

MSRPS Responsible Investing

3rd Biennial report by The Environmental, Social and Governance Risk Committee of the Maryland State Retirement and Pension System



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MSRPS 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) in 2008 and is a member of the Ceres Investor Network on Climate Risk and Sustainability, the Council of Institutional Investors, and the Institutional Limited Partners Association. 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. These policies, commitments, memberships, and actions underscore the importance of responsible investing to the System.

Investment Division staff continues to enhance its practices with respect to the diligence of new investments, including 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 strategies and investments. As companies improve transparency, ESG-related data becomes more consistent, and best practices

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.

evolve, staff will evaluate additional enhancements to further improve the investment decision making process and meet plan objectives.

The System's Chief Investment Officer formed the MSRPS ESG Risk Committee in the summer of 2017 to provide thought leadership, education and reporting around ESG issues (excluding diversity, which is the province of the System's Diversity Committee). The Committee consists of the CIO, the Senior Compliance Officer, and five investment professionals responsible for the managing asset classes across the plan, including recently established internal mandates in fixed income and public equities. The Board of Trustees approved the CIO's recommendation to create a Senior Governance Officer position, which will expand the Committee's capabilities in 2022.

The charter of the Committee is shown above.

Integrated in the Process

At the investment level, the System has a diverse asset allocation implemented through its internal portfolio management team, over 80 external managers, and over 120 general partners, all of which combined 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 US government bonds, the largest investments represent less than 1% of System assets.

Until 2019, plan assets had been externally managed and consequently the System relied on its asset managers to address ESG risks, including climate change risks. Currently, 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. ESG risk specific questions are included in the System's due diligence questionnaires posted on the MSRPS website and staff has 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 over the past couple of years in order to develop an internal view of best practices by asset class. These efforts encourage additional discussion and consideration of ESG risks during internal investment committee meetings and identify managers where staff can recommend improvements.

The matrix template below summarizes the ESG related information requested during manager due diligence for all of the System's mandates and is included in staff's investment recommendations to the CIO. Updates to this information is requested at a minimum annually for all public market mandates via the System's Annual Compliance Questionnaire.

							ESG risk	Local
		ESG-	Internal or	ESG in-office		ESG risk	meetings	community
		integrated	3rd party	initiative/		report	with	& industry
ESG	UNPRI	investment	ESG	officer/	ESG risk	internally/	investee	involvement
Policy	Signatory	process	research	committee	monitoring	externally	companies	on ESG risk

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. These mandates were initially passive index strategies. As these mandates become more active, staff will further develop policies and processes to assess ESG risk factors at the individual security level for all internally managed assets.

For both externally and internally managed assets, staff has access to third party ESG research, ratings, and data to supplement its own and utilize in the investment decision making and monitoring processes, as well as in the development of best practices. Third party ESG resources for evaluating externally managed assets include consultant reports, UNPRI assessments, the SASB materiality heatmap, and ILPA research; for internally managed assets they also include Bloomberg, MSCI, Fitch, CreditSights and Wall Street research.

Also 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 risk factors.

In 2020, the System worked with its investment consultant to provide training and research to the Board and develop a methodology to include climate risk in the asset allocation study as a specific risk, similar to inflation or systemic risk. This analysis was instrumental in the changes to asset allocation approved in September 2021 that improved the System's expected performance in climate risk scenarios.

In 2021, the Board of Trustees adopted a Responsible Contractor policy incorporating the System's Economically Targeted Investments (ETI) and ESG policies. Within the System's IPM, investment staff and external managers' responsibilities with respect to applicable private real estate and infrastructure investments are outlined.

Also in 2021, the Board of Trustees approved the CIO's recommendation to create a Senior Governance Officer position. This position will report directly to the CIO and lead the System's efforts in continuing to develop best practices with respect to integrating ESG risk factors throughout the investment decision making process, evaluating energy transition and impact related investments, and expanding upon current stewardship activities including engagement initiatives.

Today, most of the System's dollars are invested in individual investments through an ESG lens – exceptions are government bond portfolios, hedge funds with relatively short investment horizons, index funds and Terra Maria (emerging) managers. At the asset class level, the Board's general consultant stress tests potential asset mixes with performance in a climate change scenario. To date, thematic investing in the energy transition has occurred within portfolios through the System's traditional fund managers finding attractive transition investments. Annually, the System engages with managers on ESG incorporation into their investment analytics, process, and engagement practices to ensure our managers are taking ESG risks into consideration when selecting investments.

Committed to Responsible Investing and Continuous Improvement

MSRPS has long been one of the leaders among its peers regarding responsible investing and is one of ten US State Pension plans that are signatories to the UN Principles of Responsible Investing. The System became a signatory in 2008, committing to the UNPRI Six Principles of Responsible Investing.

PRINCIPLE #1 – We will incorporate ESG issues into investment analysis and decision-making processes

PRI Recommended Actions	MSRPS Practice
Address ESG issues in investment policy statements	The System's IPM includes ESG conscious proxy voting policies, and ESG risk management and ETI language
Support development of ESG-related tools, metrics, and analyses	The System is an active member of UN PRI, the SASB Alliance and Climate Action 100+, and supports improved disclosure and transparency initiatives
Assess the capabilities of internal investment managers to incorporate ESG issues	The same evaluation process is applied to internal managers as is applied to external managers
Assess the capabilities of external investment managers to incorporate ESG issues	Evaluation of manager practice and ESG risk factors is part of staff new manager due diligence and internal investment committee review; annual ESG related disclosures are required of existing managers
Ask investment service providers to integrate ESG factors into evolving research and analysis	This is required for general and specialty consultant's due diligence reports and for internal management's research providers
Encourage academic and other research on this theme	Investment staff participates in industry conferences and collaborates with peers on best practices
Advocate ESG training for investment professionals	ESG related presentations are given at the System's Board Education Session by various industry experts and staff participates in industry conferences

PRINCIPLE #2 – We will be active owners and incorporate ESG issues into our ownership policies and practices.

PRI Recommended Actions	MSRPS Practice
Develop and disclose an active ownership policy consistent with the Principles	The System's IPM includes ESG conscious proxy voting policies, ESG risk management and ETI language, and a corporate governance engagement policy; the Board has adopted a Responsible Contractor policy incorporating the System's ETI and ESG policies; the proxy voting record is published on the System's website
Exercise voting rights or monitor compliance with voting policy (if outsourced)	The System's IPM includes ESG conscious proxy voting policies and the voting record is published on the System's website; the votes are audited for compliance with the IPM
Develop an engagement capability (either directly or through outsourcing)	Both the System and its external managers engage with companies regarding ESG risk factors; internal managers are held to the same standard; the System is actively involved in PRI, CII, Ceres, ILPA and SASB initiatives
Participate in the development of policy, regulation, and standard setting (such as promoting and protecting shareholder rights)	The System accomplishes this through its proxy voting policies, engagement activities and active involvement in PRI and SASB initiatives
File shareholder resolutions consistent with long-term ESG considerations	This is primarily accomplished through the activities of external managers; capabilities are being developed internally
Engage with companies on ESG issues	This is primarily accomplished through the activities of external managers; capabilities are being developed internally
Participate in collaborative engagement initiatives	The System is actively involved in PRI, CII, Ceres, ILPA and SASB initiatives
Ask investment managers to undertake and report on ESG-related engagement	This is included in the due diligence process through questionnaires on the System's website, and certain asset classes through side letter negotiation; monitoring of these activities is accomplished through an annual compliance questionnaire

PRINCIPLE #3 – We will seek appropriate disclosure on ESG issues by the entities in which we invest

PRI Recommended Actions	MSRPS Practice
Ask for standardized reporting on ESG issues	The System seeks appropriate disclosure on ESG
Ask for ESG issues to be integrated within annual financial reports	issues by the entities in which it invests through annual questionnaires submitted to managers, membership in SASB, ILPA and PRI, and
Ask for information from companies regarding adoption of/adherence to relevant norms, standards, codes of conduct or international initiatives	participation in ad hoc letters sponsored by our ESG partners; for requests directly from companies, outside of the System's proxy voting policy, external managers have been relied upon to date; capabilities are being developed for internally managed assets
Support shareholder initiatives and resolutions promoting ESG disclosure	are being developed for internally managed assets

 $\label{eq:principle} \textbf{PRINCIPLE \#4} - \textit{We will promote acceptance and implementation of the Principles within the investment industry}$

PRI Recommended Actions	MSRPS Practice		
Include Principles-related requirements in requests for proposals	The System promotes acceptance and implementation of the Principles by requiring investment staff and consultants to address the issues in due diligence and monitoring activities with managers, and through side letter negotiations in certain asset classes; monitoring of these activities is		
Align investment mandates, monitoring procedures, performance indicators and incentive structures accordingly	accomplished through regular interactions and an annual compliance questionnaire; the Board has adopted a Responsible Contractor policy incorporating the System's ETI and ESG policies		
Communicate ESG expectations to investment service providers	Investment staff accomplishes this through regular dialogue with consultants and engaging with external		
Revisit relationships with service providers that fail to meet ESG expectations	managers in areas of weakness		
Support the development of tools for benchmarking ESG integration	Investment staff and the System's consultant developed a methodology to include climate risk in the asset allocation study as a specific risk, similar to inflation or systemic risk; climate change analysis and carbon footprint measurement are part of the System's annual risk assessment		
Support regulatory or policy developments that enable implementation of the Principles	The System accomplishes this through its engagement activities and active involvement in PRI and SASB initiatives including letter writing campaigns		

PRINCIPLE #5 – We will work together to enhance our effectiveness in implementing the Principles

PRI Recommended Actions	MSRPS Practice
Support/participate in networks and information platforms to share tools, pool resources, and make use of investor reporting as a source of learning	Investment staff works with organizations such as SASB, UN PRI, Ceres, CII and ILPA, and with peer state pension plans and other investors directly
Collectively address relevant emerging issues	
Develop or support appropriate collaborative initiatives	

PRINCIPLE #6 - We will each report on our activities and progress towards implementing the *Principles*

PRI Recommended Actions	MSRPS Practice
Disclose how ESG issues are integrated within investment practices	The System accomplishes disclosure and reporting objectives through its updated IPM, annual Risk
Disclose active ownership activities (voting, engagement, and/or policy dialogue)	Assessment, biennial Responsible Investing report, proxy voting disclosure, and updated due diligence questionnaires, all of which are available on the
Disclose what is required from service providers in relation to the Principles	MSRPS website: https://sra.maryland.gov/investment-policy-manual
Communicate with beneficiaries about ESG issues and the Principles	https://sra.maryland.gov/maryland-pension-risk-mitigation-act-risk-assessment
Report on progress and/or achievements relating to the Principles using a comply-or-explain approach	https://sra.maryland.gov/esg-risk-committee-reports https://sra.maryland.gov/proxy-vote-record https://sra.maryland.gov/manager-opportunities
Seek to determine the impact of the Principles	
Make use of reporting to raise awareness among a broader group of stakeholders	

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 2020 under "Direct and Active Ownership" can be attributed to the System's prior completely outsourced model and will improve as more assets are managed internally.

	PRI Assessment Year			
PRI Assessment – Major Categories	2017	2018	2019	2020
Strategy and Governance	С	С	В	A
Indirect – Manager Selection Monitoring	D	C	C	В
Direct and Active Ownership	D	D	C	С

Note: Results of the PRI 2021assessment will not be available to signatories until April 2022 due to technological and implementation issues during the 2021reporting period.

Separately, MSRPS was selected as a finalist for the 2021 Responsible Asset Allocator Initiative (RAAI) Index. This evaluation of the world's largest asset owners on their responsible investing practices was conducted by New America, a public problem solving think tank. Among the 82 asset allocators in the US rated by the RAAI, MSRPS ranked 8th. Four asset allocators from the US scored as leaders (UC Regents, CalPERS, CalSTRS and NYSCRF) and four were rated finalists (Maryland SRPS, NYCRS, Colorado PERS and San Francisco SERS). Only 10% of US asset allocators were rated in the top quintile. (https://www.newamerica.org/responsible-asset-allocator-initiative/)

Diversity, Equity, and Inclusion (DE&I)

The Board of Trustees is committed to using minority business enterprises (MBE) to provide brokerage and investment management services to the System by removing barriers and publicizing searches consistent with the fiduciary duties of the Board. As part of this effort, investment staff implements the Terra Maria Developing Manager Program focused on emerging managers, which was formed in 2007. Many MBE and women-owned investment management firms are in the emerging state of their business, having less assets under management than more established managers.

The System's corporate governance and proxy voting policy regarding diversity is outlined in the IPM, and proxy votes are provided on the MSRPS website.

In 2017, the Chief Investment Officer established the System's **Diversity, Equity, and Inclusion**Committee. The DE&I Committee includes senior leaders from across investments, operations, and accounting departments, and acts on behalf of the Investment Division to manage and encourage the diversity, equity, and inclusion process. While this committee is separate from the ESG committee, its objectives, actions, and accomplishments fall under investment staff's responsible investing implementation. Similar to investment staff's ESG and climate change related due diligence process, DE&I related due diligence has been expanded in order to develop an internal view of best practices. These efforts encourage additional discussion and consideration of DE&I issues during internal investment committee meetings and identify managers where staff can recommend improvements.

DE&I Committee Responsibilities:

- 1. Assist the Chief Investment Officer (the "CIO") in the creation of DE&I objectives and key milestones.
- 2. Identify specific DE&I education content to be included in employee training and professional development practices.
- 3. Review policies and procedures and informal practices to identify DE&I barriers that impact recruitment, training, retention, advancement, leadership, and key assignments and provide recommendations for improvement.
- **4.** Provide a forum for identifying and sharing programs and practices that improve diversity and inclusion.
- **5.** Partner with human resource professionals to develop and coordinate the Investment Division's DE&I efforts.
- **6.** Create opportunities for employees to provide insight and feedback to executive staff about organizational climate, equity, inclusion, diversity, and culture (i.e. climate assessments, anonymous satisfaction surveys, focus group sessions, etc.) in the workplace.
- 7. Create opportunities for employees to have meaningful engagement with leadership to promote cultural inclusivity.
- **8.** Track internal hiring and promotion statistics by gender and race/ethnicity.
- **9.** Track gender and race/ethnicity statistics within partner organizations (LPs: Fund Managers, GPs: Portfolio Company Board and/or Management Teams.

10. Annually conduct a self-assessment of DE&I Committee effectiveness that describes accomplishments relative to developed objectives and responsibilities, challenges and barriers encountered during the period, and recommendations for solutions.

In 2021, MSRPS became a signatory to the ILPA Diversity in Action framework. The System is a member of ILPA's Diversity & Inclusion Advisory Council, the Private Equity Women's Investor Network (PEWIN), AIF's Women's Leadership Steering Committee and SEO's Alternative Investments Limited Partner Advisory Council

The DE&I Committee's efforts were recognized by the industry in 2021. MSRPS staff was named to Institutional Investor's Global List of Top 50 Women in Investment Management, Trusted Insight's list of Top Public Pension Investors Directors, and PEWIN's Member of the Year highlighting work in transforming the private equity industry with a focus on diversity, equity, and inclusion.

Milestones Achieved and the Path Forward

To improve reporting and transparency, the ESG Committee and investment staff have:

- 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 have engagement initiatives with public companies
- 3. Documented and reported the percentage of managers that are UNPRI signatories
- **4.** Analyzed and reported trends in proxy voting
- 5. Published the System's proxy voting experience on its website
- **6.** Published the System's annual Risk Assessment on its website
- 7. Identified System investments that focus on ESG solutions

The ESG Committee and investment staff have also implemented the following practices:

- 1. Established a monthly ESG Committee meeting to review new research, potential opportunities and ESG risk factors across asset classes
- 2. Developed in collaboration with the System's general consultant a methodology to include climate risk in the asset allocation study as a specific risk, similar to inflation or systemic risk.
- **3.** Continuously identify opportunities for staff to initiate engagement to improve the percentage of managers who incorporate ESG issues in their investment process
- 4. 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
- 5. 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 risk ratings or opinions as part of manager evaluation and monitoring and to encourage broader ESG risk discussions
- **6.** Continue developing policies and processes to assess ESG risks for internally managed assets
- 7. Participate in the SASB Alliance, and other organizations, to promote better financial disclosure, improving the information value of metrics such as carbon footprint and sustainability scores
- 8. Create additional education opportunities for the Board of Trustees and investment staff

Areas of 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.** Continue to include and refine Responsible Investing considerations in the Asset Allocation process
- **4.** Further incorporate the SASB Heat Map into the investment due diligence process
- 5. Regularly 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

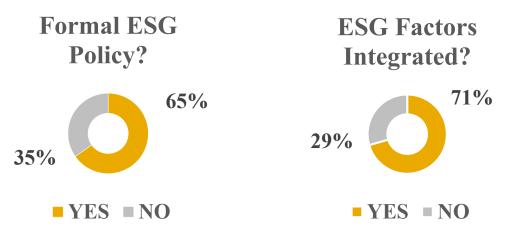
Until recently, the System has primarily relied on an outsourced model to engage directly with underlying companies and to engage in sponsoring proxy initiatives with respect to ESG related risks and issues. The long-term vision is to incorporate ESG elements in a comprehensive risk system on a real time basis. The System has made significant progress in this effort.

Public Investments – External Managers

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 2021.

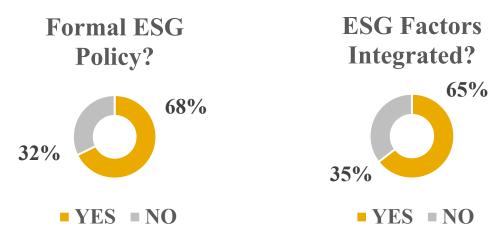
Active Mandates - Public Market Managers as of 12/31/2021



The percentage of active mandates where managers have a formal ESG policy increased from 45% in 2017 to 65% in 2021. The percentage where ESG factors are integrated into the investment decision making process increased from 45% to 71%. These percentages have historically been 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, these managers are increasingly incorporating ESG risk factors in their investment decision making processes and adopting formal ESG policies.

*Terra Maria is the System's emerging manager program

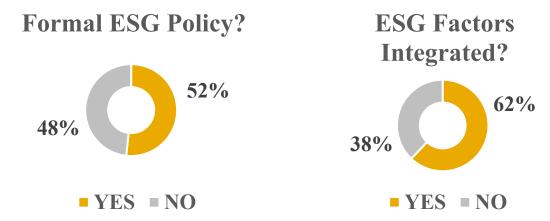
Public Market Mandates – Terra Maria as of 12/31/2021



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 two years. Between 2019 and 2021,

mandates with a formal ESG policy increased from 47% to 68%, and those where ESG risk factors are integrated in the investment process increased from 59% to 65%.

Public Market Mandates - Hedge Funds as of 12/31/2021



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 are now over 50% for each, from 38% and 46% respectively in 2019. One of the System's largest hedge fund managers by assets under custody, Bridgewater, is a UNPRI signatory, incorporates ESG risk factors in their investment decision making process, and began publishing an extensive "Sustainable Investing" annual report in 2021.

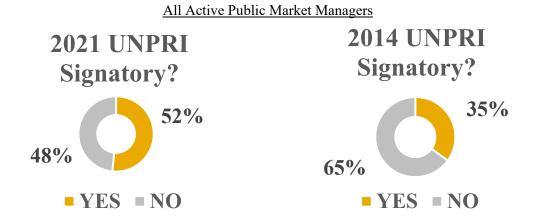
Results by % of System Assets

Affirmative Responses as % of	20	21	2016	
AUM as of Calendar Year End	ESG Policy?	Integrated?	ESG Policy?	Integrated?
Total Active Public Markets	69%	76%	60%	53%
Total x-Hedge Funds	74%	80%	71%	65%
Developed Market Equities	56%	75%	61%	56%
Emerging Market Equities	65%	65%	68%	39%
Developed Market Fixed Income	100%	100%	87%	94%
Emerging Market Fixed Income	100%	100%	65%	65%
Hedge Funds	49%	56%	18%	11%

Another way of looking at the results is shown in the table above, which compares the System's assets under active public market mandates as of 12/31/2021 compared to 12/31/2016. Today, over two thirds of the System's actively managed public investments are with managers who maintain formal ESG policies and who integrate ESG risk factors into their investment decision making processes. With respect to integrating ESG risk factors into investment processes, significant improvement can be seen across asset classes over the past five years.

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. As shown in the charts below, the percentage of the System's public market mandates where the investment managers are UNPRI Signatories has increased significantly from 2014 to 2021.



The table below shows the percentage of the System's actively managed public investments managed by UN PRI signatories. The percentage increased from 2014 to 2021 across active management broadly, and across most asset classes except for hedge funds. This is likely attributable to the shorter term investment horizons of many hedge fund strategies.

Results by % of System Assets Under Management

	% AUM with UNPIR Signatories			
Asset Class	2021 2015			
Total Active Management	62%	45%		
Total x-Hedge Funds	69%	58%		
Developed Market Equities	54%	60%		
Emerging Market Equities	65%	68%		
Developed Market Fixed Income	94%	44%		
Emerging Market Fixed Income	100%	100%		
Hedge Funds	30%	0%		

Note on Terra Maria Managers – in 2019, 47% of the System's investments under the Terra Maria program were overseen by managers that had explicit ESG policies, 29% by managers who were UNPRI signatories, and 61% by managers who integrate ESG risk factors into their investment decision making processes. In 2021, these percentages increased to 68%, 48% and 67% respectively. The most significant data point is that almost 70% of the System's assets in the Terra Maria program are managed by managers who integrate ESG risk factors into their investment processes. A lower percentage of UN PRI signatories in the program is expected due to the resources necessary for membership and commitments.

Note on Passive Managers – the System has two passive external managers with multiple mandates totaling over \$2.5 billion. One of the managers is a UN PRI Signatory. Both have formal ESG policies and strategies where ESG risk factors are integrated into the investment process. The System votes all proxies for active and passive account holdings held directly.

Proxy Voting

The System utilizes Institutional Shareholder Services (ISS), a proxy advisor firm, to obtain research and analytics about the companies it invests in and proxy proposals, provide advice on crafting proxy policies, recommend how to vote proxies based on best practices for corporate governance and the latest research, and process the System's vote based on proxy voting policy included in the IPM (updated November 2021). ISS provides research on over 45,000 meetings and 12.2 million proxies a year.

In 2020, the System cast votes at almost 8,000 meetings on over 86,000 proposals. The System's proxy voting policies generally support proxies that promote disclosure of relevant metrics such as environmental practices, risks, reports, liabilities, and Net Zero goals and plans unless the company already has sufficient measures or commitments in place.

Proxy voting results for the past three years were 65.6% against, 34.4% in favor of climate related proposals. For comparison, State Street Global Advisors has a record of supporting approximately 33% of climate related goal proposals and 50% of climate related report proposals.

Engagement, through our partners, often results in agreements between the shareholders and the company to enact practices and goals that are acceptable and allows the System to vote against shareholder proposals as it is no longer necessary to force the company to take action through a proxy vote.

British Petroleum (BP) example: Through the engagement process with the System's partner Climate Action 100+, BP signed a binding agreement to develop its climate strategy in line with the goals of the Paris agreement, along with greater disclosure of metrics and targets. This agreement allowed the System to vote against the related shareholder proposal in 2021.

The System's proxy voting policy includes evaluating Directors on their effectiveness with respect to ESG/Climate matters.

Exxon example: The System voted in favor of replacing certain board members due to their lack of consideration of energy transition issues and operational performance. As a result of the System's and other shareholder votes, three new members were appointed to Exxon's Board of Directors.

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. Engagement may include advocacy letters, direct contact with stakeholders and shareholder resolutions.

The System's engagement activities are generally conducted through its partners including:

- SASB (Sustainable Accounting Standards Board): Affiliate member promoting consistent reporting standards on sustainability and an industry risk framework
- CERES: Member supporting education, advocacy, and engagement
- Climate Action 100+: Signatory, engage with large carbon companies (BP example)
- PRI (Principles for Responsible Investment): Signatory since 2008, supports incorporation of ESG factors into investment and ownership decisions

Examples of the System's engagement activities over the past few years are listed below.

- 2020/2021 Signatory to PRI, CII and CERES letters to SEC opposing proposed changes to the proxy voting process and Rule 14a-8
- 2020 As You Sow supported Workplace Equity Disclosure Statement which called for increased corporate transparency regarding workplace equity data
- 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

Examples of engagement efforts made through the System's external managers:

PIMCO is the System's largest active fixed income manager by assets held in custody. PIMCO is a UNPRI signatory and a founding member of SASB.

Over 80% of PIMCO's firmwide holdings of corporate issuers were engaged on ESG topics by their global team of over 75 credit analysts in 2020. Below is one example taken from PIMCO's 2021 ESG Investing Report.

PEMEX – STATE-OWNED PETROLEUM COMPANY

Topic: Climate strategy and target setting

- Background: The oil industry continues to face persistent stakeholder pressure on ESG, while progress from state-owned companies has traditionally been limited. Being absent from the equity market, Pemex's material role in the debt market offers PIMCO an opportunity to engage with the issuer. While our engagement aims to steer for ESG improvement, the issuer (Pemex is Mexico's state-owned oil company) is lagging behind peers on various topics.
- Engagement: PIMCO continued our engagement with Pemex on increasing the share of health and safety certification in operations and responses to oil spills and controversies. We deepened our discussion on climate in terms of setting targets on methane reduction, Scope 3 emission disclosure, enhancing scenario analysis, etc., and shared our views and references for areas of improvements across these topics. In addition, PIMCO is also part of the CA100+ investor group to collectively engage Pemex on climate change.
- *Progress to date*: Pemex acknowledged the growing importance of climate change consideration in their business and has responsively engaged in multiple exchanges with PIMCO on ESG. They plan to align climate change disclosure closer to industry standards and are reviewing options to increase health and safety certifications over time. We will continue to monitor the issuer's progress and carry out constructive dialogue on their improvement toward best practices.

T. ROWE PRICE is the System's largest active public equity manager by assets held in custody and is based in Maryland. T. Rowe is a UNPRI signatory (since 2010) and joined the SASB Alliance in 2021.

During 2020, T. Rowe engaged directly with companies on 1,002 separate occasions, sometimes more than once with the same company, on ESG related topics including those listed below.

ENVIRONMENT ETHICS 1. Disclosure of environmental data 1. Compliance programs 2. Greenhouse gas emissions 2. Regulatory changes 3. Product sustainability 3. Bribery and corruption 4. Environmental management 4. Lobbying activities 5. Water and waste management 5. Facial recognition technology SOCIAL **GOVERNANCE** 1. Disclosure of social data 1. Executive compensation 2. Diversity, equity and inclusion 2. Board diversity 3. Employee safety and treatment 3. Shareholder proposals 4. Society and community relations 4. Board composition 5. Product safety and sustainability 5. ESG accountability

Responsible Contracting

As mentioned earlier in this report, in 2021, the Board of Trustees adopted a Responsible Contractor policy incorporating the System's Economically Targeted Investments (ETI) and ESG policies.

The Board of Trustees expects the System's real estate and infrastructure managers to utilize responsible contractors whenever possible. In the Board's view, utilizing responsible contractors improves the long-term growth of the real estate and infrastructure investments in the MSRPS portfolio and enhances the Board's fiduciary responsibility to prudently invest the System's assets for the benefit of the System's participants.

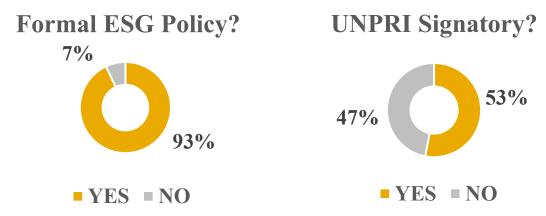
Within the System's IPM, investment staff and external managers' responsibilities with respect to applicable private real estate and infrastructure investments are outlined.

Private Investments – General Partnerships

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 the System's private equity, energy and credit active commitments to managers having formal ESG policies as of 12/31/2021. The chart on the right shows the percentage of these commitments with managers who are UNPRI Signatories.



The vast majority of the System's commitments are to private market funds managed by firms with formal ESG policies. Over half of the commitments are with UNPRI signatories. As with certain public markets managers, the relatively lower percentage of signatories could be attributable to the resources necessary to maintain membership and commitments. Many of the System's private market managers 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.

Vista Equity Partners' funds are one of the System's largest private equity active commitments and the firm is a minority owned business. Vista became a UNPRI signatory in 2020 and in 2021 was one of the first US-based private equity firms to join the Net Zero Asset Managers Initiative. The following is taken from the 2021 Vista Equity Partners ESG and DEI Report:

PORTFOLIO-WIDE ESG ASSESSMENT RESULTS

January 2021¹⁵



91%

of respondents had DE&I personnel or a committee.



79%

had C-level+ sponsorship for an ESG function.



69%

were in process of setting or had set ESG goals. When companies enter the Vista private equity and permanent capital portfolio, they are asked to complete Vista's Annual ESG Assessment, which identifies current and potential ESG risks as well as opportunities for further impact as part of the value creation planning process. This is the first major milestone of our ESG engagement after investment and helps develop an effective, ongoing plan for execution and amplification of our portfolio companies' positive impact.

We conducted our first-ever portfolio-wide ESG Assessment in January 2021 with a 100% response rate from our majority-owned private equity companies.

The results of this assessment reiterate that ESG is a key business consideration for Vista companies and illustrate the strong interest in ESG from their customers.

Vista's assessment goes beyond ESG risk mitigation and process improvements. With accelerated digitization, we believe technology and enterprise software will continue to be critical drivers of ESG value, and we are committed to boosting the positive impact of our investments during our ownership.

LEAD THE VISTA ECOSYSTEM ON THE TOPIC OF BOARD DIVERSITY

Signed agreements to amplify our commitment to diversifying corporate boards, including:





Portfolio Company Leadership²²

CEOS

12% Women 14%

People of Color

C-SUITE

25% Women 16% People of Color

Private Equity Portfolio Engagement: Company Accountability and Best Practices

As a fiduciary, it is our responsibility to support our companies' operations by providing sustainable solutions and frameworks that will exist even after our partnership ends. This includes helping our private equity and permanent capital portfolio companies establish and advance DE&I processes and programs.

Board diversity stewardship and executive leadership team engagement are among the main focuses of this pillar. Vista has introduced a DE&I Board Reporting template which enables portfolio management teams to present the progress of their DE&I initiatives to their Board of Directors each quarter.

Our global technology ecosystem provides our portfolio companies a unique peer network to learn, connect and share. CEO sharing sessions offer executives the chance to learn from others with similar experiences and have been critical to DE&I engagement at the executive level.

Throughout 2020 and 2021, session topics have included Diversity, Equity & Inclusion; Diversifying the Leadership Bench in a Post-Pandemic World; and Your Role in Supporting the AAPI Community.

DE&I topics were also among the best practice sharing sessions featured during our 2020 and 2021 CXO and CEO summits, forums where we bring together senior portfolio company operators to exchange ideas and share knowledge.

CarVal Investors' funds are the System's largest private credit active commitments. One of CarVal's three managing principals is a woman who holds significant ownership in the management company. The following is taken from CarVal's December 2021 Letter to Investors:

CarVal Investors believes that the potential for environmental, social and governance (ESG) factors to affect investment outcomes is undeniable and has committed to incorporate them into the firm's investment decision making. In 2021, CarVal has continued to implement our policy more deeply and to consolidate our commitment to responsible investing in our investment process. Led by our Responsible Investing Committee, we have:

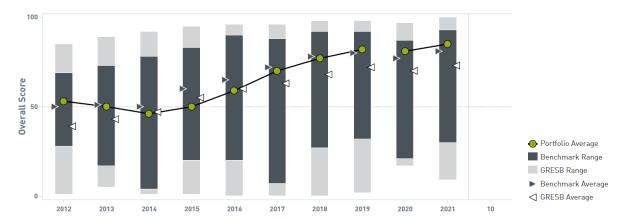
- Become a signatory to the UNPRI, with a commitment to begin public reporting of our activities
- Renewed our membership and strengthened our commitment and involvement with the Value Reporting Foundation/SASB (Sustainability Accounting Standards Board), including partnering with SASB on an article for their ESG Integration Insights
- Further refined the use of SASB's Materiality Map as a part of our investment decision making
- Launched "CarVal Clean," a CLO issuance program that is the industry's first to report an ESG score for the CLO portfolio alongside the score of a benchmark index using a proprietary methodology developed by CarVal and outside partners
- Published a 19-page document drawing together all of CarVal Investors ESG and DEI activities at the firm level and also in the context of the investments we manage: Responsible Business and Investing Report
- Continued to feature our Responsible Investing Policy on our external website and in our data rooms https://carvalinvestors.com/about/responsible-investing-policy/
- Completed a second round of ESG and SASB training for all CarVal employees
- Initiated projects to extend our ESG scoring methodology to other investment classes including high yield bonds and investment grade securities
- Formed a 12-person dedicated Clean Energy team
- Invested \$2.4 billion ITD in Clean Energy
- Held the final close of our first fund dedicated to clean energy investments and began marketing a second fund
- Expanded our clean energy business to Europe and Emerging Markets with investment professionals in London dedicated to this effort. The team has already closed significant financings in Europe supporting the development of utility-scale solar.
- Increased industry engagement on issues relating to ESG and investing through workshops, roundtables, speaking engagements and panels

Private Real Estate

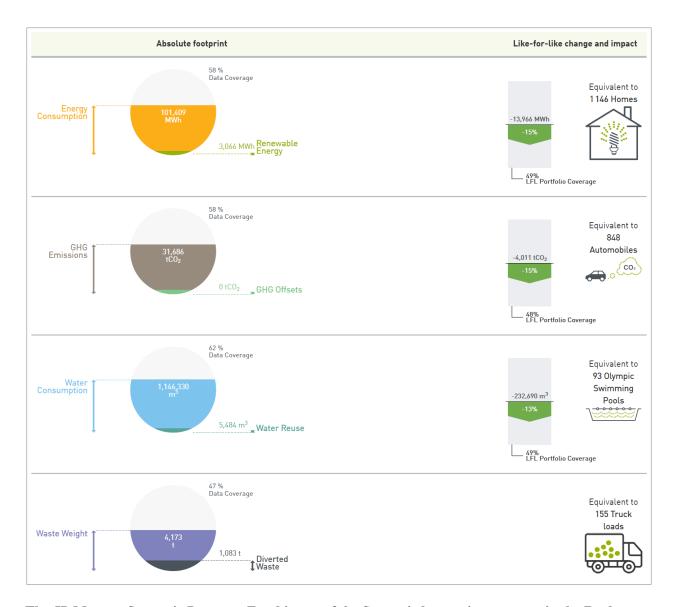
The System utilizes the Global Real Estate Sustainability Benchmark (GRESB) to assess the ESG performance of its core real estate portfolio. GRESB is an investor-driven organization committed to assessing the ESG performance of real assets globally. GRESB runs annual assessments on participating companies 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 ESG performance of its core real estate managers, as this comprises 78.0% of the System's private real estate portfolio as of September 30, 2021. Core investments are primarily

stabilized assets which are intended for a longer-term hold, compared with investments in the Value-Add and Opportunistic portfolios. Value-add 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 2020 vs. 2019.



The JP Morgan Strategic Property Fund is one of the System's largest investments in the Real Estate portfolio. In 2021, the Fund ranked 1st of 48 diversified core funds in the US, achieving 5 out of 5 Green Stars for the fourth consecutive year. The following is taken from the Fund's 2021 Annual Report, Sustainability Update:

Environmental

Actions

- Consistently measure, monitor, and improve performance of the assets to meet reduction targets for energy, greenhouse gas emissions (GHG), water, and waste
- Target 10-year reduction of energy and emissions by 25% (2.5% annually) in alignment with the Paris Accord and Science Based Target Initiatives, and water and waste by 15% (1.5% annually)
- Improve the performance of our assets by identifying low-cost property enhancements, implementing strategic capital improvements, and continue to assess new technologies to achieve emission reduction targets

- Assess additional opportunities to reduce GHG emissions through on-site solar, renewable energy certificates, offsets, and other renewable or alternative sources
- Achieve energy ratings for eligible buildings annually
- Evaluate and pursue third-party green building certifications using schemes prevalent in each specific region, such as LEED, IREM CSP, and BREEAM, as well as health and wellness certifications such as WELL and Fitwel, whenever feasible
- Incorporate ESG+R as part of the due diligence process for acquisitions including identifying resiliency strategies in the Metropolitan Statistical Area (MSA) and also noting climate change impacts such as flooding, extreme temperatures and droughts, specific to where the property is located

Performance

- Thirteen properties are pursuing IREM CSP recertification in 2021 and five properties are pursuing IREM CSP new certification in 2021. IREM CSP is a green building certification that reviews energy, water, and waste performance alongside sustainable purchasing practices and ways in which the property promotes health and wellness for tenants
- Property teams completed the 2020 ESG survey and an ESG metrics report was created highlighting qualitative aspects of sustainability. 92% of office properties have electronic waste recycling
- 111 N. Canal achieved WELL Health and Safety in Q1 2021
- Sunnyvale City Center 150 Mathilda Place received LEED O+M Existing Building recertification in 1Q 2021
- 10 Hudson Yards in New York, New York earned LEED v4.1 Interior Design and Construction certification at the Gold level in 3Q 2021

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

A few specific examples of the System's investments focused on ESG solutions or transformation include:

Hg Capital - Transporeon

What does Transporeon do?

- Transporeon is a leading cloud-based logistics network and transport management software for road freight in Europe.
- The platform enables thousands of trucks to be booked and tracked as they haul freight in trailers across the continent.
- As a sector leader, the business benefits from favorable industry dynamics, connecting 100,000 users across 120,000 carriers and 1,300 shippers using a modern SaaS platform able to serve 100 countries and available in 24 languages.
- It serves these customers with a mission-critical cloud software platform which enables more efficient tendering, dispatching, scheduling, and better communication between the hundreds of enterprises looking to move freight by road (shippers) and the thousands of SME operators (carriers) that provide the trucks.

Initiatives

- Introducing trucks with lower emissions but infrastructural hurdles are a challenge.
- Route optimization and load building tools
- Use of real time visibility to optimize transport execution, reduce demurrage and empty loads
- Setting lower speed limits for freight operators
- Operational programs to optimize driver behavior
- Collaboration such as co-loading and co-tendering

What does Motor Fuel Group do?

• Motor Fuel Group (MFG) is the largest independent forecourt operator in the UK. It has over 900 stations operating under the BP, Shell, Texaco and JET fuel Initiatives

Initiatives

- In March 2021 Motor Fuel Group announced plans to invest £ 400 million in electrical chargers across 500 sites in the U.K. over the next 10 years.
- This initiative helps the U.K government towards its net zero goal by 2050

CarVal is the System's largest private credit partnership. CARVAL HAS INVESTED OVER \$2 BILLION IN CLEAN ENERGY.

"Clean energy is a fast-growing source of new energy, yet the market is nascent and fragmented, making it an attractive investment opportunity. In the U.S. alone, renewable energy investment required to meet targeted clean energy goals needs to be \$1.5 trillion over the next 8.5 years." — CarVal Management



Investment Examples:

Project Bluebird – an 18.1MW, \$28 million enterprise value, 6-project utility and C&I solar portfolio. Sets the foundation for a diversified renewable portfolio of small-scale solar assets.

Project Maple – a 5.0MW/15.9MWh, \$7.4 million enterprise value, single battery storage project. CarVal's first energy battery storage project provides an entry point into a market that is expected to grow 10x in capital and more than 14x in MW deployments by 2025.

Intersect Power – development loan to one of North America's largest developers of utility scale renewable energy power assets. Intersect is currently developing 2.4GW of solar and storage projects across the Southwest U.S. with an expectation to start delivering power in 2022.

Cypress Creek Renewables – warehouse facility for the largest solar developer in the U.S.

Project URI – financing to three wind farms (450MW) in Texas which suffered liquidity issues as a result of winter storm Uri.

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
- 2020 Board of Trustees Education session Meketa provided a presentation on incorporating climate change into asset allocation
- 2021 Board of Trustees Education session ILPA provided a presentation on DE&I in the investment industry; a panel of professionals from BlackRock, Meketa, New York State Common, and LACERA discussed climate change, the transition, net zero and public pensions
- 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; staff participates on conference
 calls regularly with like-minded asset owners to discuss best practices and ESG related topics
- Conferences Staff attends numerous conferences and panels held on ESG topics including the SASB Symposium, UNPRI Climate Change Conference, AIF Institute ESG Symposium, Pension Bridge ESG Summit, Institutional Investor Sustainable Return Conference, and Pension & Investments ESG Investing Conference. Staff also attends conferences sponsored by the System's trading partners, such as J.P. Morgan, Goldman Sachs, Morgan Stanley and Bank of America, that include ESG focused panels and educational opportunities. Staff expects to attend many of these and other events in 2022.

Summary and Next Steps

In summary, over 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. 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 and more broadly staff's ongoing initiatives and activities:

- 1. Hire a Senior Corporate Governance Officer with responsibilities that include refinement and implementation of the System's corporate governance policies and responsible investing best practices and objectives
- 2. Identify areas for staff to initiate engagement to increase manager incorporation of ESG risk factors in the investment decision making process
- 3. 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
- **4.** 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
- 5. 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
- **6.** Create additional education opportunities for the Board of Trustees and staff

The System will continue to pursue best practices with respect to responsible investing when evaluating, selecting, and monitoring external managers in public and private markets that are consistent with the System's Investment Policy Manual. As public markets mandates are brought in-house, staff will pursue best practices with respect to responsible investing consistent with the System's Investment Policy Manual for internally managed assets.