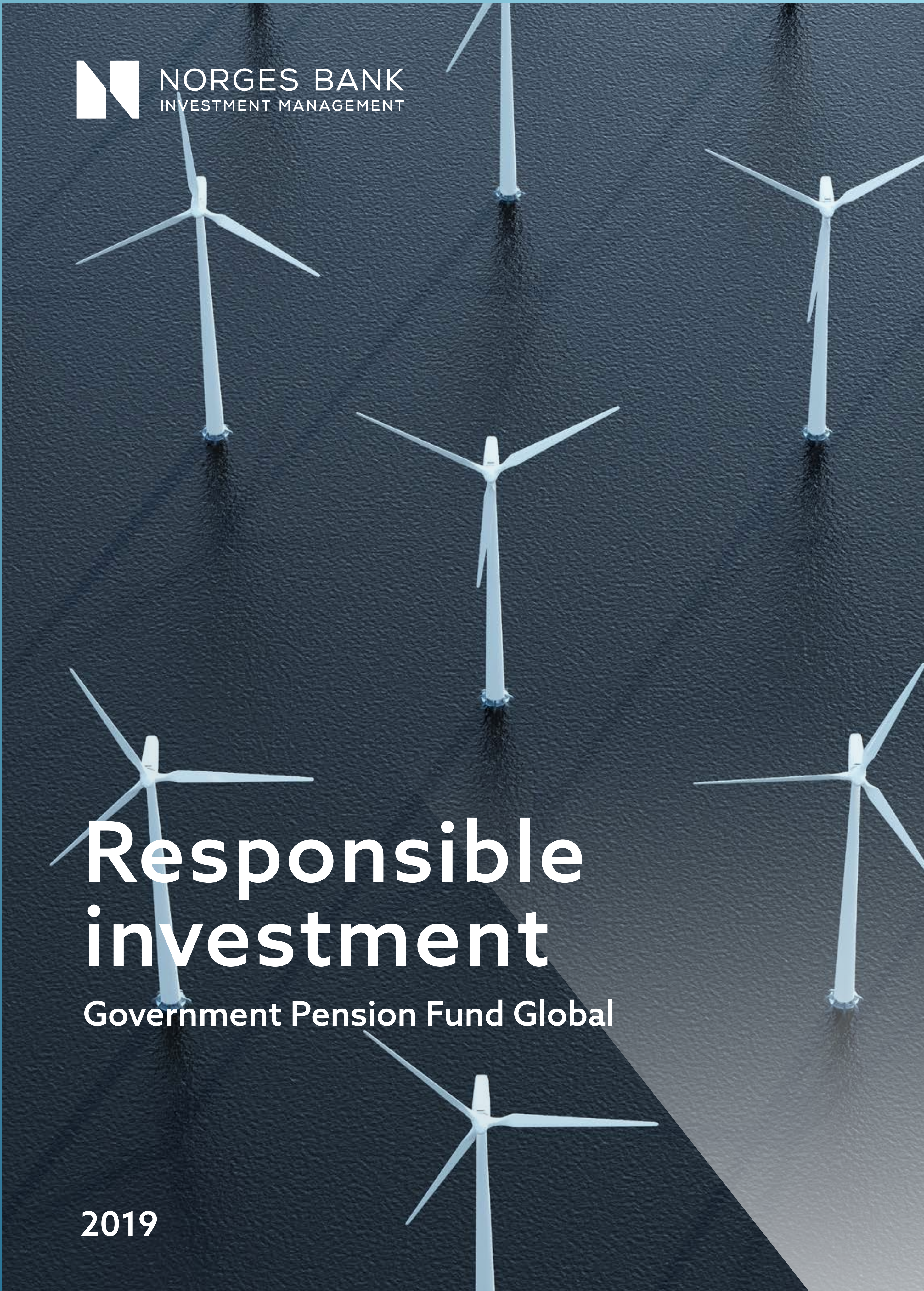
NORGES BANK
INVESTMENT MANAGEMENT



Responsible investment

Government Pension Fund Global

2019

No. 06


Our mission is
to safeguard and
build financial
wealth for future
generations

2019 at a glance

11,518
shareholder meetings voted at

97.8
percent of shareholder meetings voted at

3,412
company meetings

625
written communication with companies

79.4
environmental investments. Billion kroner

35.8
return on environmental investments in the equity portfolio. Percent

3,941
assessments of company reporting

107,569
equity portfolio carbon footprint. Thousand tonnes CO_2 equivalents

5
new exclusions

42
new divestments

16
consultation responses

2
academic projects

Establishing principles

We aim to contribute to well-functioning markets and good corporate governance. We recognise a set of international standards and contribute to their further development. Our expectation documents and voting guidelines make clear our priorities as a long-term investor.

Exercising ownership

We aim to promote long-term value creation at the companies in our portfolio. We use our voting rights to support effective boards. In our dialogue with companies, we discuss the board's responsibilities and shareholders' rights. We work with companies to increase the information available to the market and encourage good business practices.

Investing sustainably

We aim to identify long-term investment opportunities and reduce our exposure to unacceptable risks. We assess how companies impact on the environment and society. We see opportunities in companies that enable more environmentally friendly economic activity. There are also companies we choose not to invest in for ethical or sustainability reasons.

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Investing sustainably

A great responsibility

When Norges Bank Investment Management was formed in 1998, nobody anticipated that, 20 years on, we would be the single largest owner in the world's stock markets.

We were early to develop a principles-based approach to ownership. One key element of this has been to have clear expectations of companies and their boards. As far back as 2008 and 2009, we published expectations on children's rights, climate change and water management. These have been followed by expectations on human rights (2016), tax transparency (2017), anti-corruption (2018) and ocean sustainability (2018). We expect the board to take overall responsibility and address environmental and social challenges. The board should integrate material risks into its strategy, risk management and reporting. Ten years on, we are seeing more and more investors and companies recognise a broader range of risks and responsibilities.

We aim to contribute to well-functioning markets and good governance of companies. Since 2015, we have set out our views on good corporate governance. We support the companies we invest in. We use our vote to support effective boards and responsible business practices. We aim to be open about how we use our ownership rights, and we publish all our voting no later than the day after a shareholder meeting. Going forward, we plan to publish all our voting intentions ahead of shareholder meetings.

As a long-term and global investor, we have an interest in a sustainable global economy. In 2011, we began to measure how companies report on sustainability, and we have followed up those with weak reporting. From 2012, we have invested in dedicated environmental mandates and divested from companies with business models that we consider unsustainable. From 2014, we have published an annual report on our responsible investment. We have worked for almost a decade on common standards for reporting relevant, comparable and reliable data on sustainability. We are delighted to see other investors now also paying attention to this area.

Being the world's largest shareholder on behalf of the Norwegian people brings great responsibility. We have clear principles and expectations as an owner, and we have built up expertise and an awareness in our organisation of our ownership role. I step down now as CEO in complete confidence that the fund will continue to play a leading role among global investors as a long-term and responsible investor.

Oslo, 3 March 2020

Yngve Slyngstad
CEO, Norges Bank Investment Management

Better corporate disclosure

2019 was a busy year where we raised a range of key issues for long-term value creation with companies in the portfolio. All in all, we engaged with 1,826 companies. Availability of relevant information is crucial for our work.

As a shareholder in over 9,000 companies, we must be strategic and focused in our dialogue. For this, we need good corporate disclosure. Our starting point is public expectations on sustainability and governance. We analyse companies' risks and opportunities, assess their strategies, identify challenges and engage in dialogue. To support this work, it is important to have data on companies' sustainability performance, and we expanded our evaluation of reporting during the year. We encourage companies to improve disclosure, and we have seen progress over time. In 2019, we contacted a further 134 companies with poor reporting.

We also work with standard setters in our efforts to promote good disclosure. We benefit from international standards based on financial materiality. Standard setters in many markets turned the spotlight onto sustainability reporting in 2019. We stressed the need for better and more consistent information on companies' exposures, activities and performance metrics in areas such as climate risk, human rights and tax. We also joined the Sustainability Accounting Standards Board (SASB) Investor Advisory Group to collaborate with other leading investors on the further standards.

As part of our continued focus on deforestation, we brought together a group of banks, investment managers and food producers in Singapore to discuss business risks. We entered into dialogue with nine companies that sell cocoa or produce chocolate to discuss deforestation risks and children's rights in their supply chain and encourage them to improve their reporting. We also contacted five large plastics and packaging producers to learn what steps they are taking to reduce negative effects on the environment. We followed up on additional business aspects of climate change in 2019, for example by talking to cement producers about the transition to a low-carbon economy and sustainable water use.

We take our responsibility as a shareholder in over 9,000 companies seriously. We work to ensure that the companies have the good corporate governance and effective boards. Each year, we use our voting rights to elect thousands of boards. We have established a Corporate Governance Advisory Board where three external members with extensive board experience help us assess company boards and prioritise our work.

Our work on responsible investment over the past 15 years has given us a strong foundation. The awareness of responsible investment among companies, investors and society alike is increasing. As we head into a new decade, we are working more systematically, we are prioritising more effectively, and we are asking better questions.

Oslo, 3 March 2020

Carine Smith Ihenacho
Chief Corporate Governance Officer

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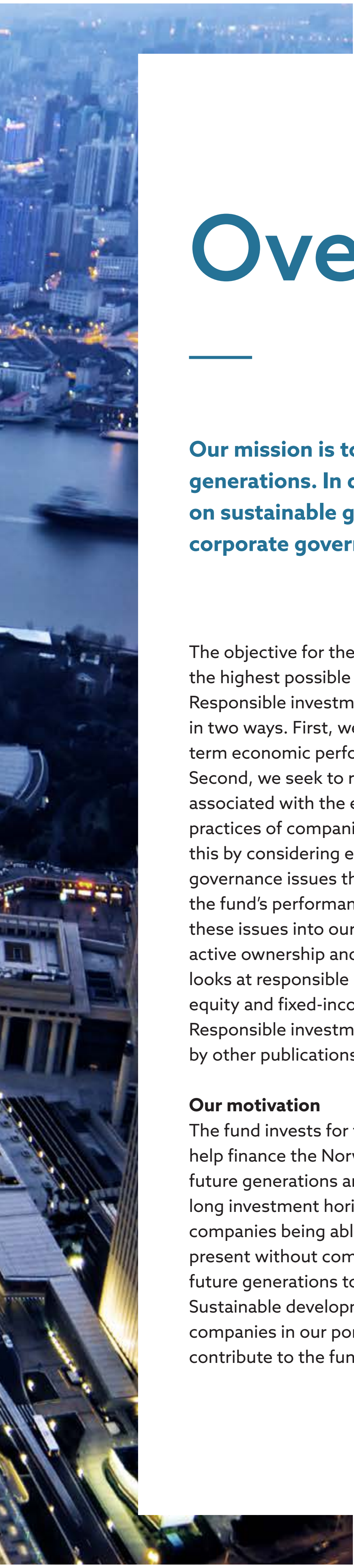
The fund's future value is dependent on the value created by the about 9,000 companies we invest in.



Overview

Our mission is to safeguard and build financial wealth for future generations. In delivering a long-term return, we are dependent on sustainable growth, well-functioning markets and good corporate governance.

The objective for the management of the fund is the highest possible return with moderate risk. Responsible investment supports this objective in two ways. First, we seek to improve the long-term economic performance of our investments. Second, we seek to reduce the financial risks associated with the environmental and social practices of companies in our portfolio. We do this by considering environmental, social and governance issues that could have an impact on the fund's performance over time. We integrate these issues into our work on standards, our active ownership and our investing. This report looks at responsible management of the fund's equity and fixed-income investments. Responsible investment in real estate is covered by other publications.

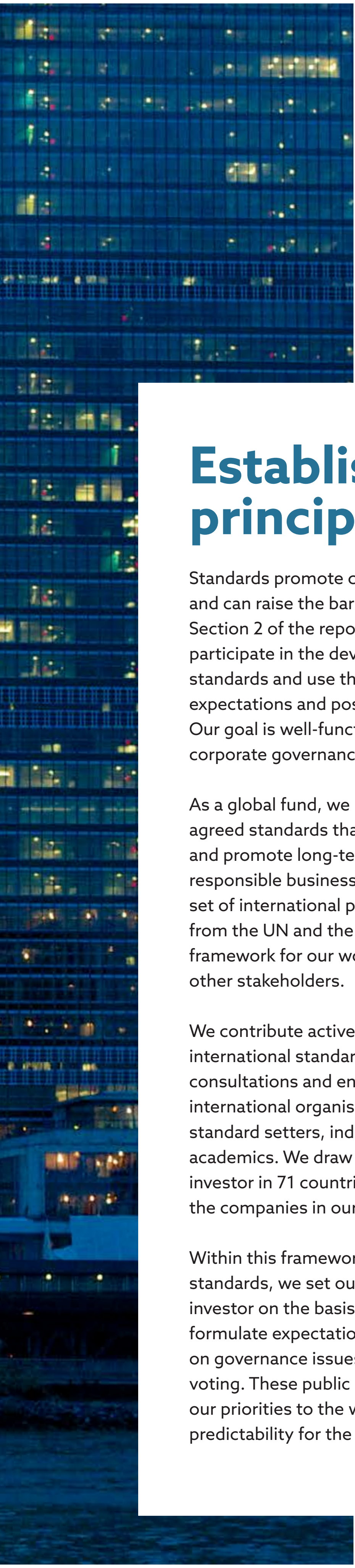
Our motivation

The fund invests for the long term. It exists to help finance the Norwegian welfare state for future generations and must therefore have a long investment horizon. We have an interest in companies being able to meet the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development can make the companies in our portfolio more robust and contribute to the fund's long-term return.

The fund invests globally. It has holdings in companies in 71 countries to spread risk and capture global growth. We benefit from open markets that enable global value creation and efficient allocation of capital from investors to companies. We have a clear interest in regulation that results in better information on markets and companies, and makes markets more stable. Markets that are less prone to shocks and facilitate sustainable development are important for the fund's long-term return.

The fund invests widely. It has holdings in more than 9,000 companies spanning every sector. However, the fund's percentage holdings in these companies are small, so we must delegate most decisions to their boards and management. This requires boards to discharge their duties effectively, and management to have the right incentives. Good corporate governance protects our rights as an investor and breeds confidence in the market. The future value of the fund is dependent on the value created by the companies we invest in.

Internationally agreed standards on corporate governance promote long-term value-creation. We recognise a set of international principles and standards from the UN and the OECD.



Establishing principles

Standards promote consistency across markets and can 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 goal is well-functioning markets and good corporate governance.

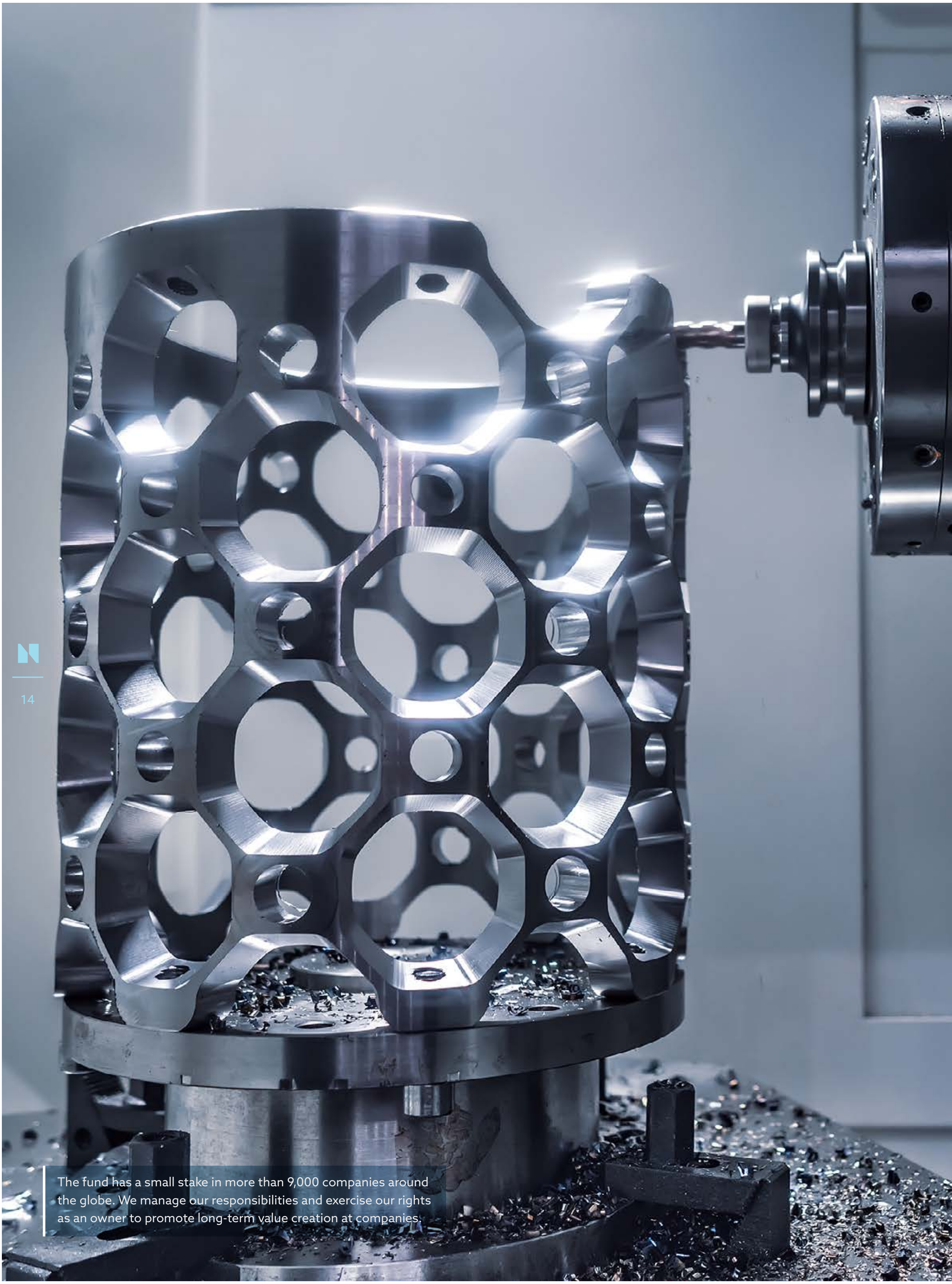
As a global fund, we benefit from internationally agreed standards that apply to all companies and promote long-term value creation and responsible business practices. We recognise a set of international principles and standards from the UN and the OECD which provide a framework for our work with companies and other stakeholders.

We contribute actively to the development of international standards. We participate in consultations and engage regularly with international organisations, regulators and other standard setters, industry partners and academics. We draw on our experience as an investor in 71 countries and our knowledge of the companies in our portfolio.

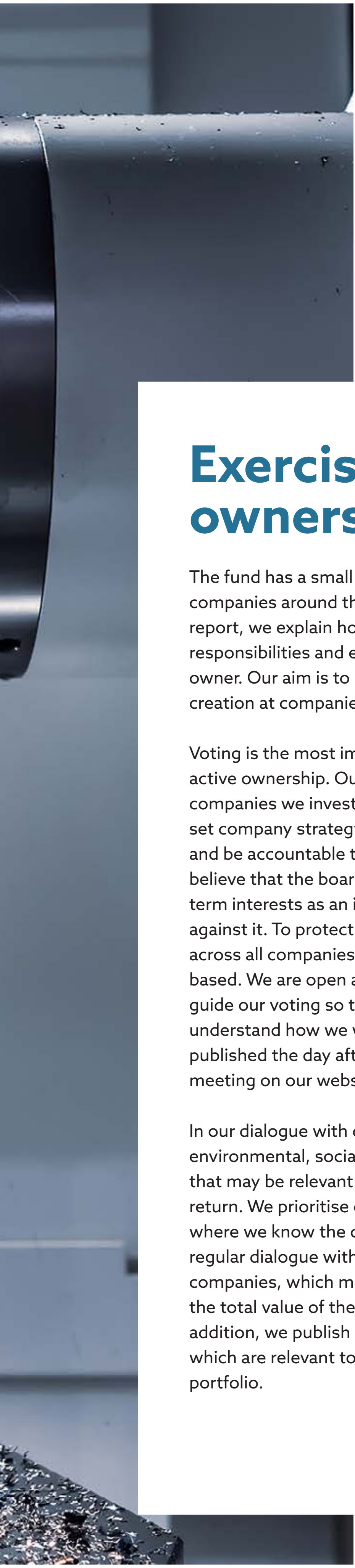
Within this framework of internationally agreed standards, we set our own priorities as an investor on the basis of our mandate. We formulate expectations of companies, positions on governance issues and guidelines for our voting. These public documents communicate our priorities to the wider market and ensure predictability for the companies we invest in.

We see good corporate governance as a premise for responsible business practices. We expect boards to understand the broader environmental and social consequences of their companies' activities, take them into account when setting strategy, analyse risks and report on outcomes.

It is important in our work to understand global trends that could affect the fund's ability to create long-term financial value. Economic activity in one industry can impose substantial indirect costs on other industries and on society as a whole. We support and initiate research projects in order to understand better such relationships.



The fund has a small stake in more than 9,000 companies around the globe. We manage our responsibilities and exercise our rights as an owner to promote long-term value creation at companies.



Exercising ownership

The fund has a small stake in more than 9,000 companies around 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 at companies.

Voting is the most important tool we have for active ownership. Our default is to support the companies we invest in. We expect the board to set company strategy, supervise management and be accountable to shareholders. If we believe that the board is not acting in our long-term interests as an investor, we may vote against it. To protect our interests consistently across all companies, our voting is principles-based. We are open about the guidelines that guide our voting so that companies can understand how we will vote. Our voting is published the day after each shareholder meeting on our website: www.nbim.no.

In our dialogue with companies, we raise environmental, social and governance issues that may be relevant to the fund's long-term return. We prioritise our largest investments, where we know the companies best. We have a regular dialogue with these nearly 1,000 companies, which make up around two-thirds of the total value of the equity portfolio. In addition, we publish expectations and positions which are relevant to all of the companies in our portfolio.

We work with companies, investors and other stakeholders to advance standards, increase the information available to the market, and promote responsible practices. This is particularly important when many companies in an industry or value chain face the same challenges. We assess the risks and opportunities associated with environmental and social issues. We have clear expectations for how companies should address climate change, water management, children's rights, human rights, tax transparency, anti-corruption and ocean sustainability. We assess how companies report on their work in these areas. We monitor selected companies to understand better how they are dealing with relevant risks, and encourage them to improve their reporting.


Environmental, social and governance issues can have an impact on companies' performance. We work to identify, measure and manage risks and opportunities that could affect the fund's ability to generate a long-term return.

Investing sustainably

Investing sustainably is an integral part of the fund's investment strategy. In Section 4 of the report, we explain how environmental and social data can inform our investment decisions. Our aim is to identify long-term investment opportunities and reduce the fund's exposure to unacceptable risks.

We encourage companies to move from words to numbers, so that we can better understand financial risks and opportunities. To perform such analyses , we need relevant, comparable and reliable data on environmental, social and governance topics. We analyse carbon emissions from companies in our portfolio and various climate scenarios for the fund.

We see opportunities in investing in companies with solutions that enable more environmentally friendly economic activity. These investments can have positive effects on other companies and society in general. These positive externalities can include reduced emissions, lower energy costs and more efficient use of resources. Companies producing these technologies may profit in turn from changes in demand and regulation. We invest in such companies partly through dedicated environmental mandates.

There are some industries and companies in which the fund should not be invested. By not investing in such companies, we reduce the fund's exposure to unacceptable risks. The Ministry of Finance has issued ethically motivated guidelines for observation and exclusion of companies from the fund. The fund must not be invested in companies that produce certain types of weapon, base their operations on coal, or produce tobacco. Nor may the fund be invested in companies whose conduct contributes to violations of fundamental ethical norms. The Ministry of Finance has set up an independent Council on Ethics to make ethical assessments of companies. Finally, the fund itself may decide to divest from companies that impose substantial costs on other companies and on society as a whole, and so will probably not be profitable in the longer term.

2 | Establishing principles

Standards

We benefit from international standards that promote long-term value creation. We contribute to the development of such standards and publish expectations of the companies we invest in.

Standards provide greater consistency across markets and can raise the bar for all companies. We aim to contribute to well-functioning markets and good corporate governance. We participate in the development of international standards by engaging with regulators and other standard setters.

International standards

We recognise a set of key international standards. Our management mandate from the Ministry of Finance specifies three standards from the OECD and the UN as the framework for responsible investment management at Norges Bank. These standards from the OECD and the UN are voluntary, non-statutory recommendations. They express expectations for companies' handling of environmental, social and governance issues. We expect the companies in our portfolio to strive to observe these standards.

OECD

The G20/OECD Principles of Corporate Governance mainly concern effective governance, such as shareholder rights, 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 our interaction with companies.

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.

UN

The UN Global Compact is a broad coalition between the UN and the business world that promotes corporate social responsibility. The initiative is based on ten general principles that require companies to respect human 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 Global Compact also encourages companies to support the UN Sustainable Development Goals. We are a participant in the Global Compact and take part in the UN's work on developing international standards that are relevant and important to the fund.

Norges Bank refers to two further UN standards in its own principles for responsible investment. The UN Guiding Principles on Business and Human Rights were unanimously endorsed by the UN Human Rights Council in 2011. The 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.

The UN Conference on Trade and Development (UNCTAD) has also published Principles on Promoting Responsible Sovereign Lending and Borrowing. These aim to prevent unsustainable debt and stress the responsibilities of both lender and borrower. The principles are advisory and are still under development.

As a long-term and global investor, the fund has an inherent interest in sustainable development. Joint solutions to global challenges such as climate change and environmental degradation may increase the resilience of our portfolio. The UN Sustainable Development Goals provide a common framework for addressing key global challenges. National authorities are responsible for achieving the goals by 2030. How they choose to mobilise knowledge, technology and capital to realise the goals will impact on the global economy and the fund's long-term performance.

Development of international standards

We contribute actively to the development of relevant international standards. We participate in consultations and engage regularly with international organisations and regulators in our most important markets. We can draw on our experience as an investor in 71 countries and an in-depth knowledge of the companies in our portfolio.

When we meet standard setters, we are interested to learn about their strategic priorities and specific initiatives to promote well-functioning markets and good corporate governance. At the same time, we can communicate our own priorities, which in 2019 included board composition, good voting processes, executive remuneration, sustainability reporting and tax transparency. During the course of the year, we had meetings with the OECD, the UN Global Compact, the European Commission and the International Accounting Standards Board as well as national standard setters in France, Germany, Japan, Singapore, South Korea, Sweden, Switzerland and the UK.

We support initiatives to strengthen financial markets in developing countries. In 2019, we renewed our backing for an initiative to develop guidelines for corporate governance in Africa. The initiative is linked to the African Union and is supported by the World Bank, among others. Through our support for the African Corporate Governance Network, we aim to help open up more African nations to international investment.

We responded to 16 public consultations relating to responsible investment during the year. These concerned issues that we consider important, such as common standards for sustainability reporting, appropriate management incentives, and tax transparency. We publish all of our consultation responses on our website: www.nbim.no.

Common standards for sustainability reporting

As an investor, we are reliant on relevant, timely and accurate information on the companies we invest in. We want to understand the environmental and social issues that could affect companies' long-term profitability, and how they address relevant risks and opportunities. We are increasingly seeing companies reporting on environmental and social issues, but this information is still difficult to compare across companies and markets.

We stand to benefit from internationally agreed reporting standards based on financial materiality, and we support the development of such standards at both national and international level. In 2019, we joined the Sustainability Accounting Standards Board (SASB) Investor Advisory Group to work with other leading investors and managers on providing input for the further development of SASB's standards.

We responded to three consultations from the European Commission on sustainability reporting during the year. We expressed our support for its work to ensure increased, more precise and more comparable disclosure of non-financial data. We particularly welcomed the European Commission's work on climate reporting and the proposal that companies should publish quantitative metrics in addition to qualitative information. We also expressed support for the European Commission's technical expert group working on the taxonomy for sustainable activities, noting that the taxonomy should build on existing standards where appropriate and be flexible enough to accommodate technological advances.

The US Securities and Exchange Commission (SEC) published proposals in 2019 to expand the requirements for corporate disclosure on intangible assets, with a particular focus on human capital. Our consultation response expressed support for the principles-based approach proposed, and reiterated our expectation that companies should report on all material risks and opportunities.

Responding to a consultation by Canada's Expert Panel on Sustainable Finance, we reaffirmed our support for the framework developed by the Task Force on Climate-related Financial Disclosures (TCFD). We urged the panel also to take account of other relevant issues, beyond climate change, such as water risks, deforestation and anti-corruption.

The independent Japan Responsible Supply Chains Committee presented guidelines during the year for companies' work on human rights and asked for input from investors and other stakeholders. We considered these guidelines to be valuable and comprehensive, and our response called on the committee also to encourage companies to report publicly on their work on human rights.

It is problematic both for companies and for investors that there are so many different standards for sustainability reporting. This reporting often requires considerable resources from companies, and different approaches and definitions mean that investors cannot yet use it in the same way as accounting data. We therefore lent our support to the Corporate Reporting Dialogue, which is working on mapping and comparing different frameworks with a particular emphasis on climate disclosure. Our consultation response called for consolidation of reporting standards.

Several stock exchanges have introduced requirements or guidelines for the disclosure of sustainability data in recent years. In 2019, the Hong Kong exchange proposed extending its requirements for reporting on environmental, social and governance topics. The proposals include making more of this reporting compulsory, requiring companies to disclose their process for selecting material issues, and introducing more quantitative metrics. Our consultation response welcomed the proposed changes to improve reporting.

Appropriate management incentives

A number of major markets require shareholders to vote on executive remuneration and other management incentives, whether in the form of a forward-looking remuneration plan or a retrospective remuneration report. In discussions with standard-setters responsible for national corporate governance codes, we have emphasised the importance of a long time horizon for share-based incentives, simplification of incentive structures, and transparent reporting on remuneration. We reiterated this position in a response to the Australian Prudential Regulation Authority's consultation on the proposed simplification of incentive structures.

As part of its work on standardising companies' remuneration reporting, the European Commission requested feedback on draft guidelines. We expressed our support for companies being required to publish a clear and understandable remuneration report, and stressed that shareholders are reliant on greater transparency on pay in order to understand how CEOs are incentivised.

Tax transparency

As a long-term investor, we stand to benefit from corporate tax practices that are appropriate, well-considered and transparent. Several standard setters are currently discussing how companies should report publicly on the taxes they pay.

In 2019, the OECD worked on proposals for the taxation of the digital economy. It noted, for example, that value is often now created in jurisdictions other than those where companies have a physical presence or activities. As a global investor, we emphasised the need for solutions that bring predictability and a level playing field for companies across markets.

The Global Reporting Initiative (GRI) Standards are among the most widely used globally for reporting sustainability information. GRI presented proposals during the year for a new standard on public disclosure of taxes and payments to governments. We supported the proposal for companies to publish their policies on paying taxes. We noted that, as an investor, we would benefit from knowing how much tax companies have paid in different countries. Global standards for this reporting are under development, and it is important that proposed new standards do not place an unnecessary burden on companies.

Country-by-country reporting was also a topic in our response to a public consultation on corporate tax disclosure from the Financial Accounting Standards Board (FASB), the body that issues accounting standards for US companies. We expressed support for proposed changes to the disclosure of income taxes in companies' annual reports. We noted that, as an investor, we would benefit from companies reporting how much tax they pay in each country in which they operate. We stressed that this type of reporting should form part of a company's annual report. We also called for more stringent requirements for corporate disclosure on the effects of any changes in tax legislation.

Submissions

Recipient	Topic	Submitted
Canada Expert Panel on Sustainable Finance	Interim report on sustainable finance	14/01/2019
European Commission Technical Expert Group on Sustainable Finance	Report on climate-related disclosures	01/02/2019
OECD	Tax challenges of the digitalisation of the economy	06/03/2019
European Commission Technical Expert Group on Sustainable Finance	Report on the taxonomy	08/03/2019
Global Sustainability Standards Board	Tax and Payments to Governments	11/03/2019
European Commission	Update of the guidelines on non-financial reporting	20/03/2019
European Commission	Guidelines on the presentation of the remuneration report	21/03/2019
PRI Association	Reporting Framework Review	30/04/2019
Corporate Reporting Dialogue	Better Alignment Project	30/04/2019
Financial Accounting Standards Board	Update on Income Taxes Disclosure Framework	28/05/2019
Hong Kong Exchanges and Clearing Limited	Review of the ESG Reporting Guide and Related Listing Rules	18/07/2019
European Financial Reporting Advisory Group	European Lab Future Projects Agenda	30/09/2019
PRI Association	Signatory survey	11/10/2019
Australian Prudential Regulation Authority	Remuneration requirements	16/10/2019
Japan Responsible Supply Chains Committee	Guidelines for responsible business conduct and supply chains	16/10/2019
Securities and Exchange Commission	Modernisation of company reporting (regulation S-K)	22/10/2019

Membership of organisations and initiatives

Topic	Organisation	Description
Corporate governance	African Corporate Governance Network (ACGN)	Network of director membership organisations
	Asian Corporate Governance Association (ACGA)	Membership organisation for investors and companies
	Council of Institutional Investors (CII)	Association of investors
	European Corporate Governance Institute (ECGI)	Academia-practitioner research network
	Harvard Law School Program on Corporate Governance	Academia-practitioner research network
	International Corporate Governance Network (ICGN)	International association of investors
Sustainability	CDP Climate; CDP Forest; CDP Water	Environmental reporting initiatives
	Institutional Investor Group on Climate Change (IIGCC)	Investor initiative (Europe)
	Norsif	Norwegian sustainable investment forum
	Extractive Industries Transparency Initiative (EITI)	International organisation for transparency in extractive industries
	Task Force on Climate-related Financial Disclosure (TCFD)	International principles
	Principles for Responsible Investment (PRI)	International principles
	Sustainability Accounting Standards Board (SASB)	International standard for sustainability reporting
	Transition Pathway Initiative	Investor initiative on climate risk
	United Nations Environment Programme Finance Initiative (UNEP FI)	Multi-stakeholder initiative for sustainable finance
	UN Global Compact	International principles
	UN Global Compact Action Platform on Sustainable Ocean Business	Multi-stakeholder initiative for ocean sustainability

Expectations

We publish expectations of companies and guidelines for our voting. These documents communicate our priorities to the market and provide predictability around our long-term ownership.

We see good corporate governance as a premise for responsible business practices. We expect boards to understand the broader environmental and social consequences of business operations and manage relevant risks and opportunities.

We believe that some global trends are particularly relevant to us as a long-term investor. Economic activity can impose substantial indirect costs on other companies and on society as a whole. The inability of companies to internalise such costs is a market failure. In many cases, negative externalities are not yet priced into companies' market value. Typical examples include climate change and environmental degradation. Child labour and other forms of social exploitation violate fundamental human rights. Tax evasion and corruption also have negative impacts on society and the economy.

Expectation documents

Since 2008, we have published clear expectations of the companies we invest in. Their purpose is to set out how we expect companies to address relevant global challenges in their business.

We have issued expectation documents on children's rights (2008), climate change (2009), water management (2010), human rights (2016), tax transparency (2017), anti-corruption (2018) and ocean sustainability (2018). All were updated in 2019. Their structure was simplified, and minor changes were made to some of the documents to reflect developments in principles and practices. We also analysed how companies report on their work on the challenges presented in the expectation documents.

Our expectations are primarily directed at company boards. The board should take overall responsibility for company strategy and address challenges presented by environmental and social issues. The board should integrate material risks in these areas into strategy, risk management and reporting. To analyse the risks and opportunities associated with our investments, we need high-quality, standardised company reporting.

Our expectations of companies are based on the UN Global Compact and the OECD Guidelines for Multinational Enterprises. They also largely coincide with the UN Sustainable Development Goals.

Updated expectations

In the document on anti-corruption, we clarified that companies exposed to the risk of money laundering should have internal policies and procedures to mitigate such risk. This applies particularly to those in the financial sector. Money laundering may involve money derived from corruption and thus facilitate it.

In the document on children's rights, we emphasised our expectation that companies should conduct ongoing due diligence, as set out in the UN Guiding Principles on Business and

Human Rights. We also expanded our expectations for responsible marketing and use of goods and services, and highlighted the importance of decent work opportunities for young workers, parents and carers for children's rights.

In the document on water management, we highlighted the importance of detailed reporting on tailings dams. The failure of dams can cause major loss of human life and serious environmental harm. We therefore ask companies that own or operate these facilities to provide key attributes and processes for maintenance and monitoring.

Position papers
To support our ownership activities, we publish position papers that clarify our stance on selected corporate governance issues. Our point of departure is that the board is responsible for setting company strategy, supervising management's execution of that strategy, and providing accountability to shareholders. Each year, we vote on more than 45,000 board candidates. We consider what is needed for boards to be effective, and how we can contribute to better governance.

Corporate Governance Advisory Board
Åse Aulie Michelet, Harald Norvik and Svein Rennemo continued as external members of the fund's Corporate Governance Advisory Board in 2019. The board meets six times a year and serves as an advisory forum for the Chief Corporate Governance Officer, who chairs it. The three external members bring extensive board and management experience from listed companies both in Norway and abroad.

The board is to advise on corporate governance strategy, exercise of ownership rights, and principles and practices relevant to listed companies in the equity portfolio. As a long-term investor, we are particularly keen to strengthen our understanding of the board's role and working processes in order to target our ownership work more effectively.

The advisory board held six meetings in 2019 and considered matters such as the fund's stance on board composition and shareholder resolutions on environmental and social issues. It also discussed the fund's public voting guidelines with a particular emphasis on effective boards and protection of shareholders.

Corporate Governance Advisory Board. From left: Svein Rennemo, Carine Smith Ihenacho, Harald Norvik, Åse Aulie Michelet

Research

We are keen to develop our understanding of good corporate governance and sustainability, and how they impact on financial risks and returns. We fund research and collaborate with academic institutions to inform our investment strategy.

We prioritise global trends and topics that may be particularly important for long-term financial value creation. Academic research can help improve market standards, provide access to important data and strengthen our own responsible investment priorities.

Academic research projects

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

Financial climate risk

As a long-term investor, we want to understand how global trends could impact on the fund's risk and ability to generate returns in the longer term. As part of this, we are keen to know how climate change could affect the companies we are invested in, and the portfolio as a whole.

Key questions are whether capital markets price climate risk and whether market participants make rational assumptions about climate effects. Since 2017, the NFI has been supporting a research project led by professor Harrison Hong at Columbia University. A total of 27 researchers have participated in two academic conferences and produced 12 research papers on climate risk.

The project has produced new insights suggesting that market participants do not always make rational assumptions about the effects of climate change. Two of the studies found that personal experience of extreme weather events influenced participants' perception of global climate risk. One study found that real estate prices were not greatly affected by projections showing rising sea levels. Another found that different views on climate change had an impact on real estate prices: homes exposed to extreme weather sold for more in areas where inhabitants rejected the notion of anthropogenic climate change than in areas where inhabitants did not.

Taken together, these findings suggest that capital markets do not fully price climate risk. Our goal has been to promote more research on climate and finance. The project was completed on schedule in December 2019, and the *Review of Financial Studies* is preparing a special issue on the research.

Another key question is how climate change affects the pricing of assets and how environmental risks can be managed in an investment portfolio. To bring greater clarity on this, we extended a research project led by Nobel laureate Robert Engle at New York University Stern Volatility and Risk Institute by two years. During this period, the project will build on previous research on hedging portfolios against climate change and calculating the long-term discount rate for climate-friendly investments. Among other things, the project will explore how private investors adjust their portfolios when they perceive changes in climate risk, and how social media networks shape climate risk expectations.

Effective ownership

As a shareholder in more than 9,000 companies, we want to understand how active ownership can support our financial objective. With funding from the NFI, researchers under professor Julian Franks at the London Business School looked at the extent, organisation and value of ownership activities at Standard Life Investments.

The researchers found that its portfolio managers secured an informational advantage by systematically monitoring companies and meeting them regularly. This edge was exploited in investment decisions and contributed to excess returns. The research also gives the public an unusually detailed insight into the interaction between portfolio management and active ownership at an investment firm.

The project was completed in line with the revised schedule in June 2019.

Research conferences

Norges Bank organises the annual Norwegian Financial Research Conference, which had companies' purpose as its theme in 2019. The conference formed part of the ongoing debate on the interests of shareholders and expectations of companies from a broader set of stakeholders. Professor Colin Mayer from the University of Oxford argued that companies need a purpose beyond profitability in order to motivate employees, attract younger customer groups and secure legitimacy in a broader sense. Professor Luigi Zingales from the University of Chicago argued that shareholders' interests vary: for some long-term investors, it might be rational for companies to internalise indirect costs that would otherwise be borne by society.

We also hosted an academic seminar in Oslo on the concept of joint ownership with professor Katherine Lewellen from Dartmouth University and professor Alex Edmans from the London Business School. The debate concerned whether competition in product markets is undermined by competing companies having some of the same asset managers as shareholders.

We supported a seminar at the London Business School on the allocation of decision-making rights at companies. The point of departure was a research project on shareholder approval of equity issuances led by professor Clifford Holderness at Boston College.

3 | Exercising ownership

Voting

We voted at 11,518 shareholder meetings in 2019. Voting is one of the most important tools we have as a shareholder for safeguarding the fund's assets.

We own a small share of more than 9,000 companies. As a minority shareholder, we are one of many contributors of equity capital to a company. For stock companies to function effectively, most decision-making power is delegated to the board. Shareholders have the right to choose who sits on the board and act in their best interest. Shareholders also have the right to approve fundamental changes at the company that could affect their investments.

Our default when voting is to support the board. We take part in the election of the board, which in turn is entrusted with running the company. As an investor in thousands of companies, we rely on the boards to ensure that they are well run. In addition, sound legal frameworks and well-functioning markets play an important role in ensuring that investors can have confidence in the boards.

We will nevertheless vote against the board if we consider that it is not able to function effectively or if our rights as shareholder are not adequately protected. This might also lead us to vote in favour of shareholder resolutions that are not supported by the board. In addition to voting, we also use dialogue to communicate our expectations to companies.

We expect board members to act independently and without conflicts of interest, to have an appropriate balance of competences and backgrounds to operate effectively , and to be accountable for their decisions. We also expect shareholders to be afforded the opportunity to approve fundamental changes at the company, to be given full, accurate and timely information, and to be treated equitably in decisions on capital structure. A vote against the board sends a clear signal to the company and the market.

Voting principles

We aim to be consistent and predictable in our voting at companies' shareholder meetings.

Consistency means that the voting decisions we take can be explained by our principles. When we apply our principles, we take account of a company's circumstances and best practices in the local market. It does not mean that we vote the same way every year or on every issue and at every company.

Predictability means that companies can understand why we vote the way we do. Our voting guidelines are anchored in the G20/OECD Principles of Corporate Governance and are publicly available on our website: www.nbim.no. We also create predictability by being open about how we have voted. Our voting decisions are published on our website the day after the shareholder meeting.

Voting process

Given the high number of shareholder meetings, we are dependent on a reliable voting process. We strive constantly to improve this process.

Shareholder meetings

We aim to vote at all shareholder meetings at companies in our portfolio. The global securities market ensures that capital is allocated efficiently across national borders, but shareholders' voting rights are still subject to local regimes. Furthermore, voting is often manual, with little use of digital solutions to make the process more efficient. For our votes to reach each shareholder meeting and be counted, we rely on a number of intermediaries, making the process slow and uncertain. In the vast majority of markets, we do not receive any confirmation that our votes have been received. We are working with regulators and service providers to improve the voting process and ensure that our votes are registered.

We voted at 97.8 percent of shareholder meetings in 2019, which is in line with previous years. When we do not vote at a shareholder meeting, this is generally because voting would lead to share blocking, thereby restricting our ability to trade, or because other rules make it difficult to exercise our voting rights. Of the resolutions we voted on in 2019, 97.8 percent were proposed by the companies and 2.2 percent by shareholders.

Voting by proxy

Most companies permit shareholders to vote at shareholder meetings without attending in person. This system enables us to vote at companies all around the world.

We use an online platform where an external agent brings together all necessary information about upcoming shareholder meetings. The platform includes all of the resolutions to be voted on, the board's position on these resolutions, and the relevant deadlines.

Consideration of resolutions

The majority of the resolutions we are to vote on fall within the scope of our published voting guidelines. Extensive data on companies and detailed guidelines put us in a position to automate most voting decisions. This is necessary in order to handle a vast number of resolutions in a short period with reasonable resources. Automation also means that we can ensure a high degree of consistency and that we can measure trends in corporate governance and market practices over time.

In some cases, the guidelines are less relevant due to the nature of the resolution. We identify such cases, analyse them individually and vote according to our principled position on good corporate governance. Executive remuneration, mergers and acquisitions, and shareholder resolutions on sustainability are examples of resolutions where we must often exercise judgement in the application of our principles.

Where our portfolio managers have an in-depth knowledge of the company, we use this in the voting process. Information from portfolio managers helps us apply our principles more accurately at the individual company. Portfolio managers participated in voting decisions at 627 companies in 2019. These companies included our largest investments and together made up around 50 percent of the equity portfolio's market value. Portfolio managers can also use their ongoing dialogue with companies to back up our voting.

Voting intentions

Shareholders can communicate their support or opposition by announcing publicly ahead of the meeting how they intend to vote. We published our voting intentions at three companies in 2019.

We expressed our support for a shareholder resolution requiring all directors at Kellogg Co to be elected annually. For the board to be accountable for its actions, shareholders must be able to participate in regular director elections, ideally every year. We urged Grupo Mexico SAB de CV to publish the names of its board candidates. As a shareholder, we need to know who the candidates are so that we can assess their suitability and the board's

The future value of the fund is dependent on the value created by the companies we invest in. Voting is the most important tool we have for active ownership.

composition. Finally, we expressed our support for a shareholder resolution on reducing water pollution at Pilgrim's Pride Corp. The resolution called for reporting that is in line with our expectation document on water management.

Our aim in publishing our intentions is to be even more transparent about our voting decisions and communicate our principled position to the wider market.

Voting at shareholder meetings

Once we have decided how we wish to vote, we use the digital platform to send instructions to our agent, which then forwards them to the shareholder meeting.

Voting in 2019

We voted on 116,777 resolutions at 11,518 shareholder meetings in 2019. We voted in line with the board's recommendation in 94.8 percent of cases and at 70.9 percent of meetings. This was on a par with our voting in 2018.

Effective boards

Director elections account for nearly half of the resolutions we vote on. For us as an investor in more than 9,000 companies, these are the most important votes we cast. We expect the board to set strategy, supervise management and act in shareholders' best interests.

We voted in line with the board's recommendation in 94.1 percent of director elections, compared with 94.6 percent in 2018 and 92.5 percent in 2017. In markets where companies publish the results of shareholder meetings, we observed that the board's own candidate attracted an average of 95.6 percent of the vote in 2019, almost unchanged from 95.8 percent in 2018.

The board and its committees must be sufficiently independent of management and large shareholders, and have no other conflicts of interest. We have observed a gradual increase in independent board members in a number of markets, including Germany and Japan. A lack of independence on the board or its committees was the main reason for us to vote against candidates, accounting for 1,116 votes against the board in 2019.

The chairperson plays a key role in a company. In our position paper, we call for a clear separation of roles and responsibilities between chairperson and CEO. This is necessary for the board to supervise management. Combination of the role of chairperson and CEO was the second most important reason for voting against candidates, contributing 659 votes against the board in 2019. Combined roles are particularly common in the US but have decreased from 44 percent of companies in the Russell 3000 index in 2012 to 34 percent in 2019.

Chart 1 Share of votes against management by topic. Percent

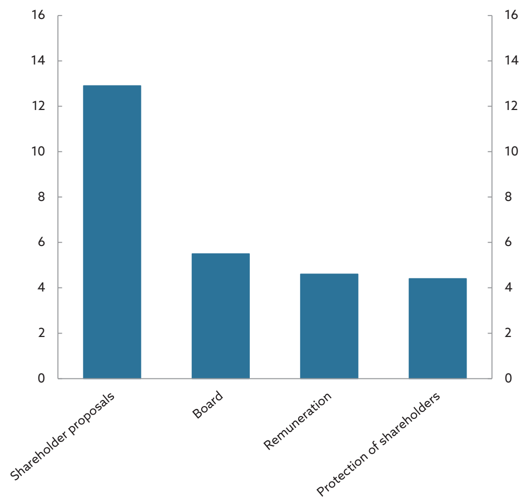


Table 1 Voting at shareholder meetings. Per region

	2019		2018	
Region	Shareholder meetings	Percent	Shareholder meetings	Percent
Africa	304	47.4	298	50.7
Asia	5,117	99.3	5,256	99.1
Europe	2,543	98.3	2,519	98.4
Latin America	915	98.1	529	96.6
Middle East	272	97.8	268	95.9
North America	2,244	99.9	2,281	100.0
Oceania	388	99.2	402	99.5
Total	**11,783**	**97.8**	**11,553**	**97.7**

Table 2 Votes against board recommendations among the fund's top 50 holdings in 2019

Company	Portfolio rank	Country	Resolutions voted against	Subject of resolution(s)
Apple Inc	1	USA	1	Proxy Access
Alphabet Inc	3	USA	8	Remuneration, overboarding, enhanced reporting, shareholder rights
Nestlé SA	4	Switzerland	2	Overboarding
Amazon.com, Inc	5	USA	4	Overboarding, combined CEO/Chairperson, shareholder rights, enhanced reporting
Roche Holding AG	6	Switzerland	1	Shareholder protection
Facebook Inc	9	USA	4	Combined CEO/Chairperson, shareholder protection, enhanced reporting
Novartis AG	10	Switzerland	1	Shareholder protection
Samsung Electronics Co Ltd	13	South Korea	2	Board accountability
Johnson & Johnson	14	USA	2	Remuneration, combined CEO/Chairperson

Table 2 continued Votes against board recommendations among the fund's top 50 holdings in 2019

Company	Portfolio rank	Country	Resolutions voted against	Subject of resolution(s)
Tencent Holdings Ltd	15	China	1	Remuneration
JPMorgan Chase & Co	16	USA	3	Remuneration, combined CEO/Chairperson, enhanced reporting
Bank of America Corp	18	USA	1	Combined CEO/Chairperson
The Procter & Gamble Co	19	USA	1	Combined CEO/Chairperson
Exxon Mobil Corp	24	USA	1	Combined CEO/Chairperson, shareholder protection, enhanced reporting
Intel Corp	27	USA	2	Remuneration, shareholder protection
Linde PLC	28	Ireland	1	Overboarding
LVMH Moët Hennessy Louis Vuitton SE	30	France	6	Shareholder protection
AT&T Inc	31	USA	2	Combined CEO/Chairperson
Verizon Communications Inc	34	USA	3	Combined CEO/Chairperson, enhanced reporting
Mastercard Inc	35	USA	1	Overboarding
Chevron Corp	40	USA	4	Combined CEO/Chairperson, shareholder protection, overboarding
The Walt Disney Co	41	USA	3	Combined CEO/Chairperson, remuneration, enhanced reporting
The Home Depot Inc	42	USA	4	Combined CEO/Chairperson, shareholder protection, enhanced reporting
Merck & Co Inc	43	USA	3	Combined CEO/Chairperson, overboarding
Bayer AG	46	Germany	2	Board accountability
Pfizer Inc	48	USA	2	Combined CEO/Chairperson, enhanced reporting
Cisco Systems Inc	50	USA	2	Combined CEO/Chairperson

As a minority shareholder, we are one of many contributors of equity capital to a company.

In our position paper on the time commitment of board members, we argue that they should be well prepared for meetings and participate actively in discussions. This requires time and availability, which is why there will always be a limit to how many board roles one person can handle. Directors having excessive commitments or not attending enough meetings led to us voting against 593 board candidates in 2019.

We also vote against individual directors to hold them to account for the board's conduct. This resulted in 327 votes against the board in 2019. For example, we voted against members of remuneration committees where there was a history of problematic executive remuneration, members of board committees where shareholders did not have the right to propose binding resolutions, and members of audit committees where the external auditor found problems with the annual financial statements. In all of these cases, our conclusion was that the board had not acted in shareholders' interests.

Appropriate management incentives

Remuneration plays an important role in attracting talented executives and motivating them to do their best for the company. The board is responsible for recruiting the CEO and deciding on appropriate incentives. "Say on pay" arrangements give shareholders in some countries a right or a duty to consider executive pay and express their views by voting. In some markets, such as the UK, France and Switzerland, shareholders vote on both a forward-looking remuneration plan and a retrospective remuneration report.

In our position paper, we argue that remuneration should provide an incentive for the CEO to create long-term value for the company. We support the principle that remuneration plans should be long-term and include a substantial equity component with a lengthy lock-in period. Remuneration plans should also be easy to understand and clear about how much the CEO is paid each year.

We voted on 4,645 resolutions on CEO remuneration in 2019. We voted against 9.5 percent of them, compared with 11.3 percent in 2018 and 12.2 percent in 2017. The decrease can be explained by a number of countries introducing voting on executive remuneration and by only a small proportion of these resolutions being controversial. Altogether, we voted on 12,198 resolutions on the remuneration of directors, executives and other employees.

We noted growing shareholder interest in executive remuneration in 2019. In markets where shareholders get to vote on executive pay, these resolutions attracted an average of 90.2 percent support, down from 90.6 percent in 2018. More markets, especially in Europe, have given shareholders greater opportunities to vote on executive remuneration, and because shareholders have become more critical of complex pay packages and unpredictable payouts.

Protection of shareholders

Protection of shareholder rights is a fundamental requirement at listed companies. Shareholders must have the right to approve fundamental changes that could affect their investments. We expect shareholders to receive accurate, relevant and timely information, new share issuances to treat all shareholders equitably, and strategic transactions to contribute to value creation. We voted on 44,682 resolutions concerning shareholder rights in 2019. We voted against the board's recommendation in 4.4 percent of these cases, compared with 4.6 percent in 2018 and 5.2 percent in 2017.

We also voted against 248 amendments of companies' governing documents where we considered the changes not to be in shareholders' interests. In some cases, we voted against the resolution because we did not have enough information to assess it. These cases amounted to 6.8 percent of the total in 2019, compared with 7.8 percent in 2018.

To ensure good reporting, most markets require a company's annual report to be approved by an external auditor appointed by shareholders. We voted against the appointment of an auditor in 233 cases in 2019. These cases amounted to 3.9 percent of the total, compared with 3.8 percent in 2018. The main reason for voting against an auditor was that we had not received sufficient information to assess the auditor's independence.

New shares should be offered proportionally to existing shareholders. Where a board proposes waiving shareholders' pre-emption rights, this needs to be in the common interest of the company and its shareholders. We voted against the board on 472 share issuances in 2019, mainly where the board proposed an authorisation to issue more shares without pre-emption rights than we find acceptable. In total, these cases amounted to 5.3 percent of the total, compared with 6.2 percent in 2018.

We expect strategic transactions such as mergers and acquisitions to contribute to value creation and treat all shareholders equitably. We believe that the market for corporate control helps discipline management. Anti-takeover measures are generally not in shareholders' interest, and the introduction of such measures should at the very least be subject to shareholder approval. We voted against 92 resolutions on anti-takeover in 2019. These cases amounted to 13.5 percent of the total, compared with 10.4 percent in 2018.

Shareholder resolutions

Resolutions submitted by shareholders made up 2.2 percent of the resolutions we voted on in 2019. Corporate governance matters accounted for 89.6 percent of these, and sustainability issues for the remaining 10.4 percent.

Governance resolutions

Our point of departure is that shareholders have delegated most decisions to the board. For this delegation to function effectively, boards must be accountable for their decisions and ensure that shareholders' interests are protected. We support shareholder resolutions on governance matters where they are well-founded and aligned with our principles. We voted in favour of 59.7 percent of governance-related shareholder resolutions in the US in 2019, compared with 65.9 percent in 2018.

Shareholders propose resolutions on governance matters to protect their rights. These resolutions typically concern the right to call extraordinary meetings, the right to propose competing board candidates, or calls for an independent chairperson. In many markets, it is an established practice for shareholders to submit their own board candidates, but it is more common in the US for shareholders to put forward these resolutions as a way of expressing their views on the company's governance structure.

We have seen a continued decline in the number of governance-related shareholder resolutions in the US. We voted on 290 in 2019, compared to 302 in 2018. Shareholder support for these resolutions has increased over time, with 20.7 percent gaining majority support in 2019. We backed 76.7 percent of these.

We supported 54 shareholder resolutions calling for an independent chairperson, including at some of our largest holdings, such as Amazon.com Inc, Facebook Inc and AT&T Inc. None received enough votes to be passed. Our voting in favour of an independent chairperson at such companies reflects our principled position that the roles of chairperson and CEO should not be combined.

We also supported all five shareholder resolutions calling for proxy access – the right for shareholders to propose competing board candidates. This is in line with our long-term support for proxy access in the US. In 2019, majorities at Owens & Minor Inc, Old Republic International Corp and Masimo Corp voted to grant shareholders proxy access.

Sustainability resolutions

We have seen an increase in the number of shareholder resolutions addressing environmental and social issues. Some of these resolutions have helped improve risk management at companies, while others have diverted attention away from core business. The proponents of these resolutions may be long-term investors such as the fund, or activists with special interests.

Our point of departure is again that shareholders have delegated most decisions to the board, which is to act in their interests. We support well-founded resolutions that are aligned with our own priorities, especially in areas covered by our expectation documents. The resolutions should not seek to micromanage the company. Any additional reporting requirements should be materially relevant and not place an undue burden on the company. We voted in favour of 39.9 percent of sustainability-related shareholder resolutions in 2019, compared with 52.0 percent in 2018 and 27.0 per cent in 2017.

We voted on 265 shareholder resolutions on sustainability issues in 2019, compared with 228 in 2018. Most were tabled in the US. According to consulting firm ISS, 46 percent were withdrawn ahead of the shareholder meeting, often after the company amended its practices in line with the proposer's wishes.

We have seen continued growth in support for shareholder resolutions on environmental and social issues. According to ISS, support for these resolutions averaged 26.8 percent in 2019, compared with 25.1 percent in 2018 and 21.9 percent in 2017. This is a continuation of a trend since 2012, when support averaged 16.3 percent. This may indicate that the quality of the resolutions has increased, and that they are generally seen as more relevant.

However, only a small proportion of these resolutions gain majority support. In 2019, only 12 such resolutions were passed at companies in which the fund had holdings. These included climate-related resolutions at Standard Bank Group Ltd and FirstRand Ltd, and resolutions calling for greater transparency on lobbying and politically motivated donations at Mallinckrodt PLC and Cognizant Technology Solutions Corp, as well as a resolution at Microchip Technology Inc asking management to report on the risk of human rights violations in the company's operations and value chain. We voted in favour of all 12.

Recent years have seen increased interest in how Internet companies manages user information. We voted in favour of resolutions at Twitter Inc, Alphabet Inc and Facebook Inc to increase transparency on how they are addressing these challenges. These resolutions won 37.4, 6.8 and 5.7 percent of the vote respectively.

Dialogue

As a long-term investor, we engage in regular dialogue with our largest companies. The aim is to promote good corporate governance and responsible business practices.

We engaged in dialogue with 1,826 companies in 2019, or 18.2 percent of the companies in our portfolio. These are often the largest companies in which we are invested, and together they made up 71.2 percent of the value of the equity portfolio. This dialogue consisted of either meetings or written communication. Climate change, board composition and executive remuneration were the responsible investment topics that we raised most often with companies.

We held a total of 3,412 meetings with 1,474 companies during the year. The size of our investments gives us access to board members, senior management and specialists at companies. We are interested in understanding how companies are governed and how they address key sustainability issues.

We generally meet company representatives at one of our four offices outside Norway. We also visit some companies, especially where we are interested in learning more about their operations. In addition, we participate in investor conferences where we can meet companies.

Besides meetings, we communicate with companies in writing. We distribute our expectation documents and position papers to selected companies to inform them of our priorities. We also respond to enquiries from companies requesting further information, especially on our position on board elections and executive pay. We had written communication with 625 companies in the portfolio in 2019.

Thematic dialogues

In our dialogue with companies, we prioritise a number of strategic themes that we follow up over a number of years. In 2019, we focused on effective boards, executive remuneration, climate and environment, human rights, anti-corruption and tax.

Table 3 Company meetings by sector in 2019. FTSE Russell classification

Sector	Company meetings	Share of equity portfolio Percent
Basic materials	268	3.2
Consumer goods	469	9.0
Consumer services	260	6.5
Financials	973	16.2
Health care	303	8.0
Industrials	431	6.5
Oil and gas	110	3.1
Technology	277	10.5
Telecommunications	159	2.3
Utilities	162	2.1
Total	**3,412**	**67.5**

Corporate governance

We held 1,390 meetings with 760 companies in 2019 where we discussed the role and composition of the board and appropriate management incentives. We also had written communication with 304 companies presenting our priorities and answering questions about our ownership activities.

It is important in our dialogue with companies to have an in-depth understanding of their operations and their industry. Dialogue on corporate governance is an integral part of the fund's management. Our portfolio managers attended 97.1 percent of these meetings in 2019. This helps us view the board's efforts in the context of the company's strategy, risk management and capital allocation.

Effective boards

We engage in regular dialogue with the boards of the largest companies in our portfolio. We held a total of 167 meetings with boards in 2019. Our three priorities were board independence, members' time commitment and the nomination process.

Listed companies are best served by a clear separation of roles and responsibilities between board and management. In our position paper, we argue that the board must exercise objective judgement on corporate affairs and take

Table 4 Company meetings in 2019

Category	Topic	Number of meetings	Share of equity portfolio Percent
Environment	Climate change	422	18.7
	Water management	108	5.3
	Ocean sustainability	42	3.0
	Other environmental topics	410	17.0
Social issues	Human rights	99	9.8
	Children's rights	56	4.1
	Tax and transparency	75	8.4
	Anti-corruption	77	6.7
	Other social topics	380	23.3
Governance	Effective boards	402	28.1
	Remuneration	260	20.0
	Protection of shareholders	116	8.2
	Other governance topics	1,078	38.9

decisions independently of management. We therefore consider it most appropriate for the board to be chaired by a person who is not also the CEO. In some markets, including the US and France, combining the two roles is common.

When we meet companies with a combined chairperson and CEO, we explain our expectations in terms of independence and separation of roles. We also wrote to five companies during the year where we voted against the election of the chairperson. Dell Technologies Inc, Danone SA and General Mills Inc are examples of companies in our portfolio where the CEO also chairs the board. In our letters, we explained that the decision to vote against the chairperson reflected not a lack of confidence, but our principled view on board independence.

In our position paper on board members' time commitment, we argue that there is a limit to how many board roles one person can handle. Virtually all directors aim to do their best for a company, but some overcommit and so do not have enough time to prepare or participate actively in board discussions.

In 2019, we engaged with the largest companies in our portfolio where we had voted against board candidates due to excessive commitments. We observed that some directors at Saab AB, Alphabet Inc and Nestlé SA had numerous roles at other listed companies. We raised board members' time commitment at meetings with these companies and sent letters to the chair of the nomination committee at 63 companies to explain our voting.

In Sweden, we participate in the nomination process for the boards of some of our largest investments. In 2019, we continued our work on the nomination committees at Alfa Laval AB, Boliden AB, Electrolux AB, Essity AB, Volvo Group AB and Svenska Cellulosa AB (SCA). Our priority is a good nomination process to identify candidates who can meet the company's needs, rather than proposing specific individuals.

Appropriate management incentives

Executive remuneration is subject to some form of shareholder approval in many advanced markets and in 2019 was once again the most common topic that companies raised with us. We discussed executive pay with 206 companies and responded to 138 written enquiries concerning our expectations in this area at specific companies.

Our dialogue with companies attached importance to the board's forward-looking plans for executive pay. In our position paper, we argue that remuneration plans should be simple and transparent, and should consist primarily of cash and shares to be held for a period of five to ten years even where the executive leaves the company voluntarily by resigning or retiring. We believe that shareholding is important in motivating long-term value creation and encouraging the CEO to take account of shareholders' interests.

At our meetings with companies, we encouraged them to prioritise long-term shareholding, straightforward structures and the greatest possible transparency. We also engaged with a number of companies that faced strong shareholder opposition to their remuneration plans in 2018.

Sustainability

Our long-term investment horizon means that we have an interest in sustainable development. We take our public expectation documents as our point of departure and raise issues that are relevant to companies' value creation. We held

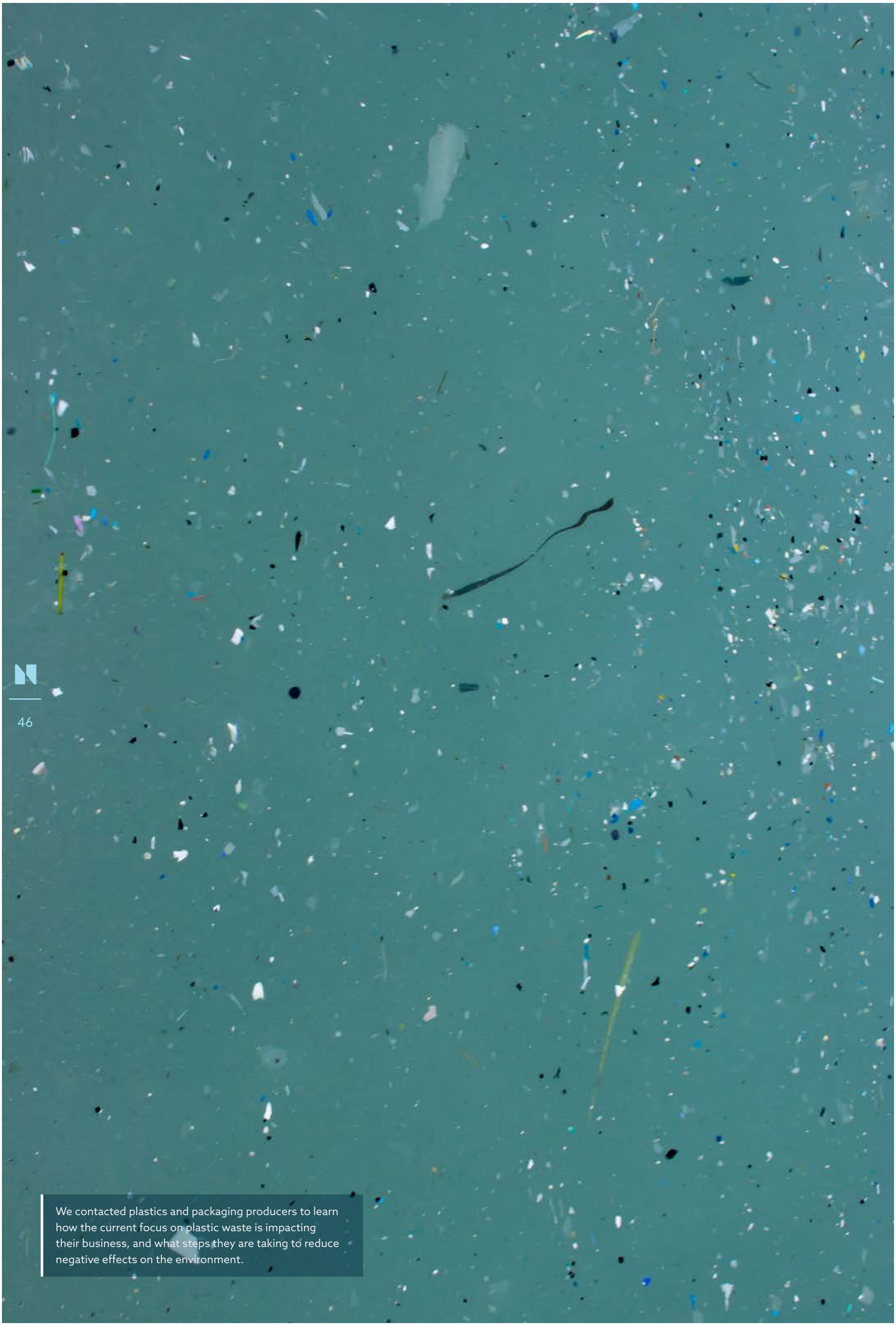
983 meetings with 568 companies on environmental and social issues in 2019. We also had written communication with 429 companies on our priorities.

Climate and environment

We continued our dialogue with banks in Latin America and Southeast Asia on their policies for lending to companies that contribute to deforestation. According to the latest report from the Intergovernmental Panel on Climate Change (IPCC) on climate change and land, emissions from agriculture, forestry and land use changes accounted for around 23 percent of total anthropogenic emissions of greenhouse gases in the period 2007-2016. We urged the banks to strengthen their due diligence and to report on climate and deforestation risks. During the year, we convened a group of banks, investment managers and food producers in Singapore to discuss deforestation risks. CIMB Group Holdings Bhd and RHB Bank Bhd are examples of banks that have taken further account of the environment in their strategies and policies. We also continued our dialogue with companies that buy and sell soya and meat in Brazil.

We contacted 12 cement producers to understand how they are approaching the

In 2019 we urged banks to strengthen their due diligence and to report on climate and deforestation risks.



We contacted plastics and packaging producers to learn how the current focus on plastic waste is impacting their business, and what steps they are taking to reduce negative effects on the environment.

transition to a low-carbon economy. According to the International Energy Agency (IEA), the cement industry accounts for around 7 percent of global carbon emissions. We also raised the sustainable use of water and sand in the production of cement and concrete products. LafargeHolcim Ltd is an example of a company that has committed to cutting its emissions in line with the climate targets in the Paris Agreement in order to manage the transition to a lower-carbon economy.

We also initiated dialogue with ten shipping companies on the energy transition. New rules from the International Maritime Organization (IMO) on sulphur and ballast water, as well as ambitions for lower carbon emissions, are affecting shipping companies' strategy. We encouraged the companies to report on climate risks and opportunities, and on how they ensure responsible recycling of ships. AP Moller – Maersk A/S has set itself the goal of being carbon-neutral by 2050 and is reporting on progress towards this goal. The company is also reporting on its work on improving social and environmental performance at ship recycling yards in Alang, India.

We continued our dialogue with companies in the automotive industry on how they can utilise opportunities in the energy transition by selling low-emission vehicles while also addressing risks in the supply chain. Human rights violations are a particular challenge in the cobalt supply chain. According to Bloomberg, batteries for use in electric vehicles and electronics account for 48 percent of cobalt demand. Bayerische Motoren Werke AG (BMW), for example, has launched a pilot project with various partners with the aim of improving living and working conditions for workers at informal cobalt mines in the Democratic Republic of the Congo. Companies are also exploring the possibility of reducing the cobalt content of batteries and ensuring better recycling of metals. For example, Renault SA is looking into re-using batteries that can no longer be used in vehicles for other energy storage. Daimler AG is performing human rights risk assessments and has published a list of smelters and refiners in its cobalt supply chain.

We initiated dialogue with 12 companies in the apparel industry on sustainable business models and measures to reduce emissions and water pollution. The UN has calculated that the apparel industry will account for around 25 percent of global carbon emissions in 2050, up from around 10 percent today. This value chain also accounts for 2 percent of the world's water consumption and a high proportion of micro-plastics in the oceans. Some of these companies, including Kering SA, Industria de DiseñoTextil SA and Hennes & Mauritz AB, have signed the UN Fashion Industry Charter for Climate Action and committed to cutting their emissions by 30 percent by 2030.

We contacted five large plastics and packaging producers to learn how the current focus on plastic waste is impacting their business, and what steps they are taking to reduce the negative effects that their products can have on the environment. The companies contacted included LyondellBasell Industries NV and Berry Global Group Inc. The companies are generally well aware of the issue and are working on developing new recycling technologies and better systems for handling and measuring plastic waste from production.

We continued our dialogue with companies on agricultural runoff. According to the UN, algal blooms are set to increase in many ocean areas unless there is a reduction in the runoff of nutrients such as nitrogen and phosphorus. We contacted six large food and meat producers to understand the extent of runoff in their value chains and how they are managing this issue. We also wanted to draw attention to an area where corporate disclosure is currently limited. The companies contacted included Tyson Foods Inc and General Mills Inc. The latter has incorporated water quality into its assessments of risks in its supply chain and is working actively with farmers to improve fertiliser use and provide training in regenerative agriculture.

Human rights

We had dialogue with nine companies that sell cocoa or produce chocolate. Two thirds of the world's cocoa comes from West Africa, and cocoa production has been an important contributor to deforestation in the region. According to the Tropical Forest Alliance, Ivory Coast and Ghana lost 17 and 13 percent of their forests respectively between 2001 and 2017. The World Cocoa Foundation also reports extensive use of child labour in cocoa production in these countries. The aim of the dialogue is to learn how the companies are addressing deforestation risks and children's rights in the supply chain, and how this is affecting their purchasing processes. We also encouraged them to improve reporting on their supply chains.

Leading companies such as Barry Callebaut AG, Chocoladefabriken Lindt & Spruengli AG and Nestlé SA have published action plans and time-bound deforestation targets for their supply chains. Some companies pay more for certified products or provide farmers training and access to solutions for more climate-friendly agriculture. When it comes to child labour risk, companies such as Nestlé SA and Mondelez International Inc have systems for monitoring and remediating child labour in the supply chain. A number of companies also support organisations that promote children's rights and education in countries where there is a high risk of child labour. At the same time, the companies stress that local factors, such as weak regulatory enforcement, and consumers' reluctance to pay more are placing some limitations on this work.

We began a dialogue with 14 electronics companies on the potential risk of forced labour in own operations and supply chains. The International Labour Organization (ILO) estimated in 2016 that 24.9 million people are victims of forced labour, including 16 million in the private sector. Labour-intensive processes, poor legislative compliance and a high share of migrant workers contribute to an increased risk of forced labour in the production of electronics. There are also challenges when it comes to working conditions in the extraction of minerals. The aim of this dialogue is to gain a better picture of the companies' due diligence and management of the risk of forced labour, and to encourage better reporting. The companies contacted include Intel Corp, Compal Electronics Inc and Micron Technology Inc.

We continued our dialogue on responsible marketing of breast-milk substitutes. Breastfeeding is closely associated with child health and survival. Misleading marketing of breast-milk substitutes can pose a risk to children's fundamental rights. We are continuing to encourage companies to draw up policies on responsible marketing of breast-milk substitutes and to be more open about how they implement these policies and monitor compliance. Health & Happiness International Holdings Ltd published a policy on responsible marketing of breast-milk substitutes in 2019, while Reckitt Benckiser Group PLC published more information on how it monitors compliance with its policy, including external assurance statements.

Anti-corruption and tax

We continued our dialogue with seven companies on anti-corruption disclosure. The aim was to encourage the companies to improve their reporting on how they manage corruption risks, and on the results of internal and external evaluations of their anti-corruption efforts.

We initiated dialogue with 14 banks who through their products and services could be exposed to the risk of abuse for money laundering purposes. Compliance with anti-money laundering regulations is a key challenge for financial institutions. Absence of systems to prevent money laundering can lead to fines and reputational damage for companies in the industry. The aim of the dialogue is to learn how banks assess the risk of money laundering and what steps they have taken to mitigate against it.

We contacted ten companies that supply equipment, services and distribution to the oil industry to discuss the use of agency agreements. These companies often use such agreements and other intermediaries to win contracts. This can lead to an increased risk of corruption. The aim of this dialogue is to encourage robust due diligence when using agents and intermediaries.

We continued our dialogue with six companies that are required by UK law to publish a tax strategy setting out their attitude to tax planning, how they manage tax risks, and the board's involvement in tax matters. The aim of the dialogue is to discuss our expectations on tax transparency, encourage companies to develop their own strategies, and learn from good examples of such reporting. Anglo American PLC expanded its reporting on the management of tax risks during the year, while Royal Dutch Shell PLC published its first country-by-country report.

Our evaluation of companies' reporting on tax in 2019 revealed considerable differences between companies in terms of their tax management policies. We therefore initiated dialogue with a further 15 companies to encourage them to develop and publish policies for how they handle taxes in line with our expectation document on tax transparency.

Incident based dialogue

On an ongoing basis, we follow up on unwanted incidents indicating poor governance or inadequate management of environmental and social risk, as well as corporate governance. In 2019, incidents included alleged money laundering in Swedbank, insufficient reporting of tax risk in Sports Direct International PLC and corruption risk in Credit Suisse Group AG. We also followed up on how Alicorp SAA managed deforestation and human rights risk in supply chains.

Dialogue on ethical criteria

The ethical guidelines for the fund state that, before making a decision on observation or exclusion, Norges Bank should consider whether other measures, including the exercise of ownership rights, may be more suited to reduce the risk of continued norm violations, or whether such alternative measures may be more appropriate for other reasons.

Serious violations of human rights

In April 2018, the Executive Board asked Norges Bank Investment Management to raise the risk of child labour with UPL Ltd as part of our active ownership work. The goal of our dialogue with UPL is to reduce the use of child labour at its subsidiary Advanta Seeds Pty Ltd, which produces various varieties of seed in India. We had regular contact with UPL in 2019, including two meetings.

In the course of the year, the company laid out a new policy on the prevention of child labour. A prohibition against child labour was included in contracts with farmers and suppliers. The board stated that management regularly informed about policy compliance and measures to avoid child labour, including training of employees. UPL Ltd also considered further measures to monitor compliance. In our dialogue with the company we have discussed the use of indicators for monitoring and reporting.

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. In 2018, Norges Bank decided to continue to engage with mining company AngloGold Ashanti Ltd for a further three years.

The aim of our dialogue with Eni SpA and Royal Dutch Shell PLC is to contribute to a reduction in the number and volume of oil spills and ensure immediate and effective remediation of spills. We have addressed these issues in four meetings with the companies in 2019.

During the year, spills from pipelines operated by Eni SpA increased. This was linked to an increase in theft and sabotage around the Nigerian general election early in 2019, according to the

company. In the last few years, the company has worked to improve the dialogue with the local community and improved monitoring and response time for spills. Spills resulting from operations were small in 2019.

Spills from pipelines operated by Royal Dutch Shell PLC also increased in 2019. The company experienced an increase in theft and sabotage in the beginning of the year as well as several larger spills resulting from sabotage throughout 2019. The company has introduced more measures, including maintenance, better protection of wellheads and increased co-operation with local communities. Royal Dutch Shell PLC has reduced spills from operations to five percent of the volume released in 2018. The company works with Nigerian authorities to clean up legacy pollution in Ogoniland and is paying its required share of the clean-up costs on an ongoing basis. This work is in an early phase.

The aim of our dialogue with AngloGold Ashanti Ltd is to encourage the company to clean up previous pollution and operate the Obuasi mine in Ghana in accordance with internationally recognised standards. We had two meetings with the company on this topic in 2019, and also raised the issue of forced relocations. The company reports good progress in both its modernisation programme and the restoration of polluted areas around the Obuasi mine.

Gross corruption

The Executive Board decided in May 2017 to ask Norges Bank Investment Management to raise the risk of gross corruption with Eni SpA and Saipem SpA as part of our active ownership work. The objective of our dialogue is to ascertain that the companies' boards provide oversight of anti-corruption efforts and that effective anti-corruption systems are being implemented.

We held ten meetings with these companies between 2017 and 2019 to obtain information on how they are working to prevent corruption. Our view following these meetings is that the companies have made a number of improvements to their anti-corruption programmes and have generally taken action in the areas highlighted by the Council on Ethics in its recommendations.

Assessment of corruption risk is now integrated in risk management at Eni SpA and is coordinated by the company's new anti-corruption department which reports to management. The company has introduced policies, procedures and other measures to prevent and mitigate corruption risk. This includes new training measures for employees.

Saipem SpA has changed its approach to corruption risk assessments and strengthened its focus on risk assessments in subsidiaries. Corruption prevention systems are monitored by a new unit for risk management and business integrity as well as the internal audit department. The board sets anti-corruption policies, ethical guidelines and guidelines for anti-corruption. The board has also established a subcommittee with responsibility for anti-corruption.

Given the steps taken by the companies, it appears that there is a reduced risk of future norm violations. Norges Bank has therefore decided to discontinue this particular dialogue on corruption risk with Eni SpA and Saipem SpA under the Guidelines for observation and exclusion of companies. We will, however, continue to raise relevant topics with the companies as part of our ordinary ownership dialogue.

Selected company dialogue on strategic topics

Category	Expectation	Company	Details	Start
Environment	Climate change	Toyota Motor Corp	Low carbon transition and cobalt sourcing	2018
		Volkswagen AG	Low carbon transition and cobalt sourcing	2018
		Bank Polska Kasa Opieki SA	Climate change disclosure	2019
		Euronav NV	Climate change risks and ship recycling	2019
		Marfrig Global Foods SA	Deforestation in meat supply chain	2017
		Archer-Daniels-Midland Co	Deforestation in soy and palm oil supply chain	2017
	Water management	Zalando SE	Environmental impacts of business	2019
		CRH PLC	Water use and climate transition risk	2019
		Tyson Foods Inc	Nutrient run-offs	2018
	Ocean sustainability	Hapag-Lloyd AG	Climate change risks and ship recycling	2019
		Amcor PLC	Plastic waste management	2019
		Braskem SA	Plastic waste management	2019
Social issues	Children's rights	The Hershey Co	Child labour and deforestation in the cocoa supply chain	2019
		Meiji Holdings Co Ltd	Child labour and deforestation in the cocoa supply chain	2019
		Reckitt Benckiser Group PLC	Infant formula marketing	2018
	Human rights	Amazon.com Inc	Human rights reporting	2019
		Intel Corp	Supply chain forced labour risks	2019
		Hon Hai Precision Industry Co Ltd	Supply chain forced labour risks	2019
	Tax and transparency	Royal Dutch Shell Plc	Tax transparency leadership	2019
		BNP Paribas SA	Tax policy	2019
		Mondelez International Inc	Tax policy	2019
	Anti-corruption	Novartis AG	Reporting in exposed sectors	2018
		Credit Suisse Group AG	Reporting in exposed sectors	2018
		Citigroup Inc	Anti-money laundering systems	2019

Category	Expectation	Company	Details	Start
Gover-nance	Effective boards	Samsung Electronics Co Ltd	Board composition and nomination process	2019
		Honda Motor Co Ltd	Board independence	2019
		PepsiCo Inc	Combined CEO and chairperson roles	2019
	CEO remune-ration	General Electric Co	Long-term and transparent remuneration	2019
		Mondelez International Inc	Long-term and transparent remuneration	2019
		Microsoft Corp	Long-term and transparent remuneration	2019
	Shareholder rights	Peugeot SA	Anti-takeover measures	2019
		AXA Equitable Holdings Inc	Proxy access Right to call extraordinary shareholder meeting	2019
		Paramount Group Inc	Right to amend bylaws	2019

Follow-up

We work with companies, investors and other stakeholders to improve the information made available to the market and promote responsible business practices. This is particularly relevant where many companies in the same industry or value chain face the same challenges.

An important element of our work is to understand global trends that could affect the fund's ability to generate a long-term return. Economic activity in one industry can impose substantial indirect costs on other industries and on society as a whole. We want to learn whether companies in high-risk industries are equipped to manage risks and take advantage of business opportunities. Understanding of how environmental and social issues can impact on company performance and fund returns is constantly evolving.

To analyse sustainability, we need companies to report adequately on their exposures, management and results. We assess companies' disclosure on governance structure, strategies, risk management and targets.

In 2019, we conducted a total of 3,941 assessments of companies' reporting against our published expectations. We assessed the reporting of 1,500 companies on climate change, 500 on children's rights and human rights respectively, 493 on water management, 250 on anti-corruption, 249 on deforestation and ocean sustainability respectively, and 200 on tax. The companies assessed accounted for 76.2 percent of the equity portfolio's market value at the end of the year. We have been assessing companies' reporting on environmental and social issues since 2008.

Our assessments uncover practices and trends that are useful when following up our expectations of companies, and can provide information that we can use in our voting, strategic dialogue and follow-up of risk incidents. Due to companies' limited disclosure of performance indicators, these assessments will not always reflect the actual results of their work on environmental and social issues. We contact companies with weak or limited disclosure and encourage them to improve it, for example by reporting in accordance with established reporting initiatives. We sent letters to 134 companies in 2019 about their reporting on topics covered by our expectation documents.

We saw only limited improvements in 2019 at the companies we contacted about weak reporting on climate and deforestation risks in 2018, while 52 percent of companies contacted about water management and 31 percent contacted about children's rights showed improved reporting. Due to changes in both the methodology and the sample, it is not appropriate to draw direct comparisons with the results for 2018.

We support initiatives that bring companies together to find common standards for sustainable business conduct. These initiatives are most relevant when companies in a particular industry or value chain face similar challenges. The starting point for our expectations of companies is that boards should establish suitable strategies, control functions and reporting procedures. At the same time, many companies face practical challenges in doing so. The need for standardisation and more universal approaches is considerable. Our initiatives cover topics such as supply chain management and disclosure.

Good results on sustainability disclosure. Examples from various sectors

Children's rights	Climate change	Water management
Unilever NV	Kellogg Co	Coca-Cola HBC AG
Nestlé SA	Verbund AG	Anheuser-Busch InBev SA/NV
The Coca-Cola Co	Orsted A/S	BASF SE
Adidas AG	L'Oreal SA	Danone SA
The Hershey Co	Owens Corning	Iberdrola SA

Ocean sustainability	Human rights	Tax and transparency
Kering SA	Microsoft Corp	Banco Bilbao Vizcaya Argentaria SA
Aeon Co Ltd	Burberry Group PLC	BHP Group PLC
PepsiCo Inc	Diageo PLC	Vodafone Group PLC
Marks & Spencer Group PLC	Anglo American PLC	Pearson PLC
Amcor Ltd/Australia	HP Inc	Telefonica SA

Anti-corruption
Newmont Goldcorp Corp
Naturgy Energy Group SA
Alstom SA
Engie SA
Medtronic PLC

Children are the key to future prosperity but also the most vulnerable members of society.

Children's rights
We have been assessing how companies address children's rights since 2008. We look particularly at companies that have operations or supply chains in sectors with a high risk of child labour, or otherwise impact on children's rights through their operations, products or services. In 2019, we assessed a total of 500 companies in the basic materials, chemicals, automobiles and parts, food and beverage, media, retail, travel and leisure, personal and household goods, pharmaceutical, industrial goods and services, construction and materials, technology and telecommunication industries.

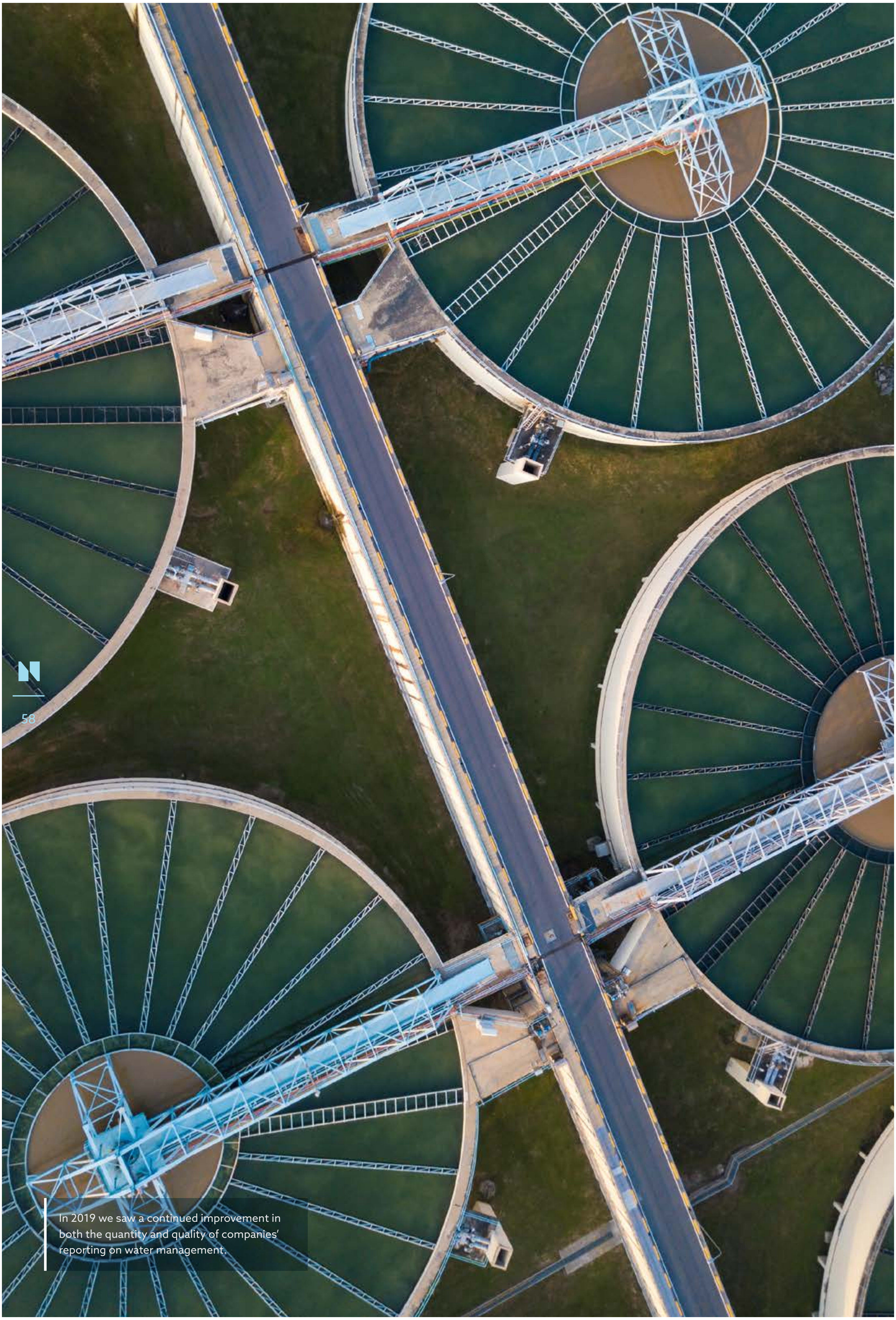
The assessments were based on a broader approach to children's rights than in previous years. Besides policies and systems for addressing child labour, they looked at transparency on governance structure, due diligence, stakeholder dialogue and grievance mechanisms.

There were major variations in companies' reporting. In 2019, we identified 11 companies with very good reporting and 48 with good reporting, while 49 percent of the companies had very weak reporting on how they address children's rights. We found that 49 percent of the companies had policies that referred to children's rights, including the prohibition of child labour. 80 percent of the companies described support for organisations or projects to promote children's rights. 51 percent shared information on their dialogue with stakeholders, and 28 percent described their grievance mechanisms.

There were considerable differences between industries. Overall, companies in the food and beverage and personal and household goods industries provided the most information on their approach to children's rights. European companies generally reported in more detail than those elsewhere.

Children's rights in global supply chains
In 2017, we established a network for children's rights in the apparel and footwear industry together with UNICEF. Child labour is a challenge in the industry's supply chain, but it can also impact children's rights in other ways. Over a two-year period, leading companies have met regularly to discuss how children are affected by working conditions in the supply chain. The companies have also discussed steps they can take in their supply chains to help safeguard children's rights.

In 2019, the network drafted a practical manual for companies which also contains suggested indicators that they can use in their reporting and when evaluating how children's rights are affected by both their own and their suppliers' processes. A group of companies including Hennes & Mauritz AB, Kering SA and VF Corp discussed experiences from their work on responsible supply chain management, such as including children's rights in policies and risk assessments. The aim is for companies to try out the actions and indicators in the manual to improve their practices.



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In 2019 we saw a continued improvement in both the quantity and quality of companies' reporting on water management.

Water management
We have been assessing companies exposed to water risks since 2010. In 2019, we assessed 493 companies in the basic materials, chemicals, food and beverage, retail, pharmaceutical, industrial goods and services, oil and gas, and utilities industries. Areas covered included the scope of the companies' policies, whether water risk assessments included relevant agricultural value chains, and whether quantitative targets have been set for water consumption.

As in previous years, there was considerable variation in the level of reporting. In 2019, we identified 96 companies with very good results and 129 with good results. We saw the best reporting on governance, and somewhat weaker reporting on strategies, risk management and targets. More than 70 percent of the companies reported that the board was involved in water management and published policy documents on the topic. Almost as many reported the actions they had taken to reduce water-related risks in their operations. Companies in Europe reported better than those elsewhere. The industries with the best reporting were oil and gas and pharmaceuticals. Basic materials companies also reported extensively on metrics such as water consumption and quantitative targets.

We saw a continued improvement in both the quantity and quality of companies' reporting on water management. All in all, 92 percent of the companies assessed published some relevant information on water management.

Water risk in agricultural value chains
While water consumption can be measured in litres, it is difficult for companies to measure and report on pollution from their own operations and agricultural value chains. In September 2019, we organised a workshop with CDP's water programme, inviting a number of companies to discuss how they can best report on this topic.

Agriculture accounts for around 70 percent of freshwater consumption worldwide and is an important source of pollution of groundwater, rivers and lakes. Companies that are dependent on agricultural produce – primarily food and beverage producers – may be exposed to risks from overconsumption and pollution of water in their value chains. They could face having reduced access to water, having penalties imposed by the authorities, or coming into conflict with local communities.

Companies such as Anheuser-Busch InBev SA, Bunge Ltd and The Hain Celestial Group Inc took part in the workshop and discussed relevant parameters for water quality and how water pollution can best be reported to investors. We participate in CDP's Water Advisory Council to contribute to the further development of CDP's water questionnaire and water programme.

In 2019, we assessed the reporting on climate risk by 1,500 companies.

Climate change
We have been assessing how companies address climate risks since 2010. In 2019, we assessed the reporting of 1,500 companies in the automobiles and parts, basic materials, chemicals, construction and materials, banks, financial services, insurance, real estate, food and beverage, technology, retail, industrial goods and services, oil and gas, electricity, and travel and leisure industries. The indicators we looked at included the role of the board, reporting on physical and transition risks, use of scenario planning, policies on lobbying, metrics such as carbon emissions and reduction targets, and whether reporting complied with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

We saw some improvement in companies' reporting on climate change in all of the industries. In 2019, 28 percent of the companies had very good reporting, and 26 percent good reporting. In general, we saw better reporting on risk management processes than on governance and strategy. There was variation in the level of climate reporting between both companies and industries. Electricity, retailers and technology companies had the best overall reporting. The reporting of companies in the construction and building materials, insurance, financial services and industrial goods and services industries was generally weaker.

Around 9 percent of the companies reported information in line with the TCFD framework. 35 percent of the companies stated that they perform scenario analyses, which is an improvement on 2018. Around 20 percent used internal carbon pricing in investment decisions.

In 2019, we expanded our deforestation assessments to cover 249 companies in eight industries: food and beverage, personal and household goods, retail, forestry and paper, restaurants, industrial goods and services, construction and materials, and tire manufacturers. The indicators included policies on deforestation, risk indicators, metrics for consumption of forest materials, supplier collaboration and reporting, and use of certifications. We found that 22 percent of the companies had very weak reporting on deforestation. Companies in the industrial goods and services, restaurants and forestry and paper industries had better reporting than those in the other industries. Generally speaking, European companies' reporting was better than that of companies elsewhere.

Climate information for the financial sector
In 2018, we took part in a pilot project alongside 20 global institutional investors under the UN Environment Programme's Finance Initiative (UNEP FI) to develop models for reporting in line with the TCFD recommendations. A report was published in May 2019 with an overview of different methods for scenario analyses and a review of leading analysis providers.

The project produced insights into various methods for analysing physical and transition risks from climate change at both company and portfolio level, climate scenarios and the expectations underlying them, as well as into the challenges associated with scenario analyses in different asset classes and how these analyses can be translated into financial information. The findings provide further confirmation of the need for adequate, consistent and comparable reporting of financially material climate data by companies, including asset-specific information.

Human rights
In 2019, we assessed 500 companies' reporting on their policies and systems for assessing and managing the risk of negative human rights impacts. We looked at companies in the basic materials, chemicals, automobiles and parts, food and beverage, personal and household goods, retail, travel and leisure, industrial goods and services, construction and materials, oil and gas, technology, telecommunications, financials and pharmaceutical industries.

Companies' reporting was assessed against a number of indicators, including governance structure, policies, information on due diligence, grievance mechanisms and stakeholder dialogue.

The assessments revealed considerable variation in reporting between the companies on how they respect human rights. We identified 78 companies with good reporting and 11 with very good reporting. 53 percent of the companies had weak or very weak reporting. There were also variations between industries. Generally speaking, we found that companies in the mining, food and beverage and personal and household goods industries reported in most detail on their policies and processes for respecting human rights.

All in all, 57 percent of the companies had policies referring to international principles and standards, and 44 percent were open about their dialogue with stakeholders. 13 percent published information on the indicators they used to monitor and follow up on actions taken.

Business and human rights
In 2017, we entered into an agreement with Shift, a non-profit organisation working with the UN Guiding Principles on Business and Human Rights, on finding better ways of evaluating companies' work on preventing and managing violations of human rights, including the development of more accurate assessment methods and performance indicators. In 2019, Shift published studies on the challenges around the use of human rights indicators in sustainability reporting.

The UN Guiding Principles set out companies' responsibility to respect human rights. Since the principles were adopted in 2011, companies have put considerable resources into ensuring respect for human rights in their operations and supply chains. However, there is a need for more knowledge about the results of their efforts.

Shift's studies show that 70 percent of the data reported on social issues concern resources, activities and time spent, while there is less reporting on outcomes and impacts. Shift has also developed draft indicators and methods to improve solutions in six focus areas, including human rights risks in business models and corporate management and culture. Shift also explored the possibilities for better reflecting the value of respect for human rights in financial accounting.

The global apparel supply chain
We have supported the Sustainable Apparel Coalition with contributions to the Social & Labor Convergence Program (SLCP) since 2017. SLCP is industry-led and has been working with a broad group of stakeholders to develop standardised processes and a common method for assessing working conditions in the apparel industry's supply chains.

Good working conditions are essential for a sustainable apparel industry. However, there is no universal standard for assessing and monitoring working conditions in its supply chain. Companies perform assessments of this kind as part of their own processes for supervising and auditing suppliers. This leads to extensive duplication of the same work, resulting in higher costs for the industry as a whole. It can also make it hard for companies to be transparent about their work, and for outsiders to compare companies.

In 2019, SLCP was established as an independent programme with a new governance structure. After testing the assessment method in China and Sri Lanka in 2018, SLCP has launched the finished assessment in relevant markets. By the end of 2019, it was available for assessing conditions in supply chains in 12 markets. Companies such as PVH Corp and NIKE Inc have been involved in this work and are using the SLCP assessments.

Tax transparency

In 2019, we assessed the reporting of 200 companies in the technology, pharmaceuticals, consumer goods and services, financials, oil and gas, and mining industries. The companies' reporting was assessed against a number of indicators, such as tax management policies, attitude to tax planning, management of tax risks, the board's involvement in tax matters, and country-by-country reporting.

Our analysis revealed considerable variation in the level of tax disclosure both between companies and between industries. 69 percent of the companies had weak or very weak reporting on tax. European companies were most transparent about their tax management policies. Fewer than 10 percent of companies had published a country-by-country report showing the amount paid to the tax authorities in each of the countries in which they operate. Basic materials and oil and gas companies were generally more open about tax.

Greater interest in tax disclosure

We contributed to several initiatives in 2019 that aim to draw attention to how companies handle tax. Together with the Dutch pension fund ABP, we organised a meeting where we invited 18 other investors to discuss their expectations of companies when it comes to tax. The meeting also allowed participants to exchange experiences in engaging with companies on tax topics. We also participated in a working group on responsible tax practices led by The B Team. There are around 20 companies in the group.

In 2018, we launched an initiative on tax disclosure policies at companies supplying consumer goods and services. The aim of the initiative is to increase companies' transparency on tax, share experience and challenges with tax policies, and encourage companies to publish the board's strategies and policies on tax. In 2019, the companies participating in this initiative discussed policies on tax management and the challenges associated with country-by-country reporting.

Anti-corruption

In 2019, we assessed the reporting of 250 companies in the oil and gas, basic materials, heavy construction, industrial goods and services, telecommunications, financials and pharmaceutical industries. The companies'

reporting was assessed against 14 indicators, including transparency on governance structure, policies for combating corruption, risk assessments, reporting on corruption-related incidents, external evaluation of anti-corruption programmes, and dialogue with stakeholders.

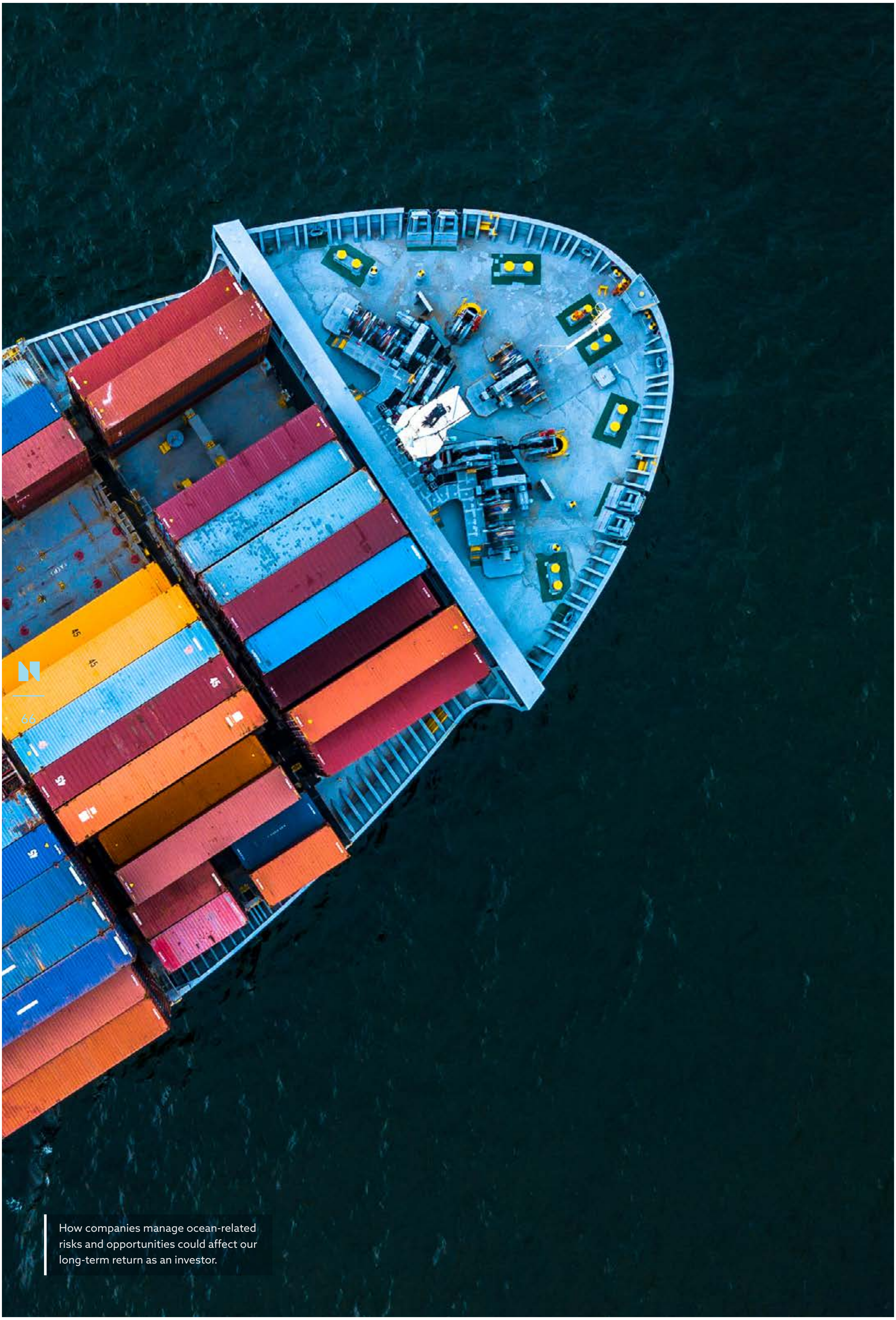
We found that 31 percent of the companies had weak or very weak reporting on anti-corruption. Most were relatively open about how the board and management address corruption risks. We also found that many companies make their anti-corruption policies and strategies public. Some reported in more detail on measures to prevent and detect corruption, such as staff training and internal whistleblowing systems.

The companies provided less information on the follow-up of anti-corruption actions and the results of internal and external evaluations of the efficacy of these actions. There were also variations between industries, with telecommunications, oil and gas and basic materials companies generally being more open about their anti-corruption work. Generally speaking, European companies' reporting was better than that of companies elsewhere.

Anti-corruption indicators and reporting

In 2019, we continued our dialogue with a number of pharmaceutical companies on corruption risks in the industry. The aim is to promote broad discussion of the efficacy of anti-corruption programmes, develop methods and indicators for company reporting the results of such programmes, and share experiences of internal and external evaluation. The companies taking part in this dialogue have expressed a wish for more standardised and comparable reporting, as this can help identify leading practices and build trust between companies, investors and other stakeholders. We therefore invited the companies to join an initiative to exchange further information on which anti-corruption indicators they base their internal reporting on, and to look together at indicators that lend themselves to public reporting.

We also renewed our support for the Extractive Industries Transparency Initiative, which aims to prevent corruption in the oil and gas and mining industries. Together with the Council on Ethics of the AP Funds in Sweden, we held a meeting with investors and non-profit organisations to increase understanding of investors' work on anti-corruption.



How companies manage ocean-related risks and opportunities could affect our long-term return as an investor.

Ocean sustainability
How companies manage ocean-related risks and opportunities could affect our long-term return as an investor.

In 2019, we assessed reporting on ocean use by 249 companies in the mining, chemicals, tire manufacturers, food and beverage, retail, travel and leisure, containers and packaging, marine transportation, waste and disposal services, and oil and gas industries. Their reporting was assessed against a number of indicators, such as strategy for avoiding illegal, unreported and unregulated fishing, use of relevant certifications, and reporting on consumption of plastics. To varying degrees, these companies base their operations on the ocean, rely on marine resources, or may have a negative impact on the ocean through pollution of water systems or the production of plastic packaging.

Only 26 percent of the companies assessed had good or very good reporting on relevant ocean-related topics. Ocean sustainability is an area with very little standardised reporting, and we expect both disclosure and metrics to improve in the years ahead.

The indicators on which most companies reported were governance structure and risk management. The industries with the best reporting were containers and packaging, marine transportation and beverage production. Almost all of the beverage producers had set quantitative targets for reducing packaging, and all container and packaging companies had incorporated relevant trends into their business strategies. Oil and gas companies generally had the worst reporting, only 33 percent having published a policy document on protecting the ocean.

Action Platform on Sustainable Ocean Business
In 2018, the fund joined the UN Global Compact's Action Platform on Sustainable Ocean Business. The aim of the platform is to develop an international framework for business leadership on sustainable management of marine resources. Other participants include companies from sectors with activities connected with the ocean, UN institutions, non-profit organisations and research bodies. The platform is due to complete its work and publish the overall results in June 2020.

As part of the platform, we have led a working group developing international principles for ocean sustainability. These principles were launched in New York in September 2019 and look at companies' role in helping maintain ocean health and productivity, engaging with regulators and promoting standards, and providing relevant data and transparency. Our contribution to the working group built on our expectations of companies on managing risks and opportunities related to sustainable uses of the ocean. We endorsed the new principles ahead of their launch.

Chart 2 Results for companies we assessed on children's rights in 2019. Number of companies

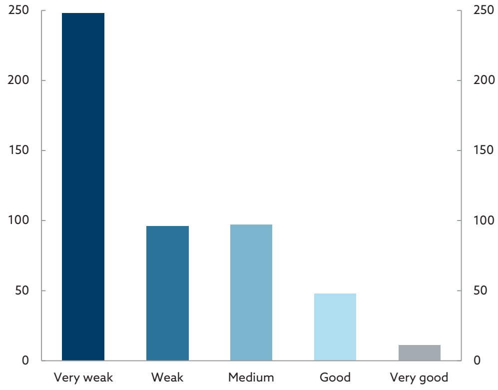


Chart 3 Results for companies we assessed on water management in 2019. Number of companies

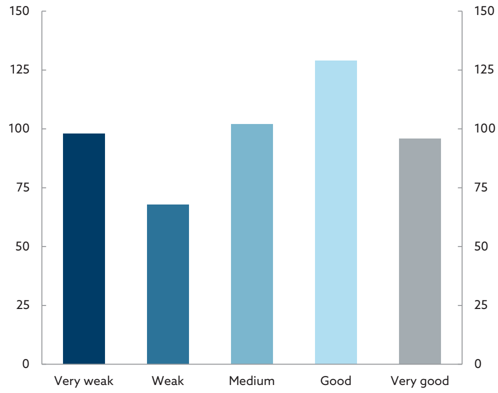


Chart 4 Results for companies we assessed on climate change in 2019. Number of companies

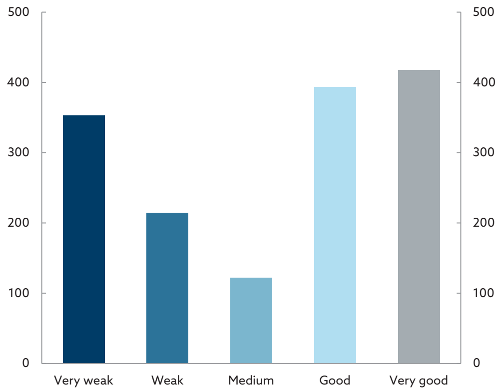


Chart 5 Results for companies we assessed on human rights in 2019. Number of companies

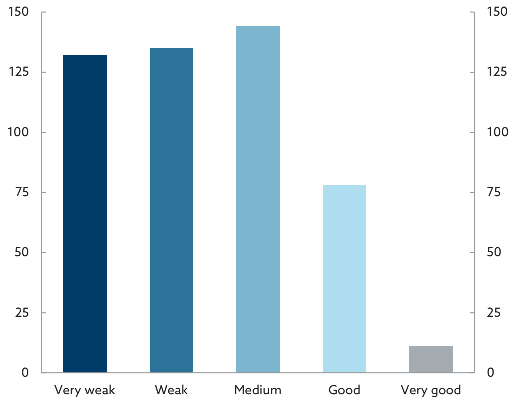


Chart 6 Results for companies we assessed on tax and transparency in 2019. Number of companies

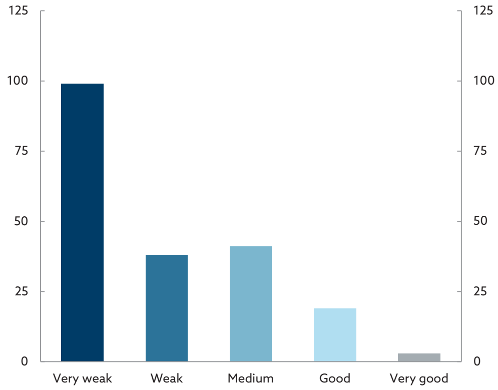


Chart 7 Results for companies we assessed on anti-corruption in 2019. Number of companies

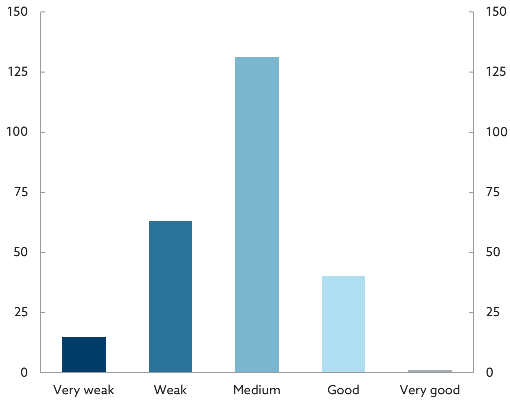


Chart 8 Results for companies we assessed on ocean sustainability in 2019. Number of companies

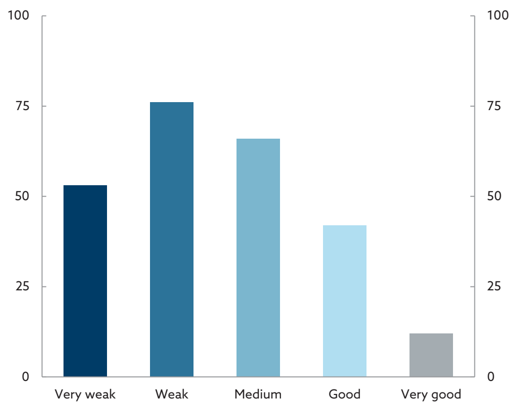
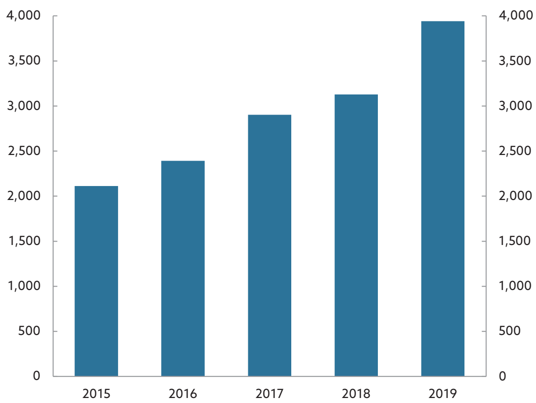


Chart 9 Assessment of company reporting 2015–2019. Number of assessments



4 | Investing sustainably

Risk assessments

In order to assess companies, we need them to move from words to numbers. This gives us a better understanding of the risks and opportunities in our investments.

How companies manage natural resources, address human rights and adapt to long-term trends will be important for their capacity to create value. We aim to understand the full range of risks facing companies and how these can impact fund-level risk and return in the longer term.

We monitor our investments and assess sustainability-related risks and opportunities as part of our risk management. We concentrate on issues that we believe could have a material impact on the fund's financial value.

Sustainability data

As a long-term investor, we want companies to report on sustainability-related risks and opportunities. In order to analyse risks and opportunities across the portfolio, we need consistent reporting of metrics that are standardised at industry level. We also see a need for simpler reporting. We do not necessarily want more data, but rather more relevant data from all companies. Standard setters should further consolidate their frameworks for the data they collect, and regulators need to set clear requirements for such disclosure.

We obtain environmental and social data from companies' own reports and from external data providers where relevant. Some data are publicly available, while some are accessed by participating in various initiatives. We also commission research from specialists when we need more sophisticated analysis.

Academic institutions, the media and non-profit organisations are also important sources of information. We encourage stakeholders to share information that they believe could be relevant for our investments. In 2019, we obtained input in areas such as tax, anti-corruption, marine disposal of mine waste, responsible marketing, and deforestation and human rights violations in the supply chains for cobalt, palm oil and cocoa. We value regular input and contact.

Climate risk data

The portfolio's climate-related risks can be divided into physical risks and risks related to the transition to a low-carbon economy. These risks have different time horizons. Physical risks include exposure to extreme weather events such as floods, droughts or heat waves. Transition risks include regulatory changes, technological innovations and evolving consumer preferences. The risk we face as an investor is not the same as the risk faced by individual companies. The price of the assets an investor buys, and the degree to which this price reflects climate risk, affects the financial risk. A broadly diversified and market-weighted portfolio will, in principle, have roughly the same financial climate risk as the underlying markets and sectors in which it is invested.

In order to gain a better understanding of this risk, we obtain analyses and participate in projects to assess and, where possible, quantify physical and transition risks at companies. One general challenge facing analyses of climate risk is the limited availability of high-quality and relevant data. Numerous initiatives are under way to increase corporate disclosure and investor access to data.

Climate scenarios

Scenario analyses are used to illustrate different future outcomes for climate risk and better understand climate risk over long time periods. These analyses can shed light on both physical and transition risks in the portfolio, but are based on factors that are often subject to considerable uncertainty, such as climate models, expected technological progress and potential regulatory changes. They provide an illustration of possible outcomes but are not predictions of the future.

There is no standard method for investors' scenario analyses. Ideally, the scenarios should be based on well-founded assumptions about future carbon emissions, physical climate changes and macroeconomic conditions. The scenarios must also use reasonable assumptions for companies' future development based on their industry and region, regulatory and technological developments, and their installations and assets. It is essential to have a good understanding of the model's core assumptions, uncertainties in the data, and interactions between the drivers in the model.

We are working on developing different methods and tools for climate scenarios that can give us a broad and deep understanding of how climate risk might affect individual companies and the portfolio as a whole. For example, we look at future cash flows and carbon emissions at company level, and at how possible future regulation in the form of carbon pricing and carbon quotas might impact different companies, industries and regions. The aim of this work is eventually to be able to understand how climate risks could affect portfolio returns.

The data and models used for scenario analyses are currently associated with great uncertainty, making it difficult to ascertain how individual companies' operations and earnings will be affected in different scenarios. We are therefore working actively with companies that operate in industries with elevated climate risks to improve their reporting. As we gain access to more relevant and detailed data, our analyses of climate risk both in the portfolio as a whole and at company level will improve.

We are working on developing different methods and tools for climate scenarios that can give us a broad and deep understanding of how climate risk might affect individual companies and the portfolio as a whole.

Carbon footprint

We have been analysing the carbon footprint of companies in our portfolio since 2015. This analysis provides an insight into the level of carbon emissions from the companies in which we are invested. It can also shed light on risks and opportunities across industries.

We follow the recommendations for asset managers from the Task Force on Climate-related Financial Disclosures (TCFD) when calculating the fund's carbon footprint. We start from the greenhouse gas emissions of each individual company in the equity portfolio, measured as tonnes of CO_2-equivalents. These emissions data are supplied by analysis firm Trucost and cover companies' Scope 1 and Scope 2 emissions. Scope 3 emissions are not included in this analysis. At portfolio level, we calculate emissions in relation to the fund's holding, revenue and market value. We report emissions data at sector level for the fund, for the benchmark index and for the FTSE Global All Cap index, which is the starting point for the benchmark index defined by the Ministry of Finance. This analysis of carbon emissions provides only a snapshot, however, and does not take account of companies' strategy, industry structure and other factors.

Reporting on carbon emissions still varies in frequency and quality. Emissions data are generally published in connection with a company's annual report early the following year. When analysing emissions data for 2019, the most up-to-date numbers will therefore come from companies' annual reports for 2018 published in 2019. Where a company has not published emissions data for 2018, we will use data reported for 2017 or estimates. In this analysis, 20 percent of companies disclosed data on carbon emissions directly in their reports or via CDP. 20 percent provided relevant information permitting the calculation of emissions. For 52 percent of the companies in the portfolio, emissions have been estimated using models. This results in greater uncertainty than hard emissions data. For 8 percent of companies, emissions have been estimated simply on the basis of the median for their sector. In these cases, uncertainty about actual emissions is considerable.

Total emissions and our percentage share

Based on our percentage holdings in each company, the total emissions of the equity portfolio were108 million tonnes of CO_2-equivalents in 2019. This is around twice Norway's total emissions in 2018 of 52 million tonnes of CO_2-equivalents as reported by Statistics Norway. The carbon footprint of the companies in our equity portfolio was at about the same level as in 2018. Emissions from the companies in the equity portfolio were about the same as for the benchmark index.

These emissions are driven largely by industries with high energy consumption, such as mining and metals, heavy industry, oil and gas, and power production. Within these high-emission industries, there are in turn a number of large companies that account for the bulk of emissions.

We have also calculated what the carbon footprint of the companies in the benchmark index would have been without any ethical exclusions under the Ministry of Finance's guidelines for observation and exclusion from the Government Pension Fund Global. These exclusions have reduced the benchmark index's carbon footprint by 19 percent, due mainly to exclusions under the coal criterion.

Carbon intensity

The companies in our equity portfolio emitted around 156 tonnes of CO_2-equivalents for every million US dollars (USD) of revenue. This is referred to as the equity portfolio's carbon intensity.

The equity portfolio's carbon intensity was 3 percent below that of the benchmark index. The difference can largely be put down to our investments in industrials and utilities having a lower carbon intensity than the companies in the benchmark index. By way of comparison, the equity portfolio's carbon intensity was 20 percent lower than that of the FTSE Global All Cap.

The carbon intensity of the companies in the equity portfolio and the benchmark index decreased by 16 and 17 percent respectively from 2018 to 2019. This is mainly because companies' revenues increased.

It is worth noting that carbon intensity is affected by changes in the prices of the products companies sell. For example, an oil company's carbon intensity will decrease when oil prices rise, even if its emissions are constant. Similarly, a company that sells luxury cars will have a lower carbon intensity than one that sells cheaper cars, even if both produce the same number of cars.

To calculate the total carbon intensity of the companies in the portfolio, we weight each company's carbon intensity by the value of our investment divided by the value of the entire equity portfolio. This is the metric recommended by the TCFD, because it makes it possible to compare emissions across companies, sectors and managers.

Emissions and market value

The companies in the equity portfolio emitted 129 tonnes of CO_2-equivalents for every million US dollars (USD) of market value. This can also be viewed as emissions per unit of money invested. The equivalent figure for the benchmark index was 134 tonnes of CO_2-equivalents per million USD. The difference can be explained by our investments in industrials, basic materials and utilities having lower emissions in relation to their market value than the companies in the benchmark index. By way of comparison, the companies in the FTSE Global All Cap emitted 165 tonnes of CO_2-equivalents per million USD, which is 28 percent more than for our equity portfolio.

We report carbon emissions by market value by dividing each individual company's emissions by its market value. We can then compare different companies' and sectors' emissions for the same amount invested. This metric can give investors useful information for comparing the carbon footprint of equity investments across sectors and companies.

Emissions by market value are affected by a company's share price. This means that external factors unrelated to carbon emissions can result in differences between two otherwise identical companies. For example, a decline in a company's share price will increase its emissions by market value even if its actual emissions are unchanged. Nor does this metric take account of different companies having different capital structures (ratio between debt and equity).

Emissions in the corporate bond portfolio

The corporate bond portfolio's carbon intensity is 13 percent below that of the benchmark index. This is mainly because our investments in industrial companies have a lower carbon intensity than the benchmark index.

When we invest in bonds, we lend capital to companies that have operations that may release greenhouse gases. This lending does

Table 5 Scope 1 and 2 emissions by sector as at 31 December 2019

Sector	Equity portfolio Tonnes CO_2 equivalents	Benchmark index Tonnes CO_2 equivalents	FTSE Global All Cap Tonnes CO_2 equivalents
Basic materials	25,520,930	26,564,554	4,064,966,371
Consumer goods	5,019,479	5,034,474	597,237,766
Consumer services	8,613,837	6,489,564	892,749,697
Financials	2,274,429	2,182,262	247,568,541
Health care	907,628	847,754	72,110,587
Industrials	21,255,448	22,989,746	2,457,386,732
Oil and gas	20,019,106	19,941,383	2,016,170,447
Technology	1,985,234	1,918,897	187,861,150
Telecommunications	977,375	1,010,650	115,649,495
Utilities	20,994,984	22,157,633	5,661,484,463
Sum	**107,568,451**	**109,136,917**	**16,313,185,248**

Table 6 Scope 1 and 2 emissions intensity by sector, weighted by market value of fund holdings. Equity portfolio, benchmark index and FTSE Global All Cap as at 31 December 2019

Sector	Equity portfolio Tonnes CO_2 equivalents per million dollars in sales revenue	Benchmark index Tonnes CO_2 equivalents per million dollars in sales revenue	FTSE Global All Cap Tonnes CO_2 equivalents per million dollars in sales revenue
Basic materials	762	748	786
Consumer goods	65	64	62
Consumer services	74	68	67
Financials	45	39	39
Health care	32	31	31
Industrials	235	253	235
Oil and gas	424	419	419
Technology	42	40	40
Telecommunications	53	54	54
Utilities	1,194	1,288	2,011
Weighted total	**156**	**161**	**194**

not, however, affect our percentage ownership in the company. To measure the carbon footprint of companies in the bond portfolio, we link the issuer of the bond to the parent company where the emissions actually occur. We multiply the company's emissions by the value of our lending divided by the value of all corporate bonds. We then add these figures together to produce totals for the fund and the benchmark index. The result is a measure of the carbon footprint of the corporate bond portfolio. Finally, we disclose the corporate bond portfolio's carbon intensity, calculated in an equivalent way to that for equities. We multiply the carbon intensity of each company by the value of our lending, divide this by the value of all corporate bonds, and then sum to fund level.

Sustainability assessments

We constantly monitor environmental, social and governance risks in the countries, industries and companies in which the fund is invested.

Some markets have inherently higher sustainability risks. This is particularly the case in emerging markets, where regulation in areas such as pollution, child labour and corruption may not be as robust as in more developed markets.

When investing in emerging markets, we rely mainly on external managers. Our work on monitoring sustainability risks covers all companies in the portfolio, including those managed externally. External managers have a local presence and specialise in the markets they invest in. They have a good knowledge and understanding of these markets. We also require external managers to take account of environmental, social and governance risks in their investment activities. This is followed up as part of the fund's annual assessment of these managers.

Given the inherent risk, we pay particular attention to our investments in emerging markets. In 2019, we analysed sustainability risks at around 1,200 companies in emerging markets. These analyses are used internally in work on the portfolio and also serve as a basis for dialogue with external managers, additional risk monitoring and, in some cases, risk-based divestments.

In addition, we assess industries with particularly high sustainability risks. These industry analyses are often the first step in our work on identifying companies requiring additional investigation and follow-up. In some cases, the analysis can lead to risk-based divestment from a company. Examples of industries examined in 2019 include agriculture, forestry and fisheries, real estate, mining, generation, transmission and distribution of electricity, and construction and materials.

We constantly monitor the companies in our portfolio in order to pick up incidents that might indicate failures in the management of environmental, social and governance risks. In 2019, we identified 141 incidents related to environmental and social issues of which 42 were analysed in greater depth in incident briefs. We looked particularly at incidents such as alleged corruption, fraud, pollution, deforestation, health and safety violations, and negative impacts on local communities. In addition, we keep a close eye on our largest investments and prepare separate reports when our holding in a company exceeds 5 percent.

Our analysis may lead us to engage with the company to understand better how it approaches relevant risks and to encourage better reporting. In some cases, we may also divest from the company to reduce the fund's exposure to unacceptable risks.

Table 7 Scope 1 and 2 emissions by market capitalisation, weighted by market value of fund holdings.[1]
Equity portfolio, benchmark index and FTSE Global All Cap. As at 31 December 2019

Sector	Equity portfolio Tonnes CO_2 equivalents per million dollars invested	Benchmark index Tonnes CO_2 equivalents per million dollars invested	FTSE Global All Cap Tonnes CO_2 equivalents per million dollars invested
Basic materials	686	747	801
Consumer goods	54	53	51
Consumer services	95	75	75
Financials	12	12	12
Health care	10	9	9
Industrials	195	209	194
Oil and gas	486	453	453
Technology	17	16	16
Telecommunications	44	46	46
Utilities	888	968	1,612
Weighted total	**129**	**134**	**165**

[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 benchmark index as at 31 December 2019

	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	4,338,734	153
Benchmark index	5,550,128	175
Difference	-1,211,394	-22

We have environmental investments in three main areas: low-carbon energy and alternative fuels, clean energy and energy efficiency, and natural resource management.

Investments

We use sustainability data to identify long-term investment opportunities. We see opportunities in companies that enable more environmentally friendly economic activity.

Environmental mandates

At the end of 2019, we had 62.3 billion kroner invested in shares in 77 companies and 17.1 billion kroner invested in green bonds under dedicated environmental mandates.

Equity investments under the environmental mandates returned 35.8 percent in 2019, while the green bonds returned 3.0 percent. The annualised return on the equity investments since inception in 2010 has been 7.3 percent. The environmental mandates are now managed entirely in-house.

We screen our environmental investments against information supplied by specialist external data providers and is integrated into our sustainability databases. Our goal is to determine to the extent to which our investments are exposed to environmentally friendly activities through their revenue or operations.

We invest in three main areas: low-carbon energy and alternative fuels, clean energy and energy efficiency, and natural resource management. Companies must have at least 20 percent of their business in one of these areas to be included in our environmental universe. These three categories also largely coincide with the UN Sustainable Development Goals for climate, clean energy and resource management.

Low-carbon energy and alternative fuels

Power generation and transport are major contributors to carbon emissions. Technological advances in these areas can significantly reduce global emissions. We are increasingly seeing national and local authorities publishing plans to be carbon-neutral and reach other climate targets by 2030–2050. There is also considerable interest from companies in buying renewable energy directly from producers on long-term contracts.

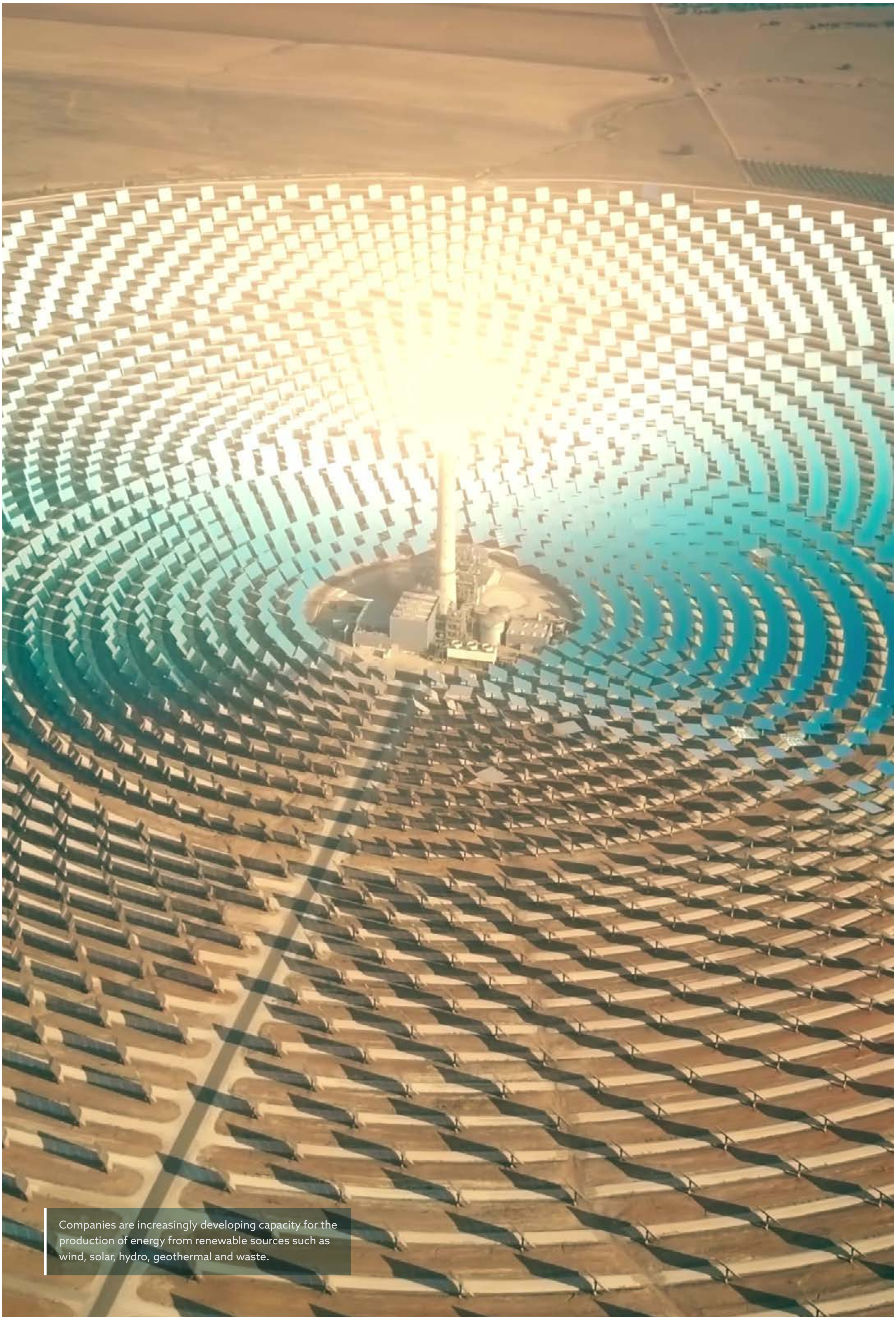
Companies operating in these segments include Engie SA, Eversource Energy and EDP SA.

Clean energy and energy efficiency

Investments in solutions to climate challenges have traditionally been made mainly in energy production and concentrated on clean and renewable energy. More recently, opportunities on the demand side have begun to attract more attention.

The transport industry is making progress, partly through more efficient traditional combustion engines and hybrid technologies. Major advances are also being made in electric vehicles. Thanks to technological innovations and investment, we are now seeing a strong rise in the number of electric models coming to market. Demand for energy efficiency technology in construction and industry has increased. Substantial reductions in energy consumption can be achieved through better insulation, lighting, heating and ventilation systems, as well as automation and solutions that control these processes.

Companies operating in these segments include Infineon Technologies AG, Omron Corp and Eaton Corp PLC.



Companies are increasingly developing capacity for the production of energy from renewable sources such as wind, solar, hydro, geothermal and waste.

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 heavy investment, 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 are two ways in which waste can be a resource. One notable example is the collection of methane gas from landfills. Efficient land management and agricultural production are also needed to ensure availability of food for a growing population while limiting negative environmental impacts.

Companies operating in these segments include West Fraser Timber Co Ltd, Severn Trent PLC and Tetra Tech Inc.

Table 9 Return on the environment-related equity mandates, funding and other return series. Annualised data, measured in the fund's currency basket. Percent

	Since 01.01.2010	Last 5 years	Last 3 years	2019
Return on the environment-related equity mandates	7.3	11.5	14.9	35.8
Return on the funding of the environment-related equity mandates [1]	4.4	7.5	8.7	21.1
Return on the FTSE Environmental Technology 50 index	5.6	8.8	12.7	33.0
Return on the FTSE Environmental Opportunities All-Share index	11.4	11.2	13.5	31.2
Return on the MSCI Global Environment index	8.9	9.3	12.1	24.3
Return on the benchmark index for equities	9.6	8.7	10.8	25.7

[1] The funding of the environment-related equity mandates includes dedicated allocation to environment-related equity mandates in the reference portfolio.

Table 10 Top ten equity holdings in the low-emission energy and alternative fuel segment in the fund's environmental portfolio as at 31 December 2019

Company	Country	FTSE sector	Millions of kroner	Share of portfolio Percent
Iberdrola SA	Spain	Utilities	4,496	7.2
Sempra Energy	United States	Utilities	4,471	7.2
NextEra Energy Inc	United States	Utilities	4,448	7.1
Linde PLC	United States	Basic materials	2,359	3.8
National Grid PLC	United Kingdom	Utilities	1,416	2.3
EDP – Energias de Portugal SA	Portugal	Utilities	1,235	2.0
Enel SpA	Italy	Utilities	1,186	1.9
Engie SA	France	Utilities	1,173	1.9
SSE PLC	United Kingdom	Utilities	990	1.6
Edison International	United States	Utilities	598	1.0

Table 11 Top ten equity holdings in the clean energy and efficiency technology segment in the fund's environmental portfolio as at 31 December 2019

Company	Country	FTSE sector	Millions of kroner	Share of portfolio Percent
Daikin Industries Ltd	Japan	Industrials	2,396	3.8
Keyence Corp	Japan	Industrials	2,118	3.4
Legrand SA	France	Industrials	2,036	3.3
Thermo Fisher Scientific Inc	United States	Health care	1,971	3.2
Eaton Corp PLC	United States	Industrials	1,770	2.8
Siemens Gamesa Renewable Energy SA	Spain	Oil and gas	956	1.5
Infineon Technologies AG	Germany	Technology	873	1.4
Tesla Inc	United States	Consumer goods	770	1.2
Dassault Systèmes SE	France	Technology	703	1.1
TE Connectivity Ltd	United States	Industrials	643	1.0

Table 12 Top ten equity holdings in the natural resource management segment in the fund's environmental portfolio as at 31 December 2019

Company	Country	FTSE sector	Millions of kroner	Share of portfolio Percent
Waste Connections Inc	Canada	Industrials	2,080	3.3
DS Smith PLC	United Kingdom	Industrials	2,008	3.2
LKQ Corp	United States	Consumer goods	1,763	2.8
Koninklijke DSM NV	Netherlands	Basic materials	1,333	2.1
Xylem Inc/NY	United States	Industrials	1,160	1.9
Tetra Tech Inc	United States	Industrials	924	1.5
Aqua America Inc	United States	Utilities	880	1.4
West Fraser Timber Co Ltd	Canada	Basic materials	786	1.3
Copart Inc	United States	Consumer services	775	1.2
Advanced Disposal Services Inc	United States	Industrials	643	1.0

Energy from waste and making good use of organic materials are two ways in which waste can be a resource.

Divestments

There are companies in which we choose not to invest. This includes those that violate fundamental ethical norms or impose substantial costs on society through their operations. By not investing in these companies, we reduce our exposure to unacceptable risks.

The Ministry of Finance has issued ethically motivated guidelines for observation and exclusion of companies from the fund. The fund must not be invested in companies that produce certain types of weapon, base their operations on coal, or produce tobacco. Nor may the fund be invested in companies whose conduct contributes to violations of fundamental ethical norms. The Ministry of Finance has set up an independent Council on Ethics to make ethical assessments of companies. The Council on Ethics sends its recommendations to Norges Bank, which then makes the final decision on exclusion, observation or active ownership.

Finally, Norges Bank itself may decide to divest from companies that impose substantial costs on other companies and on society as a whole, and so are not long-term sustainable. Companies not considered sustainable often have business models that do not conform to prevailing technological, regulatory or environmental trends.

Ethical exclusions

Norges Bank makes decisions on the observation and exclusion of companies after receiving a recommendation from the Council on Ethics. The Council on Ethics has five members and a secretariat. Norges Bank and the Council on Ethics exchange information regularly and co-ordinate contact with the companies in which we are invested. Norges Bank excluded four companies and revoked the exclusion of seven companies in 2019.

Product-based exclusions

The fund must not invest in companies which themselves, or through entities they control, manufacture weapons that violate fundamental humanitarian principles through their normal use, or sell weapons or military materiel to certain countries. Nor may the fund invest in companies that produce tobacco. There is also a product-based coal criterion that applies to companies in two categories: mining companies that derive 30 percent or more of their revenue from the production of thermal coal, and power companies that derive 30 percent or more of their revenue from coal-based power production.

In addition, the Ministry of Finance expanded the coal criterion in 2019 to include mining and power companies that produce more than 20 million tonnes of thermal coal per year or have coal-based power generation capacity of more than 10,000 MW, regardless of total revenue or total power output.

Two coal companies were excluded in 2019, while two exclusions under the product criteria were revoked. A total of 104 companies that produce certain types of weapon, tobacco or coal, or use coal for power production, are currently excluded from the fund.

Ethical decisions in 2019

Category	Criterion	Number in 2019	Companies in 2019	Total 2012-2019
Exclusion	Thermal coal mining or coal-based power production	2	Evergy Inc, Washington H. Soul Pattinson & Co Ltd	69
	Production of specific weapon types	0	0	18
	Production of tobacco	0	0	17
	Severe environmental damage	1	Halcyon Agri Corp Ltd	15
	Contributions to climate change	0	0	0
	Human rights violations	2	Texwinca Holdings Co, G4S PLC	5
	Gross corruption	0	0	2
	Other particularly serious violations of fundamental ethical norms	0	0	2
	Serious violations of the rights of individuals in situations of war or conflict	0	0	2
	Severe environmental damage and human rights violations	0	0	4
Observation	Thermal coal mining or coal-based power production	0	0	14
	Severe environmental damage	0	0	1
	Human rights violations	0	0	3
	Gross corruption	0	0	2
	Severe environmental damage and human rights violations	0	0	1
Revoked exclusions	Production of specific weapon types	1	General Dynamics Corp	3
	Production of tobacco	1	Grupo Carso SAB de CV	1
	Severe environmental damage	2	Rio Tinto Ltd, Rio Tinto PLC	2
	Human rights violations	2	Walmart Inc, Wal-Mart de Mexico SAB de CV	2
	Other particularly serious violations of fundamental ethical norms	1	Nutrien Ltd	3
Observation ended	Gross corruption	1	Petroleo Brasileiro SA	2

Conduct-based exclusions

Companies may also be excluded if there is an unacceptable risk of conduct considered to constitute a particularly serious violation of ethical norms. Norges Bank bases its decisions on an assessment of the probability of future norm violations, the severity and extent of the violations, and the connection between the violation and the company in which the fund is invested.

Norges Bank 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 time frame. Before Norges Bank takes a decision to exclude a company, it must consider whether other measures, such as active ownership, might be more suited to reduce the risk of continued norm violations, or whether such alternative measures may be more appropriate for other reasons.

In 2019, three companies were excluded on the grounds of conduct considered to constitute particularly serious violations of ethical norms, while five exclusions under the conduct criteria were revoked, and Petroleo Brasileiro SA was removed from observation for corruption risks.

A total of 30 companies are currently excluded due to their conduct.

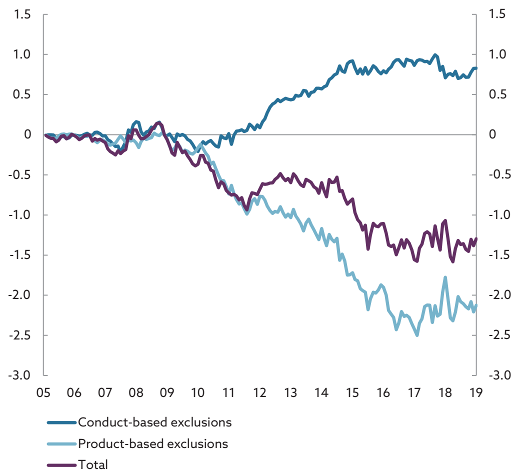
Impact on the fund's equity returns

When companies are excluded from the fund based on ethics, they are also removed from the benchmark index.

Product-based exclusions have reduced the cumulative return on the equity benchmark index by around 2.1 percentage points, or 0.07 percentage point annually. The exclusion of some weapons manufacturers is the primary reason for the reduction in returns, but the exclusion of tobacco producers has contributed as well.

Conduct-based exclusions have increased the cumulative return on the equity benchmark index by around 0.8 percentage point, or 0.03 percentage point annually.

Chart 10 Return impact of equity benchmark index exclusions relative to an unadjusted index. Measured in dollars. Percentage points



Since 2006, the equity benchmark index has returned 1.3 percentage points less than it would have done without any ethical exclusions. On an annualised basis, the return has been 0.04 percentage point lower.

Risk-based divestments

In 2019, we divested from 42 companies following assessments of environmental, social and governance risks. Altogether, we have divested from 282 companies since 2012.

We integrate analysis of environmental, social and governance issues into our risk management. This may result in divestment from companies where we see particularly high long-term risks. This might, for example, be where a company could end up paying fines or being excluded from markets on account of irresponsible business practices, or being outcompeted by others that manage these risks better. There may also be indirect risks, with companies' operations having negative

Table 13 Contribution to return impact of equity benchmark index exclusions by exclusion criterion as at 31 December 2019. Market value in billions of kroner. Contribution measured in dollars. Percentage points

Criterion	Number of excluded companies from benchmark[1]	Market value in benchmark if not excluded	2019	2006–2019 annualised
Product-based exclusions	**104**	**198**	**0.06**	**-0.07**
Production of specific weapon types	18	81	-0.07	-0.05
Production of tobacco	17	57	0.04	-0.01
Thermal coal mining or coal-based power production	69	60	0.08	0.00
Conduct-based exclusions	**30**	**45**	**-0.03**	**0.03**
Human rights violations	5	21	-0.01	-0.01
Serious violations of the rights of individuals in situations of war or conflict	2	0	0.00	0.00
Severe environmental damage	15	23	-0.02	0.03
Gross corruption	2	1	-0.01	0.00
Other particularly serious violations of fundamental ethical norms	2	0	0.00	0.00
Severe environmental damage and human rights violations	4	0	0.00	0.00
Total	**134**	**243**	**0.03**	**-0.04**

[1] Includes companies that are not in the benchmark universe.

externalities for society and undermining sustainable economic development in the longer term.

We wish to reduce our exposure to such companies over time and would rather invest in companies with more sustainable business models. Risk-based divestments are one way of doing so.

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

Our diversified portfolio requires us to take a systematic approach to risk-based divestment. Many of the topics and industries covered by our divestment analyses are also addressed in our ongoing work on standard setting and active ownership. Risk-based divestment is often the last resort after other possibilities have been considered but deemed insufficient.

We do not publish a list of companies from which we have divested, but we are transparent about the criteria underpinning our decisions. We also publish annual holding lists showing all of the companies in our portfolio, which makes it possible to understand changes from one year to the next.

Climate change

We assess the risk associated with carbon emissions from companies in the portfolio. Companies that have operations or value chains with particularly high carbon emissions may be exposed to risks in the event of regulatory changes or other market developments. This may lead to higher operating costs or reduced demand. As part of our work on climate risk, we also look at business activities that could lead to deforestation, which is a significant contributor to carbon emissions.

Coal-based power production and coal mining

Power producers' use of thermal coal as a fuel is an area with particularly high regulatory risks in some markets. More and more countries have introduced targets to reduce carbon emissions from the power industry, especially in the wake of the Paris Agreement.

Like coal-based power producers, mining companies that produce thermal coal for power production will face challenges in the transition to a low-carbon economy.

When we assess companies for divestment, we look at what share of their operations is based on coal, be it the production of thermal coal or the use of this coal in power production. We have chosen to divest from companies where it is difficult to confirm their exposure to coal, but where we believe it to be above a certain threshold. Our analysis resulted in divestment from 16 power producers and 12 mining companies in 2019.

Carbon intensity

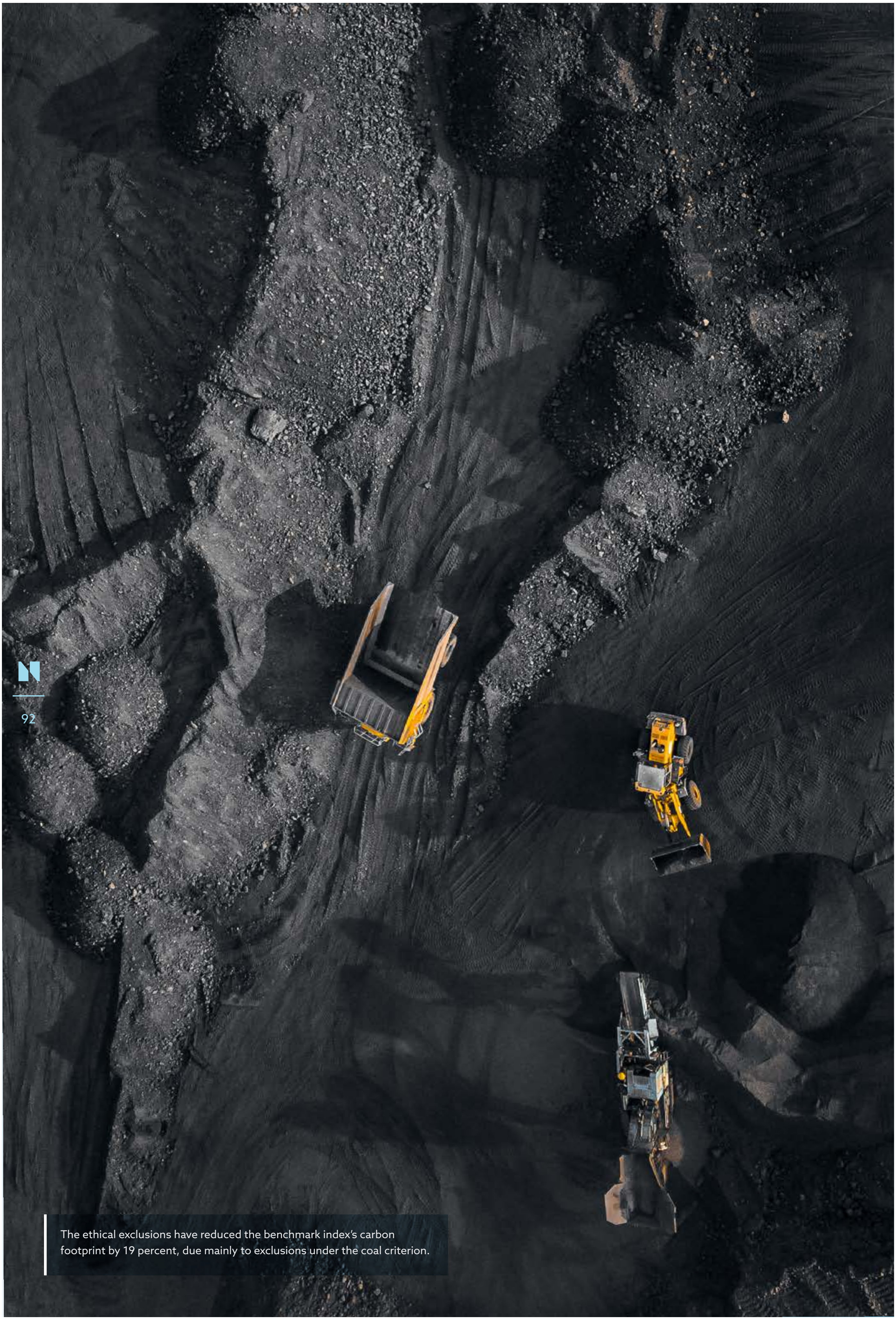
Our analysis of climate risk in the portfolio includes companies' carbon intensity, i.e. greenhouse gas emissions in relation to revenue. Carbon intensity may be a useful factor when analysing multiple companies operating in the same industry or with similar business models, because it says something about how energy-efficient their operations are, which in turn says something about the costs and risks associated with that business model.

In 2019, we looked at a selection of companies in the portfolio with a substantially higher carbon intensity than other companies in the same industry. This was an important element in a review of current investments in, and previous divestments from, companies engaged in cement production. However, no further divestments were made on the grounds of carbon intensity in 2019.

Palm oil

Deforestation has significant environmental and social consequences. Forests are an important part of the ecosystem and help maintain biodiversity, store carbon and produce oxygen. In some regions, deforestation is one of the main sources of carbon emissions and can also be a threat to the local population's human and indigenous rights. There is a broad consensus that the production of palm oil is a significant contributor to tropical deforestation.

When considering companies for divestment, we focus on those that operate palm oil plantations in Malaysia and Indonesia, and have palm oil production as a significant part of their business. We also look at whether companies have been certified by the Roundtable on Sustainable Palm Oil, or plan to become certified. In 2019, we reviewed current investments in, and previous divestments from, companies exposed to palm oil production. No further divestment decisions were made on the basis of this analysis in 2019.



The ethical exclusions have reduced the benchmark index's carbon footprint by 19 percent, due mainly to exclusions under the coal criterion.

Risk-based divestments in 2019

Expectation	Theme	Criteria	2019
Climate change	Coal-based power production	Relevant percentage of business mix allocated to electricity production Coal at relevant percentage of fuel-mix	16
	Thermal coal mining	Owns/operates thermal coal mines Relevant business mix allocated to thermal coal extraction	12
Anti-corruption	Anti-corruption	Exposure to high-risk sectors and markets Indications of insufficient risk management related to corruption and corporate governance	1
Human rights	Human rights	Exposure to high-risk sectors and markets Indications of insufficient risk management related to human rights, labour rights or health, safety and environment	8
Other	Other	Activities exposed to unacceptably high risk from an environmental, social or governance perspective but not linked to any of our Expectation documents.	5

Anti-corruption

Failure to address governance risks can lead to production stoppages and fines, loss of contracts and reputational damage for companies. In 2019, we continued to assess significant governance issues in our work on risk monitoring and risk-based divestments.

As a result of our analysis in this area, we divested from one company with high exposure to corruption risks and signs of inadequate management of this exposure. Examples of such signs include documented incidents relating to corruption or governance.

Human rights

We assess companies' exposure to social risks in areas such as human rights, labour rights, and health and safety. In some cases, we find that companies with high inherent risk exposure have documented incidents indicating possible violations of human rights or poor management of health and safety. The risk of companies being involved in further incidents is deemed excessive in some cases, and we chose to divest from eight companies in 2019.

Other unacceptable risks

In addition to the areas covered by our expectation documents, we monitor other factors that may expose companies in our portfolio to unacceptable risks. This screening has picked up five such companies, and we have therefore chosen to divest from them.

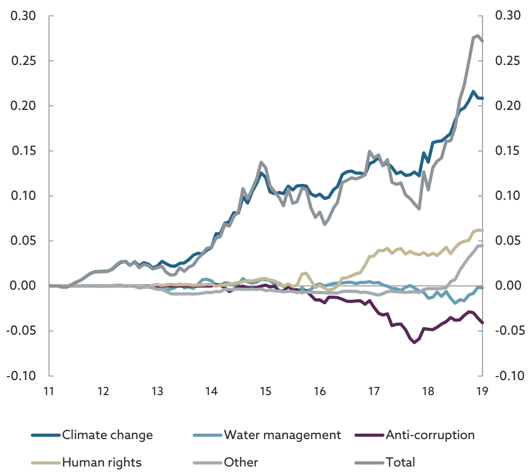
Impact on the fund's equity returns

The purpose of our risk-based divestments is to reduce our exposure to companies operating in ways that are not considered sustainable. In addition to reducing risk, these divestments can affect returns on both the equity portfolio and the equity reference portfolio. When we perform risk-based divestments, the companies in question are also removed from the fund's equity reference portfolio. We can measure the impact of these divestments on the fund's equity returns by comparing the equity reference portfolio with and without risk-based divestments.

Since 2012, risk-based divestments have increased the cumulative return on the equity reference portfolio by around 0.27 percentage point, or 0.02 percentage point annually.

Over time, risk-based divestments linked to climate change and human rights have increased the cumulative return on the equity reference

Chart 11 Return impact of risk-based divestments on the reference portfolio for equities, compared to a portfolio not adjusted for risk-based divestments. Measured in dollars. Percentage points



portfolio by 0.21 and 0.06 percentage point respectively. Risk-based divestments linked to anti-corruption have decreased the cumulative return on the equity reference portfolio by 0.04 percentage point, while divestments linked to water management have had a negligible impact on the return.

There are many factors that influence market developments in general and the share prices of individual companies. The impact of companies' approaches to environmental, social and governance issues is difficult to isolate and measure in the short term. At the same time, we believe that companies that integrate these issues into their strategy, risk management and reporting could contribute positively over time to the fund's return and to economic development in general.

The aim of our exclusions and divestments is to avoid investing in companies that produce certain types of products or are responsible for violations of ethical principles, and to reduce the fund's exposure to other unacceptable risks. This is the final stage in our responsible investment management. Our objective is to manage and build financial wealth for future generations, and all parts of our responsible investment management are to further this objective.

Table 14 Contribution to return impact of equity reference portfolio risk-based divestments as at 31 December 2019. Market value in billions of kroner. Contribution measured in dollars. Percentage points

Expectation	Number of companies divested[1]	Market value in the reference portfolio if not sold	2019	2012–2019 annualised
Climate change	170	12	0.02	0.01
Water management	46	5	0.01	0.00
Anti-corruption	23	8	0.01	0.00
Human rights	29	5	0.01	0.00
Other	14	1	0.03	0.00
Total	**282**	**32**	**0.09**	**0.02**

[1] Includes companies that are not in the reference portfolio.

Responsible investment in the management mandate

Chapter 1. General provisions

§ 1-2. The management objective

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

§ 1-3. General management framework

3 Responsible investment management shall be an integral part of the management of the investment portfolio, cf. chapter 4. A good long-term return is considered dependent on sustainable development in economical, environmental and social terms, as well as well-functioning, legitimate and efficient markets.

4 The Fund shall not be invested in companies excluded pursuant to the provisions in the Guidelines for Observation and Exclusion from the GPFG.

§ 1-4. Advisory duty and right to express an opinion, etc.

5 The Bank shall contribute to research with the aim of developing greater knowledge of matters relevant to the investment portfolio's risk and return in the long term, including research within responsible investment management. The Executive Board shall establish guidelines for this work. The Ministry shall be informed of plans for such research and given an opportunity to comment.

Chapter 4. Responsible investment management

§ 4-1. Chapter 4. Responsible management activities

The Bank shall seek to establish a chain of measures as part of its responsible management activities.

§ 4-2. Responsible management principles

1 The Bank shall establish principles for the responsible management of the investment portfolio. The principles shall be presented to the Ministry at least three weeks prior to approval.

2 In designing the principles pursuant to the first paragraph, the Bank shall emphasise the long-term horizon for the management of the investment portfolio and that the investment portfolio shall be broadly diversified.

3 The principles shall be based on the considerations of good corporate governance and environmental and social conditions in 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 instruments to support them shall be published, cf. section 4-1 and section 6-1, fourth paragraph, letter h.

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

§ 4-3. Contribution to development of international standards

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

2 The Executive Board shall establish guidelines for the Bank's work pursuant to the first paragraph, including for membership of, or corresponding affiliation to, organisations or alliances, and for contact with authorities in other countries. The guidelines shall be presented to the Ministry at least three weeks prior to approval.

§ 4-4. Environment-related investments

1 The Bank shall establish mandates for environment-related investments. The market value of the environment-related investments shall normally be in the range of NOK 30-120 billion.

2 The environment-related investment mandates shall be directed towards environmentally-friendly assets or technology, including renewable energy, energy efficiency, carbon capture and storage, water technology and environment-related services such as waste and pollution management, etc.

§ 4-5. Decisions on exclusion and observation

The Executive Board 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 the revocation of such decisions, cf. section 2-1, third paragraph.

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