Sustainable and responsible investing at DNB

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DeNederlandscheBank
EUROSYSTEEM

Contents

Introduction

De Nederlandsche Bank (DNB) seeks to safeguard financial stability and thus contribute to sustainable prosperity in the Netherlands. This means that we are committed to sustainable economic growth with no harmful impact on the environment and an inclusive financial and economic system. By following a sustainable and responsible approach for the assets for which DNB has the full and sole responsibility, we aim to do our part in making the financial and economic system more sustainable.

One of our strategic priorities is to have integrated sustainability into all of our core tasks by 2025. Our Sustainable Finance Strategy sets out our sustainability objectives for each of the core tasks. We also want to make our own organisation more sustainable, including our reserve management. We have drafted a sustainable and responsible investment policy (SRI policy) specifically for our own funds and foreign reserves portfolios (hereafter own account portfolios). The policy is based on international standards, such as guidelines from the European Union (EU), the Institutional Investor Group on Climate Change (IIGCC) and the Principles for Responsible Investing (PRI). Furthermore, we actively share knowledge and experience with other central banks. Through these activities, we aim to contribute to making the financial system more sustainable.

Our SRI policy puts a lot of emphasis on the climate theme, in view of the systemic risks associated with climate change and the transition to a carbon neutral economy. In our role as an investor, we will prioritise the implementation of climate-related targets over the next two years. Climate-related investment standards are relatively well-developed, which facilitates the establishment of a concrete SRI policy. We consider both the risks of climate change to our investments and the impact of our investments on climate change. In the years ahead, we will also analyse how to include other themes more explicitly in our SRI policy, such as the risks associated with biodiversity loss and human rights violations.

The SRI policy covers the management of our own account portfolios. Monetary transactions and assets we manage on behalf of third parties fall outside the scope of this policy document. This also applies to the DNB Pension Fund, which is managed by an independent foundation. At year-end 2023, we held approximately €9 billion in own account investments in various asset classes. We invest about half of these assets in bonds issued by (semi-)sovereigns, supranational institutions and agencies. We also invest in equities and corporate bonds. Our own account investments are managed partly internally and partly externally. Our two internally managed portfolios consist predominantly of sovereign bonds. Equity and corporate bond investments are managed externally by various fund and asset managers.

Our ambition is to bring all investments in equities and corporate bonds in line with the Paris Climate Agreement by 2030. We aim to reduce the carbon footprint of these investment portfolios by 50% by 2030 compared to the base year (2019). We have set this target to realise real world carbon reduction and to contribute to carbon neutrality by 2050, rather than to simply decarbonise our portfolios. To achieve this, we invest in companies that are making the transition, we engage with companies that need to further reduce their carbon emissions and we avoid or exclude highly polluting companies that lack transition plans. We evaluate the effectiveness of our approach every year, and analyse what drivers feed into the reduction of our carbon footprint.

This document presents the application of sustainable and responsible investing at DNB, and consists of the net zero roadmap and the SRI policy. The **net zero roadmap** is forward-looking and outlines our strategic goals for the coming years to effectively reduce our carbon footprint (Section 1). The **SRI policy (Section 2-6)** explains how we currently incorporate sustainability in the investment cycle, such as in our investment objectives and beliefs, the strategic asset allocation, the investment and stewardship guidelines, and in our disclosures.

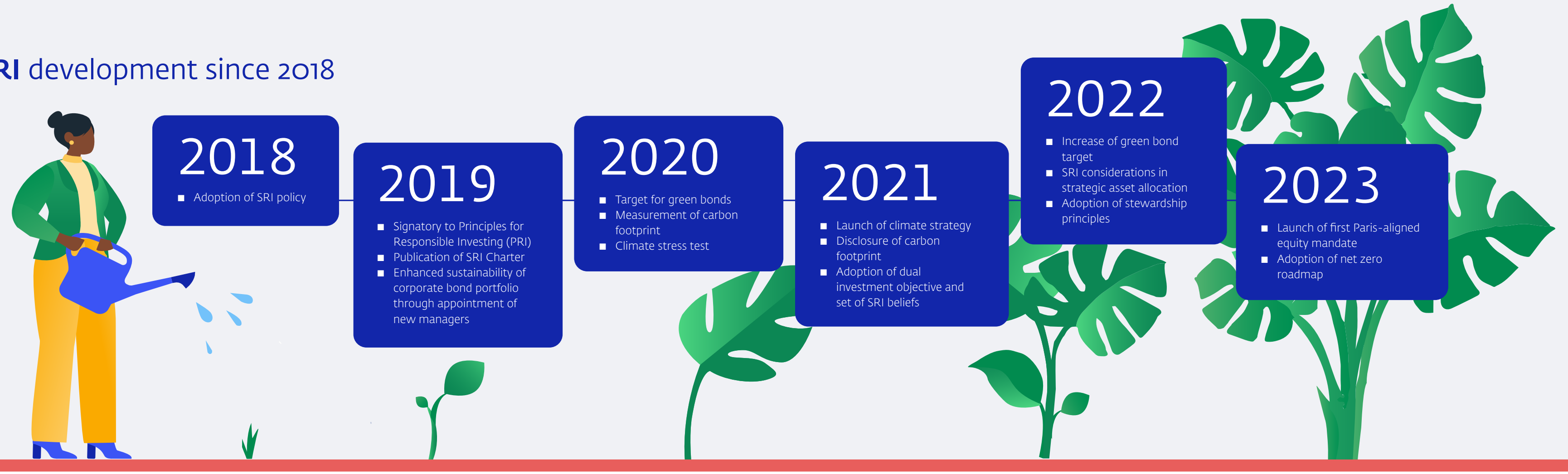
SRI development

DNB first adopted an SRI policy in 2018, and has continued to build on this basis ever since (Figure 1). In 2019, we became the first central bank to sign the Principles for Responsible Investment (PRI), and we published the SRI Charter. In 2021, we launched a two-tiered climate strategy. We use stress tests to measure climate risks and we monitor both backward- and forward-looking carbon indicators. We pursue a positive climate impact by investing in green bonds and aligning our investments in equities and corporate bonds with the Paris Climate Agreement.

DNB aims to bring all equity and corporate bond investment in line with the Paris Climate Agreement by 2030. We intend to reduce the carbon footprint of these investment portfolios by 50% by 2030 compared to the base year (2019) as we work towards net zero by 2050. To achieve this, we have initiated a transition from investing in funds to investing in discretionary mandates. Mandates allow for a more tailored and targeted investment approach, as they provide the possibility to engage in dialogue with companies and to exclude controversial companies or highly polluting companies without transition plans.

DNB is opting for a phased rollout of the net zero investment strategy as detailed in the net zero roadmap. First, we are converting the equity portfolios (developed markets) to mandates, as this accounts for most of our externally managed investments and we would like to engage in dialogue with companies that need to reduce their carbon emissions. To this end, we also established stewardship guidelines in 2022, which apply to the equity mandates and which detail how we use voting and engagement (V&E) to encourage companies to become more sustainable. We launched our first Paris-aligned equity mandate in June 2023.

Figure 1: **SRI** development since 2018



Net zero roadmap

The EU has made commitments to contribute to meeting climate targets. For example, EU carbon emissions must be at least 55% lower by 2030 than in 1990, and the EU must be climate-neutral by 2050. In our role as investor of the own account portfolios, we translate these targets into the choices we make in our portfolios. For instance, we steer towards carbon reduction targets by investing in companies that are making the transition, by engaging in dialogue with companies that need to become more sustainable, and by avoiding or excluding highly polluting companies that lack a transition plan. The net zero roadmap explains the interim targets we have set for each asset class and how we intend to achieve them.

Net zero strategy

We aim to have reduced the carbon footprint of our equity and corporate bond investments by 50% by 2030 compared to the base year (2019). We have set this target with an eye to realise real- world carbon reduction and to contribute to climate neutrality by 2050, rather than to simply decarbonise our portfolio. There are three steps to our strategy: measure, take action and evaluate.

Step 1: Measure

We measure the carbon emissions of our investment portfolios, and disclose these emissions in line with the recommendations of the Taskforce for Climate Related Disclosures (TCFD). We conduct a climate stress test every two years to gain a better understanding of the climate risks present on our balance sheet. We are working on a climate risk dashboard that will enable us to monitor forward-looking indicators, such as the implied temperature rise stemming from various asset allocations in our portfolios. Examining a combination of backward- and forward-looking indicators enables us to estimate the climate impact of our investments, and whether this impact is decreasing in line with the targeted carbon reduction path.

Step 2: Take action

We use a combination of strategies to encourage the companies in our portfolios to become more sustainable, thereby reducing the carbon footprint of our portfolios. For our equity and corporate bond investments, we implement these strategies through various external fund and asset managers.

- **Invest**: **We will invest in companies that are committed to the Paris Climate Agreement.** We will assess the quality of companies' transition plans and monitor their success in reducing their carbon emissions to ascertain whether they are making the transition and improving the sustainability of their business models. As a starting point for assessing portfolio companies, we expect asset managers to follow the IIGCC's net zero framework. This framework provides guidance for reviewing transition plans, including the breakdown of carbon reduction targets, degree of transparency, design of the climate strategy and associated governance.
- **Dialogue: We will engage in targeted dialogue with the companies we invest in.** We have appointed a voting and engagement (V&E) manager for this purpose. We wish to encourage companies to reduce their carbon emissions more rapidly and make their business model more sustainable. With regard to our investments in companies through funds, we continue to actively engage with our current fund managers to encourage them to align their investment approach with the IIGCC's net zero framework. Finally, we continue to make the public case for sustainable financing.
- **Avoid: We will pursue a more stringent exclusion policy and avoid companies that do not commit to the Paris Climate Agreement.** We refrain from investing in companies that do not take steps to make their business model more sustainable. We rely on the exclusion criteria embedded within EU guidelines for climate benchmarks in our equity portfolios. These require exclusion of companies that generate a large part of their revenues from fossil fuel activities. Nor do we invest in companies that violate the United Nations Global

Compact principles (UNGC principles) and/or the OECD Guidelines for Multinational Enterprises (OECD Guidelines).

Step 3: Evaluate
Implementing the net zero investment strategy is challenging and requires continuous adjustment. We ensure that the objectives and strategy are agile so that we can respond quickly to the latest insights. We evaluate our progress towards the 2030 target every year, and update interim targets at least every three years. The first update is scheduled for the end of 2025.

In June 2023, we launched an initial equity mandate in which we steer toward carbon reduction targets. We intend to select new asset managers by the end of 2024, in order to set up two additional equity mandates in line with the Paris Climate Agreement. Furthermore, we have drawn up stewardship guidelines that will apply to our equity mandates (developed markets), see Section 7. Through our V&E manager we will engage in targeted dialogue with companies starting in 2023, and we will exercise our voting rights at shareholder meetings from 2024 onwards.

Interim targets

We have formulated interim targets for each asset class based on our current investment mix and understanding of climate risks. We will use qualitative targets in the years ahead for the investments in government bonds. For equity investments (developed markets), we will focus on the implementation of carbon reduction targets in the years ahead. We have initiated a transition from funds to discretionary mandates to achieve greater customisation in these portfolios. With regard to investments in corporate bonds and equities (emerging markets), the focus in the coming years will be on engaging with our fund managers in targeted dialogue. Table 1 shows an overview of targets per asset class.

Government bonds

We have identified two targets that we intend to achieve by year-end 2025 for the sovereign bond portfolios, consisting of bonds issued by (semi-)sovereigns, supranational institutions and agencies:

- **We invest 20% of these portfolios in green bonds by year-end 2023, amounting to about €1 billion.** We will then increase this target where possible, depending on developments in the market. In doing so, we hope to make a real contribution to combating climate change.
- **We measure climate risks and opportunities in our investments in government bonds.** We are taking steps to develop a monitoring framework based on the PRI guidelines for sovereign bond portfolios. Once we have better insight into governments' transition plans, we can also make more targeted investments in these portfolios, start a dialogue with issuers and avoid or exclude certain investments where necessary.

We aim to have further advanced the investment process by 2028, and strive to expand our approach to also (to the extent possible) exclude specific issuers in these portfolios that do not show sufficient commitment to the Paris Climate Agreement.

Developed market equities

We aim to have our developed markets equity portfolios fully aligned with the Paris Climate Agreement by the end of 2025; we have recently updated our investment guidelines to achieve this. We use both multi-year financial targets and carbon reduction targets. We expect the asset managers of our discretionary mandates to deliver solid returns relative to our funding costs, and explicitly steer towards a carbon reduction path. We use the IIGCC's net zero framework as a starting point to classify which companies are committed to the Paris Climate Agreement and to identify which companies provide climate solutions.

The carbon reduction pathway we use as a starting point is based on the EU Paris Aligned Benchmark (EU PAB). The carbon footprint of the new mandates must be 50% lower than the market benchmark at the outset, decreasing by 7% each year thereafter. Carbon reduction targets are initially expressed in direct emissions (scopes 1 and 2), and they will also be expressed in indirect emissions (scope 3) once better data become available. We assume that our asset managers are capable of achieving these carbon reduction targets, and we apply a "comply or explain" principle.

We have set the following interim targets for year-end 2025:

- **We make deliberate investments in companies committed to the targets of the Paris Climate Agreement.** The asset managers of our mandates actively compile an investment portfolio, and consider both carbon emissions and the quality of transition plans when selecting companies. They also weigh how companies deal with other E, S and G criteria ("ESG integration").
- **We invest in companies that provide climate solutions.** It is important not only to look at carbon emissions, but also to consider whether a company carries out activities that contribute to accelerating the energy transition, such as generating renewable energy. Such activities sometimes have higher direct carbon emissions, but are green according to the EU taxonomy. We aim for annual growth in the proportion we invest in climate solutions.
- **We actively engage with companies to encourage them to become more sustainable.** A specialised V&E manager engages with companies on our behalf, focusing on the most material themes as identified for each company. This includes engagement with companies that are responsible for a large part of the carbon emissions in our portfolios, and thus need to take steps to become more sustainable.
- **We use our shareholder voting rights to emphasise the need for transparent and ambitious transition plans.** As part of the discretionary mandates, we will start exercising our voting rights at shareholder meetings as from 2024. A V&E manager with expertise in sustainable and responsible investing will implement these activities. We are committed to promoting clear transition plans and transparent climate disclosures based on guidance from, amongst others, the International Sustainability Standards Board (ISSB), the Transition Pathway Initiative (TPI) and the Science Based Targets Initiative (SBTI).
- **We avoid or exclude companies with fossil operations that are not taking sufficient transition steps.** In line with EU guidelines for climate benchmarks, we exclude companies that generate high revenue from fossil fuel extraction, refining, trade and/or use. The permitted revenue thresholds are (i) 1% for coal, (ii) 10% for oil and (iii) 50% for natural gas. Exceptions can be made if a company has a reliable transition plan and is expected to reduce its carbon emissions in the short term.
- **We exclude controversial companies.** This covers companies involved in the production of and/or trade in controversial weapons, companies that violate UNGC principles, breach OECD guidelines, produce tobacco products or that do significant harm to any of the six environmental objectives.

We have set a target for reducing the carbon footprint of our developed market equity portfolios by 50% by 2028. Furthermore, we have an effective monitoring process that allows us to understand trade-offs between climate targets and other sustainability risks such as biodiversity loss.

Corporate bonds and emerging market equities

For our investments in corporate bonds and equities (emerging markets), we are committed to a constructive dialogue with our fund managers to achieve the following targets by the end of 2025:

- **We work with fund managers who exclude investments in coal entirely or have specific policies to phase them out.** Most countries must reduce their dependence on coal by 2030 to meet the targets in the Paris Climate Agreement. We therefore challenge our current fund managers to phase out all investments in coal-related activities by 2030.
- **We work with fund managers who report annually on the Paris Climate Agreement targets.** We expect our fund managers to embrace the IIGCC's net zero framework, and to be able to identify the extent to which the funds' investments are in line with the Paris Climate Agreement by the end of 2025. We require them to report to us annually on progress.

We have the ambition to also bring our current fund participations in line with the Paris Climate Agreement. To this end, we are working on guidelines for investments in corporate bonds and emerging market equities to be able to also implement specific carbon reduction targets here before 2028.

Table 1: Summary of interim targets by asset class

Target 2030	**Equity and corporate bond investments have been aligned with the Paris Climate Agreement, and the carbon footprint of these portfolios has been reduced by 50% compared to the base year (2019).** Setting this target should contribute to real world carbon reduction, and not just lead to decarbonisation of the portfolio.			
	Internal portfolios	External portfolios		
	Government bonds	**Equities** Developed markets Discretionary mandates	**Corporate bonds** Investment grade en high yield Funds	**Equities** Emerging markets Funds
Target 2025	**We invest 20% of our portfolio(s) in green bonds** by year-end 2023. We will then raise this target where possible, depending on developments in the market. We measure climate risks and opportunities within our sovereign bond investments using PRI guidelines.	▪ **We explicitly** steer towards carbon reduction targets. With every new mandate, we start with a 50% lower carbon footprint compared to the market, followed by a 7% annual reduction target thereafter. ▪ We **invest** in companies that are taking steps to meet the goals of the Paris Climate Agreement, or that are engaging in activities that contribute to accelerating the transition. ▪ We engage in **dialogue** with companies to encourage them to reduce their carbon emissions. We also exercise our voting rights to emphasise the need for transparent and ambitious transition plans. We do this through a V&E manager. ▪ We **avoid** companies that (i) are involved in the production of or trade in controversial weapons or produce tobacco (ii) violate the UNGC principles, the OECD guidelines or any of the six EU DNSH principles, (iii) are dependent on fossil revenues and are not taking adequate steps to make the transition. The permitted revenue thresholds are (i) 1% for coal, (ii) 10% for oil and (iii) 50% for natural gas.	**The dialogue with our fund managers is proceeding adequately.** We steer towards: ▪ Phasing out of all coal-linked investments. ▪ Monitoring and reporting on the Paris Climate Agreement targets in line with the IIGCC framework.	**The dialogue with our fund managers is proceeding adequately.** We steer towards: ▪ Phasing out of all coal-linked investments. ▪ Monitoring and reporting on the Paris Climate Agreement targets in line with the IIGCC framework.
Target 2028	Where possible, we exclude governments that are not sufficiently committed to the Paris Climate Agreement.	We have reduced the carbon footprint of our equity portfolios by at least 50% compared to the base year (2019).	We explicitly steer towards carbon reduction targets in line with the Paris Climate Agreement.	We explicitly steer towards carbon reduction targets in line with the Paris Climate Agreement.

Investment objective and beliefs

The Sustainable Finance Strategy describes DNB's organisation-wide sustainability goals. We seek to safeguard financial stability and thus contribute to sustainable prosperity in the Netherlands. We are working towards integrating sustainability into all our core tasks as we do our part to make the financial and economic system more sustainable. We also ensure that our own account portfolios are managed in a sustainable and responsible way.

DNB's intention is that its SRI policy will promote the transition to a more sustainable financial sector. We put sustainability on the agenda in the international forums, networks and working groups in which we participate. In our role as investor, we are part of various networks engaged in sustainable finance. Furthermore, we actively share knowledge and experience with other central banks to increase our impact and contribute to making the global financial system more sustainable.

Dual investment objective

We pursue a dual investment objective as we believe that return targets should go hand in hand with sustainable and responsible investment practices. We aim for a solid financial return relative to our funding costs and a positive impact on nature and societal issues, with an emphasis on good governance. We see both objectives as essential.

Our dual objective calls not only for realising a solid financial return, but also for making a positive contribution to sustainability goals. Our main focus in the years ahead will be on the energy transition and reducing the risks associated with climate change. Furthermore, we are exploring how our SRI policy can contribute to reducing risks due to biodiversity loss and human rights violations.

As we pursue our dual objective, we seek alignment with internationally leading investment standards. Current policies are based on EU, IIGCC and PRI guidelines, among other sources. Furthermore, we explicitly integrate the targets of the Paris Climate Agreement into our investment approach, as set out in the net zero roadmap (Section 1). In doing so, we look both at the risks that climate change poses to our investments and at the impact that our investments have on climate change.

Beliefs

DNB has identified seven SRI beliefs. These beliefs guide our investment policy, including the strategic asset allocation (see Section 3). They are the starting point for policy choices in the design of our investment portfolios, and the deployment of strategies such as V&E.

- Actively including environmental, social and governance (ESG) criteria in investment decisions facilitates identifying risks in a timely manner, thus contributing to more stable returns.
- Climate change is a systemic risk with a growing impact on the global economy and financial system. The transition to a climate-neutral economy leads to risks and opportunities that we as investors take into account.
- Investing in line with the targets of the Paris Climate Agreement results in more stable financial returns in the long run. Currently, climate-related risks do not seem to be adequately reflected in the prices of financial instruments.
- A long investment horizon encourages companies we invest in to strive for long-term and comprehensive value creation, including with regard to environmental and social goals.
- Actively engaging with companies that are willing to become more sustainable, where possible in collaboration with other investors, can effectively contribute to positive change.
- Exclusions help set minimum standards that companies must meet, reflecting which products and/or activities are at odds with our investment beliefs.
- Sharing experience and accumulated knowledge with other central banks and similar investors helps make the financial sector as a whole more sustainable.

Strategic asset allocation

Every three years, DNB performs a strategic asset allocation (SAA) for its own account investments. During this process, we determine which asset classes we invest in, how much we invest in them and the bandwidths we apply. The choices we make during this process largely determine the portfolio's return-risk profile. We use a number of tools when making these choices, including long-term scenario analysis and various optimisation techniques.

We focus more and more on SRI when determining our optimal investment allocation. In 2022, we began exploring the inclusion of SRI considerations in our triennial Strategic Asset Allocation (SAA) study. As part of this study, we model and assess risk-return characteristics by asset class. We included SRI principles at various levels in the study, including in a scenario analysis on climate risks. The results of this long-term scenario analysis are still mostly supportive instead of binding in setting the optimal investment allocation. We aim to improve our approach as better data and models become available.

Not all asset classes offer equal opportunities to apply SRI policies. For each asset class we estimate whether we can achieve both a financial target and a carbon reduction target, and whether we see opportunities to integrate broader ESG criteria.

We hold a large portion of our own account investments for potential currency interventions. Around half of our own account investments are in US dollar-denominated (semi-) sovereign debt securities with high credit ratings so that we can meet any potential foreign exchange needs of the European Central Bank (ECB) and the International Monetary Fund (IMF). It is essential that this portfolio is always sufficiently liquid to enable rapid and effective interventions if required.

Scenario analysis of climate risks

We use scenario analyses to investigate risk and return per asset class over the long term. In addition to the traditional economic scenarios, we use three specific climate scenarios in the SAA study. These scenarios were prepared by the United Nations Intergovernmental Panel on Climate Change (IPCC).

The climate scenarios involve three types of transition:

- **Orderly transition**: In this scenario, the necessary measures to make the transition to a climate-neutral economy by 2050 are taken quickly and predictably. The temperature rise in this scenario likely remains limited to 1.5 degrees Celsius by 2100, which means physical climate risks would be relatively limited (though they would not disappear). In the shorter term, the most pronounced impact on the economy and financial markets would be from transition measures.
- **Disorderly transition:** This scenario is similar to the orderly scenario, with the main difference being that transition measures are taken later. Adjustments are disorderly with a sudden correction in financial markets, stranded assets and negative effects on stock market sentiment. In this scenario, temperature rise remains limited.
- **Failed transition:** In this scenario, the additional measures taken are inadequate to make the climate transition, resulting in a temperature rise of 4.3 degrees Celsius by the end of the century. Although the short-term impact on the economy is more limited due to the lack of transition measures, the long-term impact on the economy is greatest due to the physical risks involved.

We examine how the investment portfolio responds to climate scenarios with a 40-year horizon. Using such a long horizon (a horizon of 5 to 15 years is more common in economic scenarios) provides a better understanding of the financial implications of the climate transition. It also reveals the long-term effects of more serious physical risks.

Although the calculations involved in these scenarios are subject to uncertainty, they do provide insight into the extent to which investment returns may be affected by climate change. An orderly transition has an immediate short-term impact on the investment portfolio as the effects of policy measures and societal changes are quickly priced in. In a disorderly transition, the impact is ultimately greater due to adjustments that take place later and that shock the system. Conversely, the portfolio is least affected in the short term in a failed transition scenario. However, the ultimate financial impact of a failed transition is much greater in the long run due to the materialisation of physical risks.

Investment guidelines

As at October 2023, DNB has around €9 billion in own account portfolios and invests in various asset classes, including equities, corporate and government bonds. Using the SAA study, we set an optimal investment mix every three years, and we determine how much is invested in which asset class. The day-to-day management of the portfolios is based on investment guidelines that describe the objectives we pursue as well as the conditions under which they must be met. Carbon reduction targets and restrictions on the investment universe have been formulated for investments as part of discretionary mandates. Table 3 summarises the current application of SRI.

Equities (developed markets)

We have recently advanced our investment guidelines for equities (developed markets) and supplemented them with carbon reduction targets. We are converting our fund investments to discretionary mandates to enable implementation of such targets. We are starting with equities (developed markets) because this asset class makes up the largest part of our investment portfolio. Furthermore, we can use V&E to encourage companies to become more sustainable.

The dual objective has been elaborated in multi-year financial targets and carbon reduction targets. The carbon reduction pathway is based on the EU PAB framework of the European Commission. On this basis, the carbon footprint of the investments must be 50% lower compared to the market benchmark at the outset, decreasing by 7% each year thereafter. Carbon reduction targets are initially expressed in direct emissions (scopes 1 and 2), and they will also be expressed in indirect emissions (scope 3) when better data become available. These investment guidelines are used for equity investments within discretionary mandates and are implemented as such by the investment manager. We monitor whether these carbon reduction targets are achieved, and we apply a "comply or explain" principle.

In addition to reducing the portfolio's carbon footprint, we also look at the companies' plans for the future. When estimating a company's climate impact, the asset managers of our mandates assess not only its carbon footprint, but also the quality of its transition plan. As a starting point for assessing portfolio companies, we expect asset managers to follow the IIGCC's net zero framework. This framework provides guidance for reviewing transition plans, including the breakdown of carbon reduction targets, degree of transparency, design of the climate strategy and associated governance. In addition, we only work with fund and asset managers who pursue ESG integration, and also consider how companies deal with other ESG criteria that may affect their financial performance.

Furthermore, companies are excluded from our investment universe based on various criteria. To avoid any conflict of interest with our independent supervisory role, we do not invest in financial institutions supervised by DNB, the SSM and/or the AFM within the discretionary mandates. Additionally, we apply three types of exclusions in line with the EU PAB framework:

- **Basic exclusions:** Companies engaged in the production or trade of tobacco products or controversial weapons, including cluster munitions, landmines or chemical, biological and nuclear weapons (to the extent that they violate the Non-Proliferation Treaty). We also exclude companies that do not adhere to the UNGC principles or the OECD Guidelines.
- **"Do No Significant Harm" exclusions:** Companies that cause significant harm to one or more of the six EU environmental objectives.
- **Activity-based exclusions:** Companies that generate part of their revenue from fossil fuel extraction, refining, trade and/or use. The permitted revenue thresholds are (i) 1% for coal, (ii) 10% for oil and (iii) 50% for natural gas. We also exclude companies that derive 50% or more of their turnover from

generating carbon-intensive electricity (100g CO_2 e/kWh). Exceptions can be made if a company has a reliable transition plan and is expected to reduce its carbon emissions in the short term.

- **Finally, we require the asset managers of our mandates to apply the IIGCC's net zero framework.** For instance, we expect our asset managers to make targeted investments in companies that comply with the Paris Climate Agreement or that provide climate solutions, and to engage in dialogue with companies that emit high levels of carbon and thus need to take further sustainability measures. We also expect them to avoid or exclude companies that are unwilling to make the transition.

Government bonds

The government bond portfolio is managed by an internal team of portfolio managers. The portfolio consists of bonds of highly creditworthy (semi-) sovereigns, supranational institutions and agencies. This portfolio is fully denominated in foreign currencies, and partly held for potential currency interventions.

In total, 20% of the value of these portfolios is invested are in green bonds. We see this as a positive contribution to climate issues, which is also in line with our dual investment objective. Furthermore, we integrate ESG criteria into various phases of the investment process. We also monitor whether bond issuers and counterparties comply with the UNGC principles, and we exclude those that violate the principles.

Other asset classes

With regard to the other asset classes, including corporate bonds and equities (emerging markets), we invest in funds that meet our requirements. We have selected funds based a comprehensive selection process, where we explicitly look at integrating sustainability considerations into the investment process. The current fund investments meet the following requirements:

- **Exclude:** We exclude companies involved in the production of or trade in controversial weapons, such as cluster munitions, landmines or chemical, biological and nuclear weapons (to the extent that they violate the non-proliferation treaty).
- **Screen:** Screening the investment universe against internationally applicable ethical standards, such as the UNGC principles. We expect our fund managers to have formulated policies to take appropriate action, such as excluding certain parties or driving behavioural change, in case of violations of ethical standards.
- **Integrate:** ESG criteria are properly integrated into the investment process. Fund managers must demonstrate how they systematically incorporate financially material ESG criteria into their company-specific analyses. We only work with fund managers who are signatories to the PRI.
- **Dialogue:** Stewardship is part of the strategy. The fund managers actively engage with companies on ESG issues. Such engagement may manifest itself in taking action on violations of ethical standards or in a thematic, proactive dialogue with investee companies.
- **Disclose:** Every quarter, our fund managers report on ESG and specific climate indicators. They also provide a summary of V&E activities at least once a year.

In the years ahead, we will also further advance our investment guidelines for the other asset classes. In the years ahead, we will take steps to implement specific carbon reduction targets for the fund investments. In the process, we are researching the investment implications of other sustainability risks, such as biodiversity loss, and taking steps to better integrate these themes into our SRI policy as well.

Stewardship guidelines

In addition to the investment guidelines, stewardship guidelines are applicable to our discretionary mandates in developed market equity. We use stewardship to encourage companies to create long-term economic, social and environmental value. With the help of a specialist V&E manager, we engage with companies and exercise our vote at shareholder meetings. We also make a public case for sustainable financing.

Dialogue

In our SRI beliefs, we indicate that engaging with companies can contribute to positive change. We engage with companies with the aim of influencing their behaviour and activities and encouraging them to make improvements with a focus on broad value creation. There is added value in investing in companies that are not yet fully sustainable, but that intend to make the transition and are taking concrete steps to reduce their carbon emissions.

We outsource our engagement activities. For investments in discretionary mandates, a specialised V&E manager engages with companies on our behalf in accordance with specific principles that we consider important. We regularly engage in dialogue with our V&E manager to ensure that their stewardship practices align with our expectations.

Voting at shareholder meetings

By casting our vote at shareholder meetings, we can contribute to an effective governance culture and encourage companies to become more sustainable. If executives are held accountable for failing to meet sustainability targets, there is a direct incentive for them to implement effective policies.

We encourage companies to commit to the Paris Climate Agreement, and adapt their operations accordingly. We embrace international transparency standards, including guidelines from the ISSB. We also support transition plans that meet internationally applicable requirements, as formulated by the TPI and the SBTI.

Following from our SRI beliefs, we have developed voting principles which consist of:

- **Principles for good governance in companies.** We vote in line with relevant corporate governance codes that promote: (i) a decisive board and management team, (ii) proper control and accountability in the management structure (checks and balances), (iii) remuneration policies that reward long-term value creation, and (iv) effective systems for proper internal control of risks linked to all material environmental, social, and governance matters.
- **Principles on thematic issues in our voting policy.** Our SRI policy has a strong climate focus. In general, we support resolutions calling for more transparency on environmental and social issues and/or resolutions encouraging implementation of transition plans.

We will start exercising our voting rights in 2024; a specialised V&E manager will cast our votes based on preset voting principles. Our voting policy must remain up-to-date and applicable in all jurisdictions, which is why we build upon the expertise of a V&E manager for the establishment and implementation of our voting policy. We aim to cast our vote at all companies in which we invest and on all agenda items, and we base our voting decisions on insights from ongoing engagement processes and relevant corporate governance codes. We abstain only in exceptional cases, such as when casting our vote may interfere with our independent role as a central bank.

We use our voting rights as an extension of engagement. By casting our vote, we send a signal to the companies we invest in. As a rule, when we vote against certain proposals, the V&E manager always substantiates our vote to the company's board, which can serve to increase the impact of our engagement.

Once a year, we publish an aggregated summary with the results of the votes we cast. This report specifies per theme on the voting ballot how and how often we voted within the discretionary mandates. We conduct an annual evaluation of whether our voting policy is being implemented in compliance with our principles regarding good corporate governance and thematic issues.

Monitoring, disclosure and evaluation

Every year, we account for our investment activities in our annual report and in the PRI transparency report. We use the monitoring activities and associated reports as a yardstick to evaluate our progress and shape our priorities for the next year.

Monitoring

We monitor the SRI profile of all our investment portfolios quarterly. We monitor our green bond allocation within the internal portfolios. For the external portfolios, we monitor the components from our investment guidelines. For instance, we check how the ESG scores and carbon footprint of the portfolios are evolving, and what V&E activities the fund and asset managers are carrying out. We use this information during quarterly meetings with our fund and asset managers. If we conclude that our fund and asset managers are not acting in line with our investment guidelines, we take appropriate action. The final step in our escalation model is disinvestment.

Disclosure

We account for our SRI activities in our annual report. Our disclosure focuses not only on the process (what steps did we take?) but also on the results (what were the outcomes?). An external auditor provides limited assurance on our disclosure in our annual report.

DNB endorses the recommendations of the TCFD. We follow these recommendations in our annual report. This means we report on our climate-related governance, strategy, risk management and targets. The metrics are calculated based on agreements between all central banks in the Eurosystem to ensure mutual consistency. We rely on data from various data suppliers when calculating the metrics. Furthermore, all financial indicators for calculating the metrics are expressed in euro (Table 2). We reveal trends in our carbon emissions by reporting not only on the most recent year, but also on previous years in our annual report.

We report on multiple carbon metrics to get a full picture of the trend, as each metric has different sensitivities. In our annual report, we report on several metrics by asset class, including total carbon emissions, carbon footprint and carbon intensity (weighted average). See Table 2 for the formulas. For example, total absolute carbon emissions are sensitive to an increase in portfolio size. The allocated share of absolute carbon emissions may decrease over time, simply as a result of the reduction in the size of the portfolio. In addition, time series of relative metrics (carbon footprint and intensity) are sensitive to market valuations and inflation. Exchange rate effects can also affect the figures if company revenue or value is expressed in foreign currencies. To determine whether the companies in the portfolio are succeeding in reducing their carbon emissions, it is necessary to analyse the developments that impact the reported figures.

We report on direct and indirect carbon emissions for our investments in companies. We use the definitions from the Green House Gas Protocol and apply the measurement methodology of the Partnership for Carbon Accounting Financials to calculate emissions for our investments in equities and bonds of companies, supranational institutions and agencies. We report using scope 1, 2 and 3 emissions. Whereas scopes 1 and 2 concern a company's direct carbon emissions, scope 3 covers emissions from the entire life cycle of products. It also reflects carbon emissions from purchased raw materials (upstream), the use of intermediate products and their disposal (downstream). Scope 3 data are still mostly estimated by data suppliers using a variety of models, making it more difficult to gauge the quality of these data.

For our investments in (semi-) sovereigns, we also report on several metrics. We use absolute and relative measures to approximate the carbon emissions of governments. Furthermore, we report on the size of our green bond investments.

Table 2: Calculation of carbon metrics for corporate investments

Total absolute carbon emissions:

To calculate total emissions from our investments, we use emissions weighted by Enterprise Value including Cash (EVIC) in million euro per company.

$$\text{Total emissions} = \sum_{n}^{i} \left(\frac{\text{value of investment}_i}{\text{Enterprise Value Including Cash}_i} \text{ x emissions}_i \right)$$

Carbon footprint:

Carbon reduction targets for equities (developed markets) are based on carbon emissions per million euro invested (carbon footprint). Total emissions are adjusted for portfolio size in million euro, making it possible to track the emission trend over time.

$$\text{Carbon footprint} = \frac{\sum_{n}^{i} \left(\frac{\text{value of investment}_i}{\text{Enterprise Value Including Cash}_i} \text{ x emission}_i \right)}{\text{value of portfolio}}$$

Carbon intensity (weighted average):

Weighted Average Carbon Intensity (WACI) is calculated by taking a weighted average of the amount of carbon emissions per million euro of revenue of the portfolio companies.

$$\text{WACI} = \sum_{n}^{i} \left(\frac{\text{value of investment}_i}{\text{value of portfolio}} \text{ x } \left(\frac{\text{emissions}_i}{\text{revenue}_i} \right) \right)$$

Evaluation

We evaluate our SRI policy annually, taking account of developments in legislation, best practices and market standards. Regular monitoring activities may also lead to adjustments in our policies, processes and activities. We update our strategic goals at least every three years. The next update of our targets is scheduled for the end of 2025.

The PRI transparency report also provides important input for our evaluation. In this report, published annually, we outline our SRI activities, policies and processes. The PRI uses this report to prepare an assessment containing scores and specific areas for improvement.

We use the results of the annual evaluation to identify priorities for the following year. We compile these into an action list consisting of various projects to improve our policies at different stages of the investment cycle. Studies which are not yet part of the policy, such as mapping biodiversity risks and opportunities as well as risks of human rights violations, are also part of these priorities.

Further information:

Please direct questions about DNB's own account portfolios and sustainable and responsible investing to:

Kommer van Trigt, Head of Asset Management Department

Rianne Luijendijk, Team Leader, Sustainable and Responsible Investing

Table 3: Application of SRI to own investments, year end 2023

By year-end 2023, we include environmental, social and governance (ESG) considerations in all our own investments. We are implementing a net zero investment strategy in the equity portfolios (developed markets) through discretionary mandates. For investments in corporate bonds and equities (emerging markets), steps will be taken before 2028 towards the implementation of carbon reduction targets.

	Internal portfolios	External portfolios			
Asset class	**Government bonds** Bonds issued by (semi-) sovereigns, supranationals and agencies	**Equities** Developed markets	**Equities** Developed markets	**Corporate bonds** Investment grade and high yield	**Equities** Emerging markets
	Direct investments	1 discretionary mandate	2 funds	4 funds	2 funds
Invest	**We invest in green bonds.** By year-end 2023, we invest 20% of the value of our portfolio(s) in green bonds. We aim to raise this target where possible, depending on developments in the market.	**We pursue a net zero investment strategy.** We make targeted investments in companies that are taking steps to meet the targets of the Paris Climate Agreement, or that are engaging in activities that contribute to accelerating the transition. **We explicitly steer towards carbon reduction targets**. With every new mandate, we start with a 50% lower carbon footprint compared to the market, followed by a 7% annual reduction target thereafter.	**We apply ESG integration.** We invest in companies that still provide good returns while taking ESG criteria into account. Our fund managers systematically integrate financially material ESG criteria into their investment process.		
Dialogue		**We engage in dialogue with companies to encourage them to reduce their carbon emissions.** We also exercise our voting rights to emphasise the need for transparent and ambitious transition plans. We do this through a V&E manager.	**We only work with fund managers who apply V&E**, and who actively engage with companies on sustainability issues. Such engagement may involve taking action on violations of ethical standards or in thematic, proactive dialogue.		
Exclude	**We exclude (semi-) sovereigns, supranationals and agencies that**: ▪ Have a credit rating lower than A ▪ Are on EU, US, and/or NL sanctions lists ▪ Violate the UNGC principles	**We exclude companies that:** ▪ Are involved in the production of or trade in controversial weapons, or that produce tobacco products ▪ Violate the UNGC principles, the OECD guidelines or any of the six EU DNSH principles ▪ Are dependent on fossil revenues and that are not taking adequate steps to make the transition. The permitted revenue thresholds are (i) 1% for coal, (ii) 10% for oil and (iii) 50% for natural gas.	**We exclude companies involved in the production of or trade in controversial weapons.** **We screen whether companies adhere to the UNGC principles.** In case of a violation, we expect the fund manager to exclude the company or effectively incentivise behavioural change.		

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