NORGES BANK
INVESTMENT MANAGEMENT

RESPONSIBLE INVESTMENT

GOVERNMENT PENSION FUND GLOBAL

/2017

No. 04

Our mission

is to safeguard
and build financial
wealth for future
generations

Main pillars

SETTING STANDARDS

We aim to contribute to the development of well-functioning markets and sustainable market outcomes. We recognise a set of key international principles and standards, and contribute to their further development. Our expectations of companies, positions on specific issues, and guidelines for voting provide predictability in our long-term ownership. We see good governance as a premise for sustainable business practices.

KEY FIGURES 2017

17 **Submissions**

7 **Academic projects**

2,902 **Companies assessed within focus areas**

11,084 **Shareholder meetings voted at**

98 **Percent of shareholder meetings voted at**

49 **Integrated voting as percentage value of equity portfolio**

EXERCISING OWNERSHIP

We aim to promote long-term value creation in the companies in which we invest. Voting is one of the most important tools we have for exercising our ownership rights. In our dialogue with companies, we raise governance and sustainability issues that we consider relevant. We work with companies to increase the information available to investors, and promote good business practices.

INVESTING SUSTAINABLY

We aim to identify long-term investment opportunities and reduce our exposure to unacceptable risk. We believe there are opportunities for investing in companies and technologies that enable more environmentally friendly economic activity. At the same time, there are companies where we choose not to be an owner, based on long-term sustainability or ethical assessments.

139 **Board level meetings**

67.8 **Environmental equity investments. Billion kroner**

21.7 **Return on environmental equity investments. Percent**

100,915 **Equity portfolio carbon emissions. Thousand tonnes CO2 equivalents**

6 **New divestments**

11 **New exclusions**

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INVESTING SUSTAINABLY

Sustainable long-term growth

As a fund for future generations, we have a very long investment horizon. We rely on sustainable business practices to create long-term return.

With investments in 72 countries and across most sectors, we provide long-term capital for companies and economies to grow. We believe that some global trends will affect long-term economic growth. How companies manage these challenges, will also drive long-term returns for us as an investor. The UN Sustainable Development Goals provide companies and investors with a framework for better understanding these challenges. We will continue to contribute to the development of international standards that provide consistency across markets and raise the bar for all companies.

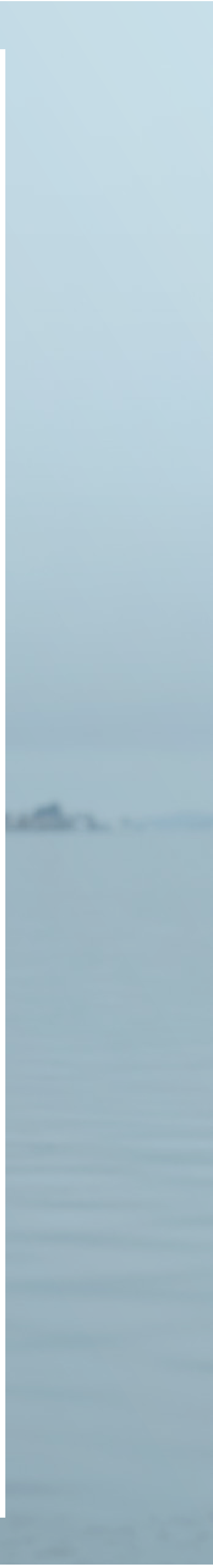
Good corporate governance is a premise for sustainable business practices. Boards should ensure that the CEO's interests are aligned with those of long-term shareholders. This includes considering how the CEO is incentivised. Following the introduction of shareholder say on pay in many markets, we published our position on CEO pay in 2017. Boards should also adopt appropriate and prudent tax policies, and companies should be transparent about where they generate value. In 2017, we published our expectations of companies on tax and transparency.

Nearly ten years ago, we started asking the companies in which we invest, how they address global challenges related to child labour, water management, climate change and, more recently, human rights. We expect company boards to understand the broader environmental and social consequences of their business operations. Companies should address the risks and opportunities related to sustainability in their business management. In December, we joined the One Planet Summit in Paris to explain how we work to understand the financial impacts of climate change. We do this by asking companies to move from words to numbers, so that we can better understand how climate change may affect companies, and what steps they are taking. We welcome the Task Force on Climate-related Financial Disclosures and its efforts to promote disclosures on climate-related risks.

Companies and investors are becoming increasingly aware that global challenges will affect long-term returns. We will continue to support company boards in their efforts to manage risks related to sustainability, and to improve disclosures.

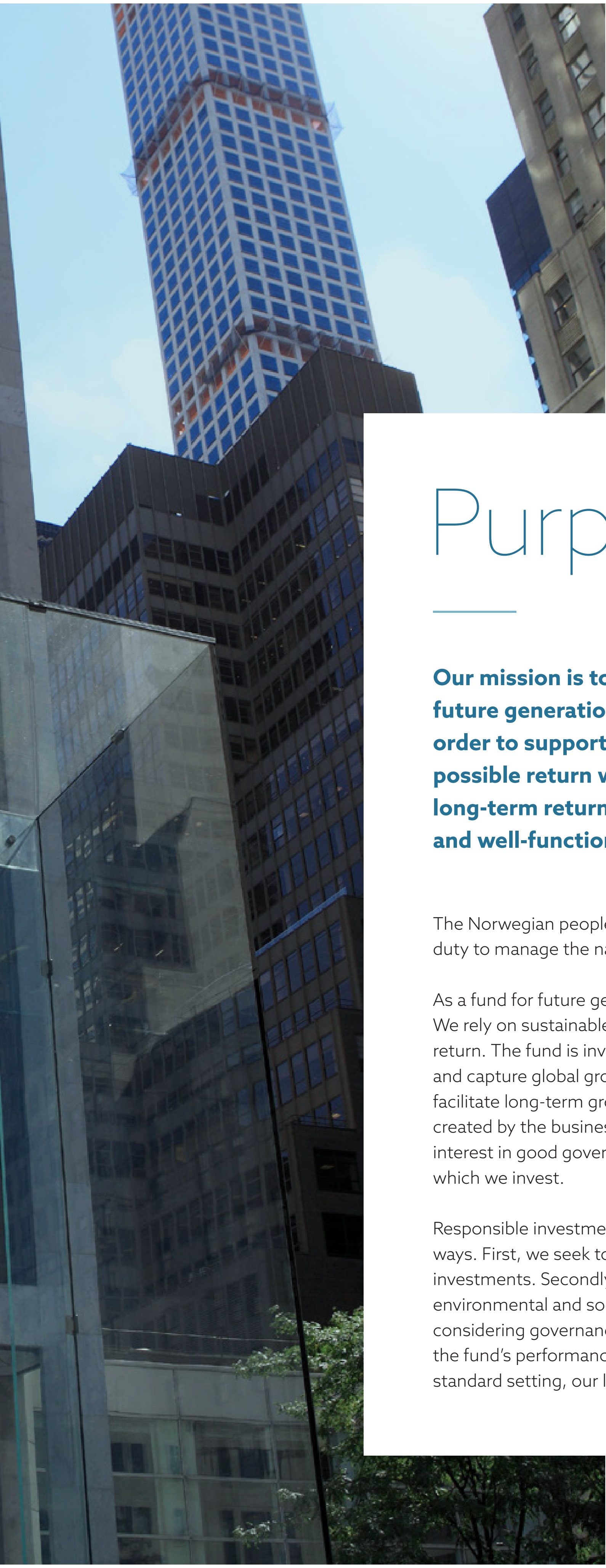
Oslo,13 February 2018

Yngve Slyngstad
CEO of Norges Bank Investment Management



> The future value of the fund will depend on the value created by the businesses in which we invest.

At the end of 2017, the fund held a 0.9 percent stake with a market value of 66 billion kroner in Apple Inc.



Purpose

Our mission is to safeguard and build financial wealth for future generations. We manage the fund responsibly in order to support the investment objective of the highest possible return with a moderate level of risk. We believe that long-term return is dependent on sustainable development and well-functioning markets.

The Norwegian people are the ultimate owners of the fund. We see it as our duty to manage the nation's financial wealth responsibly and for the long term.

As a fund for future generations, we have an inherently long investment horizon. We rely on sustainable economic growth across the globe to create a long-term return. The fund is invested across many countries and markets to diversify risk and capture global growth. We benefit from well-functioning markets that facilitate long-term growth. The future value of the fund will depend on the value created by the businesses in which we invest. We therefore have a strong interest in good governance and long-term value creation at the companies in which we invest.

Responsible investment management supports the objective of the fund in two ways. First, we seek to improve the long-term economic performance of our investments. Secondly, we seek to reduce financial risks associated with the environmental and social practices of companies in our portfolio. We do this by considering governance and sustainability issues that could have an impact on the fund's performance over time. We integrate these issues into our work on standard setting, our long-term ownership, and our investing.

We rely on sustainable economic growth across the globe to create a long-term return.

At Nestlé's 150th Annual General Meeting the UN Sustainability Development Goals were leading the way.

At the end of 2017, the fund held a 2.3 percent stake with a market value of 51 billion kroner in Nestlé.

SETTING STANDARDS

Standards provide consistency across markets and raise the bar for all companies. In Section 2 of the report, we explain how we participate in the development of international standards and use them, together with our own expectations and positions, to guide companies. Our aim is to contribute to the development of well-functioning markets and good business practices.

The fund is invested in around 9,000 companies across the globe. We benefit from internationally agreed standards that promote sound market practices and good governance of companies. We recognise a set of key international principles and standards from the UN and the OECD. They provide the framework for our work with companies and other market participants.

We contribute to the further development of standards. We participate in consultations and engage regularly with international organizations, regulators and other standard setters, industry partners and academics. We can draw on our experience as an investor in 72 national markets, and our in-depth knowledge of companies in our portfolio. Our priorities are well-functioning markets and sustainable market outcomes that facilitate economic growth and safeguard our investments.

Within the framework of internationally agreed standards, we establish our own priorities, based on our mandate and characteristics as a fund. We formulate expectations of companies, positions on specific issues, and guidelines for our voting. These public documents provide predictability in our long-term ownership and communicate our priorities to the wider market.

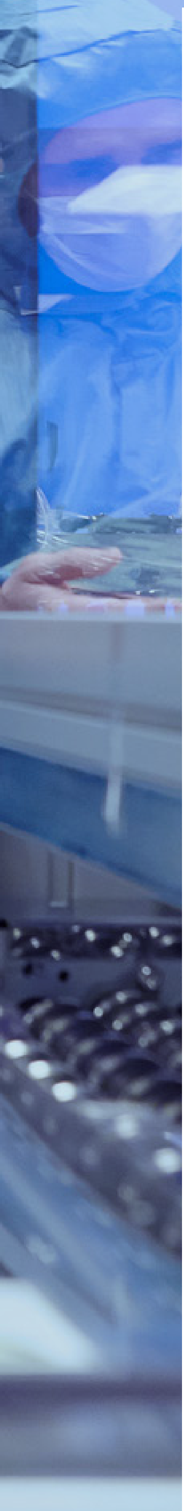
We see good governance as a premise for sustainable business practices. This includes holding boards to account for their decisions, and ensuring that minority shareholders can influence strategic decision-making, for example by considering who sits on the board. We expect boards to understand the broader environmental and social consequences of their business practice and to set clear priorities for the company to address relevant issues.

We are constantly developing our understanding of good governance and sustainability, and how they relate to financial risks and returns. We initiate and support research projects, and collaborate with academic institutions to obtain high-quality analyses that may inform our investment strategy.

We believe that some global trends are particularly relevant to us as a long-term financial investor. Economic activity may in some cases impose large indirect costs on society. We devote additional attention to three focus areas to understand how we should approach such challenges: climate change, water management, and children's rights. We have also started to map company disclosure on human rights, and tax and transparency. We have established specific expectations of companies in these areas, and aim to measure company disclosure over time.

The long-term legitimacy of sectors and markets depends on operations and products that are ethically acceptable.

The fund's portfolio consisted of about 11.2 percent equity shares in the technology sector as at end of 2017.



EXERCISING OWNERSHIP

The fund owns a small stake in around 9,000 companies across the globe. In Section 3 of the report, we explain how we manage our responsibilities and exercise our rights as an owner. Our aim is to promote long-term value creation and fair distribution of benefits to shareholders.

Voting is one of the most important tools we have for exercising ownership. Through our voting, we seek to strengthen governance, improve performance, and promote sustainable practices. We do this by ensuring that the board sets out a long-term strategy and that its members have what it takes to monitor the company effectively. Our voting guidelines provide a principled basis for our voting decisions. In addition, we integrate investment insights into our company-specific decisions. We concentrate on issues and companies with the greatest potential to safeguard value for the fund.

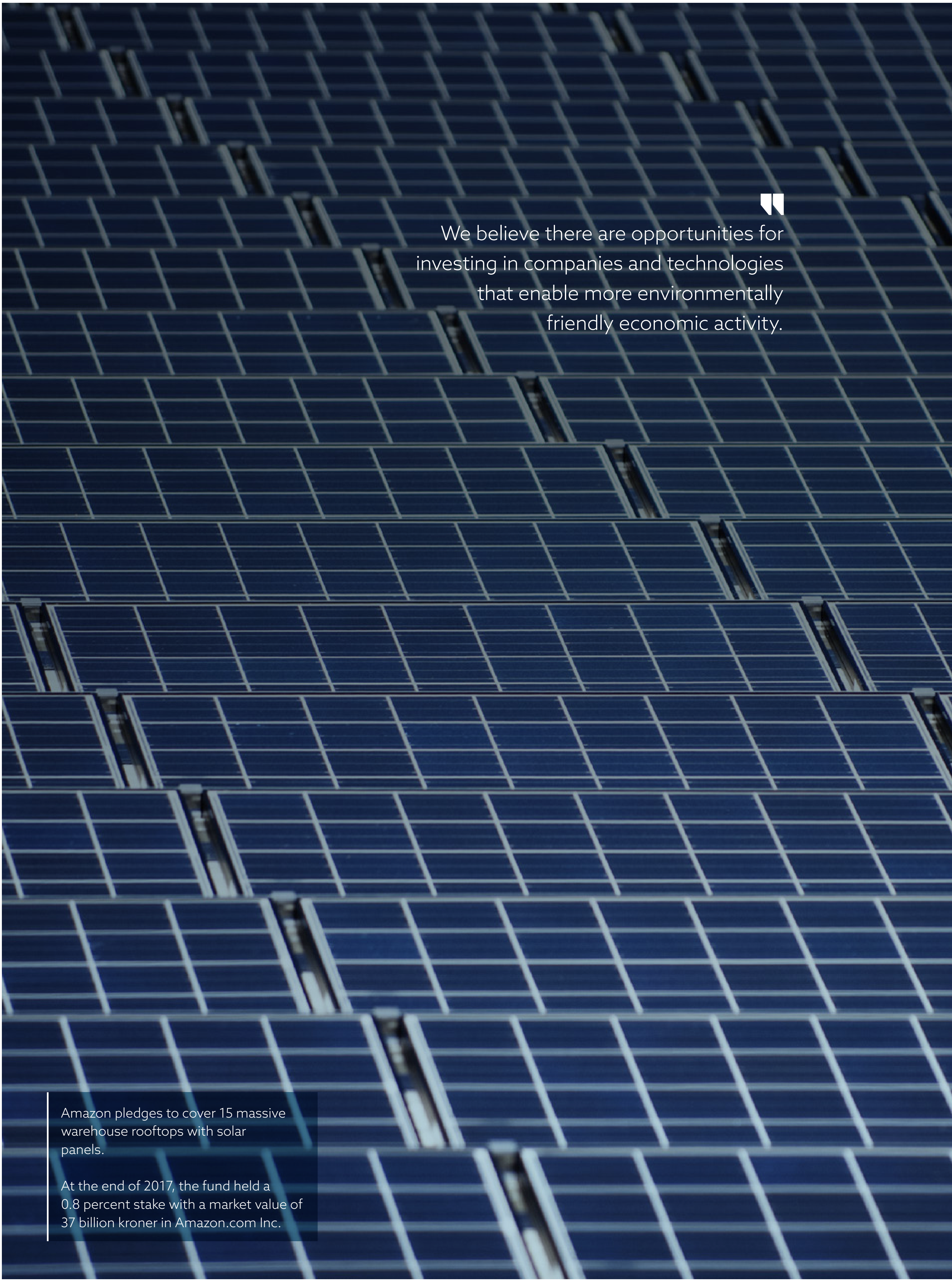
In our dialogue with companies, key considerations are good governance and board accountability. We will raise governance and sustainability topics that we consider relevant and follow up on specific issues as they arise. We prioritize our largest investments where we have developed in-depth knowledge. We have a regular dialogue with these nearly 1000 companies, which make up around two thirds of the total value of the portfolio. In addition, we place importance on publishing our expectations and positions, which are relevant to all companies in which we invest. We may also enter into case-by-case discussions with individual companies, particularly with those that are exposed to significant risks in our focus areas.

We work with companies, investors and other stakeholders to advance standards, increase the information available to investors, and promote good practices. This is particularly relevant where many companies in one industry face the same challenges. Climate change, water management, and children's rights are our focus areas. We have also published expectations on human rights, and tax and transparency.

Climate change could have a significant impact on economic development. Companies should plan for relevant climate scenarios and incorporate material climate risks in strategic planning, risk management and reporting. Water is necessary for all forms of life on the planet and crucial in many production processes. Companies should use water in a sustainable manner and understand the broader consequences of their water use. The long-term legitimacy of sectors and markets depends on operations and products that are ethically acceptable. Companies therefore have a responsibility to respect human rights, including children's rights, in their operations, supply chains and other business relationships. We expect companies to integrate relevant measures on human and children's rights into corporate business strategy, risk management and reporting.

Corporate taxes play a vital role in the public finances of most countries. We believe that taxes should be paid where economic value is generated, that company tax arrangements are a board responsibility, and that public country-by-country reporting is key to greater transparency.

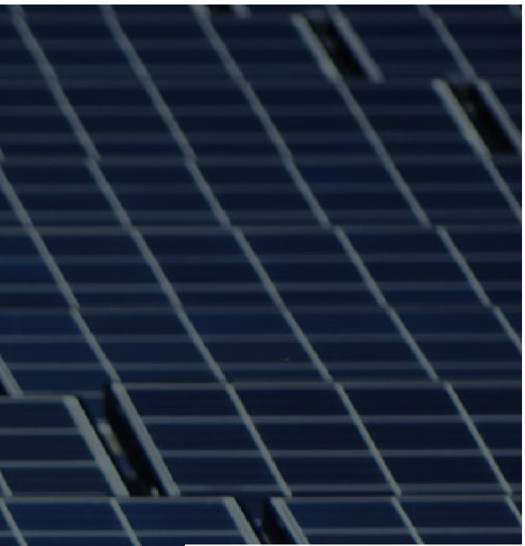
We are constantly developing our understanding of these areas and what impact they could have on our portfolio. Our work in these areas has given us a further basis for assessing company strategies and engaging with boards.



We believe there are opportunities for investing in companies and technologies that enable more environmentally friendly economic activity.

Amazon pledges to cover 15 massive warehouse rooftops with solar panels.

At the end of 2017, the fund held a 0.8 percent stake with a market value of 37 billion kroner in Amazon.com Inc.



INVESTING SUSTAINABLY

Responsible investment is integrated into the management of the fund. In Section 4 of the report, we explain how governance and sustainability data can inform investment decisions. Our aim is to identify long-term opportunities and reduce our exposure to unacceptable risk.

An important task in our responsible investment management is to move from words to numbers so that we can evaluate companies' efforts and better understand financial opportunities and risks. We seek constantly to develop our understanding of issues that may have an impact on the future value of the companies in which we are invested. We concentrate on issues that we expect to have a material effect on the fund's financial value. We therefore need quantitative data on environmental, social, and governance issues for our analyses.

We believe there are opportunities for investing in companies and technologies that enable more environmentally friendly economic activity. These investments are likely to have positive externalities that will benefit society. Positive externalities can include more efficient resource use, less pollution and lower energy costs. Companies producing such technologies may in turn profit from changes in consumer habits and regulation. To benefit from such trends, we make investments through our environment-related mandates. We have invested in companies that support the transition towards sustainable energy, and contribute to efficient use of natural resources. By providing capital to such companies, we contribute to the further development of environmentally friendly industries.

Given what we understand about global developments and future scenarios, there are sectors and companies where we choose not to be an owner. By not investing in those companies, we reduce our exposure to unacceptable risk, based either on long-term sustainability or ethical assessments.

As part of our responsible investment management, we take a systematic approach to risk-based divestment. We regularly perform general assessments of topics and sectors, before going into specific issues. We analyse individual companies' activities and business models, and indicators of how well they manage relevant risks. Companies that are found to have a high risk exposure may be candidates for divestment.

In addition, the Ministry of Finance has decided, based on ethical assessments, that there are some types of products that the fund should not be invested in, and certain types of corporate conduct that we cannot accept. Ethical exclusions are forward-looking and based on advice from an independent Council on Ethics, established by the Ministry of Finance. Ethical exclusions are regulated by the Guidelines for Observation and Exclusion from the Government Pension Fund Global.

Standards

The fund is invested in around 9,000 companies across the globe. We benefit from internationally agreed standards that promote sound market practices and good governance of companies.

Standards provide consistency across markets and raise the bar for all companies. Our aim is to contribute to the development of well-functioning markets and sustainable market outcomes. We participate in the further development of standards by engaging with regulators and other standard setters.

We recognise a set of key international principles and standards. They provide the framework for our responsible investment management, and we participate in their further development.

The principles and standards published by the OECD and the UN are voluntary, non-statutory recommendations that express expectations for good corporate governance and sound business practices when it comes to environmental, social and governance issues. We expect the companies in which we invest to strive to observe these principles and standards.

The G20/OECD Principles of Corporate Governance mainly concern effective corporate governance, such as shareholder rights and key ownership functions, equitable treatment of shareholders, disclosure and transparency, and the responsibilities of the board. The principles form a natural starting point for our own positions and interaction with companies and other organisations.

The OECD Guidelines for Multinational Enterprises are a set of government-endorsed recommendations for companies that operate internationally. The aim is to support sustainable development through responsible business conduct, trade and investment. The voluntary nature of the guidelines means that compliance cannot be legally enforced, but there is an expectation that companies will apply the guidelines to the extent that they are applicable to their business. Companies themselves are to assess how this can best be achieved.

The UN Global Compact sets out ten general principles derived from the Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the Rio Declaration on Environment and Development. Among other things, the principles require companies to respect human rights, avoid complicity in abuses of these rights, uphold the freedom of association and the right to collective bargaining, and eliminate all forms of forced labour, child labour and discrimination in the workplace.

The UN Guiding Principles on Business and Human Rights are a global standard. The principles were unanimously endorsed by the UN Human Rights Council in 2011. The guiding principles encompass three pillars outlining roles and responsibilities for states and businesses with regard to human rights: the state duty to protect human rights, the corporate responsibility to respect human rights, and access to remedy for victims of adverse impacts.

DEVELOPING STANDARDS

As a market participant, we contribute to the further development of standards that will serve the long-term interests of the fund. We promote sound market practices and good governance by participating in consultations and engaging regularly with international organisations, regulators and other standard setters, industry partners and academics. We can draw on our experience as an investor in 72 national markets, and our in-depth knowledge of companies in our portfolio.

Resilient financial markets that are less prone to shocks and facilitate long-term growth are among the most important factors determining the long-term return on the fund.

In 2017, we participated in 17 public consultations related to responsible investment management by submitting written responses. We publish all submissions on our website www.nbim.no. Many of them address developments that are of particular importance to us: the equal treatment of shareholders, well-functioning markets, sustainable development, and responsible business conduct.

Equal treatment of shareholders

The fund is a diversified investor that, under its mandate, holds minority stakes in listed companies. The protection of minority shareholder rights is necessary to safeguard and promote the fund's long-term financial interests. The board should recognize the obligations of participating in public markets, which include acting in the best interest of all shareholders. In 2017, we saw three significant developments concerning the interests of minority shareholders.

In 2017, we saw three significant developments concerning the interests of minority shareholders.

The first was related to proposed listing changes at the stock exchanges in Singapore and Hong Kong. Both proposals argued for the introduction of dual voting class structures where one class of shares has more voting rights than the other. We support measures that motivate companies to go public to raise capital and share risk. We also recognise that there is international competition for stock market listings. At the same time, we questioned the benefits of introducing unequal voting class structures on both exchanges.

The second development had to do with the proposed creation of a new premium listing category for state-controlled companies on the London Stock Exchange. The proposal entailed introducing a new category where companies benefit from the advantages of premium listing, including investor confidence, without having to meet some key requirements for investor protection. We argued in favour of keeping the requirements for shareholder protection, since investors expect today's high standards to apply, whether a company is controlled by a sovereign state or by private investors.

The third concerned companies with no or very few voting shares listed. The issue was triggered by the listing of Snap Inc. with only voteless shares on the New York Stock Exchange in March 2017. Voting rights give investors formal influence over essential corporate affairs and are a fundamental matter for shareholders. The three major index providers, S&P Dow Jones Indices, FTSE Russell, and MSCI, launched separate public consultations on voting rights, following investor demand. We believe that including voteless companies in the index effectively disadvantages users of the index who seek formal influence over the companies in which they invest. We therefore supported the proposal by FTSE Russell and MSCI to introduce voting power as a criterion for index inclusion. S&P Dow Jones Indices subsequently announced that it would no longer add companies with multiple share class structures to its main US equity index (S&P Composite 1500). FTSE Russell announced that it would introduce a minimum threshold based on voting rights. MSCI later announced that it would temporarily exclude companies with multiple share class structures from its main equity index. This is the first time that the major providers have considered voting rights when constructing their flagship indices.

Well-functioning markets

Well-functioning financial markets are essential to safeguard and build financial wealth for future generations. Resilient, robust financial markets that are less prone to shocks and facilitate long-term growth are among the most important factors determining long-term return. We therefore participate in the development of regulatory frameworks and industry-wide standards with the aim of safeguarding the long-term interests of the fund.

> Well-functioning financial markets are essential to safeguard and build financial wealth for future generations.

In 2017, the European Commission launched new efforts to create a single market for capital, particularly in post-trade services. The main aim was to identify and dismantle remaining barriers to cross-border investing in the EU. In our response to a public consultation, we expressed support for the view that removing such barriers could support economic convergence and help cushion economic shocks in the euro area and beyond, making the European economy more resilient. We highlighted several barriers to cross-border investments that participants in EU markets encounter. These barriers create additional costs, increase operational risks, and, in some instances, limit our ability to exercise our full ownership rights. We welcomed further harmonisation at EU level and the development of common market standards.

Sustainable development
We have an interest in market outcomes that also support sustainable development. We favour the development of improved sustainability and corporate governance standards at the national and market level, and their alignment at an international level.

In September 2017, we wrote to the EU High-Level Expert Group on Sustainable Finance and met EU representatives. We wish to see improved company disclosure of sustainability matters. We consider a principles-based approach most appropriate for creating a disclosure framework, flexible enough to address evolving issues. The further harmonisation of generally accepted methods and metrics should be a priority.

Responsible business conduct
We continue to promote responsible business conduct through submissions and other interaction with standard setters. In 2017, we participated in workshops and conferences to explain our expectations on tax and transparency.

We have for many years engaged with the OECD on the development of its Guidelines for Multinational Enterprises. The recommendations in the guidelines cover many topics, and the OECD is working on practical guidelines that apply to specific sectors. We have concentrated on aspects of human rights due diligence in various sectors. In March, the OECD published a document on responsible business conduct for institutional investors.

We participated in a broad advisory group that contributed to the OECD document. During the work of the advisory group, we sought to clarify who are responsible for making corporate decisions, and how shareholders can hold them accountable. Efficient corporate governance is a premise for investors' ability to promote responsible business conduct.

The relationship between investors and the listed company in which they invest, is different from supply chain or other value chain relationships. The paper provides practical guidance to institutional investors on how to carry out due diligence on adverse impacts associated with investee companies.

We sent submissions on post-trade in Capital Markets Union and Fair taxation and digital economy to the European Commission in 2017.

SUBMISSIONS

Recipient	Topic	Submitted
Organisation for Economic Co-operation and Development (OECD)	OECD Due Diligence Guidance for Responsible Business Conduct and the Due Diligence Companion	6.2.2017
Task Force on Climate-Related Financial Disclosure	Phase II recommendation report	9.2.2017
Singapore Exchange Limited	Possible Listing Framework for Dual Class Share Structures	6.4.2017
CDP	Reimagining Disclosure Initiative. First consultation	28.4.2017
S&P Dow Jones Indices	Eligibility of Non-Voting Share Classes	3.5.2017
FTSE Russell	Voting Rights	16.6.2017
MSCI Inc.	Treatment of non-voting shares in the MSCI equity indexes	17.8.2017
Hong Kong Exchanges and Clearing Limited	Proposed establishment of a New Board on the Stock Exchange of Hong Kong	17.8.2017
Natural Capital Coalition	Natural Capital Protocol Finance Sector Supplement	31.8.2017
CDP	Reimagining Disclosure Initiative. Second consultation	15.9.2017
PRI Association	Incorporating TCFD Recommendations into the PRI Reporting Framework	15.9.2017
EU High-Level Expert Group on Sustainable Finance	Financing a Sustainable European Economy	20.9.2017
PRI Association	Proposals and methods to strengthen PRI signatory accountability	21.9.2017
Financial Conduct Authority, UK	Proposal to create a new premium listing category for sovereign-controlled companies	13.10.2017
PRI Association	PRI strategic plan for 2018-21	10.11.2017
European Commission	Post-trade in a Capital Markets Union	15.11.2017
European Commission	Fair taxation of the digital economy	22.12.2017

Expectations

We formulate expectations of companies, develop positions on specific issues, and publish guidelines for our voting. These public documents provide predictability in our long-term ownership and communicate our priorities to the wider market.

Good governance is a premise for sustainable business practices. This includes holding boards to account for their decisions, and ensuring that minority shareholders can influence strategic decision-making, for example by considering who sits on the board. We expect boards to understand the broader environmental and social consequences of their business practice and to set clear priorities for the company to address relevant issues. We believe that some global trends are particularly relevant to us as a long-term investor. Economic activity may in some cases impose large indirect costs on society. The inability of companies to internalise such costs is a market failure. Typical examples include climate change, environmental degradation, and tax evasion. Negative externalities are, in many instances, not yet priced into the companies' market value. In addition to their negative impact on society, child labour and other severe social abuses also violate fundamental human rights.

EXPECTATION DOCUMENTS

Since 2008, we have published expectation documents to support our ownership efforts. The purpose of our expectation documents is to set out how the fund expects companies to address specific topics in their business practices. We have published expectation documents on children's rights (2008), climate change (2009), water management (2010), human rights (2016), and tax and transparency (2017).

Since 2008, we have published expectation documents to support our ownership efforts.

Our expectations are aimed primarily at company boards. Our underlying expectation is that boards assume responsibility for corporate strategy concerning relevant sustainability issues. The board should effectively guide, monitor and review company management. We analyse risks and opportunities to investments. In consequence, we depend on high-quality information from companies. Another important premise for our work is therefore appropriate company disclosure, in line with applicable reporting standards and initiatives.

In 2017, we updated certain aspects of our expectations on climate change, based on the recommendations of the Task Force on Climate-related Financial Disclosures. Our expectations already shared the importance that the Task Force placed on governance, strategy, risks and reporting. Our revisions were related mostly to reporting, such as the disclosure of historical trends and inclusion of industry-specific efficiency ratios and scope 3 emissions, as relevant. Scope 1 are direct emissions from companies. Scope 2 includes also indirect emission from purchased electricity, heat and steam, while Scope 3 includes also indirect emissions across the value chain. Specifically on the topic of scenario analysis, we emphasised that companies should strive to achieve transparency around their assumptions, sound governance over application, and effective disclosure that will inform and promote a constructive dialogue between investors and companies. Finally, we updated our expectations with further discussion of corporate transparency on membership in industry associations and interest groups, highlighting the importance of consistency.

Expectations on tax and transparency
In April 2017, we published an expectation document on tax and transparency. Corporate taxes play an important role in the public finances of developed countries and may be even more critical in developing countries. At the same time, there is a widespread perception that multinational enterprises sometimes do not pay tax according to where they generate economic value, but according to where it is most advantageous for them to report economic activity for tax purposes. Multinational enterprises operate globally, while tax regimes are national and are not harmonised between countries.

We believe prudent and transparent corporate tax strategies are a key corporate responsibility. Some multinational enterprises have begun to make public their tax policies. Business operations that are unduly shaped by tax planning rather than long-term value creation may be more vulnerable to changes in regulation or enforcement.

We expect that company boards should start by setting corporate tax priorities – aimed at long-term value creation – and report transparently on outcomes. Over time, we wish to see companies publish country-by-country breakdowns of how and where their business model generates economic value, where that value is taxed and the amount of tax paid as a result. Companies should also be ready publicly to explain the business case for locating subsidiaries in significantly low-tax environments. Recent national and international tax policy efforts have concentrated on reducing the incentives and scope for such practices. As an investor, we welcome efforts to align and harmonise the international tax framework, providing multinational companies with a level playing field for tax and tax transparency.

In the process of developing the expectation document, we invited non-governmental organisations and academics to provide input and discuss initiatives related to the tax behaviour of multinational enterprises.

The fund's portfolio consisted of 24.5 percent equity shares in the financial sector as at end of 2017.

The fund held a 1.7 percent stake with a market value of 11 billion kroner in BlackRock.

We value the input we received, and we see this as part of our ongoing engagement with stakeholders.

We have communicated our expectations through international media, and we have sent the expectation document to the 500 largest companies in our portfolio. In December, we reiterated our expectations in a consultation by the European Commission on the fair taxation of the digital economy.

POSITION PAPERS

To support our ownership activities, we issue position papers that publicly clarify our stance on selected corporate governance issues. Our positions are relevant for the development of wider market practices, and at the company level.

> In April 2017, we published a position paper on CEO remuneration

Position on CEO remuneration

In April 2017, we published a position paper on CEO remuneration. Our starting point is that the board is responsible for attracting the right CEO and establishing appropriate remuneration. With the introduction of say on pay, shareholders have the right to evaluate remuneration plans and express their views through a vote. Our main concern as a global investor is that CEO remuneration should be driven by long-term value creation for the company. We believe that most leaders have an intrinsic motivation to succeed and contribute. At the same time, growing evidence suggests that remuneration practices may not always work as intended. In particular, there is well-founded concern that current remuneration systems might encourage short-term decision-making. We also question whether the constructed incentives in so-called long-term incentive plans (LTIPs) can effectively capture the conditions for corporate success. Constructing such incentives has also lead to remuneration practices becoming overly complex.

The board should ensure that remuneration is driven by long-term value creation. As part of our position, we propose that the board should require the CEO to invest a meaningful part of his or her remuneration in company shares that are locked in for a long, fixed period. We see this as a simple and transparent way of aligning the interests of the CEO with those of shareholders and the wider society. The board should also provide transparency on the CEO's total remuneration. We believe that settling total remuneration earned each year up front and setting a ceiling for the next year will provide such transparency. We have communicated our expectations to the boards of our largest investments.

Research

We are constantly developing our understanding of good governance and sustainability, and how they relate to financial risks and returns. We initiate and support research projects, and collaborate with academic institutions to obtain high-quality analyses that may inform our investment strategy.

We are working to improve our understanding of potential links between environmental, social and governance issues, and portfolio risk and return. We initiate and support research projects, and collaborate with academic institutions to obtain independent and high-quality analysis. We prioritise global trends and topics that are particularly relevant to the creation of long-term financial value. These research projects can contribute to improved market standards and practices, data development and our own responsible investment priorities.

ACADEMIC RESEARCH PROJECTS

Norges Bank's Norwegian Finance Initiative is one channel for supporting academic research. We also initiate and fund specific research projects outside the Norwegian Finance Initiative.

Effective ownership

We rely on effective ownership to safeguard the long-term value of the fund. We therefore aim to support academic inquiry into how ownership efforts can effectively support the financial objective of our fund management.

With support from the Norwegian Finance Initiative, the London Business School is investigating effective ownership. As part of the project, researchers are studying the extent, impact and value of ownership activities by the global asset manager Standard Life Investments.

Shareholder approval

As a long-term minority shareholder, we seek to promote the protection of shareholder rights, including effective voting rights.

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The fund has provided financial support for a two-year research project with Boston College, studying the value of shareholder approval rights. The researchers will analyse the value of voting rights based on data sets that have not been studied extensively before.

In 2017, the Journal of Financial Economics accepted an article on "Equity Issuances and Agency Costs".

Sustainability disclosure
We are constantly seeking to advance our understanding of how companies could better measure their sustainability performance.

In 2016, we established a research project with Harvard Business School to advance our understanding of the potential relevance of sustainability data and to look at future developments in corporate sustainability disclosures. We received a research report in May 2017. The report contained a set of recommendations about the potential relevance of sustainability data to value creation and on how the fund could improve its non-financial datasets.

Climate change data
We support further research on the financial economics of climate change. Through the Norwegian Finance Initiative, we sought proposals from institutions and researchers that could facilitate academic discourse and contribute to the establishment of an international research community in this field. In May 2017, we awarded research grants for two separate research projects at New York University and Columbia University.

New York University Stern School of Business (NYU Stern) received a two-year grant to carry out finance research on environmental risks. Columbia University received a three-year grant to coordinate a project with two research conferences on climate change and capital market efficiency.

The first conference was held in New York in November 2017. The researchers are examining various aspects of climate change expectations formation and dynamics for companies and markets. Specific topics included asset pricing, corporate governance, externalities, hedging, and climate change implications for real estate markets.

Mining industry data
We have worked to expand and improve non-financial data on the mining sector. Columbia University was awarded the contract for an academic research project on environmental and regulatory risks in mining in 2014. The project was concluded at the end of 2017. As part of the project, Columbia University has assembled or developed data on different aspects of mining operations.

Columbia University has used satellite data imaging techniques to identify tailings dams with more than 96 per cent accuracy. Columbia University is also summarizing the main findings and recommendations of the project, including a guide to practitioners on the availability, quality and relevance of various datasets. The information includes asset-level data, climate and hydrological data, geospatial data, tailings dam data, financial data and regulatory data. The data are delivered in an open-source format and available for further research.

The researchers have also developed software tools for assessing environmental risks. This includes an application to quantify water risks resulting from extreme climate events at the asset or corporate level.

Voting

We voted at 11,084 shareholder meetings in 2017. Voting is one of the most important tools we have for exercising our ownership rights. Through our voting, we seek to strengthen governance, improve performance and promote sustainable practices. Our voting guidelines provide a principled basis for our voting decisions.

We exercise our voting rights in order to safeguard the fund's assets. We aim to vote at all shareholder meetings. Shareholders typically vote on a variety of topics covering capital, corporate governance, shareholder rights and business conduct. This includes approval of accounts and capital allocation, election of directors, changes to articles of association, executive remuneration and proposals submitted by shareholders. Through our voting, we seek to promote good corporate governance, improved company performance and sustainable business practices.

VOTING PRINCIPLES

We have established voting guidelines that provide a principled basis for our voting decisions. These guidelines are anchored in the G20/OECD Principles of Corporate Governance. They provide companies with the overarching rationale for our decision-making when we vote. The guidelines state, among other things, that we will vote at all shareholder meetings, unless there are significant practical obstacles to doing so, and that we will publish our voting decisions. We aim to vote in ways that further the fund's long-term interests. As a responsible investor, we emphasise long-term value creation, sustainable business practices, board accountability, equal treatment of shareholders, well-functioning markets, and corporate transparency. In addition, we have also published our position on specific issues that may be subject to a shareholder vote, like proxy access, and CEO remuneration.

We place importance on being transparent about how we vote. Our voting guidelines, expectation documents, positions papers, and voting disclosure lend predictability and consistency to our voting.

All our voting decisions are publicly disclosed on the day following the conclusion of the meeting and made available on our website www.nbim.no.

VOTING PRINCIPLES

G20 / OECD Principle	Norges Bank Investment Management voting guidelines
Institutional investors, stock markets and other intermediaries	Vote in a principled and consistent manner to maximise the long-term profitability of the companies we are invested in - Vote in order to support the return objective of the fund - Transparency on our voting
Effective corporate governance framework	Encourage companies to create long-term value - Accommodate market-specific practices and regulations - Accommodate company-specific circumstances
The responsibilities of the board	Hold company boards accountable for decisions and outcomes - Board composition - Director commitment and board renewal - Board accountability - Executive remuneration
The rights and equitable treatment of shareholders and key ownership functions	Seek to enhance shareholder rights and work for equitable treatment of shareholders - Protection of shareholder rights - Equal rights within share classes - Equitable treatment of shareholders - Pre-emption rights
Disclosure and transparency	Promote timely, adequate and transparent company communication - Annual report and accounts - Discharge of directors and accounts - Compliance with local corporate governance codes - Non-audit fees
The role of stakeholders in corporate governance	Promote sustainable business practices - Risk management - Reporting of environmental and social risk - Shareholder proposals

THE VOTING PROCESS IN NORGES BANK INVESTMENT MANAGEMENT

After meeting

How we voted is published on www.nbim.no

SHAREHOLDER MEETING

Before meeting

Send voting instructions to companies via custodian

Integrate investment team insight

Analyse selected companies and consider for pre-disclosure

Issue voting recommendation based on our voting guidelines

Upload all information to internal systems

Receive notice of meeting and documentation from companies

VOTING PROCESS

We work continuously to improve our voting process. Given the high number of shareholder meetings, we are dependent on a reliable voting chain.

Shareholder meetings

We aim to vote at the shareholder meetings of all the companies in which we invest. Voting procedures vary across markets and companies. Our systems and processes enabled us to adapt to such variations and vote at 98 percent of shareholder meetings in 2017, which is in line with previous years. The main reason for the fund being unable to vote at meetings were special situations where voting would lead to share blocking, thereby restricting our ability to trade.

Voting by proxy

The fund holds shares in around 9,000 companies, so we cannot physically attend shareholder meetings at all companies. Most companies permit shareholders to vote at shareholder meetings without attending in person. Voting by proxy, a shareholder appoints a representative to attend the meeting and vote according to the shareholder's instructions. The system of proxy voting enables us to exercise our voting rights at thousands of companies worldwide.

Physical attendance in selected cases can be a meaningful way to represent our own voting position, to learn from how voting practices differ from market to market and to ascertain the proper delivery of our votes.

Consideration of items

The majority of our voting decisions fall within the scope of our published voting guidelines. There are, however, cases where the global voting guidelines are less relevant due to the nature of the resolution. In such cases, we analyse the agenda items individually and vote based on what we deem to be in the fund's best long-term interests. One common example of this is an extraordinary shareholder meeting called to vote on a merger or acquisition.

We have a dedicated group responsible for voting decisions. We have an integrated voting process where we incorporate investment knowledge from portfolio managers into the voting decision. Voting decisions at 542 companies were made in collaboration with portfolio managers in 2017. These companies accounted for approximately 49 percent of the equity portfolio's market value. The company- and sector-specific knowledge of portfolio managers provides valuable insights and improves our overall consideration of the voting items.

Voting intentions

We continued our initiative to publish carefully selected voting intentions and rationales prior to shareholder meetings in 2017. The objective of such pre-meeting disclosure is to make our voting decisions even more transparent and to communicate our principled position to the wider market. We published voting intensions for five companies during the year.

VOTES IN 2017

We voted on 113,216 resolutions at 11,084 shareholder meetings in 2017. 98 percent of the resolutions were proposed by companies, and 2 percent by shareholders.

We voted in line with the board's recommendation on 94 percent of these resolutions. Of the resolutions where we voted against the board's recommendation, 52 percent were related to the election of directors. This is a consequence of factors tied closely to our global voting guidelines, such as overcommitted directors and lack of board independence. A further 17 percent of votes against the board's recommendation concerned items that we considered not to be in shareholders' interests or where the information provided was considered to be insufficient.

As a minority shareholder, we depend on competent and committed board members who seek to act as our representatives. When we consider a board member to have too many assignments, undermining their capacity to fulfil their duty, we voted against their re-election to the board. In order to strengthen board accountability, we have voted against the combined board slate in cases where we have had concerns about individual directors or where companies have refused to implement individual vote count.

49 percent of the resolutions we voted on in 2017 concerned the election of directors. We voted in line with the board's recommendation on 93 percent of such resolutions.

We believe that the chairperson plays a vital role in a company's value creation and the

ANNOUNCED VOTING INTENTIONS IN 2017

Company	Voting position
Linde AG	Support the combination of Linde AG and Praxair, Inc.
Praxair, Inc.	Support the combination of Linde AG and Praxair, Inc.
Credit Suisse Group AG	Support executive remuneration policy
Royal Bank of Scotland Group Plc	Support executive remuneration policy
Monster Beverage Corp	Support shareholder proposals seeking sustainability report and proxy access

setting of long-term strategy. We therefore pay particular attention to resolutions concerning the chairperson and the composition of the board. We also attach great importance to the election of independent board members with relevant industry expertise.

Following the publication of our position on CEO remuneration in April 2017, we consolidated our view on executive remuneration structures. In our 2017 voting decisions, we paid particular attention to transparency, and to alignment with performance. As a result, we voted against 7 percent of remuneration proposals in 2017, compared to 3 percent in 2016.

Chart 1 Share of votes against management, by topic. Percent

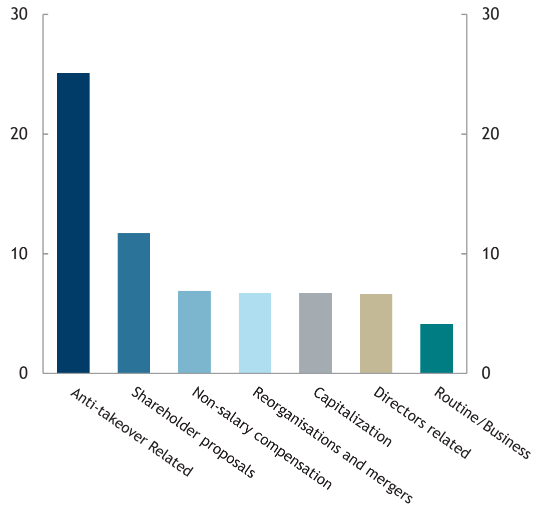


Table 1 Voting at shareholder meetings

Region	2017 Shareholder meetings	2017 Voted	2017 Percent	2016 Shareholder meetings	2016 Voted	2016 Percent
Africa	275	158	57.5	269	161	59.9
Asia	5,195	5,148	99.1	5,123	5,095	99.5
Europe	2,436	2,399	98.5	2,594	2,516	97.0
Latin America	541	526	97.2	571	556	97.4
Middle East	218	208	95.4	214	208	97.2
North America	2,307	2,305	99.9	2,406	2,405	100.0
Oceania	340	340	100.0	354	353	99.7
Total	**11,312**	**11,084**	**98.0**	11,531	11,294	97.9

We held 408 company meetings with companies in the industrials sector in 2017.

Table 2 Votes against board recommendations among the fund's top 50 holdings

Company	Portfolio rank	Country	Resolutions voted against	Subject of resolution(s)
Apple Inc.	1	US	1	Proxy Access
Alphabet Inc.	4	US	7	Overcommitted board member, remuneration, equal treatment of shareholders and enhanced reporting
Novartis AG	6	Switzerland	1	Shareholder rights
Amazon.com, Inc.	7	US	1	Overcommitted board member
Roche Holding Ltd	8	Switzerland	1	Shareholder rights
HSBC Holdings Plcz	10	UK	1	Overcommitted board member
Facebook, Inc.	12	US	3	Combined CEO/Chairperson, equal treatment of shareholders and enhanced reporting
Johnson & Johnson	13	US	2	Combined CEO/Chairperson
Berkshire Hathaway Inc.	14	US	2	Enhanced reporting
JPMorgan Chase & Co.	15	US	4	Combined CEO/Chairperson, remuneration and shareholder rights
Bank of America Corporation	16	US	2	Combined CEO/Chairperson
Exxon Mobil Corporation	17	US	4	Combined CEO/Chairperson, shareholder rights and enhanced reporting
Wells Fargo & Company	21	US	4	Overcommitted board members and board accountability
SAP SE	25	Germany	1	Board accountability
UBS GROUP AG	29	Switzerland	1	Shareholder rights
Chevron Corporation	31	US	3	Combined CEO/Chairperson and shareholder rights
AT&T Inc.	33	US	4	Combined CEO/Chairperson and enhanced reporting
The Home Depot, Inc.	35	US	3	Combined CEO/Chairperson, shareholder rights and enhanced reporting
Verizon Communications Inc.	36	US	2	Combined CEO/Chairperson and shareholder rights
Allianz SE	37	Germany	1	Overcommitted board member
The Procter & Gamble Company	39	US	2	Combined CEO/Chairperson and overcommitted board member
Pfizer Inc.	43	US	3	Combined CEO/Chairperson and shareholder rights
UnitedHealth Group Incorporated	46	US	1	Enhanced reporting
AstraZeneca Plc	49	UK	1	Remuneration

SHAREHOLDER RESOLUTIONS

Resolutions submitted by shareholders accounted for 2 percent of all resolutions voted on in 2017. Corporate governance topics accounted for approximately 94 percent of these resolutions, and sustainability topics for around 6 percent.

Governance resolutions

Shareholders submit resolutions on matters of corporate governance to protect their rights and influence the board. Resolutions typically relate to the right of shareholders to call an extraordinary general meeting, to propose competing board candidates, and elect an independent chairperson. The content of each resolution will depend to a large degree on national market regulation and on the individual company's articles of association. We have seen a steady increase in the number of such proposals at the companies in which we are invested. In 2010, we saw nearly 1,200 shareholder proposals on governance. In 2017, there were 2,651. We have also noticed increasing support among shareholders for such resolutions, particularly in the US, where we have seen support for the right to propose competing board candidates grow from 36 percent on average in 2012 to 58 percent on average in 2017, according to the proxy advisor ISS. Proposals to elect all directors at regular intervals enjoy on average above 60 percent support in the US and are often adopted. In contrast, support for electing an independent

The fund's portfolio consisted of 9.8 percent equity shares in the health care sector as at end of 2017.

board chairperson has been consistently low in the US at around 30 percent and resolutions are rarely adopted.

Our starting point is that shareholders have delegated most decision-making authority to the board. For this delegation to function effectively, boards need to demonstrate a high degree of accountability to shareholders. In addition, we view the protection of minority shareholder's rights as necessary to promote and protect the fund's long-term interests. We will support well-founded shareholder resolutions that are aligned with these principles. In 2017, we voted in favour of 11 percent of governance-related shareholder resolutions globally.

The majority of shareholder resolutions that we supported in 2017 were submitted in the US. We supported 41 shareholder resolutions that called for an independent board chair, including at some of our largest holdings, such as Facebook, Johnson & Johnson, and JPMorgan Chase & Co. None of these resolutions received enough votes to be adopted. Our vote in favour of an independent chairperson at some companies overlapped with our principled view that the roles of CEO and chairperson should not be combined. We also supported 33 shareholders resolutions calling for the right to propose competing board candidates through the introduction of a proxy access provision in company by-laws. This is in line with our long-time support for proxy access in the US. In 2017, the shareholder meetings of several large companies, including IBM and Netflix, recommended adopting proxy access, with our support.

Sustainability resolutions

Shareholders are increasingly raising the issue of sustainability with companies. One way of doing that is for shareholders to put forward resolutions at shareholder meetings in areas such as how companies report on environmental and social risks. We have seen a steady increase in the number of such proposals at the companies in our portfolio. In 2010, we saw 131 shareholder proposals on sustainability, in 2017, there were 165. We have also noticed increasing support among shareholders for such resolutions. In 2010, sustainability resolutions received, on average, 18 percent of votes in favour. In 2017, they received an average of 21 percent, according to ISS. The quality of the proposals has increased, and they are generally seen as more relevant. However, only a small share of these proposals received majority support.

Our starting point is that boards should understand the broader environmental and social consequences of business operations, set their own priorities, and account for the associated outcomes. We will support well-founded sustainability resolutions that are aligned with our priorities. Any additional reporting requirements should be materially relevant and not place undue burdens on management. We have supported on average every third shareholder resolution on sustainability from 2010 onwards. In 2017, we voted in favour of 28 percent of sustainability resolutions.

These included three resolutions in the energy sector that received majority support at Exxon Mobil, Occidental Petroleum, and PPL Corporation. The proposals were related to climate change and asked management for a report assessing the impact of the two-degree global warming target on the companies' portfolios. This is in line with our climate change expectations as communicated to the companies we are invested in, where we ask for scenario planning.

Dialogue

As a long-term investor, we engage in dialogue with companies. Our holding size gives us access to board members, senior management and a range of specialists. In our dialogue with companies, the starting point is good governance and board accountability.

In 2017, we held 3,252 meetings with 1,380 companies. We have an interest in understanding companies' corporate governance and sustainability framework, as well as the more traditional topics of operations and financial strategy. We encourage the companies in which we invest, to exercise openness in their public disclosure and general communication. We integrate corporate governance and sustainability issues into our dialogue with these companies.

Investor meetings with portfolio companies are an important communication channel between companies and their shareholders. We meet company representatives mainly on a one-to-one basis in our offices or during company visits. Other meetings can also take place in conjunction with public events, such as shareholder meetings, or through conference calls.

Table 3 Company meetings by sector in 2017. FTSE classification

Sector	Company meetings	Share of equity portfolio. Percent
Basic materials	257	3.2
Consumer goods	495	9.7
Consumer services	176	3.3
Financials	892	16.5
Health care	305	6.9
Industrials	480	7.0
Oil and gas	105	3.8
Technology	179	8.2
Telecommunications	187	2.7
Utilities	176	1.9
Total	**3,252**	**63.2**

In 2017, the dialogue with our top 50 holdings covered issues such as industry expertise on the board, directors' time commitments, board succession planning and strategy.

DIALOGUE ON STRATEGIC TOPICS

Selected dialogue topics may extend over a number of years and involve a range of sectors and countries. In 2017, we continued to focus on sustainability, board nomination and election, and shareholder rights, increased our focus on CEO remuneration, and extended the scope of our engagement on corruption risk.

Sustainability

Our long-term investment horizon and sustainable business practices are a natural part of our engagement with board members.

We believe that companies' board and management should address relevant environmental, social and governance matters in their regular meetings with shareholders. We raised environmental, social or governance issues at 1,737 meetings in 2017. This corresponds to 53 percent of our meetings with companies during the year.

We initiated new engagements related to the adoption by banks of the recommendations of the Task Force on Climate-related Financial Disclosures and followed up with companies that had insufficient sustainability disclosure according to our disclosure assessments.

We initiated two dialogues on the topic of deforestation. One was with commodity traders and meatpacking companies on improving standards in their supply chain beyond the Brazilian Amazon. The other was with Indonesian and Malaysian banks on their policies governing palm oil financing. We

Table 4 Priority topics for company dialogue in 2017

Category	Region	Number of meetings	Share of equity portfolio. Percent	Examples of dialogue topics
Environment	Americas	161	3.1	Climate change Deforestation Financing Water management
	Europe	219	5.2	
	Asia	101	1.1	
	Total	**481**	**9.4**	
Social issues	Americas	140	2.7	Children's rights Human rights Tax and transparency
	Europe	185	4.8	
	Asia	48	1.1	
	Total	**373**	**8.7**	
Governance	Americas	529	12.3	Board composition Corruption risk mitigation CEO remuneration
	Europe	667	14.6	
	Asia	255	4.6	
	Total	**1,451**	**31.5**	

SELECTED COMPANY DIALOGUES

Category	Dialogue topic	Company	Purpose	Start
Environ-ment	Climate change	Bank of Nova Scotia	Adoption of TCFD recommendations	2017
		Citigroup Inc	Adoption of TCFD recommendations	2017
		ExxonMobil Corp	Climate change strategy	2017
	Deforestation	Bunge Ltd	Deforestation and supply chain	2017
		Marfrig Global Foods SA	Deforestation and supply chain	2017
		Minerva SA	Deforestation and supply chain	2017
	Financing	CIMB Group Holdings Bhd	Palm oil financing	2017
		Malayan Banking Bhd	Palm oil financing	2017
		RHB Bank Bhd	Palm oil financing	2017
	Water management	Anglogold Ashanti	Obuasi mine water contamination	2013
		Eni SpA	Niger delta oil spills	2013
		Monster Beverage Corp	Corporate disclosures	2017
Social issues	Children's rights	Aryzta AG	Corporate disclosures	2017
		Hennes & Mauritz AB	Corporate disclosures	2010
		Microchip Technology Inc	Corporate disclosures	2013
	Human rights	Associated British Foods Plc	Refugee workers on Turkish supply chains	2016
		Ferrovial SA	Migrant camps	2016
		Intesa SanPaolo	Dakota Access pipeline	2017
	Tax and transparency	BNP Paribas SA	Board accountability and enhanced disclosures	2017
		Compass Group	Board accountability and enhanced disclosures	2017
		Pfizer Inc	Board accountability and enhanced disclosures	2017
Goverance	Board composition	Boliden AB	Participate in nomination committee	2016
		Electrolux AB	Participate in nomination committee	2017
		Svenska Cellulosa AB	Participate in nomination committee	2014
	Corruption	JBS SA	Board oversight and risk mitigation	2017
		LafargeHolcim Ltd	Board oversight and risk mitigation	2017
		Saipem SpA	Board oversight and risk mitigation	2017
	CEO remuneration	Credit Suisse Group AG	Simplicty, transparency and alignment	2017
		Renault SA	Simplicty, transparency and alignment	2016
		Royal Bank of Scotland Group Plc	Simplicty, transparency and alignment	2016
	Shareholder rights	Apple Inc	Proxy access	2013
		Deutsche Post AG	Capital issuance authorisations	2017
		Snap Inc	One share one vote	2017
Other current issues		Akzo Nobel NV	Strategic outcome in long term shareholder interests	2017
		Linde AG	Strategic outcome in long term shareholder interests	2016
		Procter & Gamble Co	Strategic outcome in long term shareholder interests	2017

reached out to a group of banks reiterating our human rights expectations in relation to the financing of the Dakota Access Pipeline Project. We highlighted the role of ongoing human rights due diligence in this regard.

Board nomination and election

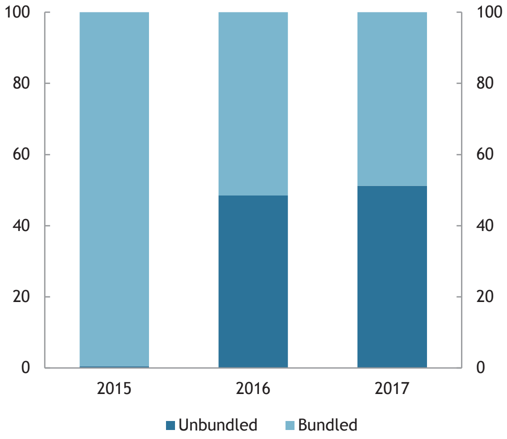
We believe a clear division of corporate roles and responsibilities best serves shareholders in publicly listed companies. Management makes operational business decisions and answers to the board on the company's risk management and long-term strategy. A premise of this governance arrangement is that shareholders, in turn, monitor boards and have the opportunity to hold boards accountable. For this reason, board accountability is a priority for us.

We participate in selected nomination processes in Sweden by serving on nomination committees. In 2017, we agreed to remain on the nomination committees of Volvo AB, Svenska Cellulosa AB SCA and Boliden AB, and we accepted invitations to join the nomination committees of Essity AB and Electrolux AB.

Sweden is also among the few remaining developed markets where director elections have commonly been bundled for shareholders voting by proxy. Only by attending in person have shareholders had the opportunity to call for an individual vote count. In 2015, we raised this topic in a consultation on corporate governance in Sweden, backed by a position paper where we laid out our principled view on individual director election. We also reached out to a number of leading companies through correspondence and dialogue.

In 2017, we sent letters to seven companies that had not unbundled director elections in the previous year. By the end of 2017, companies representing 51 percent of our Swedish equity investments had adopted individual director election. We are encouraged by the fact that so many companies have adopted the revised practice.

Chart 2 Swedish holdings with individual director elections. Percent of Swedish equity portfolio we voted



Shareholder rights

The fund's return is dependent upon the long-term value creation of the companies in the portfolio, and on shareholders' receiving their reasonable and proportionate share. We engage with companies to secure equal treatment of all shareholders. We regularly address these topics in our dialogue with companies ahead of the annual shareholder meeting, when we discuss changes to the articles of association and authority to act on capital issuances or reductions.

CEO REMUNERATION

Year	Norges Bank Investment Management priority	Shareholder say on pay in law or code
2002		UK
2003	**Corporate Governance Principles:** Aligning management interests with long-term shareholder value creation	
2004		EU recommendation
2005		Netherlands, Sweden, Norway, Denmark and Australia
2009		Germany
2010		US, Canada and Belgium
2011		Italy
2012	**Discussion Note on Corporate Governance:** Board is accountable for setting remuneration	
2013		Switzerland
2014		France
2015	**Voting guideline:** Transparent, aligned with strategy, sensitive to risk, and reflecting value creation	Spain
2017	**Position paper:** Aligning CEO and shareholder interests through transparency on total pay and long-term shareholding	

CEO remuneration

Executive remuneration plans are subject to shareholder approval in most advanced markets. We noticed during the year that remuneration became the number one topic that companies raised with us in the course of our regular dialogue. We discussed remuneration, based on our position paper, with more than 100 companies. We also engaged with peer investors and other stakeholders. Following the publication of our position on CEO remuneration in April 2017, we observed a strong interest in our position, which was well received by company boards and their remunerations committees.

Corruption risk mitigation

Corruption at companies, their agents, or in capital markets, undermines economic efficiency, disadvantages compliant companies and is detrimental to shareholder value. Poor anti-corruption practices may also indicate other control and accountability weaknesses in corporate culture. In 2017, we continued our dialogue with 36 companies on how they manage corruption risk.

DIALOGUE ON INCIDENTS

In addition to the prioritised topics for company dialogue in 2017, we monitor ongoing corporate governance and sustainability developments at companies in the portfolio. We respond in cases where corporate governance practices appear to be deteriorating or problematic and where fund value may be compromised. In such cases, we will enter into dialogue with management or board members and, where appropriate, exercise active ownership, including voting, collaboration with peer investors, consultation with regulators or other standard setters, or legal action.

In 2017, we responded mainly to two types of events: risk incidents at the company, and corporate actions.

We monitor companies and markets to capture incidents that may be relevant for the fund, using various information systems and global media monitoring. Risk incidents may relate to alleged corruption, fraud, environmental pollution, deforestation, health and safety violations, or impacts on local communities. Our goal as an owner is to validate the information we have received and to assess the risk before deciding on further steps to safeguard the fund's long-term interests. Notable incidents in 2017 include allegations of corruption in JBS, and Glencore.

Corporate actions are initiated by a public company and affect the securities issued by the company. Corporate actions include dividends, rights issues, stock splits, mergers and acquisitions, and spin-offs, and are typically agreed upon by a company's board of directors and authorized by the shareholders. Our goal as a shareholder is to gain sufficient understanding of the proposed action and its likely impact on our investment, so we can make considered voting and investment decisions. Notable corporate actions in 2017 include the business combination of Linde AG and Praxair, where we published our voting intention prior to the Special General Meeting.

DIALOGUE ON ETHICAL CRITERIA

The Ethical Guidelines state that before making a decision on observation and exclusion, Norges Bank should consider whether other measures, including the exercise of ownership rights, may be better suited to reduce the risk of continued norm violations, or whether such alternative measures may be more appropriate for other reasons. In addition to earlier decisions by the Ministry of Finance, the Executive Board in 2017 concluded that it was appropriate to exercise ownership rights in two cases.

Severe environmental damage

In October 2013, the Ministry of Finance asked Norges Bank to include oil spills and environmental conditions in the Niger Delta in our ownership work with the oil and gas companies Eni SpA and Royal Dutch Shell plc for a period of five to ten years. The Ministry also asked us to follow up on the environmental impact of the mining company AngloGold Ashanti Ltd's operations in Ghana through active ownership over a five-year period.

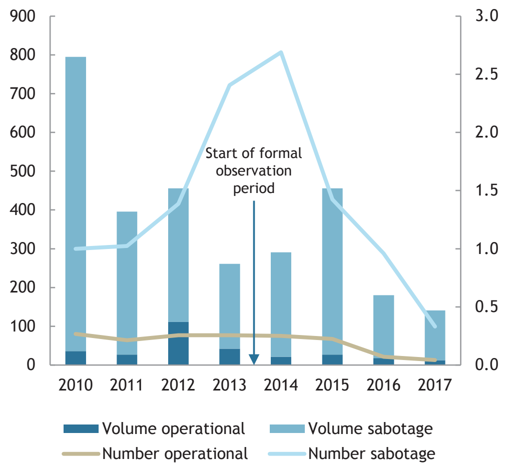
Eni SpA and Royal Dutch Shell plc

The goal for our dialogue with the two companies is a reduction in the number and volume of oil spills and immediate effective remediation of spills.

Oil spills due to sabotage, theft and operational failures are a concern for onshore oil production and pipelines in the Niger Delta. The spills are a main source of environmental damage in the delta. Despite the unstable economic, political and security situation in Nigeria, both Eni and Shell have reported progress.

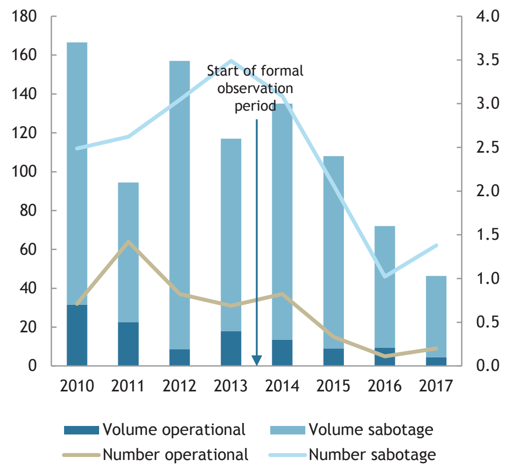
In our meeting with board and management in 2017, we discussed actions, progress and monitoring with the two companies. We are encouraged by the reported improvements,

Chart 3 Eni SpA spil statistics. Number of spills (left-hand axis) and volume of spills in thousands of tonnes (right-hand axis)



Source: Eni SpA and Norges Bank Investment Management

Chart 4 Royal Dutch Shell Plc spill statistics. Number of spills (left-hand axis) and volume of spills in thousands of tonnes (right-hand axis)



Source: Royal Dutch Shell Plc and Norges Bank Investment Management both in terms of preventive action, spill numbers and remediation efforts, and we will continue to monitor developments.

AngloGold Ashanti Ltd
We expect the Obuasi mine, including tailings and facilities and water processing, to be operated in accordance with generally accepted environmental standards. Furthermore, AngloGold Ashanti should tackle the legacy of historical pollution stemming from mining in the Obuasi area.

Normal operations are still halted and the mine put into maintenance to allow for modernisation. In our interactions AngloGold Ashanti claims that the tailings facilities are being secured and water processing systems implemented to avoid further pollution of ground and surface water. We will continue to monitor the developments.

Gross corruption
The Executive Board decided in May 2017 to ask Norges Bank Investment Management to raise the risk of severe corruption with Eni SpA and Saipem SpA, as part of our active ownership efforts. This followed an initial recommendation by the Council on Ethics in December 2016 to place the companies under their observation.

Eni SpA and Saipem SpA
Our objective with our dialogue is to ensure that the companies have good corporate governance, corruption risk assessments and mitigation systems. We expect the board and management to acknowledge their responsibility in putting this in place.

We have held meetings with the companies in 2017 to address their anti-corruption efforts. We focused on the companies' corporate governance, organisation, risk management, internal controls and culture in light of the companies' exposure to corruption risk throughout their global and complex operations.

We understand from the first meetings that both companies are focused on managing their corruption risk. We will monitor plans and actions taken by Eni and Saipem and observe progress towards the stated goal of implementing an appropriate anti-corruption programme, including effective corruption risk assessment and mitigation.

Disclosure

We work with companies, investors and other stakeholders to advance standards, increase the information available to investors, and promote good practices. This is particularly relevant where many companies in one industry face the same challenges.

We prioritise initiatives in our three focus areas of climate change, water management, and children's rights. We have also published expectations on human rights, and tax and transparency. Our starting point is that company boards should establish appropriate strategies, control functions and reporting in these areas. We are constantly developing our understanding of these areas and what impact they could have on companies and our portfolio. Our work in these areas has given us a foundation for assessing company strategies and engaging with boards.

We analyse corporate reporting on selected environmental and social issues. For many years, we have reviewed whether companies disclose strategies, guidelines, business plans and reports that suggest that they manage climate change, water, and children's rights risks adequately. Due to limited disclosure of performance metrics by companies in these areas, these assessments may not accurately reflect their actual behaviour. The assessments cover sectors and markets that we consider to be particularly exposed to these risks, and are used to identify companies with good reporting practices and those that need to improve their disclosure.

We carried out 2,902 company assessments in 2017, of which 1,701 concerned climate change, 600 water management and 601 children's rights. The companies assessed accounted for 54 percent of the equity portfolio's market value at the end of the year. While the timely disclosure by companies of high-quality data is important in itself, it is still difficult to link such disclosures to sustainability performance. We will continue to explore such links.

> We carried out 2,902 company assessments in 2017.

We reach out to companies with poor or limited disclosure on these issues, encouraging them among other things to improve their reporting by responding to well-established disclosure initiatives. In 2017, we sent letters to 27 companies on children's rights, 38 companies on climate change, and 60 companies on water management. For all these companies, we consider their reporting to lack sufficient disclosures on their management of related risks.

CHILDREN'S RIGHTS

Children are the basis for future prosperity and at the same time the most vulnerable members of society.

> We have assessed selected companies exposed to child labour risks since 2008.

We have assessed selected companies exposed to child labour risks since 2008. The companies in question have activities or supply chains in high-risk sectors. In 2017, we assessed 601 companies in the basic materials, branded goods, garment production, retail, technology hardware and equipment, and food and beverage sectors. We base these assessments on the companies' most recently reported information.

The companies' reporting was evaluated against ten indicators. These include governance structure, risk assessment, strategy and implementation, supply chain management, and performance reporting. The number of companies assessed that had guidelines for managing child labour risk varied from 30 percent among retailers, to close to 65 percent in the technology sector.

Companies had relatively good results on governance and the integration of children's rights and broader social issues. Companies generally had lower scores for systems for monitoring child labour in the supply chain, preventive and corrective action plans and interaction and collaboration with other stakeholders on the issue of child labour. Our findings revealed variations from sector to sector. A large number of companies did not report on the management of children's rights risks at all.

We identified 30 companies as having very good results on our ten indicators in 2017. This is lower than in 2016, much due to a stricter assessment on certain indicators enabling us to better single out the companies showing the very best disclosure. Reporting on children's rights was best among large companies in the branded goods, retail and mining sectors. Many of these companies have globally recognised brands and supply chains in countries with a high risk of child labour.

Children's rights in global apparel supply chains

In 2017, we signed an agreement with UNICEF to establish the Network on Children's Rights in the Garment and Footwear Sector. In this network companies can assess the business risk of adverse impacts on children, and also discuss and improve their respect for and work on children's human rights.

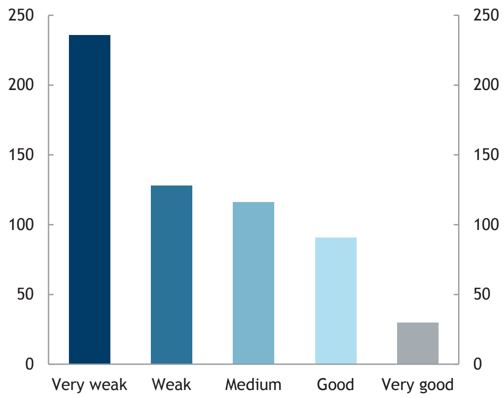

25-8-2011
MALARIA TREATMENT
Causes of Malaria
2. Bushy areas
3. Stagnant water
our borders.
Kenya,

The network will facilitate dialogue, exchange experience of children's rights efforts, and work to increase awareness and acceptance of children's rights. The companies will discuss how best to integrate respect and support for these rights into their policies and practices and their management and reporting systems. Over time, we expect that the network will contribute to improved market practices among companies and greater respect for children's rights. The UN Guiding Principles will be central to the efforts of the network. The ambition is that the network will support individual companies in applying the Guiding Principles.

The network will consist of a series of expert-led workshops and meetings over two years. Major global apparel brands and retailers in which we are invested, and which are considered to be leaders in addressing human and labour rights issues in supply chains, have been invited to participate in the network. Participants must commit to participating in the workshops and meetings, and be ready to contribute to open and productive discussions. Nine companies took part in the first workshop held in Geneva in November, in conjunction with the UN Forum on Business and Human Rights.

Good results for children's rights disclosure. Examples from various sectors.
Adidas AG
Anglo American Platinum Ltd
Anglo American Plc
Hennes & Mauritz AB
Inditex SA
Mondelez International Inc
Nestle SA
Nokia OYJ
Samsung Electronics Co Ltd
The Coca-Cola Co

Chart 5 Results for companies we assessed on children's rights in 2017. Number of companies



WATER MANAGEMENT

How companies manage water risks and capitalise on opportunities may drive long-term returns for us as a shareholder. Externalities from unsustainable water use may in themselves present a risk to the portfolio's long-term value. We have assessed companies exposed to water risks since 2010.

> We have assessed companies exposed to water risks since 2010.

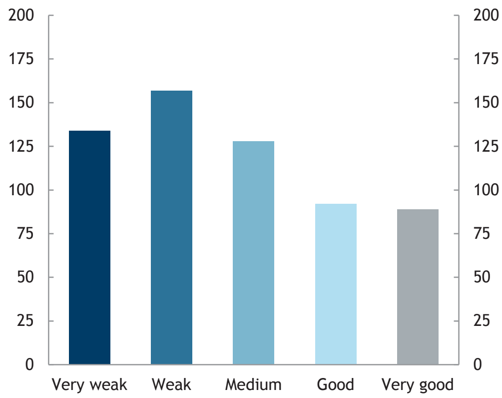
In 2017, we assessed 600 companies in the consumer goods, food and beverage, farming and fishing, pulp and paper, chemicals, oil, and gas, mining and utilities sectors. We included a greater number of companies operating in emerging markets exposed to water-stressed regions in our analysis, and we based the assessment on the companies' most recently reported information.

The companies' reporting was evaluated against five main indicators: transparency on risk management, strategy implementation, supply chain management, governance, and risk and performance indicators. There was considerable variation in the level of reporting. The number of companies that had published analyses of water risks ranged from 38 percent in the farming and fishing sector to 68 percent in the oil and gas sector. There were major differences between sectors in terms of their governance and disclosure on supply chain management. Our analysis showed that around 90 percent of companies provided some relevant information on their water management.

We identified 89 companies as having very good results on our five main indicators in 2017. Pulp and paper was the sector where companies had the best overall reporting on water management.

Good results for water management disclosure. Examples from various sectors.
Clariant AG
Danone SA
Heineken NV
Hera SpA
Iberdrola SA
L'Oreal SA
Mondi Plc
Neste Oyj
Nestle SA
Newmont Mining Corp

Chart 6 Results for companies we assessed on water management in 2017. Number of companies



CLIMATE CHANGE

Climate outcomes may affect company and portfolio returns over time. Climate change may also give rise to business opportunities. We have assessed selected companies exposed to climate risk since 2010.

In 2017, we assessed 1,701 companies in ten sectors with high climate risks, including the financial sector as guided by the TCFD recommendations. The ten sectors were automotive, banks and insurance, basic resources, building materials, chemicals, diversified industrials, oil and gas, power generation, real estate and transport. We based our assessment on data reported to CDP in 2017 and selected supplementary data from Trucost, a supplier of environmental data.

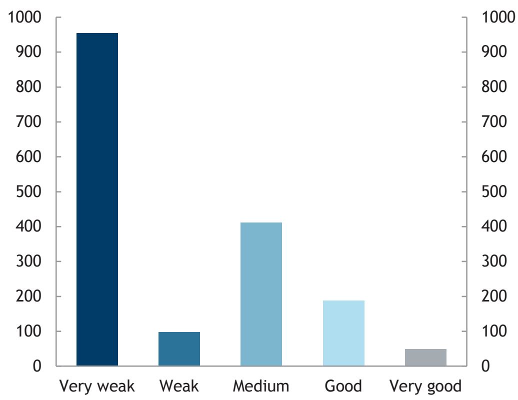
> In 2017, we assessed 1,701 companies in ten sectors with high climate risks.

The companies were measured against five main indicators. These were transparency on governance around climate-related risks and opportunities, strategy, risk management, performance reporting, and realised emission reductions. There was considerable variation in the level of reporting of climate risk among both companies and sectors. The number of companies that published analyses of exposure to climate risk ranged from 32 percent in the real estate sector to 54 percent in the chemicals sector.

In 2017, we identified 49 companies as having very good results on our climate indicators and 188 as having good results. Chemicals, banks and insurance, and automotive were the sectors where companies had best disclosure on climate change issues. In general, the difference between sectors is not very significant. 55 percent of the companies in the selected sectors did not report data to CDP.

Good results for climate change disclosure. Examples from various sectors.
ADP (Aeroports de Paris)
British Land Company
Devon Energy Corporation
E.ON SE
Gecina
Itaú Unibanco Holding S.A.
Lotte Chemical Corp
Newmont Mining Corporation
Svenska Handelsbanken
Tofas Turk Otomobil Fabrikasi A.S.

Chart 7 Results for companies we assessed on climate change in 2017. Number of companies



Climate and deforestation

It is estimated that 10-15 percent of global greenhouse gas emissions are due to land degradation resulting from deforestation, with 80 percent of deforestation attributable to land use change driven mainly by four agricultural commodities – cattle products, palm oil, timber products, and soya. Addressing deforestation is therefore important for meeting international ambitions to help limit climate change. Actions to achieve this could impact our portfolio companies directly or through their supply chains.

We support CDP's Supply Chain – Forests programme by publicly endorsing the programme, encouraging companies to participate, sharing knowledge, and hosting workshops for investors and companies.

Promoting supply-chain disclosure of information on deforestation risk gives us the opportunity to improve practices and outcomes over time, particularly as this type of reporting is at an early stage. We hope to benefit from an improvement in company disclosure and identification of risks and opportunities, which, at the aggregate level, could reduce reputational, financial, and regulatory risks for our investee companies.

In November 2017, we held a workshop with CDP and the Global Canopy Programme for investors and companies in soya and cattle supply chains with links to Brazil.

Climate information

We expect the companies in which we have invested to consider the sensitivity of their long-term business strategy and profitability to relevant future regulatory and physical climate scenarios. However, the lack of data, methodologies, and tools to assess future climate change risks and opportunities has challenged the development of such practices.

The Potsdam Institute for Climate Impact Research (PIK) and research provider Carbon Delta are working to provide investors with new and comprehensive climate risk research. This project aims to deliver insights into the climate change resilience of companies' business models, based on a total of 50 company risk assessment reports that focus on both transition and physical risks. This will support climate scenario analysis for companies and climate risk assessments by investors. We have joined the project as an advisory board member, and given input on the companies for the project team to analyse.

HUMAN RIGHTS

The long-term legitimacy of sectors and markets depends on operations and products that are ethically acceptable. It is broadly accepted that companies have a responsibility to respect human rights, including in supply chains and other business relationships. Respecting human rights is, more generally, part of good business practice and risk management. This means companies should not infringe on the human rights' of the individuals affected by their activities, products or services. Companies failing to respect human rights are exposed to increased business risks, including legal, reputational and financial risks, both in the short and longer term.

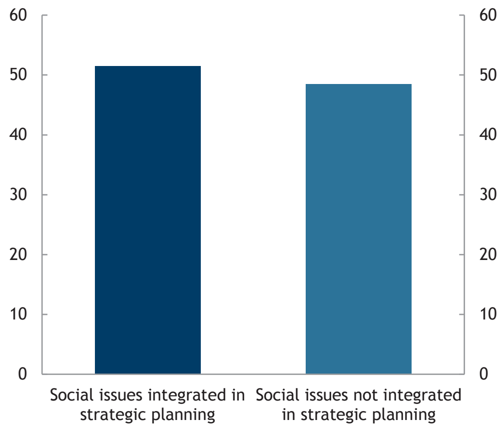
Respecting human rights is good business practice and risk management.

We have encouraged companies to be transparent about how they work on human rights. Some of the information gathered through our assessments of children's rights captures how companies disclose on broader social issues and human rights.

More than half of the 601 companies assessed now report on how potential economic impacts of social issues are integrated into business planning in a way that also reflects the sustainability concerns of long-term investors.

Looking at a sub-section of companies, including the largest covered by our annual assessments, we find that average scores have increased somewhat over time.

Chart 8 Companies that integrate the economic impact of social issues in their strategic business planning. Selected sectors. Percent



Business and human rights performance
The UN Guiding Principles on Business and Human Rights set out companies' responsibility to respect human rights. We support the ongoing development of good practices. However, in terms of measurement and quantifiable performance, the data on social performance are lagging behind environmental and governance-related data. There is a lack of insight into what drives human rights performance, and how to assess it from the investment side. As investors, we need to understand this topic better. Performance relevant indicators are the appropriate starting point for assessing companies and sectors.

In 2017, we signed an agreement with Shift, a non-profit organisation with particular expertise on the UN Guiding Principles and their implementation, to provide financial support for its new initiative to improve the metrics used to measure companies' human rights performance. The project flows from Shift's earlier work on the UN Guiding Principles Reporting Framework, and focuses on quantifiable metrics.

This three-year initiative will kick off in 2018 and will encourage participation from a broad range of stakeholders globally. The project aims to take a broad-based approach to develop a collection of tools, principles, models and good practices to support improved evaluation of business respect for human rights. This will include highlighting existing, or defining new indicators, that serve as accurate proxies of the true underlying performance on social issues. These outputs, delivered in 2020, will enable companies and their stakeholders to track the effectiveness of the company in addressing human rights risk. Shift will develop approaches and resources that carry wide support, and which all stakeholders can draw from as befits their own work and objectives. The results are to be published in accessible forms designed to maximize uptake.

Global apparel supply chain
We signed up to the Social and Labor Convergence Project in 2016. The project is organised by the Sustainable Apparel Coalition and contributes to a more sustainable textile, clothing and footwear sector through standardised processes, common tools and a possible certification of companies and their supply chains. Through the initiative, we collaborate with leading companies across the sector and provide input on investor expectations on responsible business conduct and transparency on metrics relevant to sustainability performance.

In January 2017, we decided to continue our support for the Social and Labor Convergence Project through a two-year research grant to promote the development of better and more sustainable business practices in the apparel industry and its supply chain.

Child labour remains an issue in the global apparel supply chain. Our support for the initiative is therefore also an enhancement of our work on children's rights. Multi-stakeholder initiatives, such as the Social and Labor Convergence Project, are considered key to address systemic sustainability challenges of this kind that require collaboration across companies, sectors and markets.

TAX AND TRANSPARENCY

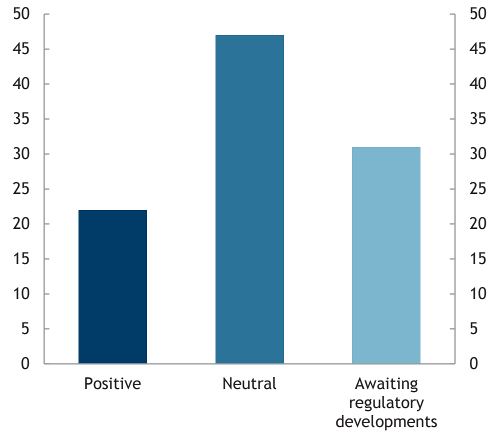
We believe prudent and transparent corporate tax strategies are a key corporate responsibility. Some multinational enterprises have begun to make public their tax policies. Complex or opaque ownership and organisational structures hamper transparency and may compromise investors' fundamental financial analysis.

In 2017, we shared our expectation document on tax and transparency with 500 of our largest investee companies. We seek to encourage prudent, appropriate, and transparent tax behaviour. We were pleased that a number of companies responded to our letter, supporting our expectations and explaining their corporate tax strategy.

In their responses, several companies express alignment or even strong support of our principles. Of those who do not already share country-by-country data to relevant tax authorities, several express an intention to move to disclose this country-by-country information. Many companies express that appropriate tax payments in each country is a pillar of responsible business conduct. Consistent with our expectations, others emphasise that tax matters are a board responsibility. We envisage that company practices in this area will continue to develop, and will support companies' boards in their efforts to meet investor expectations in this regard.

In our expectation document, we also raise the use of closed jurisdictions. In the responses we received, some companies state that they are opposed to the use of such jurisdictions. The dialogue with companies also confirmed that our support of the OECD Base Erosion and Profit Shifting actions is appropriate.

Chart 9 Assessment of company responses to our expectations on tax and transparency. Percent of companies responding



Assessments

An important task in our responsible investment management is to get companies to move from words to numbers so that we can measure and evaluate their efforts, and better understand both risks and opportunities to our investments.

Monitoring environmental, social and governance issues in the portfolio is an important aspect of our risk management and investment activities. We concentrate on issues that we believe may have a material effect on the fund's financial value. In our analyses, we need quantitative data on environmental, social, and governance issues. We aim to identify, measure and manage all relevant opportunities and risks to which the fund is exposed.

We benefit from the timely disclosure of high-quality data and access to qualitative and quantitative sustainability information.

SUSTAINABILITY DISCLOSURE

We are working on improving our understanding of potential links between sustainability on the one hand, and portfolio risk and return on the other. As an investor, we benefit from the timely disclosure of high-quality data and access to qualitative and quantitative sustainability information. Our work with sustainability data draws on statistics and data concerning countries and sectors, and company-level data on specific topics such as corruption, executive pay, greenhouse gas emissions, deforestation and human rights.

Academic institutions and other organisations, such as NGOs and the media, are an important source of information. We encourage stakeholders to provide any sustainability information that they believe may be of relevance to our investments.

As a result of this work, we now have increasingly comprehensive databases of sustainability data that span a number of factors at country, sector and company level. These data are integrated into our analyses of individual companies and sectors, as well as at the portfolio level.

A key aspect of our work is staying abreast of new developments and gaining access to high-quality information on emerging environmental, social and governance issues. We see an increasing focus on, and demand for, measuring the positive environmental and social impact of business operations and investment portfolios. One example of this is so-called green revenue, which is understood as the percentage of a given company's revenues or activities linked to a theme with a positive environmental impact, such as renewable energy or clean technology. Positive social outcomes can be more difficult to quantify, but there is an increasing focus on this area as well, and we follow new developments closely.

External research

Our in-house analysis is, where relevant, supplemented by analysis and research provided by external data providers. Some of this is publicly available or made available via our membership of various initiatives. We will also commission research by specialists when we need more sophisticated analysis.

Disclosure platforms
In our own work, we look for sustainability information that is relevant to value and performance across topics, sectors and markets. CDP is a disclosure platform for company reporting of climate, water and deforestation information. We are a long-term sponsor of CDP's water programme, and we presented our views on disclosure and our work on water issues during the annual Water Summit.

During the year, CDP launched a project to revise all its disclosure questionnaires. We believe that consolidating and harmonising sustainability reporting around well-founded and recognised frameworks is in the interest of companies and investors alike. We also emphasise shared learning and industry input, and as part of this we hosted a CDP-led workshop with companies and investors in June 2017.

CLIMATE RISK DISCLOSURE

We recognise that climate change presents both risks and opportunities for companies and investors alike. The development of a shared, rigorous framework for the reporting of climate risks across sectors and markets is a priority for us.

In July 2017, the Task Force on Climate-related Financial Disclosures – established by the Financial Stability Board – published its final recommendations. We have interacted with the Task Force repeatedly over the last two years, submitting two public responses. We have signed a formal statement in support of the recommendations.

EXAMPLES OF QUANTITATIVE SUSTAINABILITY DATA

Theme	Country	Sector	Company
Biodiversity	✓	✓	✓
Greenhouse gas emissions	✓	✓	✓
Child labour	✓	✓	✓
Climate change	✓	✓	✓
Corporate governance	✓	✓	✓
Corruption	✓	✓	✓
Deforestation	✓	✓	✓
Fossil fuel reserves			✓
Gender diversity			✓
Green revenue			✓
Health and safety	✓	✓	✓
Human capital		✓	✓
Human and labour rights	✓	✓	✓
Tax	✓	✓	✓
Waste	✓	✓	✓
Water	✓	✓	✓
Utility plant specifics			✓

The Task Force recommendations, if broadly adopted, will result in a homogenous, appropriate and consistent reporting regime across jurisdictions or standards, and, as relevant, sectors and asset classes.

We published our first expectations of companies on climate disclosure in 2009, and we were pleased that the Task Force has adopted a similar approach. In our interaction with the Task Force, we have highlighted the need to develop climate datasets and accepted methodologies to arrive at physical and transition risk scenarios in line with the recommendations.

We want to understand better what the Task Force recommendations will mean for banks and insurance companies. We have therefore initiated a dialogue with 55 banks on the implications of these recommendations.

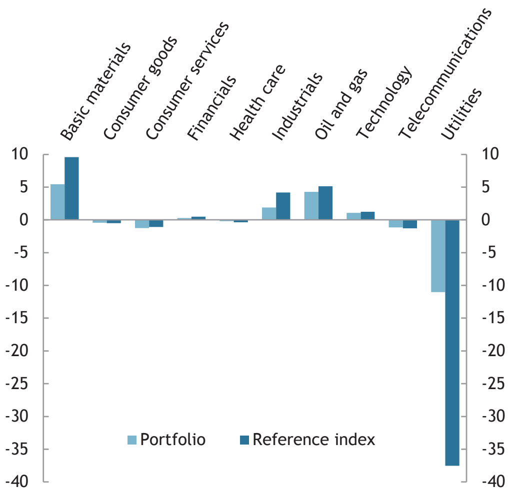
Carbon footprint

We have analysed greenhouse gas emissions from companies in the fund's equity portfolio since 2014, an exercise commonly referred to as carbon footprinting. In 2016, we also conducted a carbon footprint analysis of the corporate bond portfolio for the first time. This type of analysis provides a snapshot of greenhouse gas emissions and associated climate risk in the portfolio. While we have continued to carry out and report on the carbon footprint of the equity and corporate bond portfolios, we acknowledge that this offers only one view of climate risk exposure for the fund as a whole.

In 2017, we sought to expand our understanding of climate-related risk in the portfolio in the form of physical risk and transition risk. Physical risk includes exposure to extreme weather events such as floods, droughts or heat waves. Transition risk includes exposure to changes in public policy, technological innovations and evolving consumer preferences.

To better understand these risks, we have commissioned analyses and participated in projects to assess and, where possible, quantify physical and transition risks at companies. Measuring physical risk exposure requires access to data on the type and location of company assets, as well as the probability of extreme weather events that could affect company operations. Transition risk is dependent on companies' exposure to regulatory changes and technological developments, and the share of business activities or assets that are most at risk. In our work on assessing companies with elevated physical or transition risks, we have focused on producers of power, oil and gas, commodity chemicals, cement and steel.

Chart 10 Changes in contribution to carbon footprint from 2016 to 2017. Percent



We are developing an in-house model for analysing the potential impacts of mainstream climate scenarios on individual companies and on the portfolio as a whole. Specifically, we model future cash flows and greenhouse gas emissions on a company level and incorporate estimates of future carbon price under different scenarios. The aim of this work is eventually to be able to model the effects of a carbon price on the return of the portfolio under individual forward-looking scenarios. Data quality and methodological soundness remain key priorities.

Our analysis provides only a momentary snapshot and does not take account of companies' strategies, industry structure and other factors. Carbon emissions calculations do not provide a complete picture of the climate risk that companies may be exposed to. The analysis of carbon emissions is best assessed in combination with other relevant information, such as water intensity, air pollution, age of generation units emitting CO_2, and, where applicable, carbon capture and storage options.

Measuring emissions

We measure greenhouse gas emissions in the equity and corporate bond portfolios. High emissions at individual companies may result in financial risks, for example, from future regulatory changes and technological advances. The figures reported for 2017 correspond to companies' Scope 1 and Scope 2 emissions. As not all companies report sufficiently standardised data, our analyses are based on extensive use of modelling by specialised data providers.

Based on our percentage ownership in each company, aggregated emissions of greenhouse gases for the equity portfolio amounted to 101 million tonnes of CO_2 equivalents in 2017. This is approximately 1.9 times total Norwegian emissions, as reported by Statistics Norway.

Companies in the equity portfolio released approximately 180 tonnes of CO_2 equivalents per million dollars of their revenue. Some sectors have higher emissions in relation to revenue than others. For example, emission intensity is high in the utilities sector. This may not be surprising, as the power companies supply energy to other sectors.

Our analysis shows that the equity portfolio's carbon intensity is five percent less than that of the reference index. The difference in estimated emission intensity between the portfolio and the reference index is due primarily to our investments in basic materials, industrials and utilities having a lower emission intensity.

Both the equity portfolio and the reference index experienced an increase in emission intensity values in 2017, even though total emissions decreased for the same time period. The increase in emission intensity for both the portfolio and the reference index was approximately 10 percent and was primarily due to decreased revenues in the oil and gas and basic materials sectors as a result of low commodity prices in the reporting year. Revenue is a key variable in calculating emission intensity and a decrease in revenues can result in a higher emission intensity at the individual company level, even when company emissions have decreased on an absolute basis.

We have also calculated the carbon intensity of the reference index in the absence of ethical exclusions under the fund's Guidelines for Observation and Exclusion. These exclusions have decreased the carbon intensity of the reference index by 15 percent, driven primarily by exclusions due to the coal criterion.

In 2016, we looked at various methods available to measure the carbon footprint of our corporate bond portfolio. There is still some way to go before a consistent and relevant method for calculating the carbon footprint of fixed-income portfolios is available. Despite challenges concerning the availability and mapping of data, allocation methods and complex structures, we have chosen to calculate the corporate bond portfolio's exposure to carbon-intensive sectors and companies and compared this to that of the reference index's exposure. The corporate bond portfolio's carbon intensity is 13 percent less than that of the benchmark. This is due primarily to our investments in industrials having a lower emission intensity.

Method

Calculation methodologies for greenhouse gases vary. We use estimated greenhouse gas emissions for each individual company in the equity portfolio, based on reported numbers of tonnes of CO_2 equivalents.

Information on companies' greenhouse gas emissions is often based on self-reported data, either as part of their ordinary reporting or submitted to the likes of CDP. Such data are not available for all companies in the fund's equity portfolio. We work closely with our data providers to ensure that we get the best possible coverage for the portfolio and reference index. We have mainly used data from Trucost in our analyses.

To draw comparisons between companies and sectors, it is appropriate to view emissions in relation to a common, normalising variable. We use revenue as a proxy for the company's economic activity. The result is an expression of companies' greenhouse gas emission intensity, or emissions per unit of revenue.

To calculate overall greenhouse gas emission intensity for all of the fund's investments, we divide total emissions of the individual company by its revenue. This is the company's emissions intensity, which we then multiply by the value of the fund's investment in the company as a percentage of the portfolio's total value. Finally we add up all of the fund's positions. This makes it possible to compare the portfolio with the benchmark index.

When comparing the carbon footprints of companies operating in the same sector, we have always looked at both direct and indirect CO_2 emissions. When analysing the business models of individual companies, we may also include an assessment of the lifecycle emissions of a company's operations and products to get a more complete picture of climate-related risks and opportunities at the company level.

Table 5 Scope 1 and 2 emissions by sector

Sector	Equity portfolio Tonnes CO_2 equivalents	Reference index Tonnes CO_2 equivalents	FTSE All Cap Tonnes CO_2 equivalents
Basic materials	25,074,080	23,681,250	2,925,356,440
Consumer goods	5,765,582	4,673,948	474,844,895
Consumer services	8,252,835	6,079,735	830,935,674
Financials	1,856,646	1,893,345	218,420,483
Health care	733,747	696,473	63,185,428
Industrials	20,110,089	19,249,313	1,873,987,859
Oil and gas	16,983,780	17,504,428	1,926,254,153
Technology	1,220,326	1,130,357	110,747,203
Telecommunications	672,848	732,444	87,235,419
Utilities	20,244,932	25,000,232	4,707,084,732
Sum	**100,914,866**	**100,641,525**	**13,218,052,284**

Table 6 Scope 1 and 2 emissions intensity by sector, weighted by market value of fund holdings. Equity portfolio, reference index and FTSE All Cap

Sector	Equity portfolio Tonnes CO_2 equivalents per million dollars in sales revenue	Reference index Tonnes CO_2 equivalents per million dollars in sales revenue	FTSE All Cap Tonnes CO_2 equivalents per million dollars in sales revenue
Basic materials	731	772	844
Consumer goods	74	70	66
Consumer services	105	90	89
Financials	32	29	29
Health care	31	30	30
Industrials	245	262	246
Oil and gas	549	560	560
Technology	44	44	44
Telecommunications	45	49	49
Utilities	1,260	1,453	2,215
Weighted total	**180**	**189**	**222**

Table 7 Scope 1 and 2 emissions by market capitalization, weighted by market value of fund holdings.[1] Equity portfolio, reference index and FTSE All Cap

Sector	Equity portfolio Tonnes CO_2 equivalents per million dollars invested	Reference index Tonnes CO_2 equivalents per million dollars dollars invested	FTSE All Cap Tonnes CO_2 equivalents per million dollars invested
Basic materials	887	947	938
Consumer goods	84	67	62
Consumer services	123	104	103
Financials	12	11	11
Health care	12	11	11
Industrials	485	391	364
Oil and gas	608	549	548
Technology	25	21	21
Telecommunications	34	35	35
Utilities	1 122	1 334	1 805
Weighted total	**217**	**204**	**223**

[1] Does not take into account companies' different capital structure (debt-to-equity ratio)

Table 8 Scope 1 and 2 emissions in the fixed-income corporate portfolio and reference index

	Tonnes CO_2 equivalents	Average emissions intensity weighted by market value of fund holdings. Tonnes CO_2 equivalents per million dollars in sales revenue
Fixed income corporate portfolio	5,785,668	193
Reference index	7,084,048	220
Difference	-1,298,380	-28

In 2017, we assessed 135 companies in the oil and gas sector on green house gas emissions, fossil fuel reserves and regulatory risk.

SUSTAINABILITY ASSESSMENTS

We use our databases on sustainability data to conduct ongoing monitoring of companies in the portfolio. This includes monitoring environmental, social and governance risks of countries, sectors and companies in which the fund is invested. We also monitor potential opportunities and, increasingly, positive environmental and social impacts.

Country analysis

In 2017, we continued to develop our understanding of environmental, social and corporate governance risks at the country and sector levels. Our analysis of such risks is based on an in-house risk framework. The framework includes country-level data and indicators across ten key environmental, social and governance themes.

In addition to more detailed sustainability data at the country or market level, we have data for sectors' exposure to the same risks. This means that we can analyse and assess such risks at the country or sector levels, as well as look at overlapping risks between countries and sectors. These assessments facilitate the identification of high-risk areas of the portfolio. This helps us identify companies that warrant further analysis.

Improvements to the framework in 2017 included the addition of an additional governance theme at the country level to give a better picture of relevant environmental, social and governance risks across the portfolio.

Framework for approval of government bonds

With effect from 1 January 2018, the Ministry of Finance has introduced a new requirement in the Management Mandate for the Government Pension Fund Global, which requires Norges Bank's Executive Board to approve issuers of government bonds. Approval is to be based on an assessment of investment and operational risk.

We have developed a framework for systematically assessing investment and operational risk associated with investments in government bonds from different issuers. Information about relevant risks is obtained from a number of recognized international organisations and data providers.

Investment risk is assessed along three dimensions: Stability, sustainability and serviceability. Sustainability includes assessments of environmental, social and governance factors, including exposure to conditions such as climate change and preservation of natural resources.

Based on the information collected on investment risk and operational risk, we conduct a risk assessment of each issuer country where the fund is invested in government bonds.

Sector analysis

Our general approach to risk monitoring helps us identify sectors with elevated exposure to environmental, social or governance risks that may warrant further analysis.

One way to identify sectors that warrant more in-depth analysis is to overlay our in-house environmental, social and governance risk framework against the portfolio, drawing attention to sectors with elevated risk exposure to specific issues. We may also be alerted to specific sectors by information we receive from our external data providers, other investors or stakeholders. We also make an effort to reassess sectors we have identified in previous

SECTOR ANALYSIS

Sectors	Number of companies assessed	Environmental, social and governance topics
Toys	38	Health and safety, labour rights, product safety, toxic chemicals, packaging.
Oil and Gas	135	Greenhouse gas emissions, fossil fuel reserves, regulatory risk
Steel	78	Greenhouse gas emissions
Cement	53	Greenhouse gas emissions, social and governance incidents
Chemicals	22	Greenhouse gas emissions, water, pollution, social and governance incidents
Timber, pulp and paper	11	Biodiversity, sustainability certification, water, human rights and local communities
Agricultural commodities	38	Deforestation, water, greenhouse gas emissions, human rights and local communities
Mining	21	Health and safety, corruption, greenhouse gas emissions and water
Automobiles, auto parts, trucking, commercial vehicles and trucks	74	Greenhouse gas emissions, exposure to low-carbon technologies
Utilities	25	Greenhouse gas emissions, water, fossil fuel-based generation, physical and transition climate risk
Basic materials, consumer goods, consumer services, financials, health care, industrials, oil and gas and telecommunications	154	Corruption risk exposure and management, corporate governance
Software and services, retail (consumer discretionary) and diversified consumer services	37	Data security, product safety, GHG emissions, human capital, corporate governance, tax transparency, business ethics and corruption.

years. In 2017, we conducted sector analyses covering 686 companies.

As a result of these country and sector analyses, we may decide not to invest in some sectors in certain countries. We do this to reduce the fund's exposure to unacceptable risk.

Company analysis
We divide company analysis into two categories: material ownership reports and incident briefs.

We systematically analyse companies where the fund has a significant ownership share. These material ownership reports look in more detail at business drivers and risk factors for the specific company and may incorporate information from our databases of sustainability data, in addition to publicly available data reported by companies and regulators, among others. This information helps us assess whether and how environmental, social and governance issues affect the company.

To capture incidents that may be relevant for the portfolio, we monitor companies and markets using various information systems and global media monitoring. After an initial incident evaluation, we select companies for further analysis in an incident brief. We prepared 24 of these briefs in 2017. The briefs covered incidents such as alleged corruption, fraud, environmental pollution, deforestation, health and safety violations, and impacts on local communities. The incident briefs may be complemented by more extensive company analysis, additional risk monitoring activities or ownership measures.

External managers
We use external managers primarily in emerging markets and for our environmental portfolio. This gives us better insights into smaller markets and niche technologies.

We monitor environmental, social and corporate governance risks in fund holdings managed internally and externally by fund managers that we have selected. Ensuring that external managers are aware of our responsible investment priorities, and that they integrate environmental, social and governance considerations into their investment activities, is part of our process when selecting new managers. For established mandates, such aspects are part of the annual qualitative assessment of external managers and is a topic of discussion at the regular meetings we have with managers throughout the year.

We will continue to call attention to environmental, social and governance issues in our ongoing dialogue with external managers. We will also continue to develop how we monitor their activities in this regard, such as by enhancing the annual questionnaire to capture a fuller picture of the work they are doing.

Investments

We believe there are opportunities for investing in companies and technologies that enable more environmentally friendly economic activity. These investments are likely to have positive externalities that will benefit society, such as more efficient resource use, less pollution and lower energy cost.

Over the long term, we believe that companies with a greater proportion of environmental attention will benefit economically from the ongoing shift towards lower pollution and greater natural resource efficiency. This should ultimately drive the share price performance of these companies. The shift is still dependent on subsidies in many areas, while rapidly falling costs are making technologies economical on a standalone basis in others. Larger and more cross-border penalties for pollution and a growing focus on environmental regulation could further strengthen the relative earnings power and sustainability of these companies. To benefit from such trends, we make additional allocations to environmental mandates.

ENVIRONMENTAL MANDATE

The management mandate from the Ministry of Finance requires Norges Bank Investment Management to invest between 30 and 60 billion kroner in environment-related mandates. At the end of 2017, we had 67.8 billion kroner invested in the equities of 206 companies under this mandate, and 7.1 billion kroner invested in green bonds. These investments are actively managed both internally and externally.

Equity investments under the environment-related mandates returned 21.7 percent in 2017, and the annualised return since inception in 2010 has been 6.2 percent. Over time, the environment-related equity portfolio and universe have had a higher volatility than the wider equity market. We have to expect a relatively small group of companies such as this to show greater return volatility over time than the broad equity market. The environmental investment universe is still nascent and sensitive to the developments of new technologies, business models and government regulation.

We have built up in-depth, internal expertise in environmental technologies in recent years. A major part of our work involves defining the environmental investment universe. Through analysis of companies' activities, we identify providers of goods and services of an environmental character.

It is worth noting that not all the companies in our universe provide goods and services only for lower-impact economic activities. We believe that we are currently in a transition period of improving technologies and solutions. These technologies are, however, expected to become central in moving towards net zero environmental impact in the future, without excessive costs and stranded assets.

We screen the holdings in our environmental portfolios against information that is provided by specialised external data providers and incorporated into our databases of sustainability data. The goal of this exercise is to ascertain the positive exposure of securities in the relevant portfolios to designated environmental themes via their revenues or activities. In 2017, we screened all of our environmental investments against indicators for positive environmental exposure, as well as environmental, social and governance risks. We will also flag any potential environmental, social or corporate governance risks in the companies' operations for consideration by the portfolio managers.

Broadly speaking, we invest in three main areas. Companies must have a minimum of 20 percent of their business in one of these areas to be considered part of our environmental universe. We invest in low-emission energy and alternative fuels, in clean energy generation and energy efficiency, and in technologies for water and waste management, agriculture and forestry.

ENVIRONMENTAL UNIVERSE – INTERNAL DEFINITIONS

Categories	Groups	Definitions
Companies that provide solutions to climate change and pollution	Low-emission energy and alternative fuels	Providers of energy, infrastructure and energy solutions for transport, buildings and industry
	Clean energy and efficiency technology	Providers of technology, equipment and services lowering emissions through clean and efficient generation and consumption of energy
Companies that provide solutions contributing to efficient usage of natural resources and reduced pollution	Natural resource management	Providers of technology, equipment, infrastructure and services lowering environmental impact through clean and efficient consumption and reuse of natural resources

Table 9 Key figures as at 31 December 2017. Annualised data, measured in the fund's currency basket. Percent

	Since 01.01.2010	Last 5 years	Last 3 years	2017
Return on the environment-related equity mandates	6.2	15.5	11.4	21.7
Return on fund equity investments	10.6	12.9	10.5	19.4
Return on fund equity benchmark index	10.3	12.5	9.9	18.7
Return on the FTSE Global All Cap Index	11.5	13.6	10.6	17.9
Return on the MSCI Global Environment Index	9.2	13.2	10.5	22.2

Table 10 Market value of investments in the environment-related mandates. Millions of kroner

	Holding
Internally managed equities	45,741
Externally managed equities	22,022
Green bonds	7,094
Total	**74,857**

LOW-EMISSION ENERGY AND ALTERNATIVE FUELS

The power generation and transport sectors are major contributors to greenhouse gas emissions. Technological advances in these areas can significantly reduce global greenhouse gas emissions. Companies today are increasingly developing capacity for the production of energy from renewable sources such as wind, solar, hydro, geothermal and waste. We believe infrastructure to facilitate the growth of low-emission energy is also important.

As countries prepare to meet their long-term climate and energy obligations under the Paris Agreement, global investments in renewable energy production will likely receive further support. Within the transport sector, hybrid, fuel cell and battery electric cars have been an important recent development.

Companies operating in these segments include Linde, Iberdrola, and NextEra Energy.

Renewable energy and energy storage cost reductions

Commercialisation of renewable energy and small- to large-scale energy storage is approaching quickly. Commercialisation and technology convergence of renewables, electric vehicles and energy storage will most likely lead to dramatic changes in the energy mix. Companies in our low-emission energy and alternative fuels mandate are key drivers of this energy transition globally.

CLEAN ENERGY AND EFFICIENCY TECHNOLOGY

Investments in solutions to climate change have traditionally been made mainly in energy production and concentrated on clean and renewable energy. Opportunities on the demand side have recently begun to attract more attention. The transport sector is making progress, partly by producing more efficient traditional combustion engines. Progress is also being made on electric vehicles. However, despite recent developments, the cost of producing batteries remains a challenge. Demand for energy efficiency technology for buildings has increased. Substantial reductions in energy consumption can be achieved through better insulation, heating and ventilation systems and lighting, as well as solutions that control these processes.

Companies operating in these segments include ABB, Eaton Corporation, and Daikin Industries.

Efficient Mobility

There are currently three main technologies that are set to revolutionise the cost and efficiency of transportation: electric vehicles, autonomous driving, and shared mobility. The combustion engine accounts for most greenhouse gas emissions from the transportation sector, and approximately a quarter of total greenhouse gas emissions. In the next decade, progress in battery technology and cost will allow electric vehicles to replace combustion technology. A fully functional autonomous driving system will also lead to more efficient use of the existing vehicle stock. Finally, shared mobility will increase utilisation, reduce the need to purchase cars, and aggregate transport routes for personal as well as commercial users. The outlook for large efficiency gains and reduction in greenhouse gas emissions is improving, thanks to these three nascent technologies.

Table 11 Top ten equity holdings in the low-emission energy and alternative fuel segment in the fund's environmental portfolio

Company	Country	FTSE Global sector	Millions of kroner	Share of portfolio Percent
Linde AG	Germany	Basic materials	3,465	5.1
Iberdrola SA	Spain	Utilities	2,876	4.2
NextEra Energy Inc	US	Utilities	2,799	4.1
Sempra Energy	US	Utilities	2,304	3.4
National Grid Plc	UK	Utilities	1,110	1.6
Enel SpA	Italy	Utilities	808	1.2
EDP - Energias de Portugal SA	Portugal	Utilities	753	1.1
SSE Plc	UK	Utilities	525	0.8
Huaneng Renewables Corp Ltd	China	Oil and gas	512	0.8
NRG Yield Inc	US	Financials	346	0.5

Table 12 Top ten equity holdings in the clean energy and efficiency technology segment in the fund's environmental portfolio

Company	Country	FTSE Global sector	Millions of kroner	Share of portfolio Percent
Parker-Hannifin Corp	US	Industrials	2,032	3.0
Daikin Industries Ltd	Japan	Industrials	1,898	2.8
Thermo Fisher Scientific Inc	US	Health care	1,444	2.1
Legrand SA	France	Industrials	1,396	2.1
Eaton Corp Plc	US	Industrials	1,242	1.8
Infineon Technologies AG	Germany	Technology	1,128	1.7
ABB Ltd	Switzerland	Industrials	911	1.3
Keyence Corp	Japan	Industrials	792	1.2
Atlas Copco AB	Sweden	Industrials	725	1.1
Tesla Inc	US	Consumer goods	650	1.0

NATURAL RESOURCE MANAGEMENT

Efficient utilisation of natural resources is important for water management, waste management, recycling, agriculture and forestry. Meeting the world's need for high-quality water in an efficient manner is a global challenge. The infrastructure to achieve this requires large investments, particularly as demand for water is expected to grow substantially. In areas with scarce water resources, it is important to have solutions that enable recycling of water through treatment processes and efficient pumping, measurement and control solutions. Recovering energy from waste and making good use of organic materials exemplify how waste can be a resource. One notable example is the collection of methane gas from landfills. Ensuring availability of food for the growing population also requires efficient land management and agricultural production to limit negative environmental impacts.

Companies operating in these segments include American Water Works, Veolia Environnement, and Waste Connection.

Precision Agriculture

Providing nutrition for a growing population, while limiting the negative environmental impacts associated with the production, distribution and consumption of food, is a global challenge. Estimates show that the current food system is responsible for approximately a quarter of greenhouse gas emissions and consumes approximately 70 percent of available fresh water at a global level. Agricultural practices can also result in water pollution and soil degradation. Another challenge associated with the current food system relates to food waste, as approximately one-third of food produced is wasted throughout the supply chain. Key to solving these challenges is technology, including the practice of precision agriculture. Precision agriculture facilitates a sustainable intensification of food production, which can help increase efficiency by maximising yields while reducing inputs such as water and fertiliser. It can also help reduce food waste during production. This is achieved with software and tools that equip farmers with real-time data and analysis for optimum decision-making in areas such as planting and irrigation.

Table 13 Top ten equity holdings in the natural resource management segment in the fund's environmental portfolio

Company	Country	FTSE Global sector	Millions of kroner	Share of portfolio Percent
Waste Connections Inc	Canada	Industrials	1,839	2.7
DS Smith Plc	UK	Industrials	1,608	2.4
Xylem Inc/NY	US	Industrials	1,390	2.1
Steel Dynamics Inc	US	Basic Materials	1,024	1.5
Veolia Environnement SA	France	Utilities	1,014	1.5
AO Smith Corp	US	Industrials	1,010	1.5
Ecolab Inc	US	Basic Materials	967	1.4
American Water Works Co Inc	US	Utilities	875	1.3
Koninklijke DSM NV	Netherlands	Basic Materials	859	1.3
Severn Trent Plc	UK	Utilities	642	0.9

Divestments

There are companies where we choose not to be an owner. This includes companies whose operations could impose large indirect costs on society. By not investing in those companies, we reduce our exposure to unacceptable risk.

The fund has two mechanisms for removing exposure to companies whose activities may be considered unsustainable: risk-based divestment, and ethical exclusion. Unsustainable activities include business models that are not aligned with evolving technological, regulatory or environmental developments or operations that consistently breach ethical norms.

We base our divestment decisions on assessments of long-term sustainability issues, while exclusions are based on the ethical criteria set by the Ministry of Finance and decided by the Executive Board of Norges Bank.

RISK-BASED DIVESTMENTS

We have divested from 216 companies in recent years, following assessments of environmental, social and governance related risk factors. In 2017, we divested from six companies.

The integration of environmental, social and governance issues into our risk management may result in divestments from companies where we see elevated long-term risks.

We carry out divestments within the overall limits for portfolio deviation from the benchmark, set out in the investment mandate. Where we have substantial investments in a company, dialogue may be a more suitable approach than divestment. Generally, we have better analytical coverage of our largest investments, and more contact with their management and board.

Our diversified portfolio requires us to take a systematic approach to risk-based divestment. The primary method of identifying companies is a top-down approach where we use an in-house framework for identifying environmental, social and governance risks at the country and sector levels. In recent years, we have worked further to develop our analytical model and expanded the country-sector risk framework to include additional sectors and themes. Once we have identified sectors or sets of companies with elevated inherent risk, we then assess company-specific data to understand the ability of individual companies to manage and mitigate their risk exposure.

We may also be made aware of potential candidates for risk-based divestment through our daily risk monitoring, which includes environmental, social and governance risks. This bottom-up approach helps us identify companies whose operations are characterised by negative outcomes. This could be a sign that companies are not adequately addressing relevant environmental, social and governance risks in their business operations. When considering companies for risk-based divestment we will analyse their activities and business models, and indicators of how well they manage relevant risks.

Many of the topics and sectors assessed in our divestment analyses are also addressed through our ongoing efforts on standard setting and exercising ownership. Recommending companies for risk-based divestment is often the last resort, when other efforts have been considered but not seen as sufficient. While we do not provide a list of divested companies, we nevertheless aim to be transparent about the criteria underpinning our decisions and provide annual holding lists of all companies in which we invest.

Deforestation

Deforestation is an issue with significant social and environmental consequences. Forests provide a number of ecosystem services, such as maintaining biodiversity, storing carbon and producing oxygen. In some regions, deforestation is among the main sources of greenhouse gas emissions and may also pose a threat to human and indigenous rights.

Palm oil

The production of palm oil in Malaysia and Indonesia is widely recognised as a major contributor to tropical deforestation. Our initial analysis of the sector resulted in divestments from a total of 29 palm oil companies between 2012 and 2015. The divested companies were considered to produce palm oil unsustainably.

When considering companies for divestment, we focused primarily on those operating palm oil plantations in Malaysia and Indonesia, and having a relevant business mix allocated to palm oil production. We also look at the companies' Roundtable on Sustainable Palm Oil certification status and plans for future certification.

In 2017, we conducted an assessment of previously divested companies, as well as companies currently in the portfolio with direct exposure to palm oil production. As a result of this analysis, we chose to divest from an additional three palm oil producers. We also readmitted two companies that over time had reduced their involvement in palm oil production.

Soy production

The production of soy has been linked to deforestation in Brazil, as previously forested areas are converted to agricultural land. Certain land conversion practices can result in increased greenhouse gas emissions, reduced biodiversity, increased water stress and pollution of existing water sources, as well as negative impacts on local communities. Evolving standards, such as the Round Table on Sustainable Soy, aim to mitigate the negative impacts of soy production.

When assessing companies, we consider the geographical footprint of their operations, the percentage of the business linked to the production of soy and other agricultural commodities, documented land conversion activities and the percentage of their operations certified by the Round Table. Our analysis resulted in the divestment from one company in 2017.

RISK-BASED DIVESTMENTS IN 2017

Category	Theme	Criteria	Number of companies divested
Deforestation	Palm oil production	Owns/operates plantations in Malaysia and Indonesia	
		Relevant percentage of business mix allocated to palm oil production	
		RSPO certification status and plans	3
	Soy production	Engaged in land conversion for soy production in Brazil	
		Relevant business mix allocated to soy production	
		RTRS certification status and plans	1
Water	Water pollution in Chemicals sector	Exposure to markets with elevated environmental risk	
		Documented incidents of poor management of water and pollution risks	1
Social and Governance	Other	Related to the production of tobacco	1
Total			6

DIVESTMENTS IN PREVIOUS YEARS

Category	2017	2016	2015	2014 and earlier
Greenhouse gas emissions	0	4	42	22
Deforestation	4	4	7	43
Water	1	0	9	35
Social and governance	1	15	15	14
Total	6	23	73	114

Water
Water is an input in a number of production processes in many sectors. Companies may rely on water in their direct operations or through their supply chains, while others produce emissions or waste that may pollute water and impact local communities. Water stress and production of wastewater may affect companies through operational disruptions, loss of market access or social licence to operate and capital expenditure risks.

Chemicals
The chemicals sector is a large consumer of water, as well as a producer of wastewater. Improper disposal of toxic waste resulting from operations in the chemicals sector can lead to negative environmental and health impacts, in addition to regulatory and financial repercussions. Our assessment of companies in the chemicals sector emphasised exposure to environmental, social and regulatory risks. We also considered documented incidents related to insufficient management of water and pollution risks in particular. As a result of our analysis, we divested from one company in the sector in 2017.

Social and governance issues
Failure to manage risks related to social and governance issues could result in operational disruptions, financial penalties, loss of contracts and reputational damage to companies. In 2017, we continued to assess significant social and governance issues, such as health and safety, human capital and corruption in our risk monitoring and risk-based divestment work. As a result of our assessment, we removed one company from our investment universe.

ETHICAL EXCLUSIONS
Norges Bank excluded eleven companies in 2017 and put six companies under observation.

The Ministry of Finance has issued specific Guidelines for Observation and Exclusion from the Government Pension Fund Global, based on criteria endorsed by the Storting – the Norwegian parliament. These criteria relate to specific product types and entail that the fund must not invest in companies which themselves, or through entities they control, produce weapons that violate fundamental humanitarian principles through their normal use, produce tobacco, or sell weapons or military material to certain countries. Companies may also be excluded if there is an unacceptable risk of conduct that is considered grossly unethical.

The Ministry of Finance has appointed an independent Council on Ethics for the Government Pension Fund Global to research and evaluate companies and provide recommendations on exclusion or observation. The Council on Ethics has five members and a secretariat. Norges Bank and the Council on Ethics regularly share information about activities with regard to portfolio companies and coordinate company contact. Norges Bank also submits matters to the Council on Ethics for the council's consideration.

The Executive Board of Norges Bank decides on the observation and exclusion of individual companies following a recommendation from the Council on Ethics. The Executive Board bases its decision on an assessment of the likelihood of future norm violations, the severity and extent of the violations, and the connection between the norm violation and the company the fund is invested in.

The Executive Board may also consider the breadth of the company's operations and governance, including whether the company is doing what can reasonably be expected to reduce the risk of future norm violations within a reasonable period. Before the Executive Board decides on a company exclusion, the Bank considers whether other measures, such as the exercise of ownership rights, may be more suited to reducing the risk of continued norm violations, or whether such alternative measures may be more appropriate for other reasons.

Coal criterion
On 1 February 2016, the Ministry of Finance added two new criteria to the Guidelines for Observation and Exclusion: a conduct-based climate criterion and a product-based coal criterion. For the coal criterion, the Executive Board of Norges Bank is responsible for excluding companies without a prior recommendation from the Council on Ethics.

The coal criterion means that observation or exclusion may be decided for two categories of companies. The first category relates to mining companies that derive 30 percent or more of their income from extraction of thermal coal. The second relates to power producers that derive 30 percent or more of their income from power production, and where 30 percent or more of their power production is based on thermal coal.

ETHICAL DECISIONS IN 2017

Categeory	Criterion	Number	Companies
Exclusion	Thermal coal mining or coal-based power production	10	CEZ AS, Eneva SA, Great River Energy, HK Electric Investments & HK Electric Investments Ltd, Huadian Energy Co Ltd, Korea Electric Power Corp, Malakoff Corp Bhd, Otter Tail Corp, PGE Polska Grupa Energetyczna SA, SDIC Power Holdings Co Ltd
	Severe environmental damage	1	Bharat Heavy Electricals Ltd
Observation	Thermal coal mining or coal-based power production	2	NorthWestern Corp, Portland General Electric Company
	Serious or systematic human rights violations	2	Hansae Yes24 Holdings Co Ltd, Hansae Co Ltd
	Gross corruption	2	PetroChina Co Ltd, Leonardo SpA
Exersise of ownership rights	Gross corruption	2	Eni SpA, Saipem SpA
Revoked decision	Production of specific weapon types	1	Raytheon Co

We will then assess the company's future product and fuel mix transition and, for power producers, the share of renewables in company power generation, before companies are recommended for exclusion or observation.

The Guidelines for Observation and Exclusion specifically address the issue of green bonds. They state that recommendations and decisions on the exclusion of companies based on the coal criterion "shall not include a company's green bonds where such are recognised through inclusion in specific indices for green bonds or are verified by a recognised third party". All bonds issued by companies that are excluded are screened for compliance with this exemption.

In 2017, we continued our work related to this criterion and made public the third tranche of coal exclusions. This resulted in Norges Bank excluding ten companies in 2017 and putting two under observation. In addition, we also performed a full review of all companies placed under observation in 2016 in order to assess the status of their business plans.

The purpose of our divestments and exclusions is to avoid owning companies responsible for ethical violations and exposing the fund to unacceptable risk. This is the final step in our responsible investment management, which supports our mission to safeguard and build financial wealth for future generations.

TOTAL COMPANY OBSERVATION AND EXCLUSIONS AS AT 31 DECEMBER 2017

Issue	Criterion	Number of companies
Product-based exclusions	Production of tobacco	20
	Production of specific weapon types	16
	Thermal coal mining or coal-based power production	69
Conduct-based exclusions	Serious or systematic human rights violations	3
	Severe environmental damage	17
	Contributions to climate change	0
	Gross corruption	1
	Other particularly serious violations of fundamental ethical norms	5
	Serious violations of the rights of individuals in situations of war or conflict	2
Observation	Serious or systematic human rights violations	2
	Severe environmental damage	1
	Gross corruption	3
	Thermal coal mining or coal-based power production	13

RESPONSIBLE INVESTMENT IN THE MANAGEMENT MANDATE

CHAPTER 1.
General provisions

Section 1-3. The management objective
(1) The Bank shall seek to achieve the highest possible return after costs measured in the investment portfolio's currency basket, see section 4-2, first paragraph, and within the applicable management framework.

(2) The Fund shall not be invested in companies excluded pursuant to the provisions in the Guidelines for observation and exclusion from the GPFG.

(3) The Bank shall integrate its responsible management efforts into the management of the GPFG , cf. chapter 2. A good long-term return is considered dependent on sustainable development in economic, environmental and social terms, as well as on well-functioning, legitimate and efficient markets.

CHAPTER 2.
Responsible management

Section 2-1 Responsible management efforts
The Bank shall seek to establish a chain of measures as part of its responsible management activities.

Section 2-2 Responsible management principles
(1) The Bank shall establish a broad set of principles for the responsible management of the investment portfolio.

(2) In designing the principles pursuant to the first paragraph, the Bank shall emphasize the long-term horizon for the management of the investment portfolio and that the investment portfolio shall be invested widely in the markets included in the investment universe.

(3) The principles shall be based on the considerations of good corporate governance and environmental and social conditions in the investment management, in accordance with internationally recognised principles and standards such as the UN Global Compact, the OECD's Principles of Corporate Governance and the OECD's Guidelines for Multinational Enterprises.

(4) The principles and the use of measures to support them shall be published, cf. section 2-1 and section 6-2, third paragraph, letter h).

(5) In its management of the real estate portfolio, the Bank shall, within the environmental field, consider, among other matters, energy efficiency, water consumption and waste management.

Section 2-3 Contribution to research and development relating to international standards for responsible management
(1) The Bank shall contribute to research within responsible management with the aim of developing greater knowledge of matters relevant to the investment portfolio's risk and return in the long-term.

(2) The Bank shall actively contribute to the development of relevant international standards in the area of responsible management.

Section 2-4 Environment-related investments
The Bank shall establish environment-related mandates within the limits defined in section 3-4. The market value of the environmental-related investments shall normally be in the range of 30-60 billion kroner.

Section 2-5 Decisions on exclusion and observation
The Bank shall make decisions on the observation or exclusion of companies, and on the revocation of such decisions, in accordance with the Guidelines for observation and exclusion from the GPFG. The Bank shall inform the Ministry about decisions on exclusion of companies and revocations of such decisions, cf. section 3-1, third paragraph.

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