

Annex 1 Climate-related Financial Disclosure

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Introduction

Integrating the risks and opportunities associated with climate change into our work stems from our mission to promote sustainable prosperity. Climate change and the energy transition are key challenges for the economy and the financial sector, representing a source of risk to financial stability. This report discusses the steps we are taking to identify and mitigate climate risks, specifically in our supervision of the financial sector, our economic advice, statistics and balance sheet management. For the first time, we are reporting in accordance with the framework of the Task Force on Climate-related Financial Disclosures (TCFD) of the Financial Stability Board (FSB). We will refine this report annually as we continue to integrate climate risks and opportunities into the performance of our duties.

Solid evidence indicates that economic activity drives global warming. There is however uncertainty as to how climate change will develop, as well as governments' policy responses to it and its potential financial and economic impact. We therefore distinguish two types of climate-related financial risks: physical risks and transition risks (see Box 1). We have made good progress in recent years in identifying these risks. For example, we have researched physical risks in the financial sector, and we have subjected the financial sector and our own balance sheet to climate stress tests to detect transition risks. This is particularly challenging, because climate change as we are experiencing it today is unprecedented, meaning historical data is of little practical help. Moreover, measurement methods and statistics are still being developed worldwide.

Box 1 Financial risks from climate change and the energy transition

Climate change results in two types of financial risks. Physical risks for the financial sector arise as a result of greater damage and losses from natural phenomena including high temperatures, storms, precipitation, drought and flooding. If these losses and damage are covered by insurance, this has direct consequences on insurers' business models and risk management. If they are uninsured – and therefore borne by households, businesses or public authorities – this affects financial institutions' exposure to these parties. The second type of risk, transition risk, is the result of the transition to a carbon-neutral economy. Climate policy, technological developments and changing consumer preferences may cause loans to sectors and companies that emit high levels of CO₂ or other greenhouse gases (and investments in them) to lose value much faster than expected.

2 1 Governance

DNB's Governing Board is responsible for achieving our vision for Corporate social responsibility (CSR), and is accountable to the Supervisory Board for progress in this area. The first four priorities in our [CSR strategy](#) describe our approach to the risks and opportunities presented by climate change. Each year, the Governing Board assigns weight to specific aspects of these priorities that are then reflected in the various divisions' plans and included in updates to our CSR strategy. Additionally, the Governing Board makes use of a CSR decision rule: the deliberation process for every decision includes the positive or negative impact on our CSR priorities. The Prudential Supervision Council and the Resolution Council also make use of this decision rule. Moreover, internal bodies that are responsible for shaping policy such as the Risk Management Committee include climate risks in the performance of their duties. The Strategic Sustainability Programme will be launched in 2021, an organisation-wide effort designed to help us achieve our CSR goals more decisively through centralised management.

In the national context, we are working with various parties in the financial sector and other stakeholders to improve the identification and management of climate risks. In 2016, for example, we initiated the Platform for Sustainable Finance to encourage the exchange of knowledge on sustainability-related themes such as climate risks, carbon accounting and carbon pricing. Representatives from the financial sector, supervisors and government ministries participate in this consultative body. The platform published a [report](#) in 2020 in which financial institutions shared their experiences in managing climate risks. We also organise an annual knowledge-sharing session with NGOs, and we use the insights derived in our economic advisory role in the public debate on climate policy.

We also work in an international context on identifying and managing climate risks. As an example, we are a co-founder of the TCFD, and we are involved in climate-related policy-making as a member and vice-chair of the FSB. We are also active in international bodies such as the Basel Committee on Banking Supervision (BCBS), the International Association of Insurance Supervisors (IAIS), the Bank for International Settlements (BIS), the IMF and the OECD. We are also a co-founder and active member of the Network for Greening the Financial System (NGFS), which we chaired until the end of 2020. The NGFS is an international network for central banks and supervisory authorities that is proactively committed to enhancing the sustainability of the financial system. In 2020, the NGFS published several recommendations on how central banks and supervisors of financial institutions can go about integrating the management of climate risks in the performance of their duties, including a [Guide for Supervisors](#), the preparation of which was coordinated by DNB, and an [Overview of Environmental Risk Analysis by Financial Institutions](#). The NGFS also submits recommendations to policy-makers, for example on developing better datasets and methods for measuring and managing sustainability risks. Reliable data that can be compared is vital for making reasonable estimates of climate risks, which is why we are involved in various international work streams to develop statistics on sustainability.

We are actively involved in the preparations for the ECB's monetary strategy review in the area of climate change. As part of this review, the ECB will be looking into ways to integrate climate risks into monetary policy, and it will explore what it can do to encourage the transition to a climate-neutral economy. The preparations for the strategic review are divided among a number of work streams. We are 'co-lead' of the work stream that is looking into how monetary policy instruments can be deployed to promote the transition to a green economy. In an international context, we also share insights on greening non-monetary portfolios. We do so, for example, as the chair of an NGFS sub-group on sustainable portfolio management. We are also involved in an ECB high-level task force, which is developing investment principles for the sustainable investment of central banks' non-monetary reserves.

2 Strategy

Our goal is to fully embed CSR in our core tasks by 2025. The potential impact of our activities is significant in the area of climate change through our supervision of the financial sector, the economic advice we issue and our management of monetary portfolios (monetary exposure: EUR 290.7 billion). The final result, however, will also depend on the efforts of other stakeholders (financial institutions, government, the ECB). Moreover, we use our investments (EUR 7.5 billion, excluding IMF receivables) to exert influence. These financial and material aspects of our strategy are discussed below. Additionally, we are actively working to reduce the carbon footprint of our own operational management, including through compensation measures.

We use our supervisory activities to influence the way Dutch financial institutions manage the climate risks they face. Since 2016, we have been identifying the scope of climate risks affecting the Dutch financial sector. As part of these activities, we have conducted a climate stress test on the impact of the energy transition on the financial sector and we have examined exposure to climate risks. The results of these efforts indicate that climate change and the energy transition have the potential to lead to major losses. Our [Supervisory Strategy](#) and our annual [Supervision Outlook](#) describe how we use our supervisory activities to encourage financial institutions to manage climate risks and other material sustainability risks.

We include environmental, social and governance (ESG) issues in processes for our own-account investments in accordance with our policy on responsible investment, as laid down in the [Responsible Investment Charter](#) (see [Section 4.4](#)). This includes identifying the climate risks and opportunities on our own balance sheet, along with the carbon footprint of our own-account investments.

We have set priorities for the short term (2021) and targets for the medium term (2025) for the financial sector, the economy and our own balance sheet. Table 1 shows the priorities for 2021 (see [Section 4](#). 'Indicators and targets' for progress on priorities for 2020). The annual priorities will help us to achieve the following targets by 2025 (see [CSR strategy](#)): identifying and managing

- 4 financial climate risks by the financial sector, in the economy and on our own balance sheet, along with the inclusion of relevant sustainability indicators in ECB and IMF statistics. The new Strategic Sustainability Programme will guide our organisation-wide climate strategy in the years ahead.

Table 1 DNB priorities in the area of sustainability for 2021

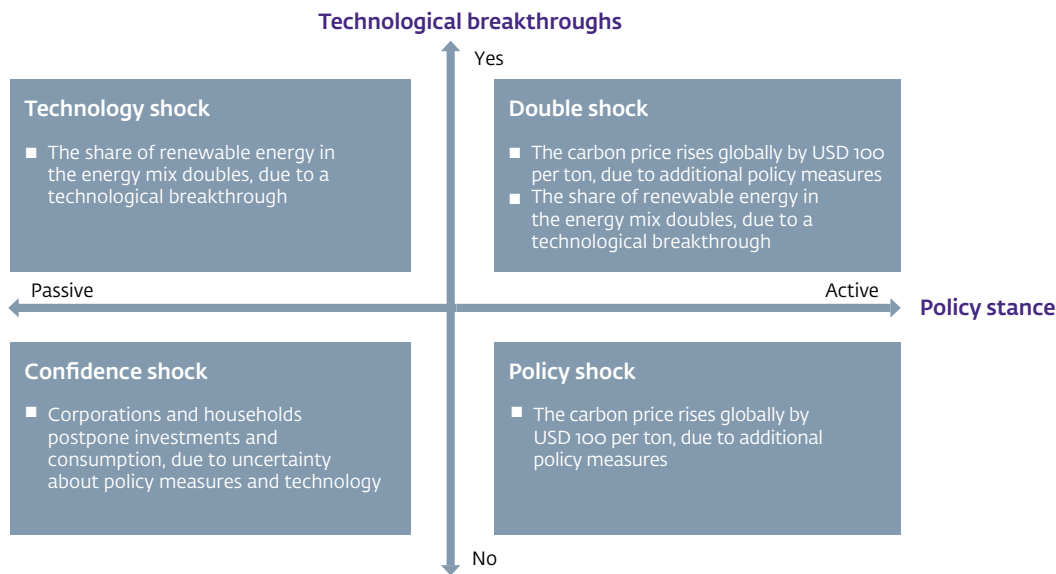
Our duties	Priorities for 2021
Supervision of the financial sector	We will publish a study in 2021 on financial institutions' progress on embedding material sustainability risks in their internal risk measurement and assessment. The report will provide insight into the degree to which banks, insurance companies and pension funds have taken material sustainability risks into consideration.
Statistics	We will develop a method for measuring carbon footprints (including their breakdown) at the sector and institutional level, and we will publish initial carbon indicators for the most pertinent Dutch financial sectors.
Economic advice	We will issue advice on how policy measures for economic recovery following the COVID-19 crisis can simultaneously give a boost to achieving climate goals.
Balance sheet management	In the various consultative structures with the ECB, we will advocate for the application of the precautionary principle in integrating climate risks into the risk management frameworks for the corporate sector purchase programme (CSPP) and collateral framework. We intend to invest a minimum of EUR 400 million in green bonds for our own-account investments. Moreover, we will look into how we can bring our equity portfolio into alignment with the Paris Climate Agreement, and we will initiate a study into physical climate risks.

3 Risk management

Balance sheet management

We continually monitor the carbon footprint of our own-account investments and we have conducted a climate stress test to identify exposure to transition risks. We report on the carbon footprint of our own-account investments to our internal stakeholders on a quarterly basis. In addition, we have used a climate stress test with four scenarios to identify the transition risks of our monetary portfolios and our own-account investments (see Figure 1). The method behind the stress test is based on the [framework](#) developed by the Financial Stability Division for supervised institutions, which we have adjusted for use on the balance sheet of a central bank. The results of the stress test do not constitute a prediction, but a sensitivity analysis for various scenarios. We subjected our monetary portfolios and our own-account investments to the stress test in March 2020, based on data available as of the end of November 2019.

Figure 1 Stress test scenarios



The stress test covers energy transition risks and includes four extreme yet plausible scenarios. We designed the scenarios based on two key factors in a disruptive energy transition: public policy and technological developments.

- Technology shock: a technological breakthrough doubles the proportion of renewable energy in the energy mix.
- Double shock: there is a simultaneous combination of a policy shock and a technology shock.
- Policy shock: governments pursue an active policy of reducing CO₂ emissions, triggering an abrupt rise in carbon prices.
- Confidence shock: a lack of policy and technological breakthroughs results in diminished confidence among consumers, producers and investors.

Results of the stress test for our monetary portfolios

The climate stress test revealed that our balance sheet is sensitive to transition risks, which is largely caused by the energy transition's impact on market interest rates in the various scenarios. The double-shock scenario has the most profound negative impact on our profits, and poses the greatest risk to our balance sheet (see Figure 2). The stress test also revealed that a relatively small portion of the total portfolio is responsible for the shift in risks, primarily due to exposures in the CSPP to energy companies.

6 Figure 2 Stress test scenario impact on profit and total risks for DNB

Scenario	Profit for DNB	Total risks for DNB
Policy shock	medium	medium
Technology shock	low	low
Double shock	high	high
Confidence shock	low	low

Stress test results for own-account investments

The double shock scenario also has a major impact on the corporate bond and equities portfolios in our own-account investments. Figure 3 shows the impact of the climate stress test on the corporate bond and equities portfolios in our own-account investments. Three sectors are affected relatively severely: i) industry, ii) production and distribution of energy, natural gas, electricity and refrigerated air, and iii) mining and quarrying. The policy shock scenario has a relatively severe impact on our corporate bond portfolio, stemming from sectors i) and ii) above, but also due to an assumed abrupt rise in interest rates. The confidence shock scenario presumes a stock market crash, with a resulting severe hit to our equities portfolio.

Figure 3 Impact of the stress test scenarios on the market value of corporate bonds and equities in DNB portfolios

Scenario	Corporate bonds	Equities
Policy shock	high	medium
Technology shock	low	low
Double shock	high	high
Confidence shock	low	high

Developments in balance sheet management

In the coming period we will explore options for expanding the stress test to include physical climate risks so that we can identify such risks to our own-account investments. These activities will help us to gain a complete perspective on climate risks and enable us to take mitigation measures where necessary.

4 Indicators and targets

We have made progress on the climate-related CSR priorities for 2020 in our various core tasks.

Supervisory authorities, economic advisers, monetary policy-makers and reserve managers all have frameworks and instruments available to them to assess climate risks and to mitigate them where possible. Below we discuss the progress we have made.

Supervision of the financial sector

In 2019/2020 we communicated our expectations of financial institutions regarding the management of climate risks. We then assessed in 2020 whether banks and insurers had included climate risks in their risk assessments. We are developing an assessment framework for supervisors that they can use to determine whether the financial institutions' risk assessments are in line with the expectations we publish. Additionally in 2020, we conducted interviews with institutions based on our policy statements and their own risk assessments as part of our regular supervisory activities and thematic examinations. In the years ahead, we will be making our expectations regarding climate risks more substantive, while also expanding them to include additional sustainability risks. This is because other societal and environmental challenges, such as declining biodiversity, also pose increased risks for financial institutions. We published a study on this topic in 2020 together with the Netherlands Environmental Assessment Agency: [Indebted to nature – Exploring biodiversity risks for the Dutch financial sector?](#) The study reveals that Dutch financial institutions run physical, transitional and reputational risks due to the loss of biodiversity.

We published a Q&A and a good practices document for banks in 2020, offering suggestions for integrating climate risks in governance, risk management and reporting. As in 2019, we asked medium-sized banks in 2020 to indicate their response to climate risks in their risk assessments. A comparison of the assessments submitted reveals that these banks (Less Significant Institutions, LSIs) placed more emphasis on climate risks in 2020 than they did in 2019. We shared our 2020 findings with the banks. The ECB also used our findings as a basis for the [Guide on climate-related and environmental risks](#). The guide is directly applicable to large banks (significant institutions (SIs), and we will incorporate it in our supervision of all banks starting in 202. We also contributed to a [report](#) on institutions' climate-related and environmental risk disclosures.

We published a Q&A and a good practices document for insurers in 2019, indicating how they should deal with climate risks in their risk assessments. An analyses of the insurers' risk assessments in 2020 reveals that roughly half of insurers included climate risks as an influence factor in their risk profiles. Large insurers tend to view climate risks as material risks. This indicates that insurers are taking steps in the right direction. We do expect, however, that the sector will rapidly expand efforts to incorporate climate risks in their risk assessments (see Table 2).

- 8 **We published a fact sheet for the pension sector in 2019, providing an overview of all relevant sustainability legislation.** The introduction of the IORP II Directive means that managing ESG risks has become anchored in regulatory and legislative requirements for pension funds, which are now legally required to prepare risk assessments that take these risks into account, and to submit their risk assessments to us by the end of 2021. To ensure awareness of these requirements among pension funds, we emphasised the importance of managing climate risks in speeches, workshops and through other channels in 2020. Examinations of funds and discussions with administrators reveal clear frontrunners (mostly larger funds), followers and laggards. Those in the vanguard have launched initiatives to collect relevant and reliable information on sustainability issues and to integrate this information in their investment policy and risk management. Funds in this group are also more likely to have defined CO₂ reduction targets. We are committed to encouraging pension funds to continue integrating sustainability risks in their risk management practices. We recognise the added value of sharing experiences and learning from one another and of collaboration within the sector.

Table 2 Observations on the financial sectors with regard to climate risks

Financial sector	Observations in 2020
Banks	Greater emphasis on climate risks among LSIs
Insurers	Half of insurers include the impact of climate risk on their risk profile.
Pension funds	Pension funds acknowledge climate risks, although to varying extents.

In August 2020, we were involved in the organisation of an international conference for financial market infrastructures (FMIs) on climate risks. The conference was led by the Bank for International Settlements and was aimed at raising awareness on this topic. We feel that climate risks can be integrated further in the medium term in the supervision of compliance with laws and regulations among FMIs.

We point out climate risks during exploratory discussions with licence applicants seeking market access. Our supervisory dialogue with the sector is ongoing, and we are defining our exceptions regarding climate risks and other sustainability risks in greater detail. Starting in 2021, we will emphasise climate-related and environmental risks during fit-and-proper assessments of board members and other officers.

We contributed to international policy development regarding supervision of the financial sector. We responded to the request for consultation on the European Commission's Renewed Sustainable Finance Strategy. Additionally, in 2020 we co-chaired and participated in the high-level Task Force on Climate-related Financial Risks (TCFR) of the BCBS. The TFCR is currently engaged primarily in exploratory activities, which are not expected to result in changes to the Basel standards

in the short term. We are working with the International Association of Insurance Supervisors (IAIS) on a paper on integrating climate risks in the supervision of the insurance sector. We worked with the European Banking Authority (EBA) on exploratory studies into the integration of sustainability risks in banks' own risk assessments and in minimum capital requirements. In our [view](#), the study on integrating sustainability risks in minimum capital requirements and the subsequent European decision-making process should be brought forward. We also worked with the EBA on the inclusion of sustainability risks in the 2019 publication, [Guidelines on loan origination and monitoring](#). In accordance with these guidelines, institutions must weigh sustainability risks in their lending decisions. Institutions that specifically develop sustainable credit facilities and instruments must have appropriate policies and supporting processes in place. We contributed to several publications by the European Insurance and Occupational Pensions Authority (EIOPA), including one on the relationship between the prudent person rule for pension funds and sustainability, and one on climate scenarios that insurers can use when conducting their own risk assessment. We believe it is important that climate risks become incorporated in international supervision standards and in European legislation and regulations. Progress has certainly been made in this regard, but we feel the process could be accelerated.

Economic advice

We critically monitored the agreements made as part of the Dutch Climate Agreement, and we advised the government. This is particularly the case for economic measures, such as the desirability of the introduction of a carbon tax. In publications, speeches and interviews, we made frequent and specific proposals for improved emissions pricing at the EU level as part of a green recovery from the COVID-19 crisis, and in this context we put forward a number of [proposals](#) for intensifying climate-related investments. In addition, we emphasised the need for an ambitious EU Green Deal in speeches and during meetings. CO₂ emissions fell significantly in 2020, even further than the agreed targets (see Table 3). However, this reduction is primarily a result of the restrictions on travel and the economic crisis resulting from the COVID-19 pandemic rather than a consequence of more stringent climate policy. As the economy once again gains traction, emissions will also rise sharply. The Netherlands Environmental Assessment Agency has calculated that emission reductions will fall short of the 2030 target by half under current policy in the Netherlands. This increases the risk of an abrupt transition, resulting in damage to the economy and the financial sector. However, a carbon tax for industry was introduced in the Netherlands in 2020, which led to a light increase in the effective carbon price for the sector. Our advice on this topic was referenced on numerous occasions during the policy deliberations on the introduction of the carbon tax.

10 Table 3 Overview of climate targets for the Netherlands and 2020 status

Indicator	Objective	2020 status
CO ₂ emissions in the Netherlands	Drop in CO ₂ emissions in the Netherlands in accordance with nationally agreed climate targets (50-55% reduction by 2030 and climate neutral by 2050)	Achieved
CO ₂ emissions in the Europe	Drop in CO ₂ emissions in Europe in accordance with agreements in the EU Green Deal (annual)	Achieved
Climate plans	Netherlands Environmental Assessment Agency calculates that the climate plans effectively meet the reduction targets	Not achieved
European effective CO ₂ price	The European effective CO ₂ price is in accordance with the price required to meet the targets of the Paris Climate Agreement (annual, set by the World Bank)	Measurable progress (see plans for the EU Green Deal, not yet finalised)

Statistics

We are working with the ECB and IMF on the development of internationally comparable official statistics on sustainability in the financial sector. We chair the Statistics Committee's Expert Group on Climate Change and Statistics. In late 2020, the group completed a report with recommendations for follow-up studies on carbon footprint indicators, physical risk indicators and the identification of green/non-green instruments. These follow-up studies will be initiated in 2021, and we will make additional capacity available to ensure that they are conducted expediently. We are the coordinator of the Sustainable Finance Statistics theme in the IMF's Balance of Payments Committee, and in this role we have presented our plans for a report due to be published in 2021 containing guidelines for the inclusion of sustainable finance in regular balance-of-payments statistics.

Balance sheet management

We have identified the carbon footprint of our own-account investments. To this end, we conducted an analysis of all investment categories in our portfolio (see Table 4). The indicators have been aggregated at the level of three investment categories: government bonds and semi-public bonds, corporate bonds (High Yield and Investment Grade bonds) and equities. We report on multiple climate indicators, as they each provide different insights and information (see Box 2). The data covers emissions as reported by companies themselves and estimates provided by the data supplier (see Annex 2, About this report). Our calculations currently only involved scope 1 and scope 2 emissions. We plan to add scope 3 emissions in a few years, however, once companies' data availability has improved (see Box 2). We have currently not set carbon footprint reduction targets. In the course of the year we will explore whether we can align our equities portfolios with the goals set out in the Paris Climate Agreement, enabling us to define emission reduction targets.

Table 4 Climate indicators for our own-account investments

	Total	Government bonds and semi-public bonds	Corporate bonds	Equities
Portfolio size (EUR billion)*	7.2	4.0	1.2	1.9
Data availability**	80%	72%	79%	99%
Total CO ₂ emissions (tCO ₂ e)***	1,179,337	903,893	171,843	103,601
Carbon footprint (tCO ₂ e/enterprise value)	169	257	154	45
Weighted Average Carbon Intensity (tCO ₂ e/ turnover)	202	223	280	115

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* Portfolio size has been calculated based on the market value at 31 December 2020, excluding positions in cash and derivatives, and can vary widely from year to year.

** Data availability indicates the percentage of the portfolio for which data on CO₂ emissions is available. This percentage is higher for the turnover of weighted CO₂ emissions indicator: 95% for government bonds and semi-public bonds, 87% for corporate bonds and 99% for equities.

*** Total CO₂ emissions from government bonds and semi-public bonds are based solely on emissions from government bonds in the portfolio. Necessary data such as enterprise value is lacking for semi-public bonds due to the complex organisational structure.

The market value of our investments in green bonds amounted to EUR 279 million at 31 December 2020. This represents an increase of approximately EUR 232 million compared to year-end 2019. Our goal is to invest at least EUR 400 million in green bonds by year-end 2021. We make our selection of green bonds based on either the Green Bond Principles or the Climate Bond Standard and Certification Scheme.

Box 2 Notes on CO₂ emissions and climate indicators

All greenhouse gas (GHG) emissions are measured and expressed as tonnes of CO₂. Scope 1 includes direct emissions (e.g. from heating systems, vehicles or generators). Scope 2 includes indirect emissions caused by purchases of products for further use and production (e.g. electricity generated elsewhere). Scope 3 includes all other indirect emissions produced as a result of activities that take place after the production phase (e.g. during the consumption phase or waste processing phase), over which companies have little direct influence. The European Commission recommends that enterprises report scope 3 emissions in the [Guidelines for non-financial reporting: supplement on reporting climate-related information](#).

The total CO₂ emissions indicator is the sum of all scope 1 and 2 GHG emissions of enterprises in the portfolio, weighted by the proportion of the investment in each enterprise. This indicator is the most literal descriptor for how polluting a portfolio is. However, the indicator is not adjusted for the total size of a portfolio, which makes it unsuitable for comparing different portfolios. Carbon footprint corrects for portfolio size, making it easier to compare the emissions of different portfolios. Weighted Average Carbon Intensity indicates the exposure of a portfolio to enterprises with relatively high emissions. For government bonds, CO₂ emissions are weighted by total public debt (rather than by enterprise value) or GDP (rather than by turnover).