



NORGES BANK  
INVESTMENT MANAGEMENT

# **CLIMATE RISK**

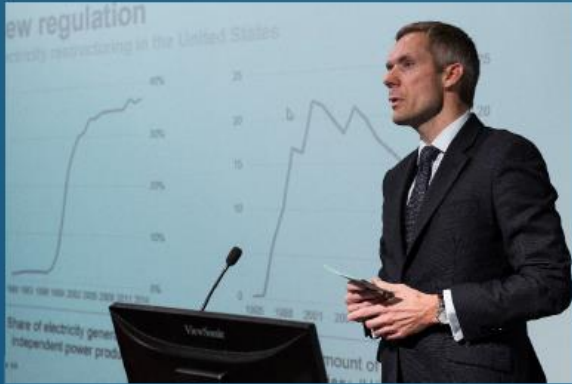
## **NORWEGIAN CLIMATE RISK COMMISSION**

**PATRICK DU PLESSIS**

# Agenda

1. Responsible investment at Norges Bank Investment Management
  - Overview
  - Role and contributions of Risk Monitoring Department
2. Climate Risk activities at Norges Bank Investment Management

# Three pillars of Responsible Investment



## Standard setting

- International standards
- Our principles and expectations
- Responsible investment research



## Ownership

- Voting
- Company dialogue
- Board interaction



## Risk management

- Risk monitoring
- Industry initiatives
- Focus areas
- Environment-related mandates
- Risk-based divestments

# Risk Monitoring Department

## Key contributions to RI work

- Portfolio Environmental Social and Governance (ESG) risk monitoring
- Non-financial Database
- Country, sector and company analysis
- Risk-based divestments
- Implementation of Coal criterion
- Carbon footprint of the fund
- Council On Ethics interaction

# Portfolio ESG risk monitoring

- We conduct ongoing screening of portfolio companies to identify potential Environmental, Social or Corporate Governance (ESG) related risks and related incidents.
- We use a range of ESG metrics and analysis from specialized data providers, all available in the NFD (non-financial database).
- Based on our screening we produced 64 company assessments in 2016, divided into three categories:
  - Material ownership reports (8)
  - Incident briefs (45)
  - Company reports (11)
- Analysis can lead to active ownership, additional risk monitoring or risk-based divestment.

# Non-financial (ESG) Data

- We have comprehensive databases of non-financial data spanning a number of factors at country, sector and company level.
- We incorporate the data in relevant analyses and processes to facilitate a more comprehensive assessment of risk exposure.
- **We rely on company-reported ESG information and supplement this with data from other service providers such as Trucost, MSCI, CDP**

## EXAMPLES OF NON-FINANCIAL DATA

Theme	Qualitative Information	Quantitative metric
Biodiversity	✓	✓
Carbon	✓	✓
Climate change	✓	✓
Waste	✓	✓
Water	✓	✓
Child labour	✓	✓
Corruption	✓	✓
Health & Safety	✓	✓
Human capital	✓	✓
Fossil fuel reserves	✗	✓
Green revenue	✗	✓
Utility plant specifics	✗	✓

# Application of country-sector framework

- Overlaying the framework against the portfolio, we identify sectors with high risk exposure to specific issues.
  - Based on this, we conducted **19 sector assessments**, covering a total of **391 companies** in 2016.
  - The sectors 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.
- As with other ESG analysis we conduct, these assessments can lead to a range of responsible investment activities including risk-based divestment or active ownership .

# Risk-based divestments

- Risk-based divestment is an aspect of our responsible investment work that we have been developing in recent years.
- Following assessments that include the consideration of ESG-related risk factors, we have divested from **210** companies since 2012.
- Divestment decisions are carried out by NBIM, within the management mandate.



# Risk-based divestments in 2016

Category	Theme	2016
Greenhouse gas emissions	Oil sands production	3
	Coal-fired power generation	1
Deforestation	Pulp and paper	4
	Human rights issues in seafood industry	2
Social and governance	Social and governance issues in the mining and metals industry	10
	Corruption	3
Total		23

# Implementing the Coal exclusion criterion

## Timeline

2013

- GPFG started risk-based divestment of coal

2014

- Report by expert group appointed by Ministry of Finance

2015

- Ministry of Finance proposal to Parliament: conduct-based exclusion criterion

2015

- Recommendation by Parliament: product-based coal criterion

2016

- Product-based coal criterion implemented in Fund guidelines

2016

- First and second tranches of coal exclusions

2017

- Third tranche of coal exclusions

# Analysing the Fund's carbon footprint

- We have analysed and reported on GHG emissions from all the companies in our equity portfolio since 2014.
- In 2016 we also analysed the corporate fixed income portfolio for the first time.
- GHG emissions data can provide a useful snapshot of the current carbon exposure of an individual company or portfolio.
- High emission levels may result in financial risk as a result of future regulatory changes and technological advances.

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

	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	
	31.12.2016	31.12.2015	31.12.2016	31.12.2015
	Equity portfolio	5,714,299	5,546,513	164
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



# Council on Ethics interaction

- Participate in quarterly meetings with the Council on Ethics to discuss current and upcoming projects
- Prepare supporting documents for the Executive Board when evaluation recommendations from Council
- Send letters to Council with information from NGO's or other interested parties concerning the conduct of portfolio companies

# Climate change

## Activities over time

**2008** Expectation document

**2009** Establishment of environment-related mandates

**2010** Assessments of climate reporting

**2012** Palm oil divestments

**2013** First coal divestments

**2014** Portfolio carbon footprint analysis

**2015** Research and analysis projects

**2016** Fund-level climate framework

# Expectations towards companies

## Climate change

- Include climate change in company strategy
- Integrate climate risk in overall risk management
- Report on climate gas emissions
- Transparency on regulatory interaction

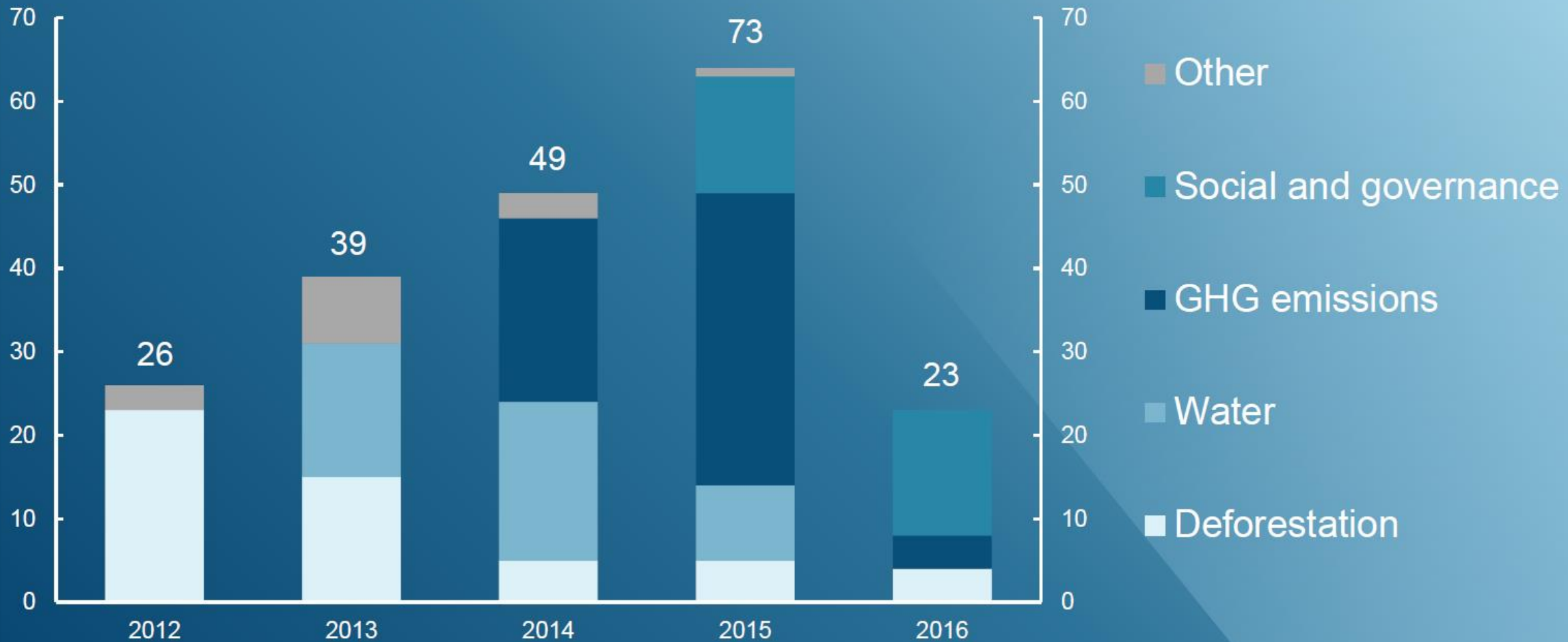


# Targeted environmental investments

## Environmental mandates

Main category	Subgroups	Number of companies	Total (billion kroner) <sup>2</sup>
Low-emission energy & alternative fuels	Renewable energy	45	5.22
	Low-emission energy	11	11.50
	Low-emission fuels	8	1.08
Clean energy & efficiency technology	Electricity production	1	0.16
	Transport	34	5.26
	Buildings	24	7.41
	Industry	43	9.85
Natural resource management	Water	35	8.67
	Waste management and emissions reduction	16	5.35
	Sustainable agriculture	9	2.35
	Other		
Total		226	56.84

# Risk-based divestments over time

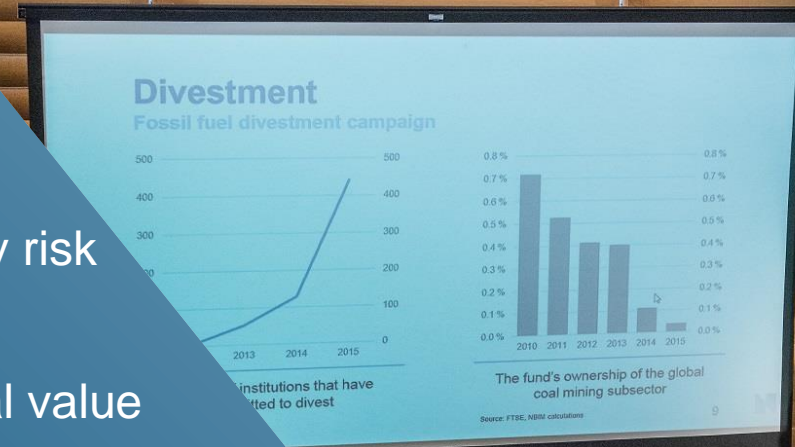




# Responsible investment research

## Current projects

- Research project on climate, water and regulatory risk within mining, **Columbia University**
- Analysis of environmental risks in the thermal coal value chain, **University of Oxford**
- Climate change risk and financial markets, **University of Oslo**
- New Norwegian Finance Initiative (NFI) projects
  - Financial Economics of Climate Change, **NYU Stern**
  - Climate Change and Capital Market Efficiency, **Columbia**
- Participation in **Cicero** (Center for International Climate Research) Climate Finance Advisory Board
- On expert advisory team for **Carbon Delta** and **Potsdam Institute's** CRAM (Climate Risk for Asset Managers) project



# Scenario Analysis

- We see a need to understand portfolio companies' sensitivity to future environmental and policy changes.
- As a first step in developing in-house tools for scenario analysis, we are investigating the impact of carbon pricing for all companies in our investment universe.
- The work with scenario analysis is subject to data limitations.

# Exclusions based on coal

## Guidelines for observation and exclusion

- Two criteria
  - Conduct-based climate criterion (from 1 January 2016)
  - Product-based coal criterion (from 1 February 2016)
- Norges Bank identifies companies under the product-based coal criterion
- The criteria follow the established processes for observation and exclusion
  - The Executive Board decides
  - The decisions on exclusions are made public after the divestment has been completed
- In 2016: 59 companies excluded, 11 companies put under observation



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# Scope 1 & 2 emissions and intensity

## Equity portfolio and reference index

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