



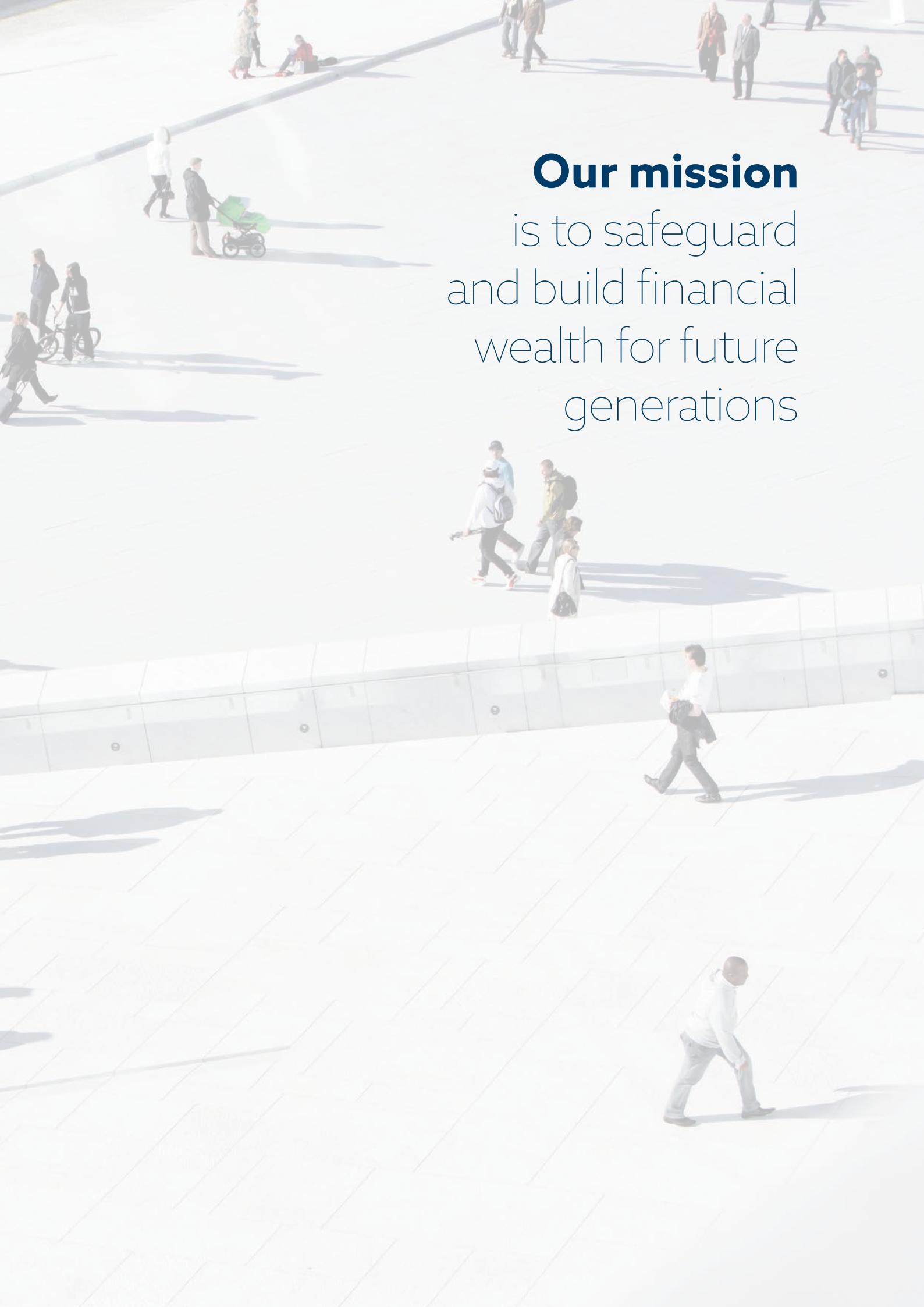
NORGES BANK  
INVESTMENT MANAGEMENT

# RESPONSIBLE INVESTMENT

GOVERNMENT  
PENSION FUND  
GLOBAL

/2016





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

# Contents

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2016

1

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## INTRODUCTION

1.1 CEO of Norges Bank Investment Management	4
1.2 Main pillars	6
1.3 Purpose	11

2

---

## STANDARD SETTING

2.1 Principles and expectations	14
2.2 Standards and practices	17
2.3 Research and data	22

# 3

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## **OWNERSHIP**

3.1 Voting	32
3.2 Interaction with companies	42
3.3 Environmental investments	58

# 4

---

## **RISK MANAGEMENT**

6.1 Risk monitoring	68
6.2 Risk-based divestments	76
6.3 Ethical exclusions	84



**Yngve Slyngstad**

Chief Executive Officer of  
Norges Bank  
Investment Management

# Standards for the long term

**Good corporate governance, sustainable business practices and well-functioning markets are in the fund's long-term interest. Appropriate and consistent standards across sectors and markets are important in this regard.**

We are a long-term investor with a mission to safeguard our investments. We seek to promote and improve global standards for good corporate governance, long-term business practices, and sustainable market outcomes. 2016 saw a number of policy developments we welcome as an investor. It was the first year the updated G20/OECD Principles of Corporate Governance and UN Sustainable Development Goals were in effect. In 2016, we published our human rights expectations towards companies.

We are a large global investor with minority ownership in almost 9,000 companies. Our ownership activities build on international standards. In 2016, we expanded the publication of our voting intentions, and saw a significant move in Sweden in support of our position on individual count in board elections.

We believe our ownership efforts on corporate governance will contribute to higher return over time.

We consider  
long-term investment  
risk across sectors  
and markets

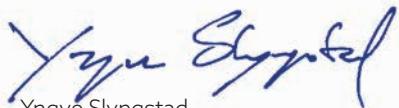
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5

We consider long-term investment risk across sectors and markets. The climate challenge stands foremost as a future risk of unknown magnitude. We have enhanced our analysis of portfolio carbon emissions, funded research projects, and we removed coal companies and electricity producers with high usage of coal from the fund. In 2016, we improved our data for a range of environmental, social and governance risks.

This publication presents an overview of Norges Bank Investment Management's responsible investment activities in 2016. We hope you will find it useful to reflect on the breadth of challenges we face as an investor.

Oslo, 7 March 2017



Yngve Slyngstad

CEO of Norges Bank Investment Management



# Main pillars

## **STANDARD SETTING**

We aim to contribute to the development of standards and practices that will serve the long-term interests of the fund. Our principles, expectations and positions build on internationally recognised standards. We make submissions and prioritise corporate governance and sustainability topics in defined initiatives to contribute to improved disclosure, standards and practice development. Research increases understanding of factors that can affect future investment risk and return. We promote research to inform market standards and practices, data development and our own responsible investment priorities.

## **OWNERSHIP**

We are an active owner and use our voting rights to safeguard the fund's investments. This includes voting to promote sustainable development and good corporate governance. We aim to vote at every shareholder meeting. Information from our portfolio managers is integrated into our voting decisions. As a large, long-term investor, we engage directly with companies' board and management. Our ownership efforts are based on our principles, expectations and positions. We emphasise governance and sustainability engagement topics we deem relevant and follow up on specific issues as they arise. Through our environmental investments, we dedicate capital to environmental technologies.

7

## **RISK MANAGEMENT**

We monitor and analyse risks from environmental, social and governance issues as part of our overall risk management. These efforts cover many topics that are also addressed through standard setting and ownership. Our approach means that we perform general assessments of topics and sectors on an ongoing basis, before going into specific issues in greater depth. To support this work, we emphasise development of high-quality data and corporate disclosure. We continue to enhance our databases of non-financial data. Risk assessments may lead to adjustments to the portfolio and divestments. Our divestments follow from the application of our integrated risk model.



8





# Purpose

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**Our mission is to safeguard and build financial wealth for future generations. We manage the fund responsibly in order to support the investment objective of the highest possible return with a moderate level of risk. Responsible investment is integrated into our investment strategy.**

The fund is owned by the people of Norway. Norges Bank Investment Management's mission is to safeguard financial wealth for future generations. Our management mandate requires us to integrate responsible investment into the management of the fund.

## LONG-TERM RISK AND RETURN

We have an inherently long investment horizon. The fund is invested across many markets, sectors and countries in order to capture global value creation and diversify risk. Well-functioning, legitimate and efficient markets, as well as good corporate governance and sustainable business practices, are in the fund's interest.

11

Responsible investment management supports the objective of the fund. We see it as a matter of managing the nation's financial wealth responsibly and efficiently. Our investment management takes account of environmental, social and governance issues that could have a significant impact on the fund's performance over time. We seek to further the long-term economic performance of our investments and reduce financial risks associated with the environmental, social and governance practices of companies we have invested in.

## OUR PRIORITIES

Three pillars underpin our responsible investment efforts: standard setting, ownership and risk management.

We have published a set of expectations, positions and voting guidelines to communicate our views on a range of corporate governance and sustainability matters. These form the basis for our ownership efforts. We aim to contribute to the development of standards and practices across markets and sectors that will serve the long-term interests of the fund. We make submissions and interact with international

## RECOGNISED PRINCIPLES AND STANDARDS

Norges Bank Investment Management recognises a set of key international principles and standards. We base our practice on these and participate in their further development.

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

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

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

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

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

bodies, regulators, initiatives, companies, industry partners, academics and our stakeholders. We prioritise governance and sustainability topics in defined initiatives to advance disclosure, standards and practices over time.

We support academic research to improve the theoretical and empirical foundations for our work. This, in turn, can inform the development of standards and practices, data development and our own responsible investment priorities. In our analyses, we depend on data on environmental, social and governance topics. Consistent and high-quality non-financial disclosure is therefore of particular interest to us. The development of databases of such information is also a priority. Additionally, we have chosen to concentrate on corporate practices and disclosure within selected areas of sustainability in our work: children's rights, climate change and water management. This has given us a foundation for continued efforts to assess company strategy within these topics.

Our ambition is to vote at every shareholder meeting of companies we have invested in. Our ownership strategies are premised on good corporate governance and well-functioning boards. With holdings in around 9,000 companies, we cannot have extensive or in-depth knowledge of every company in the portfolio. We emphasise governance and sustainability engagement topics we deem relevant and follow up on specific issues as these arise. We also integrate company-specific investment knowledge and concentrate further on topics and companies where we believe there is the greatest potential to safeguard value for the fund. We make additional investments in environmental technologies through our environment-related mandates.

Managing environmental, social and governance risks in the portfolio is an important aspect of safeguarding our investments. We take a systematic approach to risk monitoring. Our approach means that we perform general assessments of topics and sectors on an ongoing basis, before going into specific issues in greater depth. Our risk monitoring efforts cover many topics that are also addressed through standard setting and ownership. We may divest from individual companies following risk assessments.

This publication concentrates on responsible investment management within the mandate's return objective, as operationalised by Norges Bank Investment Management. The Ministry of Finance has also issued Guidelines for Observation and Exclusion from the Government Pension Fund Global. These guidelines are part of the formal framework for Norges Bank's management of the fund and are ethically motivated. A separate and independent Council on Ethics has been established by the Ministry of Finance to give advice based on these guidelines. One exception is the 2016 coal criterion. Norges Bank can decide to exclude companies under the 2016 criterion independently of any recommendation from the Council. In our responsible investment management, we aim to contribute to coherent and consistent operationalisation of the guidelines.

# Principles and expectations

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**We have published a set of principles, expectations, guidelines and positions informing our responsible investment management. We develop these on an ongoing basis, and they form the basis for our priorities and activities.**

The Executive Board has laid down principles for responsible investment management at Norges Bank. Norges Bank Investment Management, in turn, expresses expectations and priorities in multiple forms, such as expectations directed at companies, voting guidelines and positions on single issues.

## **EXECUTIVE BOARD PRINCIPLES**

The principles clarify that responsible investment management is to support the objective of the fund by furthering the long-term economic performance of our investments and reducing financial risks associated with the environmental and social practices of companies in which we have invested. The principles constitute the Executive Board's guidelines for Norges Bank Investment Management's responsible investment management.

## **EXPECTATION DOCUMENTS**

Since 2008, we have published expectation documents to support our ownership efforts. The purpose of our expectation documents is to set out how Norges Bank Investment Management, as a financial investor, expects companies to address specific topics in their business practices. The expectations form part of a broader set of strategies and activities we employ within our responsible investment management. The expectations serve as a starting point for our interaction with companies on climate change strategy, water management, human rights and children's rights. The documents cover both relevant risks and opportunities facing companies.

Our expectations are aimed primarily at company boards. Our underlying expectation is that boards assume responsibility for corporate strategy concerning relevant sustainability issues. The board should

effectively guide, monitor and review company management. We analyse risks and opportunities to investments. In this, we depend on high-quality information from companies.



**Our expectations are aimed primarily at company boards**

Another important premise for our work is therefore appropriate company disclosure on the expectation topics, in line with applicable reporting standards and initiatives.

#### **New expectation document on human rights**

In February 2016, we published an expectation document on human rights. The UN Guiding Principles establish a normative basis for company strategy on human rights. The principles also provide a reference point for businesses in understanding what human rights are, how their own activities and business relationships may affect these, and how to ensure that businesses address the risk of adverse impacts on human rights.

In our expectations, we emphasise how companies should respect human rights in their own operations, as well as in supply chains and business relationships. Respecting human rights is, in our view, an inherent part of good business practice and risk management. The responsibility to respect human rights applies to all companies. It is the duty of companies themselves to decide how and to what extent the UN Guiding Principles and other relevant guidelines apply to their operations.

Our expectations imply that companies should make a commitment, and, where relevant, define a strategy and adopt policies regarding the respect of human rights. We also expect companies to have adequate processes in place to assess and address the risk of adverse impacts from their operations on human

rights. They should publicly disclose information on their human rights strategy, policies, risks and impact assessments, as well as engagement with stakeholders and policy makers.

Information on human rights can be sensitive for both operations and affected stakeholders. We nevertheless encourage companies to be transparent about the dilemmas they face, and the priorities they set, in their efforts to respect human rights.

#### **VOTING GUIDELINES**

We have developed guidelines as the foundation for our voting decisions. These guidelines provide companies with the overarching rationale for our decision-making when we vote. The guidelines state, among other things, that we will vote at all shareholder meetings unless there are significant practical obstacles to doing so, and that we will publish our voting decisions. We aim to vote in ways that further the fund's long-term interests. As a responsible investor, we emphasise long-term value creation, sustainable business practices, board accountability, shareholder rights, equal treatment of shareholders and transparent corporate communication.

#### **POSITION PAPERS**

To support our ownership activities, we issue position papers that publicly clarify our stance on selected corporate governance issues. Our positions have a bearing on questions concerning individual companies as well as the development of wider market practices.



# Standards and practices

**The development of principles and standards for market participants is important for the management of the fund. We engage in dialogue, make submissions and launch initiatives to promote good practices and well-functioning markets.**

As a market participant, Norges Bank Investment Management aims to contribute to the development of standards that will serve the long-term interests of the fund. We promote sound market practices through interaction with regulators, other standard setters and market participants. We also participate in relevant international fora and discussions of issues concerning the formation and setting of standards. We prioritise selected governance and sustainability topics through specific initiatives across the portfolio. These initiatives are typically closely related to our ownership or risk management activities.

## 2016 SUBMISSIONS AND INTERACTION

In 2016, we submitted nine responses to consultations related to responsible investment management. All submissions are published on our website: [www.nbim.no](http://www.nbim.no).

## International standards

We engaged with the OECD on various topics concerning its Guidelines for Multinational Enterprises in 2016. The OECD undertakes work to create practical sectoral applications of the recommendations in the guidelines. We aim to support these efforts and continued to provide feedback to the OECD Secretariat through our participation in the OECD Advisory Group on responsible business practices and the financial

sector. The OECD guidelines focus on instances where companies themselves cause or contribute to an adverse impact, or where they are linked to such impacts, most often exemplified in a supply chain context. The relationship between an investor, through ownership of shares bought in a secondary market, and an investee company, is fundamentally different from supply or other value chain relationships. The OECD project seeks to provide further guidance on aspects of this topic.

In August, we responded to a PRI consultation on a sustainable financial system, principles and impact. In our submission we supported the PRI's ambition to promote research into the sustainability of financial markets. Such an undertaking may over time provide a basis for new insights into the relationship between sustainability and investment risks and returns. We also emphasised that we, as an investor, welcome the Sustainable Development Goals. These goals may give rise to potential investment opportunities and changes to investment risks. We argued against measuring investor impact towards these high-level policy goals through the PRI reporting framework. Investors may benefit from, and seek ways to promote sustainable development, but they are nevertheless not accountable for ensuring the well-functioning of markets or for outcomes not directly related to their own activities.

In September, we provided feedback on the Financial Stability Board's proposed peer review on the implementation of the G20/OECD Principles of Corporate Governance for financial institutions. Norges Bank Investment Management submitted a statement in support of the peer review. We suggested that the review emphasises the expertise of independent board members, the issue of the combination of

the roles of chairperson and CEO, board members' time commitments, and the board's accountability to shareholders.

#### **Market, industry or topical standards**

We also work with standards covering specific sectors, markets and topics.

Some standards are new or under development. Throughout 2016, we interacted repeatedly with the Financial Stability Board's Task Force on Climate-related Financial Disclosures. For investors, the development of an overarching framework for the reporting and assessment of climate risks is a priority. We believe materiality to be the appropriate starting point for climate-related financial disclosures. In our submission in May, we wrote that we favour a sectoral approach to many disclosure recommendations. This may capture sector-specific complexities better and would avoid unnecessary general disclosure requirements. Finally, we expressed our support for more research into financial climate-related risks, and noted that there may be differences in the sources, timing and channels of such risks for different parts of the financial sector.

An example of an existing global disclosure initiative we support is CDP, formerly known as the Carbon Disclosure Project. In 2016, we engaged with other institutions to improve the relevance of water reporting. We participated in a workshop with institutional investors and companies to discuss a revision of the current CDP water questionnaire so that it also addresses sector specificities. Furthermore, we presented our approach to the water issue at World Water Week in Stockholm, where we emphasised the relevance of appropriate non-financial reporting by companies, particularly on the topics of water management and climate change strategy.

Board independence is a topic we have emphasised over time. We raised this issue with the German Government Commission on Corporate Governance in 2016. We suggested that the corporate governance Kodex should specify recommendations for how independence of individual supervisory board members should be assessed and disclosed. We also suggested that the code specifies how many board members should qualify as independent. The commission issued a consultation on proposed amendments to the Kodex, capturing independence and other corporate governance improvements.

In 2016, we were invited to be part of the Japan Government Pension Investment Fund's newly established Global Asset Owners' Forum. The Japanese fund established the forum as a venue for the exchange of knowledge and opinions on responsible investment with non-Japanese asset owners.

In November, we helped organise a company seminar in Tokyo with around 40 participating companies. The objective of the seminar was to communicate our human rights expectations to companies. The seminar included a panel discussion on responsible investment and investor expectations between representatives of Japanese companies, PRI and Norges Bank Investment Management.

We are a foundation sponsor of the Asian Corporate Governance Association, which aims to promote effective corporate governance practices in Asian markets and companies. During the year, we provided input for the association's advocacy work and attended meetings where specific topics, markets and actions were discussed.

As part of our efforts to support the development of corporate governance practices in emerging markets, we have entered into a sponsorship contract to support the African Corporate Governance Network. 2016 was the first year of the three-year contract. The network was established in 2013 and is still in a build-up phase. It serves as a continent-wide umbrella network for national institutes of board directors and is committed to the improvement of corporate governance practices through codification, education and capacity building. We support the network's administrative functions.

#### **Financial market regulation**

As a long-term investor in listed instruments, the fund is affected by the regulation of financial markets. The fund benefits from corporate transparency on relevant non-financial matters, which may also contribute to efficient price discovery.

In 2016, we addressed financial market regulation and sustainability disclosure in



**In 2016, we addressed financial market regulation and sustainability disclosure in various contexts**

various contexts. We believe consolidation and harmonisation of sustainability reporting around well-founded and recognised frameworks are in the interests of companies and investors alike. To encourage global alignment of reporting requirements,

supranational and national regulators may usefully refer to and, as appropriate, build on the two prevailing sustainability reporting standards, the Global Reporting Initiative and the Sustainability Accounting Standards Board when setting their requirements. This would aid standardisation, contribute to

comparability, and reduce the reporting burden for companies and due diligence complexity for investors.

In February, we submitted a consultation response on the Singapore Stock Exchange's open review of the proposed amendments to sustainability reporting rules for primary-listed issuers. We supported the exchange's initiative to strengthen sustainability reporting requirements and encouraged enhanced transparency. We welcomed the introduction of the 'comply or explain' model for disclosure. This will support wider adoption of sustainability reporting across issuers, but give companies flexibility to report on relevant and material sustainability challenges and opportunities specific to their sector or business model. We supported the amendments outlining the board's overall responsibility for strategy and reporting, including on sustainability matters.

In June, we submitted comments on the World Federation of Exchanges draft guidance on sustainability reporting. In markets without sufficient regulatory sustainability reporting requirements, we encouraged stock exchanges to include such reporting as part of their listing requirements to foster improved market practices. We referenced the usefulness of the Integrated Reporting framework in supporting concise and relevant reporting of material factors.

In July, we submitted comments to the US Securities and Exchange Commission specifically on the disclosure of sustainability information. We underlined that such disclosure can be important for informed voting and investment decisions. We highlighted our preference for a principles-based approach underpinned by materiality for creating a disclosure framework flexible enough

to address evolving issues. We reiterated our view that the board of directors has the overall responsibility for reporting, while suggesting that the commission could provide further guidance to companies on assessing material sector-specific risks.

### INDUSTRY INITIATIVES

Our ambitions with the initiatives are over time to advance relevant standards, the information available to investors, and industry practices concerning governance and sustainability topics. In 2016, we addressed such topics through three initiatives.

## SUBMISSIONS

Recipient	Topic	Submitted
Singapore Exchange Limited	Response to the consultation paper on sustainability reporting: comply or explain	04.02.16
Task Force on Climate-related Financial Disclosures	Consultation on phase 1 report	02.05.16
Financial Services Agency of Japan	Response to request for comments on issues concerning constructive dialogue between companies and institutional investors	21.06.16
World Federation of Exchanges	Response to the open consultation on the federation's guidance and recommendation	24.06.16
US Securities and Exchange Commission	Response to the commission's concept release on business and financial disclosure required by Regulation S-K	15.07.16
PRI Association	Response to the PRI consultation on a sustainable financial system, principles and impact	18.08.16
Secretariat to the Financial Stability Board	Peer review on corporate governance	09.09.16
Natural Capital Coalition	Finance Sector Supplement to the Natural Capital Protocol	09.12.16
German Government Corporate Governance Commission	Amendments to the Government corporate governance Kodex	14.12.16

### **Environment and mining data initiative**

In 2014, we launched a mining data initiative to expand and improve non-financial data on this sector in a consolidated database. Columbia University continued to work on building this database in 2016. Such information is not readily available. Norges Bank Investment Management has therefore invited mining companies, industry experts and mining industry associations to contribute to the development of the data. The database has been built in an open-source format and will be made available for further research. The datasets include asset-level data, climate and hydrological data, geospatial data, tailings dam data, financial data and regulatory data. An application to quantify asset- or corporate-level water risks from extreme climate events was demonstrated at an academic workshop held at Columbia University in September 2016.

### **Global apparel supply chain initiative**

In January, we signed up to the Social and Labor Convergence Project, an initiative facilitated by the Sustainable Apparel Coalition. The initiative is working on a standard for how companies across the global apparel industry can assess social and labour conditions in their supply chains. This multi-stakeholder initiative seeks to contribute to a more sustainable apparel sector through standardised processes, common tools and potentially certification of companies and their supply chains. The overall objective is to achieve sustained improved working conditions in the global apparel sector.

The initiative includes participation from brands, retailers and suppliers, as well as NGOs, trade associations and academic institutions. We are the first investor to sign up. Through the initiative, we will collaborate with leading companies across the sector. Additionally, part

of our involvement will be to facilitate dialogue with a broader investor group. To this end, we invited some of our peer investors to a workshop on investor expectations on how companies address social and human rights issues in their global supply chains. The workshop will establish the basis for coordinated investor input into the Sustainable Apparel Coalition and the Social and Labor Convergence Project.

Child labour remains an issue in the global apparel supply chain. Our support for the Social and Labor Convergence Project is also relevant to our work on children's rights. Multi-stakeholder collaboration is considered key to advancing the elimination of child labour.

21

### **Business and human rights initiative**

The United Nations Guiding Principles on Business and Human Rights set out companies' responsibility to respect human rights. We have based our expectation document on these principles. Practices for companies' human rights reporting have been developed over time. We support the ongoing development of good practices. In December, we hosted a workshop in London on the implementation of the UN Guiding Principles for representatives of investee companies in the apparel, footwear, food and beverage sectors. The workshop was organised by Shift, a non-profit organisation, which led discussions on various aspects of business and human rights, including reporting, supply-chain challenges and strategies to identify and address salient risks. Shift has published a report summarising the discussions at the workshop on its website.

# Research and data

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**We promote research to increase knowledge and understanding of relationships between environmental, social and governance issues on the one hand, and financial risks and returns on the other. Improved data availability and disclosure practices are long-term priorities for us.**

Norges Bank Investment Management works to improve our understanding of potential links between environmental, social and governance issues and portfolio risk and return. We initiate and support research projects, and collaborate with academic institutions to obtain independent and high-quality analysis. These research projects can contribute to improved market standards and practices, data development and our own responsible investment priorities. As an investor, we benefit from the timely disclosure of high-quality data and access to extensive qualitative and quantitative non-financial information. Our work with non-financial data includes statistics and data concerning country and sector assessments, and data on specific topics such as corporate governance, water stress, climate change and human rights. Through our annual focus area assessments, we gather information on corporate disclosure and carry out analyses on selected topics that are relevant across multiple sectors.

## ACADEMIC RESEARCH PROJECTS

Norges Bank's Norwegian Finance Initiative (NFI) is one channel for supporting research. Through the NFI Research Programme, we aim to facilitate research on topics of particular relevance for the long-term management of the fund, including corporate governance and responsible investment management. We may also initiate and fund specific research projects outside the NFI.

## New research projects in 2016

In 2016, we initiated a new research project with Professor George Serafeim from Harvard Business School to analyse sustainability disclosure and company performance. The research is based on our proprietary datasets on corporate disclosure on climate change, water management and children's rights. These datasets contain a number of disclosure indicators, including company policies and strategies. As a first step, the project will seek to model and examine the determinants of disclosure. The project will also look at relationships between sustainability data and share price or financial performance.

Based on the results of the empirical analysis, the research will provide a set of recommendations about the potential relevance of sustainability data to value creation. It will also assess how Norges Bank Investment Management could improve its non-financial datasets.

Another new project in 2016 was a research grant to fund a project by Professor Cliff Holderness at Boston College. The grant will promote studies of various aspects of the allocation of corporate power between shareholders and management.

## RESEARCH PROJECTS

Project	Topic	Aim	Institution
<b>Corporate influence and governance</b>	Corporate governance	Analyse various aspects of the allocation of corporate power between shareholders and management	Boston College
<b>Climate risks and financial markets (completed in 2016)</b>	Climate risks	Gather group of scholars from finance, macroeconomics, environmental and resource economics to explore the potential impact of climate change on financial markets and hence implications for asset management	University of Oslo Economics Department
<b>Effectiveness of engaged ownership</b>	Corporate governance	Analyse the extent, impact and value of engaged ownership by Standard Life Investments	London Business School in cooperation with researchers at Université libre de Bruxelles and Bocconi University
<b>Environmental and social risks facing mining companies</b>	Environmental and social risks	To study whether and how various environmental, social and regulatory factors may influence profitability in the mining industry across different types of mining operations and geographies	Columbia University Earth Institute Water Center
<b>Environmental risks facing coal companies (completed in 2016)</b>	Environmental risks	Analyse risks facing coal-fired power utilities, thermal coal miners and coal-based energy-processing companies, including a forward-looking assessment of environmental, regulatory and technological risks	University of Oxford Smith School of Enterprise and the Environment
<b>Sustainability disclosure</b>	Disclosure and materiality	Analyse the determinants of disclosure and potential links with financial performance	Harvard Business School

The call for proposals on the financial economics of climate change under the NFI Research Programme ended in June 2016. The call asked for projects to explore the potential impact of climate change on financial markets and asset prices, and any implications for asset management and portfolio choices. The NFI Scientific Advisory Board assessed the proposals. On the basis of the proposals and the advice from the Scientific Advisory Board we decided in autumn 2016 to offer support for two projects involving leading academics at two US institutions. The process to finalise the funding agreements is underway. We envisage the projects will be complementary and include original research, research conferences and published articles to promote the development of academic theory and empirical analysis around climate change risks, financial markets and asset management.

#### **Academic outreach**

In August, Norges Bank Investment Management hosted and chaired a number of sessions at the European Finance Association's annual meeting held in Oslo. One session focused on corporate governance and the understanding of de facto and hidden corporate control and the implications for minority shareholders. Papers were presented by Professors Jason Zinman of the University of New South Wales, Scott Yonker of Cornell University and Stefan Zeume of the University of Michigan.

Norges Bank Investment Management is a contributing participant in the Harvard Law School Program on Corporate Governance and a member of the advisory council for its Institutional Investor Forum. The Program on Corporate Governance seeks to contribute to policy, public discourse and education in the field of corporate governance. It advances this

mission by bridging the gap between academia and practice and by fostering policy-relevant research. During 2016, the programme supported research on corporate governance and convened three conferences on shareholder engagement, activist investor influence and executive compensation.

#### **NBIM Talks**

NBIM Talks are arranged on a quarterly basis. The purpose of these events is to invite external and internal speakers to discuss topics of importance to us as a long-term financial investor.

In December, we hosted an NBIM Talk on the subject of non-financial data. The emphasis was on the relevance of such data to investors and included perspectives from academia and data providers, as well as the investor perspective presented by Norges Bank Investment Management.

#### **DEVELOPMENT OF NON-FINANCIAL DATA**

An important general issue in responsible investment management is to move from words to numbers so that investors can evaluate companies' efforts and better understand risks. Qualitative and quantitative information on material governance and sustainability topics is often referred to as non-financial data.

#### **Databases and sources of information**

We have access to information from external data providers that specialise in non-financial data and analysis. Offerings from external data providers are steadily increasing, in terms of both the number of markets and companies covered and the quality of the data. In our selection of data providers, we concentrate on the underlying data methodologies and operational platform, as well as data quality and

the robustness of the product offering. Academic institutions and other third-party organisations such as NGOs and the media also provide relevant information. We encourage stakeholders to provide non-financial information they believe may be of relevance to our investments.

**We encourage stakeholders to provide non-financial information**

The result of this is that we have increasingly comprehensive databases of non-financial data that span a number of factors at country, sector and company level. In 2016, we continued to enhance our

databases of non-financial data by including increasing amounts of asset-level data where available. We are working on integrating asset-level data from companies across many sectors into our non-financial databases to help us gain a better understanding of environmental, social and governance risks in the portfolio.

#### Focus area assessments in 2016

Through our focus area assessments, we gather information and carry out analyses on selected topics that are relevant across multiple sectors. We have three focus areas dealing directly with corporate disclosure on environmental and social issues: children's rights, water management and climate change.

25

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

We carried out 2,392 company assessments under the focus areas in 2016, of which 1,238 concerned climate change, 600 water management and 554 children's rights. The companies assessed accounted for 36 percent of the equity portfolio's market value at the end of the year.

#### EXAMPLES OF NON-FINANCIAL DATA

Theme	Qualitative information	Quantitative metric
Biodiversity	✓	✓
Carbon	✓	✓
Climate change	✓	✓
Waste	✓	✓
Water	✓	✓
Child labour	✓	✓
Corruption	✓	✓
Health and safety	✓	✓
Human capital	✓	✓
Fossil fuel reserves		✓
Green revenue		✓
Utility plant specifics		✓



26



## CHILDREN'S RIGHTS

The long-term legitimacy of sectors and markets is dependent on operations and products that are ethically acceptable. We expect companies to respect children's rights in line with the United Nations Guiding Principles and incorporate children's rights in strategic planning, risk management and reporting.

We have assessed selected companies exposed to child labour risks since 2008. The companies in question have activities or supply chains in high-risk sectors. In 2016, we further increased our coverage to include a wider selection of companies in high-risk sectors and companies that have operations in high-risk countries. We assessed 554 companies in the basic materials, branded goods, garment production, retail, technology hardware and equipment, and food and beverage sectors. The assessments are based on the companies' most recently reported information.

The companies' reporting was evaluated against ten indicators. The number of companies assessed that had guidelines for managing child labour risk varied from below 30 percent in the food and beverage sector, to close to 60 percent in the technology sector. Companies generally had lower scores for indicators such as systems for monitoring child labour in the supply chain and interaction and collaboration with other stakeholders on the issue of child labour. A difference from previous years' assessments is that companies generally seem to be reporting more on how potential economic impacts of social issues are integrated into business planning, and that this reporting better reflects the sustainability concerns of long-term investors. Our findings revealed variations from sector to sector. A large number of companies did not report on the management of children's rights risks at all.

Good results for children's rights disclosure.  
Examples from various sectors.

Adidas AG

Vale SA

Bayer AG

The Coca-Cola Co

Hennes & Mauritz AB

Mondelez International Inc

Nestlé SA

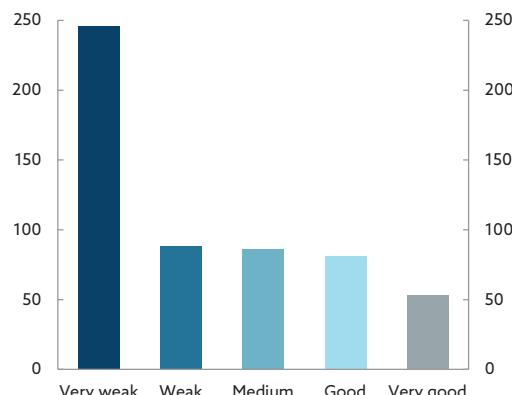
Inditex SA

Nokia OYJ

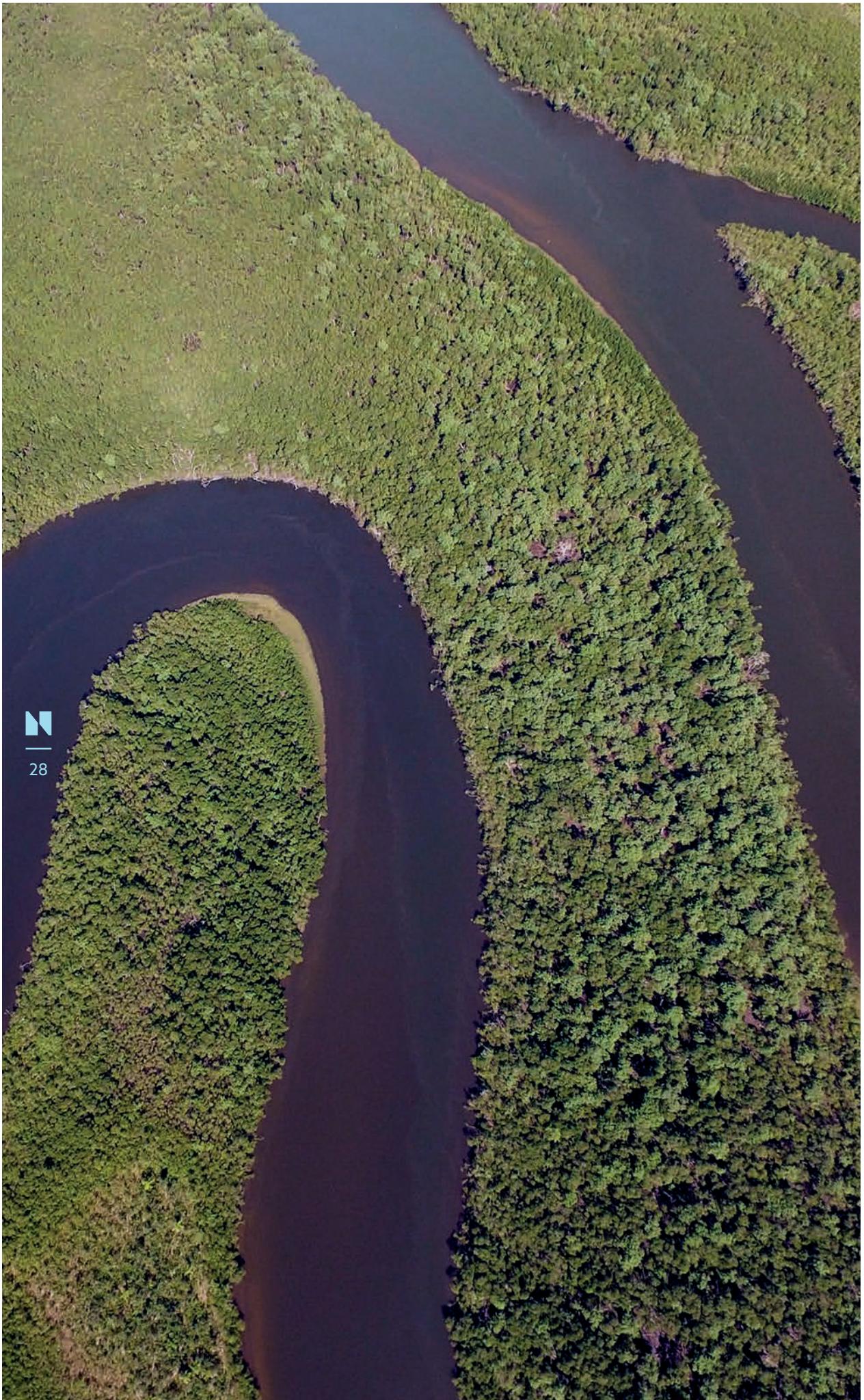
Unilever Plc

27

**Chart 1** Results for companies we assessed on children's rights in 2016. Number of companies



We identified 53 companies that showed very good results on our ten indicators in 2016. Reporting on children's rights was best among large companies in the branded goods, retail and mining sectors. Many of these companies have globally recognised brands and supply chains in countries with a high risk of child labour.



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28

## WATER MANAGEMENT

How companies manage water risks and capitalise on opportunities may drive long-term returns for us as a shareholder. Externalities from unsustainable water use may in themselves present a risk to the portfolio's long-term value. We expect companies to incorporate potential water risks in strategic planning, risk management and reporting.

We have assessed companies exposed to water risks since 2010. In 2016, we assessed 600 companies in the consumer goods, pulp and paper, chemicals, oil and gas, mining and utilities sectors. The assessment was based on the companies' most recently reported information.

The companies' reporting was evaluated against five main indicators. There was considerable variation in the level of reporting. The number of companies that had published analyses of water risks ranged from 64 percent in the consumer goods sector to 76 percent in the electricity and water utilities sectors. There were major differences between companies in terms of information on risk assessments and risk management. The results also varied from sector to sector. Our analysis showed that around 13 percent of companies provided no relevant information on the management of water risks.

We identified 65 companies that showed very good results on our five main indicators in 2016. Consumer goods was the sector where companies had the best reporting on water risks.

Good results for water management disclosure.  
Examples from various sectors

Nestlé SA

Diageo Plc

Harmony Gold Corporation

Newmont Mining Corporation

Exelon Corporation

Endesa SA

UPM-Kymmene OYJ

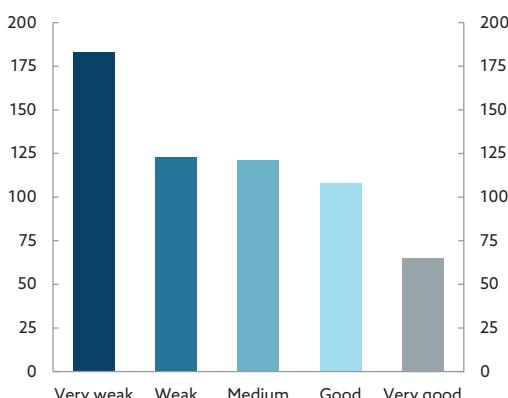
ConAgra Foods Inc

Coca Cola HBC AG

Heineken NV

29

**Chart 2** Results for companies we assessed on water management in 2016. Number of companies



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—  
30



## CLIMATE CHANGE

Climate outcomes may affect company and portfolio returns over time. Climate change may also give rise to business opportunities. We expect companies to plan for relevant climate scenarios and incorporate potential climate risks in strategic planning, risk management and reporting.

We have assessed selected companies exposed to climate risk since 2010. In 2016, we assessed 1,238 companies in eight sectors with particularly high climate risks: basic resources, building materials, chemicals, oil and gas, power generation, automotive, transport and real estate. The assessment was based on data reported to CDP in 2016 and selected supplementary data from Trucost, a supplier of environmental data.

The companies were measured against five main indicators. These included transparency on governance around climate-related risks and opportunities, strategy and risk management, and performance metrics for realised emission reductions. There was considerable variation in the level of reporting of climate risk among both companies and sectors. The number of companies that published analyses of exposure to climate risk ranged from 38 percent in the utilities sector to 53 percent in the chemicals sector.

In 2016, we identified two companies that showed very good results on our climate indicators and 39 with good results. 58 percent of the companies in the selected sectors did not provide information or did not report data to CDP.

Good results for climate change disclosure.  
Examples from various sectors.

Saint-Gobain SA

Johnson Matthey Plc

British Land Company Plc

PSA Group

Newmont Mining Corporation

Engie SA

Iren SPA

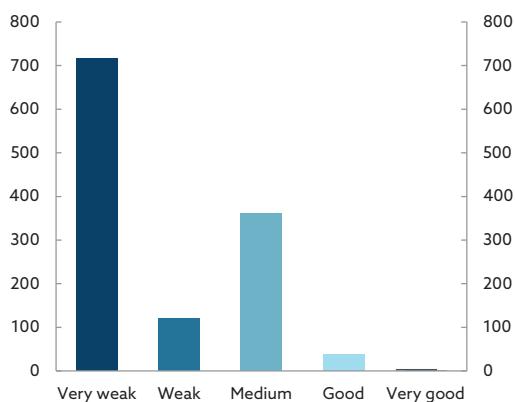
Fedex Corporation

GoldCorp Inc

EVN AG

31

**Chart 3** Results for companies we assessed on climate change in 2016. Number of companies



# Voting

**We voted at 11,294 shareholder meetings during 2016. Voting is one of the most important tools at our disposal for exercising ownership rights. We have established voting guidelines that provide a principled basis for our voting decisions.**

Norges Bank Investment Management exercises its voting rights in order to safeguard the fund's assets. We seek to vote at all shareholder meetings. Shareholders typically vote on a number of topics concerning board composition, governance structures and core business strategy. This includes election of directors, capitalisation, mergers and acquisitions, and remuneration. Through our voting, we seek to promote good corporate governance, improved company strategy and strengthened sustainability risk management.

We have established voting guidelines that provide a principled basis for our voting decisions. These guidelines are anchored in the G20/OECD Principles of Corporate Governance and are applied on a case-by-case basis to allow for company-specific considerations.

**Table 1** Voting at shareholder meetings. By region

Region	2016			2015		
	Shareholder meetings	Voted	Percent	Shareholder meetings	Voted	Percent
Africa	269	161	59.9	254	170	66.9
Asia	5,123	5,095	99.5	5,118	5,092	99.5
Europe	2,594	2,516	97.0	2,779	2,682	96.5
Latin America	571	556	97.4	591	573	97.0
Middle East	214	208	97.2	228	216	94.7
North America	2,406	2,405	100.0	2,478	2,478	100.0
Oceania	354	353	99.7	352	351	99.7
<b>Total</b>	<b>11,531</b>	<b>11,294</b>	<b>97.9</b>	<b>11,800</b>	<b>11,562</b>	<b>98.0</b>

## VOTING PRINCIPLES

### G20/OECD Principle

Institutional investors, stock markets and other intermediaries

Effective corporate governance framework

The responsibilities of the board

The rights and equitable treatment of shareholders and key ownership functions

Disclosure and transparency

The role of stakeholders in corporate governance

### Norges Bank Investment Management voting guidelines

Vote in a principled and consistent manner to maximise the long-term profitability of the companies we are invested in

- Vote in a principled and consistent manner
- Vote in order to support the return objective of the fund
- Transparency on our voting

Encourage companies to create long-term value

- Accommodate market specific practices and regulations
- Accommodate company specific circumstances

Hold company boards accountable for decisions and outcomes

- Board composition
- Director commitment and board renewal
- Board accountability
- Executive remuneration

Seek to enhance shareholder rights and work for equitable treatment of shareholders

- Protection of shareholder rights
- Equal rights within share classes
- Equitable treatment of shareholders
- Pre-emption rights

Promote timely, adequate and transparent company communication

- Annual report and accounts
- Discharge of directors and accounts
- Compliance with local corporate governance codes
- Non-audit fees

Promote sustainable business practices

- Risk management
- Reporting of environmental and social risk
- Shareholder proposals

## THE VOTING PROCESS AT NORGE'S BANK INVESTMENT MANAGEMENT

### Pre-meeting

- Receive notice of upcoming shareholder meetings and supporting documents from companies via custodian network
- All meeting-related information uploaded to web-based system accessible to Norges Bank Investment Management
  - Initial voting recommendations issued on basis of global voting guidelines
  - Selected companies are analysed and escalated for possible pre-disclosure
  - Integration of company-specific factors and investment team knowledge on a case-by-case basis
- Voting decisions made by Norges Bank Investment Management and instructions sent to companies via custodian network

MEETING

### Post-meeting

Voting instructions made available on our website [www.nbim.no](http://www.nbim.no)



### THE VOTING PROCESS

We aim to vote at shareholder meetings at all the companies we invest in. The fund holds shares in around 9,000 companies, so we cannot physically attend shareholder meetings at all these companies. In line with the G20/ OECD Principles of Corporate Governance, most companies now permit shareholders to vote at shareholder meetings without attending in person. This is known as voting by proxy. Under such a procedure, a shareholder can appoint a representative to attend the meeting and vote according to the shareholder's instructions. The system of proxy voting enables us to exercise our voting rights at thousands of companies worldwide.

Norges Bank Investment Management strives continuously to improve the voting process. Given the high number of shareholder meetings, we are dependent on a reliable voting chain. In 2016, we initiated a project to test the feasibility of a standardised model for final vote confirmation. This pilot project is part of our efforts to establish a process where we would have confirmation that all our voting rights were exercised at each shareholder meeting and that each resolution was voted as on per our electronic instruction, known as

end-to-end confirmation. For 2016, six UK companies were selected for a pilot vote confirmation study, of which all six were successfully confirmed end-to-end. A further 24 companies were preselected for the 2017 shareholder meeting period. An electronic and consistent end-to-end confirmation will be a significant step towards strengthening the proxy voting process. It would confirm to all shareholders voting via proxy that their votes were received and counted at a shareholder meeting.

The voting procedures and the granularity of content that is discussed at general shareholder meetings can vary across markets and companies. As part of our efforts to improve the voting process, we attend shareholder meetings at selected companies in person. Physical attendance is not only a meaningful way to represent our own voting position, it also serves as a means to monitor the voting actions by other investors. In 2016, we attended shareholder meetings in France (Danone SA and AXA SA), Germany (Volkswagen AG), Sweden (Boliden AB) and the UK (Reckitt Benckiser Group Plc).

### **Publication of voting intentions**

We continued our initiative to publish carefully selected voting intentions and rationales prior to annual or extraordinary shareholder meetings in 2016. The objective of such pre-meeting disclosure is to further increase the transparency of our voting decisions and enhance shareholder influence.

During 2016, we expanded our disclosure to include cases of strategic shareholder decisions such as tender offer acceptance and merger votes.

We considered 14 companies for pre-meeting disclosure in 2016. A process of analysis and internal escalation was followed to determine the suitability of candidate companies for disclosure.

On the basis of this process, we published voting intentions ahead of meetings at six companies.

### **Post-meeting disclosure**

When our voting decisions are finalised, the instructions are sent to companies via our voting intermediaries and our custodian network.

All our voting decisions are publicly disclosed on the day subsequent to the meeting conclusion and made available on our web site [www.nbim.no](http://www.nbim.no).

## **ANNOUNCED VOTING INTENTIONS IN 2016**

<b>Company</b>	<b>Voting position</b>
BG Group Plc	Support the combination of BG Group and Royal Dutch Shell
Royal Dutch Shell Plc	
Deutsche Wohnen AG	Support proposed takeover of Deutsche Wohnen by Vonovia <sup>1</sup>
Vonovia SE	
Chevron Corp	Support shareholder proposal seeking report on impacts of climate change policies
Exxon Mobil Corp	Support shareholder proposal seeking report on impacts of climate change policies Support shareholder proposal seeking independent board chairperson Support shareholder proposal seeking introduction of proxy access

<sup>1</sup> Tender offer was cancelled after Norges Bank Investment Management's disclosure

## OUR VOTING DECISIONS

We voted on 112,210 resolutions at 11,294 shareholder meetings in 2016. 98 percent of the resolutions were proposed by the companies, and two percent by shareholders.

We voted at 98 percent of shareholder meetings in 2016. The main reason for the fund being unable to vote at meetings in 2016 was where voting would lead to share blocking, thereby restricting our ability to trade.

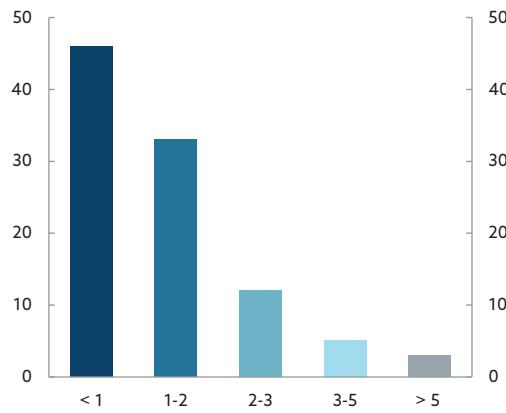
We voted in line with the board's recommendation on 94 percent of these resolutions. Of the resolutions where we voted against the board's recommendation, 54 percent were related to the election of directors. This is a consequence of factors tied closely to our global voting guidelines, such as overcommitted directors and lack of board independence. A further 17 percent of against votes concerned business items such as

amendments to bylaws that we considered not in shareholders' interests or where disclosure was weak.

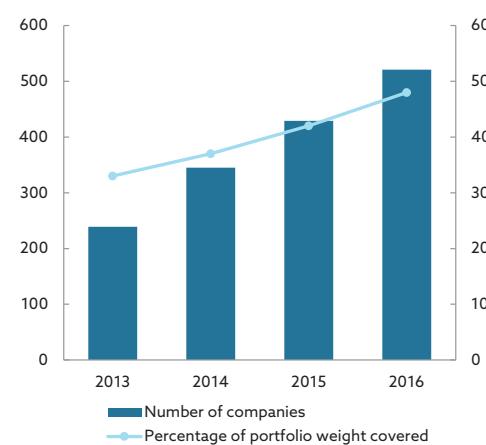
## Integration of investment considerations

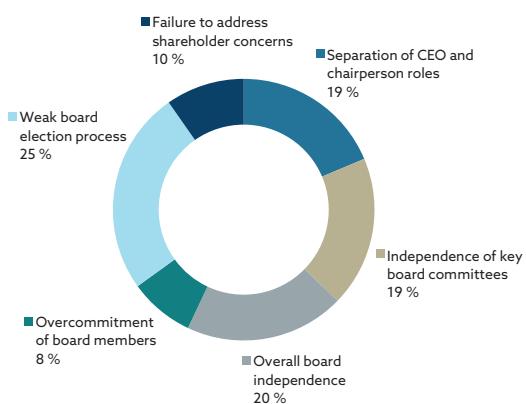
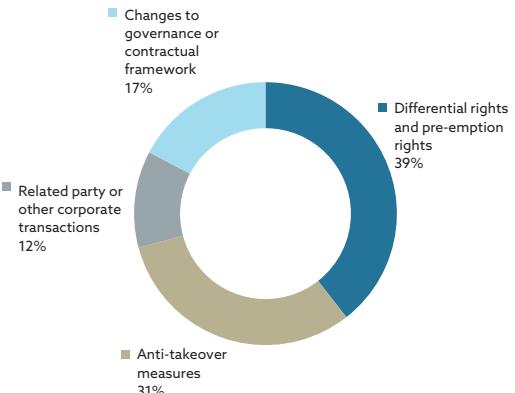
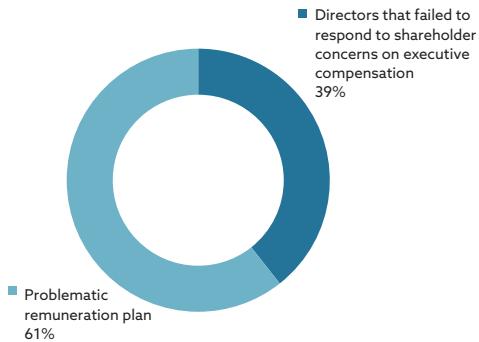
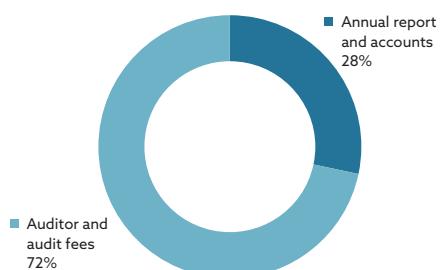
The majority of our voting decisions fall within the scope of our published voting guidelines. There are, however, cases where the global voting guidelines are less relevant due to the nature of the resolution. Some resolutions may be contentious or simply fall outside the general voting guidelines' framework. In such cases, we analyse the agenda items individually and vote on the basis of what we deem to be in the fund's best long-term interests. One common example of this is an extraordinary shareholder meeting called to vote on a merger or acquisition. We have an integrated voting process where we incorporate investment knowledge from portfolio managers into the final voting decision. By incorporating the insights of investment teams, we are in a position to consider company factors on a case-by-case basis.

**Chart 4** Distribution of the fund's voting rights in companies. Share of market value of our equity investments. Percent



**Chart 5** Company votes with portfolio manager input. Number (left-hand axis) and percentage of portfolio weight covered (right-hand axis)



**Chart 6** Drivers of against votes in 2016. Board related**Chart 7** Drivers of against votes in 2016. Minority shareholder protection related**Chart 8** Drivers of against votes in 2016. Remuneration related**Chart 9** Drivers of against votes in 2016. Reporting and auditor related

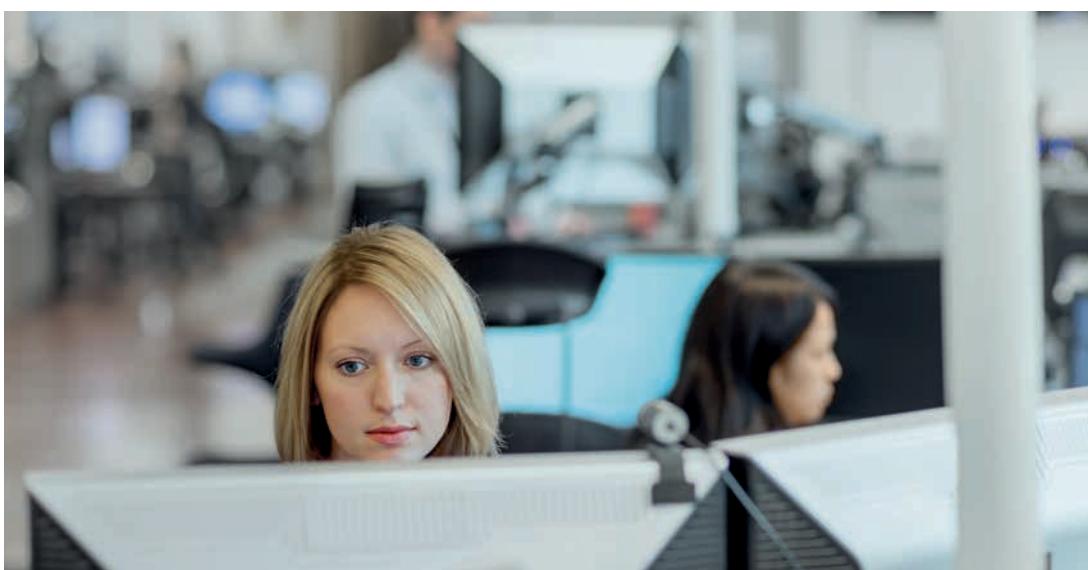
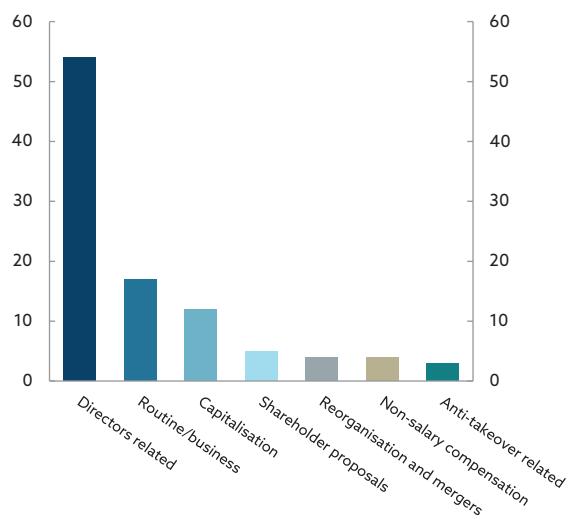
Voting decisions at 521 companies were made in collaboration with portfolio managers in 2016. These companies accounted for approximately 48 percent of the equity portfolio's market value. Over the past four years, the number of companies voted on in collaboration with portfolio managers has increased.

#### DIRECTOR ELECTIONS

50 percent of the resolutions we voted on in 2016 concerned the election of directors. We voted in line with the board's recommendation on 94 percent of such resolutions.

We believe that the chairperson plays a vital role in a company's value creation and in setting long-term strategy. We therefore pay particular attention to resolutions concerning the chairperson and the composition of the board. We also attach key importance to the election of independent board members with relevant industry expertise.

**Chart 10** Distribution of votes against proposals. Percent



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

Company	Portfolio rank	Country	Resolutions voted against	Subject of resolution(s)
Apple Inc	3	US	1	Proxy access
Alphabet Inc	4	US	8	Board independence, overcommitted board members, remuneration, equal treatment of shareholders and shareholder rights
Roche Holding Ltd	6	Switzerland	3	Executive on remuneration committee and shareholder rights
Novartis AG	7	Switzerland	1	Shareholder rights
Exxon Mobil Corp	9	US	4	Combined CEO/Chairperson, proxy access and reporting on climate change
Johnson & Johnson	10	US	2	Combined CEO/Chairperson
JPMorgan Chase & Co.	13	US	3	Combined CEO/Chairperson and remuneration
Wells Fargo & Company	15	US	2	Combined CEO/Chairperson
Amazon.com Inc	16	US	2	Sustainability-related reporting
AT&T Inc	17	US	3	Combined CEO/Chairperson and reporting on political lobbying activities
General Electric Company	18	US	3	Combined CEO/Chairperson and reporting on political lobbying activities
Bank of America Corp	19	US	1	Combined CEO/Chairperson
Samsung Electronics Co Ltd	20	South Korea	1	Board independence
Sanofi	21	France	1	Remuneration
Chevron Corp	22	US	3	Combined CEO/Chairperson, reporting on climate change and shareholder rights
Berkshire Hathaway Inc	24	US	2	Combined CEO/Chairperson and reporting on climate change
UBS Group AG	26	Switzerland	1	Shareholder rights
SAP SE	30	Germany	1	Remuneration
Facebook Inc	31	US	6	Lack of independence on audit committee, equal treatment of shareholders and sustainability-related reporting
Prudential Financial Inc	34	US	1	Combined CEO/Chairperson
The Procter & Gamble Company	36	US	1	Combined CEO/Chairperson
Pfizer Inc	37	US	3	Combined CEO/Chairperson, reporting on political lobbying activities and shareholder rights
Intel Corp	40	US	1	Shareholder rights
Verizon Communications Inc	42	US	3	Combined CEO/Chairperson and reporting on political lobbying activities
Merck & Co Inc	46	US	3	Combined CEO/Chairperson and shareholder rights

## VOTING IN THE TOP 50 HOLDINGS

In 2016, there were 25 companies in the top 50 holdings where we had reason to vote against the board's recommended resolutions. These were mainly director-related. At 14 of the 25 companies, the re-election of a combined chairperson and CEO was the cause of an against vote.

## SHAREHOLDER RESOLUTIONS

Shareholder resolutions accounted for two percent of the resolutions voted on in 2016. Corporate governance topics accounted for approximately 94 percent of these resolutions, and sustainability topics for around six percent. The most common shareholder resolutions on corporate governance concerned the election of shareholder-nominated board candidates, proxy access and enhanced reporting. Sustainability resolutions included proposals for how companies report on environmental and social risks. We voted in favour of 11 percent of shareholder resolutions concerning governance and 40 percent of those concerning sustainability.

## Shareholder activism

Shareholder activism is playing an increasingly visible role in global capital markets. Shareholder activism is an investment approach in which shareholders build a stake in a company and seeks to directly influence the board of directors and management to bring about a particular corporate goal. Individual activist funds can vary widely in terms of style, strategy and investment horizon.

Norges Bank Investment Management is not an activist investor. However, intervention by activist investors may take place in various ways at our portfolio companies. When considering proposals put forward by activist funds in contested situations, our aim is to vote in such a way that the company's board composition and overall business strategy are aligned with our interests as a long-term minority shareholder.

Proxy contests among our US holdings are the most visible and frequent occurrences of shareholder activism in our portfolio. Competing proposals frequently contain director-related proposals aimed at gaining board representation. In 2016, we voted in favour of dissident-proposed directors in one out of 12 proxy contests in the US.

# Interaction with companies

**As a large, long-term investor, we engage in dialogue with companies. Our holding size gives us access to board members, senior management and a range of specialists at the companies we invest in.**

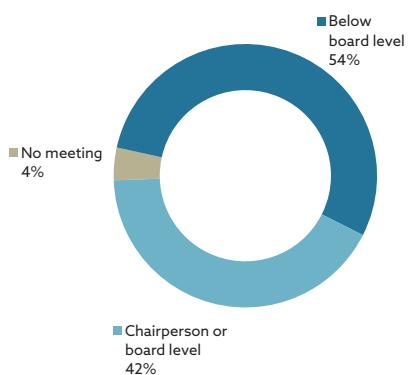
In 2016, we held 3,790 meetings with 1,589 companies. Investor meetings with portfolio companies are an important communication channel between companies and their shareholders. We mainly meet company representatives on a one-to-one basis in our offices or during site visits. Other meetings can also take place in conjunction with public events such as shareholder meetings or through conference calls.

As a shareholder, we have an interest in understanding companies' corporate governance and sustainability framework as well as the more traditional topics of operations and financial strategy. We encourage the companies we invest in to show a culture of openness in their public disclosure and general communication. We integrate corporate governance and sustainability issues in our dialogue with investee companies. We believe that companies' board and management should address relevant environmental, social and governance matters in their regular meetings with shareholders. We raised environmental, social or governance issues at 1,815 meetings in 2016. This constituted 48 percent of our meetings with companies during the year.

**Table 3** Company meetings by sector in 2016. FTSE classification

Sector	Company meetings	Share of equity portfolio. Percent
Basic materials	253	4
Consumer goods	550	10
Consumer services	248	5
Financials	1,018	17
Health care	346	7
Industrials	636	8
Oil and gas	107	4
Technology	195	6
Telecommunications	219	3
Utilities	218	2
Total	3,790	68

**Chart 11** Dialogue with the fund's top 50 company holdings



## STEWARDSHIP

Stewardship is a term increasingly used in the context of responsible investment. We define stewardship as the role and responsibility of an investor to oversee and safeguard the long-term value of the equity holdings in a portfolio.

### Top 50 holdings

In contrast to other engagement topics, where we seek to alter or improve specific standards and practices, our stewardship engagements are focused on the fifty largest company holdings in

our portfolio and have a more general governance or sustainability application.

We look to engage with the boards of our top 50 holdings regularly, at least on a rolling three-year basis. In most cases, we will meet these boards more frequently than this. In 2016, the dialogue with our top 50 holdings concerned issues such as industry expertise on the board, directors' time commitments and succession planning. In addition, we engaged with board members on sustainability practices.

## KEY STEWARDSHIP THEMES DISCUSSED WITH COMPANIES

Theme	Topic	Key performance indicator
Board governance	Board industry expertise	Independent industry expertise present
	Board and executive succession planning	Plan shared with Norges Bank Investment Management
	Time commitments	All board members satisfy Norges Bank Investment Management's time commitment limit
	Chairmanship	Independent chairperson
	Shareholder nomination rights	Individual vote count and ability to nominate alternative candidates for board election
Shareholder rights	Shareholder rights	'One share, one vote' or periodically published review of current unequal treatment
	Sustainability practices	Consideration against Norges Bank Investment Management's sustainability expectations (climate change, water management, human rights and children's rights)

### Chairmanship and governance of financial institutions

We continued with our programme of engagements with the chairpersons of financial institutions in 2016. In 2015, we met with 12 chairpersons of European banks and maintained these dialogues in 2016. In 2016, we extended the programme to include US financial institutions. During the year, we met with the chairperson or lead independent director of 15 financial institutions in the US. These holdings represent approximately five percent of the US equity portfolio.

The sector continues to undergo a process of reform and adjustment, and this extends to the corporate governance standards expected by shareholders. We engaged with US financial institutions on a range of issues in 2016 including separation of chairperson and CEO, succession planning, board composition, industry expertise among non-executive directors and measures of board effectiveness.

#### THEMES FOR DIALOGUE WITH US BANKS

- Strategy development
- Risk oversight
- CEO and chairperson roles
- Board composition
- Succession planning

### SELECTED COMPANY DIALOGUE

We pre-selected a number of corporate governance and sustainability topics for company engagement in 2016. Within each topic, we prioritised dialogue with companies on the basis of portfolio holding value and ownership share to maximise our influence as shareholder. For each engagement topic, we pursue measurable improvement goals.



For each engagement topic, we pursue measurable improvement goals

The selected engagement topics may extend over a number of years and involve a range of sectors and countries. For example, during 2016, we have continued to engage on director election and nomination processes in Sweden and the US and have extended the scope of our engagement on corruption risk. Similarly, we initiated new engagements in 2016 related to Syrian refugees in apparel supply chains in Turkey. Lastly, in June, we closed our dialogue with 12 French issuers on double voting rights.

In addition to our predefined engagement topics, we responded to a number of corporate governance and sustainability related company events and issues that arose during 2016. We also continued our engagement with selected companies on issues raised under the Guidelines for Observation and Exclusion from the Government Pension Fund Global.

### Monitoring and measuring progress of company dialogues

We record company interactions according to company specific ownership goals. We document such goals before the start of an activity and measure progress over the duration of a company engagement.

**Table 4** Priority topics for company dialogue in 2016

Theme	Specific issues	Country/topic	Number of companies	Share of equity portfolio. Percent
Board nomination and election processes	Individual vote count	Sweden	35	1.59
	Proxy access	US	8	1.11
	Minority shareholder candidate nomination	Brazil	15	0.16
	Board independence standards	Japan	121	2.39
Shareholder rights	Change of control rights	Switzerland	7	0.14
	Controlled companies	Europe	5	0.7
Transparency	Corruption risk	Global	28	3.83
	Remuneration	Global	39	7.24
Sustainability	Transition to low carbon economy	Climate change	12	0.95
	Syrian refugees in Turkish apparel supply chains	Human rights	22	1.11
	Pollution control	Water risk	3	1.18

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## SELECTED COMPANY DIALOGUES

	<b>Company</b>	<b>Purpose</b>	<b>Start</b>
<b>Board nomination and election processes</b>	Blackrock Inc	Shareholder right to propose board candidates	2014
	Sky Plc	Secure a majority independent board	2016
	Industrivärden AB	Individual vote count in director elections	2015
	Nordea AB	Individual vote count in director elections	2015
	Investor AB	Individual vote count in director elections	2015
<b>Shareholder rights</b>	Volkswagen AG	Adequate representation of fully independent directors	2008
	Schindler Holding AG	Secure mandatory buy-out provision	2015
	Sika AG	Offer to all shareholders on equal terms	2014
	Samsung Electronics Co Ltd	Commitment to minority shareholder rights	2015
	Renault SA	One share one vote	2014
<b>Transparency</b>	TeliaSonera AB	Board oversight of corruption risk	2015
	Petroleo Brasileiro SA	Board oversight of corruption risk	2014
	Rolls-Royce Holdings Plc	Board oversight of corruption risk	2015
	Capital & Counties Properties Plc	Shareholder-aligned executive remuneration plan	2016
	Oracle Corp	Improved transparency of rationale on pay structure	2016
<b>Sustainability</b>	BHP Billiton Plc	Scenario planning for climate change	2015
	Anglo American Plc	Scenario planning for climate change	2015
	SSE Plc	Long-term capital allocation to coal as energy source	2015
	Next Plc	Mitigate human rights risks in Turkish supply chain	2016
	Nike Inc	Mitigate human rights risks in Turkish supply chain	2016
<b>Stewardship</b>	BP Plc	Governance of sustainability strategy	2012
	UBS Group AG	Good governance to support long-term strategy	2013
	Nestlé SA	Governance of sustainability strategy	2012
	Novartis AG	Good governance to support long-term strategy	2012
	Siemens AG	Good governance to support long-term strategy	2012
<b>Event-driven</b>	Wells Fargo & Co	Separation of chairperson and CEO roles	2016
	Svenska Cellulosa AB	Consideration of splitting company	2016
	Sports Direct International Plc	Board effectiveness and succession planning	2014
	Linde AG	Governance process around proposed offer	2016
	Deutsche Wohnen AG	Board governance of offer by Vonovia SE	2015

## BOARD NOMINATION AND ELECTION PROCESSES

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

### Minority investor director nomination in Brazil

Corporate law in Brazil provides the right for minority shareholders who individually or jointly represent at least 15 percent of a company's voting share class, or ten percent of a non-voting share class, to seek the right to nominate one candidate for election to the board. This right is very important at 'owner-controlled' companies where minority shareholder representation on the board may otherwise be absent.

## MINORITY INVESTOR DIRECTOR NOMINATION IN BRAZIL

Company <sup>1</sup>	Sector
Petroleo Brasileiro SA	Oil and gas
Investimentos Itau SA	Financials
Cia de Transmissao de Energia Eletrica Paulista	Utilities
BR Malls Participacoes SA	Financials
WEG SA	Industrials

<sup>1</sup> Top five companies among 15 companies engaged

During 2016, in coordination with our external managers in Brazil, we helped secure minority directors on 15 boards.

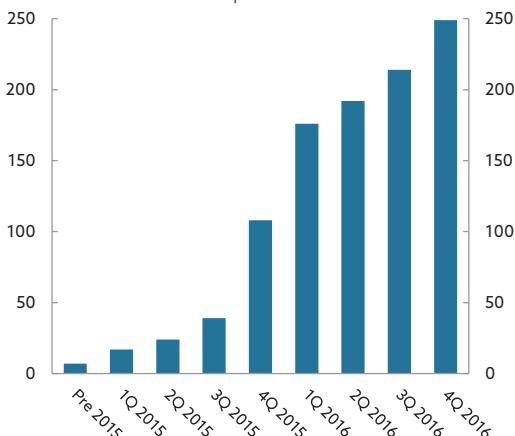
### Proxy access in the US

Norges Bank Investment Management has for a long time worked to secure the right of shareholders in the US to propose competing board candidates through the introduction of a proxy access by-law provision. The right provides greater director and board accountability.

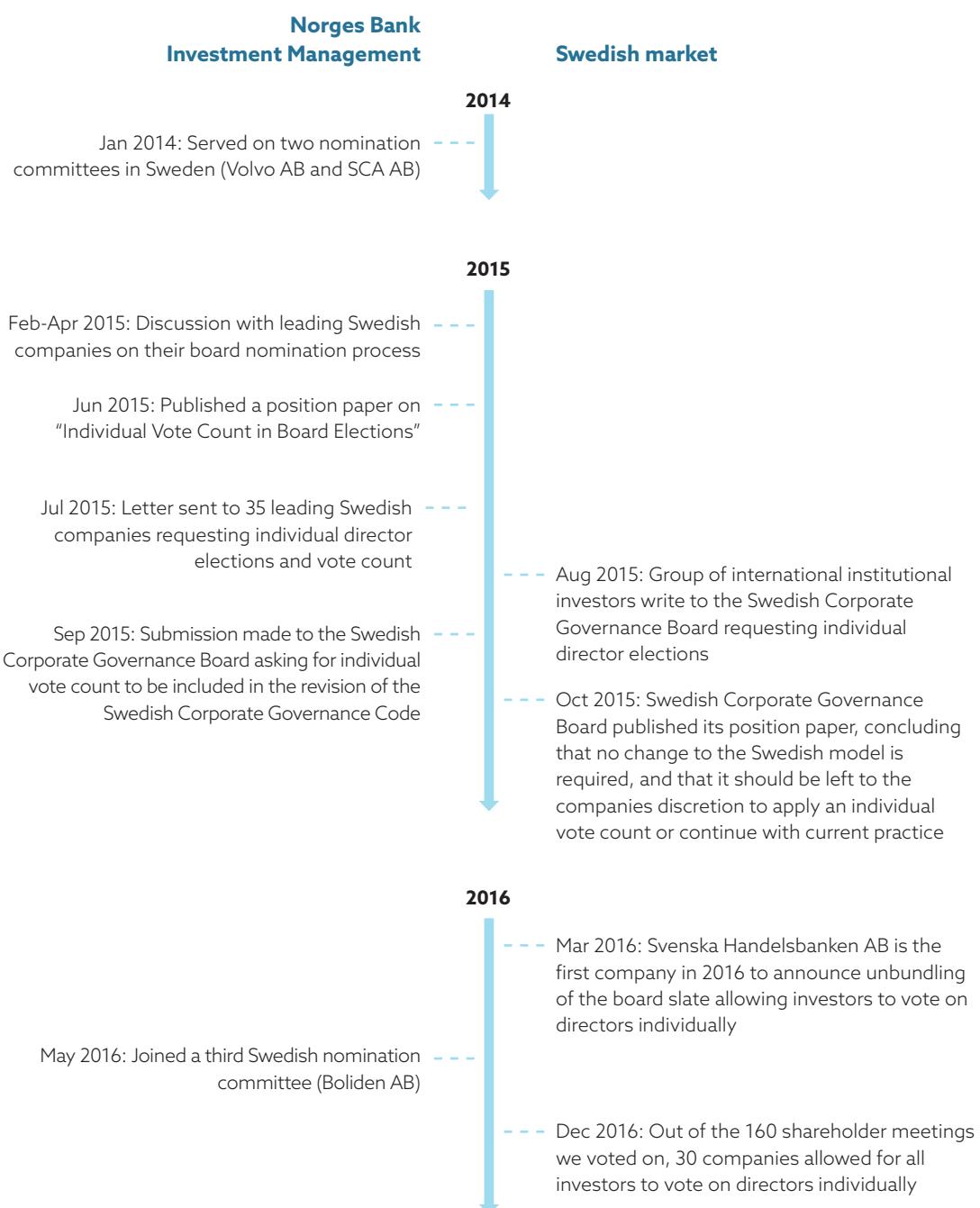
During 2016, we maintained this emphasis and applied a number of governance tools towards our proxy access engagement objective. These include company engagement, voting and peer investor collaboration efforts.

In 2016, proxy access was adopted by portfolio companies including Exxon Mobil Corp, Oracle Corp and Blackrock Inc. This shareholder right has now been implemented in the company charters or bylaws of 50 percent of S&P 500 companies.

Chart 12 Progress of proxy access in the S&P 500.  
Number of companies



## INDIVIDUAL DIRECTOR ELECTIONS IN SWEDEN



### Individual vote count in Sweden

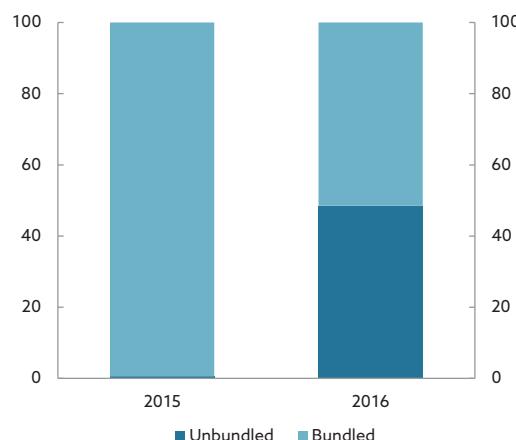
Sweden is among the few remaining developed markets where director elections were commonly bundled for shareholders voting by proxy. Only by attending in person does a shareholder have the opportunity to call for an individual vote count. In 2015, we raised this topic in a consultation on corporate governance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

During 2016, 30 companies adopted general individual director election at their shareholder meetings. We are encouraged that the revised practice was accommodated by so many companies and without disrupting the smooth running of the meetings.

### Nomination committees in Sweden

We prioritise participation in selected nomination processes by serving on nomination committees in Sweden.

**Chart 13** Swedish holdings with individual director elections. Percent of Swedish equity portfolio



In 2016, we accepted seats on the nomination committees at Volvo AB, Svenska Cellulosa AB (SCA) and Boliden AB.

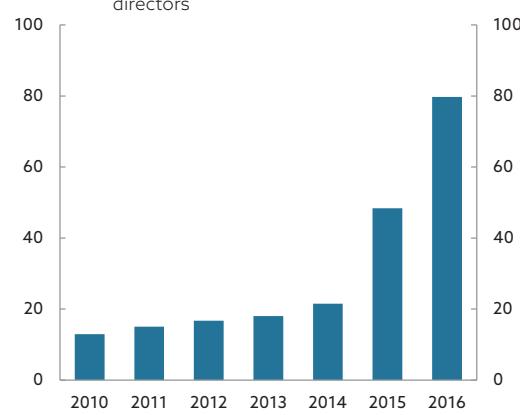
### Board independence standards in Japan

For several years, Norges Bank Investment Management has focused on the low level of board independence at Japanese companies. Board independence has also received attention in domestic regulatory reforms.

The Tokyo Stock Exchange has incorporated Japan's Corporate Governance Code as a requirement into its Securities Listing Regulations. The code entered into force on 1 June 2015. One of the topics the code addresses is the appointment of independent directors. The code is on a 'comply or explain' basis. There has nevertheless been a significant increase in the number of companies that have appointed two or more independent directors to the board.

49

**Chart 14** Board independence in Japan. Percentage of Tokyo Stock Exchange First Section index companies with two or more independent directors



Source: JPX - Japan Exchange Group

## MANDATORY OFFER EXEMPTIONS IN SWITZERLAND

Company	Sector	Provision
Schindler Holding AG	Industrials	Opt-out
DKSH Holding AG	Industrials	Opt-up 49%
Partners Group AG	Financials	Opt-out
SFS AG	Industrials	Opt-out
Helvetia Holding AG	Financials	Opt-up 40%
OC Oerlikon Corp AG	Industrials	Opt-out
Sika AG	Industrials	Opt-out

## CORRUPTION RISK MITIGATION

Factor	Metric
Number of companies engaged	28
Number of countries	14
Portfolio value of engaged companies	180.1 billion kroner
Engagement tools	Correspondence
	Company dialogue
	Voting
	Peer investor collaboration

## SHAREHOLDER RIGHTS

The fund's return is dependent upon the long-term value creation of the companies in the portfolio, and each shareholder receiving a reasonable and proportionate share. We



We engage with companies to secure rights of equal treatment among shareholders

engage with companies to secure rights of equal treatment among shareholders.

### Opt-out provisions in Switzerland

The Swiss Act on Stock Exchanges and Securities Trading

includes a mandatory offer obligation whereby the acquirer of one third of the voting rights in a company must make an offer to all other shareholders. However, the act allows companies to raise the threshold or to opt out of the offer obligation. As a result, a large shareholder holding more than one third of voting rights can sell its holding to an acquirer without the acquirer having to make a public offer to all shareholders.

During 2016, we continued to engage with seven companies in Switzerland to guarantee a full public offer in the event of change of control. We also requested that companies with opt-out or opt-up clauses to act in the best interest of all shareholders.

### Minority shareholder protection at Volkswagen AG

Norges Bank Investment Management has for a number of years identified the governance structure of Volkswagen AG as complex and problematic.

During 2016, we maintained our long-standing engagement with Volkswagen AG. We used our voting rights to oppose the discharge of board members, the re-election of key directors and the issuance of shares. We joined a class-action lawsuit against the company based on the company's disclosure of vehicle emission data. We continued our dialogue with company management and supervisory board members.

Our main goal is to ensure an adequate provision of fully independent directors and a commitment to the equitable treatment of shareholders. We have yet to observe any improvement in corporate governance practices at Volkswagen AG.

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51

## CORPORATE TRANSPARENCY

Transparency is a foundation of good governance practices. Promoting the highest standards of corporate transparency is an important engagement theme for the fund. In 2016, we prioritised engagements on transparency of corruption risk mitigation and executive remuneration policies.

### Corruption risk mitigation

Corruption by companies, their agents, or, more widely, in the capital markets, undermines economic efficiency, disadvantages compliant companies and is detrimental to shareholder value. Poor anti-corruption practices may also indicate other control and accountability weaknesses in corporate culture.

During 2016, we continued our dialogue with 28 companies specifically on the topic of corruption risk management. Through these dialogues, we sought to clarify the board's oversight of anticorruption policies and prevention measures.

### Executive remuneration

Transparency of executive remuneration plans and the clarity of board rationales on pay levels was a focus for company dialogue in 2016.

The board is responsible for, and best placed to set, executive remuneration. The board should develop a remuneration structure that fits the long-term goals of the company. Shareholders play an important role in monitoring board remuneration policies. Our communicated priority is long-term value creation, and executive remuneration should provide alignment with this objective.

### SUSTAINABILITY

In 2016, we prioritised four sustainability initiatives for company dialogue. The first sought to communicate our expectations on board responsibility for sustainability planning and implementation at the largest companies in the equity portfolio. The other three initiatives were less broad and concerned the transition to a low-carbon economy and implications for the mining and power generation sectors, Syrian refugees in Turkish apparel supply chains, and engagements on pollution control under the Guidelines for Observation and Exclusion from the Government Pension Fund Global.



### **Communicating our expectations to companies**

As part of our efforts to make companies aware of our expectations, we wrote to the chairpersons of our 500 largest company investments, informing them of our expectations in the areas of water management, climate change strategy, children's rights and human rights. We also shared our published voting guidelines.

### **Transition to low carbon economy in the mining and power generation sectors**

As a long-term investor we recognise that climate change and regulations may affect company and portfolio return over time. For companies, addressing climate change starts with the board's recognition of relevant challenges and of how this relates to corporate business strategy and risk management.

In 2016, we maintained dialogues with a number of electricity producers about their plans for transitioning to less emission-intensive energy systems, and with mining companies requesting their views on a possible move in the industry towards spinning off coal-mining operations.

### **Syrian refugees in Turkish supply chains**

The Syrian civil war and humanitarian crisis have increased the risk of illegal migrant labour in Turkey and thereby elevated the risk of child labour and human rights abuses. This question requires a well-considered response, particularly in light of the scale of the challenge. Experts have argued that automatic dismissal of workers may not be the best solution.

In May, we contacted 22 large apparel companies to get a deeper understanding of their sourcing of garments from Turkey. In line with our human and children's rights expectations, we sought information on how they assessed their exposure to the risk of refugees working illegally in their Turkish supply chains and what action plans the companies had put in place to deal with such a situation. We asked how supply chain audits took place and whether the companies and their suppliers collaborated with local stakeholders such as unions and NGOs to address the situation. Approximately two thirds of the companies contacted responded to our letter, and we have continued the dialogue with a number of these.

### **Engagement under the Guidelines for Observation and Exclusion from the Government Pension Fund Global**

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

### Eni SpA and Royal Dutch Shell Plc

The fund has invested 8.8 billion kroner in the equity of Eni SpA and 46.2 billion kroner in the equity of Royal Dutch Shell Plc. The goal for our formal dialogue with the two companies is a reduction in the number and volume of oil spills and immediate effective remediation of spills.

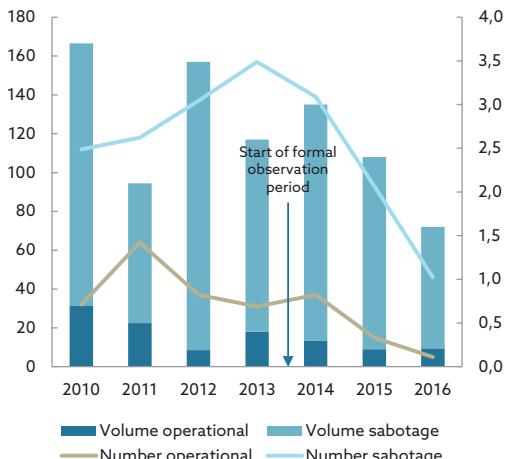
Oil spills due to sabotage, theft and operational failures are a concern for onshore oil production and pipelines in the Niger Delta. The spills are the main source of environmental damage in the delta and result in many thousands of barrels of lost production and revenue for the oil companies and the Nigerian government. The unstable economic, political and security situation in Nigeria is an obstacle to achieving our engagement goals. Despite such challenges, both Eni SpA and Royal Dutch Shell Plc have reported goal progression over time.

In 2016, we discussed actions, progress and monitoring with Eni SpA and Royal Dutch Shell Plc. Senior members of the companies' respective management and boards confirm that our engagement goals are recognised as a priority. We are cautiously encouraged by the reported improvements and will continue to monitor developments.

### AngloGold Ashanti Ltd

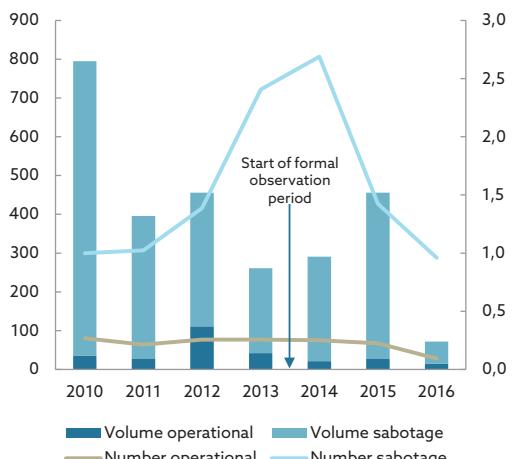
The fund has invested 833 million kroner in the equity of AngloGold Ashanti Ltd. Norges Bank Investment Management has entered into formal dialogue with the company to raise issues about mining-related environmental damage at the Obuasi mine in Ghana. The mining activities are considered to result in severe environmental damage and contribute to serious and systematic human rights violations.

**Chart 15** Royal Dutch Shell Plc spill statistics and Norges Bank Investment Management meeting activity. Number of spills (left-hand axis) and volume of spills in thousands of tonnes (right-hand axis)



Source: Royal Dutch Shell Plc and Norges Bank Investment Management

**Chart 16** Eni SpA spill statistics and Norges Bank Investment Management meeting activity. Number of spills (left-hand axis) and volume of spills in thousands of tonnes (right-hand axis)



Source: Eni SpA and Norges Bank Investment Management

We expect the Obuasi mine to be operated in accordance with generally accepted environmental standards once the tailings storage facility, water processing and other infrastructure have been modernised. Furthermore, AngloGold Ashanti Ltd must tackle the legacy of historical pollution stemming from mining in the Obuasi area. The company has committed to our two defined goals for the dialogue.

AngloGold Ashanti Ltd has halted normal operations at the mine. Remodelling and modernisation of the mine have started but are taking longer than expected. We have not yet observed material progress towards our goal of preventing further environmental damage from older tailings facilities. We will continue to monitor developments.

#### **EVENT-DRIVEN COMPANY DIALOGUE**

In addition to the preselected themes for company dialogue undertaken during 2016, we monitor the ongoing corporate governance and sustainability developments of companies in the portfolio. We respond in cases where corporate governance practices appear to be deteriorating or problematic and where fund value may be compromised. In such cases, we will enter into dialogue with management or board members and, where appropriate, apply additional active ownership engagement tools, including voting, collaboration with peer investors, consultation with regulators or other standard setters, and legal action.



## CORPORATE GOVERNANCE ADVISORY BOARD

Norges Bank Investment Management established a Corporate Governance Advisory Board in 2013 to strengthen our long-term ownership work. In 2016, the advisory board focused on the role of the board, executive remuneration, tax transparency, and selected company engagement cases.

The Corporate Governance Advisory Board is an external body that provides advice on our

long-term active ownership strategy. It also offers tactical recommendations on our ongoing ownership efforts. The advisory board held three meetings in 2016. In addition to the scheduled meetings, the advisory board members were available and called upon between meetings to provide specific advice.

The board consists of three internationally recognised corporate governance experts: John Kay, Peter Montagnon and Anthony Watson.



**John Kay** is a visiting professor of economics at the London School of Economics and a fellow of St John's College, University of Oxford, the British Academy, and the Royal Society of Edinburgh. He chaired the Kay Review of the UK equity markets and long-term decision-making. Professor Kay is a non-executive director of Scottish Mortgage Investment Trust and the Investor Forum.



**Peter Montagnon** is associate director of the Institute of Business Ethics and a board member of Hawkamah, the Institute for Corporate Governance. He was previously head of investment affairs at the Association of British Insurers and a journalist at the Financial Times. He has also served as a member of the European Commission's Corporate Governance Forum and chairperson of ICGN.



**Anthony Watson** is senior independent director of Lloyds Banking Group Plc and Witan Investment Trust and chairperson of the Lincoln's Inn Investment Committee. He has previously served as chief executive of Hermes Pensions Management, member of the Financial Reporting Council, chairperson of the Marks and Spencer Pension Trust, and non-executive director of Vodafone Group.

## THE ADVISORY BOARD'S ACTIVITIES IN 2016

<b>Theme</b>	<b>Activities of the Corporate Governance Advisory Board</b>
Ownership policies	Revision of internal policies and procedures in relation to our corporate governance agenda
Academic research	Advice on prioritisation for academic collaborations
Position papers	Review and revision of draft position papers
Voting	Review of global voting guidelines
	Advice on setting revised Norges Bank Investment Management remuneration voting policy for portfolio companies. Tactical advice on the use of pre-meeting voting decisions
Tax transparency	Input to policy paper
Governance of banks	Detailed examination of current trends and future outlook of global banking reforms. Input on role of board directors in shaping corporate bank culture
Board composition	Advice on the value of industry experience
Company dialogue	Guidance on effective dialogue and engagement approaches
Board dialogue	Information on chairmanship and role of chairperson succession planning
Executive remuneration	Guidance on Norges Bank Investment Management analysis methodology for executive remuneration
Corruption risk oversight	Engagement strategies for board corruption risk oversight
Board nomination	Advice on board nomination activities in Sweden, US, UK and Italy
Company-specific input	Case-by-case advice on company actions and strategies

# Environmental investments

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**We make additional allocations to environmental technologies through our environment-related mandates. 63.7 billion kroner were invested in such mandates at the end of 2016.**

Environment-related mandates have been part of our investment strategy since 2009. The mandates are managed internally and externally, and have the same risk and return requirements as the overall fund. The mandate laid down by the Ministry of Finance for Norges Bank's management of the fund requires investments into the environmental space to fall within a range of 30 to 60 billion kroner.

We had invested 57.7 billion kroner in listed equities through the environment-related mandates at the end of 2016. 37.1 billion kroner of these investments were managed internally, and 20.5 billion kroner were managed externally. The investments were spread across 226 companies. In 2014, we established our first portfolio dedicated to green bonds. At the end of 2016, the green bond portfolio was worth 6.1 billion kroner.

Equity investments under the environment-related mandates returned 12.4 percent in 2016, and the annualised return since inception in 2010 has been 4.2 percent. Over time, the environment-related equity portfolio and universe have had a higher risk than the wider equity market. We have to expect a relatively small group of companies such as this to show greater return volatility over time than the broad equity market. The environmental investment universe is still nascent and sensitive to the development of new technologies, business models and government regulation.

## INVESTMENT UNIVERSE AND PORTFOLIO

We have a framework that aids us in the definition of the environment-related investment universe and in portfolio construction. This framework allows for the identification of companies involved in providing solutions to decrease the environmental impact of economic activity. Successful management of environmental investments requires knowledge and understanding of what will drive policies, regulation, technology and environmental progress. Through company analysis we aim to identify the companies we expect will deliver good long-term returns.

Companies involved in environmental activities can be found in many different industries, with diverse characteristics and dynamics. In addition, some environment-related companies are part of larger conglomerates. We include some conglomerates in our investment universe. Conglomerates often have more capital and resources to develop and implement new solutions.

For a company to be included in our environmental universe, it needs to pass a positive screening that requires it to have at least 20 percent of its business in one or more of our defined environmental segments. We also consider the companies' investment plans. Finally, we perform a negative screening relating to coal, oil and gas production.

Our environment-related investments can be categorised as investments in either low emission energy and alternative fuels, clean energy and efficiency technology, or natural resource management. The first two categories include investments in companies that can contribute to solutions to climate and pollution problems. The third category consists of companies that contribute to more efficient use of natural resources.

## ENVIRONMENTAL UNIVERSE CATEGORIES, GROUPS AND DEFINITIONS - INTERNAL DEFINITIONS

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

59

**Table 5** Key figures as at 31 December 2016. Annualised data, measured in the fund's currency basket. Percent

	Last 12 months	Last 3 years	Since 01.01.2010
Return on environment-related mandates	12.4	6.1	4.2
Standard deviation of environment-related mandates	9.3	12.0	13.5
Return on the FTSE Environmental Technology 50 Index	1.2	4.1	2.7
Return on the MSCI Global Environment Index	11.0	3.2	7.5



## LOW-EMISSION ENERGY AND ALTERNATIVE FUELS

The power generation and transport sectors are major contributors to greenhouse gas emissions. Technological advances in these areas can significantly reduce global greenhouse gas emissions.

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

With the Paris climate agreement in force from 4 November 2016, global investments in renewable energy production should receive further support. Within the transport sector, hybrid and electric cars have been an important, recent development.

Companies operating in these segments include Edison International, National Grid, and NextEra Energy.

**Table 6** Top ten holdings in the low-emission energy and alternative fuel segment in the fund's environmental portfolio

Company	Country	FTSE Global sector	Million kroner	Share of portfolio. Percent
NextEra Energy Inc	US	Utilities	2,958	5.1
Iberdrola SA	Spain	Utilities	2,593	4.5
Sempra Energy	US	Utilities	2,508	4.3
National Grid Plc	UK	Utilities	1,396	2.4
Linde AG	Germany	Basic materials	1,372	2.4
Air Liquide SA	France	Basic materials	1,013	1.8
NRG Yield Inc	US	Financials	517	0.9
Edison International	US	Utilities	466	0.8
Pattern Energy Group Inc	US	Oil and gas	433	0.8
EDP Renovaveis SA	Portugal	Utilities	398	0.7

### NextEra Energy

NextEra Energy is a key player in the US energy transition from coal-based power generation to renewable power. NextEra Energy is the largest developer, owner and operator of wind farms across the US. Total installed wind capacity at the end of 2016 was around 14 GW, with an additional 2 GW of solar. Over the last two years, NextEra Energy has installed around 4 GW of wind and solar capacity. The company's operation in Florida is among the cleanest in the country in terms of its generation mix. The focus on clean and efficient energy benefits customers, with energy bills below the national average.



## CLEAN ENERGY AND EFFICIENCY TECHNOLOGY

Investments in solutions to climate change have traditionally been made mainly in energy production and concentrated on clean and renewable energy. Opportunities on the demand side have recently begun to attract more attention. The transport sector is making progress, partly by producing more efficient traditional combustion engines. Progress is also being made in electric vehicles. However, despite recent developments, the cost of producing batteries remains a challenge.

Demand for energy efficiency technology for buildings has increased. Substantial reductions in energy consumption can be achieved through better insulation, heating and ventilation systems and lighting, as well as solutions that control these processes.

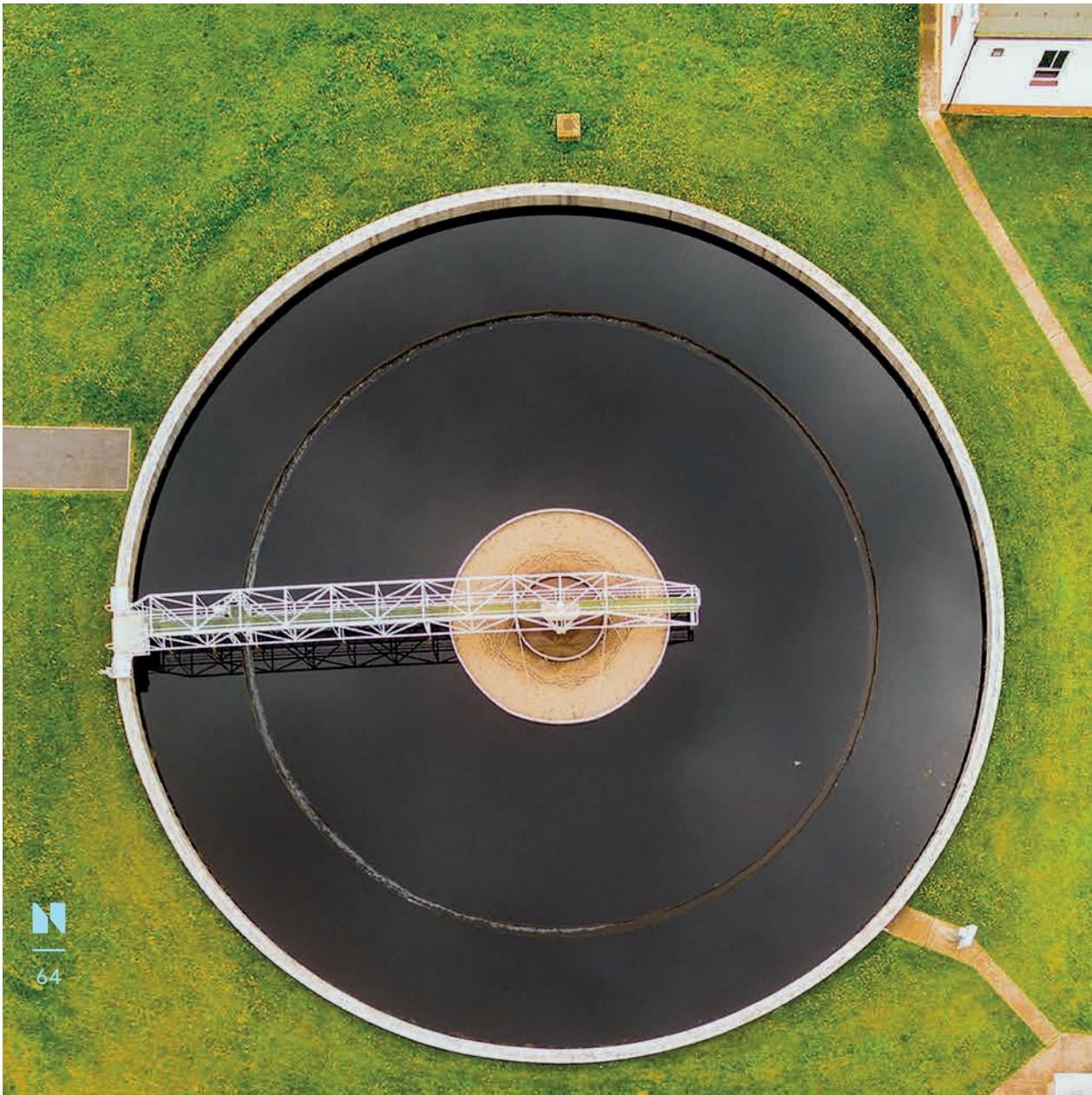
Companies operating in these segments include ABB, Eaton Corporation and Daikin Industries.

**Table 7** The fund's top ten holdings in the clean energy and efficiency technology segment in the environmental portfolio

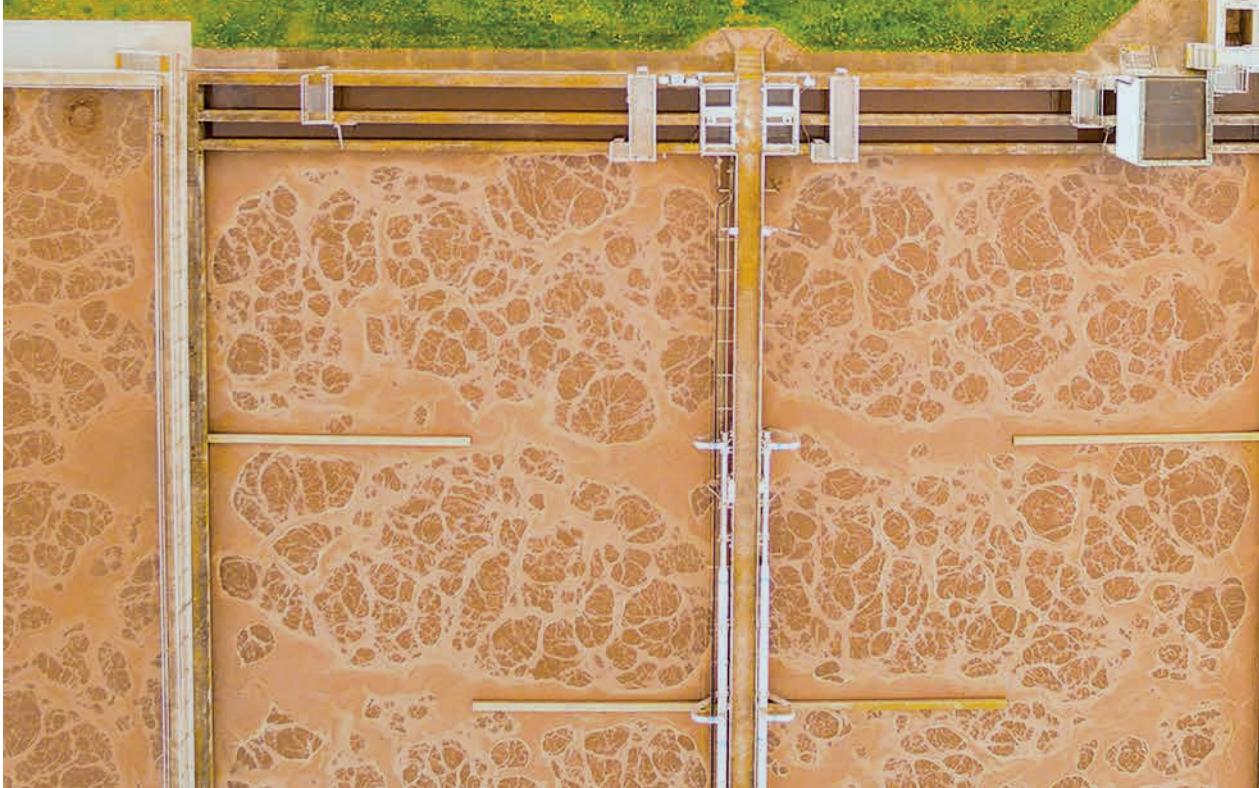
Company	Country	FTSE Global sector	Million kroner	Share of portfolio. Percent
Johnson Controls International Plc	US	Industrials	1,618	2.8
Eaton Corp Plc	US	Industrials	1,077	1.9
Daikin Industries Ltd	Japan	Industrials	1,051	1.8
Keyence Corp	Japan	Industrials	994	1.7
Koninklijke Philips NV	Netherlands	Health care	651	1.1
Siemens AG	Germany	Industrials	603	1.0
Shin-Etsu Chemical Co Ltd	Japan	Basic materials	591	1.0
ABB Ltd	Switzerland	Industrials	537	0.9
Thermo Fisher Scientific Inc	US	Health care	526	0.9
Parker-Hannifin Corp	US	Industrials	518	0.9

### **Daikin Industries**

Daikin Industries is the largest air-conditioning manufacturer in the world. Except for the US, the company is the market leader in almost all the markets it operates in. Daikin's stated ambition is to improve energy conservation and environmental friendliness. Cooling and heating can account for around 40 percent of residential property energy consumption and 25 percent of commercial property energy consumption. Daikin manufactures air-conditioning equipment for both household and commercial use. The company is a market leader in inverter and variable refrigerant (VRF) technologies for air conditioning. These new efficient technologies can help cut power consumption by up to 50 percent by regulating voltage, current and frequency.



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## NATURAL RESOURCE MANAGEMENT

Efficient utilisation of natural resources is important for water management, waste management, recycling, agriculture and forestry. Meeting the world's need for high-quality water in an efficient manner is a global challenge. The infrastructure to achieve this requires large investments, particularly as demand for water is expected to grow substantially. In areas with scarce water resources, it is important to have solutions that allow recycling of water through

treatment processes and efficient pumping, measurement and control solutions.

Recovering energy from waste and making good use of organic materials exemplify how waste can be a resource. One notable example is the collection of methane gas from landfills.

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

**Table 8** The fund's top ten holdings in the natural resource management segment in the environmental portfolio

Company	Country	FTSE Global sector	Million kroner	Share of portfolio. Percent
Waste Connections Inc	Canada	Industrials	1,410	2.4
Xylem Inc/NY	US	Industrials	1,172	2.0
American Water Works Co Inc	US	Utilities	1,080	1.9
Ecolab Inc	US	Basic materials	1,021	1.8
Steel Dynamics Inc	US	Basic materials	889	1.5
AO Smith Corp	US	Industrials	832	1.4
Koninklijke DSM NV	Netherlands	Basic materials	742	1.3
Covanta Holding Corp	US	Industrials	742	1.3
DS Smith Plc	UK	Industrials	732	1.3
Veolia Environnement SA	France	Utilities	671	1.2

### Waste Connections

Waste Connections is the third-largest solid waste management company in North America. The company generates nearly all of its income by managing the refuse collection market's waste stream in environmentally sustainable ways through automation and natural gas (CNG) vehicles, landfill gas collection and energy production, waste recycling, and disposal. Through its acquisition of Progressive Waste, the company will bring its industry-leading waste management approaches to new areas of the US and Canada. Waste Connections partners with its customers to provide custom-made waste solutions that meet the needs of local communities.





We make additional allocations to environmental technologies through our environment-related mandates. 63.7 billion kroner were invested in such mandates at the end of 2016

# Risk monitoring

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**Norges Bank Investment Management aims to achieve the highest possible return on the fund's investments with a moderate level of risk. We assess environmental, social and governance risks across the fund. These risk assessments and related monitoring are integrated into the fund's overall risk management.**

We seek to identify, measure and manage all relevant risks to which the fund is exposed. Monitoring environmental, social and governance risks in the portfolio is an important aspect of Norges Bank Investment Management's risk management. We take a systematic approach to risk monitoring and assess risk at many levels, including at the market, sector and company level. Our approach means that we perform general assessments before going into specific issues in greater depth. These assessments contribute to a greater understanding of risk in the portfolio.

Once environmental, social or governance risks are identified, they are analysed, monitored and considered for further responsible investment management activities such as ownership measures, continued risk monitoring or risk-based divestment. Risk assessments may lead to adjustments to the portfolio or to restrictions affecting specific markets, sectors or companies.

## COUNTRY AND SECTOR RISK

In 2016, we continued to develop our understanding of environmental, social and corporate governance risks at the country and sector levels. Our analysis of such risks is based on an in-house risk framework. The framework includes country-level data and indicators across nine key environmental, social and governance themes.

In addition to enhanced and detailed non-financial data at the country or market level, we have data for different sectors' exposure to the same risks. This means we can look at overlapping risks between countries and sectors. Such assessments facilitate the identification of high-risk areas of the portfolio, either on a standalone basis or according to a particular theme. This helps us identify companies that warrant further analysis.

## SECTOR ANALYSIS

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

By overlaying our risk framework against the portfolio, we are able to identify sectors with high risk exposure to specific issues. Based on this, we conducted 19 sector assessments covering a total of 391 companies during the year. We also continued to assess companies in a number of the sectors identified in previous years.

The sectors found to warrant additional analysis due to elevated risk exposure to key environmental, social and governance issues included clothing and accessories, automobiles and automobile parts, fishing and seafood, oil and gas, pulp and paper, agricultural commodities and various basic materials subsectors such as mining and metals.

## COMPANY ANALYSES

Our ongoing risk monitoring also includes producing reports and briefs at the company level. We produced 64 company assessments looking at environmental, social and governance issues in 2016. We divide these assessments into three categories.

### Material ownership reports

We analyse companies where the fund has a significant ownership share. In these analyses, we aim to identify and evaluate both short and long-term risk exposures. A total of eight such reports were prepared in 2016.



We aim to identify and evaluate both short- and long-term risk exposures

information systems and global media monitoring. After an initial incident evaluation, companies are chosen for further analysis in an incident brief. We prepared 45 of these briefs in 2016. The briefs covered incidents such as alleged corruption, fraud, violations of human rights, toxic waste and environmental damage. The incident briefs may be complemented by more extensive company analysis.

### Company reports

Sector assessments and incident briefs may uncover a need for further analysis of individual companies. Company reports look in more detail at business drivers and risk factors for the specific company. We assess whether and how environmental, social and governance issues affect the company. We prepared 11 such reports in 2016.

## RISK MONITORING AND EXTERNAL MANDATES

Our risk-monitoring activities concerning environmental, social and governance issues apply to holdings managed externally as well as internally. Ensuring that external managers are aware of our responsible investment priorities, and that they integrate environmental, social and governance considerations in their investment activities, is part of our process when selecting new managers. For established mandates, these aspects are part of the annual qualitative assessment of external managers and a topic of discussion at the regular meetings we have with managers throughout the year.

We also work with our external managers on selected analytical exercises, notably related to the new coal exclusion criterion introduced in 2016. Through collaboration with the external managers, we were able to obtain relevant fundamental analyses of power producers in various countries. This provided valuable input to our screening process.

In 2016, we added further questions to the annual questionnaire we send to external managers to gain a better understanding of how the managers are working with environmental, social and governance issues in their investment activities. We also wanted to know which data sources managers use to assess companies' exposure to, and management of, these issues, and which they considered most relevant in their markets and for individual portfolios.

We have collected and analysed the responses and found variations in how managers consider and integrate environmental, social and governance issues in their investment activities and which issues are considered most relevant,



We analyse  
greenhouse gas  
emissions from  
companies in the  
fund's portfolio

both within and among markets. Responses indicate that, overall, managers are most sophisticated when it comes to understanding the importance of corporate governance-related issues and incorporating such considerations in their investment management activities. Practices related to the incorporation of environmental and social topics in investment processes appear less advanced.

Manager responses from 2016 will serve as an internal baseline with which we can compare future disclosure and as input for the ongoing dialogue we have with managers.

#### **GREENHOUSE GAS EMISSIONS FROM COMPANIES IN THE FUND'S PORTFOLIO**

In 2016, we set a separate climate risk framework for Norges Bank Investment Management. In line with this framework, and to gain a better understanding of the fund's total climate risk, we analyse greenhouse gas emissions at companies in the fund's portfolio. High emissions at individual companies may result in financial risk, for example, via future regulatory changes and technological advances. In 2016, we calculated the carbon footprint of our equity portfolio for the third year in a row. We also chose to calculate the carbon footprint of our fixed-income corporate bond portfolio for the first time.

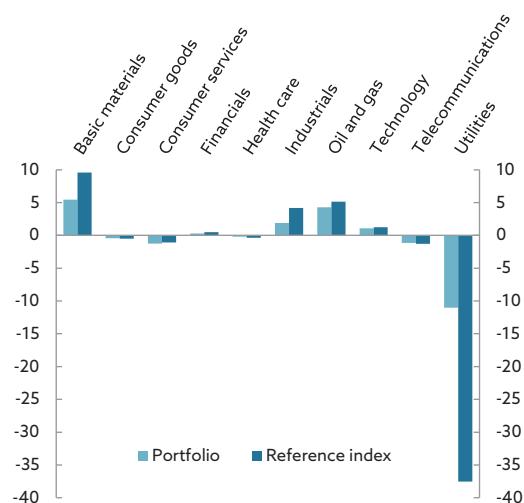
The figures reported for 2016 correspond to companies' Scope 1 and Scope 2 emissions. To avoid double counting at the portfolio level, we chose in previous years to report companies' direct (Scope 1) emissions only. However, we have seen that reporting practice for greenhouse gas emissions in investment portfolios is evolving to include both direct and indirect emissions, and so we have chosen to report in line with this practice

from 2016 onwards. As not all companies report sufficiently standardised data, our analyses are based on extensive use of modelling by specialised data providers.

The companies in the equity portfolio at the end of 2016 released approximately 5.7 million tonnes of CO<sub>2</sub> equivalents during the year, weighted by the value of our holdings. This corresponds to 164 tonnes per million dollars of revenue. Based on our percentage ownership in each company, the aggregated tonnes of CO<sub>2</sub> equivalents for the portfolio was 96 million.

Our analysis is based on the most recently available emission data from our suppliers and on our holdings at the end of 2015 and 2016. There is a delay before emission figures are reported. The analysis therefore largely draws on emission data for 2015, together with more

**Chart 17** Changes in contribution to carbon footprint from 2015 to 2016. Percent



up-to-date information on those companies that have made this available.

When comparing the carbon footprints of companies operating in the same sector, we have always looked at both direct and indirect CO<sub>2</sub> emissions. When analysing the business models of individual companies, we may also include an assessment of the lifecycle emissions of a company's operations and products to get a more complete picture of climate-related risks and opportunities at the company level.

Some sectors have higher emissions in relation to revenue than others. For example, emission intensity is high in the utilities sector. This may not be surprising, as power companies supply energy to other sectors.

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

Both the equity portfolio and the reference index experienced a decrease in carbon intensity values in 2016. The portfolio carbon intensity decreased by one percent while the reference index carbon intensity decreased by 11 percent. The reference index decrease was primarily driven by the impact of coal exclusions, many of which were removed from the portfolio in the previous year.

We have also calculated the carbon intensity of the reference index in the absence of ethical exclusions under the Guidelines for Observation and Exclusion from the Government Pension Fund Global. These

exclusions have decreased the carbon intensity of the reference index by 17 percent. This is also primarily driven by the exclusions due to the coal criterion.

In 2016, we looked at various methods available to measure the carbon footprint of our corporate bond portfolio. Our findings indicate that there is still some way to go before a consistent and relevant method for calculating the carbon footprint of fixed-income portfolios is available. Challenges concerning the availability and mapping of data, carbon emissions allocation methods and complex corporate structures mean that it is hard to derive a good representation of the actual carbon footprint. Despite such challenges, we have chosen to calculate the corporate bond portfolio's exposure to carbon-intensive sectors and companies and compared this to the reference index's exposure. The portfolio has a carbon intensity two percent less than that of the reference index. This is due primarily to our investments in industrials having a lower emission intensity than those in the reference index.

Our calculations highlight aspects of companies and sectors that may be relevant in further analysis. It is worth noting, however, that our analysis provides only a snapshot and does not take account of companies' strategies, industry structure and other factors. The carbon emissions calculations as such do not provide a complete picture of the climate risk that companies in the portfolio may be exposed to. The analysis of carbon emissions is often best assessed in combination with information on features such as water intensity, air pollution, age of generation units emitting CO<sub>2</sub>, and, where applicable, carbon capture and storage options.

## Method

Calculation methodologies for greenhouse gases vary. We use estimated greenhouse gas emissions for each individual company in the equity portfolio based on reported numbers of tonnes of CO<sub>2</sub> equivalents.

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

To calculate overall greenhouse gas emission intensity for all of the fund's investments, we multiplied emission intensity at the individual company by the value of the fund's investment in the company as a percentage of the portfolio's total value, and then added up all of the fund's positions. This makes it possible to compare the portfolio with the reference index.

The use of revenue to calculate emission intensity has certain limitations. For example, power companies include companies that not only produce electricity, but also trade electricity. Those that are heavily involved in power trading, or operate in markets where energy is relatively expensive, will have lower intensity scores. In this sector, emissions per unit of power produced (e.g. kWh) could give a better indication of companies' greenhouse gas emission intensity and provide a better basis for comparison between companies.

## Data

Information on companies' greenhouse gas emissions is often based on companies' self-reported data, either as part of their ordinary reporting or submitted to the likes of CDP. Such data are not available for all companies in the fund's equity portfolio. Some data suppliers have therefore developed their own models for assessing the quality of companies' self-reported data or calculating emissions for companies that have not reported any data themselves. Suppliers use different strategies to model emissions from companies for which they do not have reported data. These models often use peer averages for such companies. This can be a source of error if the average does not accurately reflect the individual company's business. There are differences between suppliers in both methods and results. We work closely with our data providers to ensure that we get the best possible coverage for the portfolio and reference index. We have mainly used data from Trucost in our analyses.

## Categorisation of emissions

The Greenhouse Gas Protocol has set a standard for the categorisation of emissions that is used by both authorities and companies. This divides emissions into three types:

**Scope 1** (direct emissions): Emissions from companies' own production.

**Scope 2** (indirect emissions): Emissions from consumption of purchased electricity, heat and steam.

**Scope 3** (indirect emissions): Emissions from the production of purchased goods and services.

**Table 9** Scope 1 and 2 emissions by sector

Sector	Share of portfolio market value. Percent <sup>1</sup>	Equity portfolio		Reference index
		Tonnes CO <sub>2</sub> equivalents	Tonnes CO <sub>2</sub> equivalents	Tonnes CO <sub>2</sub> equivalents
Basic materials	5.6	11,110,229		14,331,282
Consumer goods	13.7	2,434,135		2,518,811
Consumer services	10.3	1,699,342		1,554,147
Financials	23.3	1,172,200		1,494,658
Health care	10.2	594,810		602,299
Industrials	14.1	3,068,862		3,714,834
Oil and gas	6.4	41,548,639		42,985,649
Technology	9.5	983,652		990,756
Telecommunications	3.2	3,242,496		3,287,442
Utilities	3.1	26,707,806		29,315,815
<b>Sum product</b>		<b>5,714,299</b>		<b>6,390,029</b>

<sup>1</sup>Does not total to 100 percent because cash and derivatives are not included

**Table 10** Scope 1 and 2 emissions intensity by sector, weighted by market value of fund holdings.  
Equity portfolio and reference index

Sector	Share of portfolio market value. Percent <sup>1</sup>	Equity portfolio		Reference index
		Tonnes CO <sub>2</sub> equivalents per million dollar sales revenue	Tonnes CO <sub>2</sub> equivalents per million dollar sales revenue	Tonnes CO <sub>2</sub> equivalents per million dollar sales revenue
Basic materials	5.6	604		687
Consumer goods	13.7	70		68
Consumer services	10.3	86		73
Financials	23.3	24		22
Health care	10.2	31		30
Industrials	14.1	237		254
Oil and gas	6.4	333		345
Technology	9.5	48		49
Telecommunications	3.2	43		44
Utilities	3.1	1,262		1,378
<b>Total</b>		<b>164</b>		<b>171</b>

<sup>1</sup>Does not total to 100 percent because cash and derivatives are not included

**Table 11** Scope 1 and 2 emissions in the fixed-income corporate portfolio and reference index as at 31.12.2016

	Tonnes CO <sub>2</sub> equivalents	Average emissions intensity weighted by market value of fund holdings. Tonnes CO <sub>2</sub> equivalents per million dollars in sales revenue
Fixed-income corporate portfolio	6,109,853.36	189
Reference index	7,213,684.61	193
Difference	-1,103,831.26	-4

**Table 12** Scope 1 and 2 emissions in the equity portfolio and reference index

	Tonnes CO <sub>2</sub> equivalents	31.12.2016	31.12.2015	31.12.2016	31.12.2015	Average emissions intensity weighted by market value of fund holdings. Tonnes CO <sub>2</sub> equivalents per million dollars in sales revenue
Equity portfolio	5,714,299	5,546,513		164	165	
Reference index	6,390,029	6,292,057		171	191	
Difference	-675,730	-745,543		-7	-26	
Reference index not adjusted for ethical exclusions	6,776,925	6,268,141		207	189	

**Table 13** Contribution of tonnes of CO<sub>2</sub> equivalents per million dollars between allocation and selection in equity portfolio

Sector	Allocation	Selection	Total
Basic materials	0.4	-4.8	-4.4
Consumer goods	-0.6	0.3	-0.4
Consumer services	-0.1	1.4	1.4
Financials	-0.1	0.4	0.2
Health care	0.4	0.1	0.6
Industrials	0.5	-2.5	-2.0
Oil and gas	-1.0	-0.8	-1.8
Technology	0.6	0.0	0.5
Telecommunications	0.3	0.0	0.3
Utilities	2.6	-3.6	-1.1
<b>Total</b>	<b>3.0</b>	<b>-9.7</b>	<b>-6.7</b>

# Risk-based divestments

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**We have divested from a number of companies in recent years. The divestments follow from assessments that include the consideration of environmental, social and governance related risk factors. In 2016, we divested from 23 companies.**

Our approach to integrating environmental, social and governance issues into our risk management may result in divestments from companies where we see elevated long-term risks. Analyses and decisions related to these risk-based divestments are carried out by Norges Bank Investment Management. They differ from the ethically motivated exclusions under the Guidelines for Observation and Exclusion from the Government Pension Fund Global, which are decided by the Executive Board following a recommendation from the Council on Ethics or, in the case of the coal criterion, Norges Bank Investment Management.

Norges Bank Investment Management views risk-based divestment as a tool to reduce our exposure to risks that we believe could have a negative impact on the portfolio over time. We carry out divestments within the overall limits for portfolio deviation from the reference index, as expressed in the investment mandate. The decision to reduce our exposure to individual sectors or companies through risk-based divestment is based on a total assessment of individual companies' exposure to, and management of, relevant environmental, social and governance risks. Where we have substantial investments in a company, dialogue may be a more suitable approach than divestment. Generally, we have better analytical coverage of, and contact with, our largest investments.

We have a systematic approach to identifying and assessing companies that may be suitable

for risk-based divestment. The primary method of identifying such companies is to assess the portfolio against our in-house framework for identifying environmental, social and governance risks at the country and sector levels. In recent years, we have worked to further develop our analytical model and expanded this risk framework to include additional sectors and themes. In addition to applying our model, we may be alerted to potential candidates for risk-based divestment through our daily risk-monitoring activities. These include the monitoring of environmental, social and governance risks in the portfolio.

When conducting risk-based divestments, we will analyse individual companies' activities, their business models, and indicators of how well they manage relevant risks. These factors will be evaluated against a set of sector-specific criteria. Companies that are identified as having high risk exposure and meet certain sector-specific criteria will be candidates for risk-based divestment.

In 2016, we assessed new sectors and revisited a number of the sectors and themes from previous years. Revisiting previous risk-based divestments entails screening the portfolio to identify any additional candidates for divestment based on the established criteria, and to identify any companies that no longer meet the criteria and may therefore be candidates for reinvestment. For two sectors, we have also reassessed the established criteria for risk-based divestment. The updated criteria reflect relevant changes in the industry and

regulatory environment as well as incorporating additional data sources.

Sector assessments and company analysis resulted in risk-based divestment from 23 companies in 2016. We also put companies that meet some, but not all, of the criteria for



### **Sector assessments and company analysis resulted in risk-based divestment from 23 companies**

ownership. Institutional investors are generally free to invest in any companies they like within the provisions of their investment mandate. Our divestment decisions are an integrated part of our investment management and, as such, more flexible than formal decisions by Norges Bank's Executive Board to exclude companies from the investment universe. As opposed to the situation for formal observation or exclusion decisions, we do not provide a list of companies we have divested from at any one point in time. We nevertheless aim to be transparent about the criteria underpinning our decisions and provide annual holding lists of all companies we invest in.

#### **GREENHOUSE GAS EMISSIONS**

As part of our focus on climate change, we have looked at risks associated with greenhouse gas emissions from companies in the portfolio. Companies with particularly high greenhouse gas emissions, as a result of their own operations or through their value chains, may be exposed to risk from

risk-based divestment under additional risk monitoring.

Many of the topics and sectors assessed in our divestment analyses are also addressed through our ongoing work on standard setting and active

regulatory or market changes. This could lead to increased operating costs or a fall in demand.

#### **Oil sands production**

The production of oil from oil sands is associated with environmental challenges such as high carbon intensity, water use, toxic waste, and land use. The elevated carbon intensity of oil from oil sands is due to greater energy needs during the extraction, processing and upgrading of the resource. In 2014, we assessed companies in the portfolio with exposure to oil sands and divested from five such companies. In 2016, we revisited the sector and updated our criteria for risk-based divestment. The most significant factor in the assessments was the proportion of proven reserves attributed to oil sands. This analysis resulted in the decision to maintain our current divestments and to divest from an additional three companies in 2016.

#### **Coal-fired power generation**

Electricity production from coal is an area that may face particularly high regulatory risk in selected markets. A number of countries and regions have introduced targets to reduce greenhouse gas emissions from the power sector. In our divestment analysis, we focused on those with a relevant business mix allocated to electricity production and where coal represented a relevant percentage of the fuel mix. As a result of our assessment of this sector, we divested from one company in 2016. Previous coal divestments were considered for exclusion under the new coal criterion in the Guidelines for Observation and Exclusion from the Government Pension Fund Global.



Deforestation is an issue  
with significant social  
and environmental  
consequences



78

## **DEFORESTATION**

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

### **Palm oil production**

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

When considering companies for divestment, we focused on those operating palm oil plantations in Malaysia and Indonesia and with a relevant business mix allocated to palm oil production. We also looked at the companies' Roundtable of Sustainable Palm Oil (RSPO) certification status and plans around future certification.

In 2016, we conducted additional in-depth analysis of the sector and participated in an investor trip to Indonesia to get first-hand knowledge of the relevant issues. We revisited the criteria first established in 2012 and updated them to reflect developments in the sector and additional data sources that help create a more complete view of palm oil producers' exposure to, and management of, environmental and social risks. Our findings indicate that while there have been improvements in individual companies' practices and regulation to encourage

sustainability, the industry as a whole still faces significant challenges. One such challenge is related to traceability and sustainability certification in the supply chain. Another is the expansion of some palm oil producers into parts of Africa where governance, land ownership and human rights issues are key concerns.

As a result of our analysis of the sector and assessments of individual companies, we decided to maintain our current divestments and to revisit these again next year.

### **Pulp and paper**

Another assessment of risk related to deforestation dealt with paper production, with the focus on sustainable forestry practices and certification schemes. When considering companies for divestment we focused on those with activities in high-risk countries. We also considered the Forest Stewardship Council (FSC) certification status of the companies. FSC certification ensures that products come from responsibly managed forests that provide environmental, social and economic benefits. As a result of our assessment of this sector, we divested from an additional four companies in 2016.

## **WATER**

Water is an input in a wide variety of production processes in many different sectors. Companies depend on water in their direct operations or through their supply chains or products' lifecycle. Economic and population growth are expected to lead to increased future demand for water from agriculture, households and industry. This may put water resources under increasing stress. Water pollution and climate change may introduce additional challenges. Water stress may affect companies through operational

## RISK-BASED DIVESTMENTS IN 2016

Category	Theme	Criteria	Number of companies divested
Greenhouse gas emissions	Oil sands production	Footprint: Oil sands operations	3
	Coal-fired power generation	Relevant business mix and/or proven reserves allocated to oil sands production	
Deforestation	Pulp and paper	Relevant business mix allocated to electricity production	1
		Coal at relevant percentage of fuel mix	
Social and governance	Human rights issues in seafood industry	Footprint: Exposure to relevant markets	4
		FSC or other sustainability certification status	
Social and governance	Human rights issues in seafood industry	Footprint: Exposure to high-risk markets	2
		Indications of severe human rights abuses	
Social and governance	Social and governance issues in the mining and metals industry	Footprint: Exposure to high-risk markets	10
		Indications of insufficient risk management related to social and governance issues such as health and safety and corruption	
Total	Corruption	Footprint: Exposure to high-risk sectors and markets	3
		Indications of poor management of corruption risk	
			23

disruptions, loss of market access or capital expenditure risks. It may also change the competitive landscape or market demand.

In 2016, we did not divest from any companies based on water risk alone. We did, however, include water risk exposure as a factor when assessing metals and mining companies for risks related to biodiversity and health and safety. We also looked at companies' management of water risks when we assessed companies in the pulp and paper sector.

#### **SOCIAL AND GOVERNANCE ISSUES**

Failure to manage risks related to social and governance issues could result in operational disruptions, financial penalties, loss of contracts and reputational damage to companies. In 2016, we continued to assess

significant social and governance issues such as health and safety, human capital and corruption in our risk monitoring and risk-based divestment work.

#### **Fishing and seafood**

There has been growing attention to working conditions in the supply chains of seafood companies, including allegations that fishing companies use forced labour in their operations in Southeast Asia. Our assessment of the sector focused on the geographical footprint of companies' operations, share of the business mix allocated to relevant fishing activities, documented controversies related to labour rights violations and demonstrated poor management of inherent risk exposure. Our analysis resulted in risk-based divestment from two companies in 2016.

### **DIVESTMENTS IN PREVIOUS YEARS**

<b>Category</b>	<b>2016</b>	<b>2015</b>	<b>2014 and earlier</b>
Greenhouse gas emissions	4	42	22
Deforestation	4	7	43
Water	0	9	35
Social and governance	15	15	14
<b>Total</b>	<b>23</b>	<b>73</b>	<b>114</b>



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82

### **Garments and toys**

In 2015, we performed an initial assessment of companies operating in the clothing and accessories, footwear and toys sectors. Poor management of working conditions and health and safety in these sectors has attracted considerable attention in recent years. When analysing this sector and assessing potential candidates for risk-based divestment, we looked at company performance and concrete incidents relating to key social issues. In assessing the companies in these sectors, we were confronted with the challenge of having incomplete data coverage at the company level in the markets identified as having the highest exposure to relevant environmental, social and governance risks. We therefore decided not to divest from any companies in 2015, but rather to continue to work on securing access to more complete datasets to support future analysis and divestment decisions.

In 2016, we worked on building our knowledge about key social risks in the clothing and accessories, footwear and toys sectors. This included commissioning research related to the most prominent issues faced by the garment industry, with a particular focus on high-risk geographies where manufacturing takes place such as Turkey, China, Cambodia, India and Bangladesh. We also increased our monitoring of companies in the portfolio with exposure to these sectors and geographies. This additional analysis and monitoring has given us valuable insight into the sector. However, persistent challenges related to complex supply chains and a lack of adequate data at the company level mean that we did not make any risk-based divestments from these sectors in 2016.

### **Corruption**

Analysis and risk-based divestment provide a method of reducing exposure to companies with high inherent corruption risk and indications of poor management of such risk. When considering companies for divestment, we focused on those operating in high-risk sectors with exposure to high-risk markets and indications of insufficient risk management related to corruption and corporate governance. We divested from three companies as a result of our assessment of corruption risk in 2016.

### **Metals and mining**

Companies operating in various sectors related to metals and mining may have elevated risk exposure to social issues such as health and safety, child labour and corruption, in addition to environmental issues such as biodiversity, climate change and water stress. For this reason, we chose to look at companies with high combined risk exposure at the sector and country level. When assessing companies for risk-based divestment, we focused on business mix, geographical footprint of operations and documented controversies or other signs of poor management of elevated health and safety risks. This resulted in divestment from ten companies and the placing of an additional nine companies under further risk monitoring.

# Ethical exclusions

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## **Norges Bank excluded 64 companies in 2016 and put 12 coal and other companies under observation. Two exclusion decisions were revoked.**

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

The Ministry of Finance has appointed an independent Council on Ethics for the Government Pension Fund Global to research and evaluate companies and provide recommendations on exclusion or observation. The Council on Ethics has five members and a secretariat.

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

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

On 1 February 2016, the Ministry of Finance added two new criteria to the Guidelines for Observation and Exclusion from the Government Pension Fund Global: a conduct-based climate criterion and a product-based coal criterion. For the coal criterion, the Ministry of Finance also established a new decision process where the Executive Board of Norges Bank may exclude companies without a prior recommendation from the Council on Ethics.

The coal product criterion means that observation or exclusion may be decided for mining companies and power producers which themselves, or through entities they control, derive 30 percent or more of their revenue from thermal coal, or base 30 percent or more of their operations on thermal coal.

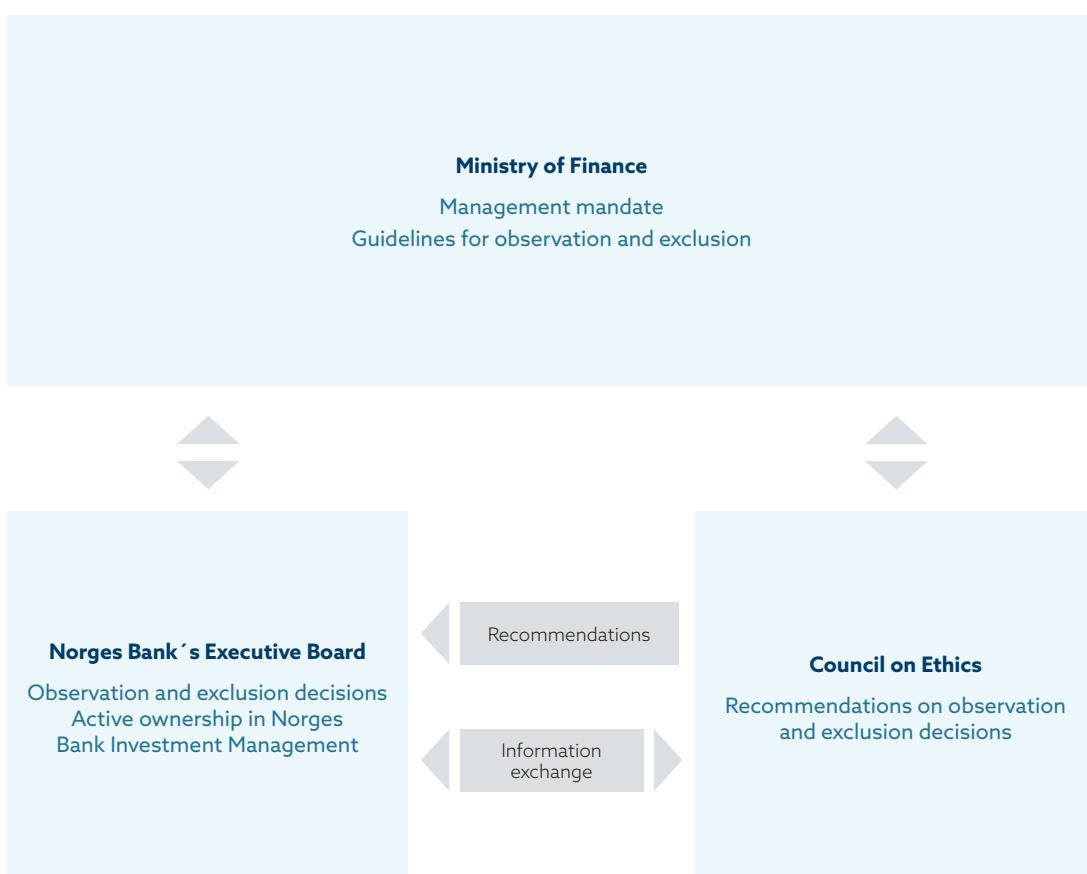
In addition to the thresholds above, a company's future product and fuel mix transition and, for power producers, the share of renewables in company power generation, are to be assessed before companies are recommended for exclusion or observation.

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

In total, Norges Bank excluded 64 companies in 2016 and put 12 companies under observation. Two companies have been re-included in the investment universe in 2016.

Norges Bank and the Council on Ethics regularly share information about activities vis-à-vis portfolio companies and coordinate company contact. Norges Bank also submits matters to the Council on Ethics for the council's consideration.

85



## OPERATIONALISATION OF THE COAL CRITERION IN 2016

During the year, we have collected data and performed analysis in order to identify companies covered by the coal criterion. On this basis, we have made exclusion recommendations to the Executive Board of Norges Bank.

The two thresholds for the criterion are companies with 30 percent or more of revenue from thermal coal or companies with 30 percent or more of their operations based on thermal coal.

The 30 percent threshold for revenue from thermal coal is typically most applicable to coal

mining. The reason for this is that companies in this sector often report revenue data broken down between thermal and metallurgical coal. This transparency enables a relatively direct application of the revenue threshold for these companies.

The second threshold requires an assessment of what a company bases its operations on. As such, its application is more relevant for companies in the power sector than for mining companies. As an example, one could identify companies deriving 30 percent or more of their revenue from their own energy production, which would still not fulfil the above 'revenue from coal'-criterion. For this group of power producers, we then assess the

## TOTAL COMPANY OBSERVATION AND EXCLUSIONS AS AT 31 DECEMBER 2016

	<b>Criterion</b>	<b>Number of companies</b>
Product-based exclusions	Production of tobacco	20
	Production of specific weapon types	16
	Thermal coal mining or coal-based power production	59
Conduct-based exclusions	Serious or systematic human rights violations	3
	Severe environmental damage	18
	Contributions to climate change	0
	Gross corruption	1
Observation	Other fundamental ethical norms	5
	Serious violations of the rights of individuals in situations of war or conflict	2
	Severe environmental damage	1
	Gross corruption	1
	Thermal coal mining or coal-based power production	11

mix of fuel sources used in energy production. If 30 percent or more of a company's aggregate energy production measured in energy units is based on coal, we consider it covered by the criterion.

The selection criteria described above may mean that the way a company chooses to organise its activities could determine whether the company is covered by the criterion or not. Where a company operates above the criterion thresholds, but where stated plans, initiatives or other material factors indicate a likelihood that the company will fulfil the criterion in the foreseeable future, a recommendation to observe the company may be considered. Decisions to observe a company are made public in the same way as exclusion decisions, and progress towards meeting the criteria is tracked.

By the end of 2016, 59 companies had been added to the exclusion list based on the coal criterion, and 11 companies placed on the observation list.

#### **Data**

Finding data of sufficient granularity to facilitate the operational analysis and implementation of the coal criterion can be a challenge. We have collected data from numerous sources to obtain such information. Where a company does report relevant information, this is frequently at an aggregate level.

We supplement data from external data providers with information and analyses from our internal and external portfolio managers. In certain cases, communication with the company provides the best or only source of relevant current and forward-looking information. To solicit such information, we sent letters to all companies flagged as breaching the criterion in our preparatory analysis. In the letters, we asked the companies for information on both their current alignment with the coal criterion as well as comments on their plans concerning a transition away from coal and towards renewable fuel sources. Companies that did not respond to the letters were followed up with further communication.

#### **The process going forward**

The assessment of companies against the coal criterion is an ongoing process. In 2017, we will review all existing exclusions and assess progress at companies currently under observation. We will also assess any additional companies where updated data indicate that they may exceed the thresholds, and review companies that were not found to qualify for observation or exclusion in 2016 to determine whether that is still the case.



N  
88

## RESPONSIBLE INVESTMENT IN THE MANAGEMENT MANDATE

### **CHAPTER 1.**

#### **General provisions**

##### **Section 1-3. The management objective**

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

**(2)** The Fund shall not be invested in companies excluded pursuant to the provisions in the Guidelines for Observation and Exclusion from the Government Pension Fund Global.

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

### **CHAPTER 2.**

#### **Responsible management**

##### **Section 2-1 Responsible management efforts**

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

##### **Section 2-2 Responsible management principles**

**(1)** The Bank shall establish a broad set of principles for the responsible management of the investment portfolio.

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

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

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

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

##### **Section 2-3 Contribution to research and development relating to international standards for responsible management**

**(1)** The Bank shall contribute to research within responsible management with the aim of developing greater knowledge of matters relevant to the investment portfolio's risk and return in the long term.

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

##### **Section 2-4 Environment-related investments**

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

##### **Section 2-5 Decisions on exclusion and observation**

The Bank shall make decisions on the observation or exclusion of companies, and on the revocation of such decisions, in accordance with the Guidelines for Observation and Exclusion from the Government Pension Fund Global. The Bank shall inform the Ministry about decisions on exclusion of companies and revocations of such decisions, cf. section 3-1, third paragraph.









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