NYCERS

NYC EMPLOYEES' RETIREMENT SYSTEM

NYCERS Annual Climate Report

2024

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NYC EMPLOYEES'
RETIREMENT SYSTEM

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Message from the Comptroller

As I write this, the risks of climate change – and threats to climate progress – have never been more acute. Last year was once again the hottest year on record. And 2025 has made no secret of how high the stakes remain. As devastating wildfires raged on across Los Angeles, with thousands of residents seeking shelter and billions of dollars in record property damage continuing to rack up, President Trump signed an Executive Order withdrawing the U.S. from the Paris Climate Agreement. From President Trump's "drill baby drill" mantra on oil and gas production to his attempt to end all new offshore wind projects, the new federal administration has laid its own path of destruction in the weeks since.

The threats that climate change pose to our communities, the global economy, and the NYCERS investment portfolio are clear. The cascading impacts – on physical assets, the supply of food and water, the availability and affordability of property insurance, and so many other aspects of the economy – will continue to worsen in ways that are individually unpredictable and yet utterly predictable in their overall scope until and unless we take bold steps to mitigate global warming.

NYCERS remains committed to addressing the financial risks that climate change brings, in spite of, and indeed spurred by, the obvious headwinds. As the effects of climate change magnify, destroying critical ecosystems, pillaging resources, and upending increasing numbers of lives, the Trump Administration acts as if climate change is not happening at all. Anti-ESG efforts of aligned state officials serve to intimidate investor collaborations such as the Net Zero Asset Managers Initiative and spur investor withdrawals from Climate Action 100+. Too many companies with announced net zero targets are failing to take concrete actions to put themselves on pathways to achieve those targets.

In 2023, NYCERS issued its ambitious Net Zero Implementation Plan to decarbonize its portfolio, achieve net zero greenhouse gas emissions, and support climate transition on the timeline of the Paris Accords. The plan builds on the 2021 vote to divest from fossil fuel reserve owners, with meaningful commitments to disclosure, active engagement with asset managers and portfolio companies to set science-based targets, and significantly greater investments in climate solutions.

This report, our 2nd annual, shows the progress we have made over the last year. And amidst the rollbacks at the national level, I am pleased there is cause for some optimism. NYCERS has exceeded its objectives for reducing Scopes 1 and 2 greenhouse gas financed emissions intensity in its portfolio and for investments in climate solutions one year ahead of schedule. While this progress is surely welcome, we know that there is much work left to do to achieve the real-world decarbonization needed to reverse the unmistakable warming trends in the global climate and

create the basis for generating the long-term sustainable investment returns we need to pay the System's pension obligations for generations to come. As I have stated before, this is work we cannot do and outcomes we cannot achieve alone. We need other asset owners, our investment managers, governments here and around the world pulling in the same direction to mitigate the risks of climate change.

Make no mistake: we will continue to lead. Last fall I proposed that NYCERS adopt a policy adding future midstream and downstream fossil fuel infrastructure to the existing exclusion of upstream in private markets investments. My office's Bureau of Asset Management is currently researching and developing this policy and will bring it to the NYCERS Board for its consideration in 2025. Excluding investments such as oil and gas pipelines and LNG terminals, where consistent with our fiduciary duties, is another concrete step NYCERS can take to help mitigate the systemic risks that climate change poses to the global economy.

It is with that determined sprit and commitment to innovate that NYCERS will do everything in its power consistent with its fiduciary duties to maximize risk-adjusted returns while investing in the needed climate transition. We will continue to mitigate the systemic as well as the company-specific risks that climate change poses to our portfolios. The future depends on us doing our part.

With deep resolve and determination,

Brad Lander

New York City Comptroller

Executive Summary

This is the second annual report of the progress that NYCERS is making under the Net Zero Implementation Plan ("Plan") to achieve net zero portfolio greenhouse gas (GHG) emissions by 2040.

The Plan, adopted by the Board in 2023, commits NYCERS to:

- annual disclosure of our GHG emissions and progress towards our emissions reduction targets;
- engagement with our portfolio companies and asset managers to make progress towards net zero;
- increased investments in climate change solutions; and
- divestment from fossil fuel reserve owners and private markets investments in the production, exploration or extraction of fossil fuels.

Consistent with its fiduciary duties to invest solely in the interests of its participants and beneficiaries and to maximize long-term investment returns in order to fund the pension benefits earned, the Board remains committed to its stated Investment Belief that its role as a fiduciary obligates it to "mitigate the risks, take advantage of opportunities, and reduce the contributions our investments make to climate change."

This report details NYCERS' activities and progress towards Net Zero during calendar year 2024, and plans for 2025, in portfolio company and investment manager engagement, as well as investments in climate solutions and disclosure of our Scopes 1, 2 and 3 carbon footprint and related metrics for fiscal year 2024 that ended June 30, 2024.

Summary of 2024 Accomplishments

Emissions Reductions: NYCERS reduced Scopes 1 and 2 financed emissions intensity by 34.57% since the baseline of December 31, 2019, surpassing the interim target of 32% by 2025.

- NYCERS' Scope 1 and 2 financed emissions intensity in our public equity and corporate bonds portfolio decreased by 24.16% between July 1, 2023 and June 30, 2024.
- The divestment from fossil fuel reserve owners was the largest driver of emissions reductions.
- Utilities saw an average decrease in actual emissions between 2019 and 2024, the only sector in the portfolio to do so.
- Scope 3: Scope 3 financed emissions intensity decreased by 20.3% between 2023 and 2024. NYCERS aims to set Scope 3 interim emissions reductions targets next year once there are three years of portfolio data to base the targets on.

Climate Solutions: One of the key pillars of the Net Zero Plan is to grow NYCERS' investments in climate solutions. NYCERS had an interim target of $4 billion in climate solutions by 2025, with an ultimate goal of $17 billion by 2035.

- During FY 2024, NYCERS increased investments in climate solutions by $993 million of total exposure.
- With a current total exposure of $4.47 billion in climate solutions as of June 30, 2024, NYCERS exceeded its 2025 interim target of $4 billion. The Board set a new interim target of $8.7 billion by 2030.

Climate Banking Engagement: NYCERS filed shareholder proposals at six large North American banks calling on them to disclose their ratio of clean energy financing to fossil fuel energy financing. Three banks—JP Morgan, Citi and Royal Bank of Canada—agreed to disclose their ratio, and JP Morgan became the first to publish these data in 2024. Shareholder proposals advanced to a vote at Bank of America, Goldman Sachs, and Morgan Stanley, where they garnered an average vote of 25.9%. In 2025, NYCERS is re-filing proposals with these three banks, as well as Wells Fargo, for disclosure of their clean energy to fossil fuel energy financing ratios.

Science-Based Targets: The NYCERS Net Zero Plan highlights the importance of companies and asset managers setting science-based targets (SBTs) as a first step for creating a clear roadmap toward a net zero portfolio by 2040. In 2024, the Bureau of Asset Management (BAM) continued robust engagement with portfolio companies and asset managers to adopt SBTs, with a goal of achieving SBTs for 70% of NYCERS' Scopes 1 and 2 public equity and corporate bonds financed emissions by 2025.

- The percent of NYCERS' financed emissions in Scopes 1 and 2 that are covered by validated SBTs increased from 22.8% to 25.6% from 2023 to 2024, while the commitments to SBTs dropped from 15.8% to 7.9%, for a total of 33.5% validated or committed. While the slight increase in validated SBTs is welcome, the overall trend and pace of new commitments is not on track to achieve the 70% goal by 2025.
- To marshal broader support for SBTs, BAM continued to actively engage high-emitting portfolio companies on behalf of NYCERS. Comptroller Lander sent a letter requesting third-party verified, science-based targets to 58 companies, in addition to continuing the engagement with investor-owned utilities that began in 2023. BAM is additionally serving as technical advisor for the development of a new target setting protocol, known as SMARTargets, led by the Electric Power Research Group ("EPRI").

Asset Manager Engagement: As a universal investor with virtually 100% externally-managed assets, NYCERS must work with our asset managers to decarbonize our portfolio and drive decarbonization at portfolio companies. Once again this year, BAM sent a letter to all asset managers communicating NYCERS' clear and ambitious expectations regarding net zero commitments and implementation plans, along with our annual ESG questionnaire regarding net zero and science-based target (SBT) commitments, the collection of carbon emissions data, and physical climate risk assessments.

- BAM received responses from asset managers representing 92% of assets under management (AUM).
- The questionnaire results show that 44% of NYCERS' investment funds, comprising 31% of total AUM, currently measure and report Scopes 1 and 2 emissions for a majority of the investments they manage for NYCERS.
- The questionnaire results also indicate that 28% of investment funds, comprising 33% of NYCERS' AUM, have adopted a net zero goal or intend to adopt one in the near future.
- BAM uses the questionnaire responses along with NYCERS carbon footprint data to identify and focus engagement on managers that contribute the most to NYCERS' portfolio GHG emissions and lack requisite policies and processes to reduce real-world emissions.
- In 2024 NYCERS joined the Net Zero Asset Owners Alliance, a leading global organization of asset owners with strong commitments to achieving net zero with a focus on real world decarbonization, aligning well with NYCERS' commitments and approach.

We are proud of the work that we have accomplished to exceed our emissions reduction targets ahead of schedule. Our carbon footprint results show that divestment from fossil fuels improves climate outcomes in our portfolio, while our investment results – which continue to outperform our targets – show we can achieve these outcomes without compromising returns.[1] Beyond our own investment portfolio, we remain committed to driving real-world

[1] NYCERS earned net returns of 8.18% in FY 2023 and 9.88% in FY 2024, exceeding the annual 7% actuarial rate of return. NYCERS acfr.pdf, p. 158.

decarbonization as the only way to meaningfully address the systemic financial risk that climate change poses to the long-term investment returns that the Retirement System needs to produce to fund our members' pensions. We know that real-world decarbonization is a huge challenge that requires collective action across the global economy. We remain steadfast in our commitment to fulfilling our role, consistent with our fiduciary duties, in helping to lead the transition with the help of our asset managers, fellow asset owners, as well as governments here and abroad—even in the face of political headwinds.

NYCERS hopes this annual report will offer additional support and evidence to inspire other investors to join us in our efforts to prevent climate change from further harming the planet and to create long-term, sustainable economic growth.

Summary of 2024 NYCERS Net Zero Actions

DISCLOSE Emissions and Risk

As of June 30, 2024, NYCERS' Scope 1 and 2 financed emissions intensity (tons of financed emissions / million dollars invested (FE/$m)) was 57.94, marking a decrease of 24.16% from June 30, 2023. Compared to the December 31, 2019 baseline, NYCERS has observed a reduction of 34.57% in Scope 1 and 2 financed emissions intensity, against an interim target of 32% reduction by June 2025. **NYCERS has hit its interim emissions reduction target for Scope 1,2 intensity for public equity and corporate bonds a year early!**

As of June 30, 2024, NYCERS' Scope 3 financed emissions intensity was 343.95, marking a decrease of 20.29% from June 30, 2023.

Active equity accounted for more than 80% of decrease in emissions intensity for both Scopes 1 and 2 and Scope 3 for NYCERS in FY2024. Active equity holdings changed both as a result of new strategic asset allocation as well as business as usual changes.

ENGAGE for Alignment and Action

As of June 30, 2024, 25.6% of NYCERS' absolute Scope 1 and 2 financed emissions in public equity and corporate bonds are covered by science-based targets validated by the SBTi with an additional 7.9 % committed to setting science-based targets with SBTi within the next two years. This results in 33.5% of absolute Scope 1 and 2 financed emissions in NYCERS' public equity and corporate bonds portfolio being covered by SBTi-approved science-based targets or commitments to set such targets in the next two years, which is 5.1% less than the 2023 total. Our goal is 70% of Scope 1 & 2 portfolio emissions with science-based targets by 2025.

Comptroller has engaged with 35 utilities without SBTs representing 24% of Scopes 1 & 2 financed emissions.

Comptroller is serving as the thematic lead for Climate Action 100+ on the topic of science-based targets and net zero. In 2024, NYCERS joined the Net Zero Asset Owners Alliance, a leading global organization of asset owners with strong commitments to achieving net zero with a focus on real world decarbonization, aligning well with NYCERS' commitments and approach.

44% of managers covering 31% of NYCERS AUM stated they measure and report Scope 1 and 2 emissions for the majority of the investments of the fund/product they manage for the System. 28% of managers representing 33% of NYCERS' AUM stated they have adopted a net zero goal or intend to adopt one in the near future.

INVEST in Climate Change Solutions

As of June 30, 2024, NYCERS has a total of $4.47 billion in invested and unfunded commitments in climate change solutions across all asset classes, **surpassing the interim goal of $4 billion by 2025**. NYCERS set a new interim goal of $8.7 billion invested in climate solutions by 2030. The 2035 goal remains $17 billion.

DIVEST to De-Risk

The divestment of fossil fuel reserve owners that NYCERS carried out in 2022 and 2023 was the largest driver of reductions in the portfolio's Scopes 1 and 2 financed emissions intensity between the baseline of 2019 and 2024.

Section 1: Disclose Emissions and Risks

Public Equity and Corporate Bonds Interim Scope 1 and 2 Emissions Reduction Targets and Annual Carbon Footprint Analysis

We are pleased to share that NYCERS has achieved emission intensity reduction as of Jun 30, 2024 that surpasses the interim emission reduction target set for Jun 30, 2025. NYCERS' Scope 1 and 2 financed emissions intensity decreased by 24.16% between Jun 30, 2023, and June 30, 2024, yielding a total reduction of 34.57% from the baseline of Dec 31, 2019. While we welcome this decrease in our portfolio's footprint, it is important to understand and acknowledge the drivers of this change: most of this emission reduction is driven by portfolio changes (including fossil fuel divestment and changes in strategic asset allocation) while actual company emission reductions had a much smaller contribution. (See pages 14 and 15 for more detail on the attribution analysis.)

In our Net Zero Implementation Plan, NYCERS set targets to reduce the Scope 1 and 2 financed emissions intensity in our public equity and corporate bonds portfolio (including investment grade, high yield and convertible bonds) by 32% by 2025, 59% by 2030, and 100% by 2040, using a baseline of December 31, 2019. For these interim emissions reduction targets, NYCERS uses "financed emissions intensity" (tons of CO_2 equivalent emissions/$million invested) based on Enterprise Value Including Cash (EVIC) as the primary metric for emissions. We also report, measure and evaluate changes in absolute financed emissions (which will be also referred to as financed emissions or FE in this report) and weighted average carbon intensity (WACI) (tons of CO_2/$million sales) and strive toward comparable progress among all metrics. Scope 3 emissions and target-setting are discussed in the subsection further below. For definitions of Scopes 1, 2 and 3, please see Appendix E.

Public Equity and Corporate Bonds Annual Carbon Footprint Analysis

On behalf of NYCERS, BAM conducted an annual updated carbon footprint analysis of the System's public equity and corporate bond portfolios and a blended benchmark portfolio. We do not yet have complete and accurate data for measuring GHGs in private markets, and there is no accepted methodology for measuring GHGs in mortgage and government fixed income portfolios (comprising the remainder of the public markets portfolio). The analysis used holdings data as of June 30, 2024 and MSCI's carbon footprint data and analytics (which includes PCAF-aligned metrics for 2024)[2]. Public equity and corporate bonds constituted 52.7% of NYCERS' total assets as of June 30, 2024. Corporate bonds include 1) investment grade and 2) high yield (including convertible bonds).

[2] MSCI's Total Portfolio Footprinting (TPF) methodology was used to obtain PCAF-aligned emissions metrics for 2024. 2019 baseline was also updated through similar adjustments.

1.1 Scope 1 and 2 – Financed Emissions and Intensity

During Fiscal Year 2024 NYCERS' public portfolio emissions intensity experienced a much greater reduction than the blended benchmark, as depicted in Table 1. Most of this decrease was driven by portfolio level changes: changes in strategic asset allocation; business as usual changes in the actively managed securities; highly concentrated expansion in NYCERS portfolio value (where almost one-third of the increase in market value was driven by Top 10 companies only). Overall emissions in developed economies decreased in 2023, which also helped[3].

NYCERS' public equity and corporate bonds absolute financed emissions (FE) also decreased more than the benchmark's total FE during Fiscal Year 2024. Actively managed equities alone accounted for 85% of the reduction in NYCERS' financed emissions during FY 2024. Delving deeper into the changes in actively managed equities for NYCERS, we learned that the Top 30 highest emitters from FY 2023 experienced an average of 20% increase in Enterprise Value (EVIC) between FY 2023 and FY 2024, and a 7% reduction in average company emissions (Scope 1,2). NYCERS' portfolio also saw an average of 40% decrease in the units of shares held in the same Top 30 high emitting companies, manifesting the change in NYCERS' strategic asset allocation as well as business as usual trading in active equity.

Table 1: Public Equity and Corporate Bonds Scope 1 and 2 Financed Emissions and Intensity

NYCERS – Financed Emissions Intensity – Scope 1 and 2		
	NYCERS Portfolio Tons carbon emissions/$m invested	Blended Benchmark Tons carbon emissions/$m invested
31-Dec-19	88.55	77.58
30-Jun-22	67.96	58.80
30-Jun-23	76.40	62.20
30-Jun-24	57.94	61.27
Change % (2019-2024)	-34.57%	-21.02%
Change % (2023-2024)	-24.16%	-1.50%
NYCERS – Absolute Financed Emissions – Scope 1 and 2		
	NYCERS Portfolio Tons carbon emissions	Blended Benchmark Tons carbon emissions
31-Dec-19	3,249,796	3,234,250
30-Jun-22	2,788,136	2,384,931
30-Jun-23	3,352,732	2,732,120
30-Jun-24	2,673,594	2,821,210
Change % (2019-2024)	-17.73%	-12.77%
Change % (2023-2024)	-20.26%	3.26%

[3] https://www.iea.org/reports/co2-emissions-in-2023/emissions-in-advanced-economies-fell-to-their-level-of-50-years-ago

Like earlier years, the highest emitting sectors in NYCERS' portfolio are materials, utilities, energy, and industrials, collectively representing almost 83% of financed emissions for Scope 1 and 2, as suggested in Table 2 below. On behalf of NYCERS, BAM is pursuing active engagement with portfolio companies in these high emitting sectors (see more details in the engagement section).

Table 2: High Emitting Sectors – Financed Emissions (Scopes 1 and 2)

NYCERS Portfolio – High Emitting Sectors' Financed Emissions (Scope 1 and 2)		
	2024	**2023**
Materials	31%	28.3%
Utilities	24%	27.6%
Energy	15%	19.5%
Industrials	13%	10.2%
Top 4 Sectors Share in Financed Emissions (S12)	**83%**	**85.6%**

Figure 1 below shows the percentage of Scope 1 and 2 emissions reductions pathways for the public equity and corporate bonds portfolios each year to achieve the interim emissions reduction targets of 2025 and 2030 and net zero emissions by 2040. As Figure 1 makes clear, NYCERS has surpassed the 2025 emissions reduction targets ahead of schedule. Figure 2 summarizes the timeline and drivers of emissions intensity changes between 2019 and 2024.

Fig 1: NYCERS – Realized and Projected Emissions Reduction Targets (Scope 1 and 2)

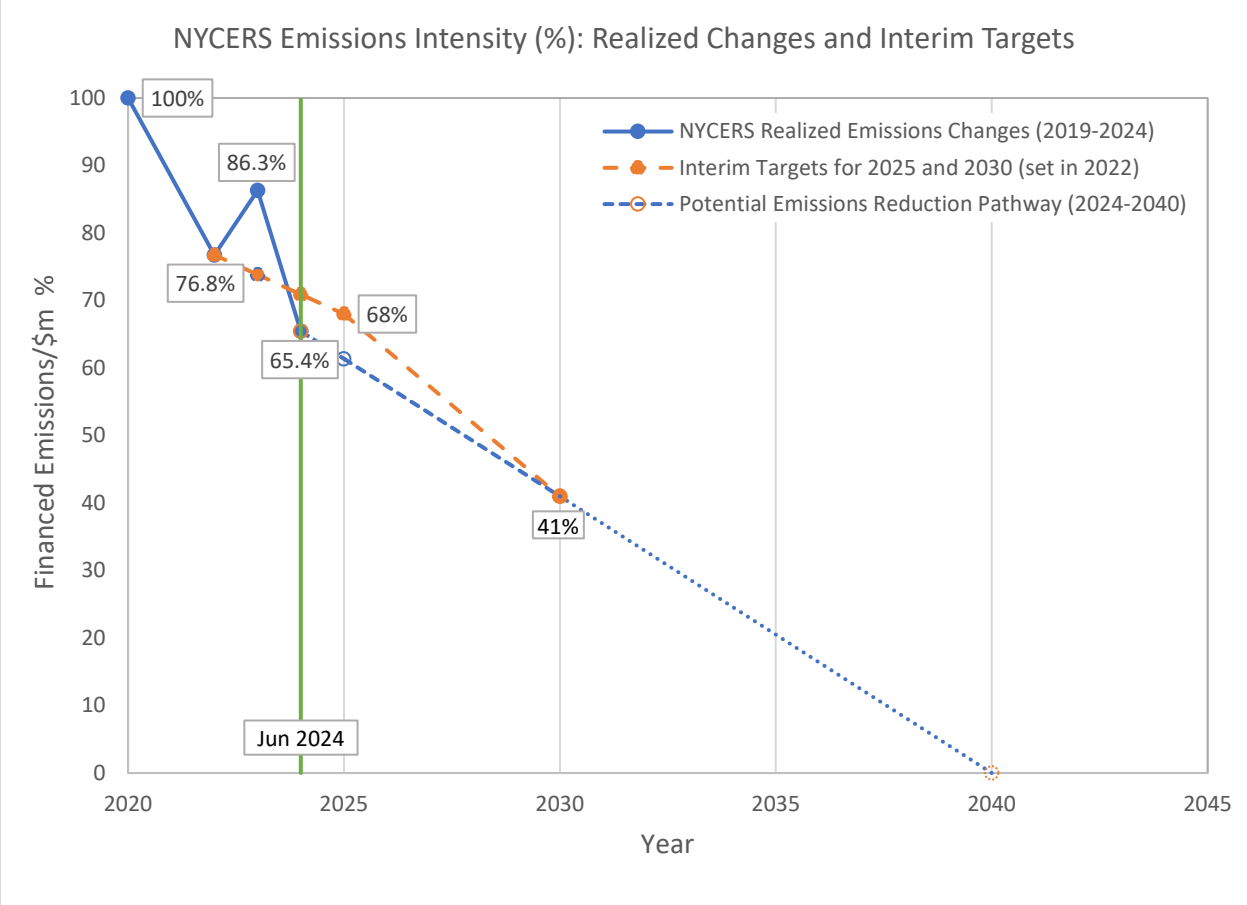
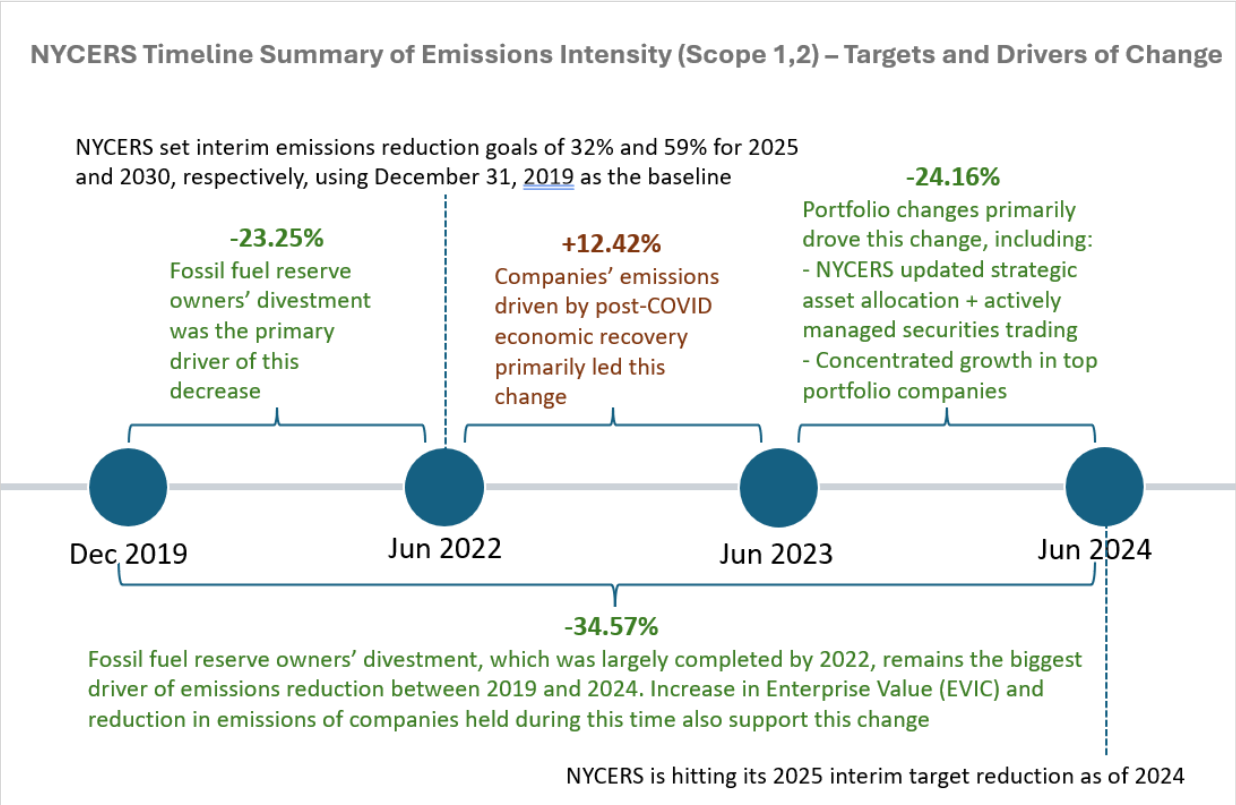


Fig 2: NYCERS – Timeline of Emissions Intensity (Scope 1 and 2) – Milestones and Drivers of Change



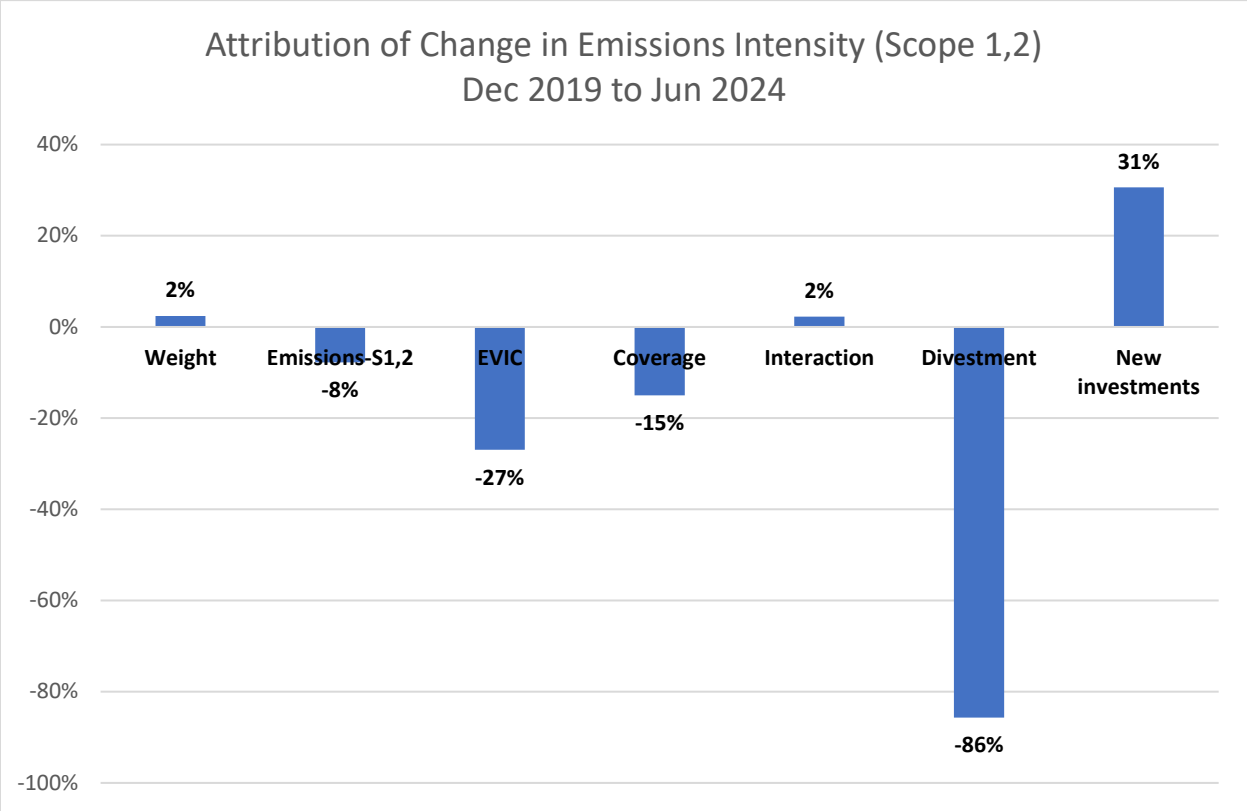
To further our understanding of the drivers of reduction in this emissions intensity between 2019 and 2024, we pursued a detailed attributional analysis[4] by separating the effect of each factor that affects the emissions intensity calculation (a ceteris paribus analysis, i.e. changing one factor at a time from 2019 to 2024, assuming everything else is held constant). We compared the Dec 31, 2019 and Jun 30, 2024 portfolios and formed three sub-sets:

- Fossil Fuel divestments: securities in the portfolio in 2019, but not in 2024. NYCERS no longer holds those securities due to multiple reasons including fossil fuel divestment, changes in strategic asset allocation, and regular business changes, such as changes in actively managed accounts by managers, or changes of managers or securities.
- New investments: securities that weren't present in 2019 but are held in the 2024 portfolio for multiple reasons, including regular business changes
- Securities held between 2019 and 2024: subject to a detailed attributional analysis that breaks down the marginal impact of changes in individual factors (company emissions, EVIC, weight, and portfolio coverage), affecting portfolio financed emissions changes. The interaction term captures the effect of simultaneously changing multiple factors.

[4] Along the lines of MSCI's 'Framework for Attributing Changes in Portfolio Carbon Footprint' https://www.msci.com/www/research-report/a-framework-for-attributing/03802978549

Figure 3 summarizes the findings of the attribution analysis, highlighting 'divestments' as the single biggest driver of emissions reduction, followed by increase in the Enterprise Value of the portfolio companies that were held from 2019 through 2024. As noted earlier, decrease in actual company emissions only had a small bearing on overall portfolio emissions decrease. While all sectors saw a decrease in their emissions intensity (i.e. actual emissions as a ratio of size/EVIC), utilities is the only sector (among the 100 highest emitters) that saw an average decrease in actual emissions between 2019 to 2024 for the securities that were held in NYCERS' portfolio during this time.

Fig 3: NYCERS – Attribution Analysis of Change in Emissions Intensity (Scope 1 and 2) – Dec 2019 to Jun 2024



1.2 Scope 3 – Financed Emissions and Intensity

During Fiscal Year 2024 NYCERS' Scope 3 public portfolio emissions intensity experienced a much greater reduction than the blended benchmark, as depicted in Table 3. Most of this decrease was driven by portfolio level changes: changes in strategic asset allocation; business as usual changes in the actively managed securities; highly concentrated expansion in NYCERS portfolio value (where almost one-third of the increase in market value was driven by Top 10 companies only).

NYCERS' public equity and corporate bonds absolute financed emissions (FE) also decreased more than the benchmark's total FE during Fiscal Year 2024. Actively managed equities alone

accounted for 82% of the reduction in NYCERS Scope 3 financed emissions during FY 2024. Delving deeper into the changes in actively managed equities for NYCERS, we learned that the Top 30 highest Scope 3 emitters from FY 2023 experienced an average of 5% increase in Enterprise Value (EVIC) between FY 2023 and FY 2024, and a 25% reduction in average company emissions (Scope 3). NYCERS portfolio also saw an average of 75% decrease in the units of shares held in the same Top 30 high emitting companies, manifesting the change in NYCERS strategic asset allocation as well as business as usual trading in active equities.

Table 3: Public Equity and Corporate Bonds Scope 3 Financed Emissions and Intensity

NYCERS – Financed Emissions Intensity – Scope 3		
	NYCERS Portfolio Tons carbon emissions/$m invested	Blended Benchmark Tons carbon emissions/$m invested
30-Jun-22	260.92	367.60
30-Jun-23	431.50	405.20
30-Jun-24	343.95	385.69
Change % (2023-2024)	-20.29%	-4.81%
NYCERS – Absolute Financed Emissions – Scope 3		
	NYCERS Portfolio Tons carbon emissions	Blended Benchmark Tons carbon emissions
30-Jun-22	10,741,650	14,919,198
30-Jun-23	18,944,404	17,791,200
30-Jun-24	15,872,389	17,759,956
Change % (2023-2024)	-16.22%	-0.18%

NYCERS has not yet set interim Scope 3 emissions reductions goals because we do not yet have enough data, though Scope 3 data has been improving recently. We plan to set such goals for 2025 as data availability and quality improve further.

Section 2: Invest in Climate Change Solutions

NYCERS' investment in climate solutions has been an integral part of our net zero ambitions. NYCERS has a goal of investing a total of $17 billion in climate change solutions by 2035, and had an interim goal of $4 billion by 2025, consistent with our fiduciary duties and our investment objectives. **As of June 30, 2024, NYCERS has a total of $4.47 billion in invested and unfunded commitments in climate change solutions across all asset classes, an increase of 26.4% over year FY2023.** Since NYCERS has already surpassed its 2025 target of $4 billion, the Board in 2024 approved an additional interim goal for 2030 of $8.7 billion. Table 4 shares the

climate solutions exposure by each asset class for Jun 30 2024, as well as changes from FY2023.[5]

Details of NYCERS' climate solutions investments' definitions by asset class are in Appendix A.

Table 4: NYCERS Climate Solutions Investments – Jun 2024

NYCERS – Climate Solutions Investments ($million) – Jun 30, 2024								
	Total Portfolio	Public Equity Active	Public Equity Passive	Public Fixed Income	Alternative Credit	Private Equity	Real Estate	Infrastructure
2Q 2024 (1Q24 data for infrastructure; 4Q23 data for real estate) – Including unfunded commitments								
06/30/24 total NAV	87,537	17,953	18,061	29,844	4,152	9,220	5,882	2,424
06/30/24 climate exposure	4,473	606	1,654	656	154	179	662	561
06/30/24 climate %	5.1%	3.4%	9.2%	2.2%	3.7%	1.9%	11.2%	23.1%
NYCERS – Climate Solutions Investments ($million) – Jun 30, 2023								
	Total Portfolio	**Public Equity Active**	**Public Equity Passive**	**Public Fixed Income**	**Alternative Credit**	**Private Equity**	**Real Estate**	**Infrastructure**
2Q 2023 (1Q23 data for infrastructure) – Including unfunded commitments in climate exposure								
06/30/23 total NAV	80,410	17,895	18,196	24,741	3,603	8,252	5,870	1,853
06/30/23 climate exposure	3,538	703	1,190	490	132	122	481	420
06/30/23 climate %	4.4%	3.9%	6.5%	2.0%	3.7%	1.5%	8.2%	22.7%
Analysis of Changes from Jun 2023 to Jun 2024								
	Total Portfolio	**Public Equity Active**	**Public Equity Passive**	**Public Fixed Income**	**Alternative Credit**	**Private Equity**	**Real Estate**	**Infrastructure**
Total NAV % Change	8.9%	0.3%	-0.7%	20.6%	15.3%	11.7%	0.2%	30.8%
Climate exposure % Change	**26.4%**	**-13.7%**	**39.0%**	**34.1%**	**16.5%**	**46.5%**	**37.5%**	**33.5%**

Some examples of climate solutions investments in NYCERS portfolio include:

Peregrine Energy Solutions: An innovative and technology clean energy platform with a unique focus on utility scale energy storage

[5] For real estate climate solutions, we expanded our coverage of managers that were reporting since last year, and private equity climate solutions reporting also improved in FY24

LJP Waste Solutions: Leading provider of non-hazardous solid waste and recycling services with a focus on sustainable zero landfill and waste-to-energy solutions

Saber Power: Engineering-led and construction-focused professional services company specializing in complex medium and high voltage electrical infrastructure

Matrix Renewables: Operator of renewable energy platform dedicated to acquiring and developing solar, clean energy infrastructure projects and renewable energy assets

Section 3: Public Portfolio Company Engagement

NYCERS' net zero plan articulates the critical role that Corporate Engagement plays in meeting the systems' net zero goals. **All of BAM's net zero corporate engagement work is predicated upon the understanding that as long-term investors and fiduciaries, NYCERS must be a strategic partner for its portfolio companies throughout the net zero transition.**

The plan directs BAM to pursue a two-pronged approach to accelerating decarbonization in its public portfolio in pursuit of net zero by 2040:

1. Ensure the adoption of science-based targets in material sectors as a first step for creating a clear roadmap to decarbonization, and
2. Engage with the financial sector relative to the financing of fossil fuel projects and Scope 3 emissions.

In 2024, BAM demonstrated significant progress and global leadership in both areas.

3.1 Science-Based Emissions Reductions Targets

In year two of NYCERS net zero implementation work, BAM continued to engage portfolio companies in material sectors, sector-based industry groups, and other investors to accelerate the adoption of science-based short-, medium-, and long-term emissions reductions targets. Targets, based on shared definitions and validated by an independent body, provide NYCERS and other investors a critical accountability mechanism as NYCERS continues its journey to net zero.

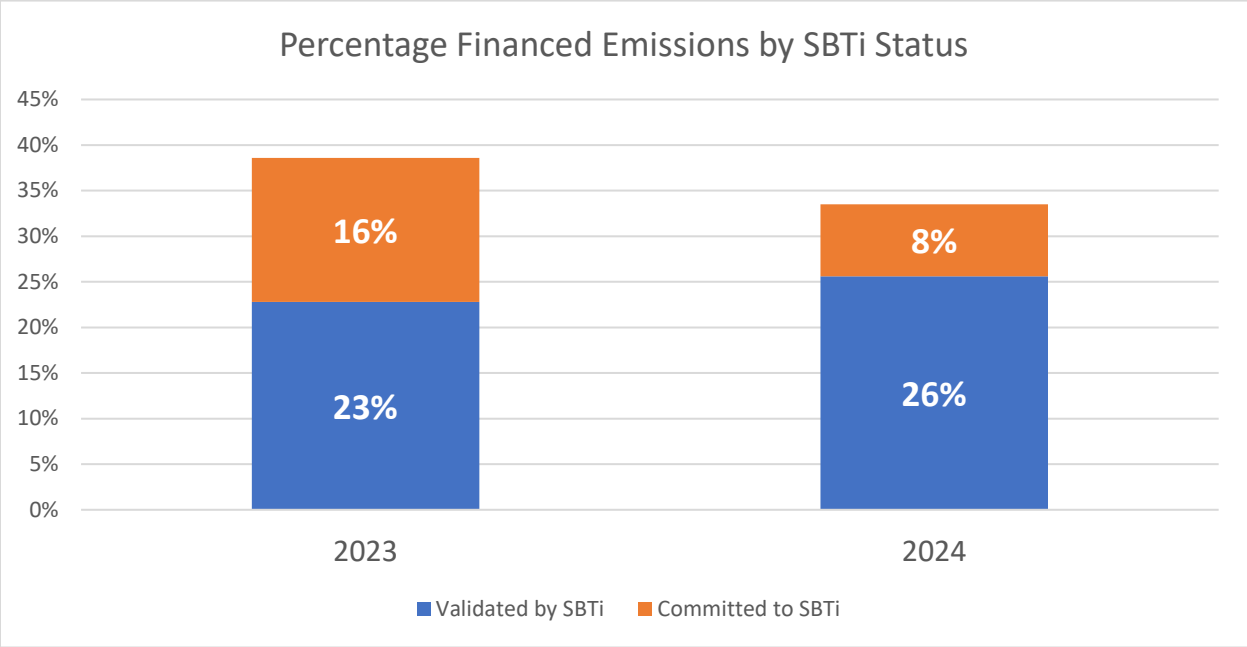
In engagements with individual companies and sector-based industry groups, BAM continued to communicate the fact that independently validated targets, based on best available science and aligned to the Paris agreement goals, remain the best way to bring confidence to investors that companies are moving in the right direction towards net zero.

3.1.1 Progress towards 2025 Goal

The share of NYCERS' portfolio covered by science-based targets, as measured by the percentage of Scopes 1 and 2 financed emissions as validated by the Science-based Targets Initiative (SBTi), rose to 25.6% (from 22.8%) in 2024 with an additional 7.9% committed to

setting targets with SBTi within the next two years. These totals represent an increase in validated targets but a decrease in validated plus commitments, from 38.6% to 33.5%. These mixed results stem in part from market fluctuations in the portfolio, but we believe also indicate a slow-down in new corporate commitments to adopting SBTi-validated targets.

Fig 4: NYCERS – Percentage Financed Emissions (Scopes 1 and 2) by SBTi Status



Through ongoing engagement in 2024, it is BAM's view that SBTi status alone does not give a complete picture of the portfolio. Specific material sectors are utilizing, or plan to utilize, other protocols and methodologies to set targets and, in some cases, have those targets validated. In pursuit of NYCERS' goal for 70% of its Scopes 1 and 2 financed emissions to be covered by independently validated, science-based targets, BAM continues to evaluate and consider other target setting methodologies that meet NYCERS' needs and in 2025 will report on the percentage of financed emissions covered by SBTi and other methodologies.

3.1.2 Direct Portfolio Company Engagement

In 2024, BAM continued to actively engage individual portfolio companies representing large shares of NYCERS financed emissions. In 2024, Comptroller Lander sent letters requesting third-party verified targets to an additional 58 public portfolio companies in material subsectors including Energy, Steel, Metals, Chemicals, Transportation and Shipping, and Aerospace. In total, when combined with the outreach completed in 2023, the Comptroller has sent 88 letters to 100 individually listed companies and received some form of response from nearly two thirds of these. BAM continues to directly engage companies following these letters and as a result has been evaluating target setting protocols and methodologies the companies would like to use to meet NYCERS' request.

3.1.3 Leadership and Collaboration with Other Investors

BAM, on behalf of NYCERS, has assumed a leadership role within the Climate Action 100+ (CA100+) as the thematic lead for science-based targets. In this capacity, BAM serves as the lead investor in engagements on this topic for CA100+ target companies, across sectors, through direct engagement with companies and by supporting other investors in their engagements on this topic. BAM regularly briefs other investors individually and through monthly sector-based CA100+ working groups. In 2024, a significant share of this work was focused on the electric power sector. New York State Common Retirement Fund serves as a co-lead for this sector on the topic of science-based targets.

3.1.4 Investor Expectations for Targets

In 2024, in response to needs identified from NYCERS' own engagements and those identified by other CA100+ signatory investors, BAM organized a group of investors to develop a shared set of expectations for corporate target-setting methodologies. BAM led this work in partnership with other major US institutional investors and asset managers based on the understanding that articulating what net zero-focused investors need to see in target-setting protocols will allow for the landscape to evolve in a way that meets our needs as long-term shareholders and partners with our portfolio companies.

Among partner investors, there is clear agreement that **companies should first identify the short-, medium-, and long-term emissions reduction levels necessary to align their operations with limiting warming to a particular temperature pathway, then identify the barriers to achieving those targets, and develop the strategies to address those barriers.** This core principle recognizes that a target is in fact a goal that may not be achievable without facilitating conditions. It further recognizes that mutually acceptable definitions of alignment are critical to investors' ability to serve as a long-term partner to portfolio companies.

Credible target-setting methodology should require:

- Clear and credible GHG emissions accounting using established methodology such as the GHG protocol
- Companies to target for reduction all emissions within their value-chain
- Short- and medium-term reduction targets, in addition to long-term targets and/or net zero goals
- The use of an appropriate baseline year

Along with other investors, BAM continues to view targets as a critical indicator for a company's alignment with net zero scenarios, the Paris agreement, and its management of climate-related risks. As such targets should be assessed for their alignment based on consensus-based scenarios and pathways such as the International Energy Agency's Net Zero Energy Scenario.

Throughout 2024, BAM continually engaged with third-party organizations, industry organizations, and individual portfolio companies on the establishment of new standards and protocols for target setting reflecting NYCERS' position as a nationally recognized leader on this topic.

In these dozens of conversations and formal events, BAM also focused on the necessity of third-party evaluation to produce an easy-to-understand indicator for financial institutions such as NYCERS. This is a body of work that BAM will continue to work on in 2025 in order to be able to accelerate the adoption of targets that fulfill the goals that the NYCERS board established in its implementation plan.

In addition to continued work to establish and evaluate target setting methodology that can complement SBTi, BAM will continue to evaluate other indicators such as those developed by the Transition Pathways Initiative and MSCI to evaluate a company's alignment with net zero pathways.

3.1.5 Utility Engagement

As reported in last year's net zero annual report, BAM began engagement work on science-based targets within the utility sector because of its significant contribution to the NYCERS total financed emissions. In 2024, the utility sector represented 24% of the System's total financed emissions.

Continuing the work which began last year, BAM has continued to deeply engage the utility sector to identify methodologies that utilities are able to use and would fulfill NYCERS expectation that high-emitting portfolio companies have in place third-party validated science-based targets. As stated in the Net Zero Implementation Plan and repeatedly in this report, NYCERS remains open to other methodologies beyond SBTi that are science-based and where targets can be validated by an independent third-party; however, we will not sign off on any targets that serve to water down the net zero commitments of utilities.

Beginning in December 2023, BAM has served as a technical advisor for the development of a new target setting protocol, known as SMARTargets, led by the Electric Power Research Group (EPRI). Per EPRI, "the objective of SMARTargets is to develop a new methodology for companies to set GHG emissions reduction targets that are grounded in the relevant science, actionable in terms of considering company opportunities, constraints, and risks, and aligned with the global goals of limiting warming to well below 2°C, and pursuing efforts to limit warming to 1.5°C, as stated in the United Nations Framework Convention on Climate Change's Paris Agreement."

In January 2024, BAM represented NYCERS, TRS and BERS on a public launch of this project attended by over 300 unique individuals representing both investors and utilities. Throughout the course of 2024, BAM engaged in over a dozen public and private meetings with EPRI, relevant public stakeholders, and the formal technical advisory group and provided significant

feedback to this process. BAM continues to serve as a resource for other investors interested in this effort and how it relates to corporate science-based targets in this sector.

This process continues and BAM is reserving judgement on whether SMARTargets will meet the needs of NYCERS towards its goals for portfolio coverage of science-based targets. Given the share of NYCERS Scopes 1 and 2 emissions attributable to utilities and their critical role in economy-wide decarbonization, BAM has and will continue to dedicate significant resources to this effort and will continue to urge companies to set targets that are grounded in relevant science and cover the full activities of their business.

At the end of 2024, Comptroller Lander sent update letters to utilities who received an initial letter from the Comptroller in 2023. This letter reiterated NYCERS' ongoing expectation that portfolio companies will set targets covering the emissions across their value chain, using sound methodology, and have those targets evaluated or verified by a third-party. NYCERS also filed shareholder proposals at three utilities requesting third-party evaluation of their existing targets for consideration at their respective 2025 annual meetings.

3.2 Banks Engagement on Financing

In the last year, NYCERS' efforts to engage financial institutions – specifically the large North American banks – on fossil fuel financing and the energy transition has evolved significantly and demonstrated strong progress, further establishing the System as a leader on this topic. In 2024, NYCERS adjusted its approach to this engagement from the 2023 shareholder proposals that requested that large North American banks disclose interim 2030 absolute GHG reduction targets for their lending and underwriting in the high-emitting sectors of oil and gas and power generation to a new proposal to disclose a Clean Energy Financing Ratio ("Ratio.")

3.2.1 Clean Energy Financing Ratio

NYCERS filed shareholder proposals at Bank of America, Citigroup, Goldman Sachs, JP Morgan, Morgan Stanley, and Royal Bank of Canada requesting the disclosure of their Ratio. The Ratio is defined as the financing of low-carbon energy supply relative to financing of fossil-fuel energy supply. The proposal articulated that financing be defined to include equity and debt underwriting, and project finance. The proposals further suggested that lending be included in the Ratio if the Banks deem that to be methodologically sound.

These proposals significantly advanced engagements with these banks and established NYCERS as a clear leader on the topic of net zero and financial institutions. NYCERS and the other New York systems were the first shareholders to elevate this metric through filing a proposal. NYCERS did so because, unlike financed emissions which remain an important metric, the Ratio provides disclosure specific to relative financing of clean and fossil fuel energy supply, where decision-useful disclosure is currently limited. While the methodology and definitions would be within the bank's discretion, a metric that relies on the bank's internal data complements the commercially-available information published by BNEF. In requesting this disclosure, NYCERS

sought self-disclosure for additional accountability and insight into the pace and scale of the banks' roles in the energy transition.

The Systems reached negotiated settlements with Citigroup, JP Morgan, and Royal Bank of Canada.

JP Morgan was the first institution to publish their ratio, which CEO Jamie Dimon described as "an excellent example of what ongoing engagements and pragmatic and reasonable requests can accomplish." Their disclosure included detailed methodology and definitions, providing investors with a useful set of information that was previously unavailable.

In advance of the vote at the remaining institutions, BAM hosted a webinar articulating the need for this ratio attended by over 180 unique individuals representing voting shareholders across the globe. **The proposal went to a vote at the remaining banks, receiving 26% support at Bank of America, 28.8% support at Goldman Sachs, and 22.9% support at Morgan Stanley**. While the resolutions did not receive majority shareholder support, each vote represents a significant increase in the percentage of shareholders who voted in favor of the NYCERS proposal at these institutions relative to the proposals on absolute targets filed in 2023.

It was NYCERS' view that in addition to publishing their own ratio, the banks should take steps towards methodological standardization. The 2024 proposals include suggestions to this effect. At the end of 2024, the Institute of International Finance published a paper[6] outlining methodological considerations for the ratio, which is the first time this topic has been considered at the industry level.

BAM remains committed to this effort and will continue to advocate for the Ratio's disclosure at additional financial institutions and has refiled this proposal at the insititutions that did not settle with NYCERS in 2024. It is NYCERS' view that this proposal significantly benefits shareholders because:

- As linchpins of the global economic system, large banks are broadly exposed to financial stability risks posed by climate change
- The Ratio enhances investors' ability to assess the bank's transition risks and opportunities, progress towards its net zero commitments and the pace and scale of its support for energy transition
- The energy transition is a significant profit-generating opportunity that has been turbocharged in the U.S. by Inflation Reduction Act
- All of the represented banks have made robust commitments to sustainable finance, but investors need enhanced disclosure to track actual clean energy financing
- The Ratio provides investors with a reliable, decision-useful clean energy financing ratio from the bank itself, not third-party estimates
- The Ratio complements and supplements banks' climate-related financial disclosures

[6] BankTrack – Energy supply financing ratios: the next milestone in banks' climate strategy

- The Ratio provides opportunity to demonstrate leadership in financing the energy transition
- Voluntary disclosure benefits investors in the near term and does not preclude standardization of Ratio methodology

Citi, JP Morgan and RBC's commitment demonstrates not only feasibility but the ability for NYCERS to utilize its role as a long-term shareholder to secure disclosure and information from portfolio companies that allow for greater transparency and partnership in the coming decades.

Section 4: Asset Managers: Net Zero Plans by 2025

NYCERS' Net Zero Implementation Plan set the following expectations for our asset managers:

- All our public and private markets asset managers to have a net zero goal or science-based targets, and an implementation plan covering, at a minimum, assets managed for the System, by June 30, 2025. We expect public markets managers to have their goals, targets and plans in place by that date. For private markets managers the expectation will apply for commitments NYCERS makes from that date forward.
- All managers to cover Scopes 1 and 2 emissions and material Scope 3 emissions of underlying investments in their targets and plans.
- BAM will review the proxy voting record of public markets asset managers related to climate change, including shareholder proposals and director elections.

To help achieve these expectations, BAM integrates consideration of climate risks and opportunities and net zero alignment in asset manager due diligence, monitoring and engagement and will annually report a summary of the status of the System's managers to the Board.

4.1 Monitoring and Engagement of Asset Managers

In July 2023 and also in June 2024, BAM sent a letter to all of NYCERS' current managers ensuring they are aware of the Systems' Net Zero by 2040 expectations and encouraging them to align with these expectations consistent with fiduciary duty and their investment objectives.

In the 2024 letter, BAM provided clarification of some key elements of these expectations for public markets and private markets managers. The content of this letter is included as Appendix E of this report. BAM will continue to develop guidance for asset managers on prudent approaches to meet the System's expectations that will take into account differences among asset classes, investment strategies and asset types.

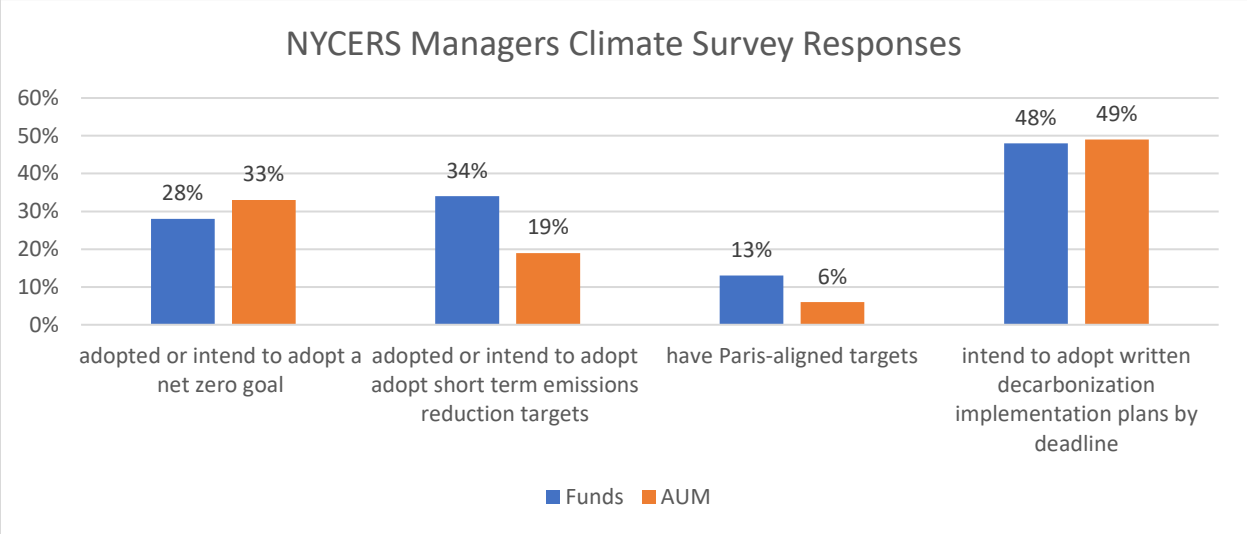
Along with the letter, BAM sent managers the annual ESG questionnaire. The questionnaire includes specific questions related to climate and net zero alignment on topics such as:

- The managers' adoption of a net zero goal, science-based targets, or alternative decarbonization goals for the funds and strategies in which the System invests as well as the managers' total AUM.
- The managers' adoption of a written implementation plan to achieve any formal decarbonization goals.
- The percentage of total Scope 1, 2, and 3 emissions currently measured for the funds/products managed for the System as well as for the managers' total AUM.
- The assessment of physical climate risk, transition risk, nature-related impacts and dependencies, and water-related risks and stewardship.

BAM received responses from 159 managers for 440 funds that represent 92% of NYCERS' AUM.

The following percentages of managers stated they have adopted, or intend to adopt in the next 18 months, net zero goals, science-based targets, other decarbonization goals or implementation plans. The goals and targets apply to the funds or products the managers invest in for NYCERS:

Fig 5: NYCERS – Managers Climate Survey Responses



These numbers, which were reported in the summer of 2024, have improved with continued communication of our net zero expectations and with targeted engagement of managers. BAM has prioritized engagement of public markets managers that had not expressed an intention to submit a written implementation plan to support their decarbonization goals by June 30, 2025; had not expressed an intention to engage holdings to align with an economy-wide net zero by 2050 (or sooner) decarbonization pathway; or do not measure and report Scope 1 and Scope 2 GHG emissions. From early 2024 to the release of this report, BAM engaged 53% of 55 total public markets managers including 70% of Public Equity managers and 17% of Fixed Income managers (investment grade, high yield corporate bonds and convertible bonds). All managers engaged by BAM have expressed a willingness to submit a written implementation plan to

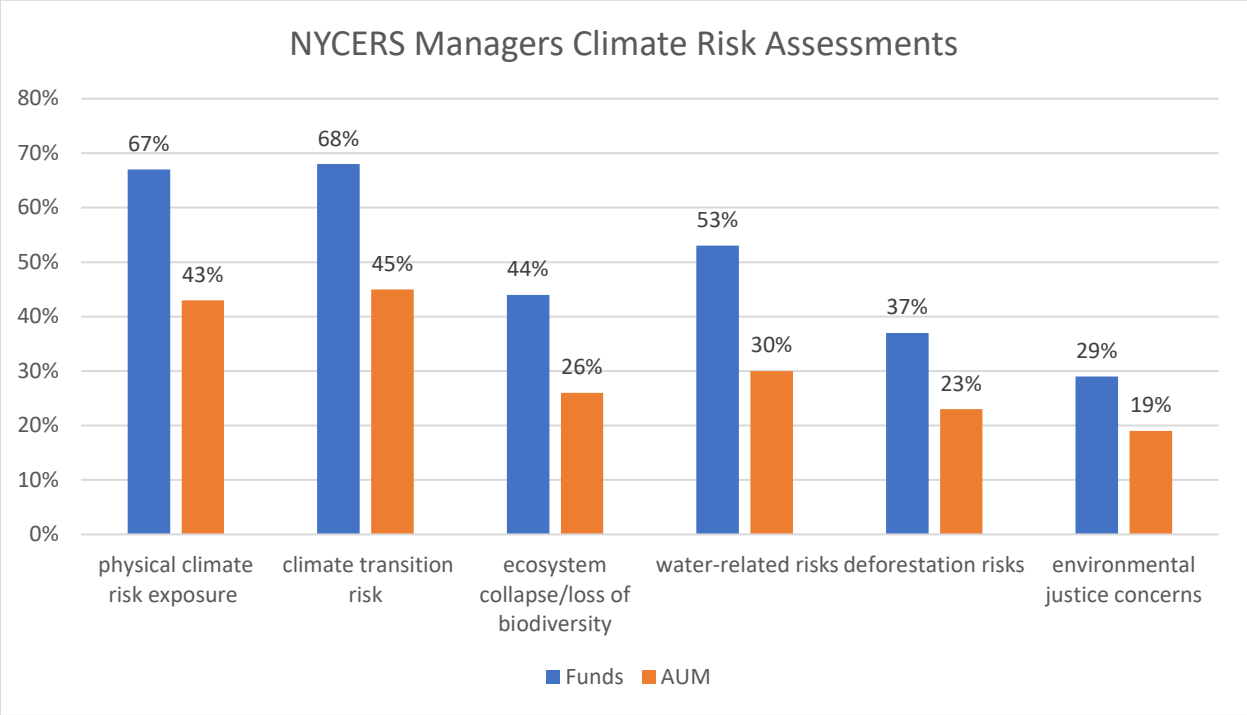
support decarbonization goals by June 30, 2025 consistent with their fiduciary duties and investment objectives. Results by asset class appear in Appendix B.

For GHG emissions disclosure, about 44% of managers covering 31% of NYCERS AUM stated they measure and report Scope 1 and 2 emissions for 51% to 100% of the investments of the fund/product they manage for the System. 29% of managers covering 22% of the AUM stated they measure and report Scope 3 emissions for 51% to 100% of the fund/product.

Many of NYCERS managers are already assessing or planning to assess the impacts of climate change and related risks in their portfolio.

The following percentages of NYCERS managers currently or intend to assess the following climate-related risks as part of investment due diligence, research and monitoring:

Fig 6: NYCERS – Managers Climate-Related Risk Assessments



BAM continues to engage managers to encourage and support further adoption of net zero goals, science-based targets or other decarbonization goals along with written implementation plans. In addition, BAM will seek to further understand managers' integration and pricing of physical, transition, nature, and water risks.

BAM has increased its participation, on behalf of the System, in industry initiatives to develop frameworks and guidance for net zero alignment with asset managers across asset classes. Specifically, in 2024, NYCERS joined the Net Zero Asset Owners Alliance (NZAOA). BAM joined NZAOA's Engagement Track, a working group focused on engagement of asset managers in public and private markets. In 2024, BAM was invited to join a working group of 8-10 limited partners jointly hosted by the Institutional Limited Partners Association (ILPA) and the

Principles for Responsible Investment (PRI) to address approaches to climate in investment due diligence and monitoring. BAM will continue to seek appropriate opportunities for identifying and developing best practices and ideas on supporting net zero alignment consistent with fiduciary duty and annually report progress of these initiatives to the Board.

4.2 Due Diligence of Asset Managers

BAM conducts due diligence of material environmental, social, and governance (ESG) factors, including climate change-related risks and opportunities, for all asset managers across all asset classes as part of the overall diligence process conducted prior to recommendations and approvals of investments to the Board. Climate change poses both systemic and idiosyncratic risks for the investment portfolio and is, therefore, actively assessed in the diligence for all managers and strategies and explored in more depth where it may be more financially material.

As a starting point for diligence, BAM utilizes the Due Diligence Questionnaire template of the Institutional Limited Partners Association (ILPA) for private markets managers and a similar template for public markets managers. The ILPA-based template is used along with a BAM-specific supplemental questionnaire. These questionnaires collect written disclosures of how managers consider climate change-related risks and opportunities in diligence and portfolio management, whether and how they measure the GHG emissions of their investments, what climate commitments or targets they have and whether they report in line with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. During diligence, the BAM team asks clarifying questions about the written responses as well as questions about the managers' climate-related practices using specific investments as examples.

BAM looks at the managers' management and governance of the exposure to physical risks stemming from climate change as well as the management and governance related to climate-related transition risks stemming from evolving regulation and market preferences. In addition, BAM diligences the managers' future plans to integrate and price-in climate-related physical and transition risks and opportunities where material.

BAM also looks at the managers' progress in decreasing their contribution to the systemic risks of climate change and evolving market preferences through emissions reduction pathways. BAM's supplemental diligence questions related to climate change and net zero alignment include whether managers measure the Scope 3 emissions of their investments; whether they have specifically adopted net zero goals, science-based targets or other emissions reduction targets for their investments; whether they have a written plan to support these goals or targets; and whether their goals or targets cover Scope 3 emissions of their investments. For specific high emitting sectors, we conduct deeper diligence. BAM summarizes and reports findings related to climate-related ESG diligence in investment memoranda to the Board.

In recognition of the importance of nature as a vital carbon sink and subject of the cascading impacts of climate change, BAM has been monitoring the implementation of the final Task Force on Nature-Related Financial Disclosures (TNFD framework), which is harmonized with the

TCFD/ISSB S2 framework, and continues to seek approaches to help mitigate the systemic risk from large-scale ecosystem collapse. BAM asks managers about their assessment of nature dependencies and biodiversity mainly in the context of real assets or other sectors with material impact on nature and biodiversity.

Appendices

Appendix A – Climate Solutions Investments Definitions

Public Equity: Companies that derive revenue from MSCI's Environmental Impact categories of alternative energy, energy efficiency, green building, pollution prevention, or sustainable water. New weighted average method adopted as of 4Q 2022.

Public Fixed Income: Companies that derive revenue from MSCI's Environmental Impact categories of alternative energy, energy efficiency, green buildings, sustainable water, pollution prevention, or sustainable agriculture, as analyzed by Risk Management. New weighted average method adopted as of 4Q 2022.

Also includes green bonds based on manager surveys conducted by Fixed Income Team. Managers were allowed discretion in defining green bonds.

Alternative Credit: OFI market values are based on manager surveys conducted by Alternative Credit Team. The definition of climate solutions used for OFI is "investments in companies that generate 50% or more revenue from clean and renewable energy technologies and assets including (1) renewable energy such as solar, wind, geothermal and hydropower; (2) energy efficiency and energy smart technologies such as power storage, fuel cells and carbon capture and storage; (3) energy efficient transport and (4) low carbon buildings." This definition is a summary of the MSCI and Burgiss definitions as well as a reflection of a definition by Ceres. Total OFI NAV based on data from Alternative Credit Team.

Private Equity: Companies predominantly focused on a business activity classified under the Burgiss category of "Eco Friendly" activities, including renewable energy, biofuel and other clean tech or associated companies. All data is NAV. We also included companies that largely aligned with our definition of climate solutions in public markets.

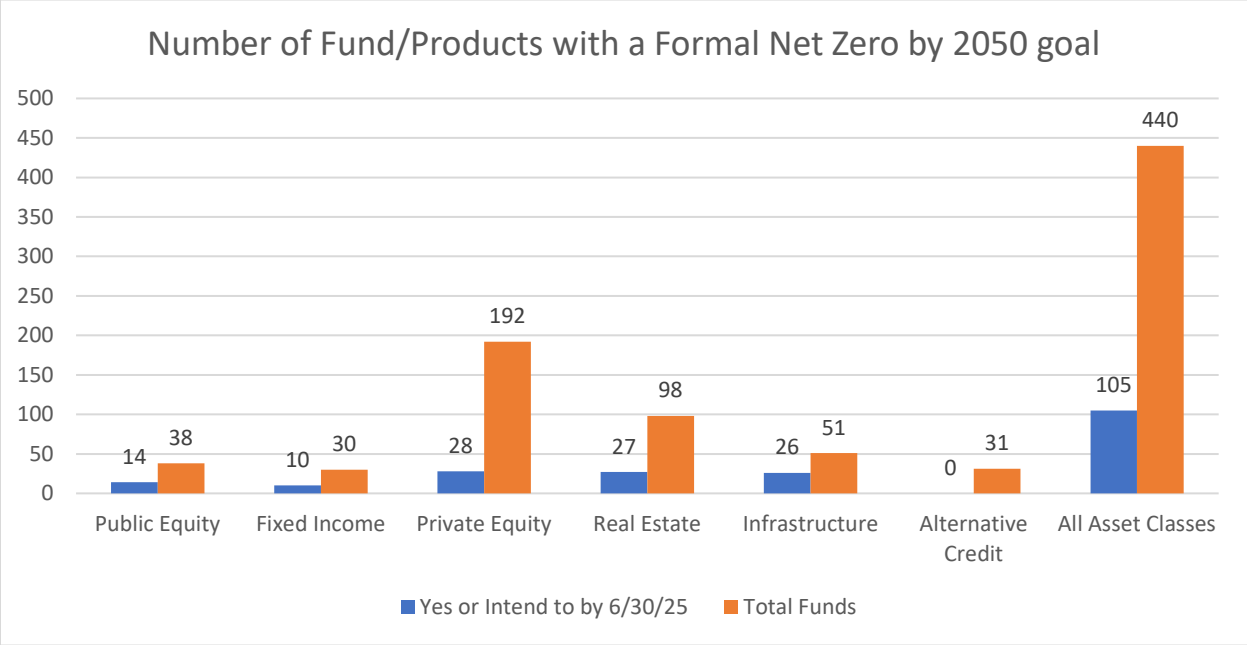
Real Estate: Properties certified as Energy Star or having a score above 75. Includes properties certified as LEED only if they are also certified as Energy Star. All data is based on manager surveys conducted by the Real Estate Team. All data is NAV.

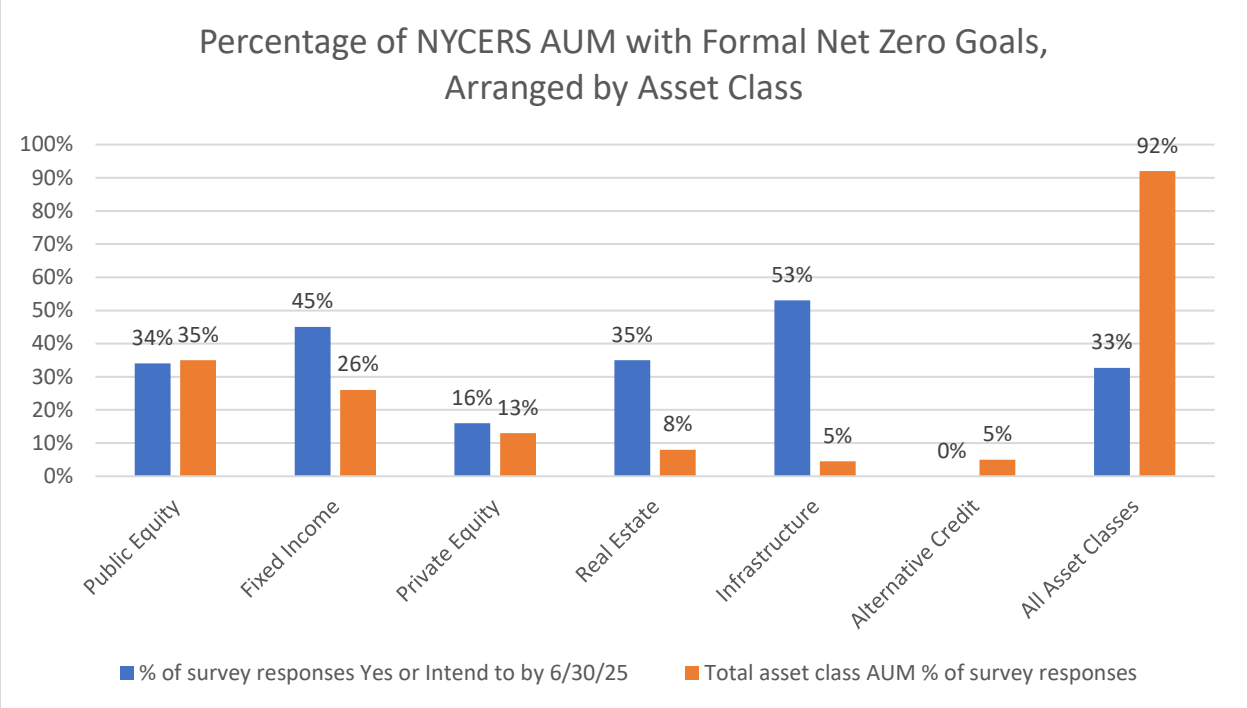
Infrastructure: Includes categories of alternative energy, energy efficiency, green buildings, sustainable water, pollution prevention, and sustainable agriculture. Data for 2Q 2024 is based on 1Q 2024. Climate solutions identified by Infrastructure Consultant for 1Q 2024.

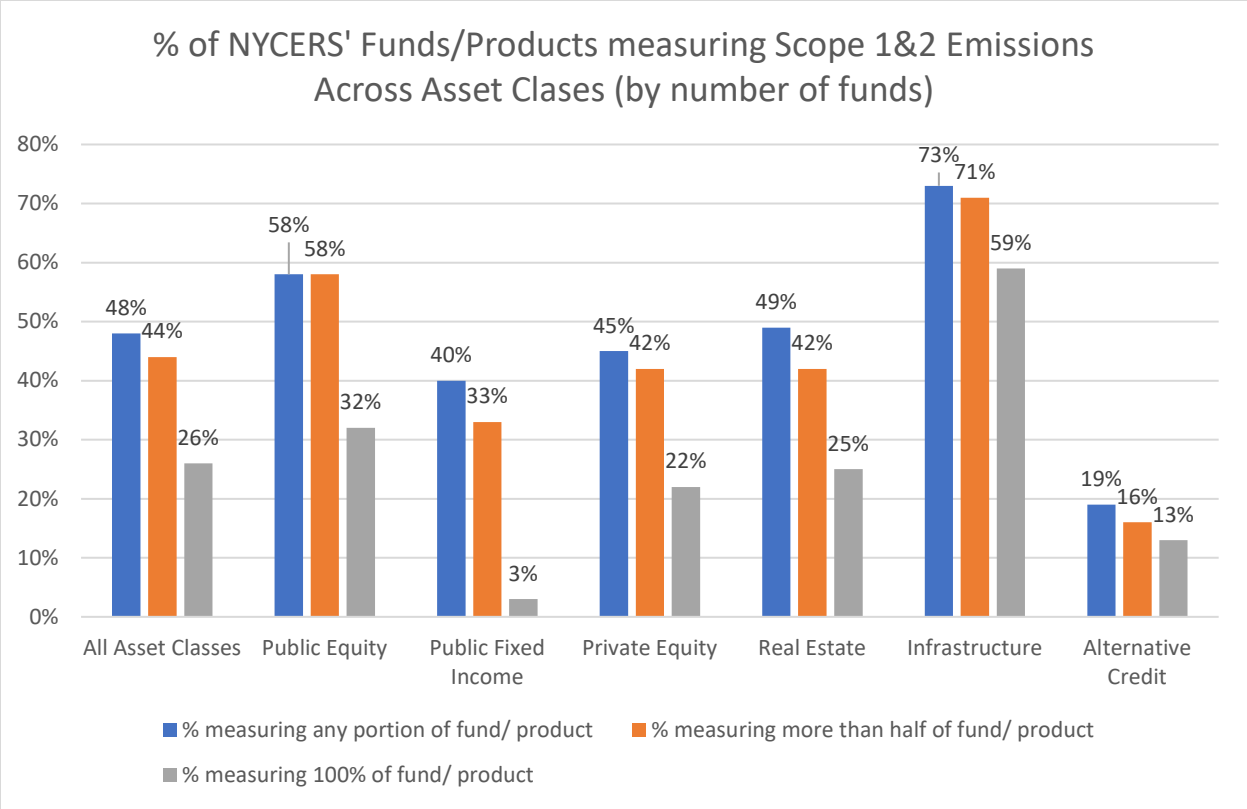
Economically Targeted Investments (ETI): ETI data is incorporated in the data for Public Fixed Income and Real Estate due to the portfolio's investment structure.

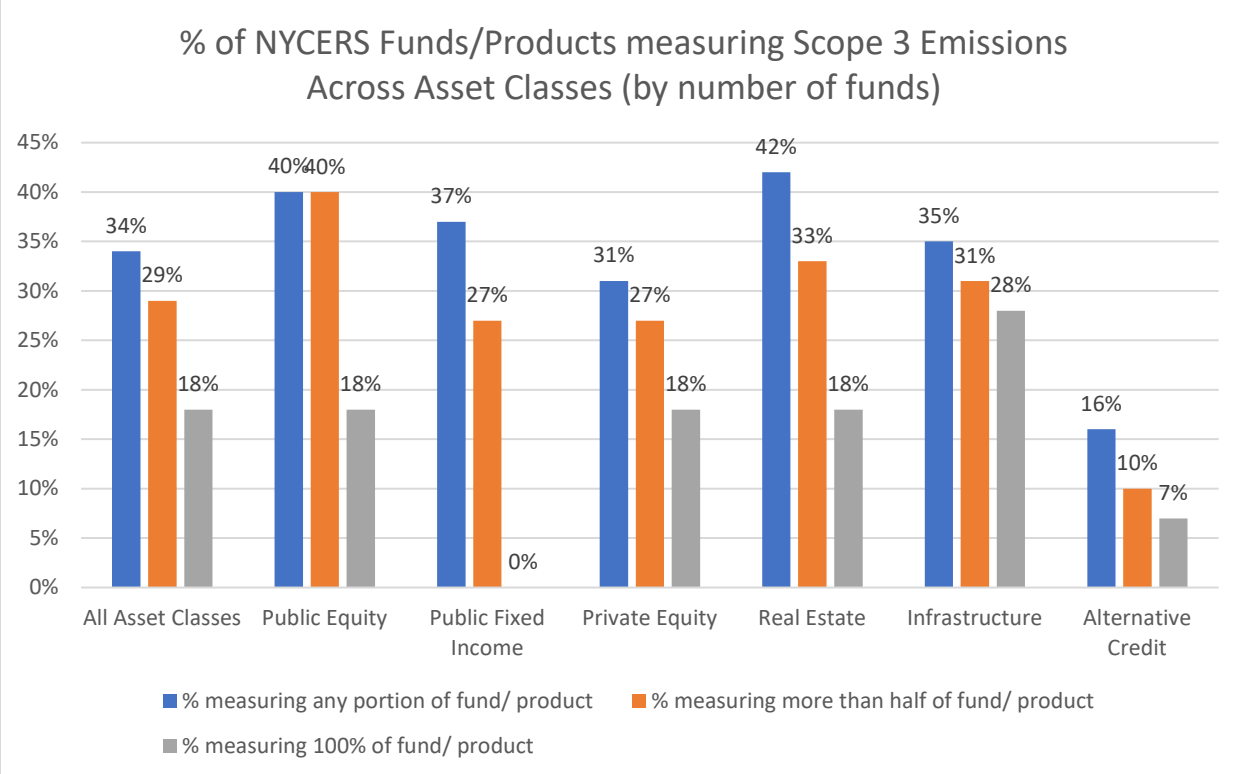
The calculations include only assets for which BAM provides investment advice and, therefore, does not include VSFs.

Appendix B – Annual ESG Questionnaire Net Zero Results by Asset Class





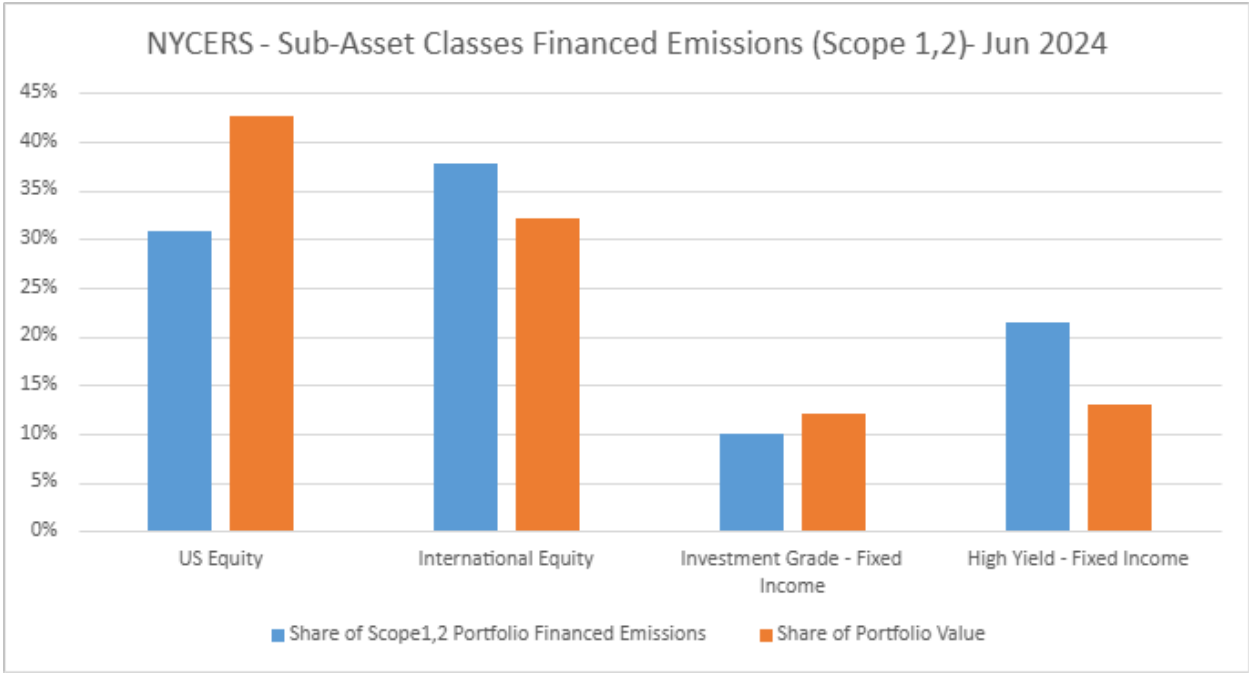

% of NYCERS' Funds/Products measuring Scope 1&2 Emissions Across Asset Clases (by number of funds)
80%
70%
60%
50%
40%
30%
20%
10%
0%
48%
44%
26%
58%
58%
32%
40%
33%
3%
45%
42%
22%
49%
42%
25%
73%
71%
59%
19%
16%
13%
All Asset Classes
Public Equity
Public Fixed Income
Private Equity
Real Estate
Infrastructure
Alternative Credit
% measuring any portion of fund/ product
% measuring more than half of fund/ product
% measuring 100% of fund/ product


% of NYCERS Funds/Products measuring Scope 3 Emissions Across Asset Classes (by number of funds)
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
34%
29%
18%
40%
40%
18%
37%
27%
0%
31%
27%
18%
42%
33%
18%
35%
31%
28%
16%
10%
7%
All Asset Classes
Public Equity
Public Fixed Income
Private Equity
Real Estate
Infrastructure
Alternative Credit
% measuring any portion of fund/ product
% measuring more than half of fund/ product
% measuring 100% of fund/ product

Appendix C – Scope 1, 2 Financed Emissions Breakdowns

As of June 30, 2024, total public equity and corporate bonds represent about 75% and 25% of the measured public security portfolio's market value, but their contributions to Scope 1 and 2 financed emissions are 69% and 31%, respectively. U.S. equity has higher total financed emissions but lower financed emissions intensity than international equity. Within fixed income, high yield has higher total financed emissions and higher emissions intensity of investment grade corporate bonds.

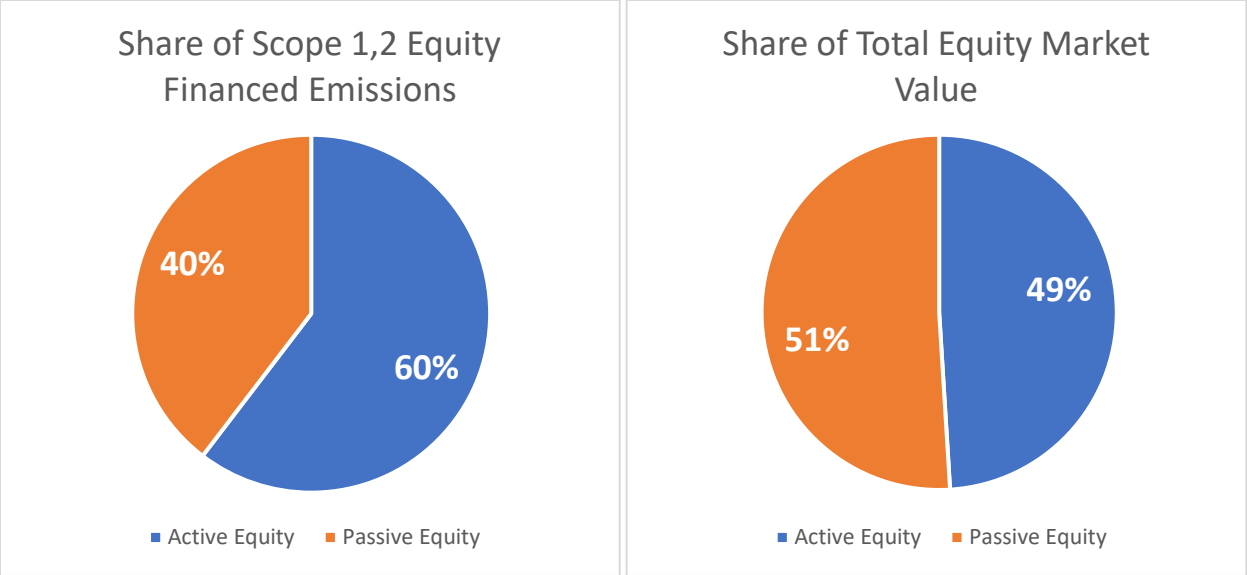
Sub-Asset Classes Financed Emissions (Scope 1 and 2) – Jun 30, 2024



Between June 2023 and June 2024, public equities' financed emissions decreased much for the NYCERS portfolio, while overall fixed income's financed emissions increased slightly.

While the portfolio's total public equity market value is almost equally divided between active and passive strategies, the contribution of actively managed equity to Scope 1 and 2 financed emissions is much higher than that of the passive equity.

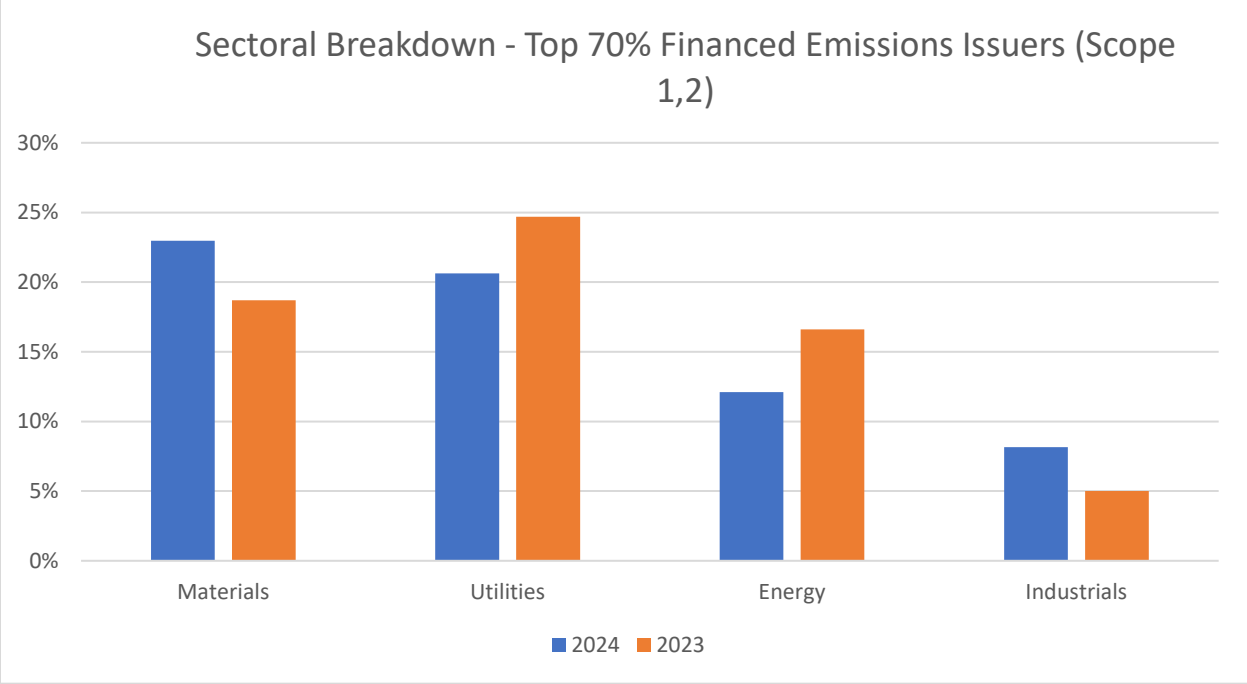
Active vs Passive Equity Financed Emissions (Scope 1 and 2) – Jun 30, 2024



Between June 2023 and June 2024, the decrease in active public equity financed emissions was the primary driver of the overall portfolio's financed emissions reduction, though passive equity financed emissions decreased too.

The top 70% of Scope 1 and 2 financed emissions are attributed to 198 issuers in the NYCERS portfolio, and the high emitting sectors in the top 70% financed emissions companies mirror the overall portfolio's high emitting sectors.

Sector Contribution to Top 70% Financed Emissions (Scope 1 and 2)
Jun 2024 and Jun 2023



The Utilities and Materials sectors are the highest emitting sectors among the top 70% of financed emissions, representing 21% and 23% financed emissions of the group, respectively. This information continues to be critical to our engagement activities towards the NYCERS goal to have 70% of Scope 1 and 2 financed emissions covered by science-based targets by June 30, 2025.

Weighted Average Carbon Intensity (WACI) – Scope 1 and 2

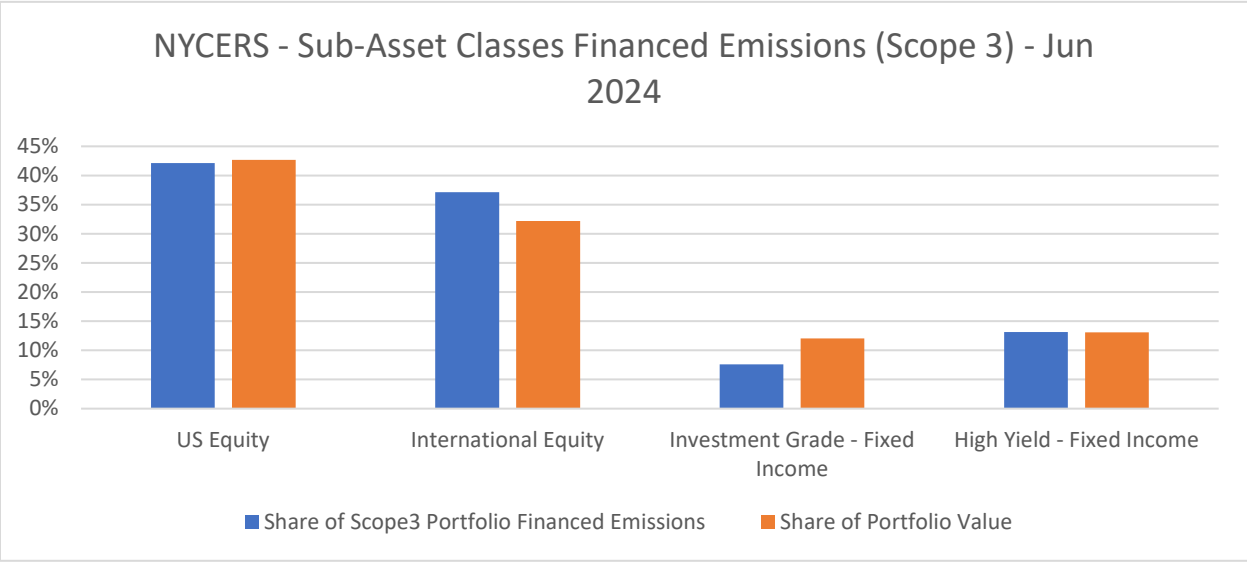
NYCERS – Weighted Average Carbon Intensity – Scope 1 and 2		
	NYCERS Portfolio Tons of carbon emissions/$m sales	Blended Benchmark Tons carbon emissions/$m sales
31-Dec-19	245.82	181.39
30-Jun-22	196.87	174.60
30-Jun-23	172.20	161.60
30-Jun-24	141.70	153.40
Change % (2019-2024)	-42.36%	-15.43%
Change % (2023-2024)	-17.71%	-5.07%

Weighted Average Carbon Intensity (WACI) (financed emissions per million dollars of sales) decreased by 17.71% for Scopes 1,2 during the year 2023-2024.

Appendix D – Scope 3 Financed Emissions Breakdowns

As of June 30, 2024, public equity and corporate bonds represent approximately 75% and 25% respectively of their combined market value, but their contributions to Scope 3 financed emissions are 79% and 21%, respectively. U.S. equity has higher Scope 3 financed emissions but lower emissions intensity than international equity. Within corporate bonds, high yield has much higher total financed emissions and higher emissions intensity than investment grade corporate bonds.

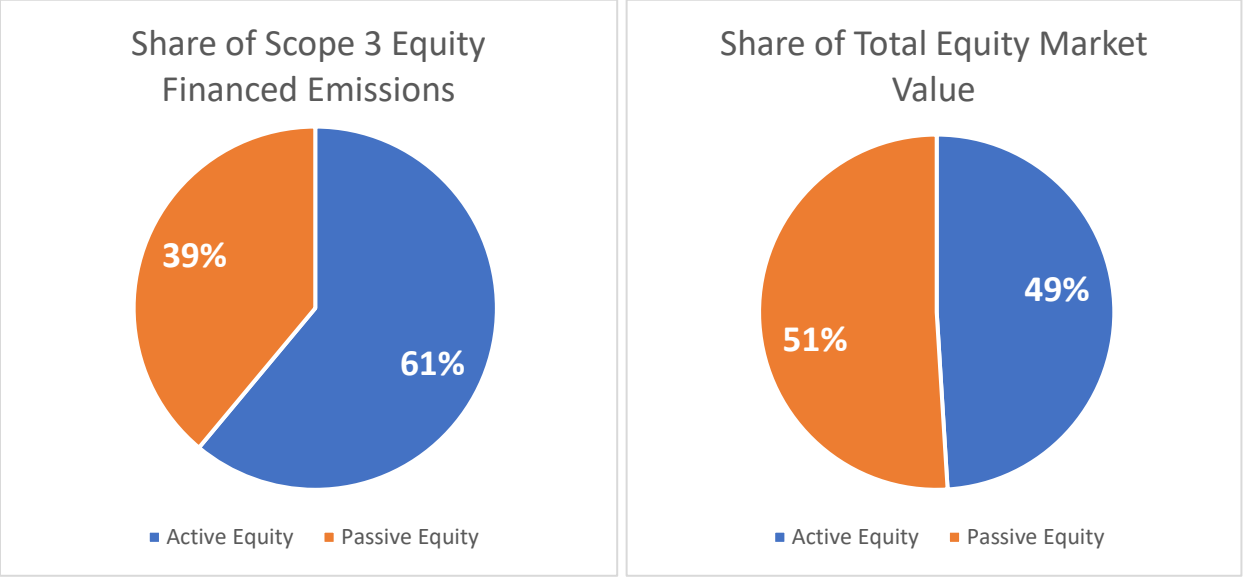
Sub-Asset Classes Financed Emissions (Scope 3) – Jun 30, 2024



Between June 2023 and June 2024, public equities' financed emissions decreased much for the NYCERS portfolio, while overall fixed income's financed emissions increased slightly.

While the portfolio's total public equity market value is almost equally divided between active and passive strategies, the contribution of actively managed equity to Scope 3 financed emissions is much higher than that of the passive equity.

Active vs Passive Equity Financed Emissions (Scope 3) – Jun 30, 2024



Between June 2023 and June 2024, the decrease in active public equity financed emissions was the primary driver of the overall portfolio's financed emissions reduction, though passive equity financed emissions decreased too.

Weighted Average Carbon Intensity (WACI) – Scope 3

NYCERS – Weighted Average Carbon Intensity – Scope 3		
	NYCERS Portfolio Tons of carbon emissions/$m sales	Blended Benchmark Tons carbon emissions/$m sales
30-Jun-22	595.03	791.80
30-Jun-23	640.20	769.90
30-Jun-24	592.50	725.80
Change % (2023-2024)	-7.45%	-5.73%

Weighted Average Carbon Intensity (WACI) (financed emissions per million dollars of sales) decreased by 7.45% for Scope 3 during the year 2023-2024.

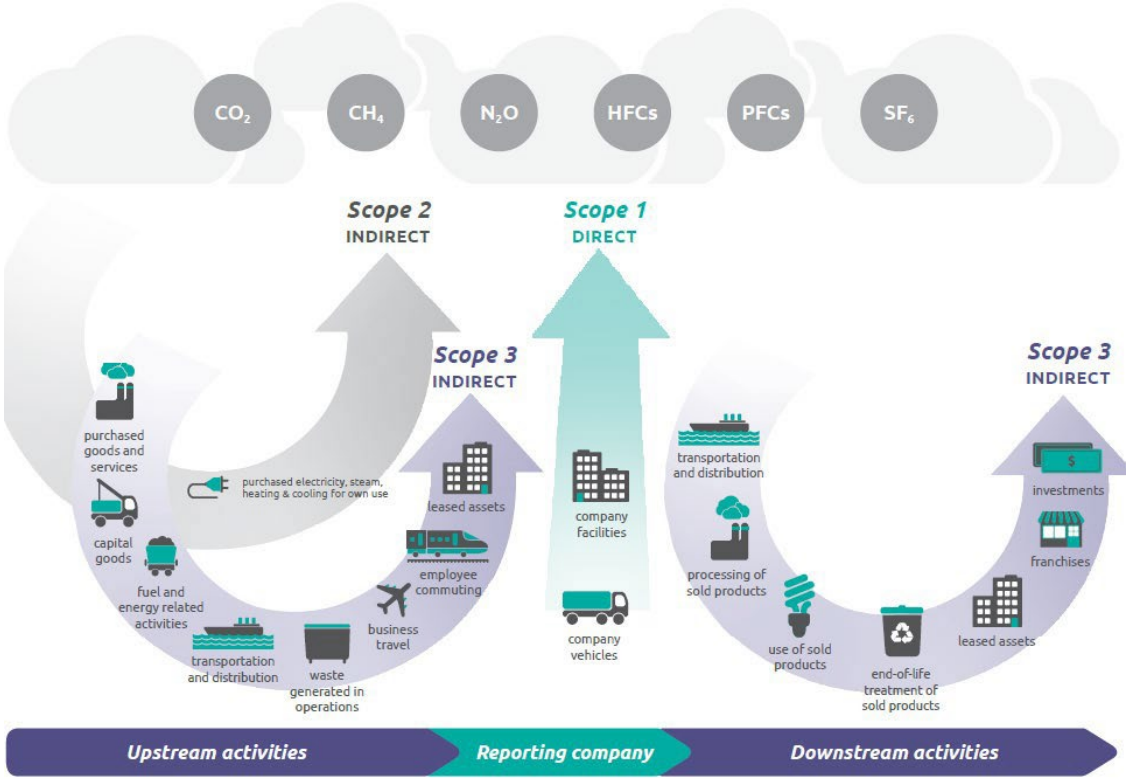
Appendix E

Definitions of GHG Emissions and their Categories (Scopes 1, 2 and 3)

Scopes 1, 2 and 3 are ways of categorizing the different sources of GHG emissions from a company's direct operations and its wider value chain.

Scope 1	Scope 2	Scope 3
Covers the direct emissions from sources owned or controlled by a company – for example, by running its boilers andvehicles	Covers indirect emissions from the generation of energya company purchases	Covers all other indirect emissions up and down a company's supply and value chain. For example, a petroleum company's Scope 3 emissions include the emissions from the gasoline they produce when it is burnedby a customer's car. A bank's Scope 3 emissions include those from extracting fossil fuels from projects they finance. It is estimated that Scope 3 emissions constitute 75% of firms' emissions on Average.[10]

Illustration of Scopes 1, 2 and 3 emissions



Source: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)

Appendix F: 2024 ESG Letter to NYCERS Asset Managers Communicating Net Zero Expectations

For public equity and corporate fixed income managers, TRS, NYCERS, and BERS have decarbonization expectations that include, at a minimum, the following three elements:

1. **Systematic engagement with issuers in TRS, NYCERS, and BERS'** portfolios to align with economy-wide net zero by 2050 (or sooner) decarbonization pathways. While a Firm-wide engagement approach is welcome, TRS, NYCERS, and BERS' expectation is that decarbonization-related engagement will, at a minimum, be applied to the assets managed for them. Engagement can follow a maturity scale, starting with disclosure of carbon emissions and decarbonization targets and progressing to implementation of issuers' stated decarbonization targets. Decarbonization progress may vary according to the portfolio asset's context, including, but not limited to, the starting emissions profile of the holding, the sector, market positioning, and geography.

2. A plan to **measure scopes 1, 2, and material scope 3 financed emissions** for at least the assets managed for TRS, NYCERS, and BERS as suitable data becomes available, and

3. **A written implementation plan** detailing key time-bound milestones of your product's plan to achieve these expectations.

An executive summary of the written implementation plan should be submitted to TRS, NYCERS, and BERS **by June 30, 2025**. After that date, the Bureau of Asset Management will monitor managers' progress executing on the submitted plans. The Bureau of Asset Management will recommend potential actions to the TRS, NYCERS, and BERS boards for managers who do not meet these minimum expectations.

For private markets managers with control investments, TRS, NYCERS, and BERS expect all general partners that receive new fund commitments (starting July 1, 2025 for NYCERS and BERS and July 1, 2026 for TRS) to:

1. **Set portfolio assets on a decarbonization pathway** aligned with an economy-wide outcome of net zero by 2050 or sooner. Decarbonization progress during the holding period may vary according to the portfolio asset's context, including, but not limited to, the starting emissions profile of the holding, the sector, market positioning, and geography. Decarbonization pathways could begin with measuring emissions or mapping out decarbonization-based value creation levers and progress to setting and implementing Paris-aligned quantitative decarbonization targets. While a Firm-wide approach is welcome, TRS, NYCERS, and BERS' expectation is that the decarbonization plan will, at a minimum, be applied to the assets managed for them.

2. Have a plan to **measure scopes 1, 2, and material scope 3 financed emissions** for holdings as suitable data becomes available, and

3. Prepare **a written executive summary** detailing the fund's time-bound plan to achieve these expectations. Plans should be submitted to the Bureau of Asset Management during new fund diligence. The Bureau of Asset Management will monitor managers' progress executing on the submitted plans.

For private markets managers with non-control investments, TRS, NYCERS, and BERS recognize that there are varying levels of influence based on the investment strategy and type of assets. The Systems expect general partners that receive new fund commitments (starting July 1, 2025 for NYCERS and BERS and July 1, 2026 for TRS) to:

1. **Engage,** to the best of the manager's abilities, **with issuers or portfolio assets** to **advance** alignment with **decarbonization pathways** consistent with an economy-wide outcome of net zero by 2050 or sooner. Decarbonization progress may vary according to the portfolio asset's context, including, but not limited to, the starting emissions profile of the holding, the sector, market positioning, and geography. Engagement can follow a maturity scale, starting with disclosure of carbon emissions and decarbonization targets and progressing to implementation of the issuers or portfolio companies' stated decarbonization targets. While a Firm-wide engagement approach is welcome, TRS, NYCERS, and BERS' expectation is that decarbonization-related engagement will, at a minimum, be applied to the assets managed for them.
2. A plan to **measure scopes 1, 2, and 3 financed emissions** during the holding period as suitable data becomes available, and
3. A **written executive summary** detailing the fund's time-bound plan to achieve these expectations to be submitted to the Bureau of Asset Management during diligence. The Bureau of Asset Management will monitor managers' progress executing on the submitted plans.

We expect that all our asset managers will create clear, credible climate action plans tailored to their specific strategy. Hence, each manager's approach may be different. While not suitable for all strategies, some of the components of a strong climate action plan are:

- Assessing and pricing in physical and transition climate risk exposure
- A plan to incorporate the protection or restoration of natural carbon sinks and biodiversity
- A plan to incorporate considerations of a Just Transition

We encourage managers to participate in and maintain their commitment to initiatives such as Climate Action 100+, The Net Zero Asset Managers Initiative, UN Principles for Responsible Investment, and Initiative Climat International, or to join the appropriate initiatives if they have not done so yet.

Appendix G: Reporting in Accordance with Task Force on Climate-Related Financial Disclosures (TCFD) / IFRS S2 Recommendations

NYCERS follows the TCFD / IFRS S2 recommendations in disclosing its governance and strategies to identify, assess and manage climate-related risks and opportunities and its annual progress in this area. This disclosure includes key information presented in NYCERS' Annual Climate Report. Additional details about NYCERS' actions and progress related to climate consistent with TCFD recommendations are available in this Appendix.

1. **Board oversight of climate-related risks and opportunities**

The NYCERS Board of Trustees (Board) oversees climate-related issues in the investment process, approves climate-related policies and investment actions and delegates implementation and advisory responsibilities to the Bureau of Asset Management (BAM). NYCERS incorporates climate in our Investment Beliefs with this statement: "Climate change poses risks and opportunities to our investment portfolio. We seek to mitigate the risks, take advantage of opportunities, and reduce the contributions our investments make to climate change.".

On October 20, 2021, NYCERS voted to commit to achieve net zero greenhouse gas emissions (GHG) emissions by 2040 across our investment portfolio and approved a Climate Action Plan outlining the key elements of this commitment. This action was designed to mitigate the systemic risks of climate change to our investments and the real economy, taking into account the best available scientific knowledge while acting consistently with NYCERS' fiduciary duties.

To fulfill this commitment, NYCERS directed BAM to develop an implementation plan for the net zero goal that prudently considers climate change risk and opportunity as well as material environmental, social and governance (ESG) factors in our investment portfolio, along with all additional risks and investment considerations, and annually report on the plan and its progress. The Board approved this net zero implementation plan on February 15, 2023. The Board received its first Annual Climate Report from BAM on April 4, 2024 and continues to receive comprehensive reports on progress toward goals annually and additionally as needed. The Board approves any recommended changes to the net zero commitment and implementation plan.

The Board also regularly considers climate-related issues when reviewing and approving recommended commitments and allocations to funds and products across the portfolio. The Board delegates to BAM the responsibility to perform due diligence of how asset managers consider climate-related risks and opportunities in funds and products. Investment memoranda to the Board incorporate climate-related issues.

2. **Management's role in assessing and managing climate-related risks and opportunities**

The Board delegates advisory and implementation responsibilities related to climate risks and opportunities to BAM. The executive staff and each asset class head and their teams are responsible for ensuring climate-related issues are prudently considered and integrated in the investment process. These objectives are formalized across the bureau in BAM's Annual Strategic Plan which includes working toward our Net Zero by 2040 plan, meeting interim climate targets and seeking investments in climate solutions.

BAM has an Office of ESG with 12 professionals dedicated to integrating ESG priorities in different aspects of the investment process. Two members of the ESG team are fully dedicated to climate while all other members have climate, along with other ESG priorities, incorporated in varying degrees in their responsibilities. The ESG team works collaboratively across all functions of the office including with asset class teams, risk management, compliance and operations.

BAM's Investment Committee, Greenlight Committee and Operations Committee include representation from the Office of ESG and consider climate when reviewing prospective investments or other matters in the portfolio.

3. **Climate-related risks and opportunities the organization has identified over the short, medium, and long term**

As a large, diversified fund with broad exposure across the economy, we have a direct economic interest in the overall strength of the financial markets and broader economy in which the System invests. As a pension fund with long-term obligations to our beneficiaries extending for decades, we are obligated to pay attention to long-term risks and opportunities. We have a fiduciary duty, therefore, to protect against downside and systemic risks and foster stable financial markets and long-term economic growth essential to the performance of the System's investments. In addition to long-term risks, climate change poses short- to medium-term risks to our portfolio with accelerating frequency of extreme weather and environmental impacts globally.

Climate change is generating increasingly devastating effects that risk undermining the stability and health of the global economy. We regard these climate change-related risks as systemic—that is, we cannot diversify them away—and severe, as they can lead to the failure of broad segments of the market and economy. The Intergovernmental Panel on Climate Change (IPCC) confirmed, based on the best available scientific knowledge, that limiting temperature rise to 1.5^{o} C is necessary to avoid the worst climate impacts and preserve livable conditions.[6] To achieve this goal, the world must reach net zero GHG emissions by 2050. Reaching net zero by 2040 substantially improves the probability of limiting warming to 1.5^{o} C and avoiding temporary overshoots of 1.5^{o} C that would have irreparably harmful impacts.[7] The System's goal of net zero emissions by 2040 seeks to contribute to more concerted and ambitious action in the real economy and markets toward systemic change needed to protect the interests of our beneficiaries.

In 2018, NYCERS completed a comprehensive climate risk assessment of its portfolio with an external consultant. This assessment identified climate change investment risk factors that included physical risks, such as extreme weather events and resource availability, and transition risks, such as technological transformation and policy change. It also evaluated potential impacts to the portfolio in the different climate scenarios of 2°C, 3°C and 4°C and assessed risks related to assets classes and industries. Furthermore, it identified opportunities and benefits of investing in climate change solutions.

In 2020, NYCERS completed a detailed assessment of the risks of securities issued by fossil fuel reserve owners with an external consultant. This analysis evaluated climate and financial risk and applied climate scenario analysis to our public markets portfolio using 1.5°C and 3.0° scenarios and potential impacts of these scenarios on our portfolio.

4. **The impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning and resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.**

On October 20, 2021, NYCERS voted to commit to achieve net zero greenhouse gas emissions (GHG) emissions by 2040 across our investment portfolio and approved a Climate Action Plan outlining the key elements of this commitment. To fulfill this commitment, NYCERS directed BAM to develop an implementation plan for the net zero goal that prudently considers climate change risk and opportunity as well as material environmental, social and governance (ESG) factors in our investment portfolio, along with all additional risks and investment considerations, and annually report on the plan and its progress. The Board approved this net zero implementation plan on February 15, 2023. This plan outlines climate-related goals and processes integrated into our investment process and planning. Goals include emissions reduction targets in public markets investments, increasing science-based targets coverage in public markets and 100% of asset managers across all asset classes having a net zero goal, science-based targets or other appropriate decarbonization objective and strategy for assets managed for the System by June 30, 2025.

NYCERS has joined leading industry organizations to support its net zero goal. In 2021, NYCERS adopted the Net Zero Asset Owner Commitment[3] of the Paris Aligned Investment Initiative (PAII), a formal partner of the United Nations Framework Convention on Climate Change's (UNFCCC's) Race to Zero campaign,[4] allowing us to collaborate with and learn from other large asset owners and leading practitioners. As a PAII signatory, NYCERS considers the PAII Net Zero Investment Framework and supplementary guidance ("NZIF")[5] in implementing our net zero goal. In 2024, NYCERS joined the UN- convened Net Zero Asset Owners Alliance ("NZAOA"), which provides additional resources for asset owners that have set net zero targets.

NYCERS has a goal of investing across all asset classes a total of $17 billion in climate change solutions by 2035, with interim goals of $4 billion by 2025 and $8.7 billion by 2030, consistent

with our fiduciary duties and our investment objectives. NYCERS has met and exceeded its 2025 goal. NYCERS periodically assesses and may update climate change solutions investment goals in consultation with our investment advisors, taking into account the System's asset allocation, pipeline and opportunity sets for each asset class, including public and private markets. Climate change solutions are investments in economic activities that contribute substantially to mitigating, remediation, adaptation and/or resilience in relation to climate change impacts. Such activities include but are not limited to renewable energy, energy efficiency, sustainable water, and pollution prevention. NYCERS directed BAM to periodically review the definitions for climate change solutions investments by asset class to ensure that they accurately reflect investments that are contributing to achieving the goals of the Paris Climate Agreement to keep global warming below 1.5° C.

NYCERS has approved certain exclusion policies to mitigate climate risks and stranded asset risks in our portfolio. In 2015, NYCERS began excluding from our portfolio publicly-traded companies which derive at least 50% of their revenue from thermal coal production, mining and/or processing. In 2018, we voted to divest from fossil fuel owners in publicly-traded equity and fixed income securities within five years and completed that divestment in 2022. In addition, BAM asks all private markets managers recommended for Board approval to commit across the recommended fund to exclude investments in exploration, extraction or production of oil, gas or thermal coal, or to otherwise provide NYCERS with the ability to opt out of such investments. If a manager does not agree to either condition, BAM will communicate the manager's position to the Board, which shall determine whether to approve the investment, consistent with our fiduciary duties.

As described in the prior section, NYCERS has conducted climate scenario analysis to evaluate how resilient our portfolio may be in different scenarios. In 2018, NYCERS completed a comprehensive climate risk assessment that evaluated potential impacts to the portfolio in the different climate scenarios of 2^{o}C, 3^{o}C and 4^{o}C and assessed risks related to asset classes and industries. Furthermore, it identified opportunities and benefits of investing in climate change solutions. Our 2021 assessment of the risks of securities issued by fossil fuel reserve owners applied climate scenario analysis to our public markets portfolio using 1.5^{o}C and 3.0^{o} scenarios. We will continue to explore effective ways of using climate scenario analysis to evaluate the resiliency of our portfolio to climate change.

5. **The organization's processes for identifying, assessing and managing climate-related risks.**

On behalf of NYCERS, BAM conducts and reports annual carbon footprint analyses of our public equity and corporate bond (including investment grade, high yield and convertible bonds) portfolios measuring Scopes 1, 2 and 3 financed emissions (emissions/$million invested) with Enterprise Value Including Cash. BAM also measures, evaluates and reports changes in absolute emissions and weighted average carbon intensity.

BAM integrates consideration of climate risks and opportunities and net zero alignment in asset manager due diligence, monitoring and engagement and annually reports a summary of the status of the System's managers to the Board.

Due Diligence of Asset Managers

BAM conducts due diligence of material environmental, social, and governance (ESG) factors, including climate change-related risks and opportunities, for all asset managers across all asset classes as part of the overall diligence process conducted prior to recommendations and approvals of investments to the Board. Climate change poses both systemic and idiosyncratic risks for the investment portfolio and is, therefore, actively assessed in the diligence for all managers and strategies and explored in more depth where it may be more financially material.

As a starting point for diligence, BAM utilizes the Due Diligence Questionnaire template of the Institutional Limited Partners Association (ILPA) for private markets managers and a similar template for public markets managers. The ILPA-based template is used along with a BAM-specific supplemental questionnaire. These questionnaires collect written disclosures of how managers consider climate change-related risks and opportunities in diligence and portfolio management, whether and how they measure the greenhouse gas emissions of their investments, what climate commitments or targets they have and whether they report in line with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. During diligence, the BAM team asks clarifying questions about the written responses as well as questions about the managers' climate-related practices using specific investments as examples.

BAM looks at the managers' management and governance of the exposure to physical risks stemming from climate change as well as the management and governance related to climate-related transition risks stemming from evolving regulation and market preferences. In addition, BAM diligences the manager's future plans to integrate and price-in climate-related physical and transition risks and opportunities where material.

BAM also looks at the manager's progress in decreasing its contribution to the systemic risks of climate change and evolving market preferences through emissions reduction pathways. BAM's supplemental diligence questions related to climate change and net zero alignment include whether managers measure the Scope 3 emissions of their investments; whether they have specifically adopted net zero goals, science-based targets or other emissions reduction targets for their investments; whether they have a written plan to support these goals or targets; and whether their goals or targets cover Scope 3 emissions of their investments. For specific high emitting sectors, we conduct deeper diligence. BAM summarizes and reports findings related to climate-related ESG diligence in investment memoranda to the Board.

In recognition of the importance of nature as a vital carbon sink and subject of the cascading impacts of climate change, BAM has been monitoring the implementation of the final Task

Force on Nature-Related Financial Disclosures (TNFD framework), which is harmonized with the TCFD/ISSB S2 framework, and continues to seek approaches to help mitigate the systemic risk from large-scale ecosystem collapse. BAM asks managers about their assessment of nature dependencies and biodiversity mainly in the context of real assets or other sectors with material impact on nature and biodiversity.

Monitoring of Asset Managers

BAM sends all managers an annual ESG questionnaire that includes questions related to climate and net zero alignment on topics such as:

- The managers' adoption of a net zero goal, science-based targets, or alternative decarbonization goals for the funds and strategies in which the System invests as well as the managers' total AUM.
- The managers' adoption of a written implementation plan to achieve any formal decarbonization goals.
- The percentage of total Scope 1, 2, and 3 emissions currently measured for the funds/products managed for the System as well as for the managers' total AUM.
- The assessment of physical climate risk, transition risk, nature-related impacts and dependencies, and water-related risks and stewardship.

Engagement of Listed Companies

It is the goal of the Board that by 2025 companies representing 70% of Scopes 1 and 2 financed emissions in our public equity and corporate bond portfolios, and by 2030 companies representing 90% of Scopes 1, 2 and 3 financed emissions in those portfolios will have adopted science-based targets, to be approved by SBTi or otherwise independently verified with globally established science-based standards.

Corporate engagement is central to our ability to achieve the goal of net zero by 2040. NYCERS will seek to achieve our emissions reduction targets by supporting real economy emissions reductions and increasing the alignment of our investments with science-based pathways to limit global warming to 1.5^{o} C.

To focus resources efficiently toward engagement, NYCERS focuses on portfolio companies in the highest emitting sectors in developed markets as well as the largest emerging markets portfolio companies in those sectors by market capitalization.

For 2023 and 2024, a prime focus of NYCERS' shareholder engagement was on banks which have adopted net zero targets but continue to finance or underwrite new fossil fuel supply projects, in defiance of the admonition of the International Energy Agency of the need to cease such funding to limit global temperature rise to 1.5^{o} C

To focus resources efficiently toward engagement, NYCERS directs BAM to prioritize identifying and engaging high-emitting corporate portfolio companies in the Russell 1000 and the ACWI World- ex USA IMI, and the largest portfolio companies by market capitalization in the MSCI

Emerging Markets indices in the highest emitting sectors. These sectors shall include, at a minimum, energy, utilities, industrials and materials, as the highest emitting sectors of portfolio Scopes 1 and 2 emissions and the financial sector, as a high source of Scope 3 emissions. This does not preclude BAM from engaging with companies outside of this universe but conveys the belief of the Board that focusing on companies in the highest emitting sectors where the System has the most potential influence will generate the greatest impact on reducing real world emissions.

These prudent efforts to enhance shareholder value, particularly in coalition with other asset owners such as our participation in Climate Action 100+, will be based on our proxy voting principles. Climate Action 100+ is an ambitious global investor collaboration through which more than 700 global investors with at least $68 trillion in assets across 33 markets encourage the world's 166 highest emitting companies — responsible for an estimated 80 percent of global emissions — to take necessary action on climate change. Every year we strategize and collaborate with other investors, and report on our engagement results in our annual reports (the annual shareholder initiatives post-season report and the Climate Annual Report).

Exclusion Policies

BAM's Risk Management Team annually analyzes and updates the exclusion policy and list of excluded securities. The Risk Management Team annually presents this analysis, which includes analysis of potential impacts to the portfolio, to BAM's Investment Committee for review and recommendation to the Board, which votes on whether to approve the update to the list of excluded securities.

6. **Targets and metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.**

NYCERS reports its climate-related targets and metrics in its Net Zero Implementation Plan and Annual Climate Reports. Below is a summary of our targets, metrics and progress toward targets based on information in our Fiscal Year 2024 Annual Climate Report. Additional information about our targets, metrics and progress can be found in our Fiscal Year 2024 Annual Climate Report.

Emissions Reduction Targets, Metrics & Progress

Emissions Reduction Targets

NYCERS set targets to reduce the Scope 1 and 2 financed emissions intensity in our public equity and corporate bonds portfolio (including investment grade, high yield and convertible bonds) by 32% by 2025, 59% by 2030, and 100% by 2040, using a baseline of December 31, 2019.

Emissions Reduction Metrics

For these interim emissions reduction targets, NYCERS uses "financed emissions intensity" (tons of CO_2 equivalent emissions/$million invested) based on Enterprise Value Including Cash (EVIC) as the primary metric for emissions. We also report, measure and evaluate changes in absolute financed emissions (which will be also referred to as financed emissions or FE in this report) and weighted average carbon intensity (WACI) (tons of CO_2/$million sales) and strive toward comparable progress among all metrics.

Definitions of GHG Emissions and their Categories (Scopes 1, 2 and 3)

Scopes 1, 2 and 3 are ways of categorizing the different sources of GHG emissions from a company's direct operations and its wider value chain.

Scope 1	Scope 2	Scope 3
Covers the direct emissions from sources owned or controlled by a company – for example, by running its boilers and vehicles	Covers indirect emissions from the generation of energy a company purchases	Covers all other indirect emissions up and down a company's supply and value chain.

Scope 1 & 2 Emissions Reduction Progress

NYCERS has achieved emission intensity reduction as of June 30, 2024 that surpasses the interim emission reduction target set for Jun 30, 2025as depicted in the table below. NYCERS' public equity and corporate bonds absolute financed emissions (FE) also decreased more than the benchmark's total FE during Fiscal Year 2024.

Public Equity and Corporate Bonds Scope 1 and 2 Financed Emissions and Intensity

NYCERS – Financed Emissions Intensity – Scope 1 and 2		
	NYCERS Portfolio Tons of carbon emissions/$m sales	Blended Benchmark Tons carbon emissions/$m sales
31-Dec-19	88.55	77.58
30-Jun-22	67.96	58.80
30-Jun-23	76.40	62.20
30-Jun-24	57.94	61.27
Change % (2019-2024)	-34.57%	-21.02%
Change % (2023-2024)	-24.16%	-1.50%

NYCERS – Financed Emissions Intensity – Scope 1 and 2		
	NYCERS Portfolio Tons of carbon emissions/$m sales	Blended Benchmark Tons carbon emissions/$m sales
31-Dec-19	3,249,796	3,234,250
30-Jun-22	2,788,136	2,385,931
30-Jun-23	3,352,732	2,732,120
30-Jun-24	2,673,594	2,821,210
Change % (2019-2024)	-17.73%	-12.77%
Change % (2023-2024)	-20.26%	3.26%

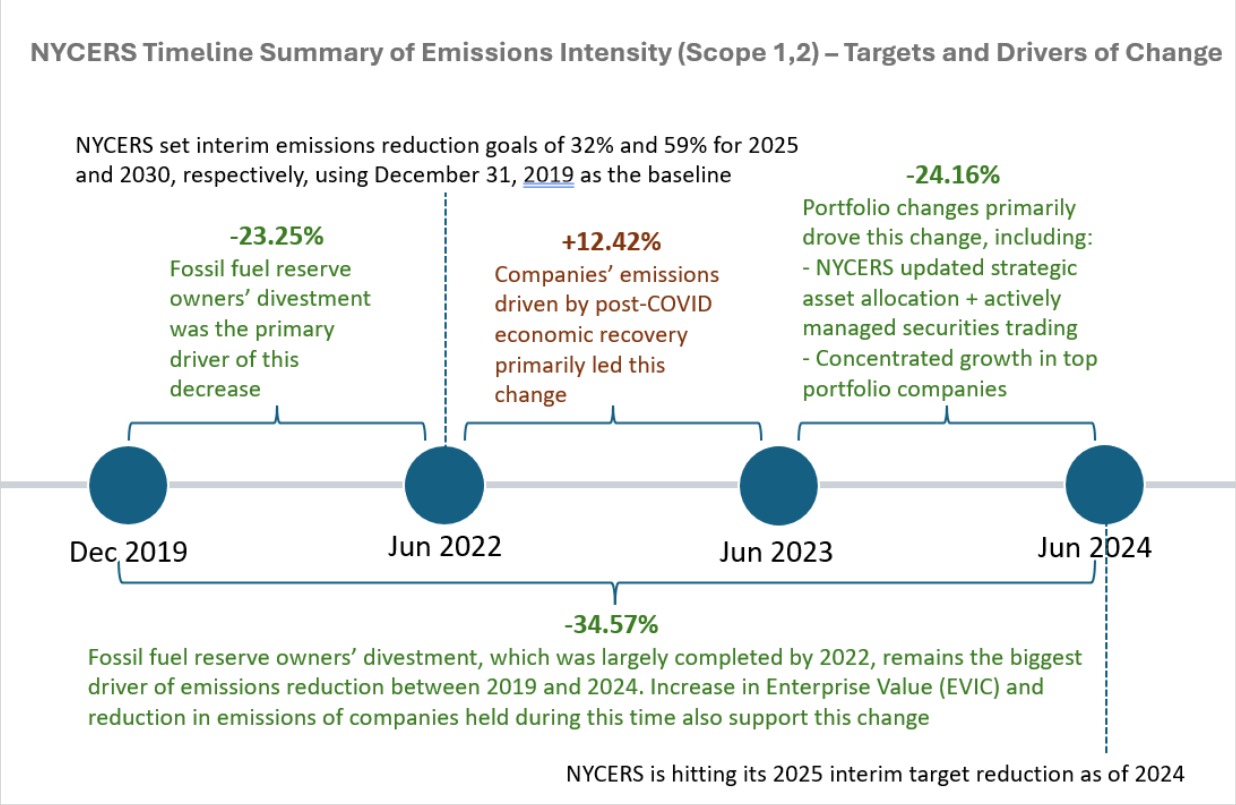
We do not yet have complete and accurate data for measuring GHGs in private markets, and there is no accepted methodology for measuring GHGs in mortgage and government fixed income portfolios (comprising the remainder of the public markets portfolio). The analysis used holdings data as of June 30, 2024 and MSCI's carbon footprint data and analytics (which includes PCAF-aligned metrics for 2024).

To further our understanding of the drivers of reduction in this emissions intensity between 2019 and 2024, we pursued a detailed attributional analysis by separating the effect of each factor that affects the emissions intensity calculation (a ceteris paribus analysis, i.e. changing one factor at a time from 2019 to 2024, assuming everything else is held constant). We compared the Dec 31, 2019 and Jun 30, 2024 portfolios and formed three sub-sets:

- Fossil Fuel divestments: securities in the portfolio in 2019, but not in 2024. NYCERS no longer holds those securities due to multiple reasons including fossil fuel divestment, changes in strategic asset allocation, and regular business changes, such as changes in actively managed accounts by managers, or changes of managers or securities.

- New investments: securities that weren't present in 2019 but are held in the 2024 portfolio for multiple reasons, including regular business changes
- Securities held between 2019 and 2024: subject to a detailed attributional analysis that breaks down the marginal impact of changes in individual factors (company emissions, EVIC, weight, and portfolio coverage), affecting portfolio financed emissions changes. The interaction term captures the effect of simultaneously changing multiple factors.

NYCERS – Timeline of Emissions Intensity (Scope 1 and 2) - Milestones and Drivers of Change



Scope 3 Emissions Reduction Progress

During Fiscal Year 2024 NYCERS' Scope 3 public portfolio emissions intensity experienced a much greater reduction than the blended benchmark (-20.29% v. -4.81%). Most of this decrease was driven by portfolio level changes: changes in strategic asset allocation; business as usual changes in the actively managed securities; highly concentrated expansion in NYCERS portfolio value (where almost one-third of the increase in market value was driven by Top 10 companies only). NYCERS' public equity and corporate bonds absolute financed emissions (FE) also decreased more than the benchmark's total FE during Fiscal Year 2024 (-16.22% v. -0.18%). Actively managed equities alone accounted for 82% of the reduction in NYCERS Scope 3

financed emissions during FY 2024. NYCERS has not yet set interim Scope 3 emissions reductions goals due to inadequate coverage and quality of data.

Climate Solutions Investments Targets, Metrics & Progress

NYCERS has a goal of investing a total of $17 billion in climate change solutions by 2035, and had an interim goal of $4 billion by 2025, consistent with our fiduciary duties and our investment objectives. **As of June 30, 2024, NYCERS has a total of $4.47 billion in invested and unfunded commitments in climate change solutions across all asset classes, an increase of 26.4% over year FY2023.** Since NYCERS has already surpassed its 2025 target of $4 billion, the Board in 2024 approved an additional interim goal for 2030 of $8.7 billion.

Climate Solutions Investments Definitions

Public Equity: Companies that derive revenue from MSCI's Environmental Impact categories of alternative energy, energy efficiency, green building, pollution prevention, or sustainable water. New weighted average method adopted as of 4Q 2022.

Public Fixed Income: Companies that derive revenue from MSCI's Environmental Impact categories of alternative energy, energy efficiency, green buildings, sustainable water, pollution prevention, or sustainable agriculture, as analyzed by Risk Management. New weighted average method adopted as of 4Q 2022.

Also includes green bonds based on manager surveys conducted by Fixed Income Team. Managers were allowed discretion in defining green bonds.

Alternative Credit: OFI market values are based on manager surveys conducted by Alternative Credit Team. The definition of climate solutions used for OFI is "investments in companies that generate 50% or more revenue from clean and renewable energy technologies and assets including (1) renewable energy such as solar, wind, geothermal and hydropower; (2) energy efficiency and energy smart technologies such as power storage, fuel cells and carbon capture and storage; (3) energy efficient transport and (4) low carbon buildings." This definition is a summary of the MSCI and Burgiss definitions as well as a reflection of a definition by Ceres. Total OFI NAV based on data from Alternative Credit Team.

Private Equity: Companies predominantly focused on a business activity classified under the Burgiss category of "Eco Friendly" activities, including renewable energy, biofuel and other clean tech or associated companies. All data is NAV. We also included companies that largely aligned with our definition of climate solutions in public markets.

Real Estate: Properties certified as Energy Star or having a score above 75. Includes properties certified as LEED only if they are also certified as Energy Star. All data is based on manager surveys conducted by the Real Estate Team. All data is NAV.

Infrastructure: Includes categories of alternative energy, energy efficiency, green buildings, sustainable water, pollution prevention, and sustainable agriculture. Data for 2Q 2024 is based on 1Q 2024. Climate solutions identified by Infrastructure Consultant for 1Q 2024.

Economically Targeted Investments (ETI): ETI data is incorporated in the data for Public Fixed Income and Real Estate due to the portfolio's investment structure.

The calculations include only assets for which BAM provides investment advice and, therefore, does not include VSFs.

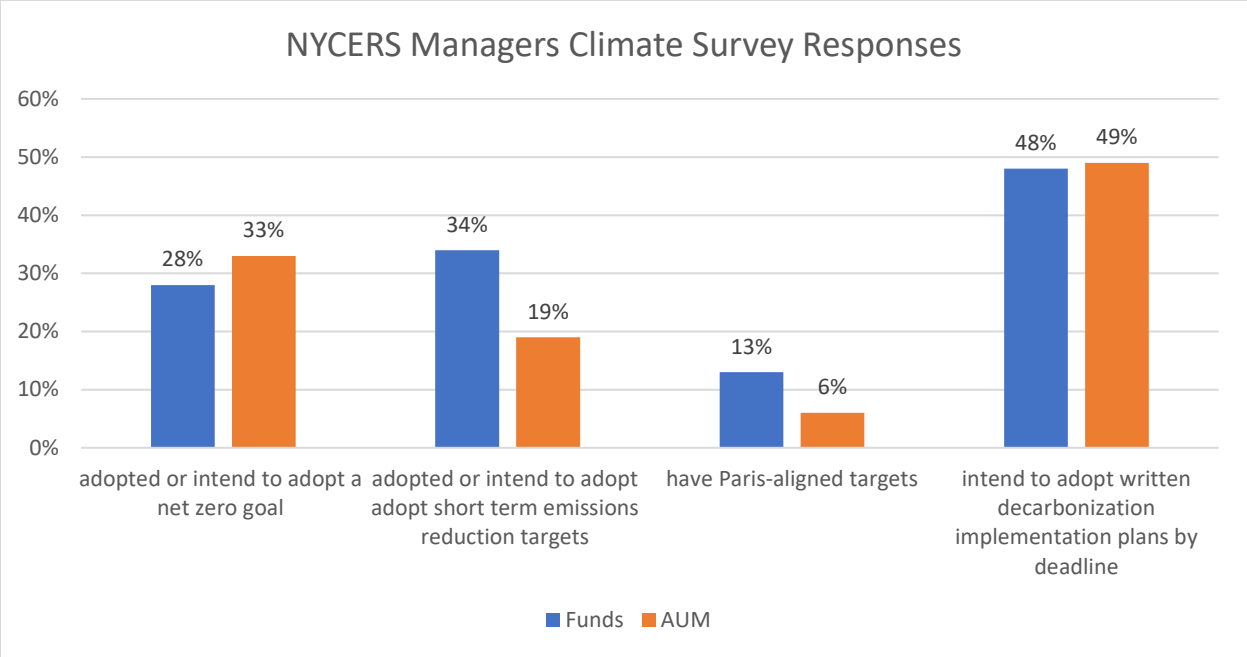
Asset Manager Net Zero Expectations & Progress

NYCERS' Net Zero Implementation Plan set the following expectations for our asset managers:

- All our public and private markets asset managers to have a net zero goal or science-based targets, and an implementation plan covering, at a minimum, assets managed for the System, by June 30, 2025. We expect public markets managers to have their goals, targets and plans in place by that date. For private markets managers the expectation will apply for commitments NYCERS makes from that date forward.
- All managers to cover Scopes 1 and 2 emissions and material Scope 3 emissions of underlying investments in their targets and plans.
- BAM will review the proxy voting record of public markets asset managers related to climate change, including shareholder proposals and director elections.

To help achieve these expectations, BAM integrates consideration of climate risks and opportunities and net zero alignment in asset manager due diligence, monitoring and engagement and will annually report a summary of the status of the System's managers to the Board.

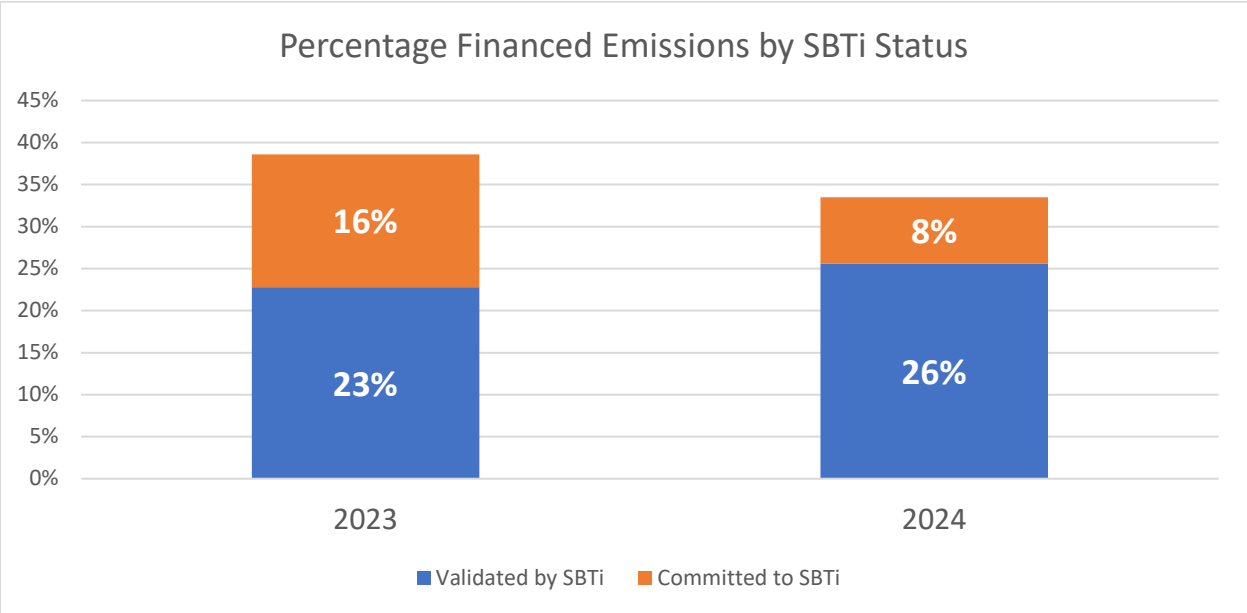
The following percentages of managers stated they have adopted, or intend to adopt in the next 18 months, net zero goals, science-based targets, other decarbonization goals or implementation plans. The goals and targets apply to the funds or products the managers invest in for NYCERS:



Science-Based Targets Portfolio Coverage Target and Progress

NYCERS has a goal for 70% of its Scopes 1 and 2 financed emissions in public markets to be covered by independently validated, science-based targets. The share of NYCERS' portfolio covered by science-based targets, as measured by the percentage of Scopes 1 and 2 financed emissions as validated by the Science-based Targets Initiative (SBTi), rose to 25.6% (from 22.8%) in 2024 with an additional 7.9% committed to setting targets with SBTi within the next two years. These totals represent an increase in validated targets but a decrease in validated plus commitments, from 38.6% to 33.5%.

NYCERS – Percentage Financed Emissions (Scopes 1 and 2) by SBTi Status



NYCERS
NYC EMPLOYEES'
RETIREMENT SYSTEM