Climate Change

This document describes DNB Asset Management's expectations to companies for addressing their climate-related risks and opportunities.

1. Objective

The DNB Group's Standard for Responsible Investment¹ shall ensure that DNB does not contribute to human or labour rights violations, corruption, serious environmental harm and other actions which may be perceived to be unethical and/or unsustainable. They shall also ensure that assessments of risks and opportunities arising from Environmental, social and Governance (ESG) factors are integrated into the investment decision-making process. At DNB Asset Management (DAM) we exercise our ownership rights in line with international norms and standards, including the UN Global Compact, UN Guiding Principles on Business and Human Rights, the G20/OECD Principles of Corporate Governance, and the OECD Guidelines for Multinational Enterprises. We practice active ownership using tools such as screening, dialogue, engagement and voting. Risk management, standard setting and ESG integration are also important in our responsible investment approach. As a part of our risk management, companies may be excluded from our investment universe as a last resort if they do not adequately manage the risks and opportunities associated with climate change. The Group Standard states that companies may be excluded from DNB's investment universe if they contribute to or are responsible for "acts or omissions that on an aggregate company-level lead to unacceptable greenhouse gas emissions (GHG)". Over time we have worked to reduce our exposure to such unsustainable businesses and have, as of today, excluded 113 companies based on this criterion and our criterion related to grave harm to the environment².

Climate change has been one of DAM's long-term focus areas for many years as we recognise that climate change can materially impact companies' revenues, both negatively and positively. DAM therefore strives to make a meaningful contribution towards the goals of the Paris Agreement by taking a long-term view and effectively managing the risks and opportunities associated with the transition towards a low-carbon economy. An important aspect of achieving this involves taking an integrated ESG approach to addressing climate change.

Our expectations on climate change inform how we engage with companies on a proactive and reactive basis and serve as a top-level guidance for companies within our investment universe, as well as companies we may invest in in the future. We screen companies' exposure to climate change risks and opportunities. Climate risk is primarily addressed through a focus on companies operating in carbon intensive sectors. In addition, companies whose business activities involve significant clearing of forests are also prioritised as Agriculture, Forestry and Other Land Use (AFOLU) activities account for approximately 25% of global GHG emissions³. Climate opportunities are grasped by identifying and investing in companies offering climate solutions. When our screening and company analysis reveals that climate change risks are high and unmitigated and/or if climate change opportunities are not adequately addressed, we will engage with the company.

Our expectations call for a high level of transparency around how companies identify, assess and manage their exposure to climate change risks and opportunities such that this information can be utilised in our company analysis as an input to investment decision-making.

DNB (2018), "Group Standard for Responsible Investments": https://www.dnb.no/portalfront/nedlast/en/about-us/corporateresponsibility/2018/Group_standard_for_responsible_investments.pdf

DNB (2018), "Corporate Dialogue and Exclusions (as at 02.11.2018)": https://www.dnb.no/en/about-us/exclusions.html ³ WWF (2017), "Deforestation and Social Risks in the UK's Commodity Supply Chains":

https://www.wwf.org.uk/sites/default/files/2017-10/Risky%20Business%20-%20October%202017.pdf

2. Definition of Climate Change

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as "a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (typically decades or longer). Climate change may be due to natural internal processes or external forcings or to persistent anthropogenic changes in the composition of the atmosphere or in land use"⁴. Specifically, our expectations relate to mitigating human-induced climate change by practicing active ownership to influence the companies in which we invest in a positive direction and towards a low-carbon and sustainable future.

3. Introduction to Climate Change

The IPCC's Fifth Assessment Report determines that increased atmospheric concentrations of GHG gases such as carbon dioxide, methane and nitrous oxide are unprecedented in at least the last 800,000 years. The effect of this, together with other human activities, is determined to be extremely *likely* to be the dominant cause of warming since the mid-twentieth century⁵. Scientific evidence shows that the effects of climate change will impact people globally in terms of access to water, food production, health, and the environment⁶, and will be intensified if the rate and scale of climate change is not managed and for every degree of warming above 2 degrees Celsius (2C)^{4&7}.

The primary aim of the Paris Agreement is to mitigate dangerous anthropogenic climate change by limiting global temperature rise this century to well below 2C above pre-industrial levels by 2100, with a simultaneous, more ambitious, goal of pursing efforts to limit temperature increase to 1.5C⁸. To date, 180 countries have ratified the Agreement⁹. Country Nationally Determined Contributions (NDC) outline efforts "to reduce its national emissions and adapt to the impacts of climate change"¹⁰. The Agreement also seeks to strengthen the ability of countries to work collectively to manage the impacts of climate change. However, the IPCC's special report on Climate Warming of 1.5C determines, with high confidence, that "these ambitions would not limit global warming to 1.5C, even if supplemented by very challenging increases in the scale and ambition of emissions reductions after 2030"⁶. Financial institutions therefore have a crucial role to play in shifting capital from high to low carbon activities¹¹.

Recognising the need for "better, more comparable and complete information about climate change" in financial markets, the G20 asked the Financial Stability Board (FSB) to consider climate risk following Bank of England Governor Mark Carney's "Tragedy of the Horizon" speech¹². By December 2015, the FSB had launched the Task Force on Climate-related Financial Disclosures (TCFD) to develop recommendations on financial disclosures of climate-related risks and opportunities. The TCFD's final report was published in June 2017 and is a voluntary framework with recommendations for all types of organisations divided into four thematic areas: governance, strategy, risk management and metrics and targets. The recommendations have quickly gained widespread acceptance and are considered best-practice guidance for climate reporting.

⁴ IPCC (2018), "The Scientific Basis": http://www.ipcc.ch/ipccreports/tar/wg3/index.php?idp=456

⁵ IPCC (2014), "Climate Change 2014 Synthesis Report": http://www.ipcc.ch/pdf/assessmentreport/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf

Stern (2007), "Stern Review: The Economics of Climate Change": http://unionsforenergydemocracy.org/wpcontent/uploads/2015/08/sternreview_report_complete.pdf

IPCC (2018), "Global Warming of 1.5C Headline Statements": http://report.ipcc.ch/sr15/pdf/sr15_headline_statements.pdf

⁸ UNFCCC (2018), "The Paris Agreement": https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement ⁹ UNFCCC (2018), "The Paris Agreement – Status of Ratification": https://unfccc.int/process/the-paris-agreement/status-ofratification

¹⁰ UNFCCC (2018), "Nationally Determined Contributions (NDCs)": https://unfccc.int/process/the-paris-agreement/nationallydetermined-contributions/ndc-registry

UNEP FI (2014), "Financial Institutions Taking Action on Climate Change":

http://www.unepfi.org/fileadmin/documents/FinancialInstitutionsTakingActionOnClimateChange.pdf ¹² WBCSD (2017), "CEO Guide to Climate-related Financial Disclosures":

https://www.wbcsd.org/Overview/Resources/General/CEO-Guide-to-climate-related-financial-disclosures

Climate change is also central to the United Nation's (UN) Sustainable Development Goals (SDGs). The UN's Secretary-General, António Guterres, considers "climate change [to be] the main accelerator of all other factors", highlighting the need to address climate change in order to successfully achieve the SDGs¹³. For example, without considering the social dimension of the transition to a low-carbon economy, climate policy may be delayed, diluted or abandoned completely. Furthermore, there will likely be a high social cost associated with delivering the transition partially or sub-optimally - this could result in deepened inequality which could harm the sustainability of economic growth¹⁴. The SDGs provide a framework for addressing global sustainability issues in a cohesive manner. Climate change is directly addressed in SDG 13. Climate Action, which focuses on mitigation, adaptation, and integration into policies and impact reduction. Furthermore, SDG 11, Sustainable Cities and Communities, includes a target to reduce per capita adverse environmental impact of cities by 2030. It also states that the growth of cities and human settlements must consider mitigation and adaptation to climate change. SDG 2, Zero Hunger, states that "strengthened capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters that progressively improve land and soil quality" are necessary to ensure sustainable food production systems and resilient agricultural practices that increase productivity and production by 2030. Finally, SDG 3, Good Health and Wellbeing, aims to substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination, all of which are can be associated with climate change¹⁵. Considering the SDGs collectively will help to increase the resilience of our portfolios.

The impacts of climate change pose serious economic risks which are not easily quantifiable. Companies will be faced with physical and transitional risks related to climate change which may impact several important aspects of an organisation's financial position¹⁶. Transition risks include changing climate policies, technology, and consumer demand preferences, and physical risks include increased severity of extreme weather, changes in precipitation patterns and rising sea levels. On the other hand, climate change also presents business opportunities within resource efficiency and renewables, for example. However, these impacts will affect different sectors, regions and countries disproportionately. Understanding the economic impact on specific markets and regions is therefore complex, creating challenges in determining the timing and extent of impacts at company level. Consequently, quantifying the impacts of climate change at portfolio level and on long-term returns is difficult. We therefore encourage companies to be transparent about the topics raised in this document, allowing us to better identify how climate change may affect companies' economic performance and prospects, and to assess whether management is taking relevant steps to develop a long-term business strategy for the transition to a low-carbon economy.

4. Expectations to Companies

We expect the companies in which we have invested to follow best-practice by considering the sensitivity of their short-, medium- and long-term business strategy and profitability to relevant future regulatory and physical climate scenarios (at least 2C and Business-as-Usual (BAU) scenarios), including considering the potential associated social implications of these where material.

We expect companies to plan for relevant climate scenarios and incorporate potential climate risks and opportunities into their governance structure, strategic planning, risk management and reporting, in line with the TCFD recommendations. These expectations are directed towards all companies within our investment universe, as well as companies we may invest in in the future. All companies are expected to consider the impacts of climate-related risks and opportunities on their business, however, we appreciate the sizable resource required to achieve this. Therefore, resources assigned to

¹³ UNFCCC (2017), "Climate Action Plays Central Role in Achieving the Sustainable Development Goals":

https://unfccc.int/news/climate-action-plays-central-role-in-achieving-the-sustainable-development-goals

UNPRI (2018), "Climate Change and the Just Transition: A Guide for Investor Action": https://www.unpri.org/download?ac=5361

UN SDGs (2018), "Sustainable Development Goals": https://sustainabledevelopment.un.org/?menu=1300

¹⁶ TCFD (2017), "Recommendations of the Task Force on Climate-related Financial Disclosures": https://www.fsb-tcfd.org/wpcontent/uploads/2017/06/FINAL-TCFD-Report-062817.pdf

assessing, managing and reporting should be proportionate to the size of the business and should not be onerous for smaller organisations¹⁵. We pay particular attention to companies operating in carbon intensive sectors such as: oil & gas, utilities, transport, autos, metals & mining and cement, as well as those offering climate solutions, such as renewables and energy efficiency technology. Some of our expectations are also specifically directed towards companies engaged in business activities related to tropical forestry, agriculture, or other activities that lead to the significant clearing of tropical forests. DAM believes that companies can contribute to promoting the conditions for well-functioning markets by considering and applying the expectations outlined below.

Our expectations regarding the management and disclosure of climate change risks and opportunities for companies in our investment universe are as follows:

1. Governance

- a) Management of climate-related risks and opportunities should be a key responsibility of the Board
- b) Climate-related risks and opportunities should be clearly identified and assessed in the company's management of these efforts (at Board and executive management level)
- c) Companies should consider incorporating management of climate change issues into executive remuneration and incentive programmes

2. Strategy

- a) Companies should describe the climate-related risks and opportunities they have identified for their business over the short-, medium- and long-term, explaining how materiality determinations have been made.
- b) Companies should consider how climate-related risks and opportunities (transitional and physical, including social implications) may affect their business, strategy and financial planning. The benefits of reducing GHG emissions over time should also be considered, as well as GHG emissions throughout the value chain (impact).
- c) Companies engaged in carbon intensive activities or with large GHG emissions should have a strategy to address the possible impacts of the transition to a low carbon energy system throughout their value chain (including social impact if appropriate and where relevant). The potential benefits of switching to carbon efficient activities may also be considered.
- d) Companies should assess the resilience of their strategy and the potential financial impact of this under different climate-related scenarios, including at least 2C and BAU scenarios, and over various time-horizons. There should be transparency over the methodology and assumptions used.
- e) Companies with Agriculture, Forestry and Other Land Uses (AFOLU) activities should consider scenarios with stricter forest conservation regulation in their strategy.
- f) Companies should publicly disclose their climate change management policy/strategy and may consider third-party evaluation of this.
- g) Companies should publicly disclose a policy on addressing climate change in their supply chains. Companies may also consider relevant engagement and knowledge sharing of best practice with strategic suppliers.
- h) Companies should identify and consider relevant adaptation and mitigation measures and assess the intended/realised impacts of these, disclosing these where appropriate and possible. These could include creating/joining internal and/or external initiatives/industry collaborations to address climate-related risks and opportunities.

3. Risk Management

- a) Companies should consider their risk management processes for identifying and assessing material climate-related risks in their direct operations and supply chain explaining how materiality determinations have been made.
- b) Organisations should consider their processes for managing climate-related risks, including how they make decisions to mitigate, transfer, accept of control those risks, and how climate-related risks are prioritised (also in relation to other risks).
- c) Companies should consider how climate-related risks are integrated into their overall risk management, including processes for identifying, assessing and managing risks.

- d) Companies should consider switching from using fossil fuels to using renewable energy sources.
- e) Companies producing or purchasing commodities, products and materials that rely on forests should follow best practice to avoid deforestation and abide by international standards and certifications for sustainable production and management of forests.

4. Metrics and Targets

- a) Companies should disclose the metrics used to assess climate-related risks and opportunities in line with their strategy and risk management processes.
- b) Companies should disclose their operational scope 1 and 2 emissions in line with the GHG Protocol and these should ideally be verified by an external third party.
- c) If appropriate and where possible, operational scope 3 emissions and value chain emissions (impact) should also be assessed and reported in line with the GHG Protocol and ideally be verified by an external third party.
- d) Companies with AFOLU activities should disclose information about the direct and indirect climate impact of their operations and their forest footprints in line with the GHG Protocol's Land Use, Land-Use Change, and Forestry Guidance, as well as provide detail on how their impact on forests is and monitored over time.
- e) Companies should disclose targets/benchmarks (ideally science-based, where available) used to manage climate-related risks in their direct operations and supply chain and report their performance against these targets/benchmarks (including the baseline used).
- f) Companies should report their GHG emissions to appropriate, internationally recognised reporting initiatives to facilitate the analysis of portfolio GHG emissions by investors, as well as in mainstream financial filings (in line with the TCFD recommendations).

5. Transparency

 a) Companies should be transparent regarding climate change lobbying practices and other activities, including membership to industry organisations, working to influence regulators and policy development. This is particularly relevant for companies belonging to heavy emitting industries.

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