.5	2.4	3.1	2.7	4.0	4.6	Mar-07	
BBgBarc US Aggregate TR				2.3	8.5	10.3	2.9	3.4	2.7	3.7	4.3	Mar-07	
SSgA Treasury Inflation Protected Securities	6,678,299	10.6		1.3	7.5	7.0	--	--	--	--	3.4	Jan-18	
BBgBarc US TIPS TR				1.3	7.6	7.1	2.2	2.4	1.1	3.5	3.5	Jan-18	
Manulife Asset Management	6,606,800	10.5		2.1	9.3	8.0	--	--	--	--	4.4	Mar-18	
BBgBarc Global Aggregate TR				0.7	6.3	7.6	1.6	2.0	1.2	2.3	3.0	Mar-18	
Total Balanced - GAA	6,317,690	10.0	10.0										
PIMCO All Asset	6,317,690	10.0	10.0	-0.6	7.3	4.0	5.0	3.2	3.3	--	4.1	Jul-12	
PIMCO All Asset Index				1.2	9.3	7.9	3.9	4.1	3.6	5.1	3.9	Jul-12	

- PIMCO All Asset Index consists of 40% BC Agg/ 30% TIPS/ 10% S&P 500/ 10% HY/ 10% JPM EMBI +TR

- Returns are reflected net of fees

- IR&M Core Bond Fund II' and PIMCO All Asset valuations include small amounts of cash.





# DUE DILIGENCE UPDATES

Investment Options	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
<b>PIMCO All Asset Strategy</b>	Litigation: PIMCO Discrimination Lawsuit 10/21/19	1. No Action
<b>Diamond Hill Large Cap</b>	Other: Diamond Hill Capital Management - New CEO 08/12/19	Current Status Does Not Change
<b>UBS Emerging Markets Equity HALO</b>	Loss of Personnel: UBS Leadership Changes 09/09/19	1. No Action
<b>UBS Emerging Markets Equity HALO</b>	Other: Leadership Changes 10/21/19	1. No Action

# DUE DILIGENCE DETAIL

Investment Option	Commentary	NEPC Rating
<b>PIMCO All Asset Strategy</b>	<p>Andrea Martin Inokon, senior counsel at PIMCO, is suing for sex-, race-, and disability status-based discrimination. She named PIMCO, the firm's deputy counsel Rick LeBrun, and global general counsel David Flattum. PIMCO denies the allegations. Ms. Onokon is still employed at PIMCO. NEPC has spoken with PIMCO, and while they are limited in what they can say we have requested further information:</p> <ol style="list-style-type: none"> <li>1) We would like to hear the results of internal investigations around the specific "fraternity culture" allegations in this complaint</li> <li>2) We would like to hear more specific information about PIMCO's roadmap toward diverse representation at the firm's most senior management levels</li> </ol> <p>PIMCO has an executive level office dedicated to diversity and inclusion, which we have covered in prior due diligence events. At this time we believe this filing is a specific employment dispute and are recommending NO ACTION. We will continue speaking with PIMCO and update information and/or due diligence status accordingly.</p>	<b>1</b>
<b>Diamond Hill Large Cap</b>	<p>Prior to 2019, the CEO role at Diamond Hill Capital Management had been a dual position – both CEO and portfolio manager. Earlier this year, present CEO Chris Bingaman and the Diamond Hill board determined it made sense to separate the roles and announced they were beginning a search. Chris had been in the position since 2016. Their search culminated in the hiring of Heather Brilliant, CFA, to serve as President and Chief Executive Officer effective September 2019. Heather's prior experience includes Chief Executive Officer, Americas with First State Investments and nearly 14 years with Morningstar, where she served as Global Head of Equity &amp; Credit Research before advancing to Chief Executive Officer, Morningstar Australasia. Diamond Hill feels she brings an in-depth understanding of the investment management industry and significant leadership experience to Diamond Hill. They also stated she was a very strong cultural fit and has the right vision for leading them into the future.</p>	<b>1</b>
<b>UBS Emerging Markets Equity HALO</b>	<p>UBS informed us of a change in their asset management leadership. Ulrich Koerner, current President of Asset Management and President of UBS EMEA announced his retirement. Suni Harford, currently Head of Investments will succeed Ulrich. She has been in the Head of Investments role for the last two years. She will remain based in New York. We will learn more about Suni's replacement and any future plans/ changes with the organization after Suni takes over on October 1st. There is no changes or direct impact to the EM platform.</p>	<b>1</b>
<b>UBS Emerging Markets Equity HALO</b>	<p>UBS has further informed NEPC that Barry Gill has been named successor to Suni and will become Head of Investments effective November 1st. Barry has been at the firm for 25 years on both the banking and asset management side. He will continue to be based in New York and report to Suni (who has stepped up to be the President of Asset Management). Ian McIntosh who has been the Deputy Head since 2016 will succeed Barry as the sole Head of Active Equities. NEPC recommends No Action.</p>	<b>1</b>



# SSgA SRI S&P 500

Characteristics		
	Portfolio	S&P 500
Number of Holdings	506	505
Weighted Avg. Market Cap. (\$B)	230.4	230.5
Median Market Cap. (\$B)	22.4	22.5
Price To Earnings	20.6	20.5
Price To Book	3.7	3.6
Price To Sales	2.1	2.1
Return on Equity (%)	26.7	26.5
Yield (%)	2.0	2.0
Beta	1.0	1.0
R-Squared	1.0	1.0

Top Positive Contributors		
	Relative Contribution %	Return %
AMAZON.COM	0.0%	-8.3%
NETFLIX	0.0%	-27.1%
PFIZER	0.0%	-16.3%
FACEBOOK CLASS A	0.0%	-7.7%
EXXON MOBIL	0.0%	-6.7%
JOHNSON & JOHNSON	0.0%	-6.4%
CISCO SYSTEMS	0.0%	-9.2%
UNITEDHEALTH GROUP	0.0%	-10.5%
WALT DISNEY	0.0%	-6.1%
EOG RES.	0.0%	-20.1%

Top Negative Contributors		
	Relative Contribution %	Return %
APPLE	0.0%	13.6%
ALPHABET 'C'	0.0%	12.8%
ALPHABET A	0.0%	12.8%
MICROSOFT	0.0%	4.1%
PROCTER & GAMBLE	0.0%	14.2%
AT&T	0.0%	14.6%
HOME DEPOT	0.0%	12.2%
JP MORGAN CHASE & CO.	0.0%	6.0%
MEDTRONIC	0.0%	12.7%
NEXTERA ENERGY	0.0%	14.4%

Equity Sector Attribution									
	Attribution Effects				Returns		Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark	
Energy	0.0%	0.0%	0.0%	0.0%	-6.5%	-6.5%	4.8%	4.9%	
Materials	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	2.8%	2.8%	
Industrials	0.0%	0.0%	0.0%	0.0%	0.9%	0.9%	9.2%	9.3%	
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	10.0%	10.2%	
Consumer Staples	0.0%	0.0%	0.0%	0.0%	6.1%	6.1%	7.2%	7.3%	
Health Care	0.0%	0.0%	0.0%	0.0%	-2.2%	-2.2%	14.0%	14.3%	
Financials	0.0%	0.0%	0.0%	0.0%	2.0%	2.0%	12.9%	13.1%	
Information Technology	0.0%	0.0%	0.0%	0.0%	3.4%	3.4%	20.9%	21.4%	
Communication Services	0.0%	0.0%	0.0%	0.0%	2.2%	2.2%	10.0%	10.2%	
Utilities	0.0%	0.0%	0.0%	0.0%	9.4%	9.4%	3.2%	3.3%	
Real Estate	0.0%	0.0%	0.0%	0.0%	7.7%	7.7%	3.0%	3.1%	
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	2.0%	0.0%	
Portfolio	0.0%	=	0.0%	+	0.0%	+	0.0%	1.7%	1.7%
								100.0%	100.0%

1. Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# DIAMOND HILL LARGE CAP CLASS Y SHARES

Characteristics	Portfolio	Russell 1000 Value
Number of Holdings	51	760
Weighted Avg. Market Cap. (\$B)	145.8	114.2
Median Market Cap. (\$B)	67.4	9.0
Price To Earnings	15.9	16.7
Price To Book	2.8	2.2
Price To Sales	1.6	1.5
Return on Equity (%)	25.4	14.9
Yield (%)	2.0	2.6
Beta		1.0
R-Squared		1.0

Top Positive Contributors	Relative Contribution %	Return %
ALPHABET A	0.4%	12.8%
TEXAS INSTRUMENTS	0.2%	13.3%
MEDTRONIC	0.2%	12.7%
NVR	0.2%	10.3%
TJX	0.2%	5.9%
HARTFORD FINL.SVS.GP.	0.1%	9.3%
WORLDPAY A	0.1%	10.2%
KIMBERLY-CLARK	0.1%	7.4%
AMERICAN INTL.GP.	0.1%	5.1%
PARKER-HANNIFIN	0.1%	6.8%

Top Negative Contributors	Relative Contribution %	Return %
CIMAREX EN.	-0.3%	-18.8%
BORGWARNER	-0.2%	-12.2%
DEVON ENERGY	-0.2%	-15.3%
FACEBOOK CLASS A	-0.2%	-7.7%
PFIZER	-0.1%	-16.3%
HANESBRANDS	-0.1%	-10.1%
WALT DISNEY	-0.1%	-6.1%
METLIFE	-0.1%	-4.1%
LOEWS	-0.1%	-5.7%
GILEAD SCIENCES	-0.1%	-5.3%

Equity Sector Attribution												
	Attribution Effects						Returns		Sector Weights			
	Total Effects		Selection Effect		Allocation Effect		Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.1%		-0.6%		0.4%		0.3%		-13.4%	-6.7%	4.3%	8.8%
Materials	0.0%		0.0%		0.0%		0.0%		-2.4%	-2.3%	3.5%	4.0%
Industrials	0.4%		0.4%		0.0%		0.0%		3.6%	-1.8%	7.2%	7.9%
Consumer Discretionary	-0.1%		0.0%		0.0%		0.0%		1.1%	1.7%	13.5%	5.3%
Consumer Staples	0.0%		-0.1%		0.1%		0.0%		5.9%	6.8%	8.9%	7.8%
Health Care	0.1%		0.1%		0.1%		0.0%		-1.5%	-2.1%	13.6%	15.2%
Financials	-0.3%		-0.3%		0.0%		-0.1%		1.2%	2.3%	27.7%	22.6%
Information Technology	0.5%		0.8%		0.0%		-0.3%		8.6%	0.2%	5.7%	9.8%
Communication Services	-0.2%		-0.2%		0.3%		-0.2%		2.4%	5.7%	13.0%	7.1%
Utilities	-0.4%		--		-0.4%		--		--	8.2%	0.0%	6.4%
Real Estate	-0.3%		--		-0.3%		--		--	8.1%	0.0%	5.1%
Cash	0.0%		0.0%		0.0%		0.0%		0.5%	--	2.5%	0.0%
Portfolio	-0.2%	=	0.1%	+	0.1%	+	-0.4%		1.2%	1.4%	100.0%	100.0%

1. Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# SEGALL BRYANT & HAMILL, LLC SMALL CAP EQUITY

Characteristics	Portfolio	Russell 2000
Number of Holdings	83	1,991
Weighted Avg. Market Cap. (\$B)	3.9	2.2
Median Market Cap. (\$B)	2.6	0.7
Price To Earnings	21.9	18.5
Price To Book	3.0	2.4
Price To Sales	1.6	1.2
Return on Equity (%)	9.7	1.3
Yield (%)	0.8	1.5
Beta	0.8	1.0
R-Squared	0.9	1.0

Top Positive Contributors	Relative Contribution %	Return %
INSULET	1.0%	38.2%
MODEL N	0.5%	42.4%
SPX	0.3%	21.2%
UNIVERSAL ELECTRONICS	0.2%	24.1%
INNPHOS HOLDINGS	0.2%	13.5%
REALPAGE	0.2%	6.8%
TETRA TECH	0.2%	10.7%
GLOBUS MEDICAL CL.A	0.2%	20.9%
AMERICOLD REALTY TRUST	0.2%	15.0%
CASELLA WST.SYS.'A'	0.1%	8.4%

Top Negative Contributors	Relative Contribution %	Return %
GRANITE CON.	-0.3%	-33.0%
INGEVITY	-0.3%	-19.3%
BERRY GLOBAL GROUP	-0.3%	-25.3%
NEW RELIC	-0.3%	-29.0%
FOX FACTORY HOLDING	-0.3%	-24.6%
WORKIVA 'A'	-0.2%	-24.5%
HEALTHCARE SVS.GP.	-0.2%	-19.2%
CALLON PTL.DEL.	-0.2%	-34.1%
CHILDRENS PLACE	-0.2%	-18.7%
FERRO	-0.2%	-24.9%

Equity Sector Attribution															
	Attribution Effects							Returns		Sector Weights					
	Total		Selection		Allocation		Interaction		Portfolio	Benchmark	Portfolio	Benchmark			
	Effects		Effect		Effect		Effects								
Energy	0.5%		0.5%		0.1%		-0.1%		-3.7%		-18.0%		2.6%		3.2%
Materials	-0.4%		-0.2%		-0.1%		-0.1%		-10.5%		-5.4%		6.5%		3.8%
Industrials	0.2%		0.1%		0.1%		0.0%		0.5%		-0.1%		20.3%		15.3%
Consumer Discretionary	-0.1%		-0.1%		0.0%		0.0%		-2.1%		-1.2%		13.1%		11.8%
Consumer Staples	-0.1%		-0.1%		0.1%		-0.1%		0.0%		4.6%		4.0%		2.7%
Health Care	2.4%		2.2%		-0.1%		0.3%		5.9%		-8.4%		17.9%		15.6%
Financials	-0.1%		0.1%		-0.1%		0.0%		-0.2%		-0.6%		8.4%		17.8%
Information Technology	0.5%		0.4%		0.0%		0.0%		1.5%		-1.1%		17.1%		15.3%
Communication Services	0.2%		--		0.2%		--		--		-7.7%		0.0%		3.1%
Utilities	-0.3%		--		-0.3%		--		--		5.9%		0.0%		3.9%
Real Estate	-0.2%		0.3%		-0.3%		-0.1%		9.1%		5.4%		3.6%		7.4%
Cash	0.2%		0.0%		0.2%		0.0%		0.5%		--		6.5%		0.0%
Portfolio	2.7%	=	3.1%	+	-0.3%	+	-0.1%		0.7%		-2.0%		100.0%		100.0%

1. Attribution on manager pages is holdings based, using buy-and-hold assumptions from the beginning of the period portfolio. Results may differ from the flash report.



# EARNST INTERNATIONAL INVESTMENT TRUST

Characteristics		MSCI ACWI ex USA Gross
	Portfolio	
Number of Holdings	63	2,206
Weighted Avg. Market Cap. (\$B)	51.13	64.02
Median Market Cap. (\$B)	22.15	7.29
Price To Earnings	15.47	14.97
Price To Book	2.15	2.31
Price To Sales	1.17	1.17
Return on Equity (%)	17.67	15.03
Yield (%)	2.89	3.26
Beta	1.03	1.00
R-Squared	0.96	1.00

Top Positive Contributors		
	Relative Contribution %	Return %
ANTA SPORTS PRDS. (OTC)	0.3%	21.2%
ASE TECHNOLOGY HOLDING	0.2%	19.6%
TAIWAN SEMICON.MNFG.	0.2%	14.8%
EVEREST RE GP.	0.2%	8.3%
SECOM	0.1%	6.9%
MERCK KGAA	0.1%	7.8%
SHENZHOU INTL.GHG. (OTC)	0.1%	9.2%
MAGNA INTL.	0.1%	7.8%
NICE SPN.ADR 1:1	0.1%	5.0%
DENSO	0.1%	6.0%

Top Negative Contributors		
	Relative Contribution %	Return %
SCHOELLER-BLECKMANN	-0.4%	-30.1%
BNC.BRADESCO PF.SPN.ADR 1:1	-0.3%	-16.5%
AMADEUS IT GROUP (OTC)	-0.3%	-9.0%
RIO TINTO SPN.ADR 1:1	-0.3%	-12.9%
HDFC BANK ADR 1:3	-0.3%	-12.1%
SOFTBANK GROUP	-0.2%	-17.7%
ICON	-0.2%	-4.3%
BHP GROUP ADR 1:2	-0.2%	-12.3%
CONTINENTAL	-0.2%	-11.9%
ERSTE GROUP BANK	-0.1%	-11.0%

Equity Sector Attribution									
	Attribution Effects				Returns		Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark	
Energy	-0.4%	-0.1%	-0.1%	-0.1%	-12.1%	-7.7%	5.8%	4.6%	
Materials	-0.8%	-0.2%	-0.1%	-0.4%	-6.6%	-0.6%	10.5%	3.0%	
Industrials	0.2%	0.7%	0.0%	-0.5%	5.8%	0.7%	3.7%	10.2%	
Consumer Discretionary	0.3%	0.4%	0.0%	-0.1%	3.1%	0.6%	11.4%	10.5%	
Consumer Staples	-0.6%	-0.4%	0.0%	-0.2%	-2.4%	5.9%	6.9%	6.5%	
Health Care	0.3%	0.5%	0.0%	-0.2%	-1.2%	-3.2%	14.5%	14.1%	
Financials	-1.5%	-0.6%	0.1%	-1.0%	-4.5%	1.8%	25.2%	13.7%	
Information Technology	-0.3%	-0.1%	-0.1%	-0.1%	1.6%	2.7%	15.9%	21.2%	
Communication Services	-0.5%	-0.8%	0.0%	0.4%	-8.4%	2.0%	4.2%	9.2%	
Utilities	-0.2%	--	-0.2%	--	--	8.1%	0.0%	3.2%	
Real Estate	-0.2%	-0.1%	-0.1%	0.0%	1.7%	7.4%	2.0%	3.9%	
Cash	0.0%	--	--	--	--	--	0.0%	0.0%	
Portfolio	-3.6%	=	-0.7%	+	-2.4%	1.3%	100.0%	100.0%	



# EARNST INTERNATIONAL INVESTMENT TRUST

Country Allocation Versus MSCI Emerging Markets Small Cap - Quarter Ending September 30, 2019			
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)
<b>Americas</b>			
Brazil*	2.0%	7.9%	-16.5%
Canada	2.8%	0.0%	1.2%
Chile*	0.9%	1.5%	-9.7%
Colombia*	1.6%	0.3%	-2.5%
Mexico*	1.6%	2.8%	-7.3%
United States	6.6%	0.0%	-1.5%
<b>Total-Americas</b>	<b>15.4%</b>	<b>13.3%</b>	<b>-4.1%</b>
<b>Europe</b>			
Austria	2.8%	0.0%	-20.4%
Czech Republic*	0.9%	0.1%	-15.3%
France	5.7%	0.0%	-0.4%
Germany	5.8%	0.0%	0.1%
Ireland	4.5%	0.0%	-4.3%
Italy	1.4%	0.0%	3.9%
Netherlands	3.9%	0.0%	-4.6%
Norway	5.2%	0.0%	-2.6%
Spain	3.4%	0.0%	-9.0%
Switzerland	6.4%	0.0%	-0.4%
United Kingdom	10.6%	0.0%	-4.2%
<b>Total-Europe</b>	<b>50.5%</b>	<b>3.2%</b>	<b>-3.8%</b>

Country Allocation Versus MSCI ACWI ex USA Growth - Quarter Ending September 30, 2019				
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
Australia	1.4%	4.7%	-12.3%	0.2%
China*	6.1%	8.2%	-4.7%	-2.9%
Hong Kong	2.9%	2.7%	15.3%	-12.1%
India*	4.4%	2.4%	-7.6%	-4.1%
Indonesia*	0.1%	0.6%	9.1%	-1.6%
Japan	7.3%	15.8%	-0.5%	3.9%
Korea*	1.9%	3.2%	0.7%	-2.9%
Singapore	2.7%	0.9%	-5.1%	-3.8%
Taiwan*	4.9%	2.7%	12.2%	11.7%
<b>Total-AsiaPacific</b>	<b>31.7%</b>	<b>43.0%</b>	<b>0.3%</b>	<b>0.2%</b>
<b>Other</b>				
Israel	2.4%	0.4%	5.0%	-3.6%
<b>Total-Other</b>	<b>2.4%</b>	<b>2.9%</b>	<b>5.0%</b>	<b>-5.3%</b>
<b>Totals</b>				
Developed	75.6%	74.0%	-2.2%	-0.4%
Emerging*	24.4%	26.0%	-2.9%	-2.0%



# SSGA EAFE HEDGED

## Characteristics

Index Dividend Yield	3.36%
Price/Earnings Ratio FY1	14.41
Number of Holdings*	965
Price/Book Ratio	1.62
Weighted Average Market Cap \$M	\$60,425.93

## Top 10 Holdings

STATE STREET INTERNATIONAL DEVELOPED EQUITY INDEX PORTFOLIO	88.39%
---	--------

## Sector Weights\*

Financials	18.59%
Industrials	14.72
Consumer Staples	12.02
Health Care	11.62
Consumer Discretionary	11.45
Materials	7.00
Information Technology	6.75
Communication Services	5.35
Energy	5.13
Utilities	3.77
Real Estate	3.61

Totals may not equal 100 due to rounding.

## Key Facts

Inception Date:	May 29, 2015
Net Asset Value	\$10.37
Total Net Assets (000)	\$3,580,881
Ticker Symbol	SSHQX
CUSIP	857492417
Primary Benchmark	MSCI EAFE 100% Hedged to USD Index
Investment Manager	SSGA Funds Management, Inc.
Distributor	State Street Global Advisors Funds Distributors, LLC

## Top Country Weights\*

Japan	24.55%
United Kingdom	16.39
France	11.36
Switzerland	9.44
Germany	8.49
Australia	7.05
Netherlands	3.98
Hong Kong	3.53
Spain	2.89
Sweden	2.56
Italy	2.34
Denmark	1.76
Singapore	1.28
Belgium	1.01
Finland	0.99

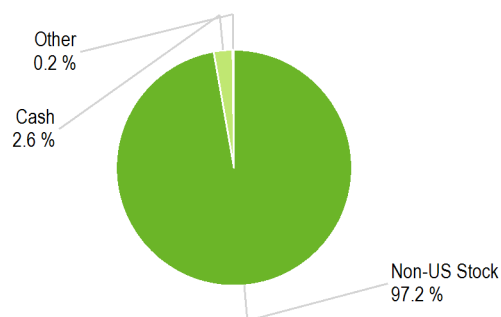
Source: State Street





# UBS EME HALO

## Mutual Fund Allocation as of June 30, 2019



## Portfolio Fund Information as of September 30, 2019

Ticker	EMPTX
Morningstar Category	Diversified Emerging Mkts
Average Market Cap (\$mm)	69,842.5
Net Assets (\$mm)	184.4
% Assets in Top 10 Holdings	48.6
Total Number of Holdings	42
Manager Name	Urs Antonioli
Manager Tenure	4
Expense Ratio	0.4%
Closed to New Investors	No

## Fund Characteristics as of September 30, 2019

Sharpe Ratio (3 Year)	
Average Market Cap (\$mm)	69,842.5
Price/Earnings	13.1
Price/Book	1.8
Price/Sales	1.8
Price/Cash Flow	4.3
Dividend Yield	3.1
Number of Equity Holdings	33
R-Squared (3 Year)	
Alpha (3 Year)	

## Top Holdings as of September 30, 2019

ALIBABA GROUP HOLDING LTD ADR	6.8%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	6.7%
SAMSUNG ELECTRONICS CO LTD	6.3%
TENCENT HOLDINGS LTD	4.6%
BANK BRADESCO SA PARTICIPATING PREFERRED	4.5%
NASPERS LTD CLASS N	4.4%
PING AN INSURANCE (GROUP) CO. OF CHINA LTD CLASS H	4.3%
SBERBANK OF RUSSIA PJSC	3.8%
TAL EDUCATION GROUP ADR	3.7%
PT BANK MANDIRI (PERSERO) TBK	3.5%

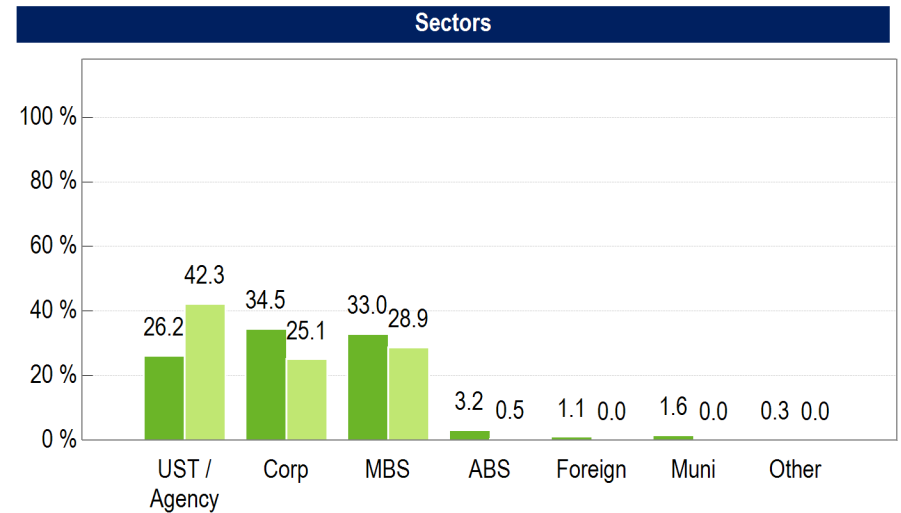
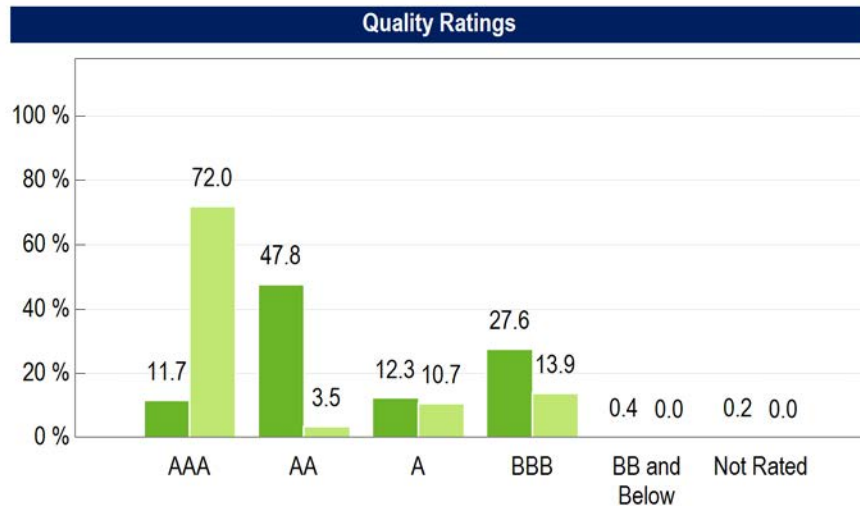
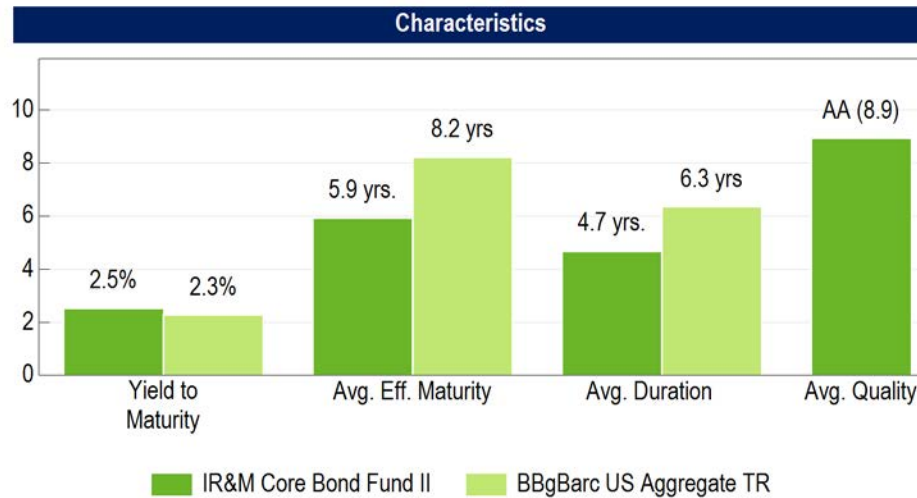
## Sector Allocation as of September 30, 2019

BASIC MATERIALS	4.4%
COMMUNICATION SERVICES	0.0%
CONSUMER CYCLICAL	9.4%
CONSUMER DEFENSIVE	11.8%
ENERGY	8.6%
FINANCIAL SERVICES	32.4%
HEALTHCARE	2.9%
INDUSTRIALS	0.0%
REAL ESTATE	2.3%
TECHNOLOGY	25.9%
UTILITIES	2.3%

Mutual Fund Allocation is on a one quarter lag.

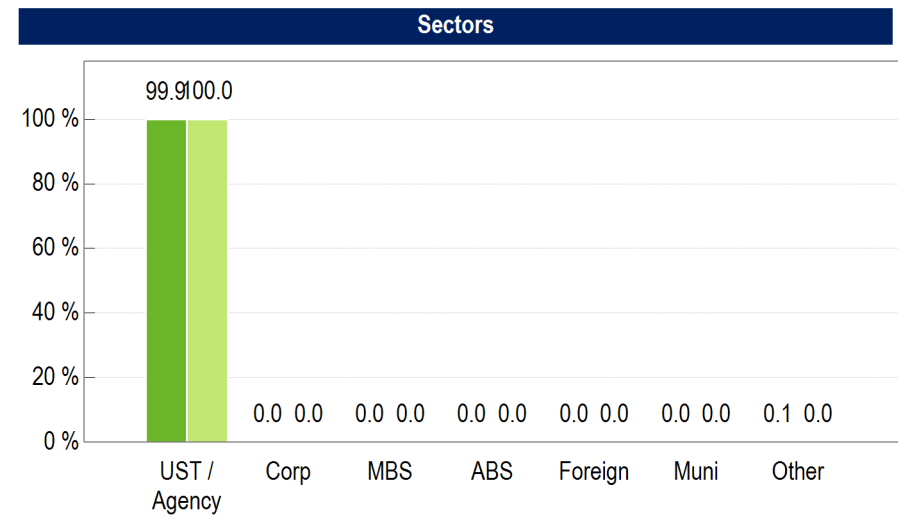
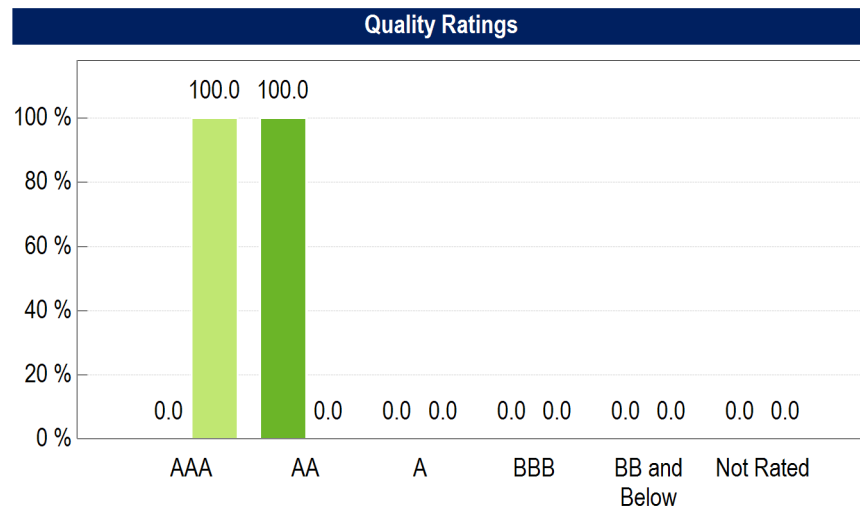
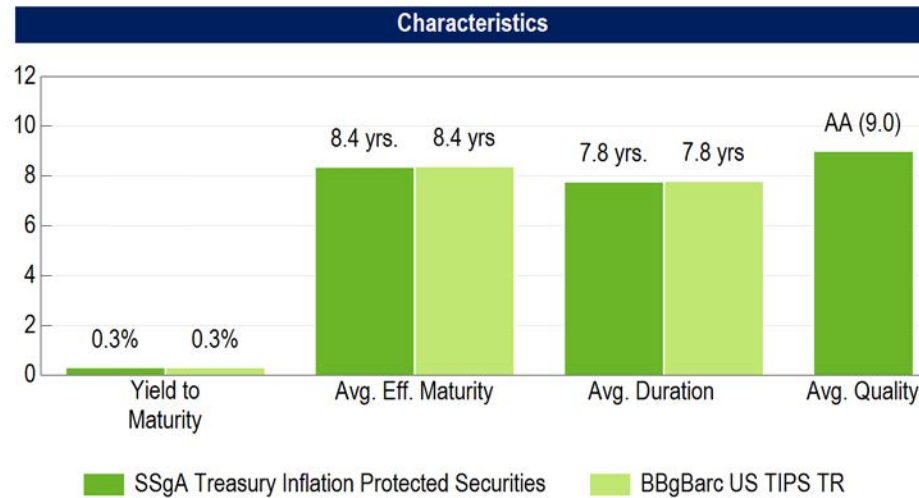


# IR&M CORE BOND FUND II

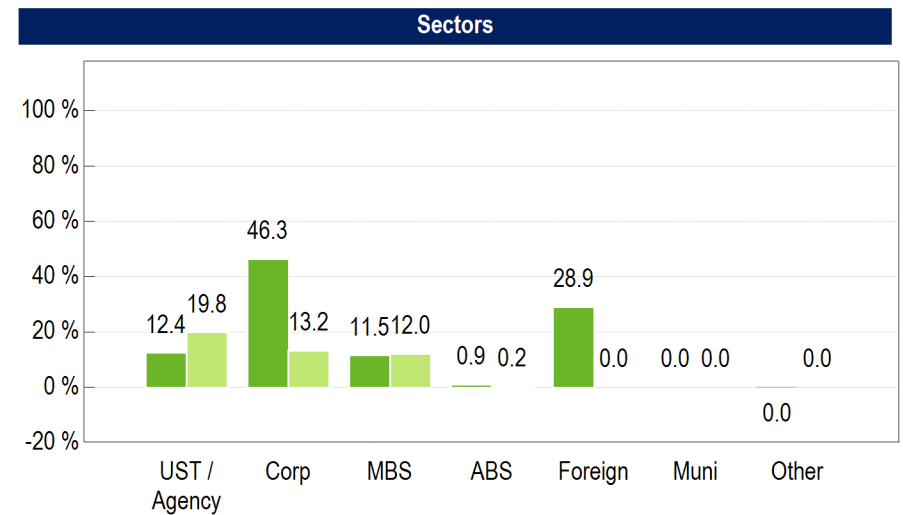
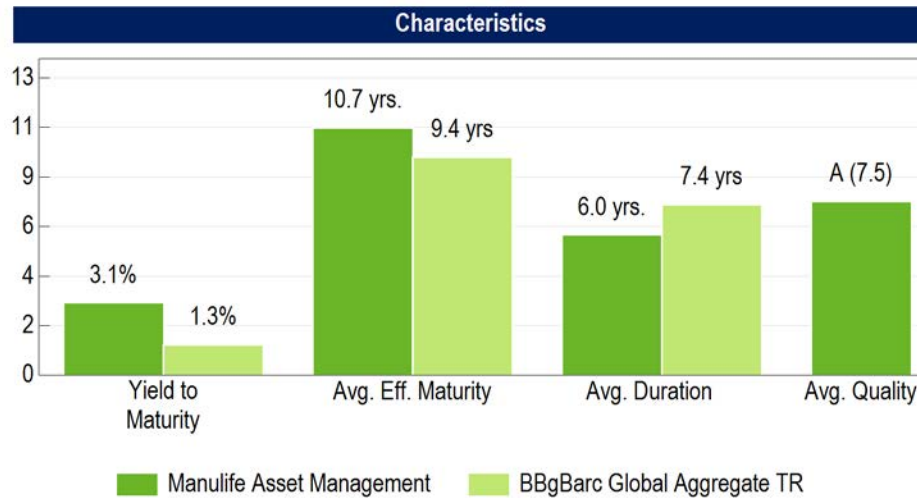


# Boston Public Library

## SSgA TIPS



# MANULIFE ASSET MANAGEMENT



# INVESTMENT MANAGER - DUE DILIGENCE KEY

NEPC Due Diligence Status Key	
<b>No Action</b>	Informational items have surfaced; no action is recommended.
<b>Watch</b>	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.
<b>Hold</b>	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.
<b>Client Review</b>	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.
<b>Terminate</b>	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.

NEPC Due Diligence Rating Key	
<b>1</b>	A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis.
<b>2</b>	NEPC has a positive view of the strategy. Strategy has a compelling and sound investment thesis. The manager is sufficiently resourced and incented to execute on the thesis. Strengths outweigh the weaknesses, but the strategy does not meet all requirements for a 1 rating.
<b>3</b>	A satisfactory investment product. The strategy lacks a compelling investment thesis, however there are no significant concerns around the manager's viability.
<b>4</b>	The strategy may have an unclear or ambiguous investment thesis or the manager may lack the ability to execute on the stated thesis. The strategy likely has strengths and weaknesses and the weaknesses may outweigh the strengths.
<b>5</b>	A strategy that lacks an investment thesis or NEPC has no confidence in the manager's ability to execute on the thesis, and/or the investment firm may not be viable. Serious issues have been identified with an investment manager or product. This rating aligns with a Terminate Due Diligence status for client-owned products.
<b>NR</b>	Due diligence has not been sufficiently completed on the product or manager.



# 2019 5-7 YEAR RETURN FORECASTS

Geometric Expected Return			
Asset Class	2019	2018	2019-2018
Cash	2.50%	2.00%	+0.50%
Large Cap Equities	6.00%	5.25%	+0.75%
Small/Mid Cap Equities	6.25%	5.75%	+0.50%
Int'l Equities (Unhedged)	6.75%	7.50%	-0.75%
Int'l Sm Cap Equities (Unhedged)	7.25%	7.75%	-0.50%
Emerging Int'l Equities	9.25%	9.00%	+0.25%
Emerging Int'l Sm Cap Equities	9.50%	9.25%	+0.25%
Hedge Funds - Long/Short	5.50%	6.25%	-0.75%
TIPS	3.00%	3.25%	-0.25%
Treasuries	2.50%	2.25%	+0.25%
IG Corp Credit	4.00%	3.50%	+0.50%
MBS	2.75%	2.50%	+0.25%
High-Yield Bonds	5.25%	3.75%	+1.50%
Bank Loans	5.50%	4.50%	+1.00%
EMD (External)	4.75%	4.25%	+0.50%
EMD (Local Currency)	6.50%	6.00%	+0.50%
Municipal Bonds	3.00%	2.50%	+0.50%
High-Yield Municipal Bonds	3.00%	3.75%	-0.75%
Hedge Funds – Credit	5.50%	5.00%	+0.50%

# 2019 5-7 YEAR RETURN FORECASTS

Geometric Expected Return			
Asset Class	2019	2018	2019-2018
Long Treasuries	1.75%	2.00%	-0.25%
Long Credit	3.50%	4.00%	-0.50%
IG CLO	4.00%	N/A	N/A
HY CLO	6.00%	N/A	N/A
Commodities	4.25%	4.75%	-0.50%
Midstream Energy	8.25%	7.25%	+1.00%
REITs	6.75%	6.50%	+0.25%
Core Real Estate	6.00%	5.75%	+0.25%
Non-Core Real Estate	7.00%	7.00%	-
Private RE Debt	5.75%	N/A	N/A
Private Real Assets - Energy/Metals	9.50%	8.00%	+1.50%
Private Real Assets - Infra/Land	6.25%	6.00%	+0.25%
Hedge Funds - Macro	6.00%	6.25%	-0.25%
<i>Global Equity*</i>	<i>6.99%</i>	<i>6.88%</i>	<i>+0.11%</i>
<i>Private Equity*</i>	<i>10.01%</i>	<i>8.00%</i>	<i>+2.01%</i>
<i>Core Bonds*</i>	<i>3.04%</i>	<i>2.75%</i>	<i>+0.29%</i>
<i>Private Debt*</i>	<i>7.60%</i>	<i>6.50%</i>	<i>+1.10%</i>
<i>Long Govt/Credit*</i>	<i>2.84%</i>	<i>3.26%</i>	<i>-0.42%</i>
<i>Hedge Funds*</i>	<i>5.74%</i>	<i>5.83%</i>	<i>-0.09%</i>

\*Multi-asset assumptions derived from the sum of underlying equity, credit, and real asset building blocks



# 2019 VOLATILITY FORECASTS

Volatility			
Asset Class	2019	2018	2019-2018
Cash	1.00%	1.00%	-
Large Cap Equities	16.50%	17.50%	-1.00%
Small/Mid Cap Equities	20.00%	21.00%	-1.00%
Int'l Equities (Unhedged)	20.50%	21.00%	-0.50%
Int'l Sm Cap Equities (Unhedged)	22.00%	22.00%	-
Emerging Int'l Equities	28.00%	28.00%	-
Emerging Int'l Sm Cap Equities	31.00%	31.00%	-
Hedge Funds - Long/Short	11.00%	11.00%	-
TIPS	6.50%	6.50%	-
Treasuries	5.50%	5.50%	-
IG Corp Credit	7.50%	7.50%	-
MBS	7.00%	7.00%	-
High-Yield Bonds	12.50%	13.00%	-0.50%
Bank Loans	9.00%	9.00%	-
EMD (External)	13.00%	13.00%	-
EMD (Local Currency)	13.00%	13.00%	-
Municipal Bonds	7.00%	7.00%	-
High-Yield Municipal Bonds	12.00%	12.00%	-
Hedge Funds - Credit	9.50%	9.50%	-



# 2019 VOLATILITY FORECASTS

Volatility			
Asset Class	2019	2018	2019-2018
Long Treasuries	12.00%	12.00%	-
Long Credit	12.00%	12.00%	-
IG CLO	7.50%	N/A	N/A
HY CLO	11.00%	N/A	N/A
Commodities	19.00%	19.00%	-
Midstream Energy	18.50%	19.00%	-0.50%
REITs	20.00%	21.00%	-1.00%
Core Real Estate	13.00%	13.00%	-
Non-Core Real Estate	17.00%	17.00%	-
Private RE Debt	11.00%	N/A	N/A
Private Real Assets - Energy/Metals	21.00%	21.00%	-
Private Real Assets - Infra/Land	12.00%	12.00%	-
Hedge Funds - Macro	9.50%	9.50%	-
<i>Global Equity*</i>	<i>17.57%</i>	<i>18.22%</i>	<i>-0.65%</i>
<i>Private Equity*</i>	<i>24.16%</i>	<i>23.00%</i>	<i>+1.16%</i>
<i>Core Bonds*</i>	<i>6.10%</i>	<i>5.99%</i>	<i>+0.11%</i>
<i>Private Debt*</i>	<i>11.97%</i>	<i>13.00%</i>	<i>-1.03%</i>
<i>Long Gov/Credit*</i>	<i>11.26%</i>	<i>11.25%</i>	<i>+0.01%</i>
<i>Hedge Funds*</i>	<i>8.15%</i>	<i>9.07%</i>	<i>-0.92%</i>

\*Multi-asset assumptions derived from the sum of underlying equity, credit, and real asset building blocks



### 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.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian 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.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information 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 generally 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.

