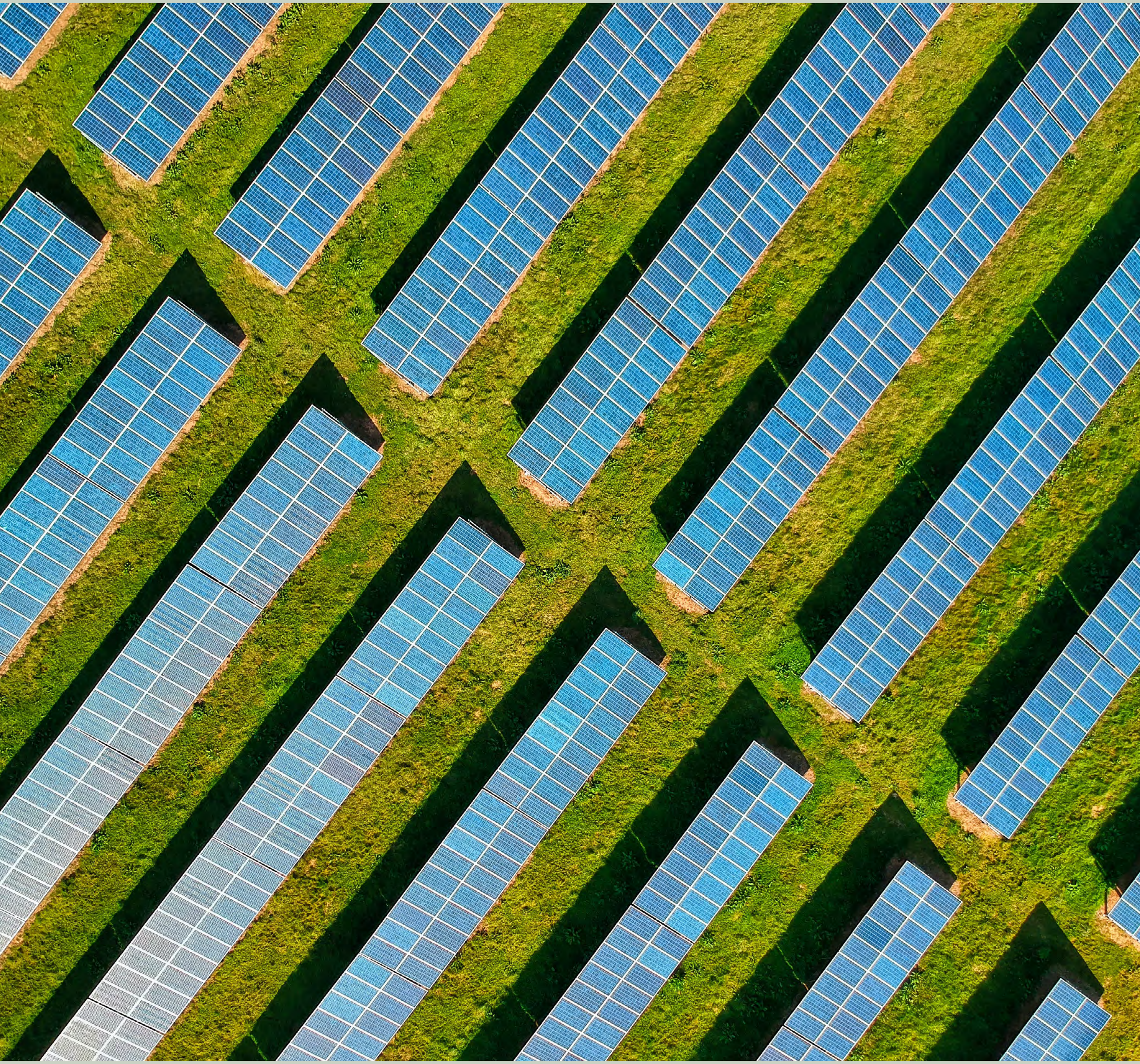
Nordea
ASSET MANAGEMENT



# Climate report 2022

# Overview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**About Task Force for Climate-related Disclosures (TCFD)**

**2017:** TCFD published a set of recommendations for climate-related financial disclosures, across the areas of Governance, Strategy, Risk Management, and Metrics and Targets. Nordea Asset Management was one of the first companies worldwide to commit to the TCFD recommendations.
**2020:** Nordea Asset Management (NAM) published the first TCFD aligned climate report.

**This report has been aligned with the TCFD recommended disclosures.**

## Core elements of recommended climate-related financial disclosures*


### Governance
The organisation's governance around climate-related risks and opportunities

### Strategy
The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

### Risk Management
The processes used by the organisation to identify, assess and manage climate-related risks

### Metrics and Targets
The metrics and targets used to assess and manage relevant climate-related risks and opportunities

## About Nordea Asset Management[1]

Nordea Asset Management (NAM, AuM 241bn EUR**), is part of the Nordea Group, the largest financial services group in the Nordic region (AuM 362bn EUR**). NAM offers European and global investors exposure to a broad set of investment funds. We serve a wide range of clients and distributors which include banks, asset managers, independent financial advisors and insurance companies.

Nordea Asset Management has a presence in Bonn, Brussels, Copenhagen, Frankfurt, Helsinki, Lisbon, London, Luxembourg, Madrid, Milan, New York, Oslo, Paris, Santiago de Chile, Singapore, Stockholm, Vienna and Zurich. Nordea's local presence goes hand in hand with the objective of being accessible and offering the best service to clients.

Nordea's success is based on a sustainable and differentiated multi-boutique approach that combines the expertise of specialised internal boutiques with exclusive external competences allowing us to seek alpha in a stable way for the benefit of our clients. NAM solutions cover all asset classes from fixed income and equity to multi asset solutions, and manage local and European as well as US, global and emerging market products.

* Source: www.fsb-tcfd.org. ** Source: Nordea Investment Funds, S.A., 31.03.2023.

1) Nordea Asset Management it is the functional name of the asset management business conducted by the legal entities Nordea Investment Funds S.A. and Nordea Investment Management AB and their branches and subsidiaries. Nordea Investment Funds S.A. is the management company and Nordea Investment Management AB is the investment manager of all funds belonging to NAM.

# CEO Foreword

2022 proved to be a formidable challenge for the investor community, with a global energy crisis in full swing, central banks battling inflation and companies facing supply chain shocks. At the same time the window for remaining within 1.5° C of global warming continues to narrow, while science tells us that every additional decimal of temperature change may trigger irreversible climate tipping points and the associated catastrophic scenarios.

Against this backdrop, we continue to be sharply focused on addressing climate risks and opportunities within our portfolios, as well as doing our part to support the transition to a low-carbon economy. In 2021 we were amongst the first cohort of asset managers to make an explicit net zero commitment as part of the Net zero Asset Managers Initiative. 2021 also saw the release of an additional set of supporting interim climate targets for our firm. 2022 in turn was a year of execution.

**Nils Bolmstrand**
Chair of the Responsible Investments Committee and Head of Nordea Asset Management

First, we knew we needed more intelligence on the transition readiness of investee companies. To that end, we built an in-house Paris alignment assessment tool which allows us to assess the Paris alignment status of all issuers within our investment universe. This type of analysis is key to our net zero commitment and is incorporated into our issuer-level climate targets, specifically our interim target to ensure that the 200 biggest contributors to our carbon footprint are Paris-aligned or subject to active engagement to become so. In 2022 we initiated engagements with 149 of these companies on the subject of their Paris-alignment.

I choose to highlight this target because it exemplifies the important role that active ownership plays in our work. It is our strong belief, and borne out by our experience, that it is through targeted engagement and voting that we can have the biggest influence.

Our Thematic Sustainable Solutions family added new strategies, as well: The Nordea 1 – Global Climate Engagement Fund, an Article 8 ESG thematic portfolio, brings active ownership to a new level by investing in and engaging with companies that have a continued role in a low-carbon economy, but which can benefit from guidance and nudging to further their green transition. Even before investing, the portfolio managers engage with and evaluate companies, to ensure that only when there is sufficient alignment of goals to allow material real-world impact to happen, will a name find its way into the portfolio.

The Nordea 1 – Global Sustainable Listed Real Assets Fund, on the other hand, taps into the megatrend of greening core industries like energy, telecoms and transportation, while scrupulously screening out issuers that do not live up to the criteria for a "sustainable investment" under the EU Sustainable Finance Disclosure Regulation.

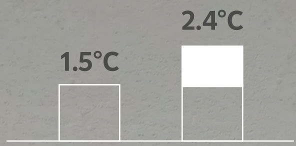
Many of the issues that made 2022 a challenging year for the global economy will carry over in 2023, but our mission is unchanged: We will continue to work hard to deliver returns with responsibility, of which our commitment to fostering real-world decarbonisation is an integral part.

# At a glance

## Where society is today

**380** million tonnes $CO_2$

Remaining carbon budget for limiting global warming to 1.5°C, equivalent to 9 years at 2022 emissions level.[4]




National targets put society on track for 2.4°C of warming.[5]

## Where NAM is today

### Global Initiatives

**TCFD**

NAM is one of the first companies worldwide to commit to the TCFD recommendations

**NZAM**

Founding member of Net Zero Asset Managers (NZAM) initiative:
- 301 signatories
- $59 trillion AuM[6]

**Climate Action 100+**

- Investor-led initiative to engage the world's largest corporate emitters of GHGs
- 166 companies assessed and engaged

### NAM's commitment to net zero[7]

- Net zero emissions by 2050 or sooner across all assets under management
- Interim targets set for 2030, consistent with a fair share of a 50% global reduction in $CO_2e$.
- Prioritise real economy emissions reductions
- Increase investments in climate solutions
- Initiated our methane engagement campaign in collaboration with Environmental Defence Fund and other selected partners

**360** Climate-related engagements in 2022

### NAM targets – our way to Net Zero by 2050

**1** 50% reduction in WACI across listed equity and corporate bonds

**2** Fund-specific carbon footprint reduction targets covering 58% of listed equity

**3** 80% of Top 200 company contributors to financed emissions to be Paris-aligned or engaged to become so (100% by 2030)

### NAM Progress to date

**23%** Reduction in weighted average carbon intensity (WACI)

**75%** 149 companies on our top 200 list engaged on the topic of Paris alignment

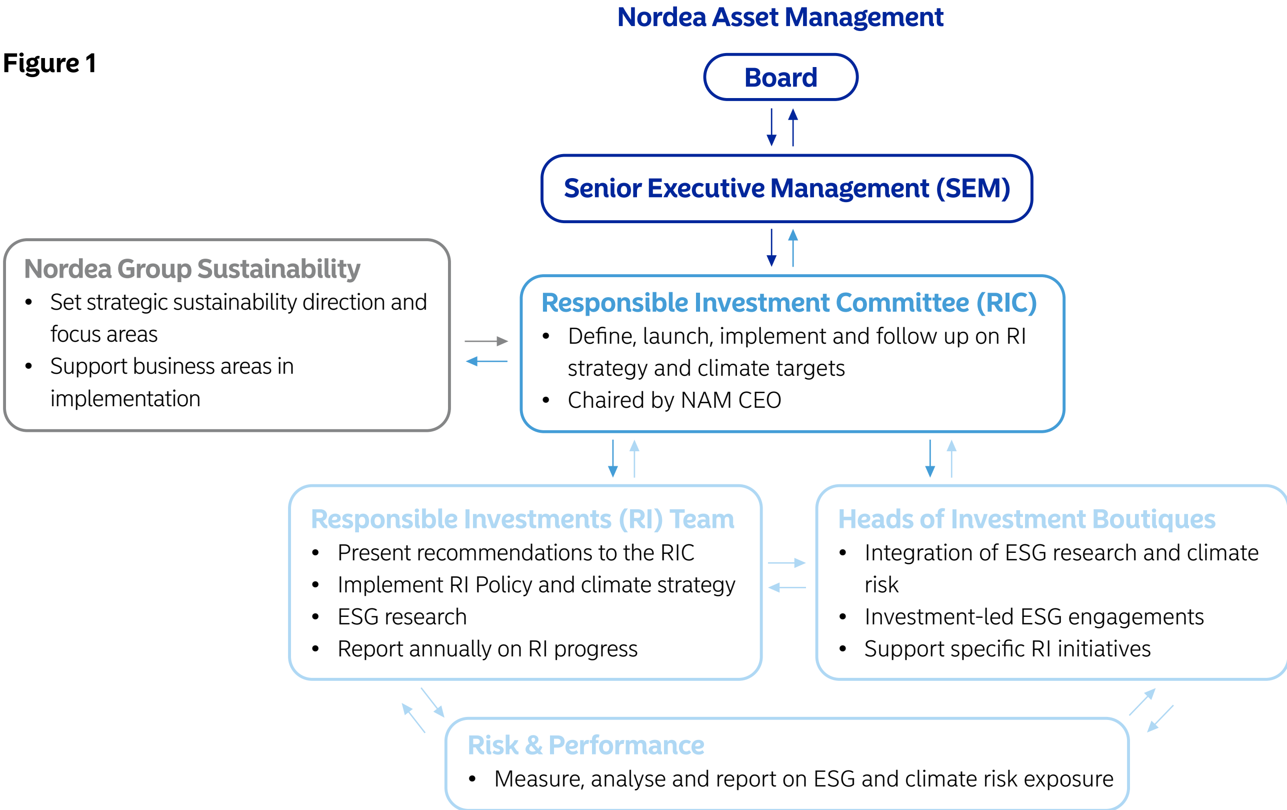
### Our carbon footprint in 2022

**41.8** Carbon footprint $tCO_2e$/M EUR invested (listed equity and corporate bonds)

4) Global Carbon Project (2022).
5) Climate Action Tracker figures as of 10 November 2022.
6) Net Zero Asset Managers figures as of 31 December 2022.
7) The targets can be found in NZAM's Progress report, which presents targets set by all founding members.

# 1. Climate governance

**Figure 1**




## Board and management oversight

Sustainability is embedded across Nordea's business strategy, backed by measurable targets, strong governance, and one of the broadest sustainability offerings in the market as of 2022. A net-zero emissions objective by 2050 across Nordea's lending and investment portfolios and internal operations was published in 2021. Group sustainability has the responsibility to support the business areas, such as NAM, in the implementation of this and other objectives.

At NAM, the commitment to climate-resilient investments comes from the top. The Board oversees the strategic direction and reviews the development of our ESG and climate policies, and is updated at least annually on their implementation. The Senior Executive Management team is kept well informed on climate-related matters and several are members of the Responsible Investment Committee (RIC), where oversight of the strategic delivery of NAM's climate commitments rests. RIC was created in 2009 and is chaired by the CEO of NAM.

Every quarter RIC meets to monitor progress towards climate targets, discuss whether to engage or divest from companies that are failing to meet responsible investment expectations, and decide on significant changes to our Responsible Investment policy and processes.

The Heads of Investment Boutiques are responsible for integrating ESG risks, including risks arising from climate change, into the investment analysis and decisions. Various resources are available for investment teams to monitor climate risks and opportunities in the portfolios, including a climate dashboard in regular risk reports.

Climate is a key focus area for the Responsible Investment (RI) Team. Climate-focused workshops for investment teams and other functions are regularly conducted to increase knowledge and awareness of climate issues, and the analysis of climate-related investment risks and opportunities is an important part of the product development work.

### Climate governance in practice

Since 2013, the RIC has made it a priority to identify companies with unmitigated climate-related financial risks.
In 2015 a first analysis of coal mining companies was presented to the RIC, and a decision was made to restrict investments into companies judged to have excessive exposure to thermal coal mining. RIC reviews the restrictions on an ongoing basis, and have decided to further strengthen restriction on coal mining and introduce restrictions on oil sands and artic drilling.[8] RIC are set to ensure restrictions continue to align with global pathways towards net zero.

8) Current restrictions can be found in Nordea Asset Management's Responsible Investment Policy.

# 2. Climate strategy and our commitment to net zero

Climate change has been a strategic focus for NAM since we became a signatory to the UN-supported Principles for Responsible Investment (PRI) in 2007. In 2015, we implemented our first climate-related divestment from coal mining, and started analysing and disclosing the carbon footprint of our ESG STARS funds. In 2019, we publicly committed to aligning our investment strategies with the objectives of the Paris Agreement, and in 2020 we cemented this commitment by becoming a founding member of the Net Zero Asset Managers (NZAM) initiative, a global coalition of asset managers working for the achievement of net-zero greenhouse gas emissions by 2050. In addition, during 2020, we helped co-create the Net Zero Investment Framework (NZIF), a method for asset managers/owners to set climate targets consistent with the objectives of the Paris Agreement, and in November 2021, we released a set of additional climate targets, in line with NZIF guidance and our NZAM commitment.[9]

2022 in turn was a year of execution. We built an in-house issuer-level Paris alignment assessment tool, initiated engagements with 149 investee companies on Paris-alignment and launched **Nordea 1 – Global Climate Engagement Fund**, which focuses on companies with underappreciated opportunities to become relevant in, and benefit from, a low carbon future.

9) The targets can be found in Net Zero Asset Manager Initiative's 2021 Progress report, which presents targets set by all founding members.

**Figure 2: NAM targets and commitments**

## NAM's climate journey

### What we have achieved so far and where are we heading to?

### NAM's climate timeline

**2007**
Signatory to the UN-supported **Principles for Responsible Investment**

**2008**
Launch of **Nordea 1 – Global Climate and Environment Fund***

**2015**
**First climate-related divestment** from coal mining, and disclosure of the **carbon footprint** of ESG STARS funds

**2018**
Joined **UNEP FI pilot group** to support the development of analytical tools and indicators to report on the risks and opportunities presented by climate change

**2019**
Public commitment to aligning investment strategies with the objectives of the **Paris Agreement**

**2020**
Published **first Climate report in line with TCFD** recommendations

**Published net zero targets** including a reduction of the weighted average carbon intensity (WACI) of investments by 50% before 2030

Co-developed the **Net Zero Investment Framework** together with other members of the Institutional Investor Group on Climate Change (IIGCC)

Founding member of **the Net Zero Asset Managers (NZAM) initiative**

**2021**
Established **further reduction** and **engagement targets** to reach net zero by 2050 or sooner

**2022**
**Launch of Nordea 1 – Global Climate Engagement Fund**

**Launch of Nordea 1 – Global Sustainable Listed Real Assets Fund**

**2025**
**80% of top 200 holdings** Paris aligned or engaged

**Double** the scope of portfolio level carbon reduction targets

**Phase out** investments in coal-related companies without plans to achieve a full exit from coal by 2040

**2030**
Achieve our **fund-specific carbon footprint reduction targets** ($CO_2e$/M EUR invested)

**100% of top 200 holdings** Paris aligned or engaged

**50% reduction of WACI**

**2050**
**Net zero**
across Nordea Group's operations and investments

* Please note that the Nordea 1 – Global Climate and Environment Fund is soft closed since 26.02.2021.

## Identifying risks and opportunities

As the largest asset manager in the Nordics, our investments cover all major asset classes, including listed and private equity, corporate bonds, green bonds, sovereign bonds, covered bonds, structured products and others. Through these investments, we are exposed to several types of climate-related risks and opportunities.

As is best practice, we categorise climate-related risks into two types:

**1. Transition risks,** which relate to the impacts associated with the transition towards a less polluting and greener economy. Some sectors of the economy face big shifts in asset values or higher costs of doing business as climate policies become stricter. In addition to policy risks, transition risks include risks related to technological developments, as well as liability risks.

**2. Physical risks**, which relate to impacts resulting from climate change, can result from adverse extreme weather events (acute risks) or long-term shifts in climate patterns (chronic risks). Physical risks may have both direct financial implications for organizations, due to damage to assets, and indirect impacts from supply chain disruptions and variations in resource availability.

Of these two risk types, transition risk is likely to have a more imminent and abrupt impact on our investments.

The climate commitments that the signatories to the Paris Agreement have so far made to address global warming are widely understood to be insufficient for limiting temperature increases to below 1.5°C. The world is continues to head for 2.4 degrees of warming under current targets[10]. Despite this clear emissions gap, outcomes of COP27 reflected only modest progress on reducing emissions[11]. We therefore continue to expect increased political action to address these gaps in the years to come, exposing economies to heightened transition risk.

10) Climate Action Tracker. 11) World Resource Institute 08.12.2022: COP27: Key Takeaways and What's Next.

**Figure 3: Risk horizons**

| Primary time horizon | Category | Primary drivers | Implications for NAM |
|---|---|---|---|
| 1–10 years | **Direct transition risks and opportunities** | **Evolving regulations and expectations:**<br>• Evolving regulations and standards for climate-related reporting and other communication<br>• Increasing expectations and demand from clients to manage climate-related risks and opportunities | • We monitor and participate in all leading climate-related investor initiatives, to ensure our activities reflect best practice<br>• We engage in dialogue with our customers and continue to increase our range of climate-related product offerings |
| | **Transition risks and opportunities transmitted through investments** | **Policy and legal:**<br>• Higher carbon pricing and increased regulation and litigation.<br>**Reputation:**<br>• Negative stakeholder feedback<br>**Technology:**<br>• Obsolete technologies, capital expenditure requirements to accommodate new technologies<br>**Market:**<br>• Changing consumer demand, rising material costs, new entrant disruption | • We focus engagements on the most exposed companies and countries<br>• We integrate climate risk metrics in our risk reporting<br>• We restrict investments in companies whose business model is fundamentally unaligned with the objectives of the Paris agreement.<br>• We identify companies in critical sectors with aggressive decarbonisation strategies |
| >10 years | **Physical risks** | **Physical risks of our investments:**<br>• Acute: Increased severity and frequency of extreme weather events<br>• Chronic: Rising sea levels, mean temperatures and weather pattern variability | • We identify which sectors/companies are most exposed to the effects of climate change |

# Scenario analysis

It is clear that our exposure to the climate risks and opportunities identified above is perceptible across all our investment strategies and within our investment horizons.

To further quantify climate-related risks and assess implications for our investment strategies, we conduct two types of scenario analysis: Climate-Value-at-Risk analysis and climate alignment analysis.

## Climate Value at Risk

Since 2020, we have used the Climate-Value-at-Risk (CVaR) model to estimate three key climate risk metrics across a number of plausible scenarios for climate change and climate policy outcomes:

- **Policy Risk** = % of investment value at risk due to future climate policy
- **Technology Opportunities** = % of investment upside due to low-carbon technology revenues, which combined with Policy Risk gives us **Transition Risk**
- **Physical Risk and opportunity** = % of investment value at risk from the impact of extreme weather events and longer term changes

## Transition risk

For policy risk and technological opportunity, scenarios from the Network for Greening the Financial System (NGFS) are used. Amongst others, this includes 1.5°C *Orderly*, 2°C *Disorderly* and 3°C scenarios. The Disorderly scenario assumes that most climate policies are not introduced until 2030, which means that emissions reductions need to be sharper and more drastic than in an Orderly scenario, where climate policies would be introduced early and gradually become more stringent to limit warming to the same temperature target.

As presented in figure 4, a delayed transition response presents the highest value-at risk and across all scenarios, policy risk outweighs potential upsides.

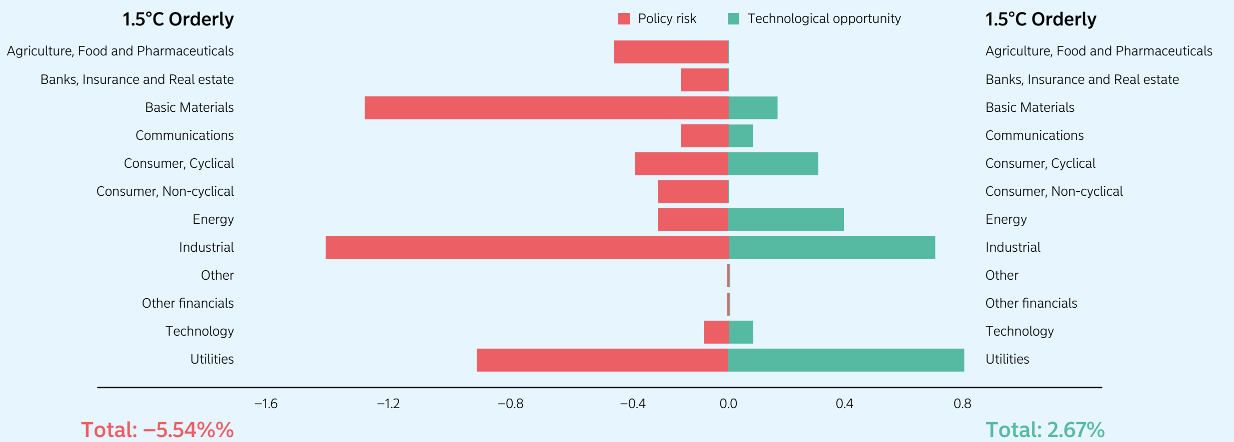
Overall, transition risk is lower for corporate bonds. This is unsurprising given that the average length of maturity of investment grade bonds are less than 15 years[12], and even less on secondary markets, but is also responsive to different sector allocations within the two asset classes.

### Figure 4: Transition risk listed equity and corporate bonds

| NAM | | | | | | |
|---|---|---|---|---|---|---|
| 31.12.2022 | 1.5°C: NGFS NZ2050 | | 2°C: NGFS Delayed Transition Disorderly | | 3°C: NDC Hot House | |
| **CVaR Transition risk** | **Policy risk** | **Technological opportunities** | **Policy risk** | **Technological opportunities** | **Policy risk** | **Technological opportunities** |
| Listed equities | −7.89% | 3.95% | −19.48% | 6.66% | −0.69% | 0.16% |
| Corporate bonds | −0.71% | 0.04% | −3.01% | 0.07% | −0.03% | 0.00% |

Data as of 31.12.2022. Data coverage: 99% for listed equities, 63% for corporate bonds. **Source: Nordea Investment Funds S.A., ©2023 MSCI ESG Research LLC. Reproduced by permission.**

### Figure 5: Sector contribution to transition risk




Data as of 31.12.2022. Data coverage 77%. Sector classification is based on Bloomberg Industry Classification System (BICS). "Agriculture, Food and Pharmaceuticals" has been separated out from Consumer, non-cyclical and Financials have been split into two: "Banks, Insurance and Real estate" and "other financials". **Source: Nordea Investment Funds S.A., ©2023 MSCI ESG Research LLC. Reproduced by permission.**

12) OECD. 2020. Corporate Bond Market Trends, Emerging Risks and Monetary Policy.

Figure 5 displays the contribution of our listed equity and corporate bond investments to transition risk across sectors, in an 1.5°C Orderly scenario. Any given sector's 'contribution' is determined by the transition risk of the company holdings within that sector as well as the relative exposure to the sector. The sum of all contributions represents aggregate transition risk.

Our investments in carbon-intensive sectors such as Basic materials (mining, iron/steel etc) and Industrials (electronics, building materials, other manufacturing etc.) represent the largest contributions to policy risk. The contribution from Energy, while carbon-intensive, is modest, driven by our relatively small exposure to this sector.

The biggest upside is seen in utilities, driven mainly by electric utilities. This is reflective of our efforts to identify electricity providers with large renewable electricity generation capacity and growth potential, as part of our Paris Aligned Fossil Fuel Policy. On an aggregate sector level, net transition costs are still expected to outweigh potential benefits across all sectors. Yet, there are numerous companies in our portfolios, across most sectors, for whom transition opportunities outweigh transition risks.

## Physical risk and opportunities

For physical risks and opportunities, the CVaR model quantifies the expected change in costs to a company from business interruptions and damages to physical assets materialising from climate-related acute events and chronic changes such as extreme heat and cold, rainfall, flooding and tropical cyclones. Using the physical location of a company's facilities and a probability distribution of the annual costs of the manifestation of climate hazards, it provides an estimate of both the average cost as well as a more severe, 95th percentile 'aggressive' outcome that explores the less likely but more extreme impact potential of climate change.

As shown in figure 6, physical risks in an aggressive outcome are significantly higher, but for corporate bonds, they remain modest given the shorter timescale. For listed equity, in contrast, the difference in damages amounts to 2.8 percentage points.

### Figure 6: CVaR Physical risk and opportunities

| CVaR Extreme Weather | Average | Aggressive |
|---|---|---|
| Listed equities | −8.32% | −11.13% |
| Corporate bonds | −0.46% | −0.78% |

Data as of 31.12.2022. Data coverage: 98% for listed equities, 72% for corporate bonds. **Source: Nordea Investment Funds S.A., ©2023 MSCI ESG Research LLC. Reproduced by permission.**

While offering valuable insights into relevant climate risks, the CVaR model does not exhaustively address all dimensions of climate risk. Crucially, the model does not fully take into account companies' risk mitigation efforts, such as strategic plans for reducing carbon emissions or efforts to diversify away from fossil fuel dependency on a forward-looking basis.

For a more complete picture we need to understand how individual issuers are managing climate risks and opportunities. We achieve this by conducting climate alignment analysis of individual issuers in high-risk sectors.

## Climate alignment analysis

In order to gain a holistic understanding of the trajectory of our portfolio companies, we assess individual issuers using NZIF's maturity scale approach. NZIF introduces ten current and forward looking criteria with a binary yes/no outcome, which can be combined to categorise companies into four categories; Aligned, aligning, committed to aligning or not aligning (see figure 7).[13]

As an example of the comprehensiveness of this approach, having a science-based target is one out of the six core alignment indicators, but on its own it is not sufficient to be categorized as 'aligning'. For that we also need to see adequate GHG disclosure and a supporting decarbonization strategy.

To identify the alignment status of all issuers in our investment universe we have built an in-house alignment assessment tool. For each of the six core criteria, we rely on data from credible third parties such as Transition Pathway Initiative, Science-Based Targets Initiative, CA100+ and CDP, which we compliment with proprietary data to indicate if the criterion is met.

The quantitative assessment is indicative of alignment, but is complemented by individual research into and engagement with companies to firmly establish alignment status.

## Paris-Aligned Fossil Fuel Policy

In September 2020, we implemented a new approach to restricting investments in companies involved in fossil fuels, which we call the Paris-Aligned Fossil Fuel (PAFF) policy. The PAFF policy prohibits investments in fossil fuel companies that are not transitioning in line with the climate objectives of the Paris Agreement, while still enabling investments in companies that are leading the transition out of fossil fuels. Companies that can demonstrate this are put on the Paris-Aligned Fossil Fuel list (PAFF list). Companies that are not on the list will be excluded from funds adhering to the policy. More than 2000 companies are subject to this screening because they have significant fossil fuel involvement.

The PAFF policy is distinct from more traditional exclusion approaches that tend to be based primarily on sector classification or revenue thresholds. The latter approaches often ignore companies with ambitious plans to transition towards cleaner energy and it ignores the critical role that energy plays in the economy, while our approach is research-driven and based on the merits of the individual company.

### A note on Implied Temperature Rise metrics

Another often used alignment metric is the Implied Temperature Rise (ITR) metrics. At NAM we do not presently use ITR metrics for the purposes of reporting portfolio Paris alignment. ITRs can at times be useful as an indicator of a company's transition path, but while as a metric it is simple to understand, the computation required to construct it is not. The result of this modelling complexity is that it is sensitive to the methodological choices made by any given provider. This is also why those estimates can vary significantly across providers. In addition, ITR models do not account for the extent to which a company's products and services serve to help others avoid or reduce emissions, which is highly relevant when evaluating portfolios overweight in climate solution providers. At NAM we remain longer term optimistic, but presently cautious when using them in our own decision making.

This type of analysis is key to our net zero commitment and is incorporated into our issuer-level climate targets. In addition, it is a particular prerequisite for our implementation of the Paris-Aligned Fossil Fuel Policy.

### Figure 7

| | Alignment KPIs | Threshold | Aligned | Aligning | Committed | Not aligning |
|---|---|---|---|---|---|---|
| 1 | Net-zero ambition | The issuer has a long-term decarbonization goal consistent with achieving global **net zero by 2050** | √ | | √ | All other issuers |
| 2 | Short- & medium-term targets | The issuer has a short- or medium-term GHG target that is **consistent with 1.5°C** and covers material emissions | √ | √ | | |
| 3 | Emissions performance | The issuer's current emissions **performance in line with its GHG target** | √ | | | |
| 4 | Disclosure | The issuer **discloses scope 1, 2 and material scope 3** emissions | √ | √ | | |
| 5 | Decarbonization strategy | The issuer explicitly sets out the measures that will be deployed to **deliver on GHG target and shift towards green revenues** | √ | √ | | |
| 6 | Capital allocation alignment | The issuer clearly demonstrates that its **capital expenditures are consistent with achieving net zero** by 2050 | √ | | | |
| 7 | Climate policy engagement | The issuer has a **Paris-aligned climate lobbying** position and aligns its direct and indirect lobbying activities | KPIs 7-10 in NZIF are optional and not currently included in most investors' alignment assessments due to data availability issues. NAM currently include Climate governance components in the assessment of KPI 5: Decarbonization strategy. | | | |
| 8 | Climate governance | The issuer has clear **oversight of transition planning and executive remuneration** is linked to delivering targets and transition | | | | |
| 9 | Just transition | The issuer considers the impacts from transitioning to a lower carbon business model on its **workers and communities** | | | | |
| 10 | Climate risk and accounts | The issuer discloses transition risks through **TCFD Reporting** and incorporates such risks into its financial accounts | | | | |

13) Technically, NZIF's maturity scale has a fifth category, 'net-zero', reserved for companies that have already achieved a state of net-zero. We do not include this category in our analysis on the observation that no companies to date have reached this level of performance.

# 3. Management of risk and opportunities

The dominant source of climate risk exposure for NAM is our investments in companies which are themselves exposed to climate risk. Managing our climate risk, therefore, involves integrating climate risk into our investment selection process, assessing the quality of climate risk management that we see from the companies we invest in, and using our influence to stimulate a strengthening of their risk management practices. In other words: climate risk management for NAM is both about selecting the right investments and managing those investments responsibly.

It was with these objectives in mind that the NAM Climate Change Strategy was adopted in 2019. Its five pillars all contribute to the development of a more robust climate risk management framework, and within each pillar, we are taking active measures to responsibly manage our climate risk exposure.

**Figure 8**

| Climate strategy pillars | Description | Key features | Notable actions in 2022 |
|---|---|---|---|
| Integration | Climate risk and opportunity analysis is integrated into the overall investment process as part of company research and regular risk monitoring | • ESG and climate KPIs integrated into portfolio performance reviews of our equities and fixed income teams<br>• All portfolio risk reports include climate dashboards with key figures such as the weighted average carbon intensity (WACI) and absolute emissions of investments<br>• For funds with a carbon footprint reduction target the risk report tracks progress, and compares investments to its industry-geography peer group highlighting best-in-class companies and possible laggards[14] | • Built additional functionality in proprietary ESG data platform, to now include issuer level Paris alignment metrics across entire investment universe |
| Active ownership | We engage and vote to improve the climate resilience of our investments | • The Corporate Governance team, in close collaboration with the Responsible Investments team and Portfolio Managers evaluate all important climate resolutions. Our aim is to vote in at least 90% of all general meetings of equity holdings<br>• Active participant and co-lead in key engagement initiatives such as Climate Action 100+ | • Voted in 96.96% of all climate resolutions<br>• Initiated engagement with all 'non aligning' companies amongst our 200 biggest carbon footprint contributors<br>• Initiated our methane engagement campaign in collaboration with selected partners to engage companies in the oil and gas industry on the disclosure and mitigation of their methane emissions |
| Divestment and mitigation | We take active measures to reduce our exposure to highly carbon-intensive sectors that do not have meaningful prospects for a sustainable transition | • Strict exclusion criteria for thermal coal mining and oil sands (5% revenue threshold) as well as arctic drilling (0% threshold)<br>• Our Paris-Aligned Fossil Fuel Policy, restricts investments in fossil fuel companies that are not transitioning in line with the objectives of the Paris Agreement<br>• The RI team regularly conducts analyses to highlight NAM's exposure to sectors and companies with high climate risk, and makes recommendations to the Responsible Investment Committee to divest from or engage with carbon intensive companies that fail to show signs of transformation | • Lowered exclusion threshold for involvement in oil sands extraction and arctic drilling |

14) For more information on our portfolio-specific carbon footprint reduction targets see Portfolio-level carbon footprint targets.

| Climate strategy pillars | Description | Key features | Notable actions in 2022 |
|---|---|---|---|
| Product development | We focus on products that support the transition to a low carbon economy | • ESG STARS range has grown to include 22 strategies with more under development<br>• RI strategies now represent more than 70% of NAM's assets under management as of end of 2022 | • launch of our new **Nordea 1 – Global Climate Engagement Fund**. The strategy will focus on companies with underappreciated opportunities to become relevant in, and benefit from, a low carbon future. Through engagement, we will seek to drive forward the necessary strategic and operational changes to unlock value via supporting to reduce environmental risks<br>• Launch of **Nordea 1 – Global Sustainable Listed Real Assets** which taps into the megatrend of greening core industries like energy, telecoms and transportation |
| Policy support | We support climate policy that help deliver on the Paris Agreement's objectives, and are involved in various industry initiatives that promote the same agenda | • Amongst the first cohort of signatories to the **Net Zero Asset Managers (NZAM) initiative** and co-developer of the **Net Zero Investment Framework**<br>• Signatory to the **Finance for Biodiversity Pledge**, a commitment of financial institutions to protect and restore biodiversity through finance activities and investments | • Signatory to IIGCC's 2022 Global Investor Statement to Governments on the Climate Crisis, calling for government action ahead of COP27<br>• Co-signed the US Federal EPA Methane public policy letter, calling on the Biden administration to rapidly advance methane regulations for the U.S. oil and gas sector |

## 3.1 Managing in line with net zero

As an early signatory to Net Zero Asset Managers Initiative we are committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5°C.

With this commitment comes a requirement to set an interim target for the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner. This raises the question of what it means to 'manage in line with net zero'?

According to NZAM guidelines, managing assets in line with net zero means the following:[15]

1. Setting interim targets for 2030, consistent with a fair share of the 50% global reduction in $CO_2$ identified as a requirement in the IPCC special report on global warming of 1.5°C
2. Taking account of portfolio Scope 1 & 2 emissions and, to the extent possible, material portfolio Scope 3 emissions
3. Prioritising the achievement of real economy emissions reductions within the sectors and companies in which we invest
4. If using offsets, investing in long-term carbon removal, where there are no technologically and/or financially viable alternatives to eliminate emissions
5. As required, creating investment products aligned with net zero emissions by 2050 and facilitate increased investment in climate solutions

Our first key choice has been to follow the Net Zero Investment Framework (NZIF), one of three target-setting methodologies endorsed by NZAM. In our view, a strong point of NZIF is its dual emphasis on having both **top down portfolio level** targets as well as **bottom up issuer-level alignment targets**.

Our second key choice has been to only count an investment strategy as part of AUM that is 'managed in line with net zero' if it is subject to a portfolio specific carbon footprint reduction target specifically structured to prioritize the achievement of real economy emission reductions.[16]

**This is the case for 17.3% of NAM's total AUM.[17]**

An alternative approach would have been to use our '50% reduction in WACI by 2030' target to justify a large proportion of AUM as committed to be managed in line with net zero. Doing

15) See The Net Zero Asset Managers Commitment for a full description. 16) Using 'carbon footprint' as target setting metric is in line with NZIF and the updated recommendation of the Taskforce for Climate-related Financial Disclosures (TCFD). 17) Please see Appendix: for more information on how our carbon footprint targets prioritise real emission reductions.

so would mean that approximately 70% of our AuM could be labelled "managed in line with net zero", because they are encompassed by our existing WACI target*. However, we do not consider this to be best-practice or in the interest of our clients, who should feel confident that the funds they are invested in could be expected to decarbonize in line with net-zero requirements, if such funds are said to be managed in line with net zero.

### What are our next steps?

**Our EOY2024 ambition is to double the share of AUM that is managed in line with net zero.**

As the largest asset manager** in the Nordics, NAM investments cover all major asset classes; listed and private equity, corporate bonds, green bonds, sovereign bonds, covered bonds, structured products and others. For most of these asset classes, methodologies for measuring Net Zero alignment has not yet been established. Going forward, to increase the share of net-zero committed AUM, we will work to expand the scope of our target-setting framework to corporate bonds strategies and continue working collaboratively to establish industry best practice methodologies for measuring 1.5°C alignment across more asset classes.

In addition, a key component of a net-zero investment strategy is to increase investment in the range of climate solutions needed to meet our shared climate goals. This requires a robust, and peer-comparable approach to identifying – and measuring the contribution of – climate solution providers. Developing frameworks in line with emergent best practice is a key priority for 2023.

### Facilitating real emission reductions in the oil & gas industry...

Methane is a powerful greenhouse gas, estimated to be contributing to 25% of global warming today. Methane has more than 80 times the warming power of carbon dioxide over the first 20 years after it reaches the atmosphere. Although $CO_2$ has a longer-lasting effect, methane sets the pace for warming in the near term. The oil and gas industry is the largest industrial source contributing to 25% of global anthropogenic methane emissions. Reducing methane emissions is critical for companies to achieve a 1.5 degree pathway. The International Energy Agency has demonstrated that reducing methane in oil and gas in the next decade is one of the most cost-effective forms of climate risk mitigation.

In July 2022, we initiated the first phase of a collaboration with selected partners and clients to engage with 15 companies in the oil and gas industry on the disclosure and mitigation of their methane emissions. Our primary engagement ask is for investee companies with methane emissions to join the Oil and Gas Methane Partnership (OGMP) 2.0 framework. OGMP is the gold standard in methane measurement, reporting and target setting. In addition to joining the OGMP, investee companies are asked to identify the actions being taken to reduce methane emissions and to share the cost/benefit analysis of these actions in engagement meetings.

During the second half of 2022, we expanded phase one of the engagement to additional companies and our engagement efforts across the group continue. Although we still see gaps in the maturity of the companies in tackling methane emissions, we are seeing progress in the engagement. Many of the companies are taking action to reduce their methane emissions and are in dialogue with the OGMP 2.0 programme on membership. Petrobras and EOG Resources joined the OGMP 2.0 in January 2023.



* WACI is for illustrative purposes only, investors are recommend to read the pre-contractual documents to identify the sustainable indicators associated with a fund. ** According to December 2022 AuM.

# 4. Targets and metrics

In November 2021 our net zero commitment was cemented by the release of a new set of climate targets, complementing existing objectives[17]. Collectively, our targets embody our overall ambition to continue building climate resilience and embracing the opportunities presented by the transition to a low-carbon economy.

Our overarching long-term goal is to achieve net-zero emissions for all assets under management by 2050. Our short-and mid-term targets work towards this overall ambition, through complimentary top-down and bottom-up approaches: from an **organisational** wide target to reduce the weighted average carbon intensity (WACI) of investments; a set of **portfolio-specific** carbon footprint reduction targets, and a complimentary target to ensure **individual companies** are engaged to become 1.5°C aligned. To this end, we have also set a 2025 target to phase out investments in coal-related companies without plans to achieve a full exit from coal globally by 2040.[18]

In practice, we expect our targets to be achieved through three mechanisms, which in order of priority are:

- **Pushing current investee companies towards accelerated decarbonization.** Active ownership is a core pillar of our climate strategy underpinning our investments, including the launch of our Climate Engagement strategy
- **Investing in companies that facilitate real-world decarbonization.** A good example of this is our PAFF Policy, as well as our efforts to ensure our portfolio-level carbon footprint targets incentivise investment in decarbonisation leaders
- **Shifting portfolio allocation away from high-emitting companies and sectors.** We restrict investments in sectors with a limited future in a decarbonised economy, and integrate the identification of negative emission outliers into the overall investment process

17) The targets were released in Net Zero Asset Manager Initiative's 2021 Progress report. 18) We define coal-related companies as those that are involved in the mining for coal or use it for electricity generation. NAM already excludes companies with more than 10% of their revenues from coal production from all its portfolios, and applies our Paris-Aligned Fossil Fuel Policy or even stricter exclusion criteria to all portfolios designated ESG (currently app. 70% of NAM AuM).

**Figure 10: NAM quantified targets**

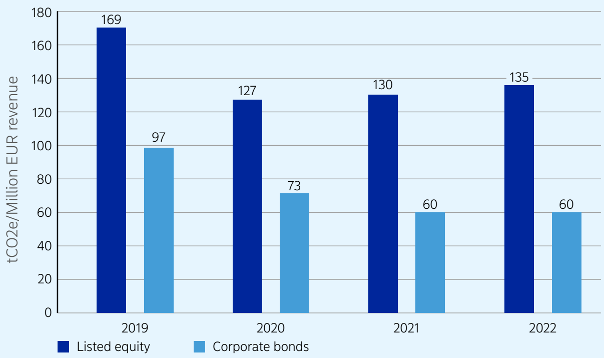
| Timeline | Target | Scope | Status |
|---|---|---|---|
| Short term: 2025 | 80% of top 200 contributors to financed emissions to be either categorized as "Aligned" or else be subject to engagement to become aligned | Listed equity and corporate bonds | Initiated engagement with 149 companies on Paris alignment |
| | Phase out investments in coal-related companies without plans to achieve a full exit from coal globally by 2040. | Companies involved in the mining for coal or use it for electricity generation | Ongoing |
| | Double share of net-zero committed AuM to 35% | All asset classes | 17.3% of AuM net-zero committed |
| Mid-term: 2030 | 100% of top 200 contributors to financed emissions to be either categorized as "Aligned" or else be subject to engagement to become aligned | Listed equity and corporate bonds | Ongoing |
| | Achieve fund-specific carbon footprint reduction targets. The AUM-weighted average target value is currently 34.5 tCO2e/mUSD, equivalent to a 48% reduction from 2019 baseline year, but varies depending on sector composition | 17.3 % of total AuM | Ongoing |
| | 50% reduction in the weighted average carbon intensity (WACI) of investments from 2019 baseline year | Listed equity and corporate bonds | 23% reduction from 2019 – 2022 |
| | Increase investments in climate solutions | To be defined | Ongoing |
| Long-term: 2050 | Net zero greenhouse gas emissions | Total AuM | |

## Weighted Average Carbon Intensity

To ensure alignment with the Paris agreement, in 2020 NAM committed to reducing the weighted average carbon intensity (WACI) of its aggregated listed equity and corporate bond investments by 50% before 2030, compared to a 2019 baseline. WACI measures $TCO_2e$/EUR million revenue, and as such is not a direct measure of emissions. Yet, it is a useful measure of a portfolio's exposure to carbon-intensive companies, and acts as a proxy for climate transition risk, since companies with higher carbon intensity are likely to face more exposure to carbon-related market and regulatory risks.

**2022 saw a 23% decrease in WACI compared to 2019.** The decrease is primarily driven by reduced exposure to the energy sector, as well as a switch towards less carbon intensive companies within Utilities following the introduction of our PAFF policy. The next section sheds more light on this, by breaking down our financed emissions across sectors.

**Figure 11: WACI**




Data as of 31.12.2022.
Data coverage listed equity: 99% (2019), 99% (2020), 99% (2021), 100% (2022).
Data coverage corporate bonds: 85% (2019), 88% (2020), 88% (2021), 89% (2022).
**Source: Nordea Investment Funds S.A., ©2023 MSCI ESG Research LLC. Reproduced by permission.**

## Financed emissions and carbon footprint

Targeting a reduction in average carbon intensity is a big step towards aligning investments strategies with the Paris Agreement, which will require a much less carbon-intensive economy. However, the average intensity metric itself does not capture developments in absolute emissions. In line with the recommendations of TCFD and Partnership for Carbon Accounting Financials (PCAF), we therefore also track our financed emissions: The absolute emissions that we finance through our investments.

When calculating financed emissions, a portion of the annual GHG emissions of a company is allocated to an investor, based on its relative exposure. Simply put, the more shares or bonds an investor has in a company, the larger the share of emissions attributed to that investor.[21]

The resulting figure can be expressed both in absolute terms and as a carbon footprint metric, which is the absolute GHG emissions per million EUR invested. The latter is arguably a more meaningful indicator as it is not influenced by overall growth in assets under management. NAM' absolute financed emissions decreased by 15% from 2019 to 2022. NAM's carbon footprint, which controls for the size of the investment portfolio and hence measures the emissions profile of the portfolio irrespective of its size, fell by 27%. The main driver of this reduction was a switch to less carbon-intensive companies within the energy, utilities and materials sectors, together with an overall reduction in our exposure to the energy sector. The carbon footprint remained relatively flat in 2021-2022, since developments in the utilities sector largely offset reductions achieved in other sectors.

### Figure 12: Financed emissions

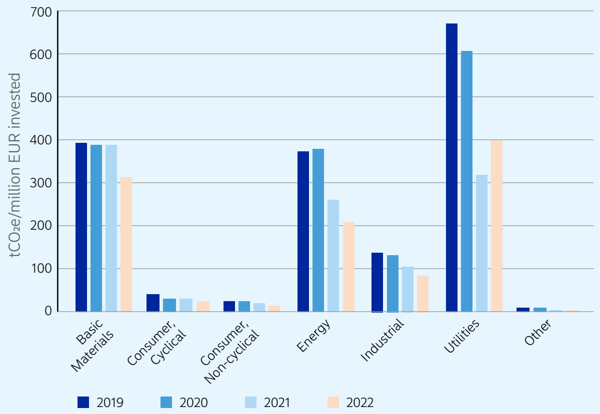
**Financed emissions scopes 1-2 ($tCO_2e$)**

| | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|
| **Listed equities** | 7.047.552 | 6.369.470 | 7.688.412 | 6.206.663 |
| **Corporate bonds** | 3.348.761 | 4.186.406 | 1.946.459 | 2.625.993 |

Data as of 31.12.2022. Financed emissions figures are coverage-adjusted. Data coverage listed equity: 96% (2019), 97% (2020), 98% (2021), 100% (2022). Data coverage corporate bonds: 81% (2019), 84% (2020), 72% (2021), 87% (2022). Securities for which no data is available are assumed to be the average of the sector. This is done to avoid excluding those securities and thereby undercounting financed emissions. **Source: Nordea Investment Funds S.A., ©2023 MSCI ESG Research LLC. Reproduced by permission.**

### Figure 13: NAM's carbon footprint across sectors

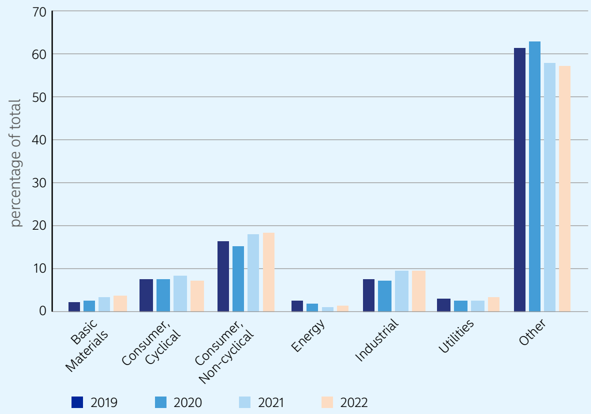
**Carbon footprint of investments by sector**




The carbon footprint of each sector is a measure of the carbon a emissions (scope 1+2) of investee companies in that sector, weighted by our relative exposure to companies within the sector.

X

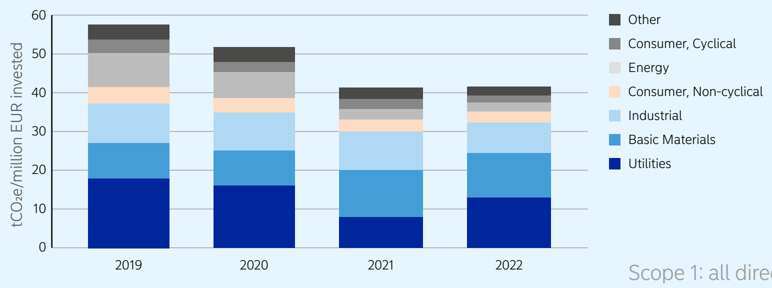
**Investment exposure across sectors**




The graph displays investment allocation across sectors (as % of total).

=

**Sector contribution to NAM's carbon footprint**




A sector's contribution to our carbon foortprint is a function of carbon footprint of the sector as well as our relative exposure to that sector. The sum of each column equals the total carbon footprint of that year.

Data as of 31.12.2022. Data coverage: 88% (2019), 91% (2020), 87% (2021), 94% (2022). Sector classification is based on Bloomberg Industry Classification System (BICS). The 'Other' category includes the following BICS catepgories: Communications, Financials, Technology, Diversified and NA. **Source: Nordea Investment Funds S.A., ©2023 MSCI ESG Research LLC. Reproduced by permission.**

Scope 1: all direct emissions coming from the activities of a company (e.g. the pollution emitted from a factory).

Scope 2: indirect emissions from the consumption of purchased energy, coming from a utility provider.

21) For an in-depth explanation of the methodology, see The Global GHG Accounting and Reporting Standard for the Financial Industry.

## Portfolio-level carbon footprint targets

In line with our NZAM commitment, we report and track the percentage of AUM committed to be managed in line with net zero. Here we only count an investment strategy as part of AUM that is 'managed in line with net zero' if it falls in line with a decarbonization target that is consistent with 1.5°C.

**Our initial set of portfolio reduction targets covers a majority of listed equity investments, corresponding to 17.3% of total AUM.**[22]

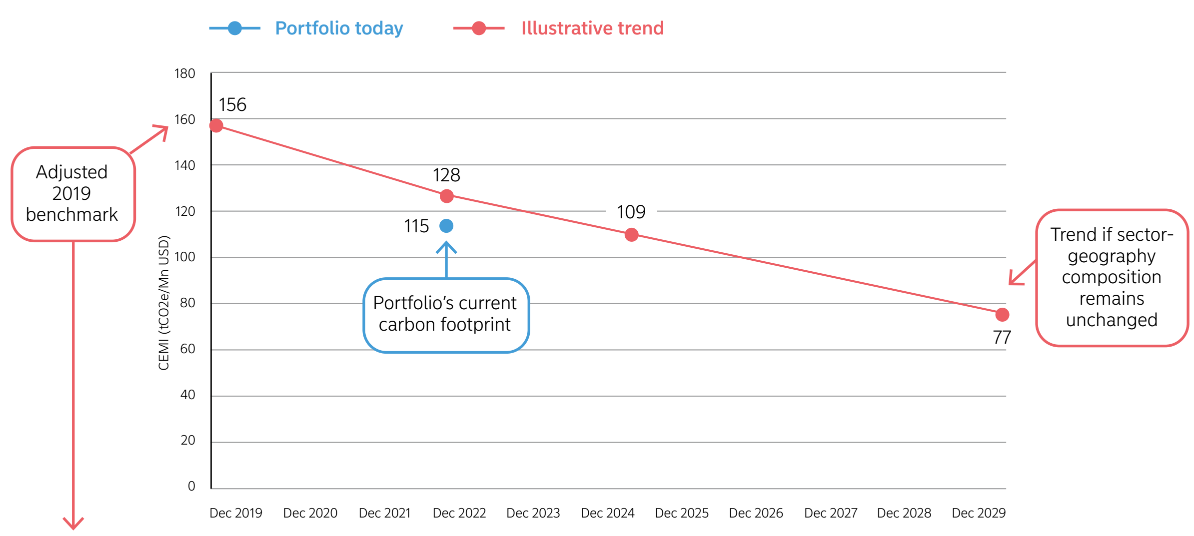
Each investment strategy in scope (i.e., every individual portfolio counted in the 58% of listed equity AUM) is subject to a strategy-specific carbon footprint target for 2030, expressed in terms of $tCO_2e$/mUSD invested. The precise target value for any given investment strategy varies depending on the investment universe and composition of the strategy, but the AUM-weighted average target value is currently 34.5 $tCO_2e$/mUSD, equivalent to a 48% reduction relative to the benchmark intensity in the baseline year.

A key aspect of the NZAM commitment is to "Prioritise the achievement of real economy emissions reductions within the sectors and companies in which we invest".

When setting mid-term targets a core objective therefore was to ensure targets incentivise real economy reductions by continuing to incentivise investment in sectors that are critical for real-world decarbonization.
This was achieved by setting targets that incentivize investments in decarbonization leaders in all sectors. We achieve this by defining fund-specific and sector-agnostic target baselines, based on the average emissions of specific sector-geography combinations represented in a portfolio. The adjusted benchmark baseline value expresses what the carbon footprint of the portfolio's benchmark would have been in 2019, if the benchmark had the same sector/geography composition as the current portfolio. From that a target reduction value is calculated based on the notion of a fair share contribution.[23]

**For more information on our target setting process see Appendix**

### Figure 14: Illustrative trend for example portfolio




The adjusted benchmark baseline value expresses what the carbon footprint of the portfolio's benchmark would have been in 2019, if the benchmark had the same sector/geography composition as the current portfolio.

22) As the largest asset manager in the Nordics, our investments cover all major asset classes. For most of these asset classes, such as covered bonds, methodologies for measuring Net Zero alignment has not yet been established. We will expand the scope of its targets across additional asset classes when it is possible to establish, in a robust and peer comparable way, what is consistent with a fair share reduction. 23) A 'fair share' contribution may be more or less than 50% by 2030. For example, the power sector is expected to decarbonise faster than the steel and cement sectors. Europe and North America are expected to decarbonise faster than Asia. All in all, we distinguish between 24 different sector/geography combinations, each with its own decarbonization pathway, primarily informed by One Earth Climate Model (OECM) and IPCC.

## Issuer-level targets

A key driver for achieving our climate targets and net zero commitment is the increasing alignment of companies to net zero pathways. As active owners we prioritise engagement as the primary mechanism to drive alignment, which is why our 2025 target is for 80% of our top 200 **carbon footprint contributors** be on a Paris-aligned trajectory or else subject to engagement. This target will increase to 100% by 2030.

To identify our top 200 list, we measure financed emissions (tCO2e) and carbon footprint (tCO2e/million EUR invested) following the Partnership for Carbon Accounting (PCAF) guidance. The 'financed emissions' of a company represent NAM's share of that company's emissions. It is a function of two things: 1) Company GHG emissions; and 2) NAM's exposure to the company.

All else equal, a company is more likely to end up on our Top 200 list if it has relatively high GHG emissions or if our exposure is relatively high.

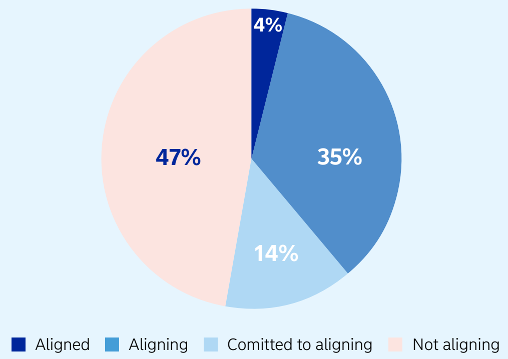
**Collectively, the top 200 list is responsible for 81% of our equity and corporate bond financed emissions.**[24]

Note that our top 200 list is a moving target. Its composition changes as reported emissions change (the desired outcome of our engagement) and our issuer exposure changes (due to portfolio re-allocation). Over the next years we will therefore expect to engage significantly more than 200 companies.

**Progress made in 2022**

In line with the NZIF, we assess each company against a set of current and forward-looking alignment criteria in order to categorize it into one of **4 alignment categories: aligned, aligning, committed to aligning or not aligning**. Figure 15 show the alignment spread of our top 200 companies.[25]

**Figure 15: Paris alignment maturity of our top 200 companies**




Our 2022 priority was to initiate engagement with all companies categorised as not aligning. This milestone was met through the following key actions:

- Individual dialogues with companies in which we stated and discussed our expectations of Paris alignment;
- Engagements via collaborative initiatives (CA100+, CDP non-disclosure campaign);
- A letter addressed to select company CEOs outlining the six alignment criteria and highlighting our expectation, as well as the expectation of the growing number of net-zero committed asset managers, of an increase in alignment maturity if the company is to remain investable in the medium to long term

**In total in 2022, 149 companies (75%) on our top 200 list were engaged on the topic of Paris alignment.**

24 & 25) Data as of 31.12.2022.

# Our Priorities for 2023

## The world is at a pivotal moment in its fight against climate change.

The energy crisis we are currently facing is a stark reminder of the fragility of our current energy system and the urgent need to transition to more distributed, cleaner and renewable sources of energy. The world remains off track to deliver the decarbonization needed to limit global warming to 1.5 degrees, but we see policy makers beginning to wake up, with the Inflation Reduction Act in the US and The REPowerEU plan.

**Eric Pedersen,**
Head of Responsible Investments

In this light, it is clear that the investment landscape is rapidly evolving, offering both challenges and opportunities for net zero committed investors. At the same time, there is an increasing recognition amongst Net zero finance alliances that net zero commitments must be channeled in a way that drives outcomes in the real world. In the words of Mark Carney (Co-Chair of GFANZ and UN Special Envoy on Climate Action and Finance), the purpose of the various net zero alliances is "to guide the financial sector to support real-world decarbonisation, not the false comfort of portfolio decarbonisation"[26].

What does a faithful translation of these high-level commitments, into action for the specific purpose of supporting decarbonization look like? For us it means the following:

- A willingness to add carbon-heavy issuers to portfolios, where there's confidence that the carbon is put to good use (i.e. delivery of climate solutions) or where we believe we can exert influence to facilitate its reduction
- An emissions target and monitoring framework which gives us confidence that real emission reductions occur within our portfolios
- A continued push for investee companies towards accelerated decarbonization

In 2023 we will continue to engage the biggest contributors to our Greenhouse Gas footprint, both in collaboration with other investors and on an individual basis. This includes the recent launches of our Climate Engagement strategy, our Sustainable Real Assets strategy and our targeted methane engagement campaign, which addresses what is potentially the most effective way of slowing climate change in the short term.

The climate crisis is here. Physical risks from climate change is manifesting itself across the Globe in both rich and – especially – poorer countries. And policy risks to companies from inaction are growing. Our focus continues to be on the double materiality of climate risk: addressing climate risks and opportunities within our portfolios, as well as doing our part to support the Global transition to a low-carbon economy.

26) Source: https://www.gfanzero.com/press/gfanz-releases-guidance-on-credible-net-zero-transition-plans-and-seeks-public-input-to-accelerate-action/

# Appendix

## Deriving portfolio-specific reduction pathways

In line with the principles laid out in the Net Zero Investment Framework, we have set our fund-level carbon footprint targets based on the notion of a 'fair share' of emission reductions, meaning that we use regional and sectoral science-based pathways that are consistent with achieving net zero global emissions by 2050.

The 'fair share' emission reductions refers to the recognition that within the ultimate goal of reducing global GHG emissions to net zero by 2050, or earlier, different sectors, industries, and regions will decarbonise at different rates. Therefore, for some sectors or regions, a 'fair share' contribution may be more or less than 50% by 2030. For example, the power sector is expected to decarbonise faster than the steel and cement sectors. Europe and North America are expected to decarbonise faster than Asia. The carbon footprint targets for our portfolios, therefore, are proportional to how large their exposure is to sectors and regions for which the required decarbonization is higher-than-average or lower-than-average.

All in all, we currently distinguish between 24 different sector/geography vectors, each with its own decarbonization pathway, and determine to which vector every investee company belongs. The objective is to ensure that every company we invest in is assessed against a relevant and sector-specific 1.5°C-aligned decarbonization pathway, as well as a relevant peer group of other companies. Every company in a given portfolio contributes to that portfolio's carbon footprint reduction target in a way that is reflective of two key considerations:

1) the decarbonization needs in that company's sector/geography vector; and
2) how high or low the company's emissions are in relation to others in the same vector.

For example, a portfolio that is invested in an average electric utility would, all else equal, be subject to a steeper decarbonization target than a portfolio that is invested in an average software company, because electric utilities generally need to deliver a great emission reduction than software companies. However, if the portfolio is invested in an electric utility that is more emissions-intensive than the sector average, then this would imply an even steeper decarbonization target, because sector laggards generally need to deliver greater emission reductions than sector leaders. When this assessment is applied to a portfolio that is fully diversified against all sectors and regions, it results in a carbon footprint reduction target of –50% by 2030, which is in line with the global 1.5°C pathway in the sustainability-oriented P2 scenario in the IPCC Special Report on Global Warming of 1.5°C. For any given portfolio of ours, the actual target will be higher or lower than –50%, depending on to what extent the portfolio is invested in sectors and countries that need to decarbonize more or less than 50%, and to what extent the specific investee companies in those sectors and countries are leaders or laggards within their vectors.

**Figure A1: 24 vectors**

| 1.5°C-aligned reduction p.a. | OECD Europe | OECD N.A. | Rest of World | Total |
|---|---|---|---|---|
| Utilities | –7% | –8% | –4% | **–5%** |
| Energy | –18% | –18% | –10% | **–12%** |
| Transport | –3% | –11% | –7% | **–6%** |
| Cement | –3% | –5% | –1% | **–3%** |
| Steel | –6% | –13% | –2% | **–7%** |
| Other Materials | –6% | –7% | –3% | **–5%** |
| Other Industrials | –6% | –7% | –3% | **–5%** |
| Other | –6% | –7% | –3% | **–5%** |
| **Total** | **–8%** | **–10%** | **–5%** | **–7%** |

For the identification of relevant sector/geography vectors to use in this methodology, and their associated decarbonization pathways, we rely on a 2020 version of the One Earth Climate Model (OECM), which was developed at the Institute for Sustainable Futures at the University of Technology Sydney, and commissioned by the UN-convened Net Zero Asset Owner Alliance and the European Climate Foundation. This version of OECM identifies five critical sectors (Energy, Utilities, Transport, Steel and Cement) and plots 1.5°C-aligned pathways for each, in three separate geographical regions (OECD Europe, OECD North America, and Global). This yields 15 sector/geography vectors for which we directly use the decarbonization pathways from OECM. We further divide the remaining sectors into three categories (Other Materials, in relation to how emissions intensive they are, and split also these across the same three geographical regions. This yields 24 vectors in total. During 2022, OECM has launched newer versions of their pathways with a higher level of sectoral granularity, and going forward, we will seek to reflect this in our target-setting methodology.

To express our 1.5°C-aligned portfolio level targets, we construct what we call a “custom baseline” footprint, against which we measure carbon footprint reductions for our portfolios. The custom baseline expresses what the carbon footprint of the portfolio’s benchmark would have been in 2019, if the benchmark had the same sector/geography composition as the portfolio. Then, every vector in that baseline is assigned its own carbon target based on its decarbonization pathway. This is ultimately aggregated based on the portfolio’s composition to express an overall reduction target.

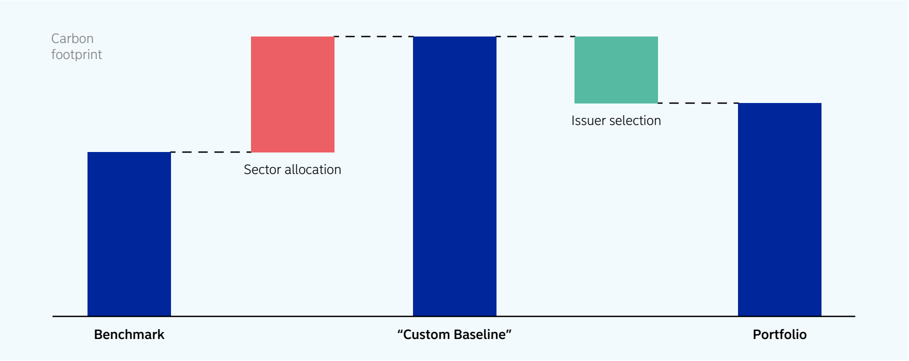
The custom baseline represents a sector- and geography-neutral comparison between the portfolio’s carbon footprint and that of its benchmark. This means that a target expressed in relation to a custom baseline cannot be met by simply changing the sector allocation in a portfolio. A comparison between the portfolio and its custom baseline, however, is still sensitive to differences in stock selection within vectors, as well as real emissions reductions undertaken by companies in the portfolio. This means that in order for our portfolio carbon footprint target to be met, we need to ensure that we are able to increase investments in decarbonization leaders across all sectors, and ensure that the companies that we invest in deliver real-world emissions reductions over time. In other words, we seek to eliminate sector allocation effects from our carbon footprint targets, and instead emphasize issuer selection effects and real decarbonization. In this context, it is important to note that the granularity of the sector/geography vector system matters. Excessive granularity will overstate sector allocation effects, and insufficient granularity will understate them. For this reason, we prioritise distinguishing between sectors where we can capture either distinct decarbonization pathways, or significant differences in current emissions intensities.

The fundamental reason for using this approach is that it allows us to avoid disincentives to invest in specific sectors (e.g., Materials) or countries (e.g., Asia). Not using a custom baseline, and instead formulating a target based on a simple comparison with a benchmark or a historical version of the portfolio, would significantly disincentivize investments in emerging markets and several sectors that are critical for real-world decarbonization, without offering any climate benefits to compensate for this.

A desired consequence of our approach is that the precise target value for a given portfolio varies depending on its composition and investment universe. This means that periodic recalibration of carbon footprint targets may be necessary for portfolios where the sector/geography composition has changed significantly. At the inception of our fund-level carbon footprint targets, the average reduction target for 2030 across strategies was 48% relative to the reference footprint in 2019. The fact that this is below 50% is partly reflective of our strategic underweight in some fossil fuel-related sectors, which would be subject to a higher-than-average decarbonization requirement.

**Figure A2: Custom baseline**

The "custom baseline" approach is a method for **comparing carbon footprints on a sector-agnostic basis**



# Risks for European Investors

## Nordea 1 – Global Climate Engagement Fund

LU2463526074 (BP-USD) / LU2463525423 (BI-USD)

**Risk indicator**

| 1 | 2 | 3 | **4** | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

Lower risk — Higher risk

SFDR classification *

ARTICLE 8

## Nordea 1 – Global Climate and Environment Fund

LU0348926287 (BP-EUR) / LU0348927095 (BI-EUR)

**Risk indicator**

| 1 | 2 | 3 | **4** | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

Lower risk — Higher risk

SFDR classification **

ARTICLE 9

## Nordea 1 – Global Sustainable Listed Real Assets Fund

LU2500361329 (BP-USD) / LU2500361675 (BI-USD)

**Risk indicator**

| 1 | 2 | 3 | **4** | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

Lower risk — Higher risk

SFDR classification **

ARTICLE 9

* The fund has been classified as an article 8 fund under SFDR. The fund has environmental and/or social characteristics but does not have sustainable investment as its objective. ** The fund has been classified as an article 9 fund under SFDR. The fund has sustainable investment as its objective.

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