SURVEY QUESTIONS

Governance – narrative

1. Disclose the insurer's governance around climate-related risks and opportunities.
In disclosing the insurer's governance around climate-related risks and opportunities insurers should consider including the following:

- Identify and include any publicly stated goals on climate-related risks and opportunities.
- Describe where climate-related disclosure is handled within the insurer's structure, e.g., at a group level, entity level, or a combination. If handled at the group level, describe what activities are undertaken at the company level.

A. Describe the board and/or committee responsible for the oversight of climate-related risks and opportunities.

In describing the position on the board and/or committee responsible for the oversight of managing the climate-related financial risks, insurers should consider including the following:

- Describe the position on the board and/or committee responsible for the oversight of managing the climate-related financial risks.

B. Describe management's role in assessing and managing climate-related risks and opportunities.

Governance – closed ended questions answered in addition to the narrative

• Does the insurer have publicly stated goals on climate-related risks and opportunities? (Y/N) **Yes**
• Does your board have a member, members, a committee, or committees responsible for the oversight of managing the climate-related financial risk? (Y/N) **Yes**
• Does management have a role in assessing climate-related risks and opportunities? (Y/N) **Yes**
• Does management have a role in managing climate-related risks and opportunities? (Y/N) **Yes**

TIAA's commitment to addressing climate-related risks starts at the top with our Board members and leaders setting strategy and overseeing progress. Climate-related risks have the potential to impact many risk areas, including finances, compliance and regulatory, operations, reputation, and strategy. Leveraging existing risk management frameworks, we seek to identify and assess climate risks in these categories and present any significant risks to the board and management committees.

TIAA has several initiatives in place aimed at reducing carbon emissions. This includes our own operations, assets managed by Nuveen Real Estate, as well as assets owned and managed in the GA—with the goal of achieving net zero emissions over the next several decades (2040, 2040 & 2050, respectively).

Board Oversight: The TIAA Board of Trustees oversees the design and implementation of the TIAA climate risk strategy and delegates oversight of certain climate-risk related issues to its standing committees as set forth in their respective charters.

Board Committees:
• TIAA Risk and Compliance Committee (RCC): Oversees the climate risk framework
• Investment Committee (IC): Oversees investment activity, investment policies, and strategies for the company's General Account (GA)
• Corporate Governance and Social Responsibility Committee (CGSR): Oversees the enterprise sustainability approach

Management Committees:
• Enterprise Risk Management and Compliance Committee (ERMC): Oversees the climate risk framework and monitors the company's climate risk profile across the risk universe
• Asset Liability Committee (ALCO): Provides management oversight of any climate-related investment risk (such as credit and market risks)

• Enterprise Risk Management and Compliance Governance Committee (ERCG): Oversees implementation of the climate risk framework, reporting of the company's climate risk profile, and review of recommendations and status related to governance

Organizational structure: From an operational standpoint, there are clear roles for designated senior leaders with accountability for climate risk initiatives.

Legal, Risk & Compliance:
• Approve and maintain policy with board governance requirements
• Develop second line of defense oversight and monitoring to identify, measure, monitor and report climate risk
• Incorporate ESG and related climate requirements into global marketing and communications review process
• Execute compliance testing for portfolio selection criteria and methodology
• Coordinate and respond to regulatory inquiries
• Provide advice and guidance relating to regulatory requirements and developments
• Monitor adherence to climate commitments and related memberships

Risk Management:
• Oversee portfolio return and risk metrics from investment decisions
• Oversee and advise on the design and execution of the net zero framework
• Develop centralized climate risk data infrastructure supporting analysis and reporting

TIAA GA:
• Set, manage, and oversee execution and achievement of interim and net zero by 2050 targets for the GA

Corporate Operations:
• Develop carbon reduction pathways and interim targets to attain net zero by 2040 for TIAA's operational carbon emissions

Nuveen Responsible Investing/Investing Teams:
• Advise, guide, and coordinate the full spectrum of efforts to assist the TIAA GA organization with implementation of the TIAA GA's net zero target

Strategy – narrative

2. Disclose the actual and potential impacts of climate-related risks and opportunities on the insurer's businesses, strategy, and financial planning where such information is material.

In disclosing the actual and potential impacts of climate-related risks and opportunities on the insurer's businesses, strategy and financial planning, insurers should consider including the following:

- Describe the steps the insurer has taken to engage key constituencies on the topic of climate risk and resiliency.*
- Describe the insurer's plan to assess, reduce, or mitigate its greenhouse gas emissions in its operations or organizations.*

A. Describe the climate-related risks and opportunities the insurer has identified over the short, medium, and long term.

In describing the climate-related risks and opportunities the insurer has identified over the short, medium, and longer term, insurers should consider including the following:

- Define short, medium, and long-term, if different than 1-5years as short term, 5-10years as medium term, and 10-30years as long term.

B. Describe the impact of climate-related risks and opportunities on the insurer's business, strategy, and financial planning.

In describing the impact of climate-related risks and opportunities on the insurer's business, strategy, and financial planning, insurers should consider including the following:

- Discuss if and how the insurer provides products or services to support the transition to a low carbon economy or helps customers adapt to climate-related risk.
- Discuss if and how the insurer makes investments to support the transition to a low carbon economy.

C. Describe the resilience of the insurer's strategy, taking into consideration different climate-related scenarios, including a 2 degree Celsius or lower scenario.

Strategy – closed ended questions answered in addition to the narrative

• Has the insurer taken steps to engage key constituencies on the topic of climate risk and resiliency? (Y/N) **Yes**
• Does the insurer provide products or services to support the transition to a low carbon economy or help customers adapt to climate risk? (Y/N) **Yes**
• Does the insurer make investments to support the transition to a low carbon economy? (Y/N) **Yes**
• Does the insurer have a plan to assess, reduce or mitigate its greenhouse gas emissions in its operations or organizations? (Y/N) **Yes**

TIAA's climate strategy is underpinned by our belief that climate risk is investment risk. Taking action to manage climate risks and invest strategically in climate opportunities is aligned with our fiduciary obligations as an asset owner. Two years ago, TIAA established a set of climate beliefs that helped guide our decision making around climate risk in the GA. These beliefs are integral to the design and execution of our net zero strategy. We have updated these beliefs to reflect our latest thinking about our role as an asset owner and investor in the low-carbon transition, as well as the level of progress toward decarbonization we observe in the real economy.
With global policy developments like the Inflation Reduction Act in the U.S. and the Net Zero Industry Act in the European Union, we anticipate new and enhanced investment opportunities emerging in low-carbon technology and infrastructure. Other policy and geopolitical developments are less supportive of the low carbon transition, introducing complexity and fragmentation. Market developments, such as the continued decline in the cost of renewable energy and the growth in electric vehicle adoption, suggest future opportunities. To that end, we have added climate investment opportunities to our beliefs, supplementing our focus on managing climate risks. The result is a more holistic view that recognizes opportunities in one market may present risks in another, and vice versa.
We also recognize the critical role of government policy to achieve the low-carbon transition, which is separate and distinct from the more limited influence we wield as an investor. While our commitment to engage with investees and policymakers is unchanged, we also recognize that investor engagement alone is unlikely to catalyze the low-carbon transition at the scale and speed necessary to reach net zero by 2050. Therefore, our net zero strategy will increasingly focus on tracking the status of the low-carbon transition in the real economy over time, including as influenced by policy developments, which will in turn inform our investments within the GA.
The Intergovernmental Panel on Climate Change (IPCC) has thus far provided the best source of scientific data on climate change. Their 2023 report states that human activities have "unequivocally caused global warming" and that "human-caused climate change is already affecting many weather and climate extremes in every region across the globe." The report states that continued GHG emissions will lead to increasing global warming, and that every increment of global warming will "intensify multiple and concurrent hazards." The IPCC report also states that "deep, rapid, and sustained reductions in GHG emissions would lead to a discernible slowdown in global warming within around two decades."
Our obligation to TIAA retirement plan participants is long term, which means it is our responsibility to consider investment risks, including climate risks, over a similarly long horizon. The scientific findings from the IPCC suggest that physical impact of unmitigated climate change will result in global economic damage over time, with damage increasing as warming increases. Therefore, we believe the transition to a low-carbon economy is an economic imperative. Furthermore, an orderly transition within the 2050 timeframe set out in the Paris Agreement is likely to deliver better economic and investment outcomes than a disorderly or delayed transition. The following belief statements have been developed and subsequently updated with this scientific and economic context in mind.

1. The world is transitioning to a low-carbon economy, although the pace is uncertain.
RISKS: Transitioning to a low-carbon economy is increasingly being seen as necessary by governments and the private sector, and may bring a wide variety of policy, legal, regulatory, technological and market changes that

influence investment fundamentals. The pace of the transition will vary significantly by region and sector (and may contradict), driven by the availability and cost of low-carbon technologies, the geopolitical environment, policy and regulatory actions, and consumer preferences. Transitioning to a low-carbon economy reduces long-term physical risks for investors, and an orderly transition creates less volatility than a disorderly transition.
OPPORTUNITIES: Proactively planning for climate risk in business strategy may enable issuers and other operating companies to adapt to changes including increased energy costs, shifts in consumer demand, and greater regulatory requirements, while avoiding stakeholder scrutiny or reputational or brand impairment. Businesses, real assets, and projects across many sectors that actively accelerate the transition may see increased demand for their products/ services, support from governmental policies, and/or competitive advantages in attracting intellectual capital (increasing financial opportunity).
STRATEGIC ACTIONS: TIAA seeks to develop low-carbon transition "signposts" that monitor the pace and magnitude of the low-carbon transition over time. These signposts will be inputs that help determine our interim net zero targets. Nuveen offers its clients a variety of low carbon and climate-focused products in public and private markets.

2. How markets react to this transition will bring risks and opportunities that influence how the GA invests.
RISKS: The low-carbon transition is expected to create transition risk for public and private investments with exposure concentrated in fossil fuel and energy-intensive sectors. We expect that corporate sectors such as energy, utilities, materials, industrials, and transportation face relatively higher transition risks, which may manifest in impacts to revenues, expenditures, assets and liabilities, or access to capital. Government-related issuers with significant reliance on the fossil fuel industry are also relatively more exposed, which may manifest in impacts to tax revenues, gross domestic product, and access to capital.
OPPORTUNITIES: "Green" sectors may benefit significantly from a low-carbon transition, including renewable energy, green buildings, electric vehicles, sustainable forestry and agriculture, water management, battery storage, carbon capture and storage, energy efficiency, and electricity transmission and distribution. Sectors and regions with direct physical risk exposure would also benefit from a low-carbon transition scenario in the long term due to reduced physical impacts of climate change.
STRATEGIC ACTIONS: TIAA continues to expand the implementation of net zero across additional asset classes in the GA to heighten our focus on investment risks and opportunities stemming from the low-carbon transition. TIAA also continues to deepen the measurement and monitoring of physical climate risks, with a particular focus on "place-based" asset classes like farmland, timberland, real estate, infrastructure, and municipal bonds.

3. Decarbonizing the GA portfolio will allow us to properly manage transition risks and embrace investment opportunities.
RISKS: Specific investment characteristics that influence transition risk include carbon intensity, expected holding period, liquidity, and the strength of the climate policy regime in the places where we are investing. As climate data continue to evolve and mature, carbon emissions data is an imperfect but useful proxy for transition risks, given that it is a more readily available metric to measure and monitor in an investment portfolio. Disclosure of carbon emissions data is nonetheless still voluntary in many jurisdictions, leading to lack of data coverage and lack of independent verification of accuracy.
OPPORTUNITIES: Adopting a decarbonization objective helps the GA uncover and pursue new investment opportunities, such as renewable energy infrastructure and the U.S. Commercial Property Assessed Clean Energy (C-PACE) program, among others. New global sustainability disclosure standards are emerging, such as those put forth by the International Sustainability Standards Board (ISSB), which will improve the disclosure of high quality, comparable carbon emissions data to inform the GA's investment process.
STRATEGIC ACTIONS: TIAA is actively expanding measurement of its financed carbon footprint, alongside further build-out of transition risk assessments. We work with assets, portfolio companies and other stakeholders in carbon-intensive industries to encourage greater strategic focus on their low-carbon transition.

4. The rate of decarbonization the GA can achieve will depend on government policy and regulatory actions across various geographies and sectors.
RISKS: Despite the increasing urgency surrounding climate change, current policies are not sufficient to meet the goals of the Paris Agreement. According to Climate Action Tracker, an independent scientific project that tracks

government climate action and measures it against the globally agreed Paris Agreement aim of "holding warming well below 2°C and pursuing efforts to limit warming to 1.5°C," current policies will result in global warming of 2.7°C by 2100. The real economy may therefore decarbonize more slowly than required by a science-based pathway to achieve the Paris Agreement's goals. Investment portfolios that significantly diverge from the composition of the real economy could underperform more diversified portfolios.
OPPORTUNITIES: Significant policy developments in the past year support the overall trend toward decarbonization. TIAA and its investment teams closely track these developments and the implications they may have on our investment portfolios.
STRATEGIC ACTIONS: TIAA expects to review its net zero commitment periodically to ensure it remains broadly aligned with the pace and nature of the low-carbon transition, as well as with our goal to achieve long-term positive financial outcomes for our participants.

Investment Products:

TIAA has proudly offered its clients a variety of socially responsible and low-carbon products for over three decades. As our clients' perspectives, investment appetites, and preferences shift, we continue to expand our suite of offerings. Nuveen's RI product platform included about $83 billion in assets under management as of June 30, 2024. As a subset of this platform, we offer the following strategies and products across numerous asset classes that aim to meet various climate objectives, including:
• Avoid exposure to carbon-intensive assets
• Reduce carbon emissions of assets
• Scale climate solutions
Each product category considers climate in distinct ways. Some screen out high-emitting companies and industries, some align with planned decarbonization over time at a rate aligned with the Paris Agreement, and others actively invest in the technology and tools necessary to help mitigate climate change.

Climate Investment Product Offering:

CLIMATE OBJECTIVE: Avoid exposure to carbon-intensive assets in portfolio
PRODUCT FEATURES: Lower carbon footprint than the benchmark; limited exposure to fossil fuel reserves
PRODUCT OR INVESTMENT SPECIALIST: Nuveen Social Choice Low Carbon Equity Fund, Nuveen ESG ETF Suite, Low Carbon Value ESG Equity SMA (Public Equity)

CLIMATE OBJECTIVE: Reduce carbon emissions of assets
PRODUCT FEATURES: Decarbonize over time at a Paris-aligned rate; targeted company engagement program to reduce emissions (Scope 1, 2, and 3)
PRODUCT OR INVESTMENT SPECIALIST: Nuveen Real Estate[2] (Real Estate)

CLIMATE OBJECTIVE: Scale climate solutions
PRODUCT FEATURES: Support projects that support climate change mitigation and adaption; capitalize on opportunities in the low carbon transition; balance emissions exposures with lower or net negative carbon offerings; develop low carbon intensity products, with potential to generate verified carbon credits
PRODUCT OR INVESTMENT SPECIALIST: Fixed Income (Nuveen Core Impact Bond Fund[1], Nuveen Short Duration Impact Bond Fund[1], Nuveen Global Core Impact Bond Fund[1], Nuveen Emerging Markets Impact Bond Fund[1]). Private Capital (Nuveen Global Impact Fund, Nuveen Green Capital[2]). Real assets (Nuveen Natural Capital[2], Nuveen European Core Renewable Infrastructure Fund, Nuveen Infrastructure Clean Energy Fund IV[2], Nuveen Energy Transition Enhanced Credit Fund II).

1.Please note that climate-related investments make up less than 50% of the AUM in the Core Impact Bond, Short Duration Impact Bond, Global Core Impact Bond, and Emerging Markets Impact Bond funds. These funds all employ Nuveen's Global Fixed Income impact framework and ESG Leaders investment criteria, of which climate objectives are part of a broader responsible investing mandate. 2. Denotes Nuveen investment specialists with overarching sustainability programs that align

with the corresponding client climate objectives. Each specialist offers multiple investment strategies; for details, please see http://www.nuveen.com/about-us/investment-specialists.

We believe that the global economy is decarbonizing, a process that will create meaningful investment risks and opportunities for our portfolios and clients. In response to these risks, we launched our Climate Risk 2.0 program last year, in which we explicitly asked 100 portfolio companies that comprise most of our public markets financed emissions to disclose material climate-related information and to establish industry-leading strategies to manage climate risks. As the energy transition matures, so will our assessment of company progress—shifting from standard disclosure to robust planning to implementation. Progress against a wide range of key performance indicators within the categories of transparency, accountability, and impact is assessed bi-annually and informs our proxy voting and engagement decisions.

As of Nov. 30, 2023, we have had 201 engagements with the 100 companies included in Climate Risk 2.0. In these engagements and in proxy voting decisions, we have applied a systematic approach to our expectations of companies, focusing primarily on near-term emissions reductions that stem from abatable sources. As such, we have developed detailed industry-level expectations, produced by sector experts, that recognize the unique risks and opportunities that face each company.

• In the fossil fuel sector, for example, conversations have included management of methane emissions via equipment updates and advanced monitoring technology, as well as emerging opportunities from low-carbon fuels, enhanced geothermal energy, and others.
• In the utilities sector, conversations have focused on new tax credits, financing options, and grid modernization technologies that can simultaneously advance reliability, affordability, and sustainability.
• In the industrial, machinery, and autos sectors, conversations have included topics like product efficiency and electrification, as well as engagement with materials suppliers to support decarbonization of hard-to-abate sectors.

As stewards of our clients' investments, we advocate for policies that will result in enhanced disclosure of consistent, reliable climate-risk data from our portfolio companies. Access to comparable, quality climate and other ESG data from issuers is important to ensure that these risks and opportunities can be considered by Nuveen investment teams. A key policy focus is ensuring consistency in disclosure frameworks across international jurisdictions. We have engaged, and will continue to engage, with regulators and lawmakers in an effort to develop a robust but efficient ESG disclosure regime. In 2022, TIAA submitted five regulatory comment letters related to ESG issues, including the SEC Fund Names Proposal and SEC ESG Disclosure Proposal. We also offered comments to the U.S. Department of Labor's Employee Benefits Security Administration related to questions around retirement savings and climate-related financial risk. In addition to formal policy consultations, TIAA and Nuveen directly engage lawmakers at the federal, state, and international levels to articulate our positions on responsible investing practices.

Risk Management – narrative

3. Disclose how the insurer identifies, assesses, and manages climate-related risks.

In disclosing how the insurer identifies, assesses, and manages climate-related risks, insurers should consider including the following:

- Describe how the insurer considers the impact of climate related risks on its underwriting portfolio, and how the company is managing its underwriting exposure with respect to physical, transition and liability risk.*
- Describe any steps the insurer has taken to encourage policyholders to manage their potential physical and transition climate related risks, if applicable.*
- Describe how the insurer has considered the impact of climate-related risks on its investment portfolio, including what investment classes have been considered.*

A. Describe the insurers' processes for identifying and assessing climate-related risks.

In describing the insurers' processes for identifying and assessing climate-related risks, insurers should consider including the following:

- Discuss whether the process includes an assessment of financial implications and how frequently the process is completed.*

B. Describe the insurer's processes for managing climate-related risks.

C. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the insurer's overall risk management.

In describing how processes for identifying, assessing, and managing climate-related risks are integrated into the insurer's overall risk management, insurers should consider including the following:

- Discuss whether climate-related risks are addressed through the insurer's general enterprise-risk management process or a separate process and how frequently the process is completed.
- Discuss the climate scenarios utilized by the insurer to analyze its underwriting risks, including which risk factors the scenarios consider, what types of scenarios are used, and what timeframes are considered.
- Discuss the climate scenarios utilized by the insurer to analyze risks on its investments, including which risk factors are utilized, what types of scenarios are used, and what timeframes are considered.

Risk Management – closed ended questions answered in addition to the narrative

• Does the insurer have a process for identifying climate-related risks? (Y/N) **Yes**
o If yes, are climate-related risks addressed through the insurer's general enterprise-risk management process? (Y/N) **Yes**
• Does the insurer have a process for assessing climate-related risks? (Y/N) **Yes**
o If yes, does the process include an assessment of financial implications? (Y/N) **No**
• Does the insurer have a process for managing climate-related risks? (Y/N) **Yes**
• Has the insurer considered the impact of climate-related risks on its underwriting portfolio? (Y/N/Not Applicable)* **No**
• Has the insurer taken steps to encourage policyholders to manage their potential climate-related risks? (Y/N)* **No**
• Has the insurer considered the impact of climate-related risks on its investment portfolio? (Y/N)* **Yes**
• Has the insurer utilized climate scenarios to analyze their underwriting risk? (Y/N) **No**
• Has the insurer utilized climate scenarios to analyze their investment risk? (Y/N) **Yes**

Climate risks must be identified and monitored through different lenses across the organization. TIAA began a phased buildout of our enhanced climate risk management framework in 2022, a map of processes that will help us take a consistent approach to how we invest, adhere to existing and evolving regulations, operate our business efficiently and represent ourselves in the fast-changing world.

Our Climate Risk Management Framework will help us take appropriate actions and develop strategies for mitigating and managing the effects of climate change on behalf of our clients. Climate change is creating investment risks and opportunities, but assessing its impact on financial markets is inherently complex. There are many variables, including economic, geopolitical, and societal forces, that will affect the speed of decarbonization. Scenario analysis is key to integrating climate risks. TIAA Risk Management chose the Network for the Greening the Financial System (NGFS) scenarios to guide scenario analysis design across TIAA and Nuveen. NGFS uses integrated assessment models (IAMs) to determine the composition of the global energy system under different temperature and emissions trajectories, which include orderly transition, disorderly transition, and the transition assuming current policies.

TIAA leverages existing risk management frameworks to identify and assess climate risks across comprehensive risk categories, with any significant risks presented to the board and management committees. TIAA, through its enterprise risk management framework ("ERM"), leverages the Three Lines of Defense as a standard risk governance operating model that defines risk management roles and accountabilities for management and staff across the Company. Enterprise Risk Management reports to the TIAA Board are expected to include the material climate risks considered, including their transmission channels, and their impact on existing risk factors and overall risk appetite.

TIAA's climate risk management framework:

1. Oversight: the Board, and Boards of our affiliates, are responsible for understanding relevant climate risks and overseeing their management within the overall business strategy and risk appetite.
2. Risk Assessment: development of processes to report material climate risks, their transmission channels and their potential impact on existing risk factors and overall risk appetite.
3. Monitoring: incorporation of assessments, including time horizons, that allow us to appropriately inform TIAA's business activities and decision-making.
4. Scenario Analysis: use of scenario analysis to understand how climate risks may materialize and measure potential impacts.

TIAA's climate risk management framework is overseen by a centralized TIAA/Nuveen Climate Risk Oversight team embedded within Legal, Risk & Compliance. The Climate Risk Oversight team is responsible for the monitoring and reporting aspects of climate-related risks, establishing the climate change risk management framework, setting the standards for assessment and management, and designing and establishing the climate risk assessment process to be used as part of investment risk oversight.

Physical risks and opportunities:

• Numerous teams have explored Moody's climate-risk adjusted credit risk models to analyze the potential impacts of physical risks to TIAA's investments in debt instruments. The tool simulates probability of defaults and losses in high physical-risk scenarios. Significant progress has been made in integrating the models into commercial mortgage loans, CMBS and corporate debt.
• We have developed a screening tool using VeRisk Maplecroft to assess the concentration of private real asset investments in high-physical risk locations.
• In private real estate, investment teams leverage climate hazard data from MunichRe and First Street to trigger additional due diligence and down-side modelling.
• In private farmland, the investment team uses climate scenarios from ClimateAi to assess potential impacts to crop yields in high temperature environments. This work can inform the team's assessment of water risk as well as selection of crop varietals and locations.
• The private timberland investment team uses the Climate Projection Analysis Tool (CPAT) from NCASI to assess how climate change may impact the range of timber species under multiple scenarios of future conditions developed by the IPCC.
• Private infrastructure investment teams use VeRisk Maplecroft to assess physical climate risk to potential assets prior to purchase, and to annually review physical climate risks at a portfolio level.
• The municipal bond team uses RisQ to assess physical climate risks.

Transition Risks and Opportunities

• Our risk teams regularly produce reports that capture and monitor concentrations of carbon intensities by sectors and industries and have developed methodologies and data architectures to make portfolio-level carbon intensity estimates.
• The GA team integrates carbon intensities into its investment process, seeking to manage long-term and tail risks and find opportunities stemming from the energy transition.
• Several Nuveen investment teams participated in a Climate Research Group comprised of portfolio managers and research analysts from public and private asset classes. The research group has piloted deep-dive assessments into electric utilities, oil and gas, and metals and mining sectors, and may consider expanding into additional energy-intensive sectors.
• The GA team is in the process of onboarding a climate risk scenario tool from Ortec to assess physical and transition risks and opportunities in the short, medium, and long term.

Enterprise Climate Risk Assessment:

A cross functional group of business area leaders, climate subject matter experts, and risk managers at TIAA conducted enterprise level assessments of climate risk. The assessments focused on risk categories across

financial, strategic, legal & regulatory, reputational, and operational risk where subject matter experts expect climate risks to have potential for significant impact. Results provide input into annual climate risk reporting to management and board committees. 2023 assessments focused on near-term climate risks' potential impacts to high priority risk categories, such as Financial, Strategic, Reputational and Regulatory risks. For these risk areas, cross functional forums were set up to develop and implement controls to effectively manage the risks.

Metrics and Targets – narrative

4. Disclose the metrics and targets used to assess and manage relevant collateralized risks and opportunities where such information is material. A. Disclose the metrics used by the insurer to assess climate-related risks and opportunities in line with its strategy and risk management process.

In disclosing the metrics and targets used to assess and manage relevant collateralized risks and opportunities where such information is material, insurers should consider including the following:

Discuss how the insurer uses catastrophe modeling to manage the climate-related risks to your business. Please specify for which climate-related risks the insurer uses catastrophe models to assess, if any.

A. Disclose the metrics used by the insurer to assess climate-related risks and opportunities in line with its strategy and risk management process.

In disclosing the metrics used by the insurer to assess climate-related risks and opportunities in line with its strategy and risk management process, insurers should consider including the following:

- In describing the metrics used by the insurer to assess and monitor climate risks, consider the amount of exposure to business lines, sectors, and geographies vulnerable to climate-related physical risks [answer in absolute amounts and percentages if possible], alignment with climate scenarios, [1 in 100 years probable maximum loss, Climate VaR, carbon intensity], and the amount of financed or underwritten carbon emissions)

B. Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

C. Describe the targets used by the insurer to manage climate-related risks and opportunities and performance against targets.

Metrics and Targets – closed ended questions answered in addition to the narrative

- Does the insurer use catastrophe modeling to manage your climate-related risks? (Y/N) **No**
- Does the insurer use metrics to assess and monitor climate-related risks? (Y/N) **Yes**
- Does the insurer have targets to manage climate-related risks and opportunities? (Y/N) **Yes**
- Does the insurer have targets to manage climate-related performance? (Y/N) **Yes**

We will continue to share progress on these commitments on an annual basis.

Operational emissions: Net Zero by 2040

TIAA Global Corporate Services reports on Scope 1, 2 and a portion of Scope 3 emissions. The Scope 3 categories include business travel, employee commuting, waste, and water-related emissions. While our overall operational emissions increased in 2022 from the previous two years, they show a 27% reduction when compared to the 2019 baseline. We see the increase in our 2022 GHG emissions compared with 2020 and 2021 as anomalous due to the temporary reduction of emissions from the global pandemic resulting in reduced business, travel, and related activities during those previous two years. A significant proportion of the 27% reduction in emissions in 2022 relative to the 2019 baseline can be attributed to the consolidation of our site portfolio based on business requirements. We also formalized hybrid work schedules for eligible associates and invested in virtual meeting capabilities, which reduced emissions from commuting and business travel, respectively.

Operational Emissions reduction measures:

While continuing to modernize our lighting, water, and HVAC systems to high-efficiency systems, we also solidified our Net Zero 2040 operational roadmap and began to implement strategic steps to reduce our energy use and carbon footprint, including:

• Prioritizing sites based on energy intensity and carbon-reduction potential.

• Incorporating green leasing terms into our leasing processes.

• Strengthening sustainability guidelines in our design, construction, and facility operation policies.
• Development of a comprehensive Associate Engagement Program.
• Rolling out utility submetering to improve data capture in sites over 2,000 square feet.
• Implementing a renewable energy procurement plan to reduce fossil fuel generated electricity.
• Switching to all-electric heating and cooling systems to take advantage of renewable energy generated electricity.

Nuveen Real Estate emissions: Net Zero by 2040

As one of the largest asset managers in real estate, Nuveen is uniquely positioned to align to its clients' views on climate risks and managing residential and commercial buildings across the globe to be resilient to future regulatory trends and market expectations. Nuveen's journey to decarbonize our real estate holdings began over a decade ago when we committed to improve the energy efficiency in our portfolio with the Better Buildings Challenge. Since then, we have been enhancing our transition risk assessment capabilities and integrating those into individual investments. To support clients' mandates on climate risk management, Nuveen Real Estate aims to align portfolio management strategies with a 1.5°C climate scenario through the following activities:
• Setting a 2040 net zero target that focuses first on energy efficiency.
• Targeting a 30% reduction in the energy intensity of landlord-controlled energy use by 2025.
• Providing transparency to our stakeholders through disclosure of carbon emissions.
• Keeping abreast of market shifts and preferences for low carbon buildings from occupiers and investors in the coming years.
• Monitoring exposure to and complying with building regulations setting energy and carbon standards or limits.
• Continuing to drive energy efficiency across our assets through technology and operational best practices.

Nuveen Real Estate CO_2e emissions in 2022:

Emissions	2022 mt CO2e	Year-over-year
Direct (Scope 1)	46,699	-11%
Indirect (Scope 2)	294,970	-12%
Indirect (Scope 3)	83,806	-9%

GA: Net Zero by 2050

TIAA announced its net zero by 2050 commitment for the GA in 2021, driven by the belief that climate risk is investment risk. The initial phase of our journey to net zero by 2050 will prioritize assets where data is readily available and reasonably accurate. Therefore, our interim targets are set for the public corporate bond portfolio and directly owned commercial real estate—these together account for roughly 30% of the GA's assets. Inconsistent emissions disclosure and carbon accounting standards prevent the full and accurate measurement of the carbon footprint associated with the remaining 70% of diversified assets and securities held by the GA. As disclosure improves and carbon accounting best practices expand across asset classes, we will expand our interim targets accordingly. More asset classes are being targeted for 2024 and 2025 as the path toward gathering the data needed for measurement and interim target setting becomes clearer.

2025 GA interim targets, by asset class, set against 2019 baseline year:

Asset Class	Carbon Intensity Metric	2025 Target Reduction Range
Public Corporate Debt	Mt CO2e/million USD sales	15-25%
Direct Commercial Real Estate	Mt CO2e/square meter	15-20%

Public Corporate Debt:

The 2025 interim target for the public corporate bond portfolio is measured against our 2019 baseline weighted average carbon intensity (Scope 1 and 2 emissions) measured in mt CO2e/ million USD sales. To arrive at the 2025 target reduction range, the Responsible Investing, Risk, GA, and Investment teams collaborated to model a variety of potential carbon intensity reduction pathways and their potential investment impact on the public corporate debt portfolio. As we move toward implementation, we will rely on a combination of strategies to work toward achieving the 2025 target:
• Integrating climate-related guidelines in the selection of new investments

• Roll-off of existing investments as bonds mature
• Reductions in issuers' GHG emissions over time

As of year-end 2022, the GA is on track to achieve its 2025 target in the public corporate debt portfolio. Reductions from 2019 to 2022 were primarily achieved through selection of new investments with a lower average carbon intensity than the existing public corporate debt portfolio. Investments held throughout the period also decreased in carbon intensity due to a combination of changes in corporate carbon emissions and changes in corporate revenues. The sector breakdown of the portfolio shifted slightly as it grew, with energy sector positions decreasing while financial sector positions, which have a much lower carbon intensity profile, increased. This organic sector rotation contributed to the decrease in overall carbon intensity, but the same shifts may not be replicable in the future given sector concentration limits and uncertainty around where relative value and new issuance supply will develop in the coming years.

Direct Real Estate (Equity):

Direct Commercial Real Estate Equity and Funds will target a reduction of area normalized (per square meter) total building operating emissions, which includes both landlord-controlled energy use (Scope 1 and 2) and tenant-controlled energy use (Scope 3) from a 2019 baseline. The Direct Real Estate operational carbon footprint will include buildings wholly owned by the GA, co-investments with JV partners and assets held in NRE funds where the GA is an investor. The carbon footprint will include a combination of actual property energy use data and estimates for different property types across different regions based on publicly available data. The GA will target a 15-20% reduction in carbon emissions per square meter by 2025, which is expected to be primarily driven by the following factors:

• Allocation shifts across geographic regions (country) and sectors (office, retail, housing, industrial)
• Building energy efficiency (kwh/m2) improvements
• Electric grid carbon intensity (CO2/kwh) improvements

Results from an assessment of the 2021 carbon intensity of the direct real estate portfolio has shown a reduction of 11%, from 0.0605 mt CO2e/m2 to 0.054 mt CO2e/m2 was achieved between 2019 and 2021.

TIAA Real Estate Intensity in 2023 vs baseline per sector:

Property Type	2019 Emission Intensity	2021 Emission Intensity	Δ2019-2021 emissions intensity
Industrial	0.0394	0.0384	-2.6%
Residential	0.0982	0.0833	-16.3%
Office	0.0789	0.0524	-33.6%
Retail	0.0741	0.0563	-24.0%
Total	0.0605	0.0540	-10.7%

Fossil Fuel Exposure:

Fossil fuels currently make up over 80% of the world's primary energy supply and are likely to meet a significant portion of global energy needs for decades to come. TIAA and Nuveen's exposure to fossil fuel-related investments reflects their widespread past and current role in the real economy. Increasingly, the low-carbon transition is likely to bring major shifts in the energy system. We will continue to monitor these shifts, seeking to balance investment risk and return within our clients' investment objectives as they unfold. As a matter of policy, we do not completely divest from major sectors of the economy, including the energy sector. Divestment is a blunt tool that does little to reduce real world GHG emissions and removes our ability to engage with companies and assets over time. We have a long history of stewardship and engagement, with particular focus on the theme of climate change. Our engagement approach is informed by the growing recognition that portfolio-level climate targets are most impactful when they are achieved via real world emissions reductions. However, this does not mean we will blindly hold an investment without regard for changing market conditions. Our investment process is both dynamic and climate-aware, reflecting our investment teams' careful balance of risk and return as well as climate-related data and training. Transparency is a key part of our commitment to responsible investing. To that end, we are disclosing our fossil fuel exposure in this report for the first time.

TIAA fossil fuel exposure y/e 2022 (millions USD):

	Publics	Private Direct	Private Fund	Total

GA	6,492	124	341	6,959
3rd Party	28,302	-	30	28,33
Total	34,794	124	371	35,290

Nuveen relies on different types of climate data to assess climate risks and opportunities in its investments.

Climate Risk Data Sources:

Carbon Emission & Transition Risk Data
Sources:
Public markets: MSCI and internal estimates (carbon emissions), MSCI Implied Temperature Rise and Climate Value at Risk, SBTI-verified company targets, government climate targets.
Private markets: Persefoni, Watershed, investee disclosures, modeled estimates and internally gathered data, investee disclosures, industry/sector net zero pathways, and qualitative risk assessments
How it is used:
Data is being evaluated for risk assessments and net zero implementation for the TIAA GA and other clients.
Enterprise: Both public and private data is housed in TIAA's enterprise risk data platform for enterprise disclosure reporting.
Nuveen Equities & Fixed Income: Data is housed in Nuveen's RI data platform for client reporting.
Nuveen Real Assets: Data is housed in databases managed by the investment teams and used for client reporting and regulatory disclosures.

Physical Risk Data
Sources:
Public markets: RisQ for municipal bonds, Moody's for public corporates
Private markets: VeRisk Maplecroft, MunichRE, FirstStreet Risk Factor, CPAT, ClimateAi and The Climate Service
How it is used:
Enterprise: Physical risk exposures are used to screen to identify areas that require climate risk controls. Scenario analysis is performed to assess potential financial impacts to TIAA.
Nuveen: Physical risk exposures and/or scenario analysis are incorporated into investment processes in some asset classes. Integration is actively being explored for other asset classes.