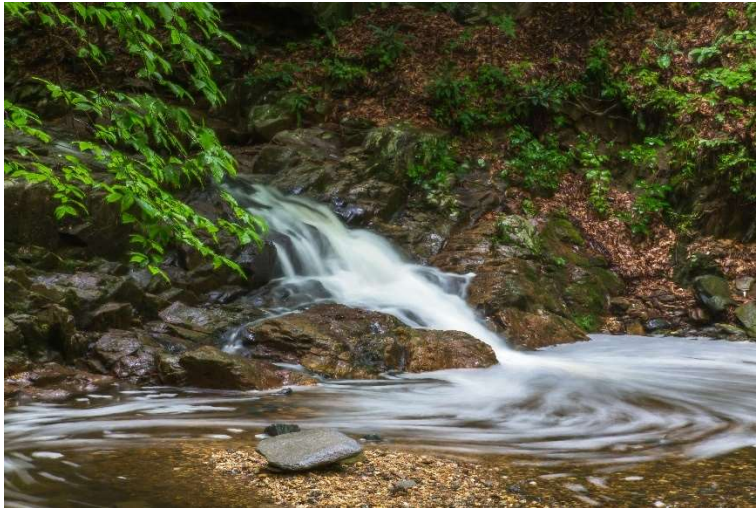




MSRA Responsible Investing

2nd biennial report by
The Environmental, Social and Governance Risk Committee
of the Maryland State Retirement and Pension System



February 18, 2020

MSRA Responsible Investing

The Maryland State Retirement and Pension System has long been active as a responsible investor in addressing Environmental, Social and Governance (ESG) risks. The System was an early signatory to the United Nations Principles of Responsible Investing (UNPRI) and is a member of the Ceres Investor Network on Climate Risk and Sustainability. The System is also a member of the Sustainability Accounting Standards Board (SASB) Alliance program, which promotes best practices in the disclosure and reporting of sustainability information. The System's Board of Trustees has adopted extensive proxy voting policies addressing ESG risks, and engages with corporations, regulatory agencies, lawmakers or associations to support the principles outlined in these policies.

Over the past several years, Investment Division staff has enhanced its practices with respect to the diligence of new investments, including improving the assessment of ESG risks and having explicit discussions of those risks as part of the review of investment opportunities. Along with ESG risk considerations, these discussions highlight the varied approaches that managers utilize, and the inconsistent practices applied to similar investments. As ESG related data and information becomes more consistent over time and best practices evolve, staff will consider additional enhancements to further improve the investment decision making process and meet plan objectives.

Discovering inconsistencies in asset manager approaches and in available ESG related information, particularly climate risk data, while noting the growing need for additional climate risk exposure information from outside constituents, the CIO formed the MSRPS ESG Risk Committee in the summer of 2017. The Committee initially consisted of the CIO and three investment professionals involved in three separate asset classes. In 2018 the Senior Compliance Officer was added to the Committee.

The following is the charter of the Committee:

Charter *ESG Risk Committee*

The ESG Risk Committee of the Investment Division is formed to provide thought leadership, education and reporting around the ESG issues excluding diversity, which will be the province of the Diversity Committee.

The Committee will review academic research, perform de novo research and evaluate the ESG practices of asset owners. These efforts will help formulate language for the operations manual, and provide recommendations to the Board for inclusions in the Investment Policy Manual.

The Committee will work to bring the findings of its research to the Investment Division and Board through providing educational opportunities in terms of white papers and presentations by organizations outside the division.

The Committee will document the ESG activities of the Board and Investment Division including how our diligence and oversight practices address ESG risks.

Integrated in the Process

At the investment level, the System has a diverse asset allocation implemented through approximately 350 external accounts which hold thousands of individual securities, loans, derivatives and private market investments. This diverse asset allocation and implementation is the System's first line of defense from a risk management perspective. No single investment presents the System with a significant amount of concentration risk. Aside from government bonds, the largest investments represent less than 1% of System assets.

Historically, plan assets have been externally managed and consequently the System has relied on its asset managers to address ESG risks, including climate change risks. Investment Staff evaluates the ESG risks inherent in the investments and strategies under consideration for inclusion in portfolios, as well as managers' policies for addressing those risks, as part of the external manager due diligence and monitoring processes. Since the ESG Committee's last report, Investment Staff added ESG risk specific questions to the System's due diligence questionnaires posted on the MSRPS website, and ensured that all of the System's consultant's due diligence questionnaires include ESG risk specific questions. The list of staff's ESG related due diligence questions was expanded in order to develop an internal view of best practices by asset class, and potentially create an internal ESG rating system. These efforts are expected to encourage additional discussion during internal investment committee meetings and identify managers where staff can recommend improvements.

In 2019 the System started managing certain assets internally, and the percentage of assets managed internally will grow over time. As with external manager recommendations, staff incorporates ESG risk assessment into the investment decision making process for recommendations of internally managed mandates. Staff will further

develop policies and processes to assess ESG risk factors for internally managed assets.

In 2019, the System began submitting an annual risk assessment to the Maryland State Legislature in accordance with the Maryland Pension Risk Mitigation Act (available on the MSRPS website). This report includes an analysis of the System’s portfolio risk due to climate change and an estimate of the System’s public equity portfolio carbon footprint, both performed in collaboration by the System’s Risk Management team and general consultant. Additionally, the System’s Investment Policy Manual was updated with respect to Economically Targeted Investments and the consideration of ESG factors.

Process Development and Evaluation

In 2017, the Committee’s first task was to evaluate the System with respect to its commitments under the **UNPRI Six Principles of Responsible Investing**. This evaluation concluded that, while more could be done, the System was largely adhering to its responsibilities. Since the Committee’s last report, additional enhancements to Investment Staff’s process have been enacted.

PRINCIPAL #1 - Incorporating ESG issues into investment analysis and decision-making processes by reviewing and evaluating ESG policies of the System’s external managers and applying the same process to internally managed mandates

Potential Actions	MSRA Practice 2017	MSRA Practice 2019
Address ESG issues in investment policy statements	<ul style="list-style-type: none"> Proxy voting policies 	<ul style="list-style-type: none"> Proxy voting policies ETI language in IPM Risk Management language in IPM

Support development of ESG-related tools, metrics, and analyses	<ul style="list-style-type: none"> • UN PRI • SASB Alliance • Support disclosure initiatives • Climate Action 100+ 	<ul style="list-style-type: none"> • UN PRI • SASB Alliance • Support disclosure initiatives • Climate Action 100+
Assess the capabilities of internal investment managers to incorporate ESG issues	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Same process for external and internal managers
Assess the capabilities of external investment managers to incorporate ESG issues	<ul style="list-style-type: none"> • Diligence item for new managers • Disclosure item for existing managers 	<ul style="list-style-type: none"> • Diligence item for new managers • Disclosure item for existing managers • Enhanced evaluation of manager practices and internal investment committee review
Ask investment service providers (such as financial analysts, consultants, brokers, research firms, or rating companies) to integrate ESG factors into evolving research and analysis	<ul style="list-style-type: none"> • Required for diligence reports from General and Specialty Consultants 	<ul style="list-style-type: none"> • Required for diligence reports from General and Specialty Consultants • Agenda item for internal management's research providers
Encourage academic and other research on this theme	<ul style="list-style-type: none"> • Participate in Industry Conferences 	<ul style="list-style-type: none"> • Participate in Industry Conferences • Collaborate with peers on best practices
Advocate ESG training for investment professionals	<ul style="list-style-type: none"> • Board Education Sessions 	<ul style="list-style-type: none"> • Development of additional training for Staff and Board • PRI presentation during Board Education Session • Staff participation at SASB Annual Conference

PRINCIPAL #2 – As an active owner, incorporating ESG issues into its ownership policies through proxy voting, engagement and contract negotiations

Potential Actions	MSRA Practice 2017	MSRA Practice 2019
Develop and disclose an active ownership policy consistent with the Principles	<ul style="list-style-type: none"> • Proxy voting policies • Corporate Governance Committee policy on Engagement 	<ul style="list-style-type: none"> • Proxy voting policies • Corporate Governance Committee policy on Engagement • Proxy voting record published on website
Exercise voting rights or monitor compliance with voting policy (if outsourced)	<ul style="list-style-type: none"> • Proxy voting policies 	<ul style="list-style-type: none"> • Proxy voting policies • Proxy voting record published on website • Proxy votes audited for compliance with IPM
Develop an engagement capability (either directly or through outsourcing)	<ul style="list-style-type: none"> • External Asset Managers and System engagement • Active involvement in PRI, CERES et al initiatives 	<ul style="list-style-type: none"> • External Asset Managers and System engagement • Internal Asset Managers held to same standards as external • Active involvement in PRI, CERES et al initiatives
Participate in the development of policy, regulation, and standard setting (such as promoting and protecting shareholder rights)	<ul style="list-style-type: none"> • Proxy voting policies • UN PRI Signatory 	<ul style="list-style-type: none"> • Proxy voting policies • UN PRI Signatory • SASB Alliance member
File shareholder resolutions consistent with long-term ESG considerations	<ul style="list-style-type: none"> • Through External Managers 	<ul style="list-style-type: none"> • Through external managers • Developing internal management capabilities
Engage with companies on ESG issues	<ul style="list-style-type: none"> • Through External Managers 	<ul style="list-style-type: none"> • Through external managers • Developing internal management capabilities
Participate in collaborative engagement initiatives	<ul style="list-style-type: none"> • CERES, PRI, SASB, etc. 	<ul style="list-style-type: none"> • CERES, PRI, SASB, etc.

Ask investment managers to undertake and report on ESG-related engagement	<ul style="list-style-type: none"> • Annual Compliance Questionnaire 	<ul style="list-style-type: none"> • Due Diligence Questionnaires on MSRPS website • Side Letter negotiation for certain asset classes • Annual Compliance Questionnaire
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PRINCIPAL #3 - Seeking appropriate disclosure on ESG issues by the entities in which we invest through annual questionnaires submitted to managers, membership in SASB and participation in ad hoc letters sponsored by our ESG partners

Potential Actions	MSRA Practice 2017	MSRA Practice 2019
Ask for standardized reporting on ESG issues (using tools such as the Global Reporting Initiative)	<ul style="list-style-type: none"> • SASB Alliance • MSRPS Proxy Policy 	<ul style="list-style-type: none"> • SASB Alliance • MSRPS Proxy Policy
Ask for ESG issues to be integrated within annual financial reports	<ul style="list-style-type: none"> • SASB Alliance • MSRPS Proxy Policy 	<ul style="list-style-type: none"> • SASB Alliance • MSRPS Proxy Policy
Ask for information from companies regarding adoption of/adherence to relevant norms, standards, codes of conduct or international initiatives (such as the UN Global Compact)	<ul style="list-style-type: none"> • Through External Managers 	<ul style="list-style-type: none"> • Through External Managers • Developing capabilities for internally managed assets
Support shareholder initiatives and resolutions promoting ESG disclosure	<ul style="list-style-type: none"> • SASB Alliance • MSRPS Proxy Policy 	<ul style="list-style-type: none"> • SASB Alliance • MSRPS Proxy Policy

PRINCIPAL #4 - Promoting acceptance and implementation of the Principles within the investment industry by requiring investment staff and consultants to address the issues in their analysis where applicable, including the issues in diligence and monitoring discussions with managers, and attending conferences and seminars on the topic

Potential Actions	MSRA Practice 2017	MSRA Practice 2019
Include Principles-related requirements in requests for proposals (RFPs)	<ul style="list-style-type: none"> ESG related questions in Due Diligence Questionnaires 	<ul style="list-style-type: none"> Due Diligence Questionnaires on MSRPS website Expanded ESG related questions for investment recommendations
Align investment mandates, monitoring procedures, performance indicators and incentive structures accordingly (for example, ensure investment management processes reflect long-term time horizons when appropriate)	<ul style="list-style-type: none"> Annual Compliance Questionnaire 	<ul style="list-style-type: none"> Contract and Side letter negotiations Annual Compliance Questionnaire
Communicate ESG expectations to investment service providers	<ul style="list-style-type: none"> Dialogue with Consultants Engage with External Managers in areas of weakness 	<ul style="list-style-type: none"> Dialogue with Consultants Engage with External Managers in areas of weakness
Revisit relationships with service providers that fail to meet ESG expectations	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Dialogue with Consultants Engage with External Managers in areas of weakness
Support the development of tools for benchmarking ESG integration	<ul style="list-style-type: none"> MSCI Carbon Exposure 	<ul style="list-style-type: none"> Climate Change analysis and Carbon Footprint in annual Risk Assessment
Support regulatory or policy developments that enable implementation of the Principles	<ul style="list-style-type: none"> SASB Alliance and UN PRI Letter campaigns 	<ul style="list-style-type: none"> SASB Alliance and UN PRI Letter campaigns

PRINCIPAL #5 - Working together (with other signatories) to enhance our effectiveness in implementing the Principals through peer to peer engagement and conference attendance

Potential Actions	MSRA Practice 2017	MSRA Practice 2019
Support/participate in networks and information platforms to share tools, pool resources, and make use of investor reporting as a source of learning	<ul style="list-style-type: none"> • UN PRI • SASB Alliance • CERES 	<ul style="list-style-type: none"> • UN PRI • SASB Alliance • CERES • Peers (State Pensions) and Endowment Funds
Collectively address relevant emerging issues	<ul style="list-style-type: none"> • Work with organizations such as CERES, SASB and UN PRI 	<ul style="list-style-type: none"> • Work with organizations such as CERES, SASB and UN PRI • Work with Peers and other investors directly
Develop or support appropriate collaborative initiatives	<ul style="list-style-type: none"> • Work with organizations such as CERES, SASB and UN PRI 	<ul style="list-style-type: none"> • Work with organizations such as CERES, SASB and UN PRI • Work with Peers and other investors directly

PRINCIPAL #6 - Effectively reporting on its activities and progress toward implementing the principles

Potential Actions	MSRA Practice 2017	MSRA Practice 2019
Disclose how ESG issues are integrated within investment practices		<ul style="list-style-type: none"> • Biennial ESG Report • Annual Risk Assessment • Investment Policy Manual
Disclose active ownership activities (voting, engagement, and/or policy dialogue)	<ul style="list-style-type: none"> • Proxy voting record on website 	<ul style="list-style-type: none"> • Proxy voting record on website • Biennial ESG Report • Annual Risk Assessment
Disclose what is required from service providers in relation to the Principles		<ul style="list-style-type: none"> • Due Diligence questionnaires on MSRPS website

		<ul style="list-style-type: none"> • Biennial ESG Report
Communicate with beneficiaries about ESG issues and the Principles		<ul style="list-style-type: none"> • Biennial ESG Report posted on MSRPS website
Report on progress and/or achievements relating to the Principles using a comply-or-explain approach	<ul style="list-style-type: none"> • Annual Compliance Questionnaire 	<ul style="list-style-type: none"> • Annual Compliance Questionnaire • Biennial ESG Report
Seek to determine the impact of the Principles		<ul style="list-style-type: none"> • Annual Risk Assessment
Make use of reporting to raise awareness among a broader group of stakeholders	<ul style="list-style-type: none"> • Biennial ESG Report 	<ul style="list-style-type: none"> • Biennial ESG Report • Annual Risk Assessment

As outlined in the Committee’s initial report in 2018, the System was meeting its UN PRI commitments, but disclosure and reporting represented an area of improvement.

Since the formation of the ESG Committee, staff has worked on improving data capture and communication to external constituents. Staff’s efforts have been successful, which can be seen in the ratings given to MSRPS by UN PRI following review of the System’s responses to their annual survey in the table below. The “C” rating in 2019 under “Direct and Active Ownership” can be attributed to the System’s outsourced model and is expected to improve as more assets are managed internally.

<i>Assessment Major Categories</i>	2016	2017	2018	2019
Strategy and Governance	C	C	B	A
Indirect - Manager Selection/Monitoring	D	C	C	B
Direct and Active Ownership	D	D	C	C

Milestones achieved over the past two years and the path forward

To improve reporting, the Committee has:

- 1.** Documented and reported the percentage of managers that have an ESG policy and incorporate ESG principals in their investment process, and assessed differences between asset classes, geographies and strategy types
- 2.** Documented and reported the percentage of managers that are UNPRI signatories
- 3.** Analyzed and reported trends in proxy voting
- 4.** Published the System's proxy voting experience on its website
- 5.** Identified System investments that focus on ESG solutions

The Committee has also implemented the following practices:

- 1.** Continue identifying opportunities for staff to initiate engagement to improve the percentage of managers who incorporate ESG issues in their investment process
- 2.** Maintain due diligence questionnaires on the MSRPS website that include ESG risk related questions, make them available to managers interested in opportunities with the System, and ensure the System's consultants have ESG risk sections in their due diligence questionnaires
- 3.** Utilize a list of best practices when evaluating the effectiveness of manager ESG policies and to encourage policy improvements; track manager practices and create internal ratings as part of manager evaluation and monitoring and to encourage broader ESG risk discussions
- 4.** Continue developing policies and processes to assess ESG risks for internally managed assets
- 5.** Participate in the SASB Alliance to promote better financial disclosure, improving the information value of metrics such as carbon footprint and sustainability score
- 6.** Create additional education opportunities for the Board and staff

Areas of potential focus going forward:

- 1.** Measure impact of investments with respect to UN Sustainable Development Goals
- 2.** Review differences between TCFD (Task force on Climate-related Financial Disclosures) recommended disclosures and current practice
- 3.** Include Responsible Investing considerations in the Asset Allocation process
- 4.** Incorporate the SASB Heat Map into the investment due diligence process
- 5.** Update the internal operations manual to reflect changes or additions to practice
- 6.** Attend conferences and discuss ESG related issues with peers to continue developing responsible investing best practices

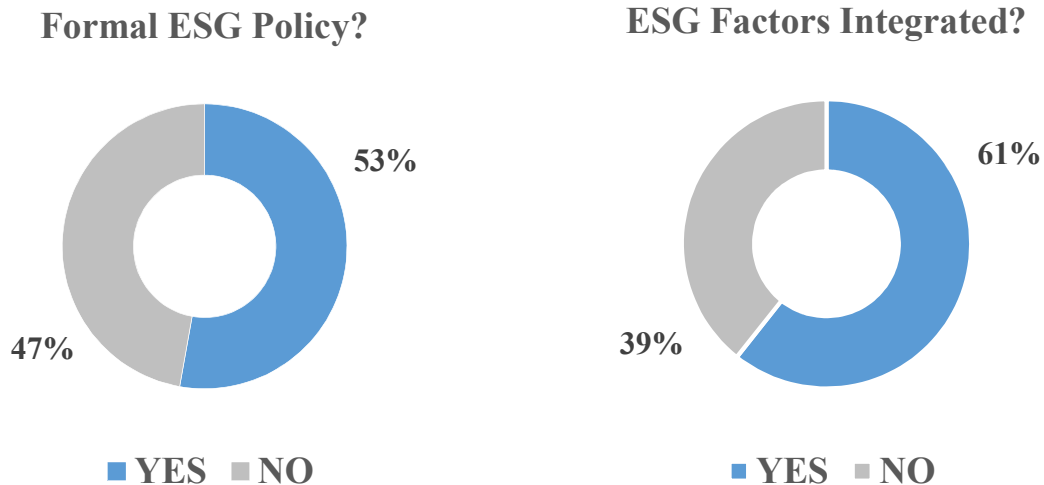
It is important to note that, until this fiscal year, the System has primarily utilized an outsourced model to engage directly with underlying companies and to engage in sponsoring proxy initiatives. The long-term vision is to incorporate ESG elements in a comprehensive risk system on a real time basis. In the meantime, risk at the portfolio level is evaluated by assessing asset class risks through our asset allocation review with Meketa Investment Group, the System's general consultant. Staff expects to work with Meketa to progressively incorporate these risks into the analysis.

The following sections help describe the ongoing evaluation Staff conducts in order to assess the effectiveness of efforts managing ESG risks, while to date primarily working through the System’s outsourced model.

Public Investments

Annual Compliance Questionnaire – Active Public Market Managers
Beginning in 2016, as part of public manager and hedge fund Annual Compliance Questionnaires, staff added a request for a copy of managers’ ESG policies and details regarding how managers integrate ESG risk factors into investment decision making processes. The charts below summarize the results for 2019.

Active Mandates - Public Market Managers as of 12/31/2019

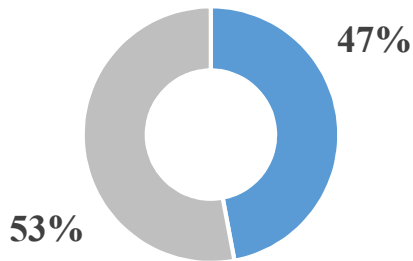


The percentage of active mandates where managers have a formal ESG policy increased from 45% in 2017 to 53% in 2019. The percentage where ESG factors are integrated into the investment decision making process increased from 45% to 61%. The percentages have historically been negatively impacted by the System’s Terra Maria* managers, which may not have had sufficient depth of resources, and the System’s hedge funds, a high percentage of which would generally have shorter investment horizons. As can be seen in the following charts, in both cases, managers are increasingly incorporating ESG risk factors in the investment decision making process, and to a lesser extent, adopting formal ESG policies.

*Terra Maria is the System’s emerging manager program

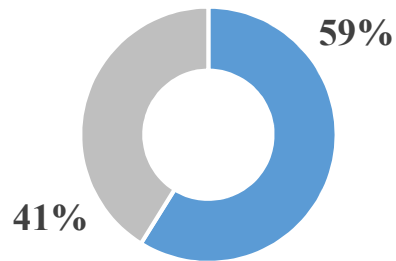
Public Market Mandates – Terra Maria as of 12/31/2019

Formal ESG Policy?



■ YES ■ NO

ESG Factors Integrated?

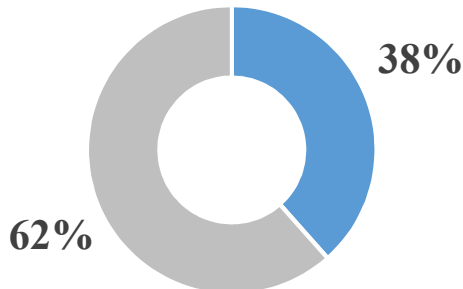


■ YES ■ NO

The percentages of the System’s Terra Maria mandates with formal ESG policies and where ESG risk factors are integrated in the process have increased over the past few years and is now almost one half and approaching two thirds respectively.

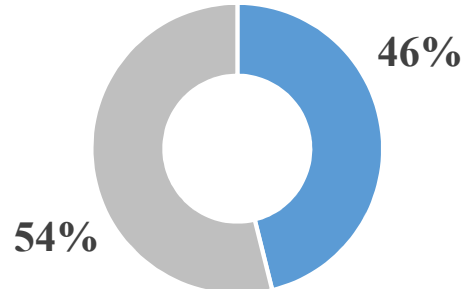
Public Market Mandates - Hedge Funds as of 12/31/2019

Formal ESG Policy?



■ YES ■ NO

ESG Factors Integrated?



■ YES ■ NO

The percentages of the System’s hedge fund mandates with formal ESG policies and where ESG risk factors are integrated in the process have increased over the past few years and is now over one third and almost one half respectively.

Results by % of System Assets

<i>Affirmative responses as % of AUM as of Calendar Year end</i>	2019		2017		2016	
	ESG Policy?	Integrated?	ESG Policy?	Integrated?	ESG Policy?	Integrated?
Total Active Public Markets	68%	71%	60%	59%	60%	53%
Total x-Hedge Funds	71%	74%	71%	73%	71%	65%
Developed Market Equities	58%	52%	61%	62%	61%	56%
Emerging Market Equities	56%	74%	68%	62%	68%	39%
Developed Market Fixed Income	92%	98%	87%	94%	87%	94%
Emerging Market Fixed Income	100%	100%	65%	65%	65%	65%
Hedge Funds	51%	56%	18%	11%	18%	11%

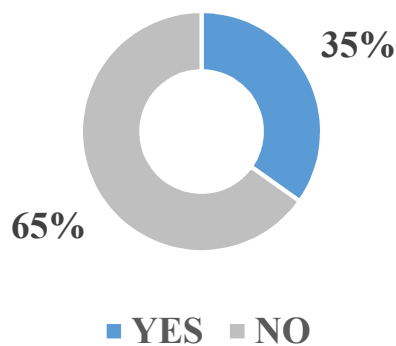
Another way of looking at the results is shown in the table above, which uses System assets and active public market managers as of 12/31/19. Over two thirds of the System’s active public assets are with managers who maintain formal ESG policies and who integrate ESG risk factors into their investment decision-making processes. While the data used here is a small sample of the universe of public markets managers, managers appear to be increasingly integrating ESG risk factors into their processes.

UNPRI Signatories – Active Managers

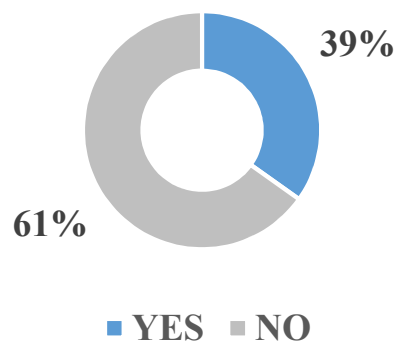
The System has been a UNPRI signatory since 2008. Staff encourages public market managers, general partners and consultants to become signatories. UNPRI is a leading independent proponent of responsible investment.

Active Public Market Managers

2019 UNPRI Signatory?



2017 UNPRI Signatory?



As shown in the charts above, the percentage of the System’s managers that are UNPRI Signatories has decreased from 2017 to 2019. This result might be attributable to the more stringent requirements for UNPRI membership and the resources necessary to maintain membership.

As with the percentage of managers with ESG policies, the percentage of managers that are UNPRI signatories increases when hedge funds are excluded. Again, this is not surprising as many hedge fund strategies have shorter term investment horizons.

Results by % of System Assets Under Management

assets as of 12/31/2019	UNPRI Signatories as % of AUM		
	2019	2017	2015
Total Active Management	55%	58%	45%
Total x-Hedge Funds	63%	75%	58%
Developed Market Equities	48%	60%	60%
Emerging Market Equities	51%	68%	68%
Developed Market Fixed Income	86%	94%	44%
Emerging Market Fixed Income	100%	100%	100%
Hedge Funds	7%	0%	0%

The table above shows the percentage of System assets with active public managers that are UN PRI signatories, in total and by exposure as of 12/31/19. Again, the decrease from 2017 to 2019 might be attributable to the more stringent requirements for UNPRI membership and the resources necessary to maintain membership.

Note on Terra Maria Managers – in 2017, 13% of the System’s Terra Maria managers had explicit ESG policies, 20% were UNPRI signatories, and approximately 50% of the System’s assets within the program were managed by firms that integrate ESG risk factors into their investment decision making processes. In 2019, these percentages increased to 47%, 29% and 61% respectively. The most significant data point is that over 60% of the System’s assets in the Terra Maria program are managed by firms that integrate ESG risk factors into their investment processes. While this percentage is below that of non –Terra Maria managers, a lower percentage is expected given the size of these managers and the additional resources larger managers devote to ESG related issues. A lower percentage of UN PRI signatories in the program is also expected due to the resources necessary for membership.

Note on Passive Managers – the System has two passive managers with multiple mandates totaling over \$8 billion. One of the managers is a UN PRI Signatory. Both have formal ESG policies and strategies where ESG risk factors are integrated in the investment process. The System votes all proxies for active and passive account holdings held directly.

Proxy Voting

The System’s proxy voting policy with respect to ESG and sustainability related issues is included in the System’s Investment Policy Manual (updated September 2019 and available on MSRPS website). A few examples of the voting policy related to ESG issues are listed below.

- The System will generally vote for proposals requesting reports on the level of greenhouse gas emissions from the company’s operations and products and for shareholder proposals requesting the company adopt greenhouse gas reduction policies and/or emissions reductions goals.
- The System will generally vote for proposals asking companies to report in accordance with the Global Reporting Initiative (GRI).
- The System will generally vote for proposals asking companies to adopt the CERES Principles.

A company’s lines of business and competitors, current policies and practices, and implementation costs are considered. The System will generally vote for greater disclosure and transparency.

In each of the past three years, the System voted on approximately 80,000 proxy proposals. The table below lists ESG-related categories and the System’s voting record on these proposals.

<i>ESG Related Proposals</i>	2019			2018			2017		
	Votes	For	With Mgmt	Votes	For	With Mgmt	Votes	For	With Mgmt
Routine/business related	511	144	399	469	171	320	930	365	731
Directors related	1372	843	866	1526	925	857	1996	1133	1328
Corp Governance related	245	176	161	151	118	53	326	151	207
Soc/Human Rights	68	39	30	48	21	27	51	11	35
Compensation related	266	118	158	223	125	95	259	120	140
Gen Econ issues related	7	2	5	3	3	0	0	0	0
Health/Environ related	366	88	289	392	150	246	637	227	413
Other/misc	354	264	91	341	233	104	1135	297	848
Social Proposal Total	109	46	63	55	19	36	37	5	32
Total	3298	1720	2062	3208	1765	1738	5371	2309	3734
% Total Votes		52%	63%		55%	54%		43%	70%
Health/Environ related		24%	79%		38%	63%		36%	65%

Each year the proposals vary and within each category there can be large swings in the number of proposals. Overall, the voting record was relatively consistent over the past two years with respect to percentages of votes “for” ESG-related proposals and “with management”. Most climate and sustainability proposals fall under the Health/Environment related category (highlighted in blue in the table). Here the percentage of “for” votes declined from 2018 to 2019 which may seem counterintuitive. The record is in compliance with the System’s policy as in 2019 the System voted “against” certain proposals where the companies already led peers in commitment to ESG reporting, where the companies already provided sufficient GHG data, and where the proposals were deemed too restrictive on company management. In 2018 and 2019 the System voted “for” proposals requesting companies publish 2-degree scenario analysis in 7 of 8 cases. Additional details regarding the System’s voting record can be found on the MSRPS website.

Engagement

The System’s Board of Trustees may engage with corporations, regulatory agencies, lawmakers or associations to support the corporate governance principles outlined in the proxy voting guidelines (available on MSRPS website in the Investment Policy Manual). Engagement may include advocacy letters, direct contact with stakeholders and shareholder resolutions.

Examples of the System’s engagement activities over the past two years are listed below.

- 2020 – Signatory to PRI letter to SEC opposing proposed changes to the proxy voting process and Rule 14a-8
- 2019 – Signatory to Principles for Responsible Civilian Firearms Industry
- 2018 – Signatory to Global Investor Statement to Governments on Climate Change
- 2018 – Signatory to letter to the SEC asking the SEC to maintain the requirements of Rule 14-a-8 and not increase the requirements for shareholders to submit a proposal on proxy ballot

Private Investments

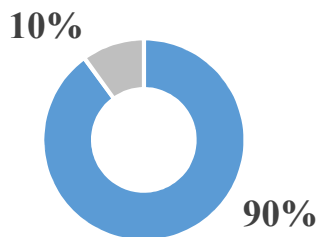
Private Equity, Real Assets and Credit

Investment Staff and the System’s private market consultants include the assessment of ESG risks in the diligence of new investments, and have explicit

discussions of these risks with managers as part of the review of investment opportunities. For example, Staff requires potential energy managers to complete an ESG due diligence questionnaire, which questions the managers' ESG-related policies and procedures. In the System's side letter, energy managers are asked to include ESG guidelines that they use to evaluate new deals and in the monitoring of investments. Also in the side letter is a requirement that managers provide Staff with an annual ESG report.

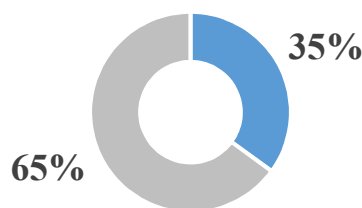
In the charts below, the one on the left shows the percentage of private equity, energy and credit managers having formal ESG policies as of 12/31/2019. The chart on the right shows the percentage of these managers who are PRI Signatories.

Formal ESG Policy?



■ YES ■ NO

2019 UNPRI Signatory?



■ YES ■ NO

Approximately 1/3 of the System's private equity, real assets and credit managers are currently UNPRI signatories. As with public markets managers, this could be attributable to the more stringent requirements for UNPRI membership and the resources necessary to maintain membership. Most of these managers have formal ESG policies and many continue to improve reporting and transparency on ESG risk related issues.

Below are two examples of how this is working through the System's private market managers.

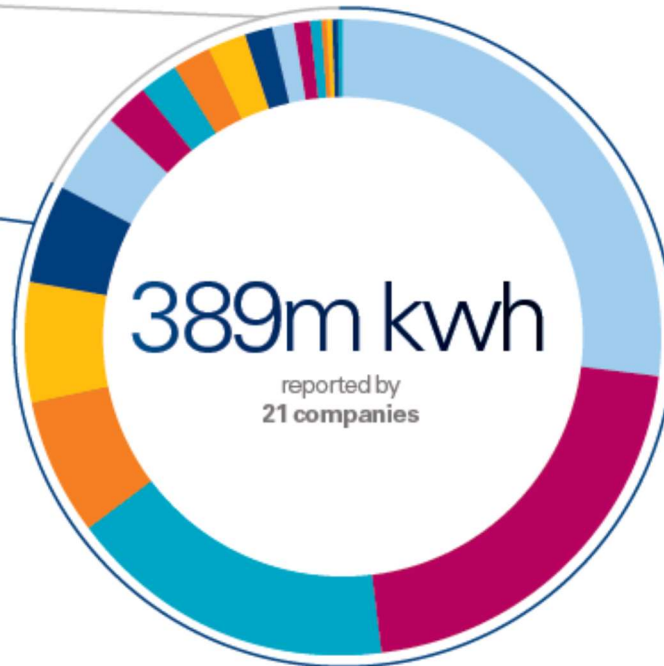
1. The following is taken from the 2018 APAX Partners Sustainability Report
Examples of Environmental Initiatives

Across the Apax Funds' portfolio, we have a high number of initiatives in place that reduce complexity, waste and natural resource consumption. These initiatives range from: reducing electricity usage via replacing traditional light bulbs to LED, reducing paper usage by setting default double sided printing in all of the offices and reducing water usage by investing in low flow fixtures, auto shut off faucets and other water reducing features.

Breakdown of electricity usage

15 companies reported
18% of electricity usage

6 portfolio companies reported
82% of electricity usage



Resources usage The Apax Funds' portfolio consists of a growing number of "asset light" businesses, due to Apax's focus on four specific sectors which do not have a significant environmental impact: Tech & Telco, Services, Healthcare and Consumer. The most material environmental indicator for the companies is electricity usage and here, as with other environmental indicators, the majority of resources usage is reported by a small number of companies. As the chart above highlights, 82% of all electricity usage in the Apax ESG Group is reported by six companies.

Electricity usage in the ESG Group on the whole reduced by over 30% in 2017. This is due to the exit from the ESG Group of two companies with relatively high usage and a significant number of new companies joining the Apax Funds' portfolio who do not yet have the ability to track their resources usage. On a like-for-like basis the 16 companies reporting data both in 2016 and 2017 reported a decrease in electricity usage of over 7% or 29 million kwh.

This insight into where the main part of the usage in the portfolio is located enables the OEP to work with the largest users in the portfolio to identify reduction initiatives that can help further decrease the usage.

With over 70% of portfolio companies reporting that they have energy reduction initiatives in place, the Apax Funds' portfolio is focused on reducing its global environmental impact where possible. The portfolio's environmental stewardship initiatives will help protect the planet while improving efficiency, reducing costs and preserving their ability to do business in the future. We believe it is not just the right thing to do, it can also boost innovation and profitable growth.

2. The following is taken from the Apollo 2018 ESG Summary Annual Report
Sustainable development meets the needs of the present without compromising future generations. This often requires transforming how companies produce and what they consume; making more efficient use of resources, capital, and technology to reduce economic, environmental, and social risks. Sustainability has taken its place as a strategic business imperative that can threaten or enhance a company's long-term success.

Apollo's ESG program challenges portfolio companies to understand how they can improve their operations by making consumption and production more efficient and sustainable. Companies report their *water and energy consumption* and relevant reduction initiatives, as well as their *waste production and recycling* data. In 2018, 97% of portfolio companies reported having waste reduction initiatives and 63% reported recycling waste. Apollo looks for evidence of disciplined water management and water recycling and reuse, and in 2018, 74% of portfolio companies that use water in their operations reported these initiatives in place.

Portfolio companies are also asked to disclose how they monitor the sustainability of their *supply chains* to reduce both economic and reputational risk. In 2018, 69% of portfolio companies reported having a supplier code of conduct or a responsible contractor policy in place or in development. Many portfolio companies also incorporate provisions against child and forced labor in their contracts with suppliers, and conduct site visits to ensure compliance.

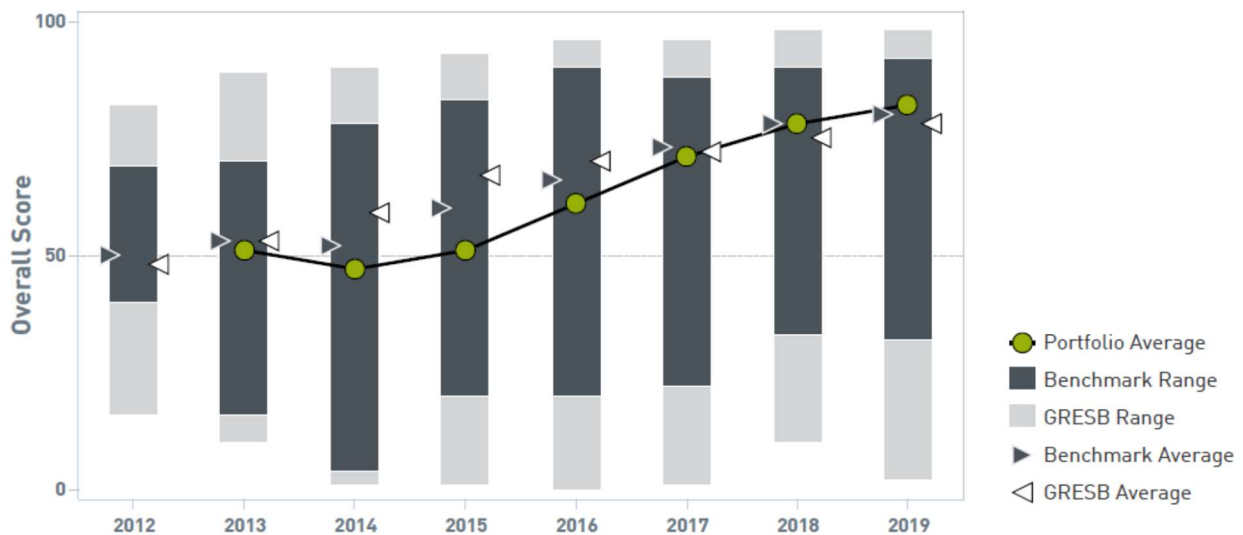
Climate change produces hazards that threaten global infrastructure, and the health, water, and food security of millions. In response to a changing climate, public and private institutions around the world, including many financial institutions, have begun to mobilize. Nearly every major bank has acknowledged climate-related risks and articulated commitments to address those risks. In April 2019, the Network for Greening the Financial System — a coalition of 34 central banks and supervisors — published a report concluding that climate-related risks are a source of financial risk, and affirmed their collective responsibility to ensure that the financial system is resilient in the face of these risks.

Apollo was one of the first investment managers to require portfolio companies to report their *greenhouse gas ("GHG") emissions* on an annual basis, and continues to encourage portfolio companies to understand relevant *climate-related risks*. Apollo also asks portfolio companies to report on *energy and fuel consumption and cost*, on reduction programs, and on the goals or targets they achieved. Apollo also facilitates an annual GHG emission calculation webinar, where climate experts engage with portfolio companies to help identify and calculate their GHG emissions, then provide them with industry-specific resources to better understand their climate-related risks.

Private Real Estate

The System utilizes the Global Real Estate Sustainability Benchmark (GRESB) to assess the ESG performance of its core real estate portfolio. GRESB is an investor-driven organization committed to assessing the ESG performance of real assets globally. GRESB runs annual assessments on participating companies and funds to capture information regarding the ESG performance and best practices of real estate portfolios. The assessments provide a consistent, global framework for investors to engage with managers on their ESG performance.

The System measures the performance of its core real estate managers, as this comprises 83.0% of the System's private real estate portfolio as of June 30, 2019. Core investments are primarily stabilized assets which are intended for a longer-term hold, compared with investments in the Value-Added and Opportunistic portfolios. Value-added and opportunistic funds have shorter term hold periods, which make annual comparisons less informative and potentially misleading. These characteristics make the year to year comparisons in the core portfolio less noisy and more meaningful. The System's core real estate managers have been steadily improving their GRESB scores over the past 5 years. Staff continues engaging with managers to discuss ESG issues to learn more about their strategies to address these risks in the future.



Managers have significantly reduced same property energy, greenhouse gas, and water usage in 2018 vs. 2017.



System's Investments focusing on ESG solutions

While the System does not have a dedicated ESG fund or a target allocation to investments focusing on ESG solutions or transformation, there are many examples of these types of exposures throughout the System's portfolio.

- Green bonds in the Fixed Income and Credit portfolio
- Solar, Wind and Hydro investments in the Private Equity, Private Real Assets and Private Credit portfolios
- Senior loans to homebuilders to finance solar installations in the Private Credit portfolio
- Infrastructure and Timber investments in the Private Real Assets portfolio
- Water efficiency company in the Private Equity portfolio
- Sustainability-related investments in the Venture Capital portfolio

Education and Collaboration

The ESG Committee looks for opportunities to provide ESG risk related training for the Board of Trustees and Investment Staff. The Committee also collaborates with peers regarding best practices for evaluating ESG risks. Below are some examples of recent efforts.

- 2019 Board of Trustees Education session – UNPRI provided a presentation on ESG risks and responsible investing
- Peer Collaboration – the CIO and Staff discussed the formation of the System's ESG Risk Committee and its role with peers from the State of New Jersey; the CIO and Staff met with the head of responsible investing from Nordea Asset Management
- Conferences – Staff attended the 2018 SASB Symposium and expects to attend the 2020 Ceres Summit

Summary and Next Steps

In summary, approximately 70% of the System's assets are managed by firms that maintain an explicit ESG policy and/or integrate ESG risk factors into the investment process. This is up from approximately 60% in 2018. Asset classes or strategies with short investment horizons, such as certain hedge funds or value-add real estate, are less likely to have formal systems and reporting processes for ESG related risks. Small or newly established managers may also lack the resources to

formalize their ESG policies and reporting systems. This does not necessarily mean that ESG risks are ignored by these managers.

As described elsewhere in this report, the following are some of the Committee's ongoing initiatives and activities:

- 1.** Identify areas for Staff to initiate engagement to increase manager incorporation of ESG risk factors in the investment decision making process
- 2.** Utilize a list of best practices in evaluating the effectiveness of manager policies and to encourage improvements; track manager practices and create internal ratings as part of manager evaluation and monitoring
- 3.** Update the internal operations manual to reflect changes or additions to practice; further develop policies and processes to assess ESG risk factors for internally managed assets
- 4.** Participate in the SASB Alliance to promote better financial disclosure, improving the information value of metrics such as carbon footprint and sustainability score; utilize SASB Heat Map as part of investment due diligence and ESG risk discussions
- 5.** Create additional education opportunities for the Board of Trustees and Staff