

TRUSTEES OF THE PUBLIC LIBRARY OF THE CITY OF BOSTON

Meeting of the Trustees Finance and Audit Committee

Thursday March 14, 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 January 8, 2019.**
Evelyn Arana-Ortiz, Chair
- III. **Review of Boston Public Library Draft Management Letter for Fiscal Year Ending June 30, 2018**
Eamon Shelton, Director of Operations
Ellen Donaghey, Chief Financial Officer
Sara Day, CliftonLarsonAllen, Senior Information Security Consultant

VOTED: “that the Trustees Finance and Audit Committee recommend the Trustees of the Public Library of the City of Boston vote to accept the Draft Management Letter for the Fiscal Year Ending June 30, 2018 from CliftonLarsonAllen, LLP, Certified Public Accountants.”

- IV. **Discussion and Review of Contracts**
Ellen Donaghey, Chief Financial Officer
 - A. Contract for purchase of 4 Bilingual Spanish Early Literacy Stations for the Children’s Room
VOTED: “that the Trustees Finance and Audit Committee of the Public Library of the City of Boston approve to purchase 4 early literacy stations from AWE Learning, 2501 Seaport Drive Suite 410, Chester, PA 19013 at a total cost of twelve thousand two hundred dollars (\$12, 200).”
 - B. Contract with Suffolk University for Boston Mapping Project
VOTED: “that the Trustees Finance and Audit Committee of the City of Boston approve to enter into a thirty five thousand dollars (\$35,000) contract with Suffolk University for the development and operation of a Boston history on-line database, funding provide in the Commonwealth of Massachusetts’ 2019 Budget, General Appropriation, Chapter 154 of the Acts of 2018.”
 - C. Contract for McKim Building Signage
VOTED: “that, the Trustees Finance and Audit Committee approve to enter into a Contract for fifteen thousand dollars (\$15,000) with Metro Sign and Awning, DBA C&D Signs, Inc., 170 Lorum Street, Tewksbury, MA 01876 to complete the signage at Central Library.”

- D. Contract with Hope Coolidge for the financial management of the Boston Public Library Foundation.

VOTED: “that, the Trustees Finance and Audit Committee recommend the Trustees of the Public Library of the City of Boston authorize a twenty five thousand dollar (\$25,000) contract with Hope Coolidge to provide oversight of the financial management of the Boston Public Library Foundation.”

- E. Contract for small improvement project of the South Boston Branch Courtyard

VOTED: “that, the Trustees Finance and Audit Committee recommend the Trustees of the Public Library of the City of Boston vote to award the Invitation for Bids for: Replacing the Terrace in the Courtyard at the South Boston Branch Library of the BPL, a Chapter 149 Project to: Bautista Masonry, Inc., 99 Milton Street, Waltham, MA 02453, being the lowest, eligible, responsive and responsible bidder for the amount of: One hundred twenty nine thousand dollars (\$129,000.00). This is funded as part of the City Capital project for South Boston: CLD24595 with additional donations from the neighborhood.”

V. Request for Delegation of Contracts
Ellen Donaghey, Chief Financial Officer

- A. Contract for flooring replacement for the Lower Mills Branch

VOTED: “that, the Trustees Finance and Audit Committee recommend the Trustees of the Public Library of the City of Boston delegate the approval and awarding of the Invitation for Bids for: Lower Mills Flooring replacement which has a budget of: One hundred two thousand dollars (\$102,000.00) as part of the City Capital Project: CLD24594 in order to maintain the construction timeline.”

- B. Emergency Fire Panel replacement contracts
Eamon Shelton, Director of Operations

VOTED: “that the Trustees Finance and Audit Committee recommend the Trustees of the Public Library of the City of Boston authorize delegate authority to the Finance and Audit Committee to approve contracts of up to \$500,000 for the emergency replacement of the Fire Alarm Control Panel and associated equipment in the McKim Building.”

VI. Review of BPL Investment Portfolio
Sebastian Grzejka, Senior Consultant-NEPC
Ellen Donaghey, Chief Financial Officer

VII. New Business

VIII. Public Comment

IX. Adjournment

*Next meeting is scheduled for Tuesday, May 7, 2019 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 Bradley, Jr., Cheryl Cronin,
Priscilla Douglas, Linda Dorcena Forry, John Hailer, Byron Rushing

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

TRUSTEES OF THE PUBLIC LIBRARY OF THE CITY OF BOSTON

Meeting of the Trustees Finance and Audit Committee Thursday, January 8, 2019, 8:00 a.m. Central Library, Kirstein Business Library-Exchange

DRAFT MINUTES

A meeting of the Boston Public Library Trustees Finance and Audit Committee was held on Thursday, January 8, 2019 at the Central Library in the Kirstein Business Library-Exchange Room.

Present at the meeting: Committee Chair Evelyn Arana-Ortiz and Committee members, Zamawa Arenas, John Hailer, Representative Byron Rushing, 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.

Ms. Arana-Ortiz presiding, called the meeting of the Trustees Finance and Audit Committee (“Committee”) to order at 8:03 a.m.

Next, Ellen Donaghey was asked to review the two contracts before the Trustees. Laura Irmischer, Chief of Collections, was also in attendance to assist with any questions from the Trustees.

The first contract was for Retrospective Conversion (Retrocon). Laura explained that the Library has rethought its previous approach to cataloging and is trying a pilot project. Cataloging standards have changed over the years. In this pilot, Library staff will take item and put it in the catalog, which will then allow it to be linked to the collection. The contract is for 85K for 6 months. Ms. Donaghey explained they will use Library for the Commonwealth state funds for this project.

Laura Irmischer explained the traditional way they used to catalog the collection. They would ship their card catalogs out to a vendor who would data entry each individual card to in our online catalog. Standards have changed over the last forty years. This is pilot where you take the actual item, scan it, and it attaches a bar code immediately to the items and it is trackable in our system. This approach is more effective, aligning with inventory. Ms. Irmischer explained that this pilot is to see how many items we can catalog in 6 months in order to project an estimated cost to do the entire collection. Mr. Leonard stated the objective is to make item immediately accessible and accurate. This will be for books or periodicals.

Ms. Irmischer went on to explain the Donahue Group has been used for other inventory and cataloging projects. Mr. Rushing asked if there has been a determination as to what to do with the old cards. Mr. Leonard answered that they have not made any final determinations with what to do with the cards until we have a clear understanding as to whether there is any additional information pertinent for the collection, but right now that determination is unclear.

Ms. Donaghey continued the second vote is to hire Clark Fine Arts to repack boxes of stained glass at the Archival Center. Several binds have disintegrated and have already been repacked. This contract will allow us to repack the entire collection. The estimate was for a little over 13K but we asked to vote for 15K to be careful on costs. With No questions or comments, Ms. Arana Ortiz called for a motion that was duly made and seconded, and

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 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.”

VOTED: “that, the Trustees Finance and Audit Committee of the Boston Public Library approve the use of Clark Fine Art Services of Cambridge, MA for up to fifteen thousand dollars (\$15,000) for collection packing and storage.”

Ms. Arana-Ortiz asked NEPC to introduce the next topic, which was presentations from Emerging Markets Equity Managers. Mr. Sebastian Grzejka explained that this is the next step in a multi-step process to add new asset allocations to the portfolio. The committee will be interviewing three emerging markets equity strategies, with each taking a different focus. Sebastian stated that the plan would move 5% of the portfolio, approximately \$3m dollars, into this allocation. Emerging markets is not currently part of the portfolio and will add additional diversification. These managers look to local economies to decide what where greater growth opportunities exist. Sebastian cautioned that we should expect more short-term volatility in this sector but that over time, but that over time, it should offer a strong return. The recommendation for a relatively small allocation was made with this volatility in mind.

NEPC recommended interviewing three managers (Fidelity, UBS, and Oppenheimer OFI), each offering a slightly different approach, to give a full landscape to consider.

Mr. Grzejka explained that Fidelity is the most “core” of the managers, meaning they invest in value and growth stock with a little bit of a growth tilt. They stay closest to the benchmark (not going to be concentrated in singular stocks, country or sector) they are within certain bounds of perimeters index. Performance for them has been quite strong.

UBS has a little bit of a value tilt to their portfolio, however it is very concentrated. Meaning they hold about thirty stocks and have a manager focusing on stock selection. He explained that if one stock is a hit, they will see significant growth, if one is a miss, there will be a drag on performance. Here is where you will see more volatility relative to the benchmark. They want to fund the best securities they can find and have a total return over long term investments.

Oppenheimer OFI invests in local emerging markets, all cap emerging markets, or small cap emerging markets. Small Cap emerging markets are focused more on the local consumer and the growth of the middle class emerging markets. Over the last ten to fifteen years these markets have benefited in local growth, as they've developed a more robust middle class, which in turn is looking for more goods – such as cellphones, televisions, health care etc. So Oppenheimer is looking at economies that are moving towards more consumer spending. As we see in the U.S., small cap markets has more volatility, a little more idiosyncratic, but also poses a great more opportunity for potential on return.

Mr. Grzejka summarized in closing that the reason they recommended each of these three manager was for their different approach on investing in this market. He explained that the manager team for Fidelity is U.S. based, USB's is Singapore based, and Oppenheimer is U.S. based. He explained that this market is very volatile and each will offer various levels of risk and it depends on the comfort level of the BPL as to which is the best fit.

Mr. Leonard noted there are two decisions to make, first being to pick a manager and second will be where we take the money from. Mr. Grzejka noted that the, in accordance with the investment strategy, the funds will come from fixed income investments but the specifics will depend upon the market snapshot at the time of the change.

The committee had a brief discussion on the current global affairs that may affect these markets.

The first interview began with Ed Schollmeyer, Vice President/Account Manager for Fidelity Select Emerging Markets Equity and Abhijeet Singh, Institutional Portfolio Manager. Mr. Schollmeyer explained Fidelity has approximately 2.5 Trillion in assets, with over half in institutional markets. He also noted that they have approximately \$6b in non-profit organizations like the BPL. They have 17 analysts that focus on emerging markets, they find and evaluate various companies based in Boston and Hong Kong. He explained they have a broader base of AP analysts. He explained the analysts differentiate by having forensic analysts that point out any red flags, any issues from governmental standpoint to help identify whether to buy more or sell. Fidelity has a political analyst on the team, which gives a perspective on various countries we work with. The team evaluates all the information to determine decisions to build the portfolios.

He introduced his staff and what each manager does on the team. The good thing about product is very modest. Don't deviate too much. Not trying to shoot lights out. Plenty of capacity and no problem taking on new clients. He reviewed his team and their experience. He reviewed their returns and presented the Trustees with a breakdown on their investments. They try to match up to the benchmark and take on a more prudent approach. They explained that Fidelity wants to work with BPL and will work hard every day. They respectfully asked for the business.

Ms. Arana-Ortiz asked if they could talk about the diversity at Fidelity. Mr. Schollmeyer stated they have a variety of cultures and heritages and support all of them across the world. Fidelity takes diversity very seriously and they invited BPL to review their published report.

The next interview was with UBS Emerging Markets Equity HALO with Bill DeSanto, Executive Director who is based in New York, but noted he went to school and worked in Boston. He explained UBS' headquarters are based in Zurich. He explained some may be familiar with UBS Wealth Management Brokerage arm and UBS Investment Bank explaining that both silos have nothing to do with emerging markets, they are strictly asset managers. UBS is one of the top asset managers globally with \$750 Billion under management and they are the first money managers to raise assets inside mainland China (where they have worked for over twenty years). He explained their philosophy on education and philanthropic work they do throughout the world. Next, Mr. Santos reviewed the emerging markets team. Some are based in Singapore, Latin America, Zurich and Hong Kong. He explained their process is intrinsic value; where the value should be 5 years out and where they are today. He explained their portfolio of 25 to 30 stocks to provide diversity and exposure. They focus on a smaller list to allow them to be more selective, noting they tend to be early in stocks. He provided the committee with a breakdown of their investments and performance to review, emphasizing their emerging markets investments need longer term investment and are more concerned with the having the best portfolio than the benchmark. Ms. Arana-Ortiz asked about the diversity at UBS. Mr. DeSanto explained they are different, they believe in diversity and currently have more women in manager positions and mentors. They support LGBT and veterans as well.

Lastly, Oppenheimer OFI was interviewed last. Jeff Sharon, Managing Director/Head of North America Institutional, began with a brief introduction of both he and Brian Landy, International Equity Specialist who manages the emerging assets portfolio. They began by reviewing the firm, explaining they are an international company based in New York. This strategy really believes that the opportunity set is in consumer, healthcare, and technology markets. Explaining that investing in those markets have shown significant growth opportunities long term compared to larger cap companies or index based companies. UBS has been managing global stocks for over fifty years and emerging markets for over 20 years and manage approximately \$45 billion total in the emerging market franchise. He presented the committee with a breakdown of the team that manages emerging markets. They have two strategies, the core strategy is closed; predominantly made up of all cap investments. The team now currently focuses on growing emerging markets in the small cap market. He reviewed Oppenheimers' report on investments. He explained the team is diverse. Comprised of multi-cultures, languages, and backgrounds. Ms. Arana-Ortiz asked if they could share their diversity report with the committee.

NEPC reviewed each of the managers and offered recommendations to the committee's questions, explaining the volatility in investing in Emerging Markets is a long term strategy to see significant growth and therefore suggested committing to five years. After some discussion the committee took a vote and,

VOTED: “that, the Finance and Audit Committee recommend the Trustees of the Public Library of the City of Boston award management of the Emerging Markets Equity portfolio to UBS Asset Management, in the amount of 5% of the portfolio, in accordance with the asset allocation plan. “

With no new business or public comment, the meeting was adjourned at 9:50am.

Respectfully submitted,

Pamela R. Carver

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

MANAGEMENT LETTER

JUNE 30, 2018

DRAFT



CLA (CliftonLarsonAllen LLP)
CLAconnect.com

To the Honorable Board of Trustees
The Public Library of the City of Boston, Massachusetts

In planning and performing our audit of the financial statements of The Trustees of the Public Library of the City of Boston (Library), a component unit of the City of Boston, Massachusetts, as of and for the year ended June 30, 2018, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, we considered the Library's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Library's internal control. Accordingly, we do not express an opinion on the effectiveness of the Library's internal control.

However, during our audit we became aware of several matters that are opportunities for strengthening internal controls and operating efficiency. The memorandum that accompanies this letter summarizes our comments and recommendations regarding those matters. This letter does not affect our report dated October 16, 2018, on the financial statements of the Library.

We will review the status of these comments during our next audit engagement. We have already discussed many of these comments and suggestions with various Library personnel, and we will be pleased to discuss them in further detail at your convenience, to perform any additional study of these matters, or to assist you in implementing the recommendations.

The Library's written responses to the matters identified in our audit were prepared by the Library's Chief Financial Officer. The responses have not been subjected to the audit procedures applied in the audit of the financial statements and, accordingly, we express no opinion on them.

This communication is intended solely for the information and use of management, the Board of Trustees and others within the organization and should not be used by anyone other than these specified parties.

CliftonLarsonAllen LLP

Boston, MA
February 20, 2019

THE TRUSTEES OF THE PUBLIC LIBRARY OF THE CITY OF BOSTON

MANAGEMENT LETTER

JUNE 30, 2018

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DRAFT

Comments and Recommendations

Information Technology

Comment

We performed a high-level evaluation of the Library's computer processing environments and general controls over information technology related to business and financial systems. The evaluation was not intended to be a full scope network security review of the Library's entire information technology infrastructure. The scope was limited to certain internal controls and security features related to transactions and data that could impact financial reporting.

It should be noted that for fiscal year 2018, we did not identify any information technology matters that materially impacted the Library's financial reporting.

We would also like to preface our comments and recommendations below by stating that none of them are required by law, regulation or other external requirement that we are aware of. The comments and recommendations are intended to be informative in nature. We recognize that the Library has unique operational aspects that must be considered when evaluating our recommendations. We also recognize there are cost/benefit considerations to each recommendation.

The following is a summary of our observations:

- During fiscal year 2018, the Library implemented new policies and procedures to strengthen network passwords. As of fiscal year-end, one remaining item under consideration was increasing the minimum character lengths of passwords to enhance risk mitigation with unauthorized workstation access.
- As more of an informative comment for future consideration, as of fiscal year-end, the Library had Windows 2008 servers active on its network. These servers will no longer be supported by the vendor starting in 2020.

Recommendation

We recommend the following:

- Consider requiring minimum character password lengths of 14, with 20 for Administrators
- Begin planning for the upgrade of Windows 2008 servers prior to the end-of-support deadline in 2020

Management's Response

Concerning the following recommendations:

- Consider requiring minimum character password lengths of 14 with 20 for Administrators
In 2017 the BPL implemented a secure password policy (8 characters, complexity, lockout after 3 failed attempts, change every 90 days) and we will be evaluating stronger requirements for passwords in FY20.
The BPL is scheduled to increase the minimum character password length to 20 for all Domain Administrators in July 2019.
- Begin planning for the upgrade of Windows 2008 servers prior to the end-of-support deadline in 2020
Since 2016 the BPL Server team has an in place policy that all new servers installed are to be Windows Server 2012R2 or greater.
The BPL Server team is already in the process of upgrading (decommissioning) ALL production 2008 servers and will have them eliminated before the end-of-support deadline.

DRAFT

BOSTON HISTORY DATABASE

DRAFT Description

February 2019

The Boston History Database project is an attempt to develop and maintain an interconnected database/website that contains brief descriptions of the significant events that have occurred throughout Boston history, accompanied when practicable by images, locator maps, and web links. All of the material would be available to the general public, and it would be added to on an ongoing basis, resulting in an ever-growing electronic almanac of the history of the city.

The website will provide a searchable, sortable storehouse of information on Boston history that should prove invaluable to scholars, teachers, students and residents, and also help to raise the historical literacy among residents and visitors.

The project is based on a book by local historian Jim Vrabel called *When In Boston: A Timeline & Almanac* (Northeastern University Press, 2004) and additional material that he has continued to collect in the years since. Initially, local historical societies, libraries, and archives were approached to host and develop the project. Although supportive of its goal and interested in participating in the project, it was decided that staff and resource limitations precluded any of them from taking on full responsibility for the project.

Local universities were then approached. Informal discussions were held with representatives and/or faculty from Harvard, Boston College, and Boston University to assess their interest and suitability that did not prove fruitful. More formal discussions were held with the University of Massachusetts Boston, which decided its budget restraints would not allow it to take on the project, and Northeastern University, which eventually decided to concentrate its digital humanities efforts involving Boston on current faculty-driven projects.

After all these discussions over the course of several years, Suffolk University has recently announce its willingness to host the project. The school is located in the historic center of Boston. It already has a very well-known reputation for its focus on Boston history and it is just this year launching a new public history program. Suffolk has also agreed to work with other local universities, historical societies, libraries, and archives to fully develop the project and to keep it growing moving forward.

Last spring, an amendment to the Massachusetts FY 2019 earmarked \$35,000 to help develop and launch the project. The funds are to go first to the Boston Public Library and then to the eventual host institution.

These funds are to be expended for:

- installation and a one-year subscription to the Content Management System (CMS) developed by Rozenweig Center of History and New Media at George Mason University.
- development of a Plug-In to the CMS to support entries in the Boston History Database (BHD).
- installation of the Plug-In into the CMS and transfer the content of the BHDB into the new system.
- development of a custom record type for BHDB entries, and custom search categories, tags, views, and visual design to support data search for entries.

The funds must be spent by June 30, 2018. A detailed account of how the funds are spent will be provided before the full amount is released by the state.

	4 (Library)	Total	Guns%	Guns\$	Oil/Gas%	Oil/Gas\$	Prisons%	Prisons\$
Acadian Emerging Markets Small Cap		0	0.36%	-	6.84%	-	-	-
Boston Trust Balanced		0	-	-	2.80%	-	-	-
Cash		0	-	-	-	-	-	-
Columbia Seligman (Large Cap Value)		0	-	-	17.17%	-	-	-
Diamond Hill Large Cap	6,340,225	6,340,225	-	-	4.70%	297,762.33	-	-
Earnest International Equity	5,859,936	5,859,936	-	-	3.30%	193,377.89	-	-
GAM Unconstrained Bond		0	-	-	-	-	-	-
GQG Equity		0	-	-	4.97%	-	-	-
IR&M Core Bond Fund II	12,478,085	12,478,085	-	-	3.00%	374,342.55	-	-
Longfellow Core Domestic Fixed Income		0	-	-	1.52%	-	-	-
Loomis Sayles Balanced		0	-	-	-	-	-	-
Manulife Asset Management (Bonds)	6,067,802	6,067,802	-	-	6.06%	367,708.80	-	-
Mellon Capital (Large Cap Growth)		0	0.37%	-	2.35%	-	-	-
MFS Blended Research (US Core Equity)		0	-	-	5.45%	-	-	-
PIMCO All Asset (Total Return)	5,948,455	5,948,455	0.24%	14,276.29	3.66%	217,713.45	-	-
Rhumblin Domestic Equity		0	-	-	4.04%	-	-	-
Rhumblin TIPS		0	-	-	-	-	-	-
Seagall Bryant & Hamill Small Cap	6,634,684	6,634,684	-	-	6.70%	444,523.83	-	-
Ssga SRI S&P 500	9,045,969	9,045,969	0.70%	63,321.78	5.85%	529,189.19	-	-
SSga TIPS	6,176,847	6,176,847	-	-	-	-	-	-
SSga Hedged EAFE	2,921,283	2,921,283	0.29%	8,471.72	5.70%	166,513.13	0.29%	8,471.72
Standard Life GARS (Total Return)		0	-	-	2.77%	-	-	-
Wellington Core Plus (Bonds)		0	0.29%	-	1.38%	-	-	-
Westfield Capital (Domestic Small Cap)		0	-	-	5.50%	-	-	-
William Blair (Small Cap Value)		0	-	-	11.01%	-	-	-
	61,473,286	61,473,286						
				86,069.80		2,591,131.16		8,471.72
				0.14%		4.22%		0.04

*Guns note

PERFORMANCE UPDATE AND IMPACT INVESTING

BOSTON PUBLIC LIBRARY



March 14, 2019

Sebastian Grzejka, Senior Consultant

Marisa Gorman, Analyst



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

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JANUARY 2019 PERFORMANCE REPORT

NEPC, LLC

City of Boston Pool 4: Boston Public Library

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	61,717,317	100.0	100.0	4.8	-3.1	8.1	5.5	9.2	9.3	Jan-81
<i>60% MSCI ACWI (Net) / 40% FTSE WGBI</i>				5.3	-4.7	8.1	4.5	7.8	--	Jan-81
Total Domestic Equity	21,495,415	34.8	40.0							
SSgA SRI S&P 500	8,904,727	14.4	20.0	7.9	-1.9	14.5	11.2	15.1	14.0	Jan-09
<i>S&P 500</i>				8.0	-2.3	14.0	11.0	15.0	13.9	Jan-09
Diamond Hill Large Cap Class Y Shares	6,189,807	10.0	10.0	8.6	-5.6	--	--	--	5.7	May-17
<i>Russell 1000 Value</i>				7.8	-4.8	11.6	8.3	13.4	5.1	May-17
Segall Bryant & Hamill Small Cap	6,400,880	10.4	10.0	8.7	-0.1	13.6	--	--	6.4	Jan-15
<i>Russell 2000</i>				11.2	-3.5	14.7	7.3	14.5	7.0	Jan-15
Total International Equity	8,843,972	14.3	10.0							
Earnest International Investment Trust Fund	5,932,785	9.6	10.0	7.7	-14.6	10.4	--	--	2.2	May-14
<i>MSCI ACWI ex USA</i>				7.6	-12.6	9.6	3.1	8.3	1.9	May-14
SSgA Hedged EAFE Index	2,911,186	4.7		5.8	--	--	--	--	-6.6	Oct-18
<i>MSCI EAFE 100% USD Hedged</i>				5.7	-4.9	8.2	6.5	9.4	-6.5	Oct-18
Total Domestic Fixed Income	25,237,418	40.9	40.0							
IR&M Core Bond Fund II	12,747,203	20.7		0.8	1.4	1.9	2.4	4.5	4.3	Mar-07
<i>BBgBarc US Aggregate TR</i>				1.1	2.3	2.0	2.4	3.7	3.9	Mar-07
SSgA Treasury Inflation Protected Securities	6,294,332	10.2		1.4	0.9	--	--	--	0.0	Jan-18
<i>BBgBarc US TIPS TR</i>				1.3	0.9	2.1	1.6	3.6	0.1	Jan-18
Manulife Asset Management	6,195,883	10.0		2.5	--	--	--	--	0.4	Mar-18
<i>BBgBarc Global Aggregate TR</i>				1.5	-0.9	2.9	1.2	3.0	0.0	Mar-18
Total Balanced - GAA	6,140,513	9.9	10.0							
PIMCO All Asset	6,140,513	9.9	10.0	4.3	-2.9	9.1	3.6	--	4.1	Jul-12
<i>PIMCO All Asset Index</i>				2.5	1.5	4.2	3.5	5.8	3.3	Jul-12

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

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

-Returns are net of fees.



City of Boston Pool 4: Boston Public Library

FEE SUMMARY

Account	Fee Schedule	Market Value As of 1/31/2019	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
SSgA SRI S&P 500	0.10% of First 50.0 Mil, 0.08% of Next 50.0 Mil, 0.06% Thereafter	\$8,904,727	14.4%	\$8,905	0.10%
Diamond Hill Large Cap Class Y Shares	0.60% of Assets	\$6,189,807	10.0%	\$37,139	0.60%
Segall Bryant & Hamill Small Cap	1.00% of Assets	\$6,400,880	10.4%	\$64,009	1.00%
Earnest International Investment Trust Fund	0.90% of Assets	\$5,932,785	9.6%	\$53,395	0.90%
SSgA Hedged EAFE Index	0.20% of Assets	\$2,911,186	4.7%	\$5,822	0.20%
IR&M Core Bond Fund II	0.45% of First 10.0 Mil, 0.35% of Next 10.0 Mil, 0.30% of Next 10.0 Mil, 0.25% of Next 20.0 Mil, 0.23% of Next 50.0 Mil, 0.20% Thereafter	\$12,747,203	20.7%	\$54,615	0.43%
SSgA Treasury Inflation Protected Securities	0.04% of First 50.0 Mil, 0.03% of Next 50.0 Mil, 0.03% Thereafter	\$6,294,332	10.2%	\$2,518	0.04%
Manulife Asset Management	0.32% of Assets	\$6,195,883	10.0%	\$19,827	0.32%
PIMCO All Asset	1.01% of Assets	\$6,140,513	9.9%	\$62,019	1.01%
Investment Management Fee		\$61,717,317	100.0%	\$308,249	0.50%



IMPACT INVESTING OVERVIEW

NEPC, LLC

INTRODUCTION

- Impact Investing is a term used to encompass investing approaches that seek to achieve **both a financial return and a societal contribution**
- NEPC's Impact Investing Committee is responsible for analyzing trends in this space, researching impact-focused managers and **working with clients** to develop strategies that meet their needs
- This presentation provides an overview of the Impact Investing landscape and an introduction to NEPC's approach to Impact Investing

TODAY'S IMPACT LANDSCAPE



Strategy Focus	Screening out certain securities for non-financial reasons	ESG factors built-in as part of the investment process	Pro-actively seeking opportunities in targeted areas (e.g. Renewable Energy)	Actively engage in corporate voting process to push key agenda
Investment Universe	Varied across asset classes	Sizable and includes mainstream managers	Growing in size, but most funds are smaller and newer	Small but growing
Performance	May lag benchmarks due to restricted universe	Performance studies show neutral to positive impact	Varied and will have sizable tracking error due to sector focus	Values-oriented motivations, performance impacts tangential
Level of Impact	Low	Low/Medium	High	High

WHAT'S BEHIND THE E, S, AND G?

CORE FOCUS AREAS IN ESG INVESTING



ESG FACTORS CAN HAVE MATERIAL IMPACTS

EXAMPLES OF THE MATERIALITY OF ESG FACTORS



Reliance on diminishing raw materials sources

Can create cost volatility should supply shortages occur



SOCIAL

Poor treatment of workers

Can create issues such as labor strikes and regulatory scrutiny



GOVERNANCE

Executive compensation

Compensation that fosters alignment between management and share-holders can improve performance

DEFINING YOUR GOALS

- Organization mission or strategic initiatives may lead to clear impact investment goals
- Other investors need guidance to determine areas of focus. Discussion and consensus among key stakeholders is critical. The UN Sustainable Development Goals can be a good resource to review:



THEMATIC SPOTLIGHT

Real Assets

Low Income Housing

Sustainable Real Estate

Clean Infrastructure

Sustainable Timber & Ecosystem Services

Sustainable Agriculture & Water

Private Equity

Resource Efficiency

Food, Health & Well Being

Education

Health IT & Services

Financial Services

Private Credit

Consumer Lending

Small Business Lending

Environmental Assets

Thematic Equity (liquid, global equities)



GROWING PAINS: CHALLENGES FOR INVESTORS

NEPC, LLC

INFORMATION OVERLOAD...AND DEARTH



Bloomberg



- **Increasing number of ESG data providers, along with consolidation**
 - Over 30 providers in the market today
 - Top providers continue to be MSCI, Bloomberg and Sustainalytics
 - Differences in coverage, focus areas and ratings
- **Non-standard, and non-compulsory disclosure from public companies**
 - Improvements led by industry participants and regulatory bodies
 - For example, the Sustainability Accounting Standards Board (SASB) maintains standards that help public corporations disclose “material, decision-useful information to investors in mandatory filings”
- **No one measure exists to assess commitment to ESG**
 - Growth in UN PRI signatories and other commitments
 - Lack in standardization of expectations
- **Increased recognition of the importance of materiality in ESG factors**



RELATIVE ESG INTEGRATION BY INVESTMENT TYPE

STRATEGY TYPE	LEVEL OF ESG INTEGRATION	NOTES
Public Equity	High	Highest level of adoption; European market generally ahead of US
Fixed Income	Moderate	ESG ratings more applicable for corporate debt; sovereign debt and structured credit generally less compatible; growing adoption
Private Equity	Moderate	Funds are often smaller in size, have shorter track records and are newer entities; ESG issues can present an opportunity to unlock value
Real Estate	Moderate	Value-add and opportunistic strategies are often more focused on ESG given their emphasis on property repositioning
Real Assets	Moderate	Sustainable real assets present a wide range of options from renewables to agriculture
Hedge Funds	Low	Limited but growing adoption of ESG amongst hedge funds; Will be strategy dependent

Constructing an ESG Oriented Portfolio

- The universe of ESG oriented strategies vary by asset class
- Should be reflective of portfolio goals and objectives
- Understand how ESG adds value within the strategy
- Construct the most efficient portfolio
- Understand who is developing the ESG ratings and evaluate the merits of approaches and impacts on risk/return
- ESG is one piece of the puzzle

INDUSTRY TRENDS

NEPC, LLC

PRI MEMBERSHIP

- Principles of Responsible Investing (PRI) began in 2006 as a network of investors working together to integrate the ‘six principles’ into common practice in an effort to create a more sustainable financial system

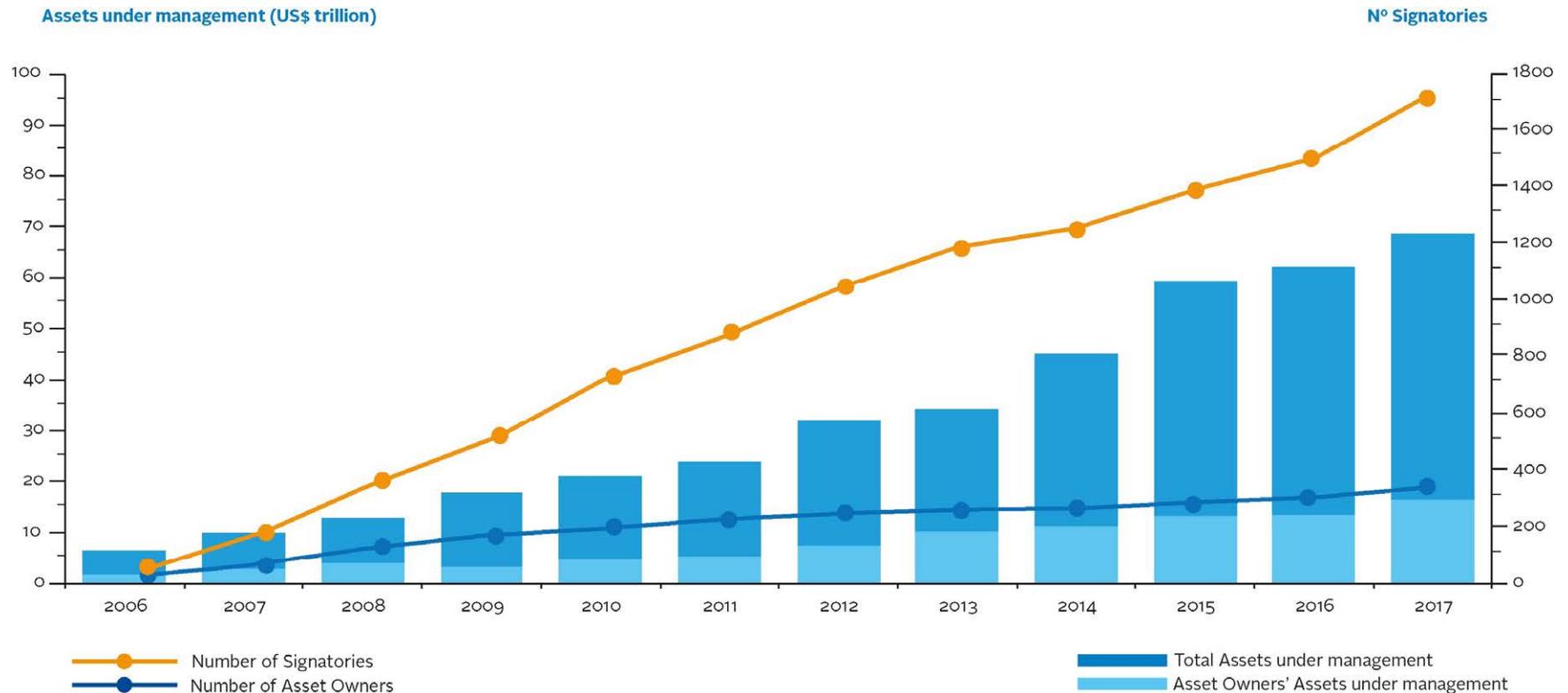
Signatory Directory		
Asset Owners	369	(USA: 37)
Investment Managers	1,314	(USA: 274)
Service Providers	243	(USA: 48)
Total	1,926	

Source: PRI website

- The ‘six principles’ that signatories pledge to implement:
 1. We will **incorporate** ESG issues into investment analysis and decision-making processes
 2. We will **be active** owners and incorporate ESG issues into our ownership policies and practices
 3. We will **seek appropriate disclosure** on ESG issues by the entities in which we invest
 4. We will **promote** acceptance and implementation of the Principles within the investment industry
 5. We will **work together** to enhance our effectiveness in implementing the Principles
 6. We will each **report** on our activities and progress towards implementing the Principles
- **Approximately 100 of NEPC’s preferred managers are PRI signatories**
 - Across both traditional and alternative asset classes
 - NEPC has encouraged the investment management community to consider the materiality of ESG factors to their respective investment processes



THE PRI HAS GROWN CONSISTENTLY



- **The number of PRI signatories has increased from ~150 to ~1,700 in the last 10 years**
 - European signatories outweigh other areas, however the US has experienced sizable gains of late
- **Assets under management increased from about \$US 6 trillion in 2006 to \$US 65 trillion in 2017**



NEPC'S APPROACH TO IMPACT INVESTING

NEPC, LLC

HIGHLIGHTS IN **IMPACT INVESTING**

- **Member of the PRI and Intentional Endowments Network**
- **50+ clients pursuing impact investing**
- **Impact views fully integrated into research process**
 - *New development* – ESG Rating Tool
- **Authored numerous white papers/educational materials**
- **Regularly host impact investing events**
- **Partnered with White House on Clean Energy and ESG Roundtables**
- **Customized analysis: a report that illustrates the performance and commitments of PRI portfolio**
- **Partnered with MSCI to create customized reporting for ESG and carbon footprint**



OUR APPROACH: AN INTEGRATED GROUP

Research Teams

Dulari Pancholi, CFA, CAIA,
Principal
Co-Head - Impact Group
Reino Ecklord, CFA, CAIA,
Research Consultant
Christian Pieri,
Sr. Research Analyst
Hedge Funds

Melissa Mendenhall,
Sr. Research Consultant
Oliver Fadly,
Sr. Research Analyst
Private Equity/Credit

Jed Drake,
Sr. Research Analyst
Real Estate/Assets

Kiersten Christensen,
Sr. Research Consultant
John Lutz,
Research Analyst
Emma Twitchell,
Research Coordinator
Traditional

Sarah Bloom,
Assistant
Marketing

Practice Teams

Kristine Pelletier, Principal
Co-Head – Impact Group
Scott Perry, CAIA,
Partner
Lily Fayerweather,
Investment Analyst
Endowment & Foundation

KC Connors, CFA, CAIA,
Partner
Healthcare

Kelly Regan,
Sr. Consultant
Elizabeth Turpin,
Investment Analyst
Corporate

Sam Austin, Partner
Margaret Belmondo, CIMA®
Sr. Consultant
Michael Malchenko,
Sr. Analyst
Public

Stacey Flier, Sr. Consultant
Private Wealth

Impact Investing Committee



IMPACT INVESTING BLUEPRINT

- **Determine governance**
 - Who will be involved with setting goals and evaluating opportunities
 - Will this vary from existing process
- **Establish common goals and language**
 - Areas of focus
 - Financial return expectations
 - Impact expectations
- **Identify success metrics**
- **Source and vet opportunities**
- **Evaluate investments**
 - Investment goals
 - Investment execution
 - Impact goals
- **Observe, learn and adapt**



IMPACT INVESTING RESEARCH PROCESS



MANAGER APPROACHES TO ESG VARY

- Why is the manager incorporating ESG considerations?
 - What are the firm and strategy level resources?
 - Who performs the analysis?
 - What data is being used to frame the ESG assessment?
 - When/How is the analysis factored into investment decisions?
-

Result: investors must consider additional layers to the investment process when evaluating asset managers

HOW DOES NEPC ASSESS ESG WITH INVESTMENT MANAGERS?



OUR PROCESS

- **Each assessment involves a firm-level and a strategy-level component**
- **At the firm level, we meet with someone on the management team or at a high level within the firm who is familiar with their ESG efforts**
 - Has the firm signed the PRI or made any other commitments to ESG initiatives?
 - Does the firm have an established ESG policy?
 - Does the firm engage with companies around ESG issues?
 - For public equities, is there a proxy voting policy that incorporates ESG considerations?
 - How long has the firm been actively pursuing ESG efforts?
- **At the strategy level, we talk to a portfolio manager or analyst on the strategy to assess how ESG impact portfolio level decisions**
 - How does the portfolio manager think about ESG in their portfolio?
 - Is there negative or positive screening within the portfolio?
 - Is ESG considered for risk reduction purposes or considered an alpha driver?
 - What resources are used to assess ESG?
 - Is there a formal framework for incorporating ESG into the investment process?
- **Our quantitative process assigns each strategy a score of 1 through 5 based on the sophistication of ESG integration, ranging from best in class to no integration**
- **We produce a qualitative assessment, outlining the reasons for the score and any unique aspects to ESG integration within the strategy**



RATINGS OVERVIEW

Rating	Explanation
1	The firm and strategy fully integrate ESG into their processes, going above and beyond their peers. They have fully integrated ESG into their processes, both at a firm and strategy level, and have likely been doing so for an extended period of time. They have shown true commitment to ESG through their investment actions, and view ESG as part of a holistic investment process, even where a short term benefit is not available.
2	ESG has been identified as a material factor in the investment decision-making process and the firm has likely developed policies and procedures to foster ESG is integrated into its investment strategies. ESG may not be fully integrated across all strategies but the firm has established robust policies to ensure adoption over time. The strategy has likely demonstrated a detailed approach to incorporating ESG into its process supported by thorough internal analysis and/or external data.
3	The firm and/or strategy have made solid efforts to incorporate ESG and/or explicitly accepting the materiality of ESG factors. They have likely made numerous commitments to understanding ESG and formalizing its integration practices; however, they may not be fully integrated across both the firm and the strategy or are early on in its adoption. Further, they may have focused on efforts that have more immediate short-term benefits, such as meeting client demand, over the long-term role of ESG integration.
4	The firm and/or strategy have begun to make efforts to incorporate ESG. They have likely made some investments in ESG in areas that sounds impressive on the surface, but may not ultimately entail very much effort, such as signing the UN PRI, purchasing data from a third party provider, appointing ESG personnel, or creating blanket policies. The efforts may represent a true commitment, but likely have not existed long enough to truly determine the intent of the firm and strategy.
5	The firm and strategy have made no effort to incorporate ESG. Any point gained here is incidental, and should not be seen as a true effort to implement ESG.



BOSTON PUBLIC LIBRARY EVALUATIONS

NEPC, LLC

ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	State Street Global Advisors	Firm-Level	
Fund	SRI S&P 500	Firm-Level Commitment	SSGA became a signatory of the PRI in 2012. They are also members of SASB, in addition to a number of other organizations. Their commitment to ESG is exemplified through their initiatives, such as the Fearless Girl Statue, and their firm level ESG policies. Their thought leadership around ESG is translated into implementation and practice.
Strategy-Type	Domestic Equity	Resources	SSGA has an ESG Investing and Asset Stewardship Organization. The organization is composed of over 20 people; some members have cross functional duties, while others are wholly dedicated to ESG. There is a fully cross functional ESG working group composed of 45 investment and business professionals. These groups are responsible for several aspects of ESG, including product development and integration, implementation, and proxy voting.
WMBE Firm	No	Engagement Policies	SSGA has ESG engagement and proxy voting policies. There are two principals involved in proxy operations and ten employees involved with the stewardship team. Sector specific demands and engagement targets are set according to materiality and urgency. Engagement first and foremost occurs with ESG laggards. PMs and analysts conduct their own engagements, however they also lean on the stewardship team when looking to engage specifically on issues of ESG
ESG Rating		Strategy-Level	
ESG 3		Overview	Not Applicable: Passive Product
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	Not Applicable: Passive Product
Analyst Opinion		Resources	Not Applicable: Passive Product
<p>SSGA has been committed to ESG in some capacity since the mid-2000's, however they seem to be going through an ESG transition. Proprietary ESG tools have slowly been deployed across investment teams and are being integrated through step by step methodical processes. New ESG dedicated positions and employees are focused on integration, however there is also a large focus on creating and producing ESG products for clients. Firm efforts appear genuine, but organization around ESG efforts could be improved. Because of the size and scope of SSGA it is imperative to have a strategy level understanding of each fund.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	Diamond Hill	Firm-Level	
Fund	Large Cap Fund	Firm-Level Commitment	There is no firm level commitment to ESG at this time, but this is being actively discussed by the firm.
Strategy-Type	Large Cap Value Fund	Resources	There are no dedicated resources at this time.
WMBE Firm	No	Engagement Policies	Each team votes their own proxies and will rotate responsibility for that around the research team. PMs and analysts have previously engaged with portfolio companies, but there is no formalized engagement process and the focus has primarily been on governance. They have engaged on compensation policies specifically, and this seems to be an area they have an interest in.
ESG Rating		Strategy-Level	
ESG 4		Overview	ESG factors are only incorporated incidentally. They do not meaningfully affect decision making.
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	Analysts are required to build out 5 year models on their holdings. In that process they will look at 'risks'. This may or may not include ESG factors, depending on whether these are thought to affect the cash flows and ultimate valuation. As there is no consistent or set approach, it comes up on a case by case basis.
Analyst Opinion		Resources	Diamond Hill does not use any ESG research or resources.
<p>This manager is not doing anything unique or special in terms of ESG. While they do have risk analysis and assessments in place, as analysts build 5 year models on their companies, there is no specific or consistent approach. Each analyst is allowed to determine what they see as 'key risks' and go from there. There is no ESG checklist, or even a specific 'risk' analysis process, and they do not use any external ESG resources or databases.</p> <p>Their approach on the governance side seems stronger - they do vote their own proxies and will engage on issues – particularly compensation.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	Segall Bryant & Hamill	Firm-Level	
Fund	Small Cap Core	Firm-Level Commitment	Segall Bryant & Hamill became a signatory to the PRI in 2017. They have not yet filed a report to PRI and anticipate doing so in April 2019. The firm established an ESG policy outlining their commitment and approach in 2017.
Strategy-Type	Domestic Equity	Resources	Segall Bryant & Hamill has a cross functional 13 member ESG committee, which is responsible for researching ESG best practices with the goal of incorporating ESG factors into the teams' investment processes. Improving engagement efforts is an area of focus for the committee in 2019.
WMBE Firm	No	Engagement Policies	Most of Segall Bryant & Hamill's investment teams do meet with company management as part of the research process. At this stage of the process, the team would not try and influence a company's ESG factors as they would be already be factored into the initial screening. Teams currently default to ISS for proxy voting, but this is an area they will be reassessing.
ESG Rating		Strategy-Level	
ESG 3		Overview	The strategy primarily focuses on Return on Invested Capital (ROIC). They view ESG factors from a risk standpoint, but focus primarily on the governance portion. It doesn't appear that environmental and social factors meaningfully impact the decision making, though this may vary by analyst.
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	For every security, team members have access to a dashboard that pulls in a variety of ESG information, in addition to financial information. An ESG report, including primarily the same information as is on the dashboard, is included in all security reviews. While ESG information is available, incorporation is dependent on analyst and PM discretion. There are no checks or mandates in place to ensure ESG integration.
Analyst Opinion		Resources	Segall Bryant & Hamill is getting their ESG information for both their dashboards and reports from Bloomberg and FactSet.
<p>Segal Bryant & Hamill is in the early stages of incorporating ESG into their processes. While they have become a signatory of the PRI and have created an ESG committee, the individual strategies still have not fully integrated ESG into their process. The main component they look at is the governance piece, which many managers have been doing for years (looking for solid management teams that are looking out for shareholders). We will continue to monitor their efforts into fully incorporating all phases of ESG into their process and not just heavy on the governance portion.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	Earnest Partners	Firm-Level	
Fund	International Equity	Firm-Level Commitment	EARNEST has been a PRI Signatory since 2016. They are also involved in a number of organizations to give back to society and help with education, environment, and human rights. They are in the process of developing a firm ESG policy outlining their commitment and approach.
Strategy-Type	Non US Equity	Resources	While all members of the firm are expected to take ESG issues into account in their investment work, there is no formal structure in place to monitor or research ESG at the firm level.
WMBE Firm	Minority-owned	Engagement Policies	EARNEST has best practices outlined for proxy voting, but ESG specific issues are considered on a case by case basis. The team meets regularly with all management teams before and during investment and share thoughts and feedback, but they do not take an activist approach.
ESG Rating		Strategy-Level	
ESG 4		Overview	EARNEST adopts the same process across their equity platform and all investment professionals consider ESG as a part of a company's long term sustainability. They take ESG factors into account based on their quality assessment of companies although they are mostly governance factors, and it is unclear if all relevant material factors are considered.
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	EARNEST looks at companies and their need to change. They do not look at companies at the absolute level, but rather in relation to peers with a focus on positive momentum regarding ESG factors. They have avoided stocks after analyzing ESG issues mainly on the governance portion.
Analyst Opinion		Resources	EARNEST will reference ESG information from Bloomberg, CDP, and company CSR reports as data points when evaluating companies, but resources are not applied consistently by analysts.
<p>EARNEST Partners finds ESG to be relevant to sustainable businesses as they are long term investors. All investment professionals take ESG into consideration when evaluating companies, but there is not a formal ESG questionnaire or checklist used during meetings with company management. EARNEST does not have a formalized ESG approach or policy. They will take into account scores from external vendors as a reference. While they seem to be heading in the right direction there is runway to improve on ESG integration and awareness, particularly around improving consistency and formalization.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	State Street Global Advisors	Firm-Level	
Fund	EAFE Hedged Index	Firm-Level Commitment	SSGA became a signatory of the PRI in 2012. They are also members of SASB, in addition to a number of other organizations. Their commitment to ESG is exemplified through their initiatives, such as the Fearless Girl Statue, and their firm level ESG policies. Their thought leadership around ESG is translated into implementation and practice.
Strategy-Type	Non US Equity	Resources	SSGA has an ESG Investing and Asset Stewardship Organization. The organization is composed of over 20 people; some members have cross functional duties, while others are wholly dedicated to ESG. There is a fully cross functional ESG working group composed of 45 investment and business professionals. These groups are responsible for several aspects of ESG, including product development and integration, implementation, and proxy voting.
WMBE Firm	No	Engagement Policies	SSGA has ESG engagement and proxy voting policies. There are two principals involved in proxy operations and ten employees involved with the stewardship team. Sector specific demands and engagement targets are set according to materiality and urgency. Engagement first and foremost occurs with ESG laggards. PMs and analysts conduct their own engagements, however they also lean on the stewardship team when looking to engage specifically on issues of ESG
ESG Rating		Strategy-Level	
ESG 3		Overview	Not Applicable: Passive Product
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	Not Applicable: Passive Product
Analyst Opinion		Resources	Not Applicable: Passive Product
<p>SSGA has been committed to ESG in some capacity since the mid-2000's, however they seem to be going through an ESG transition. Proprietary ESG tools have slowly been deployed across investment teams and are being integrated through step by step methodical processes. New ESG dedicated positions and employees are focused on integration, however there is also a large focus on creating and producing ESG products for clients. Firm efforts appear genuine, but organization around ESG efforts could be improved. Because of the size and scope of SSGA it is imperative to have a strategy level understanding of each fund.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	Income Research and Management	Firm-Level	
Fund	Core Bond Fund II	Firm-Level Commitment	IR+M has been a signatory of the PRI since 2013. They most recently received scores of A's and B's in categories they report. Their ESG policy outlines their commitments to ESG, both internally and externally. The firm continues to formalize their ESG approach and remains committed to identifying areas of improvement. Recently, IR+M expanded their ESG framework beyond credit to securitized and municipals.
Strategy-Type	Core Fixed Income	Resources	IR+M has a five member ESG committee that meets quarterly. The committee is in charge of UNPRI reporting, ensuring firm wide integration, and educating themselves and the firm on new developments in the universe.
WMBE Firm	No	Engagement Policies	While IR+M does not make explicit ESG considerations in their engagement policies, they engage on ESG issues on a case by case basis, when given the opportunity. Engagement is primarily achieved through one on one meetings with portfolio company management.
ESG Rating		Strategy-Level	
ESG 1		Overview	IR+M integrates ESG effectively and meaningfully across their long and short strategies. Their bottom up approach pushes analysts to implicitly understand materiality and ESG.
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	A proprietary ESG scoring system is utilized by every investment professional. The scoring system has both quantitative and qualitative aspects; scores and metrics are sector and sub-sector specific. For key holdings, analysts are required to create a credit tear sheet that includes a mandatory ESG rating. ESG is incorporated via an internally created key issues map, which the firm routinely updates to continually address all issues. Process includes conducting proprietary, sector-level benchmarking for key metrics to identify leaders and laggards. While portfolio managers make final decisions, analysts are influential and imperative in the process. ESG updates are made on a monthly basis via a mandatory research team meeting where discussions can include broad ESG subjects and/or a specific security.
Analyst Opinion		Resources	Investment professionals utilize MSCI, SASB, and Sustainalytics. Third party resources are taken at face value, however underlying Bloomberg data is also utilized in the proprietary system. In addition, analysts conduct their own fundamental research when necessary.
<p>IR+M boasts a thoroughly integrated approach to ESG. All strategies must incorporate the robust baseline ESG rating process, however investment teams have the options to go above and beyond the baseline and tailor the process to their strategy needs. Analysts are responsible for understandings material ESG risks that are specific to their sectors; analyst understanding is augmented by a proprietary ESG tiering system. IR+M's bottom up approach lends to a wholly integrated system, however it will be imperative to understand differences in ESG valuations across strategies. The firm continually evaluates their own ESG integration efforts and those of their peers to identify areas of improvement.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	State Street Global Advisors	Firm-Level	
Fund	US TIPS Index	Firm-Level Commitment	SSGA became a signatory of the PRI in 2012. They are also members of SASB, in addition to a number of other organizations. Their commitment to ESG is exemplified through their initiatives, such as the Fearless Girl Statue, and their firm level ESG policies. Their thought leadership around ESG is translated into implementation and practice.
Strategy-Type	Domestic Fixed Income	Resources	SSGA has an ESG Investing and Asset Stewardship Organization. The organization is composed of over 20 people; some members have cross functional duties, while others are wholly dedicated to ESG. There is a fully cross functional ESG working group composed of 45 investment and business professionals. These groups are responsible for several aspects of ESG, including product development and integration, implementation, and proxy voting.
WMBE Firm	No	Engagement Policies	SSGA has ESG engagement and proxy voting policies. There are two principals involved in proxy operations and ten employees involved with the stewardship team. Sector specific demands and engagement targets are set according to materiality and urgency. Engagement first and foremost occurs with ESG laggards. PMs and analysts conduct their own engagements, however they also lean on the stewardship team when looking to engage specifically on issues of ESG
ESG Rating		Strategy-Level	
ESG 3		Overview	Not Applicable: Passive Product
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	Not Applicable: Passive Product
Analyst Opinion		Resources	Not Applicable: Passive Product
<p>SSGA has been committed to ESG in some capacity since the mid-2000's, however they seem to be going through an ESG transition. Proprietary ESG tools have slowly been deployed across investment teams and are being integrated through step by step methodical processes. New ESG dedicated positions and employees are focused on integration, however there is also a large focus on creating and producing ESG products for clients. Firm efforts appear genuine, but organization around ESG efforts could be improved. Because of the size and scope of SSGA it is imperative to have a strategy level understanding of each fund.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	Manulife Asset Management	Firm-Level	
Fund	John Hancock Income Fund	Firm-Level Commitment	Manulife has been a signatory of the UN PRI since 2015. They also hold leadership roles in numerous groups including the PRI Fixed Income Advisory Group, the Asia Investor Group on Climate Change, and the World Benchmarking Alliance.
Strategy-Type	Multisector Bond	Resources	Manulife has a dedicated ESG team that consists of five full-time analysts, including three in Boston, one in Toronto and one in Hong Kong. This team reports through the investment risk function through to the CEO of public markets and interfaces with the firm's investment teams. Manulife has established a responsible investment committee, which consists on senior inter-departmental Asset Management representatives such as the deputy CIOs of North American Fixed Income and Equities. The ESG team's role is to support internal research efforts regarding ESG due diligence as well as ESG risk monitoring which includes performing daily risk reporting, portfolio analysis reports, and quarterly portfolio ESG risk reviews.
WMBE Firm	No	Engagement Policies	Manulife actively engages corporations. In 2018, the firm conducted 93 engagements with companies across range of geographies and topics. There is no explicit ESG voting policy, though they do vote by proxy when applicable. Manulife will, at a minimum, review a position where it holds more than 3% of assets in a given company to determine their stance on voting.
ESG Rating		Strategy-Level	
ESG 3		Overview	It is unclear if ESG information meaningfully influences the investment process or impacts the decision making process at the portfolio level. ESG is viewed as a risk mitigation tool by Manulife.
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	Engagement happens at different points in the research process on a case-by-case basis. Analysts use ESG industry handbooks as a materiality framework.
Analyst Opinion		Resources	Investment teams have access to MSCI ESG research and data, periodic ESG trainings, and dedicated internal ESG specialists.
<p>Manulife is making a conscious effort to integrate ESG factors into their investment process. In 2018 the firm rolled out initial research aids, analytical templates and tools focused on ESG to all credit teams globally. That being said, ESG is still a ways off from being fully integrated into the fixed income team, with MSCI ESG data having only recently been added to analyst Bloomberg terminals, for example. On the equity side of the house, Manulife has yet to introduce a cohesive ESG framework throughout its structure of boutique equity teams. The firms appears to view ESG as a risk mitigation tool by doing risk reviews and occasionally engaging in some situations, though it's evident that ESG is not a fully thought-out and standardized process across the full research organization at this point. Most importantly, it's unclear if ESG factors fundamentally influences a portfolio team's decision making process.</p>			



ESG INTEGRATION EVALUATION

General Fund Information		Evaluation Criteria and Commentary	
Firm	PIMCO	Firm-Level	
Fund	All Asset	Firm-Level Commitment	PIMCO has integrated ESG into their standard credit and sovereign credit research process since 2011, and have been evolving their process since. They signed onto the UN PRI in 2011, and they have consistently gotten an A+ on their reports. They also participate in the PRI Bondholder Engagement Working Group, UN Global Compact, UN SDG Advisory Committee, SASB, and Climate 100+, among others.
Strategy-Type	Global Asset Allocation	Resources	PIMCO has a 6 person ESG Leadership Team, a 10 person ESG Strategy Group, and a 12 person ESG PM group. Though there is some overlap within the group, there are clearly significant resources focused on ESG integration, including three full time ESG professionals.
WMBE Firm	No	Engagement Policies	PIMCO has a dedicated ESG Engagement specialist, who works with portfolio managers and analysts on engagement efforts. They try to keep engagement work private, but have a record of success with over 100 specific ESG engagements in 2017. They publish an annual report outlining engagement efforts, and also include engagement information in quarterly fund updates. The primary focus of engagement currently is on getting consistent ESG disclosure from issuers.
ESG Rating		Strategy-Level	
ESG 1		Overview	While portfolio managers are never required to optimize for ESG, all issues have both an ESG score and a credit rating that are factored into the decision process. Material ESG factors will impact the traditional credit rating, as well. When all else is equal, an issuer with a better ESG score will be selected.
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.		Integration Process	Analysts have been required to include ESG factors in their reports since 2011. Since 2015, PIMCO has published a separate ESG score based on a dynamic, proprietary model for all issues. The scoring methodology varies by sector to enable comparison among peers.
Analyst Opinion		Resources	Internal ESG research is supplemented by data from MSCI, Sustainalytics, and Bloomberg. This data enables the production of a proprietary ESG score, which incorporates both peer assessment and trend analysis.
<p>PIMCO has fully integrated ESG across their firm for many years, and they believe they have a fiduciary responsibility to incorporate material ESG factors in their investment process. This is clear from their broad commitments to ESG, their heavy investment in ESG resources, and their well thought out scoring process. At no time has ESG integration been a deterrent on performance, and in fact it enables avoidance of risk and identification of opportunities. PIMCO is a firm that is ahead of the curve compared to its peers in terms of ESG integration. As time progresses, we would expect PIMCO to start to increase their engagement efforts.</p>			



APPENDIX

NEPC, LLC

GLOSSARY OF COMMON TERMS

B Corp: Certified B Corporations are businesses that have achieved a score of B or above on the B Impact Assessment, a self-submitted report verified by the non-profit B Lab meant to assess the overall impact of a company regarding environmental and social practices, public transparency, and legal accountability.

Climate Bonds Initiative: The Climate Bonds Initiative works to promote the use of green and climate bonds, providing tracking of the universe, a certification standard, and a framework for the issuance of these bonds going forward.

CDP: Formerly the Climate Disclosure Project, CDP is an organization which promotes environmental reporting and disclosure, particularly related to emissions, in a consistent format across thousands of companies.

CECP: CECP is a network of CEOs and other executives at multibillion-dollar for-profit companies working together to improve stakeholder engagement to create firm success.

GIIN: The Global Impact Investing Network is a forum of impact investors working to highlight impact investing efforts, promote impact investments, and enable knowledge sharing among members.

GRESB: The Global Real Estate Sustainability Benchmark promotes disclosure of ESG factors in the context of real estate, debt, and infrastructure investments. Members are required to report quantitative and qualitative data through yearly assessments, which GRESB aggregates and shares with the network.

PRI: The Principles for Responsible Investment is a set of six principles supporting the inclusion of ESG within the investment process. Signatories commit to uphold the six principles, and must pay an annual membership fee and submit and report outlining their commitment.

SASB: The Sustainability Accounting Standards Board works with companies, investors, and other market participants to develop sector and industry-specific materiality maps for ESG factors.

STAR Communities: The STAR Community Rating System certifies communities as sustainable based on 21 indicators as assessed in an annual report. The STAR Communities program merged with the LEED for Cities program in 2017.

UK Stewardship Code: The UK Stewardship Code is overseen by the UK Financial Reporting Council and aims to enhance engagement efforts between investors and companies by verifying stewardship efforts across the firm. It is seen as good business practice across the UK, as businesses are generally expected to either comply or explain their non-compliance.

UN Global Compact: The compact outlines ten principles in the areas of human rights, labor, the environment, and anti-corruption that member companies commit to upholding.

USSIF: The Forum for Sustainable and Responsible Investment advances sustainable and impact investing through work with stakeholders across the investment community, providing relevant reporting, education, and other resources.



DISCLAIMER

- **Past performance is no guarantee of future results.**
- **The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
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- **Sources:**
 - Khan, Mozaffar N., George Serafeim, and Aaron Yoon. "Corporate Sustainability: First Evidence on Materiality." Harvard Business School Working Paper, No. 15-073, March 2015.
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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.
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- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

