



# **NORGES BANK**

## **ANNUAL REPORT**

**/2016**

# Selected key figures

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## KEY POLICY RATE

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0.50%

The key policy rate was reduced from 0.75% to 0.50% in March and was then kept unchanged to the end of the year.



## INFLATION

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3.6%

The operational target of monetary policy is annual consumer price inflation of 2.5% over time.



## COUNTERCYCLICAL CAPITAL BUFFER

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1.5%

The countercyclical capital buffer rate is set at 1.5% effective from 30 June 2016. The rate will increase to 2.0% effective from December 2017.



## FOREIGN EXCHANGE RESERVES

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NOK 480bn

An increase of NOK 12bn from 2015.



#### EMPLOYEES

923 employees

At year-end 2016, there were 923 permanent employees at Norges Bank, of which 568 were employed by Norges Bank Investment Management.



#### TRANSFER TO THE TREASURY

NOK 17.7bn

As a result of the distribution of total comprehensive income for 2016 and previous years, NOK 17.7bn will be transferred from Norges Bank's Transfer Fund to the Treasury in 2017.



#### GOVERNMENT PENSION FUND GLOBAL

NOK 7 510bn

The market value of the GPFG increased in 2016 by NOK 35bn.



#### GOVERNMENT PENSION FUND GLOBAL

6.9%

The return on the GPFG in 2016 was 6.9% in terms of the fund's currency basket, with the return on equity investments at 8.7%, fixed income investments at 4.3% and real estate at 0.8%.

# Strategy for 2017–2019

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## OUR MISSION

Norges Bank's mission is to promote economic stability and manage substantial assets on behalf of the Norwegian people.

The Bank conducts monetary policy, monitors the stability of the financial system and promotes robust and efficient payment systems and financial markets.



Norges Bank is responsible for the management of the Government Pension Fund Global (GPFG) on behalf of the government and the management of the Bank's foreign exchange reserves. The investment strategy of the GPFG is designed to obtain the highest possible return within the framework of the investment mandate.

## OUR VISION AND OUR VALUES

Norges Bank is committed to being a transparent and well-run central bank. We aim to be at the forefront of monetary policy innovation and the further development of a modern payment system. We are responsible for safeguarding and building financial wealth for future generations. We pursue a policy of open and active communication to promote understanding of the Bank's role and the performance of its tasks.

The Bank's core values are team spirit, integrity, innovation and excellence. We aim to maintain a cost-efficient and prudent use of resources and to provide good working conditions, exercise ownership rights responsibly and be environmentally responsible.

## STRATEGY FOR 2017-2019

# Challenges and action

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## MONETARY POLICY INNOVATION IN A WORLD OF LOW INTEREST RATES

### CHALLENGE:

The global economy is characterised by moderate growth, low inflation and low interest rates. The Norwegian economy is also feeling the effects of restructuring following the decline in petroleum sector investment. Confidence in the inflation target has enabled monetary policy to facilitate restructuring following the fall in oil prices, but the Norwegian economy remains vulnerable. The financial crisis has challenged economic thinking and led to a debate about the framework for monetary policy in many countries.

### ACTION:

- Norges Bank will strengthen contingency planning for situations in which there is limited room for manoeuvre in interest rate setting
- Norges Bank will provide the Ministry of Finance with its assessment of the monetary policy mandate in the light of its experience of inflation targeting since 2001
- Norges Bank will evaluate and update the model apparatus used in monetary policy analyses
- Norges Bank will continue working to determine how best to take uncertainty and risk into account in monetary policy
- Norges Bank will enhance communication regarding the Executive Board's monetary policy discussions
- Norges Bank will develop its understanding of the way monetary policy affects financial stability and continue its work on integrating monetary and macroprudential policy analyses
- Norges Bank will establish general principles for liquidity policy



## FINANCIAL STABILITY AFTER THE FINANCIAL CRISIS

### CHALLENGE:

The repercussions of the financial crisis continue to affect the global economy. Low and negative policy rates, low long-term interest rates and the expansion of central bank balance sheets in many countries are creating challenges to global and domestic financial stability. In Norway, high property price inflation over time and the level of household debt are making the economy vulnerable to new shocks.

### ACTION:

- Norges Bank will continue working to prevent systemic risk and to enhance the resilience of the financial system
- Norges Bank will develop and use a wider range of systemic risk indicators and macroprudential models, in line with international best practice
- Norges Bank will increase its use of different types of microdata to shed light on monetary policy and macroprudential issues
- Norges Bank will influence the formulation of financial system regulation through its analyses and recommendations

## AN EFFICIENT AND MODERN PAYMENT SYSTEM

### CHALLENGE:

Payment system technology is developing at a rapid pace. Payments are increasingly made electronically based on customer deposits, while access to cash has diminished. Several central banks are assessing whether to offer payment solutions using electronic central bank money. Cybercrime is on the rise and constantly poses new challenges.

### ACTION:

- Norges Bank will, in consultation with the industry, work to promote faster payments with immediate settlement
- Norges Bank will assess whether decentralised technology could increase the efficiency of the Norwegian financial infrastructure and will explore whether electronic central bank money could serve as a possible future means of payment in Norway
- Norges Bank will supply the public with cash as a means of payment, and a new banknote series will be issued in the course of the strategy period
- Norges Bank will, in cooperation with Finanstilsynet (Financial Supervisory Authority of Norway), follow up on its advice to the authorities regarding contingency arrangements for the payment system
- Norges Bank will update and improve its most critical IT systems and ensure their robustness, modernisation, operational reliability and cost-efficiency
- Norges Bank will strengthen its contingency planning to protect the core of the payment system (Norges Bank's settlement system) and the Bank's other mission-critical systems against cybercrime

## STRATEGY FOR 2017-2019

### LONG-TERM AND RESPONSIBLE MANAGEMENT OF THE GOVERNMENT PENSION FUND GLOBAL

#### CHALLENGE:

The value of the Government Pension Fund Global (GPFG) has increased considerably in recent years and is now more than 2.5 times higher than mainland GDP. The investment strategy has been developed over time based on solid financial principles and practical experience within investment management. The complexity of the GPFG management assignment has increased while management costs have been kept at a low level compared with similar funds. The GPFG is a long-term and responsible investor with ownership stakes in more than 9000 companies in over 70 countries. The return on the GPFG is of growing importance for the Norwegian economy. At the same time, there are increased demands on how the management assignment is performed with regard to governance and control, transparency, accountability and professionalism.

#### ACTION:

- Norges Bank will take advantage of the GPFG's unique characteristics and perform its investment management assignment in a cost-efficient manner to achieve the highest possible return within the framework of the investment management mandate
- Norges Bank will strengthen its advisory role with regard to the development of the GPFG investment strategy in order to secure a solid, long-term return
- Norges Bank will strengthen its operational management of the GPFG through further development of the internal reference portfolios
- Norges Bank will place emphasis on its role as a long-term, professional and responsible owner with in-depth knowledge about the largest companies
- Norges Bank will be a global leader in responsible investment and will contribute to the development of international standards and principles
- Norges Bank will continue to build a portfolio of unlisted real estate investments concentrated on a limited number of major cities around the world
- Norges Bank expects to keep internal management costs below 5 basis points

### A TRANSPARENT, PREDICTABLE AND ACCESSIBLE CENTRAL BANK

#### CHALLENGE:

To maintain confidence in the way Norges Bank accomplishes its tasks in the interest of the Norwegian people, transparency with regard to all the Bank's activities is essential. Openly communicating our decisions and response pattern will enhance predictability and understanding. In a rapidly changing media landscape, there is an increasing need for available and accessible information about the Bank's tasks and performance. By pursuing a policy of open communication, we can foster knowledge-based societal debate.

#### ACTION:

- Norges Bank will be transparent, correct, predictable and responsible
- Norges Bank will communicate frequently, simply and clearly
- Norges Bank's website will at all times be updated with all important information
- Norges Bank will give weight to expanding its dialogue with different target groups

## OUR MOST IMPORTANT RESOURCE IS OUR STAFF

### CHALLENGE:

Norges Bank is a knowledge-based institution with high employee knowledge and performance standards. We compete for the best candidates from leading national and international institutions. The Bank facilitates employee development in the face of new challenges.

### ACTION:

- Norges Bank will offer professional development opportunities
- Norges Bank will continue to promote a performance-oriented corporate culture with an emphasis on innovation and teamwork
- Norges Bank will strengthen its contact with academic communities in Norway and abroad
- Norges Bank will continue to promote gender balance and diversity in the workplace
- Norges Bank will use leadership training programmes to strengthen the understanding of leadership roles and provide insight into staff management processes

## A WELL-RUN CENTRAL BANK

### CHALLENGE:

Norges Bank's use of resources must be cost-efficient, prudent and commensurate with the Bank's tasks. In the current international threat landscape, where intelligence agencies, advanced organised crime and terrorism play a significant role, Norges Bank must conduct its tasks with a high degree of security for its personnel, functions and systems.

### ACTION:

- Norges Bank's use of resources will be cost-efficient, prudent and commensurate with its tasks. The cost level will be reasonable relative to similar organisations
- Norges Bank will further develop its governance framework in line with best practice. Risk management will be efficient and appropriate to the nature, scope and complexity of the Bank's activities
- Norges Bank will develop a security management model that takes account of the needs of all areas of activity. Contingency exercises will be conducted regularly
- Norges Bank will develop an environmental strategy for the day-to-day operation of the Bank

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# Norges Bank's Executive Board

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## **ØYSTEIN OLSEN**

Re-appointed Governor of Norges Bank and Chair of the Executive Board on 1 January 2017 for a second six-year term. Mr Olsen has held this post since 1 January 2011.

Mr Olsen's work experience includes posts as Director General of Statistics Norway and Director General at the Ministry of Finance. He has also chaired or been a member of several government-appointed commissions. Mr Olsen holds a postgraduate degree in economics (Cand. oecon.) from the University of Oslo.



1. Nina Larsson Midthjell 2. Arne Hyttnes 3. Egil Matsen 4. Hilde Myrberg  
5. Mona Helen Sørensen 6. Kjetil Storesletten 7. Øystein Olsen 8. Kristine Landmark  
9. Kathryn Moore Baker 10. Karen Helene Ulltveit-Moe 11. Steinar Juel 12. Jon Nicolaisen



### **JON NICOLAISEN**

Appointed Deputy Governor and First Deputy Chair of the Executive Board on 1 April 2014 for a term of six years.

Mr Nicolaisen's work experience includes posts as Principal Officer and Deputy Head of the Economic Policy Department of the Ministry of Finance, Head of Section at the OECD Secretariat and Executive Director of Norges Bank Monetary Policy. He is co-chair of the Regional Consultative Group for Europe under the Financial Stability Board with Ms Anne Le Lorier, First Deputy Governor of the Banque de France. Mr Nicolaisen holds a postgraduate degree in economics (Cand. oecon.) from the University of Oslo.

### **EGIL MATSEN**

Appointed Deputy Governor and Second Deputy Chair of the Executive Board on 18 January 2016 for a term of six years. Chair of the Ownership Committee and of the Risk and Investment Committee of the Executive Board.

Mr Matsen served on the Executive Board as alternate 2010-2011 and as board member 2012-2015. He holds the position of professor and Head of the Department of Economics at the Norwegian University of Science and Technology (NTNU) and has been a Fulbright Fellow at Harvard University and researcher at Norges Bank. Mr Matsen holds a PhD in economics from the NHH Norwegian School of Economics.

**HILDE MYRBERG**

Appointed board member for the period 1 January 2014 – 31 December 2017. Chair of the Remuneration Committee of the Executive Board.

Ms Myrberg serves on the board of several companies, including Nordic Mining and CGG (French seismic and geoscience company). She is a former member of the board of Finanstilsynet (Financial Supervisory Authority of Norway), Petoro, Renewable Energy Corporation (REC) and Kongsberg Automotive. Ms Myrberg also has broad business sector experience, including senior management posts at Orkla and Norsk Hydro. Ms Myrberg holds a law degree from the University of Oslo and an MBA from INSEAD.

**KJETIL  
STORESLETTEN**

Appointed board member for the period 1 January 2014 – 31 December 2017. Member of the Risk and Investment Committee of the Executive Board.

Mr Storesletten holds a professorship at the Institute of Economics of the University of Oslo and a guest professorship at the University of Zurich. He was previously affiliated with Stockholm University and the Federal Reserve Bank of Minneapolis. Mr Storesletten has been a member of government-appointed commissions and holds a number of other positions of responsibility, including Vice-President of the European Economic Association and Chairman of the Editorial Board of *The Review of Economic Studies*. Mr Storesletten holds a degree in economics and business administration from the NHH Norwegian School of Economics and a PhD in economics from Carnegie Mellon University.

**KAREN HELENE  
ULLTVEIT-MOE**

Appointed board member for the period 1 January 2014 – 31 December 2017. Chair of the Audit Committee and member of the Risk and Investment Committee of the Executive Board.

Ms Ulltveit-Moe holds a professorship at the Institute of Economics of the University of Oslo and is Research Fellow at the Centre for Economic Policy Research (CEPR) and CESifo. She has board experience from several companies, including the Kverneland Group and the Renewable Energy Corporation (REC), and has chaired or been a member of several government-appointed commissions, including the Norwegian Government Commission on Tax Policy and the Norwegian Government Commission on Working Time. Ms Ulltveit-Moe holds an MSc in economics from the University of Mannheim and a PhD in economics from the NHH Norwegian School of Economics.

**KATHRYN MOORE  
BAKER**

Appointed board member for the period 1 January 2016 – 31 December 2019. Member of the Audit Committee and the Ownership Committee of the Executive Board. Ms Baker served as alternate member in the period 19 June 2015 – 31 December 2015.

Ms Baker has extensive board experience, including the positions of Chair of the Board at Catena Media and Navamedic ASA and board member at Akastor, DOF and Sevan Marine. She was previously a partner at the private equity company Reiten & Co and a consultant at McKinsey & Company. Ms Baker holds a BA in economics from Wellesley College and an MBA from the Tuck School of Business at Dartmouth College.



**STEINAR JUEL**

Appointed board member for the period 1 January 2016 – 31 December 2019. Member of the Audit Committee and the Remuneration Committee of the Executive Board.

Mr Juel holds the position of Senior Economist at Civita. He has extensive experience from Kreditkassen/Nordea, primarily as chief economist. Mr Juel has previously held positions at Norges Bank, the Ministry of Finance, the Norwegian Bankers' Association and the EFTA Secretariat in Geneva and has been personal adviser to finance ministers Rolf Presthus and Arne Skauge. Mr Juel holds a postgraduate degree in economics (Cand. oecon.) from the University of Oslo.

**ARNE HYTTNES**

First alternate

Appointed for the period 4 March 2016 – 31 December 2019. Member of the Ownership Committee of the Executive Board.

Mr Hyttnes has extensive experience from the financial industry, including positions at DnC/DnB, the Norwegian Savings Banks Association, Finance Norway and the Norwegian Banks' Guarantee Fund. He was Managing Director of the Norwegian Industrial and Regional Development Fund for four years and also has board experience from the NHH Norwegian School of Economics and "Ungt Entreprenørskap", a non-profit organisation to promote cooperation between schools and the business sector. Mr Hyttnes holds a degree in economics and business administration from the NHH Norwegian School of Economics.

**KRISTINE LANDMARK**

Second alternate

Appointed for the period 4 March 2016 – 31 December 2019. Member of the Remuneration Committee of the Executive Board.

Ms Landmark has extensive business sector experience, including positions at Sunnmørsbanken, Stokke AS and as Managing Director of the Slettvoll furniture company. Other professional experience includes various positions of responsibility and board member experience. Ms. Landmark is an active member of the board of Hexagon Composites, Glamox, Plantasjen, Norway Royal Salmon and Ratos AB. Ms Landmark holds a degree in economics and business administration from the NHH Norwegian School of Economics.

**EMPLOYEE REPRESENTATIVES****MONA HELEN  
SØRENSEN**

Employee representative as from 1 January 2016.

Norges Bank employee since 1991. Chair and chief union representative of the Finance Sector Union of Norway at Norges Bank from 1 January 2016. Ms Sørensen holds a degree in economics and administration and an Executive Master of Management with a specialisation in applied organisational psychology from the BI Norwegian Business School.

**NINA LARSSON  
MIDTHJELL**

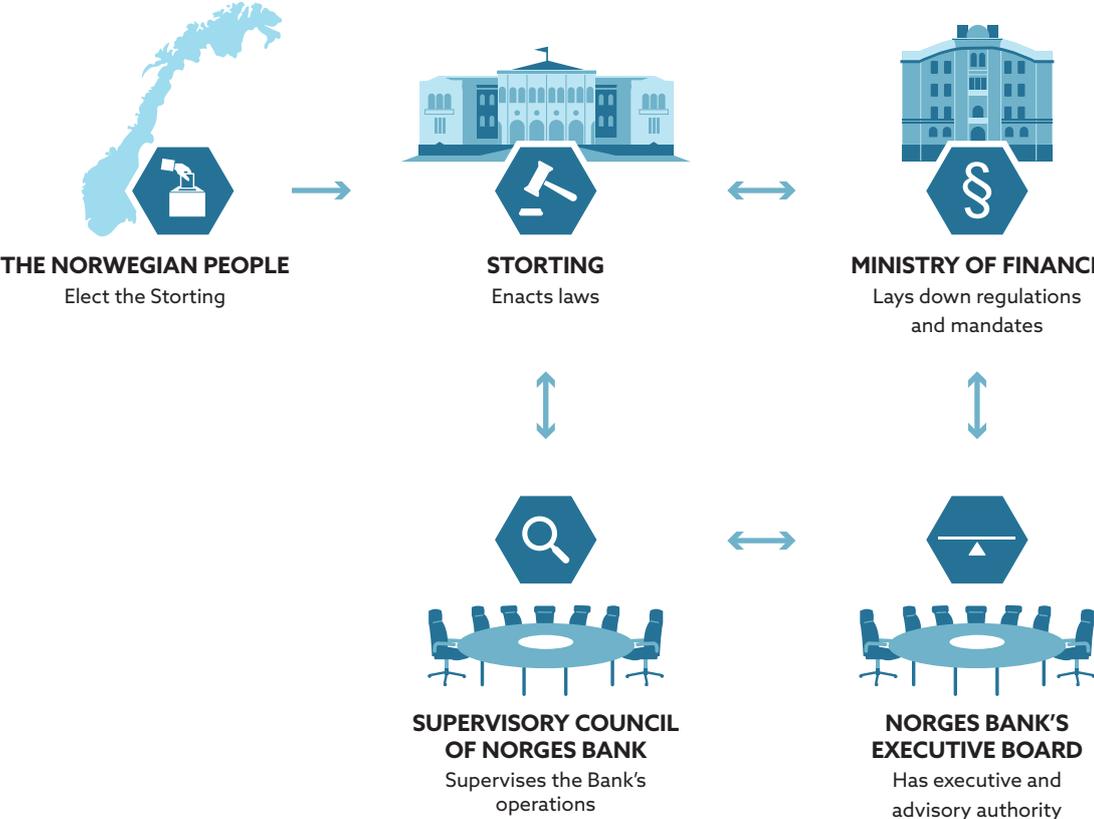
Employee representative for the period 1 November 2016 – 31 December 2018.

Norges Bank employee since 2008. Nominated by the Federation of Norwegian Professional Associations at Norges Bank (ANB). Ms Midthjell holds a PhD in economics from the University of Oslo.

Mr Kristoffer Haugen is alternate for Ms Midthjell.



### GOVERNANCE OF NORGES BANK

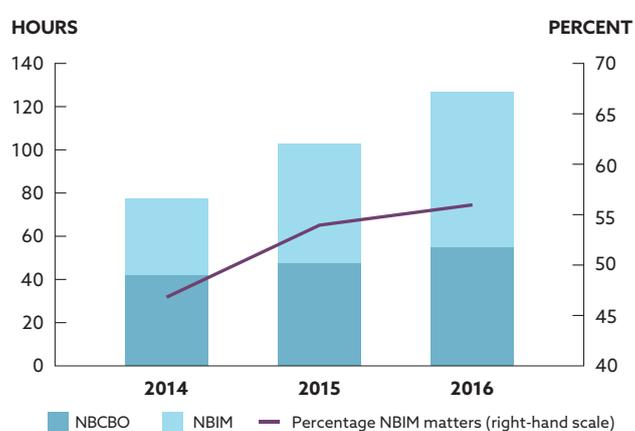


# Composition and work of the Executive Board in 2016

## COMPOSITION OF THE EXECUTIVE BOARD IN 2016

Name	Function	Change in 2016	Committee
Øystein Olsen	Chair	Reappointed for a second six-year term from 1 January 2017	
Jon Nicolaisen	First Deputy Chair		
Egil Matsen	Second Deputy Chair	New function as Deputy Governor and Second Deputy Chair of the Executive Board from 18 January 2016	Ownership Committee (Chair) Risk and Investment Committee (Chair)
Hilde Myrberg	Member		Remuneration Committee (Chair)
Kjetil Storesletten	Member		Risk and Investment Committee
Karen Helene Ulltveit-Moe	Member		Audit Committee (Chair) Risk and Investment Committee
Kathryn M. Baker	Member	Appointed member from 1 January 2016 (alternate from 19 June 2015)	Audit Committee Ownership Committee
Steinar Juel	Member	Appointed from 1 January 2016	Audit Committee Remuneration Committee
Espen R. Moen	Alternate	Resigned from the Executive Board 29 February 2016	Ownership Committee
Arne Hyttnes	Alternate	Appointed from 4 March 2016	Ownership Committee
Kristine Landmark	Alternate	Appointed from 4 March 2016	Remuneration Committee
Mona H. Sørensen	Employee representative	Employee representative from 1 January 2016	
Gøril B. Havro	Employee representative	Employee representative until 30 June 2016	
Henrik Borchgrevink	Employee representative	Acting employee representative in the period 1 July to 31 October 2016	
Nina Larsson Midthjell	Employee representative	Employee representative from 1 November 2016	

## DISTRIBUTION OF TIME, EXECUTIVE BOARD



The bars show the total time spent by the Executive Board in meetings and seminars (left-hand scale). The line shows the percentage of time spent on matters relating to Norges Bank Investment Management (NBIM) (right-hand scale).

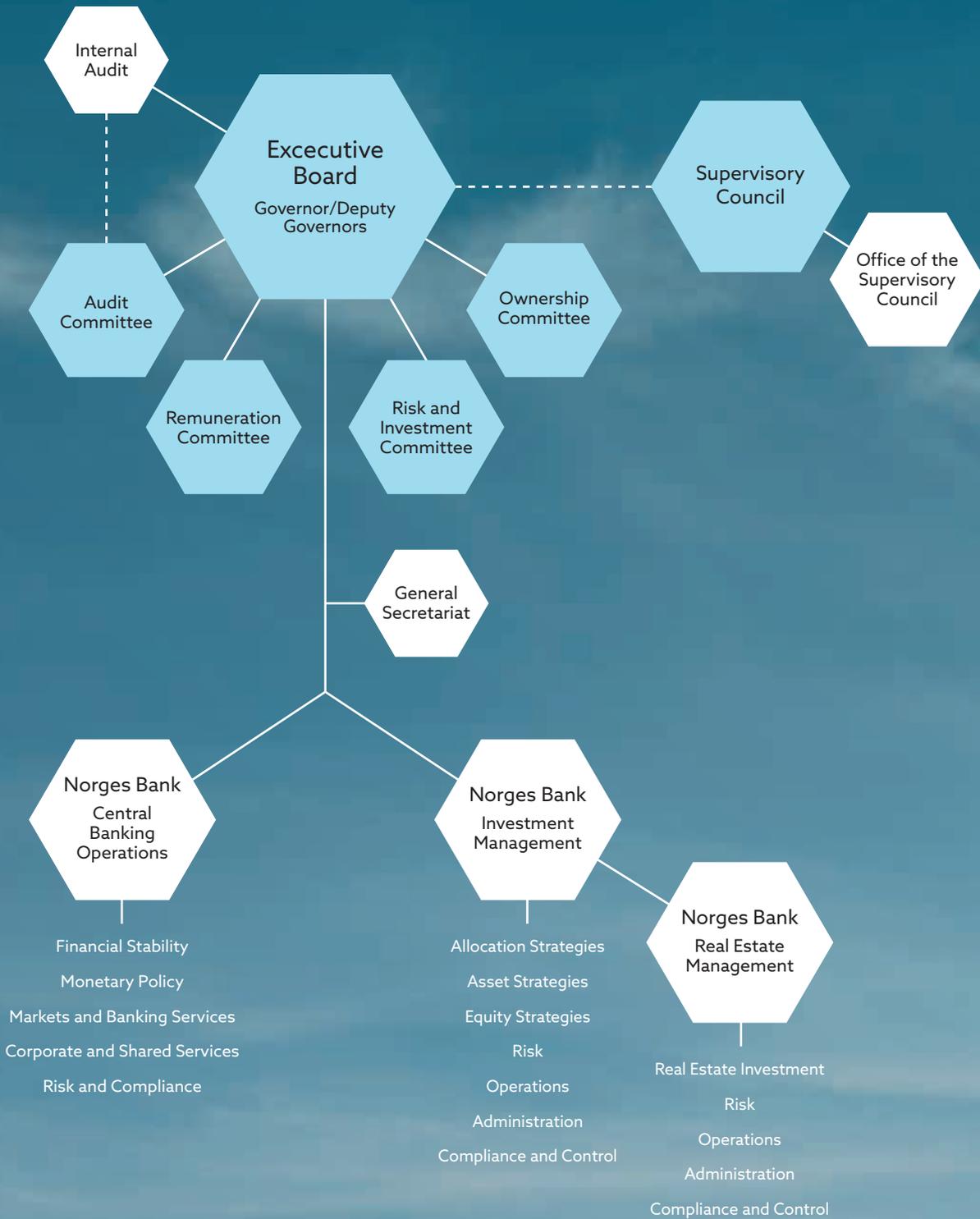
## WORK OF THE EXECUTIVE BOARD 2014-2016

	2014	2015	2016
Number of Executive Board meetings	14	16	17
Number of Executive Board seminars	8	9	11*
Number of matters considered by the Executive Board	180	218	248
Total time spent in meetings and seminars	78 hours	103 hours	127 hours*
Preparatory committee meetings			
- Audit Committee	5	7	7
- Remuneration Committee	4	2	3
- Ownership Committee**	-	7	7
- Risk and Investment Committee**	-	7	10
Total time spent in committee meetings	25 hours	44 hours	72 hours

\* The increase in the number of seminars and in total time spent is due in part to the considerable amount of time spent by the Executive Board on discussing the strategy for Norges Bank for the period 2017-2019, including a three-day strategy seminar.

\*\* Established in 2015.

# ORGANISATION CHART NORGES BANK



# Responsibilities and governance structure

**Norges Bank's activities are regulated by the Act of 24 May 1985 relating to Norges Bank and the Monetary System etc. (the Norges Bank Act). The Act states that Norges Bank is to be an executive and advisory body for monetary, credit and foreign exchange policy. The Bank is required to issue banknotes and coins, promote an efficient payment system domestically and vis-a-vis other countries, and monitor developments in the money, credit and foreign exchange markets.**

**Norges Bank's management of the Government Pension Fund Global (GPF) is regulated by the Government Pension Fund Act and the management mandate for the GPF issued by the Ministry of Finance.**

Norges Bank's operational conduct of monetary policy is oriented towards low and stable inflation. As part of its work to promote stability in the financial system, Norges Bank has been assigned responsibility for preparing a decision basis and providing advice to the Ministry regarding the level of the countercyclical capital buffer requirement imposed on banks.

The objective of Norges Bank's investment management is to achieve the highest possible return net of costs, measured in terms of the fund's currency basket and in line with the limits set for investment management.

Norges Bank's operations are conducted in accordance with the economic policy guidelines laid down by the government authorities and the international obligations by which Norway is bound.

The highest decision-making bodies of Norges Bank are the Executive Board and the Supervisory Council.

Executive and advisory authority is vested in the Executive Board, and the Board manages the Bank's resources. The Executive Board is responsible for ensuring the sound organisation of, and establishing satisfactory frameworks, objectives and principles for, the Bank's operations. The Board must ensure that the Bank's operations, including accounts and asset management, are subject to adequate management and control.

The Executive Board comprises eight members, all appointed by the King in Council. The Governor is Chair and the two Deputy Governors are First Deputy Chair and Second Deputy Chair of the Executive Board. The other five members are not on the staff of Norges Bank. There are also two alternates for the external members. The alternates attend and have voting rights in administrative matters. Two employee representatives attend Executive Board meetings when matters concerning the Bank's internal operations and conditions for the staff are discussed, and the Executive Board then has twelve members.

The Executive Board has four subcommittees: the Audit Committee, the Remuneration Committee, the Ownership Committee and the Risk and Investment Committee. The four committees are all preparatory bodies established to strengthen and streamline the Executive Board's discussions. The mandate and tasks of the Audit Committee are set out in the Regulation on risk management and internal control at Norges Bank.

Internal Audit provides the Executive Board with independent assessments of risk management and internal control. Internal Audit reports to the Audit Committee.

Norges Bank's Supervisory Council comprises 15 members appointed by the Storting (Norwegian parliament). As Norges Bank's supervisory body, the Supervisory Council has primary responsibility for overseeing the Bank's operations and compliance with formal frameworks. The Council's supervisory responsibilities are set out in the Norges Bank Act and apply to all of Norges Bank's activities. The Supervisory Council adopts Norges Bank's annual budget and financial statements and selects the auditor. The Supervisory Council is served by a General Secretariat, which performs secretariat and supervisory tasks.

The Governor of Norges Bank is responsible for the Bank's administration and the implementation of decisions. The Deputy Governors are First and Second Deputy Chairs of the Executive Board. Responsibility for the management of the GPF is assigned to Norges Bank Investment Management (NBIM). The Executive Board has delegated decision-making authority directly to the CEO of NBIM through the job description for this post and the investment management mandate.





# Annual Report of the Executive Board

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**Norges Bank's mission is to promote economic stability and manage assets on behalf of the Norwegian people. The Bank conducts monetary policy, monitors financial system stability and promotes robust and efficient payments systems and financial markets. Norges Bank manages the Government Pension Fund Global (GPF) on behalf of the government and manages the Bank's foreign exchange reserves.**

In 2016, Norges Bank celebrated its bicentenary. Celebrations took place all through the year and included exhibitions, speaking events all over the country, an international symposium, an open day, the opening of a knowledge centre for school pupils and an official bicentenary gala dinner held in Trondheim.

## **NEW STRATEGY**

The year 2016 marked the end of Norges Bank's 2014-2016 strategy period. The Executive Board worked through the year on Norges Bank's strategy for 2017-2019 for the two areas of activity, Norges Bank Central Banking Operations and Norges Bank Investment Management. In essence, the strategic plan builds on and is a continuation of the strategic plan for 2014-2016. The strategic plan for the next three years highlights the following:

*"Norges Bank is committed to being a transparent and well-run central bank. We aim to be at the forefront of monetary policy innovation and the further development of a modern payment system. We are responsible for safeguarding and building financial wealth for future generations.*

*We pursue a policy of open and active communication to promote understanding of the Bank's role and the performance of its tasks. The Bank's core values are team spirit, integrity, innovation and excellence. We will ensure a cost-efficient and prudent use of resources and provide for good working conditions, responsible ownership and environmentally sound business practices."*

A number of challenges facing the central bank's core areas are also identified:

*"The global economy is characterised by moderate growth, low inflation and low interest rates. The Norwegian economy is also feeling the effects of restructuring following the decline in petroleum sector investment. Confidence in the inflation target has enabled monetary policy to facilitate restructuring following the fall in oil prices, but the Norwegian economy remains vulnerable. The financial crisis has challenged economic thinking and led to a debate about the framework for monetary policy in many countries.*

*The repercussions of the financial crisis continue to affect the global economy. Low and negative policy rates, low long-term interest rates and the expansion of central bank balance sheets in many countries are creating challenges to global and domestic financial stability. In Norway, high property price inflation over time and the level of household debt are making the economy vulnerable to new shocks.*

*Payment system technology is developing at a rapid pace. Payments are increasingly made electronically based on customer deposits, while access to cash has diminished. Several central banks are assessing whether to offer payment solutions using electronic central bank money. Cybercrime is on the rise and constantly poses new challenges.*

*The investment strategy for the GPFG has been developed over time based on solid financial principles and practical experience within investment management. The complexity of the GPFG's management assignment has increased*

*while management costs have been kept at a low level compared with similar funds. The GPFG is a long-term, responsible investor with ownership stakes in more than 9 000 companies in over 70 countries. The return on the GPFG is of growing importance for the Norwegian economy. At the same time, there are increased demands on how investment management is performed with regard to governance and control, transparency, accountability and professionalism."*

**The repercussions of the financial crisis continue to affect the global economy**

Read Norges Bank's strategy for 2017-2019 on pages 2-7 of this *Annual Report*.

**STRENGTHENED GOVERNANCE STRUCTURE**

The Norges Bank Act was amended with effect from 1 January 2016. The amendments included an increase in the number of deputy governors from one to two, with the aim of strengthening the Board's capacity, particularly within investment management.

The Board's work in 2016 included adjusting the Bank's governance structure in line with the changes in its tasks, and a number of organisational adjustments were made to support the latest amendments to the Norges Bank Act. The adjustments included establishing a general secretariat for the Executive Board and the Bank's executive management. The mandates for the Board's subcommittees were further developed and clarified in 2016 to define the division of work between the subcommittees in more detail.

The changes in the governance structure and the internal organisational adjustments have increased the Board's capacity within investment management. The total time spent on investment management issues has increased without reducing the total time spent on more traditional central bank tasks. Establishing the new subcommittees has also increased the Board's capacity to deal with individual issues in more depth and to follow up investment management reports.

#### Changes in frameworks

The Executive Board has taken note of the work in progress that may lead to changes in the framework for Norges Bank's operations. In April 2015, the Ministry of Finance appointed a commission, headed by Svein Gjedrem, to assess the Norges Bank Act. The commission has been tasked with reviewing the Act in the light of the substantial changes that have been made to the Bank's tasks. The commission will assess the Bank's governance structure and the relationship between the Bank and the government authorities. Based on its assessment, the commission will propose changes, if any, to the Norges Bank Act and the Bank's governance structure. The commission will base its work on current monetary policy guidelines and assess Norges Bank's responsibility for the management of the GPF, cf. the Act relating to the Government Pension Fund. The commission is to deliver its report by 30 June 2017.

In its *Financial Markets Report*, the Ministry of Finance announced that, in parallel with the Norges Bank Act commission's work, the Ministry would assess the need for a modernisation of the monetary policy regulation.

#### MONETARY POLICY

Norges Bank has executive and advisory responsibilities in the area of monetary policy. The operational conduct of monetary policy is oriented towards keeping inflation low and stable. The operational target of monetary policy is annual consumer price inflation of close to 2.5% over time. Monetary policy should also contribute to smoothing fluctuations in output and employment.

Low interest rates abroad and weak growth in the Norwegian economy had an impact on monetary policy in Norway in 2016. The key policy rate was lowered from 0.75% to 0.5% in March and was thereafter kept unchanged for the remainder of the year.

Growth in the global economy has softened in recent years and in 2016 was at its lowest since the financial crisis, primarily reflecting weaker developments in emerging economies. Growth has edged up in the largest of the advanced economies. Overall growth for Norway's trading partners has thus firmed a little in recent years. Uncertainty with regard to the growth outlook increased in many countries through 2016, partly as a result of the UK vote to leave the EU and the outcome of the presidential election in the US. Low commodity prices contributed to continued low inflation, but inflation expectations increased in a number of countries towards the end of the year.

Amid low inflation and moderate growth prospects, several central banks implemented further monetary policy easing in 2016. The central banks of Sweden and the UK and the European Central Bank reduced their policy rates in addition to expanding their asset purchase programmes. The Federal Reserve, on

the other hand, raised its policy rate in December, a year after its previous interest rate increase. Although trading partner money market rates fell in the first three quarters of 2016, much of the decline was reversed towards the end of the year. Long-term interest rates also fell in the first part of 2016, before rebounding to about the same level as at the beginning of the year.

The premium in the Norwegian money market continued to rise in 2016, primarily owing to international conditions and in particular new regulations for US money market funds. For the year as a whole, lending rates for enterprises were little changed, while there was a slight fall in lending rates for households.

In January 2016, the price of oil fell to its lowest level since 2003. The oil price then rose,

reaching about USD 55 per barrel by the end of the year. Futures prices also moved up somewhat through 2016. The rise in oil prices partly reflected higher demand for oil from countries such as the US, China and India and the decision by OPEC and several other countries to limit oil production.

With the rise in oil prices and higher interest rate expectations in Norway, the Norwegian krone appreciated through 2016. Following a considerable depreciation over the previous three years, the value of the krone, as measured by the import-weighted index I-44, increased by about 6% through the year.

Growth in the Norwegian economy picked up somewhat through 2016, although to a slightly lesser extent than expected at the end of 2015. Annual growth in mainland GDP was at its



lowest since 2009, primarily owing to the fall in oil prices and lower activity in petroleum-oriented industries.

Petroleum investment continued to fall markedly in 2016, and lower exports from oil refineries and the oil service industry contributed to a substantial decline in total mainland exports. Business investment for firms less heavily dependent on the oil industry showed a moderate increase in 2016. Housing investment rose considerably, particularly in southeastern Norway. Growth in household consumption was weak in 2016. Goods consumption showed a decrease from the previous year, while services consumption increased.

Capacity utilisation in the Norwegian economy was below a normal level at the beginning of 2016 and edged down further in the course of the year. Unemployment measures diverged considerably. While unemployment measured by the Labour Force Survey (LFS) increased, the number of registered unemployed showed a slight decrease. Wage growth has slowed in recent years, and with low pay increases set in the centralised wage negotiations, wage growth fell further in 2016. The moderate rate of wage growth reflects the fall in oil prices and lower capacity utilisation in the Norwegian economy.

Consumer price inflation has picked up in recent years, primarily owing to the krone depreciation through preceding years, which resulted in a higher rise in prices for imported goods. In 2016, the year-on-year rise in the consumer price index (CPI) was 3.6%, while the year-on-year rise in the CPI adjusted for tax changes and excluding energy products (CPI-ATE) was 3.0%. Survey-based inflation expectations rose

somewhat through 2016, but remained close to the inflation target.

House price inflation was high in 2016, and household debt growth edged up. House prices and household debt both rose more than disposable income. The analyses in the 2016 monetary policy reports implied that growth in the Norwegian economy will pick up in the years ahead, but the growth projections were reduced somewhat through the year. The projections for productivity growth in the coming years were also revised down somewhat. At the beginning of 2016, capacity utilisation was expected to decline further through 2016 and 2017 before picking up again. Through 2016, capacity utilisation was projected to fall to a somewhat lesser extent than previously assumed, and as registered unemployment declined, the projections for unemployment were revised down.

Consumer price inflation showed fairly wide fluctuations through 2016 and was higher than expected through summer. The analyses in the monetary policy reports indicated that inflation will decline as the effects of the preceding years' krone depreciation unwind. Inflation projections were revised down somewhat through 2016, primarily reflecting some appreciation of the krone and prospects of somewhat lower wage growth in the years ahead than assumed at the beginning of the year.

In its interest rate setting in 2016, the Executive Board gave weight to the fact that monetary policy was expansionary and supportive of the restructuring of the Norwegian economy. In an economy marked by restructuring, monetary policy cannot fully counteract the effects on output and employment.

Persistently low interest rates add to vulnerabilities in the financial system. The Board emphasised that banking regulation and macroprudential policy measures are the first line of defence against instability in the financial system. In the interest of long-term economic stability, the Board was of the view that it was nevertheless appropriate to take account of the risk associated with very low interest rates in the conduct of monetary policy. When the key policy rate is close to a lower bound, the uncertainty surrounding the effects of monetary policy is greater than when the interest rate is at a more normal level. For the Board, this suggested proceeding with greater caution in interest rate setting and reacting somewhat less to news that changed the economic outlook, whether the news pulled in the direction of a lower or higher key policy rate. At the same time, the Board emphasised that there was room for manoeuvre in interest rate setting, in both directions. Should the Norwegian economy be exposed to new major shocks, the Board could not exclude the possibility that the key policy rate might turn negative.

In March 2016, the Executive Board concluded that both the objective of keeping inflation close to target and the consideration relating to capacity utilisation implied a reduction in the key policy rate. The key policy rate was reduced by 0.25 percentage point to 0.5%. The rate was thereafter kept unchanged for the remainder of the year. The analyses published in December 2016 implied a key policy rate that would remain close to ½% in the coming years, increasing thereafter to about 1% in 2019.

### FINANCIAL STABILITY

Financial stability is one of Norges Bank's primary objectives in its work to ensure economic stability. Norges Bank has a particular responsibility for promoting robust and efficient financial markets and payment systems. A stable financial system is also important for facilitating financing and the distribution of risk in the economy.

In line with the regulation on the countercyclical capital buffer, Norges Bank has prepared the decision basis and advised the Ministry of Finance on the level of the countercyclical capital buffer for banks on a quarterly basis. The countercyclical capital buffer is part of the total capital requirement applied to banks.

The premise for Norges Bank's assessment is that banks should build up and hold a countercyclical capital buffer when financial imbalances are building up or have built up. As decided in June 2015, the countercyclical capital buffer rate was increased from 1% to 1.5% of risk-weighted assets on 30 June 2016.

High house price inflation and the continued rise in household debt ratios are signs that financial imbalances are building up further

Banks' profitability was solid in 2016. Loan losses have edged up, but are still at a fairly low level. Banks have continued to increase their capital ratios. More capital and liquidity have increased banks' resilience to losses and market turbulence. At the same time, Norges Bank has pointed out that high household debt and persistent property price inflation are two important vulnerabilities in the Norwegian financial system.

House price inflation gained considerable momentum across Norway through 2016. In oil-dependent regions, however, house price inflation remained modest. Household debt continued to rise at a faster pace than income, and debt growth accelerated towards the end of the year. High house price inflation and a continued rise in household debt ratios are signs that financial imbalances are building up further.

In December 2016, Norges Bank advised the Ministry of Finance to increase the countercyclical capital buffer rate to 2%. In line with the Bank's advice, the Ministry decided to increase the buffer rate to 2% effective from 31 December 2017. All the large Norwegian banks meet the current regulatory capital requirements and are well positioned to meet the increase in the countercyclical capital buffer rate.

Norwegian banks have ample access to wholesale funding. Risk premiums on long-term wholesale funding have varied to some extent over the past year. Banks have adjusted to changes in the market for short-term USD funding resulting from new regulations for US money market funds introduced in October 2016. Banks satisfy the Liquidity Coverage Ratio (LCR) requirement by an ample margin and have reduced liquidity risk and improved funding structures since the financial crisis.

## PAYMENT SYSTEM

The financial infrastructure in Norway is efficient. There were few disruptions in interbank systems and in the securities settlement system in 2016 and none were serious. The systems are generally in line with international principles.

Operation of Norges Bank's settlement system was stable through 2016. The settlement system handled a daily average of NOK 221bn in payment transactions. At the end of 2016, banks' sight deposits and reserves on deposit with Norges Bank totalled NOK 38.7 bn.

A new system for managing banks' collateral for loans and calculating the loan value of each bank's collateral was put into operation in early 2016. The new system allows banks more scope to manage their own collateral.

Banks' contingency arrangements for cash distribution could prove inadequate in a crisis situation. It has not been documented that the distribution of cash to bank customers would be adequate in such a situation. In a letter to the Ministry of Finance, Norges Bank and Finanstilsynet (Financial Supervisory Authority of Norway) stated that banks' responsibility for cash distribution to the public also applies in a contingency and proposed a regulation to clarify banks' responsibility for contingency arrangements. At the request of the Ministry of Finance, Norges Bank and Finanstilsynet have drawn up a draft consultation document concerning banks' responsibility for cash distribution in a contingency situation.

Work on the new banknote series is on schedule. Norges Bank plans to launch the first two denominations, the 100-krone and 200-krone notes, at the end of May 2017. The final design of all five denominations in the new series was released in November 2016 and put on public display in the exhibition "Meet the new banknotes".

#### **MANAGEMENT OF THE GOVERNMENT PENSION FUND GLOBAL**

At the end of 2016, the market value of the GPFG was NOK 7 510bn, an increase of NOK 35bn since the beginning of the year. The return on GPFG investments was NOK 447bn, while net withdrawals from the GPFG came to NOK 101bn. 2016 was the first year in which transfers to the fund of government oil revenues were lower than the transfer from the fund to finance the non-oil budget deficit. A stronger krone reduced the value of the GPFG by NOK 306bn, although this has no effect on the fund's purchasing power.

The objective of Norges Bank's investment management is to achieve the highest possible return net of costs measured in the fund's currency basket and in line with the limits set for investment management. In 2016, the return on the GPFG before management costs was 6.9% measured in the fund's currency basket. Equities returned 8.7%, bonds 4.3% and real estate 0.8%. Management costs amounted to 0.05% of the fund's capital.

The total return on equity and fixed income investments was 0.15 percentage point higher than the return on the benchmark index defined by the Ministry of Finance.

Norges Bank pursues a variety of investment strategies in its management of equities and bonds. For the period 2013-2016, these strategies can be divided into fund allocation, security selection and asset management. Different strategies serve different purposes. While some aim mainly to maximise the fund's return, others are used to reduce costs or diversify risk. An appropriate time horizon for evaluation will also vary from strategy to strategy. One common denominator is that they attempt in some way to exploit the fund's special characteristics in the form of its large size and long-term investment horizon. The strategies complement and influence one another, and synergies arise between them.

In the period 2013 – 2016, the different strategies as a whole achieved an average annual excess return before management costs of 0.20 percentage point. Security selection and asset management strategies both contributed positively to the relative return during this period, while the contribution from fund allocation strategies was negative. In 2016, asset management made a positive contribution to the relative return, whereas the other strategies pulled it down.

The Ministry of Finance defines the GPFG's benchmark index and sets limits for deviation between Norges Bank's portfolio and the benchmark. The Executive Board issues supplementary risk limits. Risks are measured, analysed and followed up using a broad set of measures and analyses. One key provision in the mandate from the Ministry requires the Bank to manage the GPFG in such a way that



expected relative volatility (tracking error) does not exceed 1.25 percentage points. The actual level at the end of 2016 was 0.28 percentage point.

In the period 1998-2016, the GPFG posted an annual return of 5.7% measured in the GPFG's currency basket. The return was 0.26 percentage point higher than that of the benchmark index before management costs.

The GPFG's real estate investments consist of both listed and unlisted investments. Unlisted real estate accounted for 2.5% of the fund at the end of 2016. The fund's unlisted real estate investments are in office and retail properties in a limited number of major cities and in the global logistics market. The return on unlisted real estate in 2016 before management costs was 1.7% measured in the fund's currency basket and 4.2% measured in local currency. The annual return on unlisted real estate since the portfolio's inception in 2011 has averaged 6% measured in the fund's currency basket.

The management of the GPFG must be cost-efficient. Management costs relative to capital under management have fallen over time. In the period 2013-2016, annual management costs came to 0.06% of the market value of the GPFG.

One important part of Norges Bank's role as manager is to advise on the further development of the fund's management. In 2016, the Bank was asked to consider whether there are grounds to amend the allocation to equities in the benchmark index. The Bank recommended that the equity share is increased to 75%. Such a change in the strategy would generate a higher expected return in the long term. Norges Bank also advised the Ministry on the implementation of a new management model for the fund where the Bank decides on the allocation to real estate within the overall risk limits for the management of the fund.

The Executive Board has adopted a new strategic plan for 2017-2019. The Bank will continue to apply the three main groups of investment strategies in its management of the GPFG. The Bank will also strengthen its advisory capabilities with regard to the further development of the GPFG investment strategy, placing emphasis on its role as a long-term, professional and responsible owner.

Norges Bank manages substantial assets on behalf of the nation and pursues a policy of open, reliable and consistent communication. Reporting on the management of the GPFG has been developed over time. In 2016, the Bank published more detailed analyses of the GPFG's performance and risk and more information on the fund's real estate investments.

### FOREIGN EXCHANGE RESERVES

The foreign exchange reserves are the Bank's contingency funds in international currency and are to be available for use in foreign exchange market transactions as part of the conduct of monetary policy, with a view to promoting financial stability, and to meet Norges Bank's international commitments. The importance of investing the reserves in liquid assets is therefore given considerable weight. Within these limits, the aim of foreign exchange reserve management is to be cost-efficient and provide a positive excess return.

The market value of the foreign exchange reserves was NOK 480.1bn at the end of 2016. The total for the equity portfolio was NOK 177.2bn, for the fixed income portfolio NOK 283.0bn and for the petroleum buffer portfolio NOK 19.9bn.

The return, excluding the petroleum buffer portfolio, was 4.6% in 2016 measured in foreign currency. Equity investments returned 10.5%, outperforming the benchmark index by 0.5 percentage point. Fixed income investments returned 1.2%, generating a relative return of 0.1 percentage point.

In January 2016, the Executive Board decided to transfer management of the long-term fixed income portfolio of the foreign exchange reserves from Norges Bank Investment Management (NBIM) to Norges Bank Central Banking Operations (NBCBO). The transfer took place in December. The money market portfolio and the long-term fixed income portfolio were then combined into one portfolio: the fixed income portfolio. Managing one large fixed income portfolio will enhance, as it conducts its market operations, NBCBO's expertise and preparedness for financial crises. NBIM will continue to manage the equity portfolio.

The benchmark for the fixed income portfolio is a market value-weighted index of all government bonds with residual maturities of between one month and ten years issued by France, Germany, Japan, the UK and the US. The benchmark for the equity portfolio is a tax-adjusted FTSE All World Developed Market index with geographical restrictions. Exposure to equities must not exceed 45% of the market value of the total exposure of the equity and fixed income portfolios. Both portfolios are subject to the requirement that expected tracking error does not exceed 0.5%.

The foreign exchange reserves cannot be invested in securities that are excluded from the GPFG's investment universe.

**CORPORATE SOCIAL RESPONSIBILITY**

Norges Bank's mission is to promote economic stability and manage assets on behalf of the Norwegian people, and the Bank implements corporate social responsibility through its work on these tasks. The Executive Board has laid down ethical principles for employees under which the Bank is committed to maintaining high ethical standards, respecting human rights and acting in a socially responsible manner in all its activities. Norges Bank does not accept any form of discrimination or corruption. Anti-corruption programmes have been established for all areas of the Bank.



The fulfilment of Norges Bank's role depends on confidence and an understanding of the Bank's use of instruments. The Bank therefore pursues a policy of transparency and continuously seeks to improve its communication. In 2016, the Executive Board decided to publish the protocols of its meetings, with the caveat that certain entries must be exempt from public disclosure for a shorter or longer period.

In an amendment to Section 12 of the Norges Bank Act, a duty of disclosure to the tax authorities has been imposed on Norges Bank similar to the duty of disclosure imposed on commercial banks. The tax authorities may now request information about the Bank's

contractual parties etc if necessary when assessing these parties for tax purposes.

Norges Bank will responsibly manage the GPFG to underpin the fund's objective of securing the highest possible return at a moderate level of risk. Responsible investment is an integral part of the investment process and spans the main areas of standard-setting, ownership and risk management.

In 2016, Norges Bank published a new expectations document for investee companies on human rights. The Ministry of Finance also included a new product-based coal criterion in the guidelines for exclusion and observation, effective from 1 February 2016. Norges Bank Investment Management established extensive systems for the collection and analysis of company information to assess portfolio companies against the coal criterion. The Executive Board decided on exclusion or observation for 76 companies in accordance with the guidelines in 2016 and published its decision. 70 of these companies were excluded or placed under observation on the basis of the new criteria.

Norges Bank works continuously to reduce its impact on the external environment and to encourage environmentally friendly behaviour. In line with the Bank's strategy for 2017-2019, an environmental strategy will be drawn up for the Bank's activities. Read more about Norges Bank's corporate social responsibility policy on page 40.

### PERSONNEL

Norges Bank's values are team spirit, integrity, innovation and excellence. The Bank's most important resource is its staff. Norges Bank works systematically to attract and recruit staff with the expertise the Bank needs to perform its tasks. The ambition is to recruit from leading national and international institutions. The Bank also promotes professional development through internal mobility, international internships and secondments, and further education. The Bank provides for good working conditions for employees and promotes gender balance and diversity in the workplace.

The Bank's management has close and regular contact with the labour unions. The cooperation is constructive and helps the Bank to develop and adapt in pace with requirements applying to companies in general and the Bank

in particular. The Bank engages in negotiations and discussions to create the basis for a well-functioning workplace. Forums for discussion include the Co-determination and Personnel Committee and regular contact meetings. Read more about Norges Bank's personnel and working environment policies on page 45.

### CORPORATE GOVERNANCE, RISK MANAGEMENT AND INTERNAL CONTROL

Corporate governance, including risk management and internal control, is based on the management model describing the Bank's organisational structure and management principles and the roles and responsibilities of the Bank's executive management. Governance models have been established for Norges Bank Investment Management and for Norges Bank Central Banking Operations, with more detailed governance principles for the two operational



areas. Norges Bank complies with the regulation on risk management and internal control at Norges Bank issued by the Ministry of Finance. As the Executive Board has principal responsibility for risk management and for ensuring that the Bank is organised appropriately, the Board has issued general risk management principles for Norges Bank. The operational areas have each established risk management and compliance functions.

The Executive Board follows up the Bank's operations through periodic reporting on performance and performance measurement, action plans, budgets, financial and operational

  
Norges Bank  
maintains a high  
level of IT and  
information security  
awareness

risk and compliance. As the investment management assignment has become more complex, the Executive Board focused in particular on further developing GPFG performance and risk reporting in 2016, including the

publication of more detailed analyses of GPFG performance and risk. The calculation of the GPFG's performance results is also verified by a third party in compliance with the Global Investment Performance Standards (GIPS). The GIPS verification report confirmed that Norges Bank Investment Management is in compliance with the GIPS standards.

For Norges Bank Investment Management, the Executive Board has decided that over a twelve-month period the probability that operational risk factors will result in a gross loss of NOK 750m or more must not exceed 20%. This limit is referred to as the Board's risk tolerance. In

2016, operational risk exposure was within the Board's risk tolerance. For Norges Bank Central Banking Operations, key risks are monitored through regular reporting to the Executive Board on risk management measures.

Norges Bank's operations are IT- and information-intensive. The transaction processes on which financial reporting is based are highly automated. The Bank's IT systems are largely standard systems adapted to the Bank's needs and are supplied and operated by third parties. The portfolio of IT systems for investment management has been consolidated and simplified in recent years, and a number of tasks have been insourced to increase the efficiency of the operational model.

The Executive Board continuously monitors operational and financial risk related to the use of IT systems through its assessment of operational risk and internal control in general.

Norges Bank maintains a high level of IT and information security awareness, including monitoring outsourced IT operations. As a result of the increasing threat of cyberattacks and cybercrime, a number of measures have been put in place to further strengthen IT security.

Based on reporting by the administration and Internal Audit, the Executive Board submits an annual assessment of the risk situation at the Bank to the Supervisory Council. Under the Norges Bank Act, the Bank's financial statements are required to be audited by an external auditor. The auditor's report is included in the financial statements.

No material deficiencies in the risk management and control regime were identified in 2016, and the Executive Board assesses the control environment and control systems at Norges Bank as satisfactory.

#### **BALANCE SHEET COMPOSITION AND FINANCIAL RISK**

Norges Bank's balance sheet total at the end of 2016 amounted to NOK 8 081bn, of which the investment portfolio of the GPFG accounted for NOK 7 507bn net of management costs.

The Ministry of Finance deposits funds for investment by the GPFG as capital contributions in an account at Norges Bank (the krone account). The Bank reinvests these funds, in its own name, in the krone account of an investment portfolio composed of equities (62.5%), fixed income investments (34.3%) and real estate investments (3.2%). The net value of the investment portfolio is presented on a separate line as an asset in Norges Bank's balance sheet, and the krone account is presented as a liability in the same amount to the Ministry of Finance. These two balance sheet items are identical in size and return. Detailed financial reporting for the investment portfolio of the GPFG is presented in the notes to the financial statements. Norges Bank bears no financial risk associated with the management of the GPFG.

Excluding the GPFG, the Bank's foreign exchange reserves are the largest balance sheet asset. The foreign exchange reserves investments are presented over several lines on the asset side of the balance sheet. Net foreign exchange reserves amounted to NOK 480.1bn at the end of 2016 compared with NOK 468.2bn at the end of 2015.

Excluding the GPFG krone account, the largest balance sheet liability is deposits from the government. At 31 December 2016, this liability item amounted to NOK 147.2bn, compared with NOK 100.6bn in 2015. This item fluctuates considerably through the year owing to incoming and outgoing payments over the government's accounts, such as incoming tax payments, outgoing payments of wages and benefits and purchases of goods and services. In 2016, as in recent years, the liability item banknotes and coins in circulation has, as in recent years, remained relatively stable at around NOK 50bn and was NOK 50.5bn at the end of the year. Bank deposits, which comprise sight deposits and reserve deposits, are managed by Norges Bank through its liquidity management policy. At 31 December 2016, bank reserves amounted to NOK 52.8bn, compared with NOK 58.4bn at the end of 2015.

In 2016, claims on and liabilities to the International Monetary Fund (IMF) increased as a result of a change in the composition of quota subscriptions and one of the IMF borrowing arrangements. This has resulted in an increase of around NOK 20bn on both the asset and liability side of the balance sheet. See Note 16 in the notes to the financial statements for more details.

The Bank's assets are primarily invested in foreign currency, whereas its liabilities are primarily in NOK. This balance sheet composition entails an expected positive return in the long term, disregarding foreign currency effects, as returns on investment in equities and fixed income instruments are expected to be higher than on liabilities.

Yields on bonds, including long-term bonds, are currently low, entailing low current returns and reducing expected returns on fixed income instruments in the period ahead. As a substantial share of the foreign exchange reserves and the GPFG is invested in bonds, today's low market rates may contribute to lower overall returns ahead.

In addition to the return on investments, the value of the GPFG will depend on transfers to the fund. Transfers have been lower in recent years as a result of the fall in oil prices. The level of the transfers ahead is uncertain partly because the oil price could vary considerably.

Changes in the krone exchange rate can also have a substantial impact on the value of the foreign exchange reserves and the GPFG measured in NOK. The return on the foreign exchange reserves and the GPFG must be expected to fluctuate considerably from one year to the next.

Norges Bank attaches considerable weight to managing and controlling financial risk and has laid down principles for measuring and managing the various types of risk. The composition of the foreign exchange reserves portfolios and the associated risk are primarily determined by the principles, benchmark index and guidelines laid down by the Executive Board and the governor of Norges Bank. Valuations, performance measurement, management and control of risk in investment management are required to comply with internationally recognised standards and methods.

## INCOME STATEMENT

Norges Bank's total comprehensive income for 2016 shows a deficit of NOK 3bn, compared with a profit of NOK 66.5bn in 2015. Net income from financial instruments showed a loss of NOK 2bn in 2016, compared with a gain of NOK 67bn in 2015. Income from equities contributed NOK 14.7bn, while income from fixed income instruments amounted to NOK 3.9bn. Net income from financial instruments includes a loss of NOK 20.3bn as a result of the appreciation of the krone through 2016. The corresponding foreign currency effect for 2015 was a gain of NOK 54.7bn.

Total comprehensive income for the GPFG of NOK 136.8bn comprises a profit on the portfolio of NOK 140.6bn net of management costs of NOK 3.7bn. Total comprehensive income was added to the GPFG's krone account at 31 December 2016. The return on the portfolio, after remuneration to Norges Bank is deducted, is transferred in its entirety to the krone account and thus does not affect Norges Bank's total comprehensive income or equity.

Other income primarily comprises remuneration from the Ministry of Finance for the management of the GPFG. In accordance with the GPFG's management mandate, Norges Bank is remunerated for its expenses related to the management of the GPFG within an upper limit. The management remuneration from the Ministry was NOK 3.7bn, which is 5 basis points of average capital under management in 2016.

Norges Bank also has income from services provided to banks and the government and rent from external tenants. Other income totalled NOK 3.9bn in 2016, compared with NOK 4.1bn in 2015.

Norges Bank's equity capital at 31 December 2016 was NOK 224.7bn, compared with NOK 245.4bn at 31 December 2015. The Adjustment Fund and the Transfer Fund comprise the Bank's equity capital. At the end of 2016, the Adjustment Fund stood at NOK 189.2bn and the Transfer Fund at NOK 35.5bn. Norges Bank's equity capital was 39.1% of the balance sheet total, excluding the GPFG, compared with 45.3% in 2015.

**DISTRIBUTION OF TOTAL COMPREHENSIVE INCOME**

The distribution of Norges Bank's total comprehensive income follows guidelines laid down by Royal Decree of 6 December 2002. The guidelines state that total comprehensive

income must be allocated to the Adjustment Fund until the Fund has reached 40% of the Bank's net foreign exchange reserves. Any surplus is allocated to the Transfer Fund. A third of the Transfer Fund is transferred annually to the Treasury.

In accordance with the guidelines, the following transfers and allocations will be made: Norges Bank's deficit of NOK 3bn will be covered by the Adjustment Fund. NOK 17.7bn will be transferred from the Transfer Fund to the Treasury.

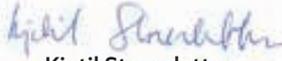
Oslo, 8 February 2017

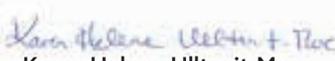
  
**Øystein Olsen**  
 Governor/Chair

  
**Jon Nicolaisen**  
 First Deputy Chair

  
**Egil Matsen**  
 Second Deputy Chair

  
**Hilde Myrberg**

  
**Kjetil Storesletten**

  
**Karen Helene Ulltveit-Moe**

  
**Kathryn M. Baker**

  
**Steinar Juel**

  
**Arne Hyttnes**  
 First alternate

  
**Kristine Landmark**  
 Second alternate

  
**Mona Helen Sørensen**  
 Employee representative

  
**Nina Larsson Midthjell**  
 Employee representative



# Corporate social responsibility

In its activities, Norges Bank is committed to maintaining high ethical standards, respecting human rights, acting in a socially responsible manner, and complying with current legislation. Norges Bank does not accept any form of discrimination or corruption.

Norges Bank's corporate social responsibility includes responsible investment activities, transparent and clear communication, research and knowledge-sharing, ethical conduct and the promotion of equality, diversity and a sound working environment. See "Corporate social responsibility" on page 33 of the Annual Report of the Executive Board for a discussion of important activities conducted in 2016.

## **A TRANSPARENT CENTRAL BANK**

Norges Bank is concerned to ensure that the Bank's use of instruments is communicated transparently, is understood and is predictable for interested parties and defined target groups. The Bank communicates in the form of publications, reports, speeches and lectures, press conferences and seminars. The Executive Board's assessments are presented in the Bank's monetary policy and financial stability reports. The Bank strives to ensure that all regions of Norway receive a visit from a Norges Bank representative every year, which includes a speech or lecture and, in some cases, company visits. The level of activity was particularly high in the bicentenary year.

Norges Bank also has extensive contact with academia and the public authorities. Other target audiences for speeches and lectures include employer and employee organisations.

In addition to the GPF's quarterly and annual reports, more detailed information on the GPF's return and risk, real estate investments and responsible investment is also published. Transparency with regard to investment management helps to affirm the legitimacy of the GPF as a financial investor and underpins the confidence of its owner, the general public and the fund's investee companies and markets.

Norges Bank publishes its analyses and the basis for its decisions and recommendations. In order to promote greater transparency, the Executive Board decided in 2016 to publish Board protocols after the meetings within the limits set by the Freedom of Information Act and the Bank's own provisions on monetary policy. Through an amendment of Section 12 of the Norges Bank Act, a duty of disclosure to the tax authorities has been imposed on Norges Bank similar to the duty of disclosure imposed on commercial banks etc. The tax authorities may now request information about the Bank's contractual parties etc. when necessary for monitoring these parties for tax purposes.

## RESPONSIBLE INVESTMENT

Responsible investment is an integral part of the GPFG's investment strategy, designed to support the objective of securing the highest possible return at an acceptable level of risk.

The Executive Board's responsible investment principles underpin the GPFG's mission by promoting a long-term financial return on investments and reducing financial risks associated with the governance, environmental and social practices of the companies in the portfolio.

The Ministry of Finance has laid down guidelines for observation and exclusion of companies. The Ministry of Finance has also established the Council on Ethics as an independent body providing advice on observation and exclusion of companies from the GPFG portfolio. In 2015, Norges Bank was assigned the responsibility for decisions on observation or exclusion of companies based on recommendations from the Council on Ethics.

The investment management mandate requires responsible investment to be an integral part of the management of the GPFG, which means managing the nation's financial assets in a responsible and sound manner. Priorities in this work are based on three pillars: standard-setting, ownership and risk management. The aim is to promote good corporate governance and well-functioning, legitimate and efficient markets.

## Standard-setting

Norges Bank cooperates with international organisations on setting standards and principles and communicates its expectations to companies, including standards for corporate governance and management, sustainable business operations and the way financial markets operate. This work is in part based on the UN Global Compact, the OECD Principles of Corporate Governance and the OECD Guidelines for Multinational Enterprises.

## Ownership

The GPFG's investment strategy entails broad diversification of investments across companies, sectors and countries. With ownership stakes in more than 9 000 companies, in-depth insight into all of them is not possible. The Bank therefore places emphasis on good corporate governance and the role of the board of directors. The GPFG's analyses include corporate finance models and assessments of companies' financial prospects. Corporate governance and environmental and social issues are integral parts of these assessments. In 2016, Norges Bank voted at 11 294 annual general meetings and held 3 790 meetings with companies.

## Risk management

Norges Bank can also decide to divest from individual companies based on risk assessments. The GPFG has divested from a number of companies in the past couple of years based on assessments of corporate governance, environmental and social risk factors. In 2016, Norges Bank divested from 23 companies based on such risk assessments.

### Environment-related mandates

Norges Bank invests directly in environmental technology through the environment-related mandates. At end-2016, the total market value of the environment-related mandates was NOK 63.7bn, invested in 226 companies. These investments achieved a return of 12.4% in 2016. These investments are in low emission energy and alternative fuels, clean energy and energy efficiency improvement measures or natural resource management.

### Focus areas

Norges Bank has chosen to focus in particular on three areas of sustainability: children's rights, climate change and water management. The focus areas provide a framework for the Bank's work on these issues over time. A number of companies have well-developed strategies and practices in these areas. The objective is to use the tools available to the Bank to promote good market practices and to express clear expectations to companies.

### Sustainable real estate investment

Norges Bank emphasises sustainability in its management of unlisted real estate investments. The aim is to increase returns over time through lower costs and risk and to boost demand in the office rental market. The Bank strives to improve its annual performance against the Global Real Estate Sustainability Benchmark (GRESB). The Bank's score for the overall portfolio of unlisted real estate investments in 2016 was 66 of a possible 100 points. This is a 2% improvement on 2015 and 14% higher than the average for the 759 property managers and companies that voluntarily reported to the GRESB in 2016. The Bank also has a long-term goal of achieving

green certification for all office and retail buildings in its portfolio. At the end of 2016, 58% of the office and retail portfolio of properties over 2000 m<sup>2</sup> was green-certified, compared with 55% at the end of 2015. Initiatives and results related to energy efficiency, water consumption and waste management are included in both the GRESB survey and the certification schemes used by the Bank. In the logistics sector, the Bank works systematically to increase the share of logistics properties with energy efficient lighting, a significant contributor to energy-efficient operations.

### Exclusion and observation

In 2016, the Executive Board decided to exclude five companies from the GPFG based on the recommendation of the Council on Ethics. One of the companies was excluded based on an assessment of the risk of severe environmental damage, three for the risk of particularly serious violations of ethical norms and one for the risk of gross corruption. One company was placed under observation because of the risk of gross corruption. Two companies were reinstated in the investment universe.

In 2016, coal production was introduced as a new product-related exclusion criterion. Norges Bank excluded 59 companies following an assessment of these new guidelines and 11 companies were placed under observation. The decision regarding exclusion was made by the Executive Board on the basis of recommendations by Norges Bank Investment Management.

### RESEARCH AND KNOWLEDGE SHARING

Norges Bank's research is largely focused on monetary policy, financial stability and investment management. It is recognised by international and Norwegian research communities and informs the Bank's policy decisions.

In 2016, ten articles written by Norges Bank researchers were accepted for publication in peer-reviewed journals. An overview of published articles can be found on the Bank's website.

Norges Bank participates in international cooperation through several channels to update and further develop standards for the performance of core central bank tasks. On behalf of the Ministry of Finance, Norges Bank contributes to IMF financing schemes for heavily indebted countries. Norges Bank also cooperates with the IMF on a project for the further development of the Bank of Zambia. The project has been running for approximately five years and will be completed in 2017.

The Norwegian Finance Initiative (NFI) is a fund that aims to strengthen financial research and education in areas relevant for the long-term management of the GPF. Through the NFI Research Programme, the Bank supports financial economics research of a high international standard within areas of particular relevance for the long-term management of the GPF.

The NBIM Talk seminars are arranged to promote dialogue and knowledge-sharing with academics and other interested parties on topics of importance to the Bank as financial investor.

As one of the events to mark the Bank's bicentenary, the Norges Bank Education Centre was opened in autumn 2016. Its aim is to communicate the Bank's tasks and how they are performed to a wider audience. The centre is built around an interactive game, where visitors can learn how the economy works. The target group is upper secondary school pupils and teachers, but the centre is also open to the general public. The centre has an annual visitor capacity of around 9000.

### ETHICAL CONDUCT

#### Ethics and anti-corruption

It is particularly important to the Executive Board that the Bank's employees in all respects conduct themselves with the necessary ethical awareness and that they are loyal to Norges Bank as their employer. The Executive Board has laid down ethical principles for employees to promote a uniform attitude to ethical issues at Norges Bank. These principles reflect the Bank's commitment to maintaining high ethical standards, respecting human rights, acting in a socially responsible manner and complying with current legislation. Ethical rules include employees' personal trading, activities outside the Bank, gifts and loyalty to the Bank in general. Norges Bank does not accept any form of discrimination or corruption. Anti-corruption programmes have been established for all areas of the Bank.

More detailed rules and procedures have been issued to ensure compliance with the rules on personal trading. In 2016, no violations of the rules on personal trading under Section 8 of the Securities Trading Act were reported to Finanstilsynet (Financial Supervisory Authority of Norway).

The Ministry of Finance has laid down a regulation concerning impartiality and conflicts of interest for Norges Bank's Executive Board, and an administrative procedure has been established to assist Board members in complying with the regulation. The Executive Board has also adopted ethical rules for its external members.

The Executive Board has laid down principles for internal disclosure of wrongdoing (whistleblowing) at Norges Bank. Norges Bank has established an internal whistleblowing procedure whereby an employee can report unethical or unlawful conduct. There is a whistleblowing channel in operation with Internal Audit as report recipient. Reports are processed in line with the established case processing rules.

The need to amend the rules is assessed on a regular basis. The ethical rules for employees are regularly reviewed.

Norges Bank places considerable emphasis on training staff and fostering awareness of the most important areas of ethical risk. All new employees complete a training programme to ensure that they know and understand the

rules, which includes one-on-one training, e-learning and an introductory dilemma training course. To ensure that all employees have the necessary knowledge of the rules, a compulsory test is conducted using an e-learning tool. By completing the annual test, employees confirm that they have read and understood the rules and are aware of the consequences of noncompliance. Compliance with the rules is monitored and noncompliance is reported.

#### **Direct environmental impact**

Norges Bank's own activities have limited direct impact on total greenhouse gas emissions and the environment. The Bank's direct climate and environmental impact is primarily related to energy consumption, official travel and office waste. The Bank strives continuously to find more environmentally friendly ways of operating, such as reducing electricity consumption and using renewable energy in the form of remote heating. Office waste is recycled and there is extensive re-use of interior structural elements and office furniture. In line with the strategy for 2017-2019, an environmental strategy for the Bank's activities will be drawn up.

For the environmental impact of properties in the GPFG portfolio, see "Sustainable real estate investment" on page 42.

In 2015, the Bank's premises in the Kvadraturen district of Oslo were classified under an environmental classification system (BREEAM In Use) that determines the environmental

footprint of commercial properties based on an overall assessment (ie both the inherent environmental quality of the building and how it is operated and used). The premises were classified as “Very Good” in terms of both management and use, equivalent to level 4 of 6. This classification provides the Bank with a sound basis upon which to implement appropriate measures for improvement in order to reach level 5, “Excellent”.

The Norges Bank building is a monumental structure of high cultural and historical value. Both the older and newer parts of the building and the surrounding area are safeguarded in close dialogue with the Directorate for Cultural Heritage. Norges Bank actively promotes safe and attractive urban spaces in the Kvadraturen district through its membership on the board of the Kvadraturen property owners’ association. The renovations made to Bankplassen were completed in 2016, the Bank’s bicentenary year. Security features were integrated with considerable emphasis on aesthetics.

#### **Responsible procurement and contracting**

By adhering to public procurement regulations and using economies of scale, Norges Bank’s procurement of goods and services is cost-efficient. This promotes competition for contracts. As a part of the tendering process, bidders must document tax and VAT payments. A certificate of registration and audited accounts are also required. To counteract social dumping, contracts include standard terms and conditions for wages and working conditions where relevant. Suppliers in selected sectors

must have this documented and confirmed annually by an auditor. No instances of noncompliance with these terms and conditions were reported in 2016. Norges Bank accepts no more than two tiers of subcontractors.

Norges Bank Central Banking Operations has specific ethical rules for contractors with access to the Bank’s premises and systems. These rules cover issues such as human rights, labour rights, corruption, discrimination and gifts. Investment management suppliers with access to the Bank’s premises or systems are contractually bound by the same rules that apply to the Bank’s employees.

### **HUMAN RESOURCES AND WORKING ENVIRONMENT**

#### **Personnel and expertise**

The Bank works systematically to attract and recruit staff with the expertise the Bank needs to perform its tasks. The Bank also promotes professional development by assigning new tasks and through internal mobility, international internships and secondments, and further education.

Norges Bank’s ambition is to recruit top candidates from leading national and international institutions. The Bank continues to systematically pursue the goal of strengthening the Bank’s reputation as a preferred employer, as this reputation is crucial to the successful achievement of the Bank’s other goals.

At the end of 2016, there were 923 permanent employees at Norges Bank, compared with 856 at the end of 2015, of which 568 were employed by NBIM, compared with 518 the previous year. The Bank has employees from a total of 37 countries.

#### **GENDER EQUALITY AND DIVERSITY**

Norges Bank's ethical guidelines state that the Bank is committed to respecting human rights and practising zero tolerance for discrimination. Women and men at Norges Bank must be given the same opportunities with regard to salary, promotion and professional and personal development. According to the recruitment guidelines, the best qualified candidates are hired regardless of gender, age, ethnicity or disability. In 2016, the gender breakdown of employees at Norges Bank was 67% men and 33% women, unchanged from 2015.

The Executive Board has set a minimum target of 40% for female employees as a long-term goal. Strategic work and action plans are based on this objective.

The share of women on the permanent staff of Norges Bank at the end of 2016 was 34% for executive-level employees in NBCBO and 21% for executive-level employees in NBIM. For non-executive employees the share of women was 44% in NBCBO and 29% in NBIM. These shares are unchanged or virtually unchanged compared with 2015.

The pay level for women as a percentage of the pay level for men at year-end 2016 was 96% (98%) for executives in NBCBO and 98% (96%) for executives in NBIM. For non-executive employees it was 88% (90%) for NBCBO and 80% (80%) for NBIM. Numbers in parenthesis are the percentages in 2015.

For the non-executive group, pay for women and men is approximately equal in each of the job categories in this group. Average pay for women as a whole is nevertheless lower than average pay in the specific job categories because of a lower percentage of women in job categories with the highest pay.

Measures to boost the percentage of women include choosing female economists to promote Norges Bank at educational institutions and actively encouraging internal and external female candidates to apply for vacant executive positions and assume responsibility for important projects and reports. NBIM has established a women's network to attract, retain and develop female employees.

Norges Bank aims to be a good employer for its staff in all phases of life by offering employees the opportunity to reduce their working hours or work from home if necessary. Employees over the age of 62 years are entitled to five extra days off per year.

**Health, safety and the environment**

Norges Bank's priority is protecting the lives and health of all those who work in the Bank. In 2016, seven workplace accidents or injuries directly relating to work conducted at Norges Bank's office premises or conference and holiday facilities were reported. None of the workplace accidents or injuries was serious and no occupational injuries were reported to the Norwegian Labour Inspection Authority in 2016.

Reconstruction projects at the Bank are based on the principles of universal design and the Bank provides protective equipment as needed. The Bank has well-equipped fitness facilities for employees. The Bank receives feedback on the physical and psycho-social working environment through annual individual employee health appraisal interviews conducted by the Bank's health service and through the Bank's annual climate surveys. According to the reports, job satisfaction is high and working conditions in general are satisfactory. The Bank's Working Environment Committee, comprised of management and employee representatives, assesses the working environment and climate of cooperation at the Bank as positive.

**Cooperation with labour unions**

The Bank's management has close and regular contact with labour unions. The cooperation is constructive and helps the Bank to develop and adapt in pace with requirements for companies in general and for the Bank in particular. The Bank engages in negotiations and discussions to create the basis for a well-functioning workplace. Forums for discussion include the Co-determination and Personnel Committee and regular contact meetings. Two employee representatives attend Executive Board meetings when the Board deals with administrative matters.

**Sickness absence and an inclusive workplace**

Sickness absence at the Bank remained stable at a low level in 2016 at 2.2%, unchanged from 2015. As an inclusive workplace enterprise, the Bank is committed to working systematically and with a long-term perspective to maintain sickness absence at a low level. The Bank accommodates employees needing special adaptations and enables older employees to extend their professional careers in line with national objectives.

MAIN POINTS

# Income statement

	2016	2015
 <p><b>NET INCOME</b> from financial instruments (excl. GPFG)</p>	NOK 18bn	NOK 12bn
 <p><b>FOREIGN EXCHANGE GAINS/LOSSES</b> (excl. GPFG)</p>	NOK -20bn	NOK 55bn
 <p><b>OTHER INCOME</b> - of which management fee, GPFG</p>	NOK 4bn 3.7bn	NOK 4bn 3.9bn
 <p><b>OPERATING EXPENSES</b> - of which management fee, GPFG</p>	NOK -5bn NOK -3.7bn	NOK -5bn NOK -3.9bn
 <p><b>TOTAL COMPREHENSIVE INCOME</b></p>	NOK -3bn	NOK 66bn
 <p><b>TRANSFER TO THE TREASURY</b></p>	NOK 18bn	NOK 27bn

Net income from financial instruments, before foreign exchange gains/losses, was NOK 18bn, NOK 6bn more than in 2015. Adjusted for losses owing to exchange rate movements, net income from financial instruments was NOK -2bn in 2016, NOK 69bn lower than in 2015.

Other income of NOK 4bn primarily comprises remuneration for the management of the Government Pension Fund Global (GPF), in addition to NOK 0.1bn in rent and income from services performed for the government and banks in 2016.

Operating expenses amounted to NOK 5bn in 2016, compared with NOK 5bn in 2015. NOK 3.7bn of this is related to management of the GPF, including custody and settlement services, IT expenses, analytical research services and fees for external managers. Depreciation, amortisation and impairment losses for the year were NOK 0.2bn.

On the basis of the guidelines for allocation and distribution of Norges Bank's profit or loss, NOK 18bn will be transferred to the Treasury in 2017.

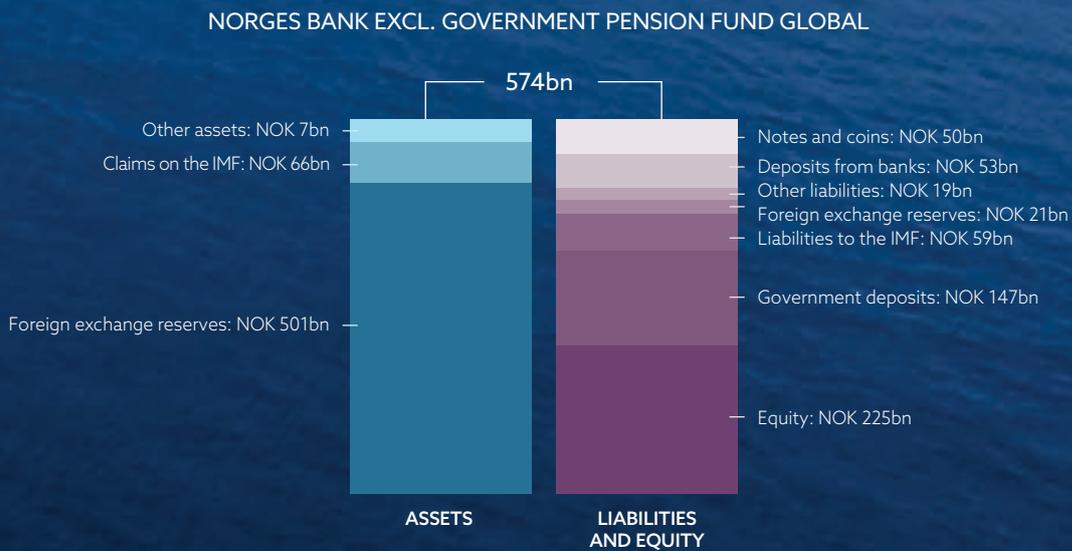
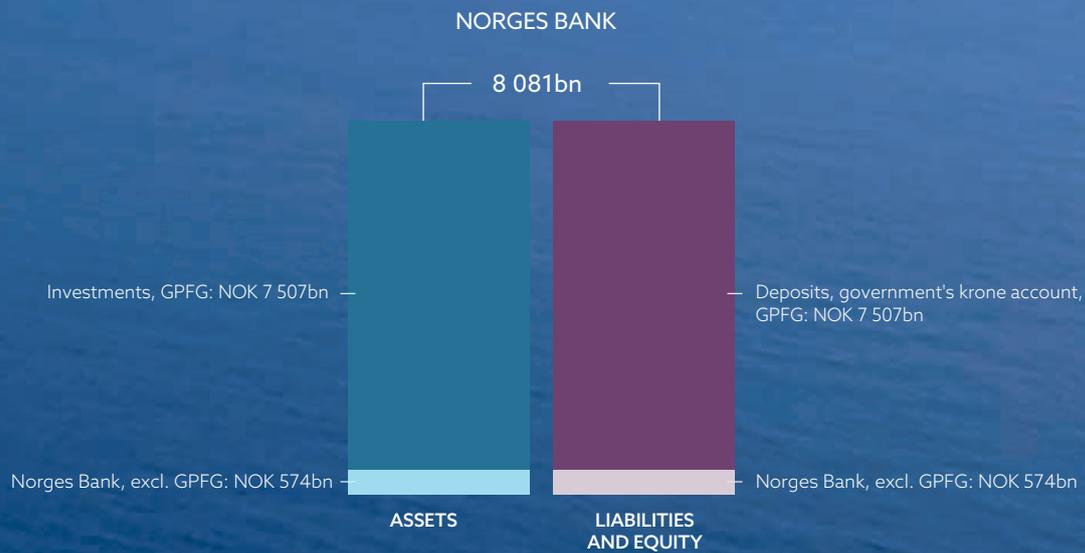
The GPF is managed by Norges Bank on behalf of the Ministry of Finance. The Ministry of Finance has deposited funds for investment in an account with Norges Bank and Norges Bank is not exposed to financial risk from its management of the GPF.

The return in 2016, in terms of the GPF's currency basket, was 6.9%. The return on equity investments was 8.7%, 4.3% on fixed income investments and 0.8% on real estate investments.

Remuneration from the Ministry of Finance for the management of the GPF in 2016 was NOK 3.7bn, compared with NOK 3.9bn in 2015. Management costs correspond to 0.05% of the market value of the GPF.

MAIN POINTS

# Balance sheet



In 2016, Norges Bank's balance sheet total, excluding the GPFG, increased by NOK 33bn to NOK 574bn at year-end.

Foreign exchange reserves accounted for 83% of total assets, following an increase of NOK 12bn in 2016. The foreign exchange reserves are invested in bonds (57%), equities (37%) and other assets (6%).

Claims on the IMF comprise loans, IMF quota subscription and holdings of SDRs. The quota increase implemented in 2016 resulted in an increase in claims on the IMF of NOK 16bn. These claims account for 12% of Norges Bank's assets at the end of 2016.

Norges Bank's equity comprises an Adjustment Fund and a Transfer Fund. The Adjustment Fund comprises the Bank's restricted equity, and the Transfer Fund comprises the basis for transfers to the Treasury. Equity was NOK 225bn at the end of 2016.

Government deposits were NOK 147bn at the end of 2016, an increase of NOK 47bn compared with 2015. The amount of these deposits varies through the year with inflows and outflows to and from the government's current accounts.

At the end of 2016, banks' deposits in their accounts with Norges Bank amounted to NOK 53bn, which comprise sight deposits and F-deposits.

Liabilities to the IMF were NOK 59bn at the end of 2016, an increase of NOK 19bn compared with 2015. The increase primarily reflects an increase in the IMF's krone deposit with Norges Bank as a consequence of the quota increase.

The value of banknotes and coins in circulation at the end of 2016 was NOK 50bn.

At the end of 2016, the market value of the GPFG, less the management fee, was NOK 7 510bn.

The GPFG comprises 62.5% equity investments, 34.3% fixed income investments and 3.2% real estate investments.

# Annual financial statements 2016

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## Income statement

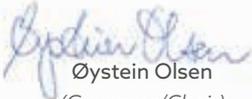
Amounts in NOK millions	Note	2016	2015
<b>NET INCOME/EXPENSE FROM FINANCIAL INSTRUMENTS</b>			
Net income/expense from:			
-Equities and units	3,17	14 726	10 243
-Bonds	3	3 868	2 573
-Financial derivatives		18	-29
-Secured lending	8,9	120	69
Interest income and expense from deposits and short-term borrowing		-2	-8
Interest income from lending to banks	18	91	68
Interest expense paid on deposits from banks and the Treasury	18	-444	-592
Net interest income from the IMF	16	9	7
Tax expenses	3	-76	-42
Other financial income/expenses		-4	-1
<b>Net income from financial instruments before foreign exchange gains/losses</b>		<b>18 306</b>	<b>12 288</b>
Foreign exchange gains/losses		-20 321	54 749
<b>Net income/expense from financial instruments</b>		<b>-2 015</b>	<b>67 037</b>
<b>MANAGEMENT OF THE GOVERNMENT PENSION FUND GLOBAL (GPFG)</b>			
Total comprehensive income, investment portfolio, GPFG	20	136 843	997 984
Withdrawn from/Transferred to the krone account of the GPFG	20	-136 843	-997 984
Of which management fees, GPFG	12	3 731	3 933
<b>Management of the Government Pension Fund Global</b>		<b>3 731</b>	<b>3 933</b>
<b>OTHER OPERATING INCOME</b>			
Other operating income	14	128	126
<b>OPERATING EXPENSES</b>			
Personnel expenses	11	-1 726	-1 686
Operating expenses	14	-2 856	-3 149
Depreciation, amortisation and impairment losses	13	-210	-172
<b>Total operating expenses</b>		<b>-4 792</b>	<b>-5 007</b>
<b>Profit/loss for the period</b>		<b>-2 948</b>	<b>66 089</b>
<b>STATEMENT OF COMPREHENSIVE INCOME</b>			
Profit/loss for the period		-2 948	66 089
Change in actuarial gains/losses	10	-3	380
<b>Total comprehensive income</b>		<b>-2 951</b>	<b>66 469</b>

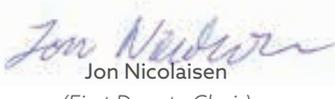
## Balance sheet

Amounts in NOK millions	Note	31 Dec. 2016	31 Dec. 2015
<b>ASSETS</b>			
<b>FINANCIAL ASSETS</b>			
Deposits in banks		22 728	23 173
Secured lending	8,9	26 774	23 304
Unsettled trades		250	9
Equities and units	4,17	166 958	164 414
Equities lent	4,8,9	10 437	5 108
Bonds	4	272 321	267 466
Financial derivatives		2	9
Claims on the IMF	16	66 315	49 796
Lending to banks	18	-	716
Other financial assets	12	6 263	5 474
<b>Total financial assets</b>		<b>572 048</b>	<b>539 469</b>
<b>INVESTMENTS, GPFG</b>			
Investments, GPFG	20	7 506 763	7 471 220
<b>NON-FINANCIAL ASSETS</b>			
Other non-financial assets	13	2 563	2 425
<b>TOTAL ASSETS</b>		<b>8 081 374</b>	<b>8 013 114</b>

Amounts in NOK millions	Note	31 Dec. 2016	31 Dec. 2015
<b>LIABILITIES AND EQUITY</b>			
<b>FINANCIAL LIABILITIES</b>			
Secured borrowing	8,9	2 412	827
Unsettled trades	8,9	18 542	14 686
Other financial liabilities		1 042	1 525
Liabilities to the IMF	16	58 912	39 864
Deposits from banks	18	52 846	58 418
Deposits from the Treasury	18	147 192	100 593
Notes and coins in circulation	15	50 495	53 136
<b>Total financial liabilities</b>		<b>331 441</b>	<b>269 049</b>
<b>DEPOSITS IN KRONE ACCOUNT, GPFG</b>			
Deposits in krone account, GPFG	20	7 506 763	7 471 220
<b>OTHER LIABILITIES</b>			
Pensions	10	130	251
Other liabilities	19	18 361	27 238
<b>Total other liabilities</b>		<b>18 491</b>	<b>27 489</b>
<b>Total liabilities</b>		<b>7 856 695</b>	<b>7 767 758</b>
<b>Equity</b>		<b>224 679</b>	<b>245 356</b>
<b>TOTAL LIABILITIES AND EQUITY</b>		<b>8 081 374</b>	<b>8 013 114</b>

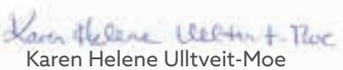
Oslo, 8 February 2017

  
Øystein Olsen  
(Governor/Chair)

  
Jon Nicolaisen  
(First Deputy Chair)

  
Egil Matsen  
(Second Deputy Chair)

  
Hilde Myrberg

  
Karen Helene Ulltveit-Moe

  
Kjetil Storesletten

  
Kathryn M. Baker

  
Steinar Juel

  
Arne Hyttnes  
(First Alternate)

  
Kristine Landmark  
(Second Alternate)

  
Mona Helen Sørensen  
(Employee representative)

  
Nina Midthjell Larsson  
(Employee representative)

## Statement of cash flows

Amounts in NOK millions, inflows (+)/outflows (-)	2016	2015
<b>Operating activities</b>		
Dividends received from investments in equities and units	4 221	3 796
Interest received on bonds	4 563	5 389
Interest and fees received from securities lending and securities borrowing programme	166	106
<i>Interest, dividends and fees received from holdings of equities and units and bonds</i>	8 950	9 291
Net cash flow arising from purchase and sale of equities and units	-2 762	-7 351
Net cash flow arising from purchase and sale of bonds	-16 906	300
Net cash flow arising from financial derivatives	80	-181
Net cash flow arising from interest received from deposits in banks and interest paid on bank overdraft	5 241	327
Net cash flow arising from secured lending and borrowing	-6 961	36 716
Net cash flow related to other expenses, other assets and other liabilities	-5 535	-4 485
Cash flow related to other financial assets and other financial liabilities	-6 378	-20 740
Net cash flows from the Treasury	46 598	-15 039
<i>Of which cash flows between the Treasury and the GPFG</i>	100 616	-45 836
Management fee received from the GPFG	3 933	3 202
<b>Net cash outflow from operating activities</b>	<b>26 260</b>	<b>2 040</b>
<b>Investing activities</b>		
Net cash flow related to non-financial assets and liabilities	-327	-359
<b>Net cash flow from investing activities</b>	<b>-327</b>	<b>-359</b>
<b>Financing activities</b>		
Cash flow to the Treasury from the Transfer Fund	-26 589	-10 419
<b>Net cash flow from financing activities</b>	<b>-26 589</b>	<b>-10 419</b>
<b>Net change in cash and cash equivalents</b>		
Deposits in banks at 1 January	23 173	32 306
Net cash payments in the period	-656	-8 739
Net foreign exchange gains/losses on cash and cash equivalents	211	-394
<b>Deposits in banks at 31 December</b>	<b>22 728</b>	<b>23 173</b>



### ACCOUNTING POLICY

The statement of cash flows has been prepared in accordance with the direct method. Major classes of cash receipts and cash payments are presented separately. Specific categories of cash flows, primarily arising from the purchase and sale of financial instruments, are shown net. All investment activities and the management fee to Norges Bank that is charged to the GPFG are defined as operating activities.

Cash transfers between the GPFG and the Norwegian government are classified as a financing activity in the statement of cash flows in the GPFG's financial statements. In Norges Bank's financial statements, cash transfers are classified as operating activities, since Norges Bank is the manager of the GPFG.

## Statement of changes in equity

Amounts in NOK millions	Adjustment Fund	Transfer Fund	Total equity
1 January 2015	184 637	20 839	205 476
Total comprehensive income	7 541	58 928	66 469
Transferred to Other liabilities	-	-26 589	-26 589
<b>31 December 2015</b>	<b>192 178</b>	<b>53 178</b>	<b>245 356</b>
1 January 2016	192 178	53 178	245 356
Total comprehensive income	-2 951	-	-2 951
Transferred to Other liabilities	-	-17 726	-17 726
<b>31 December 2016</b>	<b>189 227</b>	<b>35 452</b>	<b>224 679</b>



### ACCOUNTING POLICY

The statement of changes in equity for Norges Bank has been prepared in accordance with IAS 1 *Presentation of Financial Statements*.

Norges Bank's equity comprises an Adjustment Fund and a Transfer Fund. The Adjustment Fund comprises the Bank's restricted equity, and the Transfer Fund comprises the basis for transfers to the Treasury. Norges Bank's capital is governed by guidelines for provisions and allocations laid down by the Council of State on 7 February 1986, most recently amended by Royal Decree of 6 December 2002, as follows:

1. Allocations shall be made from Norges Bank's profit to the Adjustment Fund until the Fund has reached 5% of the Bank's holdings of Norwegian securities<sup>1</sup> and 40% of the Bank's net foreign exchange reserves, excluding the immunisation portfolio<sup>2</sup> and capital managed for the Government Petroleum Fund<sup>3</sup>, other claims/liabilities abroad<sup>4</sup> or any other commitments that the Executive Board considers to involve a not insignificant foreign exchange risk. The immunisation portfolio is that part of Norges Bank's foreign exchange reserves that is included in a separate portfolio. The return on this portfolio will be credited to/debited from the Treasury in the accounts of the same year. The same applies to the Government Petroleum Fund portfolio. If the size of the Adjustment Fund exceeds the levels specified in point 1, first paragraph, the surplus shall be reversed to profit or loss.

2. If the Adjustment Fund falls below 25% of the Bank's net foreign exchange reserves excluding the immunisation portfolio and capital managed by the Government Petroleum Fund and other claims/liabilities abroad at the end of the year, available capital shall be reversed from the Transfer Fund to Norges Bank's financial statements until the Adjustment Fund reaches full size according to point 1.

3. Any profit after provisions to or transfers from the Adjustment Fund shall be allocated to the Transfer Fund.

4. Any loss following the allocations described in point 2 shall be covered by transfers from the Adjustment Fund.

5. In connection with the closing of the books each year, an amount equal to one third of the capital in the Transfer Fund shall be transferred to the Treasury.

1 The Bank does not hold any Norwegian securities at 31 December 2016.

2 The immunisation portfolio is not in use at 31 December 2016.

3 Government Pension Fund Global (GPF).G).

4 Primarily net claims on/liabilities to the IMF.

# Notes

## Note 1 General information

### 1. INTRODUCTION

Norges Bank is Norway's central bank. Norges Bank performs important public tasks and manages substantial assets on behalf of the nation. The aim of central banking operations is to promote stability in the economy. Norges Bank has executive and advisory responsibilities in the area of monetary, credit and foreign exchange policy and is responsible for promoting robust and efficient payment systems and financial markets. The Bank manages Norway's foreign exchange reserves and the Government Pension Fund Global (GPFG).

The GPFG shall support saving to finance future government expenditure and underpin long-term considerations relating to the use of Norway's petroleum revenues. The Storting (Norwegian parliament) has established the legal framework in the Government Pension Fund Act, and the Ministry of Finance has formal responsibility for the fund's management. The GPFG is managed by Norges Bank on behalf of the Ministry of Finance, in accordance with Section 2, second paragraph, of the Government Pension Fund Act and the management mandate for the GPFG issued by the Ministry of Finance. The Executive Board of Norges Bank has delegated day-to-day management of the GPFG to Norges Bank Investment Management (NBIM).

The Ministry of Finance has placed funds for investment in the GPFG in the form of a Norwegian krone deposit with Norges Bank (the *krone account*). Norges Bank manages the krone account in its own name by investing the funds in an investment port-

folio consisting of equities, fixed income instruments and real estate. The GPFG is invested in its entirety outside of Norway.

In accordance with the management mandate for the GPFG, transfers are made to and from the krone account. When the government's petroleum revenues exceed government spending of petroleum revenues over the central government budget, funds will be deposited in the krone account. In the opposite case, funds will be withdrawn. Transfers to and from the krone account entail a corresponding change in *Owner's capital* for the GPFG.

Norges Bank is not exposed to financial risk from its management of the GPFG. The return on the portfolio is transferred in its entirety to the krone account and does not affect total comprehensive income or equity in Norges Bank. The investment portfolio under management is equal to the amount on deposit in the krone account at the time in question. The net value of the investment portfolio is presented on a separate line as an asset in Norges Bank's balance sheet, and the krone account is presented as a liability in the same amount to the Ministry of Finance.

### 2. APPROVAL OF THE FINANCIAL STATEMENTS

The annual financial statements of Norges Bank for 2016, which include the financial reporting for the GPFG, were approved by the Executive Board on 8 February 2017 and adopted by the Supervisory Council on 23 February 2017.

## Note 2 Accounting policies



### REFERENCES TO ACCOUNTING POLICIES, SIGNIFICANT ESTIMATES AND CRITICAL ACCOUNTING JUDGEMENTS

This note describes significant accounting policies, significant estimates and critical accounting judgements that are relevant to the financial statements as a whole. Additional accounting policies, significant estimates or critical accounting judgements are included in the respective statements and notes.



### EXPLANATION OF SIGNIFICANT ESTIMATES AND CRITICAL ACCOUNTING JUDGEMENTS

The preparation of the financial statements involves the use of estimates and judgements that may affect assets, liabilities, income and expenses. Estimates and judgements are based on historical experience and expectations about future events that are considered probable at the time the financial statements are presented. Estimates are based on best judgement; however actual results may deviate from estimates.

### 1. BASIS OF PREPARATION

Pursuant to Section 30, second paragraph, of the Norges Bank Act, the annual financial statements of Norges Bank have been prepared in accordance with the Accounting Act and the regulation concerning annual financial reporting for Norges Bank, which has been laid down by the Ministry of Finance.

The regulation requires that Norges Bank's financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, but sets certain specific requirements for the presentation of the GPFG and subsidiaries. Norges Bank's financial statements include the financial reporting for the GPFG (Note 20 *Government Pension Fund Global (GPFG)*). Pursuant to the regulation concerning annual financial reporting for Norges Bank, the financial reporting for the GPFG shall be prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

The annual financial statements are prepared with a closing date of 31 December, and are presented in Norwegian kroner (NOK), rounded to the nearest million kroner. Rounding differences may occur.

### 2. CHANGES IN ACCOUNTING POLICIES AND IMPLEMENTATION OF NEW AND/OR AMENDED STANDARDS OR INTERPRETATIONS

The accounting policies applied are consistent with those of the previous financial year. No new and/or amended standards and interpretations and/or amendments to IFRS became effective for accounting periods starting 1 January 2016 that have had a material effect on the financial statements.

### 3. ACCOUNTING POLICIES FOR THE FINANCIAL STATEMENTS AS A WHOLE

#### 3.1 Financial assets and liabilities

##### Recognition and derecognition

Financial assets and liabilities are recognised in the balance sheet upon becoming a party to the instrument's contractual provisions, or when the risks and rewards of ownership are transferred, if this occurs at a different point in time. The transaction is recognised at trade date, where the purchase or sale of the instrument involves settlement under normal market conditions.

Financial assets are derecognised when the contractual rights to the cash flows expire, or when the financial asset and substantially all the risks and rewards of ownership are transferred. Average acquisition cost is used upon derecognition. See Note 8 *Secured lending and borrowing* for details on transferred assets that are not derecognised.

Financial liabilities are derecognised when the obligation has been settled, extinguished or cancelled.

##### Classification

Financial assets and liabilities are measured at fair value on initial recognition, and all financial assets and liabilities are classified depending on the type of instrument, the contractual terms and the purpose of the investment in accordance with IAS 39 *Financial Instruments: Recognition and Measurement*.

##### Fair value through profit or loss (fair value option)

Financial assets or liabilities that are managed and whose performance is evaluated on a fair value basis in accordance with a documented investment strategy are designated at *fair value through profit or loss* on initial recognition. This implies that a fair value business model is used for the portfolios comprising these financial assets and/or liabilities and that the primary objective is to achieve gains over

the longer term connected to changes in fair value. The vast majority of financial assets and liabilities are classified as at fair value through profit or loss.

#### Held for trading

Financial assets and liabilities that are derivatives are classified as *held for trading* on initial recognition.

#### Loans and receivables

Financial assets and liabilities other than those classified either as at *fair value through profit or loss* or as *held for trading* are classified as *loans and receivables* on initial recognition.

### 3.2 Currency

The functional currency is the Norwegian krone (NOK). Transactions in foreign currency are recognised in the financial statements at the exchange rate prevailing on the transaction date. Assets and liabilities in foreign currencies are translated into NOK using the exchange rate at the balance sheet date.

In the income statement, the foreign exchange element linked to realised and unrealised gains and losses on assets and liabilities is disaggregated and presented on a separate line.

#### ! SIGNIFICANT ESTIMATES

Gains and losses on securities and financial derivatives are based on changes in the price of the security/instrument (before foreign exchange gains and losses) and changes in foreign exchange rates (foreign exchange gains and losses). These are presented separately in the income statement. The method of allocating total gains and losses in NOK to a security element and a foreign exchange element is an estimate. Different methods will result in different estimates.

#### *Foreign exchange element*

Unrealised gains and losses due to changes in foreign exchange rates are calculated based on the cost of the holding in local currency and the change in the foreign exchange rate from the time of purchase until the balance sheet date. If the holding has been purchased in a previous period, gains and losses from previous periods that have already been recognised in profit or loss are deducted to arrive at the gain or loss for the current period. Accordingly, for realised gains or losses, the foreign exchange rate on the date of sale is used instead of the closing rate at the end of the reporting period, and previously recognised unrealised gains or losses for the holding are reversed in the current period.

#### *Security element*

Unrealised gains and losses from changes in the security price are calculated based on the change in the security price from the purchase date to the balance sheet date and the closing exchange rate at the balance sheet date. Gains and losses recognised in the income statement in previous periods are deducted to arrive at the gain or loss from security prices for the current period. Realised gains and losses from changes in security prices are based on the selling price, and previously recognised unrealised gains or losses for the holding are reversed in the current period.

### 3.3 Subsidiaries

Subsidiaries are established that exclusively constitute investments as part of the management of the GPFG. These subsidiaries are entities over which the GPFG has control. Principle subsidiaries are listed in Note 20.14 *Interests in other entities*.

IFRS 10 *Consolidated Financial Statements* has been applied. IFRS 10 defines an investment entity and introduces a mandatory exemption from consolidation for investment entities.

Subsidiaries that provide investment related services for the GPFG and that are not investment entities in their own right are consolidated in the financial statements of the GPFG. Other subsidiaries are measured at fair value through profit or loss in accordance with the exemption from consolidation for investment entities.

#### Subsidiaries measured at fair value through profit or loss

Subsidiaries measured at fair value through profit and loss are presented in the balance sheet as *Unlisted real estate*. The subsidiaries invest, through other entities, exclusively in real estate. For further information on accounting policies applied to subsidiaries measured at fair value through profit or loss, see Section 3.1. See Note 20.6 for accounting policies specific to *unlisted real estate*.

#### Consolidated subsidiaries

Consolidated subsidiaries perform investment-related services for the GPFG associated with management of unlisted real estate investments. These companies do not own, directly or indirectly, investments in real estate. Intra-group transactions and intercompany balances are eliminated on consolidation.

## ACCOUNTING JUDGEMENT

The GPFG is an investment entity based on the following:

- a) It obtains funds from the Norwegian government, a related party and its sole owner, and delivers professional investment services, being the management of the fund, to the Norwegian government,
- b) It commits to the Norwegian government that its business purpose is to invest solely for capital appreciation and investment income,
- c) It measures and evaluates returns for all its investments exclusively on a fair value basis.

An investment entity shall have a strategy that defines the time horizon for the realisation of investments. The GPFG has a very long time horizon. After an overall assessment, it has been concluded that the GPFG meets the criteria in the definition of an investment entity.

## 4. NEW STANDARDS WITH EFFECT FROM 2017 OR LATER

IASB final standards and IFRIC interpretations with application dates from 2017 or later:

### *IFRS 9 Financial Instruments*

IFRS 9 includes requirements for recognition, measurement, impairment and derecognition of financial instruments, and replaces IAS 39 *Financial Instruments: Recognition and Measurement*.

Under IFRS 9, financial assets with basic loan features shall be carried at amortised cost, unless the business model indicates that they should be carried at fair value. All other financial assets shall be carried at fair value.

Classification and measurement of financial liabilities under IFRS 9 is a continuation of IAS 39, with the exception of financial liabilities designated as at *fair value through profit or loss* (fair value option), where changes in fair value relating to own credit risk shall be separated and presented in other comprehensive income.

The classification of recognised financial assets and liabilities under the current standard will be continued in the same categories under IFRS 9. Implementation of the new standard will thus not entail material changes in the classification and measurement of financial instruments.

The standard introduces a new impairment methodology for loans. Under IFRS 9, an entity shall recognise a loss allowance for expected credit losses based on relevant information as from the date of recognition. The change from the current standard is that credit losses will be able to be recognised before a credit event has occurred as defined in IAS 39. These impairment rules will apply to all debt instruments measured at amortised cost and at fair value through other comprehensive income.

IFRS 9 was endorsed by the EU in 2016 Q4 with an effective date of 1 January 2018. The option for early application will not be exercised and the standard will be applied from the 2018 financial year.

Implementation of the standard will not entail a change in the loss allowance for Norges Bank based on estimates for recognised debt instruments at 31 December 2016. However, the standard may entail additional note disclosures relating to impairment assessments of loans.

### *IFRS 15 Revenue from Contracts with Customers*

IFRS 15 replaces all existing standards and interpretations relating to revenue recognition. The standard applies to all contracts with customers, except for leases, financial instruments and insurance contracts.

The standard is effective for annual accounting periods beginning on or after 1 January 2018 and was endorsed by the EU in 2016 Q4.

Implementation of the standard will not have an impact on Norges Bank.

### *IFRS 16 Leases*

In January 2016, the IASB published IFRS 16 *Leases*, which replaces IAS 17 *Leases*. The standard will primarily entail changes in a lessee's balance sheet, where assets and liabilities from both finance leases and operating leases shall be recognised.

The standard is effective for annual accounting periods beginning on or after 1 January 2019 and is expected to be endorsed by the EU in 2017.

Implementation of the standard is not expected to have a material impact on Norges Bank.

## Note 3 Income/expense from Equities and units and Bonds



### ACCOUNTING POLICY

The following accounting policies apply to the respective income and expense elements:

*Dividends* are recognised when the dividends are formally approved by the shareholders' meeting or comparable responsible party.

*Interest income* is recognised in profit or loss when the interest is earned. *Interest expense* is recognised in profit or loss as incurred.

*Realised gain/loss* primarily represents amounts realised when assets or liabilities have been derecognised. Realised gain/loss includes transaction costs, which are expensed as incurred. Transaction costs are defined as all costs directly attributable to the completed transaction. For investments in *Equities and units* and *Bonds*, these normally include commission fees and stamp duties.

*Unrealised gain/loss* represents changes in fair value for the period for the related balance sheet line item that are not attributable to the aforementioned categories.

Table 3.1 Income/expense from equities and units

Amounts in NOK millions	2016	2015
Dividends	4 219	3 731
Realised gain/loss	3 452	5 948
Unrealised gain/loss	7 055	564
Income/expense from equities and units before foreign exchange gains/losses	14 726	10 243

Table 3.2 Income/expense from bonds

Amounts in NOK millions	2016	2015
Interests	4 546	5 066
Realised gain/loss	-264	5 504
Unrealised gain/loss	-414	-7 997
Income/expense from bonds before foreign exchange gains/losses	3 868	2 573

#### Tax expense

Tax expense comprises taxes in accordance with IAS 12 *Income Taxes* and comprises income tax that will not be refunded under local tax rules or tax treaties to Norges Bank. This pertains to withholding tax on dividends, which gives rise to tax expenses related to the foreign exchange reserves. Tax expense for

2016 was NOK 76m compared with NOK 42m in 2015.

Accounting policies for taxation are further detailed in Note 20.9 *Tax*.

## Note 4 Holdings of Equities and units and Bonds



### ACCOUNTING POLICY

Investments in equities, units and bonds are designated upon initial recognition as at *fair value through profit or loss* and are carried in the balance sheet at fair value. Earned and accrued dividends and interest are presented in the balance sheet on the same line as the respective financial asset or liability and are specified in Tables 4.1 and 4.2 for Equities and units and Bonds, respectively. Lent equities, units and bonds are presented separately. For more information on lent securities see Note 8 *Secured lending and borrowing*.

For further information on fair value measurement see Note 6 *Fair value measurement*.

Changes in fair value for the period are recognised in the income statement and specified in Note 3 *Income/expense from Equities and units and Bonds*.

Table 4.1 Equities and units

Amounts in NOK millions	31 Dec. 2016		31 Dec. 2015	
	Fair value including dividends	Accrued dividends	Fair value including dividends	Accrued dividends
Equities and units	177 395	193	169 522	195
<b>Total equities and units</b>	<b>177 395</b>	<b>193</b>	<b>169 522</b>	<b>195</b>
<i>Of which equities lent</i>	<i>10 437</i>	<i>-</i>	<i>5 108</i>	<i>-</i>

Table 4.2 Bonds

Amounts in NOK millions	31 Dec. 2016			31 Dec. 2015		
	Nominal value <sup>1</sup>	Fair value including accrued interest	Accrued interest	Nominal value <sup>1</sup>	Fair value including accrued interest	Accrued interest
Government bonds	260 314	271 569	1 659	247 672	267 458	1 676
Corporate bonds	-	-	-	330	8	-
Securitised bonds	-	-	-	372	-	-
Treasury bills	749	752	-	-	-	-
<b>Total bonds</b>	<b>261 063</b>	<b>272 321</b>	<b>1 659</b>	<b>248 374</b>	<b>267 466</b>	<b>1 676</b>

<sup>1</sup> Nominal values have been translated into NOK at the closing rate at the balance sheet date. The nominal value comprises the face value of the instrument or principal.

Bonds in Norges Bank's balance sheet are in their entirety associated with management of the foreign exchange reserves. Norges Bank issues government debt and enters into financial contracts in the area of government debt management in the name of

the Ministry of Finance. Transactions related to government debt management are recognised in the government accounts and not in Norges Bank's balance sheet.

## Note 5 Foreign exchange reserves

### FRAMEWORK FOR THE MANAGEMENT OF NORGES BANK'S FOREIGN EXCHANGE RESERVES

Norges Bank's foreign exchange reserves are to be available for use as part of the conduct of monetary policy with a view to promoting financial stability and to meet Norges Bank's international commitments to the IMF and individual countries. The reserves are divided into an equity portfolio, a fixed income portfolio and a petroleum buffer portfolio. The portfolios were redivided on 1 December 2016. Up until that date, the equity portfolio and the long-term fixed income portfolio were managed together by NBIM. The equity portfolio is now managed as a separate portfolio by NBIM, while the long-term fixed income portfolio has been merged with the money market portfolio into a combined fixed income portfolio. The fixed income portfolio and petroleum buffer portfolio are managed by Norges Bank Markets and Banking Services.

The foreign exchange reserves are to be invested so that at least SDR 10bn can be used within a single trading day without having to realise any appreciable losses. The foreign exchange reserves may be invested in cash deposits, money market instruments, bonds, short-term paper, and equities listed on a regulated exchange. The fixed income portfolio's

benchmark index is a market-weighted index of all sovereign bonds with a residual maturity of between one month and 10 years issued by France, Germany, Japan, the UK and the US. The equity portfolio's benchmark index is a global equity index for mid- and large-cap companies limited to nine currencies. The maximum exposure in the equity portfolio shall be 45% of the total exposure in the equity and fixed income portfolios.

The petroleum buffer portfolio is intended to receive the government's cash flow from petroleum activities and any transfers from the GPF. The purpose of the portfolio is to provide for an appropriate management of the government's need for converting foreign currency and NOK. The petroleum buffer portfolio is invested in short-term fixed income instruments. No benchmark index has been set for the petroleum buffer portfolio.

Tables 5.1 and 5.2 show income statements and balance sheets, respectively, for the foreign exchange reserves by portfolio. Since the foreign exchange reserves are presented as they are operationally managed by Norges Bank, there may be minor differences between this presentation and presentation under the IMF definition of foreign exchange reserves.

Table 5.1 Foreign exchange reserves by portfolio

Amounts in NOK millions				2016
Income statement	Portfolios <sup>1</sup>			Total exchange reserves
	Equities	Fixed Income	Petroleum buffer	
Net income/expenses from:				
- Equities and units	14 705	-	-	14 705
- Bonds	-	3 868	-	3 868
- Financial derivatives	21	-3	-	18
- Secured lending	49	66	5	120
Interest income and expense from deposits and short-term borrowing	2	3	-7	-2
Tax expense	-76	-	-	-76
Other financial income/expenses	-	5	-	5
<b>Net income from financial instruments before foreign exchange gains/losses</b>	<b>14 701</b>	<b>3 939</b>	<b>-2</b>	<b>18 638</b>
Foreign exchange gains/losses	-5 403	-13 545	-906	-19 854
<b>Net income from financial instruments</b>	<b>9 298</b>	<b>-9 606</b>	<b>-908</b>	<b>-1 216</b>

<sup>1</sup> The portfolios were redivided on 1 December 2016. The equity portfolio is directly comparable with 2015. The fixed income portfolio comprises the long-term fixed income investments and the previous money market portfolio.

Amounts in NOK millions				2015
Income statement	Long-term portfolio <sup>1</sup>			Total exchange reserves
	Equities	Fixed Income	Money market portfolio	
Net income/expenses from:				
- Equities	10 221	-	-	10 221
- Bonds	-	2 565	8	2 573
- Financial derivatives	-29	-	-	-29
- Secured lending	51	-	18	69
Interest income and expense from deposits and short-term borrowing	3	-4	5	-8
Tax expense	-42	-	-	-42
Other financial income/expenses	-	1	-	1
<b>Net income from financial instruments before foreign exchange gains/losses</b>	<b>10 204</b>	<b>2 562</b>	<b>31</b>	<b>12 785</b>
Foreign exchange gains/losses	28 591	15 308	6 777	53 699
<b>Net income from financial instruments</b>	<b>38 795</b>	<b>17 870</b>	<b>6 808</b>	<b>66 484</b>

<sup>1</sup> For 2015, the equity and fixed income investments in the long-term portfolio are presented separately. These investments were managed as a single portfolio.

Table 5.2 Foreign exchange reserves by portfolio

Amounts in NOK millions				31 Dec. 2016
Balance sheet	Portfolios <sup>1</sup>			Total exchange reserves
	Equities	Fixed income	Petroleum buffer	
<b>FINANCIAL ASSETS</b>				
Deposits in banks	265	3 359	18 972	22 596
Secured lending	596	16 788	9 390	26 774
Unsettled trades	52	198	-	250
Equities and units	166 758	-	-	166 758
Equities lent	10 437	-	-	10 437
Bonds	-	272 321	-	272 321
Financial derivatives	2	-	-	2
Other financial assets	1 519	-	437	1 956
<b>Total financial assets</b>	<b>179 629</b>	<b>292 666</b>	<b>28 799</b>	<b>501 094</b>
<b>FINANCIAL LIABILITIES</b>				
Secured borrowing	2 412	-	-	2 412
Unsettled trades	-	9 664	8 878	18 542
<b>Total financial liabilities</b>	<b>2 412</b>	<b>9 664</b>	<b>8 878</b>	<b>20 954</b>
<b>Net foreign exchange reserves</b>	<b>177 217</b>	<b>283 002</b>	<b>19 921</b>	<b>480 140</b>

<sup>1</sup> The portfolios were redivided on 1 December 2016. The equity portfolio is directly comparable with 2015. The fixed income portfolio comprises the long-term fixed income investments and the previous money market portfolio.

Amounts in NOK millions				31 Dec. 2015	
Balance sheet	Long-term portfolio <sup>1</sup>			Petroleum buffer portfolio	Total exchange reserves
	Equities	Fixed income	Money market portfolio		
<b>FINANCIAL ASSETS</b>					
Deposits in banks	-97	137	16 480	6 486	23 006
Secured lending	827	-	14 737	7 740	23 304
Unsettled trades	-	9	-	-	9
Equities	164 213	-	-	-	164 213
Equities lent	5 108	-	-	-	5 108
Bonds	-	240 911	26 555	-	267 466
Financial derivatives	3	-	1	5	9
Other financial assets	17	811	-	-	828
<b>Total financial assets</b>	<b>170 071</b>	<b>241 868</b>	<b>57 773</b>	<b>14 231</b>	<b>483 943</b>
<b>FINANCIAL LIABILITIES</b>					
Secured borrowing	827	-	-	-	827
Unsettled trades	-	9	7 444	7 232	14 686
Other financial liabilities	-	-	-	248	248
<b>Total financial liabilities</b>	<b>827</b>	<b>9</b>	<b>7 444</b>	<b>7 481</b>	<b>15 761</b>
<b>Net foreign exchange reserves</b>	<b>169 244</b>	<b>241 859</b>	<b>50 329</b>	<b>6 750</b>	<b>468 182</b>

<sup>1</sup> For 2015, the equity and fixed income investments in the long-term portfolio are presented separately. These investments were managed as a single portfolio.

Table 5.3 Foreign exchange reserves by currency

Amounts in NOK millions	31 Dec. 2016					
	USD	EUR	GBP	JPY	Other	TOTAL
<b>FINANCIAL ASSETS</b>						
Deposits in banks	1 223	17 371	3 210	777	15	22 596
Secured lending	11 111	15 663	-	-	-	26 774
Unsettled trades	198	-	-	52	-	250
Equities	101 845	19 783	11 649	14 381	19 100	166 758
Equities lent	4 916	1 236	136	3 203	946	10 437
Bonds	136 676	92 090	21 925	21 630	-	272 321
Financial derivatives	-	2	-	-	-	2
Other financial assets	1 509	446	1	-	-	1 956
<b>Total financial assets</b>	<b>257 478</b>	<b>146 591</b>	<b>36 921</b>	<b>40 043</b>	<b>20 061</b>	<b>501 094</b>
<b>FINANCIAL LIABILITIES</b>						
Secured borrowing	2 412	-	-	-	-	2 412
Unsettled trades	1 719	16 823	-	-	-	18 542
<b>Total financial liabilities</b>	<b>4 131</b>	<b>16 823</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20 954</b>
<b>Net foreign exchange reserves</b>	<b>253 347</b>	<b>129 768</b>	<b>36 921</b>	<b>40 043</b>	<b>20 061</b>	<b>480 140</b>

Amounts in NOK millions	31 Dec. 2015					
	USD	EUR	GBP	JPY	Other	TOTAL
<b>FINANCIAL ASSETS</b>						
Deposits in banks	16 305	6 669	13	30	-11	23 006
Secured lending	6 305	16 999	-	-	-	23 304
Unsettled trades	8	-1	-	2	-	9
Equities	98 965	19 881	11 861	15 671	17 835	164 213
Equities lent	895	1 055	49	1 919	1 190	5 108
Bonds	127 167	92 559	23 740	24 000	-	267 466
Financial derivatives	6	3	-	-	-	9
Other financial assets	1 156	-261	1	140	-208	828
<b>Total financial assets</b>	<b>250 807</b>	<b>136 904</b>	<b>35 664</b>	<b>41 762</b>	<b>18 806</b>	<b>483 943</b>
<b>FINANCIAL LIABILITIES</b>						
Secured borrowing	827	-	-	-	-	827
Unsettled trades	2 494	12 190	-	2	-	14 686
Other financial liabilities	248	-	-	-	-	248
<b>Total financial liabilities</b>	<b>3 569</b>	<b>12 190</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>15 761</b>
<b>Net foreign exchange reserves</b>	<b>247 238</b>	<b>124 714</b>	<b>35 664</b>	<b>41 760</b>	<b>18 806</b>	<b>468 182</b>

## Note 6 Fair value measurement



### ACCOUNTING POLICY

All assets and liabilities presented as *Equities and units, Bonds, Unlisted real estate, Financial derivatives, Secured lending and borrowing, Deposits in banks and Posted and received cash collateral* are held at fair value in the balance sheet.

Fair value, as defined by IFRS 13 *Fair Value Measurement*, is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

### 1. INTRODUCTION

The fair value of the vast majority of assets and liabilities is based on quoted market prices. If the market for a security or an asset is not active, fair value is established by using a standard valuation technique to estimate fair value. Estimating fair value introduces valuation uncertainty, mostly due to the use of unobservable inputs in valuation models. The valuation environment is followed up by the control environment at Norges Bank, which governs fair value measurement, and is described in Section 5 of this note.

### 2. VALUATION UNCERTAINTY AND THE FAIR VALUE HIERARCHY

All securities in the foreign exchange reserves measured at fair value have been categorised in the three categories of the fair value hierarchy presented in Table 6.1. The level of valuation uncertainty determines the categorisation:

- Level 1 comprises assets that are valued on the basis of quoted prices in active markets and are considered to have very limited valuation uncertainty.
- Assets and liabilities classified as Level 2 are valued using models with observable inputs. Inputs are considered observable if they can be directly observed from transactions in an active market, or if there is compelling external evidence demonstrating an executable exit price. Holdings classified as Level 2 have some valuation uncertainty.
- Assets classified as Level 3 are valued using models with considerable use of unobservable inputs, leading to a high degree of valuation uncertainty.

An overview of models and valuation techniques with their respective observable and unobservable inputs, categorised by type of instrument, is provided in Section 4 of this note.



### SIGNIFICANT ESTIMATE

Level 3 investments consist of instruments held at fair value that are not traded or quoted in active markets. The fair values are determined using valuation techniques that use models with unobservable inputs. This implies a high degree of uncertainty regarding the determination of fair value.

Table 6.1 Foreign exchange reserves investments by level of valuation uncertainty

Amounts in NOK millions	Level 1		Level 2		Level 3		Total	
	31 Dec. 2016	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015
Equities <sup>1</sup>	176 696	168 801	499	520	-	-	177 195	169 321
Government bonds	271 569	267 457	-	-	-	-	271 569	267 457
Corporate bonds	-	-	-	-	-	8	-	8
Treasury bills	752	-	-	-	-	-	752	-
<b>Total bonds</b>	<b>272 321</b>	<b>267 457</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8</b>	<b>272 321</b>	<b>267 465</b>
Financial derivatives (assets)	2	9	-	-	-	-	2	9
<b>Total financial derivatives</b>	<b>2</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>9</b>
Other <sup>2</sup>	-	-	30 622	31 387	-	-	30 622	31 387
<b>Total</b>	<b>449 019</b>	<b>436 267</b>	<b>31 121</b>	<b>31 907</b>	<b>-</b>	<b>8</b>	<b>480 140</b>	<b>468 182</b>
<b>Total (percent)</b>	<b>93.5</b>	<b>93.2</b>	<b>6.5</b>	<b>6.8</b>	<b>-</b>	<b>-</b>	<b>100.0</b>	<b>100.0</b>

<sup>1</sup> Equities include only equities related to the foreign exchange reserves.

<sup>2</sup> Other comprises other assets and liabilities limited to money market instruments, including reverse repurchase agreements, deposits in banks, short-term borrowing, unsettled trades, posted and received cash collateral and other assets and liabilities.

At year-end 2016, the valuation uncertainty for the foreign exchange reserves was generally unchanged compared with year-end 2015. The majority of the total portfolio is associated with low valuation risk and is classified as Level 1. Almost all equity holdings (99.7%) are classified as Level 1. For bonds, all investments are classified as Level 1 and valuation is thus based on quoted market prices.

### 3. MOVEMENTS BETWEEN LEVELS IN THE HIERARCHY

There have been no substantial movements between levels in the fair value hierarchy and the allocation is virtually unchanged from 2015. Holdings allocated to Level 3 decreased by NOK 8m during 2016, owing to the sale of corporate bonds. This sale reflects an adjustment to the new management mandate for the fixed income portfolio.

### 4. VALUATION TECHNIQUES

Norges Bank has defined hierarchies for which price sources are to be used for valuation. Holdings in the benchmark indices are normally priced in accordance with the index providers' prices, while the remaining holdings of equities and bonds are priced almost exclusively by other reputable independent external valuation providers. The next section sets out the main valuation techniques used for those

instruments included in Level 2 and Level 3 of the fair value hierarchy. Furthermore, it highlights the most significant observable and unobservable inputs to the valuation models and their interaction with sensitivity testing for instruments classified as Level 3.

#### *Equities and units (Level 2)*

Equities and units valued on the basis of models using observable inputs from providers are in accordance with the fair value hierarchy classified as Level 2 investments. These holdings are often instruments that are not traded daily or listed equities that have been suspended from trading. The valuation models take into account several types of observable inputs, such as the price of comparable equities, last traded date, volumes and reasons for suspension.

#### *Bonds (Level 3)*

Bonds valued by external valuation providers on the basis of models with extensive use of unobservable inputs such as probability of expected cash flows, outdated indirect quotes on comparable issues and spread against reference curves are classified as Level 3. These holding include defaulted and highly illiquid bonds.

## 5. CONTROL ENVIRONMENT

The control environment for fair value measurement in NBIM and Norges Bank Markets and Banking Services is organised around a formalised and documented accounting and valuation policy and guidelines which are supported by work and control procedures. The NBIM policy document lays down valuation policies and outlines procedures for NBIM's valuation committee. The portfolios managed by Norges Bank Markets and Banking Services contain only liquid government securities, where valuation risk is very low. Therefore, Norges Bank Markets and Banking Services does not have its own valuation committee, but any questions are discussed by a separate management committee.

The valuation environment has been adapted in accordance with market standards and established practices for valuation. This is implemented in practice in the form of daily valuation of all holdings. These processes are scalable to market changes and are based on internal and external data solutions.

All holdings and investments are generally valued by external, independent valuation providers. They have been chosen on the basis of analyses performed by the Norges Bank units responsible for valuation.

Valuation providers are monitored on an ongoing basis through regular discussions, controls and price challenges for individual securities. For a large portion of holdings, prices from independent price providers are based on quoted market prices. For holdings that are not sufficiently liquid for valuation to be based on quoted prices, widely accepted models are used. Observable inputs are used where

possible, but in some cases, owing to illiquid markets, unobservable inputs are used.

The valuation process is subject on a daily basis to numerous controls by the valuation departments. Controls are based on defined thresholds and sensitivities, which are monitored and adjusted in accordance with market conditions. At each month-end, more extensive controls of financial instruments are performed to ensure valuation in accordance with fair value.

In NBIM, a valuation memo and report are prepared at each quarter-end documenting the results of the controls performed and the most important sources of uncertainties in the valuations.

The valuation committee, which comprises NBIM's leader group, meets every quarter prior to the publication of the financial reporting. The committee reviews the documentation, discusses major pricing issues and approves the valuation.

## 6. OTHER INVESTMENTS

Norges Bank holds equity investments other than those mentioned in Table 6.1. These are investments undertaken by Norges Bank in its role as Norway's central bank to discharge Norway's international obligations in this area. The obligations involve long-term commitments that do not have economic gain as an objective and are not, by their nature, financial investments. The shares in the Bank for International Settlements (BIS) are valued at NOK 200m and are allocated to Level 3 in the fair value hierarchy. Valuation is uncertain owing to a lack of activity in the market. These shares are valued using models that use a substantial degree of non-observable inputs.

## Note 7 Risk

### FRAMEWORK FOR INVESTMENT RISK

The Executive Board has established principles for risk management. These are detailed further through policies and guidelines. The composition of the foreign exchange reserves' portfolios and the associated risk are determined primarily by the benchmark index defined by the governor. In the investment mandate for the portfolios, there are limits and restrictions that regulate the degree of active management, in addition to the rule-based capital allocation.

Through management of the foreign exchange reserves, Norges Bank is exposed to various types of financial risk, including market risk, credit risk and counterparty risk. The Bank is also exposed to credit risk associated with lending to banks and to the IMF.

Risk management is defined as management of market risk, credit risk, counterparty risk, operational risk and risk related to environmental, social and governance factors. The first three items listed are defined as investment risk. In NBIM and in Norges Bank Markets and Banking Services, the investment area has responsibility for managing the portfolio and individual mandate risk, while the risk management areas independently measure, manage and report investment risk across portfolios, asset classes and other levels within the portfolios that reflect the investment process.

#### *Investment risk – market risk*

Norges Bank defines market risk as the risk of loss or a change in the market value of the portfolio, or parts of the portfolio, as a result of changes in financial market variables. Market risk for the portfolios in the foreign exchange reserves is measured along the following dimensions: concentration (absolute and relative to the benchmark), volatility and correlation risk, systematic factor risk and

liquidity risk. Market risk is actively taken to generate investment returns in line with the objectives of the investment mandates.

#### *Investment risk – credit risk*

Norges Bank defines credit risk as the risk of loss due to an issuer being unable to meet its payment obligations.

#### *Investment risk – counterparty risk*

Norges Bank defines counterparty risk as the risk of loss due to counterparty bankruptcy or other events leading to counterparties defaulting. Counterparties are required to ensure efficient liquidity management and efficient trading and management of market and credit risk. Counterparty risk also arises in connection with securities lending. Counterparty risk is controlled and mitigated to the greatest extent possible, given the investment strategy.

#### *Risk management process*

Norges Bank employs several measurement methodologies, processes and systems to control investment risk. Robust and widely accepted risk management systems and processes are complemented by internally developed measurement methods and processes.

### MARKET RISK

Norges Bank measures market risk in both absolute terms for the actual portfolio, and the relative market risk for investments in the portfolio.

Continuous monitoring, measurement and assessment of market risk are performed along multiple risk dimensions, employing a number of methodologies and approaches. Combining different and complementary risk measures provides a better insight into the risk profile of the holdings in the portfolio.

Table 7.1 Foreign exchange reserves allocation by asset class and region

				31 Dec. 2016
		Market value in percent by region	Market value in percent by asset class	Assets minus liabilities, amounts in NOK millions
<b>EQUITY PORTFOLIO</b>				
Equities	Americas	63.6		112 710
	Europe	23.7		42 000
	Asia and Oceania	12.7		22 507
Total equity portfolio			100.0	177 217
<b>FIXED INCOME PORTFOLIO</b>				
Bonds	Americas	50.3		136 599
	Europe	41.8		113 516
	Asia and Oceania	7.9		21 454
Total bonds			96.0	271 569
Treasury bills	Europe	60.6		456
	Asia and Oceania	39.4		296
Total Treasury bills			0.2	752
Deposits	Americas	46.1		4 923
	Europe	44.4		4 740
	Asia and Oceania	9.5		1 018
Total deposits			3.8	10 681
Total fixed income portfolio			100.0	283 002
<b>Petroleum buffer portfolio</b>				
Deposits	Americas	23.9		4 761
	Europe	76.1		15 160
Total petroleum buffer portfolio			100.0	19 921
Total foreign exchange reserves				480 140

			31 Dec. 2015	
		Market value in percent by region	Market value in percent by asset class	Assets minus liabilities, amounts in NOK millions
<b>LONG TERM PORTFOLIO</b>				
Equities	Americas	61.7		104 424
	Europe	25.2		42 650
	Asia and Oceania	13.1		22 171
<b>Total equity portfolio</b>			<b>41.2</b>	<b>169 245</b>
Bonds	Americas	45.3		109 561
	Europe	44.7		108 110
	Asia and Oceania	10.0		24 186
<b>Total bonds</b>			<b>58.8</b>	<b>241 857</b>
<b>MONEY MARKET PORTFOLIO</b>				
Securities	Americas	70.4		18 690
	Europe	29.6		7 866
<b>Total securities</b>			<b>52.8</b>	<b>26 556</b>
Deposits	Americas	80.4		19 124
	Europe	19.6		4 649
<b>Total deposits</b>			<b>47.2</b>	<b>23 773</b>
<b>Petroleum buffer portfolio</b>				
Deposits	Americas	16.5		260
	Europe	83.5		6 491
<b>Total petroleum buffer portfolio</b>			<b>100.0</b>	<b>6 751</b>
<b>Total foreign exchange reserves</b>				<b>468 182</b>

#### Concentration risk

The foreign exchange reserves contain substantial investments in bonds issued by sovereigns. The reserves also contain equity investments in private companies.

Table 7.2 Foreign exchange reserves holdings of government bonds

Amounts in NOK millions	Market value	
	31 Dec. 2016	31 Dec. 2015
US	136 676	127 169
France	49 333	48 612
Germany	42 757	43 944
UK	21 925	23 740
Japan	21 630	24 001
<b>Total</b>	<b>272 321</b>	<b>267 466</b>

Table 7.3 Foreign exchange reserves largest holdings of equities

Amounts in NOK millions		31 Dec. 2016
	Sector	Equities
Apple Inc	Technology	3 459
Microsoft Corp	Technology	2 642
Alphabet Inc	Technology	2 510
Exxon Mobil Corp	Oil & Gas	2 067
Johnson & Johnson	Healthcare	1 749
JPMorgan Chase & Co	Finance	1 728
Berkshire Hathaway Inc	Finance	1 690
General Electric Co	Manufacturing	1 597
Amazon.com Inc	Consumer goods	1 566
Wells Fargo & Co	Finance	1 548

Amounts in NOK millions		31 Dec. 2015
	Sector	Equities
Apple Inc	Technology	3 260
Alphabet Inc	Technology	2 434
Microsoft Corp	Technology	2 209
Exxon Mobil Corp	Oil & Gas	1 802
Johnson & Johnson	Healthcare	1 572
General Electric Co	Manufacturing	1 554
Wells Fargo & Co	Finance	1 512
Amazon.com Inc	Consumer goods	1 385
JPMorgan Chase & Co	Finance	1 341
Berkshire Hathaway Inc	Finance	1 333

#### Volatility and correlation risk

Norges Bank uses models to quantify the risk of value changes associated with the foreign exchange reserves. Volatility is a standard risk measurement technique based on the statistical concept of standard deviation, which takes into account correlations between different instruments in the portfolio. This risk measure provides an estimate of how much one can expect the portfolio value to change or fluctuate in the course of a year, based on market conditions over the past three years. In two out of three years, portfolio return is expected to be lower than the estimated volatility and higher than the negative value of the estimated volatility. Expected volatility can be expressed in terms of the portfolio's absolute risk or relative risk. Absolute risk is estimated on the basis of volatility in the actual portfolio, and relative risk is estimated on the basis of the difference in return between the actual portfolio

and the benchmark index. Absolute volatility is estimated as the standard deviation of the time series of returns in the stated period. Relative volatility is estimated as the standard deviation of the difference in returns (portfolio return - benchmark index return). For the equity portfolio, the model uses equally weighted weekly return data from the past three years and a parametric calculation methodology. The fixed income portfolio also uses a parametric model, but uses daily return data where the most recent observations are given higher weight. Both portfolios use the same model for the portfolios' absolute and relative volatility. In addition to these models, other models are employed that better capture the market dynamics of recent periods and the risk measure that measures so-called tail risk. Tail risk refers to events assumed to occur rarely, but that potentially have a considerable financial impact.

Table 7.4 also contains estimates according to the portfolio structure in place until the end of Novem-

ber 2016, to facilitate comparison with estimates from 2015.

Table 7.4 Expected volatility

	Expected volatility, in percent								
	31 Dec. 2016	30 Nov. 2016	Min 2016 <sup>2</sup>	Max 2016 <sup>2</sup>	Avg. 2016 <sup>2</sup>	31 Dec. 2015	Min 2015	Max 2015	Avg. 2015
Long-term portfolio <sup>1</sup>		9.6	9.6	10.1	9.9	10.0	7.7	10.0	9.1
Equities		14.5	13.5	14.5	14.3	13.5	11.2	13.6	12.5
Bonds		9.8	9.8	10.6	10.2	10.4	8.6	10.4	9.7
Money market portfolio <sup>1</sup>		8.7	8.7	16.0	11.2	10.2	9.7	15.9	12.7
Equity portfolio <sup>1</sup>	14.5								
Fixed income portfolio <sup>1</sup>	8.7								

	Expected relative volatility, basis points								
	31 Dec. 2016	30 Nov. 2016	Min 2016 <sup>2</sup>	Max 2016 <sup>2</sup>	Avg. 2016 <sup>2</sup>	31 Dec. 2015	Min 2015	Max 2015	Avg. 2015
Long-term portfolio <sup>1</sup>		8	5	8	6	6	3	18	5
Equities		15	11	18	14	16	6	23	10
Bonds		4	2	4	3	4	2	28	6
Money market portfolio <sup>1</sup>		2	2	8	5	3	1	7	4
Equity portfolio <sup>1</sup>	14								
Fixed income portfolio <sup>1</sup>	5								

<sup>1</sup> The portfolios were redivided on 1 December 2016. The equity portfolio is directly comparable with 2015. The fixed income portfolio comprises the long-term fixed income investments and the previous money market portfolio.

<sup>2</sup> Estimates for January - November 2016.

At year-end 2016, absolute risk in the equity portfolio was measured at 14.5%. This means that for the portfolio, yearly value fluctuations on the order of NOK 27.5bn can be expected. At year-end 2016, the relative risk for the equity portfolio was 14 basis points, compared with 16 basis points at year-end 2015. This means that, under given assumptions, that the return on the equity portfolio with the composition that the portfolio and benchmark index had on 31 December 2016, is expected to vary by less than 14 basis points from the benchmark index return in two out of three years. In one out of three years, the return is expected to vary by more than 14 basis points from the benchmark index return.

At year-end 2016, the absolute risk in the fixed income portfolio was measured at 8.7%, which indicates expected yearly value fluctuations of approximately NOK 24.6bn. The relative risk in the fixed income portfolio was 5 basis points. This means that, under given assumptions, that the return on the fixed income portfolio with the composition that the portfolio and benchmark index had on 31 December 2016, is expected to vary by less than

5 basis points from the benchmark index return in two out of three years. In one out of three years, the return is expected to vary by more than 5 basis points from the benchmark index return.

#### Strengths and weaknesses

The strength of these types of risk models is that one can estimate the risk in a portfolio across different asset classes, markets, currencies, securities and derivatives and express this risk as a single numerical value, which takes into account the correlation between different asset classes, securities and risk factors.

The model-based risk estimates are based on historical relationships and will provide reliable forecast in markets without significant changes in volatility. Estimates will be less reliable in periods marked by significant changes in volatility and correlation. Calculated volatility gives a point estimate of risk and provides little information about the total risk profile and any tail risk. The calculated risk measures are annualised. Annualisation means that it is assumed that volatility and portfolio composition are consistent over time. To compensate for

these shortcomings, complementary models and methods are employed, such as stress tests, and analysis analyses of concentration risk and realised return.

#### Verification of models

Regular testing of the models is performed to validate the model's ability to estimate risk.

#### CREDIT RISK

Credit risk is the risk of losses resulting from issuers of bonds defaulting on their payment obligations. Bonds in the portfolio's benchmark index are all rated investment grade by one of the major credit rating agencies. Investments in bonds are made on the basis of internal assessments of expected return and risk.

Table 7.5 Bonds specified by credit rating

Amounts in NOK millions					31 Dec. 2016
	AAA	AA	A	Lower rating	Total
Government bonds	178 977	71 258	21 334	-	271 569
Treasury bills	456	-	296	-	752
<b>Total bonds</b>	<b>179 433</b>	<b>71 258</b>	<b>21 630</b>	<b>-</b>	<b>272 321</b>

Amounts in NOK millions					31 Dec. 2015
	AAA	AA	A	Lower rating	Total
Government bonds	171 104	72 352	24 001	-	267 457
Corporate bonds	-	-	-	8	8
<b>Total bonds</b>	<b>171 104</b>	<b>72 352</b>	<b>24 001</b>	<b>8</b>	<b>267 465</b>

Table 7.6 Bonds specified by credit rating and currency, in percent

					31 Dec. 2016
	AAA	AA	A	Lower rating	Total
US dollar	50.2	-	-	-	50.2
Euro	15.7	18.1	-	-	33.8
Pound sterling	-	8.1	-	-	8.1
Japanese yen	-	-	7.9	-	7.9
<b>Total</b>	<b>65.9</b>	<b>26.2</b>	<b>7.9</b>	<b>-</b>	<b>100.0</b>

					31 Dec. 2015
	AAA	AA	A	Lower rating	Total
US dollar	47.5	-	-	-	47.5
Euro	16.5	18.2	-	-	34.7
Pound sterling	-	9.0	-	-	9.0
Japanese yen	-	-	8.8	-	8.8
<b>Total</b>	<b>64.0</b>	<b>27.2</b>	<b>8.8</b>	<b>-</b>	<b>100.0</b>

Table 7.6 shows that the share of AAA bonds increased to 65.9% at year-end 2016 from 64% at year-end 2015. The share of AA bonds was 26.2% at year-end 2016, while the remaining 7.9% of govern-

ment securities in the fixed income portfolio were rated A. At year-end 2016, there were no holdings with a credit rating lower than A.

## COUNTERPARTY RISK

The foreign exchange reserves use a large number of counterparties, which are required to ensure efficient liquidity management and efficient trading and management of market and credit risk. Exposure to counterparty risk is related to trading in OTC derivatives and currency contracts, reverse repurchase agreements, securities lending and securities posted as collateral in derivative trades and securities lending. Unsecured deposits in banks are also defined as counterparty risk. Such counterparty risk also arises in connection with day-to-day liquidity management.

Furthermore, there is exposure to counterparty risk related to counterparties in international settlement and custody systems where transactions settle. This can occur both in currency trades and with purchase and sale of securities. For currency trades associated with equity management, NBIM uses the currency settlement system CLS (Continuous Linked Settlement) and the settlement risk for these transactions will be low. For currency trades associated with fixed income management, CLS is not used but there are strict requirements for counterparty credit rating and several counterparties are used to reduce concentration risk. Credit rating requirements are generally higher for counterparties to unsecured deposits in banks than in situa-

tions where collateral is received. Changes in counterparty's credit ratings are monitored continuously.

Netting agreements are in place for trades in OTC derivatives, currency contracts and reverse repurchase agreements, in order to reduce counterparty risk. Further reduction of counterparty risk is achieved through collateral requirements for counterparty net positions with a positive market value. For instruments where collateral is used, minimum requirements have been set, relating to the credit quality, time to maturity and concentration of the collateral. Netting and collateral agreements are entered into for all counterparties approved for these types of trades.

Counterparty risk is also reduced by setting exposure limits for individual counterparties. Exposure per counterparty is measured daily against set limits.

For securities lending transactions executed through an external agent and securities posted as collateral in derivatives trades, a method is used that adds a premium to the market value to reflect the position's volatility. These positions are also adjusted for netting and actual collateral received and posted when determining net exposure.

Table 7.7 Counterparty risk by type of position

Amounts in NOK millions	31 Dec. 2016			
	Gross exposure	Effect of netting	Collateral and guarantees	Net exposure
Time deposits and unsecured bank deposits <sup>1</sup>	16 531	-	-	16 531
Repurchase and reverse repurchase agreements	14 637	-	15 250	-613
Securities lending transactions	1 372	-	-	1 372
<b>Total</b>	<b>32 540</b>	<b>-</b>	<b>15 250</b>	<b>17 290</b>

<sup>1</sup> Time deposits and unsecured bank deposits mainly comprise deposits with the Federal Reserve and the BIS.

Amounts in NOK millions	31 Dec. 2015			
	Gross exposure	Effect of netting	Collateral and guarantees	Net exposure
Time deposits and unsecured bank deposits <sup>1</sup>	22 966	-	-	22 966
Repurchase and reverse repurchase agreements	7 800	-	8 085	-285
Securities lending transactions	637	-	-	637
<b>Total</b>	<b>31 403</b>	<b>-</b>	<b>8 085</b>	<b>23 318</b>

<sup>1</sup> Time deposits and unsecured bank deposits mainly comprise deposits with the Federal Reserve and the BIS.

Counterparty risk measured by gross exposure was virtually unchanged in 2016, compared with 2015, while counterparty risk measured by net exposure was somewhat reduced. The reason was that a larger share had been invested in reverse repurchase agreements, with a corresponding reduction in the share of time deposits at year-end 2016.

Norges Bank's counterparties have a credit rating from independent credit rating agencies. An internal credit evaluation can only be used as the basis for counterparty approval in instances when the counterparty risk is considered very low. Credit ratings of the Bank's counterparties are monitored and complemented by alternative credit risk indicators.

Table 7.8 Counterparties<sup>1</sup> by credit rating

	Norges Bank's counterparties (excluding brokers)		Brokers	
	31 Dec. 2016	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015
AAA	-	-	-	-
AA	30	28	22	28
A	54	62	40	70
BBB	15	16	11	24
BB	1	-	4	5
B	-	-	13	15
<b>Total</b>	<b>100</b>	<b>106</b>	<b>90</b>	<b>142</b>

<sup>1</sup> As counterparties are counted per legal entity, several counterparties may be included per corporate group.

## OTHER RISK

### *Liquidity risk*

Liquidity risk is the risk of being unable to meet financial obligations at the agreed time. As a central bank, Norges Bank is not exposed to this type of liquidity risk in local currency.

### *Foreign exchange rate risk*

Foreign exchange rate risk is the risk that the value of financial instruments will change owing to movements in foreign exchange rates. Norges Bank has, primarily through the foreign exchange reserves, invested in securities issued and traded in currencies other than the Norwegian krone. Consequently, the value of Norges Bank's investments will change in a positive or negative direction owing to movements in foreign exchange rates and the value of these investments is therefore exposed to foreign exchange rate risk. See Table 5.3 for an overview of the foreign exchange reserves broken down by USD, EUR, GBP and JPY at year-end.

### *Credit risk associated with lending to banks*

Norges Bank extends loans with fixed maturities (F-loans) and overnight loans (D-loans) to banks. D-loans may be intraday and overnight. Loans to banks are extended against collateral in the form of securities pledged to Norges Bank, or F-deposits with Norges Bank or collateral in the form of intraday deposits with Sveriges Riksbank or Danmarks Nationalbank.

Norges Bank stipulates more detailed terms for pledging securities and fund units as collateral for loans in Norges Bank pursuant to Section 9 of the Regulation on banks' access to loans and deposits in Norges Bank etc. The current guidelines have been issued in Norges Bank's Circular No. 1/2016 from March 2016.

The rules for pledging collateral are intended to limit Norges Bank's risk associated with lending to banks and facilitate appropriate levels of bank borrowing. Risk is limited, since only high quality securities are eligible and since the loan value is lower than the market value of the collateral (haircut).

### *Credit risk associated with loans to the IMF*

Norges Bank's loans to the IMF have been made to bolster the IMF's general borrowing agreements which follow IMF guidelines. Norges Bank is not directly exposed to risk in the loan portfolio managed by the IMF. The IMF has never realised a loss on its loans under their general borrowing agreements. The IMF has preferred creditor status, which means that the IMF has priority over all other creditors. If the IMF should incur a loss on its loans, this will initially affect the IMF's own assets and, if necessary, paid-in subscriptions. In Norges Bank's assessment, the risk related to IMF loans is low, and no impairment losses have been recognised with regard to these loans.

## Note 8 Secured lending and borrowing

Secured lending and borrowing comprises transactions in which securities or cash is transferred or received secured by other securities or cash. Transactions are carried out under various agreements such as securities lending agreements, repurchase or reverse repurchase agreements and equity

swaps in combination with the purchase and sale of equities.

The purpose of secured lending and borrowing is to generate additional income from securities and cash holdings.



### ACCOUNTING POLICY

#### *Income and expense recognition of secured lending and borrowing transactions*

Income and expenses primarily comprise interest and net fees, which are recognised on a straight-line basis over the term of the agreement. This is presented in the income statement as *Income/expense from secured borrowing* and *Income/expense from secured lending*, respectively.

Table 8.1 Income/expense from secured lending and borrowing

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Income/expense from secured lending	120	69
Net income/expense from secured lending and borrowing	120	69



### ACCOUNTING POLICY

#### *Transferred financial assets*

Securities lent to counterparties in connection with secured lending and borrowing are not derecognised when the agreement is entered into, as the derecognition criteria are not met. As the counterparty has the right to sell or pledge the security, the security is considered transferred. Lent securities are presented on separate lines in the balance sheet, as *Equities lent* and *Bonds lent*. During the lending period, the accounting for the underlying securities is in accordance with accounting policies for the relevant securities.

#### *Secured lending*

Cash collateral posted to counterparties is derecognised. A corresponding receivable reflecting the cash amount that will be returned is recognised in the balance sheet as an asset, *Secured lending*. This asset is designated at initial recognition as a financial asset measured at *fair value through profit or loss*.

#### *Secured borrowing*

Cash collateral received is recognised as *Deposits in banks* together with a corresponding liability, *Secured borrowing*. This liability is designated at initial recognition as a financial liability measured at *fair value through profit or loss*.

#### *Collateral received in the form of securities*

Collateral received in the form of securities through *Secured lending and borrowing* transactions, where Norges Bank has the right to sell or pledge the security, is not recognised in the balance sheet, unless reinvested.

Table 8.2 presents *Secured lending* as well as associated collateral received in the form of securities.

Table 8.2 Lending associated with securities financing transactions

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Secured lending	26 774	23 304
<i>Of which unsettled trades (liability)</i>	11 576	14 677
Secured lending excluding unsettled trades	15 198	8 627
<b>Associated collateral in the form of securities (off-balance sheet)</b>		
Equities received as collateral	-	582
Bonds received as collateral	15 858	8 389
Total security collateral received related to lending	15 858	8 971

Table 8.3 presents securities transferred with the associated liability in the form of *Secured borrow-*

*ing*, as well as collateral received in the form of securities.

Table 8.3 Transferred financial assets and secured borrowing

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
<b>Transferred financial assets</b>		
Equities lent	10 437	5 108
Total transferred financial assets	10 437	5 108
<b>Associated cash collateral, recognised as liability</b>		
Secured borrowing	2 412	827
Secured borrowing excluding unsettled trades	2 412	827
<b>Associated collateral in the form of securities (off-balance sheet)</b>		
Equities received as collateral	5 858	3 646
Bonds received as collateral	3 013	1 200
Total security collateral received related to transferred financial assets	8 871	4 846

Cash collateral received is reinvested in its entirety. No securities received as collateral have been reinvested at year-end 2016 or 2015. Therefore, these securities are not recognised in the balance sheet.

## Note 9 Collateral and offsetting



### ACCOUNTING POLICY

#### *Cash collateral, OTC derivative transactions*

Cash collateral posted in connection with OTC derivative transactions is derecognised. A corresponding receivable reflecting the cash amount that will be returned is recognised as an asset as *Cash collateral posted*. Cash collateral received in connection with OTC derivative transactions is recognised as *Deposits in banks* together with a corresponding liability, *Cash collateral received*. Both *Cash collateral posted* and *Cash collateral received* are designated at initial recognition as financial assets/liabilities measured at *fair value through profit or loss*.

#### *Offsetting*

Financial assets and liabilities are not offset and not presented net in the balance sheet, as the criteria in IAS 32 *Financial Instruments: Presentation* are not met. Therefore, Table 9.1 does not include a column for amounts offset/netted in the balance sheet.

### COLLATERAL

For various counterparties and transaction types, cash collateral will be both posted to and received from the same counterparty. Therefore, received cash collateral can be netted against posted cash collateral and vice-versa, see Table 9.1. *Cash collateral posted* and *Cash collateral received* are exclusively associated with OTC derivative transactions. In connection with secured lending and borrowing transaction, collateral will be posted or received in the form of securities or cash, see Note 8 *Secured lending and borrowing* for further information.

### OFFSETTING

Table 9.1 shows an overview of financial assets and liabilities, the effects of legally enforceable netting agreements and related collateral to reduce credit risk. The column *Assets/Liabilities in the balance sheet subject to netting* shows the carrying amounts of financial assets and liabilities that are subject to legally enforceable netting agreements. These amounts are adjusted for effects of potential netting with the same counterparty of recognised

financial assets and liabilities, together with posted or received cash collateral that results in a net exposure in the column *Assets/Liabilities after netting and collateral*.

Some netting agreements have been found not to be legally enforceable. Transactions under such contracts are shown together with unsettled trades in the column *Unsettled trades and assets/liabilities not subject to enforceable netting agreements*. Unsettled trades can be cancelled if the counterparty defaults before assets involved in the trade are transferred.

In the event of counterparty default, a collective settlement between Norges Bank and the bankruptcy estate could be performed for certain groups of instruments, irrespective of whether the instruments belong to the GPFG or Norway's foreign exchange reserves. Such cross nettings will be settled between these portfolios but are not adjusted for in this table.

Table 9.1 Assets and liabilities subject to netting agreements

Amounts in NOK millions							31 Dec. 2016
ASSETS	Amounts subject to enforceable netting agreements						Gross financial assets as recognised in the balance sheet
	Assets in the balance sheet subject to netting	Financial liabilities related to same counter-party	Cash collateral received (recognised as liability)	Security collateral received (not recognised)	Assets after netting and collateral	Unsettled trades and assets not subject to enforceable netting agreements	
Secured lending	26 774	-	36	26 738	-	-	26 774
Financial derivatives	-	-	-	-	-	2	2
<b>Total</b>	<b>26 774</b>	<b>-</b>	<b>36</b>	<b>26 738</b>	<b>-</b>	<b>2</b>	<b>26 776</b>

Amounts in NOK millions							31 Dec. 2016
LIABILITIES	Amounts subject to enforceable netting agreements						Gross financial liabilities as recognised in the balance sheet
	Liabilities in the balance sheet subject to netting	Financial assets related to same counter-party	Cash collateral posted (recognised as asset)	Security collateral posted (not derecognised)	Liabilities after netting and collateral	Unsettled trades and liabilities not subject to enforceable netting agreements	
Secured borrowing	2 412	-	36	2 376	-	-	2 412
<b>Total</b>	<b>2 412</b>	<b>-</b>	<b>36</b>	<b>2 376</b>	<b>-</b>	<b>-</b>	<b>2 412</b>

Amounts in NOK millions							31 Dec. 2015
ASSETS	Amounts subject to enforceable netting agreements						Gross financial assets as recognised in the balance sheet
	Assets in the balance sheet subject to netting	Financial liabilities related to same counter-party	Cash collateral received (recognised as liability)	Security collateral received (not recognised)	Assets after netting and collateral	Unsettled trades and assets not subject to enforceable netting agreements	
Secured lending	8 627	-	365	8 262	-	14 677	23 304
Financial derivatives	-	-	-	-	-	9	9
<b>Total</b>	<b>8 627</b>	<b>-</b>	<b>365</b>	<b>8 262</b>	<b>-</b>	<b>14 686</b>	<b>23 313</b>

Amounts in NOK millions							31 Dec. 2015
LIABILITIES	Amounts subject to enforceable netting agreements						Gross financial liabilities as recognised in the balance sheet
	Liabilities in the balance sheet subject to netting	Financial assets related to same counter-party	Cash collateral posted (recognised as asset)	Security collateral posted (not derecognised)	Liabilities after netting and collateral	Unsettled trades and liabilities not subject to enforceable netting agreements	
Secured borrowing	827	-	365	462	-	-	827
<b>Total</b>	<b>827</b>	<b>-</b>	<b>365</b>	<b>462</b>	<b>-</b>	<b>-</b>	<b>827</b>

## Note 10 Pension



### ACCOUNTING POLICY

Accounting treatment of pension and other benefit obligations is in accordance with IAS 19 *Employee Benefits*. Calculations for fund-based plans through Norges Bank's pension fund are based on actuarial assumptions regarding life expectancy, expected wage growth and adjustment of the National Insurance basic amount (G). The net benefit obligation is the difference between the present value of the benefit obligation and the fair value of plan assets.

Plan assets are measured at fair value. Benefit obligations and plan assets are measured on the balance sheet date. Employers' National Insurance contributions are included and are estimated on the basis of net actual underfunding. Pension expense is calculated on the basis of a straight-line attribution of benefit over the period of service and consists of the current service cost, less the return on plan assets. Recognised pension expense is presented in its entirety under the line *Personnel expenses*. Actuarial gains and losses are recognised in total comprehensive income.

Norges Bank has funded and unfunded pension and other benefit obligations. All funded and unfunded plans are included in the Bank's actuarial settlement. Norges Bank has a pension plan where the benefits are in line with the Norwegian Public Service Pension Fund and other comparable public sector pension plans. This means that pension benefits are subject to a life expectancy adjustment and are coordinated with benefits from the National Insurance scheme.

Norges Bank's funded pension benefit obligations are covered by Norges Bank's own pension fund, which is organised as a separate legal entity. Retirement benefits are equal to two-thirds of the employee's salary at the time of retirement. The period of service for full benefits is 30 years. Employees contribute 2% of their gross annual salary into the pension fund. Norges Bank's contributions are covered by cash payments or the premium fund.



Table 10.1 Number of pension plan members (funded plan)

	31 Dec. 2016	31 Dec. 2015
Members drawing retirement benefits	968	933
Active members (including all those affected by restructuring)	713	713
Members who have left the Bank with vested rights	807	781
<b>Total number of pension plan members</b>	<b>2 488</b>	<b>2 427</b>

### NORGES BANK'S BENEFIT OBLIGATION

Norges Bank has funded pension plans associated with membership of Norges Bank's pension fund. In addition, the Bank has unfunded plans funded out of current income. These are special and allocated pensions, the unfunded portions of pensions for employees with salaries higher than 12 G earned

after 1 January 2007, contractual early retirement pensions calculated on the basis of an expected 15% take-up rate and early retirement pensions and redundancy pay agreements related to restructuring. The benefit obligation related to restructuring is the present value of all agreements, including agreements with disbursements in 2015 or later.

**!** SIGNIFICANT ESTIMATE

Measurement of the present value of Norges Bank's pension benefit obligation requires determination of a number of economic and actuarial assumptions. Changes in these assumptions may affect the pension expense and the pension benefit obligation recognised in the balance sheet. Norges Bank follows Norwegian Accounting Standards Board (NASB) guidelines in determining assumptions, where the guideline assumptions are assessed against actual conditions at Norges Bank before a decision is made to apply them.

Table 10.2 Economic and demographic assumptions

	31 Dec. 2016	31 Dec. 2015
Discount rate	2.60%	2.70%
Interest rate on assets	2.60%	2.70%
Rate of compensation increase	2.50%	2.50%
Rate of pension increase	1.50%	1.50%
Increase in social security base amount (G)	2.25%	2.25%
Expected annual attrition	2% up to age 50, then 0	2% up to age 50, then 0
Payroll tax/social security tax	14.10%	14.10%
Mortality table	K2013BE	K2013FT
Disability table	KU	KU

Table 10.3 Net liability recognised in the balance sheet

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
<b>Change in defined benefit obligation (DBO) incl. payroll tax</b>		
DBO at beginning of year	3 847	4 187
Service cost	132	154
Interest cost	101	95
Plan amendments	-37	-
Payroll tax on employer contribution	-30	-13
Benefits paid	-148	-150
Remeasurement loss (gain)	149	-426
<b>DBO at year-end</b>	<b>4 014</b>	<b>3 847</b>
<b>Change in plan assets</b>		
Fair value of assets at beginning of year	3 597	3 611
Interest income	91	78
Plan amendments	-22	-
Employer contribution incl. payroll tax	239	103
Payroll tax on employer contribution	-30	-13
Benefits paid	-136	-136
Remeasurement (loss) gain	146	-46
<b>Fair value of assets at year-end</b>	<b>3 885</b>	<b>3 597</b>
Pension scheme not recognised in the actuarial calculation	1	1
<b>Net amount recognised in the balance sheet</b>	<b>-130</b>	<b>-251</b>

Table 10.4 Specification of funded and unfunded plans

Amounts in NOK millions	31 Dec. 2016			31 Dec. 2015		
	Funded plan	Unfunded plans	Total	Funded plan	Unfunded plans	Total
Accrued benefit obligations	3 809	205	4 014	3 649	199	3 848
Plan assets	-3 885	-	-3 885	-3 597	-	-3 597
Net benefit obligation	-76	205	129	52	199	251

Table 10.5 Allocation of plan assets for funded (defined benefit) plan

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Bonds	2 175	2 133
Equities	1 321	1 083
Real estate	389	381
Total	3 885	3 597

#### PENSION EXPENSE FOR EMPLOYEES IN NORWAY

Pension expense has been calculated in accordance with IAS 19 *Employee Benefits* and includes current service cost, interest expense and expected return on plan assets.

The change in special and allocated benefits is included in the Bank's overall pension expense.



Table 10.6 Pension expense

Amounts in NOK millions	2016	2015
Service cost and cost of benefit changes	122	158
Service cost incl. interest and payroll tax	153	154
Administration cost incl. payroll tax	4	4
Effect of plan amendments incl. payroll tax	-35	-
Financial cost (income)	6	13
Net interest cost (income) incl. payroll tax	6	13
Net periodic pension cost (income)	128	171
<b>Other comprehensive income (OCI) in the period</b>		
Remeasurement loss (gain) - change in discount rate	51	-349
Remeasurement loss (gain) - change in other economic assumptions	-	-223
Remeasurement loss (gain) - experience adjustments, DBO	97	146
Remeasurement loss (gain) - experience adjustments, assets	-168	30
Investment management cost	23	16
OCI losses (gains) in the period	3	-380

### PENSION PLANS FOR LOCALLY EMPLOYED STAFF OF FOREIGN OFFICES

Locally employed staff at Norges Bank's offices in London and New York have a defined-contribution pension plan in accordance with local provisions in addition to what has been established by the authorities. As employer, Norges Bank contributes up to 8% of fixed salary for employees in New York, up to 10% of fixed salary for employees in London and up to 20% of fixed salary for employees in Singapore to the plans in line with market practice. The plans are managed externally, within rules determined by Norges Bank. Recognised expenses for

the plans in London, New York, Singapore and Shanghai amounted to NOK 25.5m in 2016 and NOK 20.6m in 2015. Locally employed staff at Norges Bank's offices in Shanghai have no pension plan beyond what has been established by the authorities, which is in line with market practice.

### SENSITIVITY ANALYSIS

The sensitivity analysis has been prepared in the light of possible changes in the discount rate and general wage growth. The other actuarial assumptions are kept unchanged in the sensitivity analysis.

Table 10.7 Sensitivity analysis

	31 Dec. 2016			
	Discount rate	General compensation increase	ABO pensioners/ DBO other, amounts in NOK millions	Change <sup>1</sup>
Assumptions at 31 Dec. 2016	2.60%	2.50%	4 014	N/A
Discount rate + 0.5%	3.10%	2.50%	3 684	-8.96%
Discount rate - 0.5%	2.10%	2.50%	4 434	10.46%
General compensation increase + 0.5%	2.60%	3.00%	4 435	10.49%
General compensation increase - 0.5%	2.60%	2.00%	3 681	-9.05%

<sup>1</sup> Percentage change in the pension benefit obligation.

## Note 11 Personnel expenses

### SALARY SYSTEM AT NORGES BANK

Norges Bank's Executive Board sets the limits for the Bank's salary and remuneration schemes and monitors how they are put into practice. The Executive Board sets a salary cap for executive management in Central Banking Operations and salary bands for senior executives at NBIM and NBREM. The governor determines annual salary for the CEO of NBIM within the band set by the Executive Board. Salaries for other senior executives at NBIM and the CEO of NBREM are determined by the CEO of NBIM in accordance with the salary bands set by the Executive Board, while the CEO of NBREM determines salaries for the other senior executives at NBREM in the same manner. In addition, the Executive Board lays down principles for the salary system applying to other employees. Principles for performance-based pay, including caps on such pay, have been established on the basis of the regulation relating to remuneration schemes in financial institutions etc. The salary levels at Norges Bank are to be competitive, but not market-leading. External consultants are employed to perform annual comparisons of salary levels with other companies. The Executive Board has a Remuneration Committee comprising three of the external members that contributes to thorough and independent discussion of matters pertaining to the salary and remuneration schemes.

#### *Performance-based pay*

Employees of NBIM whose work directly involves investment decisions, and certain other NBIM employees, may be entitled to performance-based pay. Performance-based pay is capped at 100% of

fixed salary, but for a limited number of employees at foreign offices, the cap is 200% of fixed salary.

Performance-based pay is calculated on the basis of the performance of the GPF, group and individual measured against set targets. Accrued performance-based pay is paid over several years, with 50% paid the year after it is accrued. The other 50% is held back and paid over the following three years. The amount held back is adjusted for the return on the GPF.

In 2016, 239 of NBIM's employees earned performance-based pay. Their total fixed salaries amounted to NOK 314m in 2016, while the total upper limit for performance-based pay was NOK 346m. Employees with performance-based pay earned an average of 62% of the total limit for 2016, based on performance over several years. For 2016 alone, average earnings were 52% of the limit.

Employees of Central Banking Operations whose work directly involves investment decisions for the foreign exchange reserves may be entitled to performance-based pay. Performance-based pay is calculated on the basis on performance measured against set targets for the management of the foreign exchange reserves. Accrued performance-based pay is paid over several years, with two-thirds paid in the year after it is accrued. The remaining third is held back and paid over the following two years. Employees with performance-based pay earned an average of 25% of the total limit for 2016, based on performance over the past two years.

Table 11.1 Personnel expenses

Amounts in NOK millions	2016	2015
Salary and fees	1 154	1 115
Employer's social security contributions	147	142
Pension expense/(income) (see Note 10 <i>Pension</i> )	128	171
Other personnel expenses	297	258
<b>Personnel expenses</b>	<b>1 726</b>	<b>1 686</b>

Table 11.2 Number of employees/FTEs

	31 Dec. 2016	31 Dec. 2015
Number of employees	923	856
Number of FTEs	918	851

**BENEFITS TO GOVERNING BODIES***Supervisory Council*

Total remuneration paid in 2016 was NOK 898 400.

Of this amount, fixed remuneration was NOK 880 000 and the remainder was remuneration of alternates for attending meetings. Remuneration rates for 2016 were set by the Storting as from 1 January 2016 (cf. Recommendation 137 S (2015-

2016)). Total remuneration paid in 2015 was NOK 847 700.

With regard to remuneration to the director of the Office of the Supervisory Council and other expenses, see the Supervisory Council's report to the Storting for 2016.

Table 11.3 Remuneration to the Supervisory Council and the Permanent Committee

Amounts in NOK	2016		
	Total remuneration per member	Supervisory Council	The Permanent Committee
Chair	150 000	60 000	90 000
Deputy chair	100 000	40 000	60 000
Three members of the Permanent Committee	90 000	30 000	60 000
10 members of the Supervisory Council	30 000	30 000	-
Two permanent alternates <sup>1</sup>	30 000	30 000	-

<sup>1</sup> From 2016, the arrangement with designated alternates has been replaced by two non-designated alternates who regularly attend Supervisory Council meetings. In addition, alternates to the Permanent Committee received NOK 3 500 for each meeting.

Amounts in NOK	2015		
	Total remuneration per member	Supervisory Council	The Permanent Committee
Chair	136 000	54 000	82 000
Deputy chair	88 000	34 000	54 000
Three members of the Permanent Committee	80 500	26 500	54 000
10 members of the Supervisory Council	26 500	26 500	-
15 alternates <sup>1</sup>	4 400	4 400	-

<sup>1</sup> In addition, alternates to the Supervisory Council received NOK 2 550 for each meeting and alternates to the Permanent Committee received NOK 3 150 for each meeting.

*Executive Board - external members*

Remuneration to members and alternates of the Executive Board is determined by the Ministry of Finance. Total remuneration to members and alternates of the Executive Board and its committees

was NOK 1 828 748 in 2016, compared with NOK 1 665 340 in 2015. In addition, Egil Matsen and Kjetil Storsletten received NOK 22 400 each for coordination of an ad hoc expert group in 2015.

Table 11.4 Remuneration to the Executive Board

Amounts in NOK						2016
Name	Total remuneration	Executive Board <sup>1</sup>	Audit Committee <sup>1</sup>	Remuneration Committee <sup>1</sup>	Ownership Committee <sup>1</sup>	Risk and Investment Committee <sup>1</sup>
Hilde Myrberg	242 000	218 000	-	24 000	-	-
Kjetil Storesletten	296 000	218 000	-	-	-	78 000
Karen Helene Ulltveit-Moe	368 000	218 000	72 000	-	-	78 000
Kathryn M. Baker <sup>2</sup>	320 000	218 000	60 000	-	42 000	-
Steinar Juel <sup>2</sup>	284 000	218 000	60 000	6 000	-	-
Espen R. Moen (alternate) <sup>3</sup>	31 000	24 000	-	-	7 000	-
Arne Hyttnes (alternate) <sup>4</sup>	151 407	116 864	-	-	34 543	-
Kristine Landmark (alternate) <sup>4</sup>	136 341	116 864	-	19 477	-	-

<sup>1</sup> Service on the Executive Board and its committees is remunerated at fixed annual rates.

<sup>2</sup> Steinar Juel and Kathryn M. Baker were appointed on 1 January 2016. Steinar Juel became a member of the Remuneration Committee on 1 October 2016. Remuneration is shown from the date their appointment became effective.

<sup>3</sup> Espen R. Moen resigned as alternate on 29 February 2016. Remuneration is shown until the date his resignation became effective.

<sup>4</sup> Arne Hyttnes and Kristine Landmark were appointed alternates on 4 March 2016. Remuneration is shown from the date their appointment became effective.

Amounts in NOK						2015
Name	Total remuneration	Executive Board <sup>1</sup>	Audit Committee	Remuneration Committee <sup>1</sup>	Ownership Committee <sup>2</sup>	Risk and Investment Committee <sup>2</sup>
Liselott Kilaas	315 000	212 000	61 000	-	42 000	-
Egil Matsen	323 500	212 000	72 500	-	-	39 000
Hilde Myrberg	223 200	212 000	-	11 200	-	-
Kjetil Storesletten	223 200	212 000	-	11 200	-	-
Karen Helene Ulltveit-Moe	312 000	212 000	61 000	-	-	39 000
Espen Moen (alternate)	182 000	140 000	-	-	42 000	-
Hege Sjo (alternate) <sup>3</sup>	11 667	11 667	-	-	-	-
Kathryn M. Baker (alternate) <sup>3</sup>	74 773	74 773	-	-	-	-

<sup>1</sup> Members of the Executive Board are remunerated for service at a fixed annual rate. Remuneration for service on the Remuneration Committee in 2015 was NOK 5 600 for each meeting. Service on other committees is remunerated at fixed annual rates.

<sup>2</sup> Committee established in 2015.

<sup>3</sup> Hege Sjo resigned as alternate on 1 February. Remuneration is shown until the date his resignation became effective.

<sup>4</sup> Kathryn M. Baker became an alternate on 19 June 2015. Remuneration is shown from the date the appointment became effective.

## BENEFITS TO SENIOR EXECUTIVES

Senior executives, except for the governor and deputy governors, are entitled to the same retirement benefits and have the same borrowing rights as the Bank's other employees. Pension plans are discussed in Note 10 *Pension* and loans to employees are discussed in a separate section in this note.

Senior executives in Central Banking Operations and NBIM do not earn performance-based or other variable remuneration. Senior executives who previously held positions entitling them to performance-based pay will not earn additional entitlements, but will be paid remaining perfor-

mance-based pay in accordance with the Norges Bank Investment Management Long-term Performance Plan.

### Governor and deputy governors

The salaries of the governor and deputy governors of Norges Bank are determined by the Ministry of Finance. In addition, they have a free telephone, free newspaper subscription and insurance covered by their employer. The governor has a company car at his disposal and in 2016, commuter accommodation and travel home were covered for Deputy Governor Egil Matsen under an agreement with the Ministry of Finance. The Ministry of Finance has estab-

lished a separate pension plan for the governor and deputy governors. The plan is based on the pension plan for members of the Storting and of the Government. The period of service for full benefit under the pension plan is 30 years, pensionable income is limited to 12 times the National Insurance Scheme basic amount (G) and members do not pay pension contributions. The pension is subject to life expectancy adjustments and is not coordinated with

other public sector pension plans. The plan is funded out of the Bank's current income. Governor Øystein Olsen was a member of Norges Bank's pension fund during his first term of office. In addition, Deputy Governor Jon Nicolaisen has entitlements retained from previous employment at Norges Bank. Neither the governor nor the deputy governors receive any performance-based or other variable remuneration.

Table 11.5 Remuneration to the governor and the deputy governors

Amounts in NOK					2016
	Name	Gross salary	Value of other benefits	Pension benefits earned	Employee loan
Governor	Øystein Olsen	2 227 637	135 869	349 367	-
Deputy governor	Jon Nicolaisen	1 836 000	7 860	605 027	233 333
Deputy governor	Egil Matsen <sup>1</sup>	1 702 803	13 814	218 021	-

<sup>1</sup> Egil Matsen became deputy governor on 18 January 2016 and remuneration is shown from the date the appointment became effective. Earned remuneration for service on the Risk and Investment Committee in 2015 was paid in 2016 and is included in the table above.

Amounts in NOK					2015
	Name	Gross salary	Value of other benefits	Pension benefits earned	Employee loan
Governor	Øystein Olsen	2 188 218	136 692	379 826	-
Deputy governor	Jon Nicolaisen	1 795 603	7 865	607 651	303 333

Table 11.6 Remuneration to senior executives in Norges Bank's Central Banking Operations

Amounts in NOK					2016
	Name	Gross salary	Value of other benefits	Pension benefits earned	Employee loan
Executive director, Financial Stability	Torbjørn Hægeland <sup>1</sup>	833 419	5 248	107 680	-
Executive director, Monetary Policy	Ida Wolden Bache	1 590 814	13 356	212 361	-
Executive director, Markets and Banking Services	Kristin Gulbrandsen	1 654 620	6 869	372 658	724 591
Executive director, Corporate and Shared Services	Jannecke Ebbesen	1 595 318	20 769	362 933	-
Executive director, General Secretariat	Birger Vikøren	1 622 283	13 238	358 589	-
Director, Internal Audit	Ingunn Valvatne	1 637 075	21 831	344 708	1 008 583
Director, Communications and External Relations	Runar Malkenes <sup>2</sup>	1 144 455	7 959	272 215	-
General counsel	Marius Ryel	1 669 632	14 769	458 722	-

<sup>1</sup> Began in this position on 23 May 2016. Remuneration is shown from the date the appointment became effective.

<sup>2</sup> Began in this position on 18 January 2016. Remuneration is shown from the date the appointment became effective.

Amounts in NOK					2015
	Name	Gross salary	Value of other benefits	Pension benefits earned	Employee loan
Executive director, Financial Stability	Ida Wolden Bache <sup>1</sup>	1 319 914	12 599	256 955	-
Executive director, Monetary Policy	Birger Vikøren	1 588 113	16 997	349 700	906 054
Executive director, Markets and Banking Services	Kristin Gulbrandsen	1 607 457	7 017	390 871	1 911 749
Executive director, Corporate and Shared Services	Jannecke Ebbesen	1 548 539	13 151	355 939	-
Director, Internal Audit	Ingunn Valvatne	1 592 547	9 402	394 168	1 064 259
Director, Communications and External Relations	Hilde Singsaas <sup>2</sup>	1 396 737	7 021	374 750	-
General counsel	Marius Ryel	1 616 468	16 244	399 262	-

<sup>1</sup> Began in this position on 10 February 2015. Remuneration is shown from the date the appointment became effective.

<sup>2</sup> Resigned from this position on 31 October 2015. Remuneration is shown until the date her resignation became effective.

## Remuneration to senior executives in Norges Bank Investment Management

Table 11.7 Remuneration to senior executives in Norges Bank Investment Management

Amounts in NOK						2016
	Name	Gross salary	Performance pay <sup>1</sup>	Value of other benefits	Pension benefits earned	Employee loan
<b>Norges Bank Investment Management</b>						
Chief Executive Officer	Yngve Slyngstad	6 556 722	-	8 299	664 371	-
Deputy CEO and CAO	Trond Grande	4 444 161	-	7 599	314 490	-
Chief Compliance and Control Officer	Stephen A. Hirsch	4 033 333	-	11 400	264 447	-
Chief Investment Officer Equity Strategies	Petter Johnsen <sup>2</sup>	7 785 708	-	85 045	778 571	-
Chief Investment Officer Asset Strategies	Øyvind Gjærevoll Schanke <sup>3</sup>	4 571 332	627 046	271 903	291 570	-
Chief Investment Officer Allocation Strategies	Ole Christian Bech-Moen	4 462 860	487 757	79 350	237 569	-
Chief Risk Officer	Dag Huse	4 583 652	751 158	7 860	489 542	-
Chief Operating Officer	Age Bakker	3 430 421	-	7 846	353 003	-
<b>Norges Bank Real Estate Management</b>						
Chief Executive Officer	Karsten Kallevig	5 208 086	-	7 860	298 238	-
Chief Administrative Officer	Mie Caroline Holstad	1 841 928	-	7 860	236 464	-
Chief Operating Officer	Nina Kathrine Hammerstad	2 624 861	-	7 860	312 083	-
Chief Risk Officer	Lars Oswald Dahl	3 310 655	-	7 860	320 245	-
Chief Compliance and Control Officer	Jan Thomsen	3 446 713	-	7 922	352 773	-

<sup>1</sup> Members of the Norges Bank Investment Management leader group receive only a fixed salary. New members of the leader group previously entitled to performance-based pay are no longer a part of this arrangement, but over the coming years will receive accrued performance-based pay that has been held back.

<sup>2</sup> Receives a salary in GBP; amounts therefore include the foreign currency translation effect.

<sup>3</sup> Resigned from this position on 9 December 2016. Remuneration is shown until the date his resignation became effective. In addition to the remuneration in the table above, Schanke will receive salary and other benefits up until the end of January 2017, estimated at NOK 809 000.

Amounts in NOK

2015

	Name	Gross salary	Performance pay <sup>1</sup>	Value of other benefits	Pension benefits earned	Employee loan
<b>Norges Bank Investment Management</b>						
Chief Executive Officer	Yngve Slyngstad	6 285 184	-	7 860	528 943	402 709
Deputy CEO and CAO	Trond Grande	4 281 238	-	7 599	369 071	-
Chief Compliance and Control Officer	Stephen A. Hirsch <sup>2</sup>	283 333	-	655	22 037	-
Chief Investment Officer Equity Strategies	Petter Johnsen <sup>3</sup>	8 424 354	-	94 904	842 435	-
Chief Investment Officer Asset Strategies	Øyvind Gjærevoll Schanke	4 655 131	1 157 664	177 741	578 934	-
Chief Investment Officer Allocation Strategies	Ole Christian Bech-Moen	4 044 819	959 224	179 870	312 798	2 520 000
Chief Risk Officer	Dag Huse	4 298 316	1 318 655	7 860	565 898	-
Chief Operating Officer	Age Bakker	3 283 862	-	7 599	402 712	-
<b>Norges Bank Real Estate Management</b>						
Chief Investment Officer	Karsten Kallevig	4 257 705	-	7 860	356 189	-
Chief Administrative Officer	Mie Caroline Holstad	1 711 938	-	7 860	271 409	1 983 914
Chief Operating Officer	Nina Kathrine Hammerstad	2 514 702	-	7 860	376 992	2 108 986
Chief Risk Officer	Lars Oswald Dahl	3 075 042	-	7 860	331 987	-
Chief Compliance and Control Officer	Jan Thomsen	3 446 713	-	7 860	352 581	-

<sup>1</sup> Members of the Norges Bank Investment Management leader group receive only a fixed salary. New members of the leader group previously entitled to performance-based pay are no longer a part of this arrangement, but over the coming years will receive accrued performance-based pay that has been held back.

<sup>2</sup> Began in this position on 1 December 2016. Remuneration is shown as from the date the appointment became effective.

<sup>3</sup> Receives a salary in GBP; amounts therefore include the foreign currency translation effect.

*Loans to employees*

The Bank's loan scheme for its employees comprises residential mortgages and consumer loans. Mortgages are provided in accordance with guidelines from the Supervisory Council within 80% of assessed value, limited to NOK 2 740 000 and a maximum term of 30 years. Consumer loans are limited to a maximum of four times the employee's monthly salary, though not exceeding

NOK 350 000. The loan schemes apply to all employees. The interest rate is linked to the norm rate for loans on favourable terms from an employer. The Ministry of Finance sets the norm rate six times a year.

Total loans to employees in 2016 were NOK 408m, compared with NOK 544m in 2015.

## Note 12 Management fee, GPFG



### ACCOUNTING POLICY

The management fee accrues during the financial year, but is cash-settled in the following year. Management fee receivable is classified as a financial asset and measured at amortised cost.

Norges Bank's total operating expenses related to the management of the GPFG are reimbursed by the Ministry of Finance as principal. The management fee corresponds to actual costs incurred by Norges Bank, including performance-based fees to external managers. The management fee is recognised in the income statement of the GPFG as an

expense, and is recognised in Norges Bank's income statement as income, on the line *Of which management fee, GPFG*. The management fee was NOK 3 731m in 2016 and NOK 3 933m in 2015. See Note 20.10 *Management costs* for a specification and detailed description.

## Note 13 Other non-financial assets



### ACCOUNTING POLICY

Non-current assets are recognised at cost, less accumulated straight-line depreciation over their expected useful life.

#### *Gold:*

Norges Bank has holdings of gold coins and gold bars as part of the Bank's historical collections. The holdings were measured at fair value on the date the gold was reclassified from international reserves to non-current assets.

#### *Art and numismatic collections:*

Norges Bank has a collection of art and numismatic objects such as medals, banknotes and coins. The collection was recognised at estimated cost on the basis of the most recent appraisal.

#### *Impairment testing:*

An impairment test is performed if there is an indication that an asset is impaired. If the carrying amount exceeds fair value, the carrying amount will be reduced to fair value. In the event the metallic value of gold rises, the holdings of gold are not revalued.

Table 13.1 Other non-financial assets

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Non-current assets	2 088	1 974
Gold	291	291
Art and numismatic collections	87	84
Other assets	97	76
<b>Other non-financial assets</b>	<b>2 563</b>	<b>2 425</b>

Table 13.2 Non-current assets

Amounts in NOK millions	Property, plant and equipment				Plant under construction	2016 Total
	Intangible assets Software	Buildings	Land	Other		
Cost at 1 Jan.	486	2 799	60	202	290	3 837
+ Additions	206	111	-	28	-	345
- Disposals	4	-	-	-	20	24
<b>Cost at 31 Dec.</b>	<b>688</b>	<b>2 910</b>	<b>60</b>	<b>230</b>	<b>270</b>	<b>4 158</b>
- Accumulated depreciation and impairment	356	1 538	-	176	-	2 070
<b>Carrying amount at 31 Dec.</b>	<b>332</b>	<b>1 372</b>	<b>60</b>	<b>54</b>	<b>270</b>	<b>2 088</b>
Depreciation for the year	79	97	-	34	-	210
Impairment for the year	-	-	-	-	-	-
Depreciation schedule, no. of years	3-6	5-75	none	4-10	none	

Amounts in NOK millions	Property, plant and equipment				Plant under construction	2015 Total
	Intangible assets Software	Buildings	Land	Other		
Cost at 1 Jan.	401	2 659	60	188	187	3 495
+ Additions	99	140	-	16	103	358
- Disposals	14	-	-	2	-	16
<b>Cost at 31 Dec.</b>	<b>486</b>	<b>2 799</b>	<b>60</b>	<b>202</b>	<b>290</b>	<b>3 837</b>
- Accumulated depreciation and impairment	280	1 441	-	142	-	1 863
<b>Carrying amount at 31 Dec.</b>	<b>206</b>	<b>1 358</b>	<b>60</b>	<b>60</b>	<b>290</b>	<b>1 974</b>
Depreciation for the year	65	78	-	29	-	172
Impairment for the year	-	-	-	-	-	-
Depreciation schedule, no. of years	3-6	5-75	none	4-10	none	

## BUILDINGS

Bankplassen 4 is being leased to the government for 80 years, beginning in November 1986. The building is fully depreciated and its carrying amount at 31 December 2016 is NOK 0.

## Note 14 Operating expenses and other operating income

### OPERATING EXPENSES

Table 14.1 Operating expenses

Amounts in NOK millions	2016	2015
Custody costs	400	413
IT services, systems and data	871	831
Research, consulting and legal fees	381	361
Other costs	344	351
Base fees to external managers	638	615
Performance-based fees to external managers	222	578
<b>Total operating expenses</b>	<b>2 856</b>	<b>3 149</b>

Table 14.2 Fees, external auditor

Amounts in NOK millions	Norges Bank		Subsidiaries <sup>1</sup>	
	2016	2015	2016	2015
Statutory audit	14 693	17 374	3 816	3 707
Other assurance services <sup>2</sup>	3 184	5 186	-	-
Tax advice	-	104	156	49
Other services	674	-	25	155
<b>Total fees, external auditor</b>	<b>18 551</b>	<b>22 664</b>	<b>3 997</b>	<b>3 911</b>

- 1 Norges Bank has established subsidiaries whose activities exclusively constitute investments as part of the management of the investment portfolio of the GPFG.
- 2 In 2016, the external auditor assisted the Office of the Supervisory Council on a number of supervisory reviews. Fees related to this are shown as *Other assurance services*.

### OTHER OPERATING INCOME

Table 14.3 Other operating income

Amounts in NOK millions	2016	2015
Services, banks	62	59
Services, government (see Note 19 <i>Related parties</i> )	38	37
Rent (see Note 19 <i>Related parties</i> )	25	25
Other income	3	5
<b>Other operating income</b>	<b>128</b>	<b>126</b>

#### *Services for banks*

Norges Bank performs settlement services for banks through Norges Bank's settlement system (NBO). To promote efficient and robust settlement of payments in Norges Bank, expenses for account maintenance and settlement services are covered

by the annual fees for NBO. The assumption is that revenues will cover two-thirds of the overall cost of implementing and operating the settlement system. A third of expenses is attributable to central banking functions and covered by Norges Bank.

## Note 15 Notes and coins in circulation



### ACCOUNTING POLICY

Notes and coins in circulation are recognised at face value when they are put into circulation and derecognised when they are withdrawn from circulation and no later than the expiry of the ten-year deadline for redemption, in accordance with Section 15 of the Norges Bank Act. Notes and coins not redeemed by the ten-year deadline are recognised as income in profit or loss as *Other financial income/expenses*. After the ten-year deadline, notes and coins may be redeemed and are then recognised as an expense on the same line in profit or loss. Expenses for the production of notes and coins are recognised in profit or loss as incurred in *Other operating expenses*.

No invalidated notes and coins were recognised as income in 2016 or 2015. In 2016, invalidated notes and coins were redeemed in the amount of NOK 20.2m, compared with NOK 19.9m in 2015.

## Note 16 International Monetary Fund (IMF)



### ACCOUNTING POLICY:

#### *Allocated Special Drawing Rights (SDRs):*

Norges Bank's holdings of SDRs are recognised as an asset in the balance sheet, under *Claims on the IMF*. The value of SDRs is calculated (from 1 October 2016) on the basis of a currency basket comprising the US dollar, euro, Chinese renminbi, Japanese yen and pound sterling. The equivalent value of SDR allocations by the IMF shows Norges Bank's total allocations of SDRs and is recognised as a liability, under *Liabilities to the IMF*. Norges Bank's holdings of SDRs and the equivalent value of SDRs are measured at amortised cost.

#### *Reserve tranche position:*

The reserve tranche position comprises Norges Bank's allocated IMF quota less the IMF's krone deposit with Norges Bank. The outstanding balance with the IMF is recognised gross in the balance sheet, under *Claims on the IMF* and *Liabilities to the IMF*, respectively. The IMF quota and the krone liability to the IMF are measured at amortised cost.

#### *Loans to the IMF and international commitments under the auspices of the IMF:*

Loans and international commitments are recognised in the balance sheet at fair value at initial recognition, under *Claims on the IMF*. Subsequent measurement is at amortised cost.

Pursuant to Section 25 of the Norges Bank Act, Norges Bank administers Norway's financial rights and fulfils the obligations ensuing from participation in the International Monetary Fund (IMF). The IMF works to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth and reduce poverty around the world. The primary activities of the IMF are monitoring economic developments, giving advice to member countries and providing temporary funding in the event of balance of payments problems.

Norway helps to finance the IMF in the following manner:

1. Through Norway's IMF quota subscription
2. Through various lending agreements with the IMF:
  - a. The multilateral lending programme New Arrangements to Borrow (NAB)
  - b. Bilateral borrowing agreements with the IMF
  - c. Financing the Poverty Reduction and Growth Trust (PRGT)

Table 16.1 Claims on and liabilities to the IMF

Amounts in NOK millions	Loan resource commitments <sup>1</sup>	31 Dec. 2016			Total amount recognised
		Amounts drawn on commitments	Sub- scription <sup>2</sup>	SDRs	
<b>Financial assets</b>					
IMF subscription (quota)	-	-	43 476	-	43 476
Holdings of Special Drawing Rights (SDRs)	-	-	-	15 986	15 986
Loans to the IMF - NAB	22 764	3 481	-	-	3 481
Loans to the IMF - Bilateral borrowing agreement	-	-	-	-	-
Loans to the IMF - PRGT	6 945	3 373	-	-	3 373
<b>Claims on the IMF</b>	<b>29 709</b>	<b>6 854</b>	<b>43 476</b>	<b>15 986</b>	<b>66 315</b>
<b>Financial liabilities</b>					
Krone liability to the IMF	-	-	40 814	-	40 814
Equivalent value of SDR allocations	-	-	-	18 099	18 099
<b>Liabilities to the IMF</b>	<b>-</b>	<b>-</b>	<b>40 814</b>	<b>18 099</b>	<b>58 912</b>
<b>Net positions with the IMF</b>	<b>29 709</b>	<b>6 854</b>	<b>2 662</b>	<b>-2 113</b>	<b>7 403</b>

<sup>1</sup> Commitments giving the IMF a borrowing facility with Norges Bank up to an agreed amount. Only the portion drawn is recognised in the balance sheet.

<sup>2</sup> The net subscription refers to the reserve tranche position and is Norway's quota less Norway's krone liability to the IMF. If necessary, Norges Bank may without condition request to borrow from the IMF an amount equal to Norway's reserve tranche position.

Amounts in NOK millions	Loan resource commitments <sup>1</sup>	31 Dec. 2015			Total amount recognised
		Amounts drawn on commitments	Sub- scription <sup>2</sup>	SDRs	
<b>Financial assets</b>					
IMF subscription (quota)	-	-	23 072	-	23 072
Holdings of Special Drawing Rights (SDRs)	-	-	-	18 449	18 449
Loans to the IMF - NAB	47 411	4 619	-	-	4 619
Loans to the IMF - Bilateral borrowing agreement	73 486	-	-	-	-
Loans to the IMF - PRGT	3 674	3 656	-	-	3 656
<b>Claims on the IMF</b>	<b>124 571</b>	<b>8 275</b>	<b>23 072</b>	<b>18 449</b>	<b>49 796</b>
<b>Financial liabilities</b>					
Krone liability to the IMF	-	-	20 719	-	20 719
Equivalent value of SDR allocations	-	-	-	19 145	19 145
<b>Liabilities to the IMF</b>	<b>-</b>	<b>-</b>	<b>20 719</b>	<b>19 145</b>	<b>39 864</b>
<b>Net positions with the IMF</b>	<b>124 571</b>	<b>8 275</b>	<b>2 353</b>	<b>-696</b>	<b>9 932</b>

<sup>1</sup> Commitments giving the IMF a borrowing facility with Norges Bank up to an agreed amount. Only the portion drawn is recognised in the balance sheet.

<sup>2</sup> The net subscription refers to the reserve tranche position and is Norway's quota less Norway's krone liability to the IMF. If necessary, Norges Bank may without condition request to borrow from the IMF an amount equal to Norway's reserve tranche position.

The IMF has created an international reserve asset called the Special Drawing Right (SDR). All rights in and commitments to the IMF are denominated in SDRs. The value of the SDR is calculated on the basis of a currency basket comprising the US dollar, euro, Chinese renminbi, Japanese yen and pound sterling. The currency weights are adjusted each year in accordance with changes in bilateral foreign exchange rates. At 31 December 2016, SDR 1 was equal to NOK 11.57.

The composition of the SDR is evaluated every five years, and the evaluation conducted in 2015 resulted in the inclusion of the Chinese renminbi in the currency basket from 1 October 2016.

Norges Bank's potential credit exposure to the IMF is considerable. However, the risk associated with loans to the IMF is very low, among other reasons because of the conditionality in the IMF's adjustment and stabilisation programmes. In addition, IMF claims have precedence over claims from other creditors. The IMF has never realised a loss on loans under their general borrowing agreements. Since all claims are against the IMF, Norway has no credit exposure to third countries in connection with these loans.

The various rights, commitments, claims and liabilities are described below.

#### *Norway's IMF quota subscription*

The IMF is owned and directed by member countries and functions like a credit union in which each member country pays in a subscription, also called its quota. These subscriptions are the IMF's primary source of funding for loans. The amount of the subscription reflects the member country's relative size in the global economy. The quota determines a member country's voting power in IMF decisions, the member's financial contribution to the IMF, the amount of financing the member can access in the event of balance of payments problems and the amount of SDRs the member receives when SDRs are allocated. Norway's subscription at 31 December 2016 was SDR 3 755m, compared with SDR 1 884m in 2015.

The 14th General Review of Quotas, approved in 2010 by IMF, entered into force in January 2016. Subscriptions approximately doubled and Norway's subscription increased from SDR 1 884m to SDR 3 755m. When the subscription increase was paid, Norway's commitment to furnish funds for the NAB was reduced from SDR 3 871m to SDR 1 967m.

#### *Holdings and equivalent value of Special Drawing Rights (SDRs)*

SDRs are periodically allocated to IMF member countries, most recently in 2009. *Equivalent value of SDR allocations* shows the amount of SDRs

Norway has been allocated since the scheme was established. As at 31 December 2016, a total of SDR 1 563m had been allocated to Norway, unchanged from 2015. Norway's holdings of SDRs have been deposited with the IMF and amounted to SDR 1 381m in 2016, compared with SDR 1 506m in 2015. Holdings of SDRs may be used to pay in quota increases, for other transactions with the IMF or for purchase or sale of SDR from or to other IMF members. However, SDRs cannot be used for direct purchases of goods and services.

#### *Norges Bank's loans to the IMF*

In addition to quota subscriptions, various lending programmes are important sources of IMF financing. At year-end 2016, there is only one active borrowing agreement between Norway and the IMF, as well as a separate programme for low-income countries. The borrowing agreement referred to as the "Bilateral borrowing agreement" terminated on 4 November 2016.

#### *a) New Arrangements to Borrow (NAB)*

The New Arrangements to Borrow (NAB) programme is used for loans if the IMF has a need for funds in excess of subscriptions from member countries. Norges Bank's loans to the IMF under the NAB at 31 December 2016 totalled SDR 301m, or NOK 3 481m. Total loan resource commitments to the NAB are SDR 1 967m.

#### *b) Bilateral borrowing agreement*

The bilateral borrowing agreement between the IMF and Norges Bank terminated on 4 November 2016. Under the agreement, the IMF was provided with a borrowing facility in the form of a drawing arrangement of up to SDR 6bn. The agreement was part of a broader international effort to ensure the IMF sufficient resources to meet the borrowing requirements of member countries in times of crisis. In Proposition 40 S (2016-2017), the Government has requested the Storting's consent for a new agreement between Norges Bank and the IMF on a similar facility.

#### *c) Poverty Reduction and Growth Trust (PRGT)*

Norway participates in the financing of the IMF's subsidised lending programme for low-income countries under two agreements. Norway signed an agreement in June 2010 to provide SDR 300m. This facility has been fully drawn by the IMF, and the IMF will henceforth only make interest and principal payments on this facility. On 17 November 2016, Norway signed a new borrowing agreement with the IMF for SDR 300m. Norway's commitments for future payments to the PRGT is thus limited to SDR 300m. Loans to the PRGT at 31 December 2016 totalled SDR 291m, or NOK 3 373m. The corresponding amount for 2015 was SDR 298m, or NOK 3 656m.

*The IMF's deposits with Norges Bank*

The IMF has deposited its entire NOK holdings with Norges Bank, referred to in the balance sheet as the *Krone liability to the IMF*. However, the value of these deposits is adjusted so that the IMF bears no risk associated with exchange rate movements between the krone and the SDR. At 31 December

2016, krone deposits from the IMF totalled SDR 3 525m, compared with SDR 1 692m in 2015. The increase in the krone liability primarily reflects the portion of the subscription increase paid in NOK. The IMF has then deposited this krone amount with Norges Bank.

## NET INTEREST INCOME ON CLAIMS ON AND LIABILITIES TO THE IMF

Table 16.2 Net interest income, claims on/liabilities to the IMF

Amounts in NOK millions				2016
	Amount drawn on loan resource commitments	Subscription	SDRs	Total
Interest income from the IMF	11	33	12	56
Interest expenses to the IMF	-	-31	-16	-47
<b>Net interest income from the IMF</b>	<b>11</b>	<b>2</b>	<b>-4</b>	<b>9</b>

Amounts in NOK millions				2015
	Amount drawn on loan resource commitments	Subscription	SDRs	Total
Interest income from the IMF	7	9	8	24
Interest expenses to the IMF	-	-8	-9	-17
<b>Net interest income from the IMF</b>	<b>7</b>	<b>1</b>	<b>-1</b>	<b>7</b>

*Interest on the IMF quota subscription and Interest on the krone liability to the IMF*

Interest on the reserve tranche position (as defined in the footnote to Table 16.1) is calculated by the IMF. Interest is calculated net by the IMF, but presented gross in Norges Bank's financial statements as interest income and interest expenses associated with the quota subscription. Interest is calculated monthly and netted quarterly. The interest rate is updated weekly by the IMF.

*Interest on Special Drawing Rights and Interest on equivalent value of SDR allocations*

Norges Bank earns interest income on its holdings of SDRs, and is charged for interest expenses on the equivalent value of SDR allocations. Interest is calculated monthly and netted quarterly. The interest rate is updated weekly by the IMF.

*Interest on IMF lending programmes*

Interest is calculated monthly and netted quarterly (NAB) and semi-annually (PRGT). The interest rate is updated weekly by the IMF.

## Note 17 Bank for International Settlements (BIS)



### ACCOUNTING POLICY

The shares are carried at fair value under *Equities and units*. When the shares were issued, the Bank for International Settlements (BIS) required payment of only 25% of the share capital, with the remaining 75% committed capital not recognised in the balance sheet.

The BIS acts as a bank for central banks, and its mission is to serve central banks in their pursuit of monetary and financial stability by fostering international cooperation in those areas.

The BIS is a limited liability company owned by central banks. Norges Bank has 8 000 voting shares (with a face value of SDR 5 000) in the BIS. In addition, a further 564 non-voting shares (with a face value of SDR 5 000) were purchased in 2005, for a total of 8 564 shares.

Table 17.1 Shares in the BIS

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Shares in the BIS	200	200
Share capital in the BIS not paid, not recognised	372	441
Dividend received from the BIS	22	21



## Note 18 Lending to banks, deposits from banks and deposits from the Treasury



### ACCOUNTING POLICY

At initial recognition, loans to banks are recognised in the balance sheet at fair value. There are no establishment fees or other directly attributable transaction costs. Subsequent measurement is at amortised cost, where the effective interest is recognised in profit or loss. If there is an indication that an impairment loss has been incurred, the amount of the loss is measured as the difference between the carrying amount and the present value of estimated future cash flows. The carrying amount of the engagement is reduced, and the amount of the loss for the period is recognised in profit or loss.

*Interest income* is recognised in profit or loss when the interest is earned. *Interest expense* is recognised in profit or loss as incurred.

Table 18.1 Lending to banks

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
D-loans to banks	-	716
<b>Total lending to banks</b>	<b>-</b>	<b>716</b>

See Note 7 *Risk* for a discussion of credit risk associated with lending.

Table 18.2 Deposits from banks

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Sight and reserve deposits from banks	38 653	35 190
Fixed-rate deposits from banks	14 001	23 002
Other deposits	192	226
<b>Total deposits from banks</b>	<b>52 846</b>	<b>58 418</b>

Table 18.3 Interest income from lending to banks

Amounts in NOK millions	2016	2015
Interest income on F-loans to banks	91	68
<b>Total interest income from lending to banks</b>	<b>91</b>	<b>68</b>

#### INTEREST TERMS FOR LOANS TO BANKS

*Fixed-rate loans* (F-loans) are the instrument primarily used to supply liquidity to the banking system. They are issued at a fixed or floating rate and specified maturity against collateral in the form of securities. The maturity on F-loans is determined by Norges Bank and varies depending on the projection of structural liquidity. Average maturity on F-loans to banks was 0.2 month both in 2016 and 2015.

The interest rates on F-loans are normally determined by multi-price auctions. In a multi-price auction banks submit bids for a desired amount and

interest rate. Norges Bank decides the aggregate amount of the allotment. The banks' interest rate bids are ranked in descending order. Banks that place bids within the aggregate amount will be awarded in the amount and at the interest rate submitted.

*Overnight loans* (D-loans) may be used by banks seeking to borrow from Norges Bank during the day or overnight. D-loans are issued against collateral in the form of securities at 1 percentage point above the key policy rate (sight deposit rate), with interest being charged if the loan is not repaid on the same day as it is extended.

Table 18.4 Interest expense on banks' and Treasury deposits

Amounts in NOK millions	2016	2015
Interest expense on deposits from the Treasury	-199	-
Interest expense on sight and reserve deposits from banks	-186	-349
Interest expense on fixed-rate deposits from banks	-54	-232
Interest expense on depots operated by banks	-5	-11
<b>Total interest expense on banks' and Treasury deposits</b>	<b>-444</b>	<b>-592</b>

#### INTEREST TERMS FOR DEPOSITS FROM BANKS

*Sight deposits:* Banks can deposit unlimited reserves in Norges Bank via the standing deposit facility. The interest rate on deposits less than or equal to a bank's quota is equal to the key policy rate (sight deposit rate). Sight deposits in excess of this quota, referred to as reserve deposits, are remunerated at a lower rate, the reserve rate. The reserve rate is 1 percentage point lower than the key policy rate.

*Fixed-rate deposits:* Norges Bank reduces the quantity of reserves in the banking system by providing banks with fixed-rate deposits (F-deposits). As in the case of F-loans, the interest rate is normally determined by multi-price auction. The maturity on F-deposits is determined by Norges Bank and varies depending on the projection of structural liquidity. Norges Bank can provide F-deposits at a floating rate, i.e. the interest rate on the F-deposits depends on the benchmark rate in the money market. Average maturity on F-deposits from banks was 0.2 month in both 2016 and 2015.

#### INTEREST TERMS FOR DEPOSITS FROM THE TREASURY

Interest terms for deposits from the government are set in a special agreement between Norges Bank and the Ministry of Finance. The deposit rate is calculated on the basis of money market rates weighted between Norwegian and foreign rates in proportion to investments in Norges Bank's balance sheet (excluding *Investments*, *GPF* and *Deposits in krone account*, *GPF*).

In 2016, interest on Treasury deposits was paid at an annual rate of 0.25% in Q1 and Q2, and 0% in Q3 and Q4. During all of 2015, interest was paid on these deposits at an annual rate of 0%.

## Note 19 Related parties



### ACCOUNTING POLICY

Norges Bank is owned by the Norwegian government and under IAS 24.25 is exempt from the disclosure requirements pertaining to related party transactions and outstanding balances, including commitments, with the Norwegian government. This includes transactions with other entities that are related parties because the Norwegian government has control of, joint control of, or significant influence over both Norges Bank and the other entities.

Norges Bank, including the GPFG, is a separate legal entity that is wholly owned by the government through the Ministry of Finance. See Note 1 *General information* for information regarding the relationship between the Ministry of Finance, Norges Bank and the GPFG. Norges Bank carries out all transactions in its own name and on market terms.

For information regarding transactions with governing bodies and senior executives of Norges Bank, see Note 11 *Personnel expenses*.

### MANAGEMENT OF THE GPFG

The Ministry of Finance has placed funds for asset management by the GPFG as a krone deposit in a special account with Norges Bank (the krone account). GPFG assets are invested further in an investment portfolio comprising equities, fixed income instruments and real estate. See information regarding inflows during the period in Note 20 *GPFG Statement of changes in owner's capital*.

Norges Bank charges the Ministry of Finance a management fee relating to management of the GPFG, which amounted to NOK 3 731m in 2016 and NOK 3 933m in 2015. For further information, see Note 20.10 *Management costs*.

### TRANSACTIONS BETWEEN NORGES BANK AND THE GPFG

Internal trades in the form of money market lending or borrowing and reverse repurchase agreements between the GPFG and Norges Bank's equity portfolio are presented in the balance sheet as a net balance between the two reporting entities, on the balance sheet lines *Other financial assets* and *Other financial liabilities*. Associated income and expense items are presented gross in the respective income statement as either interest income or interest expense. All transactions are carried out at market prices.

### OTHER TRANSACTIONS WITH THE GOVERNMENT

Under agreements with the Ministry of Finance, Norges Bank performs tasks in connection with:

- Government debt management
- Administering the central government's group account
- Managing commemorative coins

The Ministry of Finance covers Norges Bank's costs related to these tasks, which amounted to NOK 38m for 2016 and NOK 37m for 2015.

Pursuant to point 5 of the guidelines for provisions and allocations of Norges Bank's profit or loss, "*In connection with the closing of the books each year, an amount equal to one third of the capital in the Transfer Fund shall be transferred to the Treasury.*" This transfer amounted to NOK 17.7bn for 2016 and NOK 26.6bn for 2015.

On the basis of the prepared financial statements, the transfer takes place in the following year, but the amount due is recognised as *Other liabilities* in the balance sheet at 31 December.

### OTHER RELATED PARTY TRANSACTIONS

Norges Bank has transactions with other government agencies and bodies. These transactions are primarily related to leasing of buildings, and amounted to NOK 25m in both 2016 and 2015.

## Note 20 Government Pension Fund Global (GPGF)

### Income statement

Amounts in NOK millions	Note	2016	2015
Profit/loss on the portfolio before foreign exchange gains and losses			
Income/expense from:			
- Equities and units	4	342 813	284 414
- Bonds	4	100 250	36 160
- Unlisted real estate	6	6 942	14 537
- Financial derivatives	4	-3 213	-1 984
- Secured lending	11	4 013	3 266
- Secured borrowing	11	23	50
Tax expense	9	-4 061	-2 628
Interest income/expense		-54	-18
Other costs		-40	-18
Profit/loss on the portfolio before foreign exchange gains and losses		<b>446 673</b>	<b>333 779</b>
Foreign exchange gains and losses		-306 099	668 138
Profit/loss on the portfolio		<b>140 574</b>	<b>1 001 917</b>
Management fee	10	-3 731	-3 933
Profit/loss for the period and total comprehensive income		<b>136 843</b>	<b>997 984</b>

## Balance sheet

Amounts in NOK millions	Note	31 Dec. 2016	31 Dec. 2015
<b>ASSETS</b>			
Deposits in banks		17 759	2 543
Secured lending	11,12	134 338	123 385
Cash collateral posted	12	2 320	2 231
Unsettled trades		13 196	18 404
Equities and units	5	4 373 042	4 287 606
Equities lent	5,11	340 865	312 662
Bonds	5	2 220 286	2 476 729
Bonds lent	5,11	454 735	241 518
Unlisted real estate	6	188 469	180 021
Financial derivatives	5,12	9 366	8 829
Other assets		1 966	2 265
<b>TOTAL ASSETS</b>		<b>7 756 342</b>	<b>7 656 193</b>
<b>ASSETS</b>			
<b>Liabilities</b>			
Secured borrowing	11,12	213 520	149 735
Cash collateral received	12	3 688	2 570
Unsettled trades		22 195	22 438
Financial derivatives	5,12	4 501	5 266
Other liabilities		1 944	1 031
Management fee payable	10	3 731	3 933
Total liabilities		<b>249 579</b>	<b>184 973</b>
Owner's capital		7 506 763	7 471 220
<b>TOTAL LIABILITIES AND OWNER'S CAPITAL</b>		<b>7 756 342</b>	<b>7 656 193</b>



## ACCOUNTING POLICY

The statement of cash flows is prepared in accordance with the direct method. Major classes of cash receipts and cash payments are presented separately. Specific categories of cash flows, primarily arising from the purchase and sale of financial instruments, are shown on a net basis. All investment activities and the management fee to Norges Bank that is charged to the GPFG are defined as operating activities. Cash comprises *Deposits in banks*.

Cash transfers between the GPFG and the Norwegian government in the form of inflows and withdrawals are classified as financing activities. These transfers have been settled in the period (cash principle). In the *Statement of changes in owner's capital*, accrued inflows/withdrawals are shown.

Management fee shown in the *Statement of cash flows* for a period is the settlement of the fee that was accrued and expensed in the previous year.

## Statement of cash flows

Amounts in NOK millions, receipt (+) / payment (-)	2016	2015
<b>Operating activities</b>		
Receipts of dividend from equities and units	118 517	108 904
Receipts of interest from bonds	74 832	75 283
Receipts of interest and dividend from unlisted real estate subsidiaries	3 657	3 532
Net receipts of interest and fee from secured lending and borrowing	4 097	3 324
<i>Receipts of interest, dividend and fee from holdings of equities and units, bonds and unlisted real estate</i>	<i>201 103</i>	<i>191 043</i>
Net cash flow from purchase and sale of equities and units	-72 588	-89 916
Net cash flow from purchase and sale of bonds	-38 151	-140 103
Net cash flow to/from investments in unlisted real estate subsidiaries	-17 269	-44 946
Net cash flow financial derivatives	84	-3 165
Net cash flow cash collateral related to derivative transactions	983	730
Net cash flow secured lending and borrowing	50 236	33 708
Net payment of taxes	-3 116	-1 499
Net cash flow related to interest on deposits in banks and bank overdraft	-	-6
Net cash flow related to other costs, other assets and other liabilities	-430	1 309
Management fee paid to Norges Bank	-3 933	-3 202
<b>Net cash inflow/outflow from operating activities</b>	<b>116 919</b>	<b>-56 047</b>
<b>Financing activities</b>		
Inflow from the Norwegian government	-	45 836
Withdrawal by the Norwegian government	-100 616	-
<b>Net cash inflow/outflow from financing activities</b>	<b>-100 616</b>	<b>45 836</b>
<b>Net change in cash</b>		
Deposits in banks at 1 January	2 543	11 731
Net increase/decrease of cash in the period	16 303	-10 211
Net foreign exchange gains and losses on cash	-1 087	1 023
<b>Deposits in banks at end of period</b>	<b>17 759</b>	<b>2 543</b>



## ACCOUNTING POLICY

*Owner's capital* for the GPFG comprises contributed capital in the form of accumulated net inflows from the Norwegian government and retained earnings in the form of total comprehensive income. *Total owner's capital* corresponds to the Ministry of Finance's krone account in Norges Bank.

## Statement of changes in owner's capital

Amounts in NOK millions	Inflows from owner	Retained earnings	Total owner's capital <sup>1</sup>
1 January 2015	3 448 941	2 978 596	6 427 537
Total comprehensive income	-	997 984	997 984
Net inflow/withdrawal during the period <sup>1</sup>	45 700	-	45 700
<b>31 December 2015</b>	<b>3 494 640</b>	<b>3 976 580</b>	<b>7 471 220</b>
1 January 2016	3 494 640	3 976 580	7 471 220
Total comprehensive income	-	136 843	136 843
Net inflow/withdrawal during the period <sup>1</sup>	-101 300	-	-101 300
<b>31 December 2016</b>	<b>3 393 340</b>	<b>4 113 423</b>	<b>7 506 763</b>

<sup>1</sup> In 2016 there was a withdrawal from the krone account of NOK 105.2bn. Of this, NOK 3.9bn was used to pay the accrued management fee for 2015. In 2015, there was an inflow to the krone account of NOK 45.7bn. Of this, NOK 3.2bn was used to pay the accrued management fee for 2014.

## GPFG Note 1 General information

General information relating to the GPFG appears in Note 1 *General information*.

## GPFG Note 2 Accounting policies

The accounting policies for the financial reporting of the GPFG appear in Note 2 *Accounting policies*.

## GPFG Note 3 Returns per asset class

Table 3.1 Returns per asset class

	2016	2015	2016 Q4	2016 Q3	2016 Q2	2016 Q1
<b>Returns in the fund's currency basket</b>						
Return on equity investments (percent)	8.72	3.83	4.91	6.03	0.66	-2.90
Return on fixed income investments (percent)	4.32	0.33	-2.35	0.89	2.49	3.32
Return on real estate investments (percent) <sup>1</sup>	0.78	9.99	1.25	2.29	-1.42	-1.29
Return on fund (percent)	6.92	2.74	2.17	4.00	1.27	-0.63
Return on equity and fixed income investments (percent)	7.12	2.52	2.20	4.05	1.36	-0.61
Return on equity and fixed income benchmark index (percent)	6.97	2.07	1.92	3.88	1.47	-0.43
Relative return on equity and fixed income investments (percentage points)	0.15	0.45	0.28	0.17	-0.11	-0.18
Relative return on equity investments (percentage points)	0.15	0.83	0.26	0.27	-0.15	-0.21
Relative return on fixed income investments (percentage points)	0.16	-0.24	0.37	0.04	-0.06	-0.21
<b>Returns in Norwegian kroner (percent)</b>						
Return on equity investments	3.67	16.77	8.74	1.54	1.11	-7.14
Return on fixed income investments	-0.53	12.83	1.21	-3.39	2.95	-1.19
Return on real estate investments	-3.91	23.71	4.95	-2.04	-0.98	-5.60
Return on fund	1.95	15.54	5.90	-0.41	1.72	-4.97

<sup>1</sup> The return on real estate investments measured in international currency has been adjusted downwards for 2015 by 0.01 percentage point. This is due an error caused by the use of an incorrect Thai baht rate in December 2015 to measure returns in the fund's currency basket. This correction has no impact on the GPFG's income statement or balance sheet for 2015.

Returns in Table 3.1 are a reproduction of return information in Table 1 in the annual report chapter *Key figures for 2016*. A time-weighted monthly rate of return methodology is applied in the return calculations. The fair value of holdings is determined at the time of cash flows into and out of the asset classes, and interim returns are geometrically linked. Returns are calculated net of non-reclaimable withholding taxes on dividends, interest and capital gains. Performance is reported in the fund's currency basket, as well as in Norwegian kroner, where the currency basket is weighted based on the currency composition of the benchmark indices for

equity and fixed income investments. Returns measured in the fund's currency basket are calculated as the geometrical difference between the fund's returns measured in Norwegian kroner and the return of the currency basket. Returns on the benchmark indices for equity and fixed income investments are calculated by weighting the monthly returns of the benchmark portfolio for equities and fixed income respectively, with actual market capitalisation weights at the beginning of the month. Return on real estate investments includes the return on investments in listed and unlisted real estate.

## GPFG Note 4 Income/expense from Equities and units, Bonds and Financial derivatives



### ACCOUNTING POLICY

The following accounting policies relate to the respective income and expense elements:

*Dividends* are recognised as income when the dividends are formally approved by the shareholders' meeting or comparable responsible party.

*Interest income* is recognised when the interest is earned. *Interest expense* is recognised as incurred.

*Realised gain/loss* mainly represents amounts realised when assets or liabilities have been derecognised. Realised gain/loss includes transaction costs, which are expensed as incurred. Transaction costs are defined as all costs directly attributable to the completed transaction. For investments in *Equities and units* and *Bonds*, these normally comprise commission fees and stamp duties.

*Unrealised gain/loss* represents changes in fair value for the period for the related balance sheet line item, that are not attributable to the aforementioned categories.

Tables 4.1 to 4.3 specify the income and expense elements for *Equities and units*, *Bonds* and *Financial derivatives*, where the line *Income/expense* shows the amount recognised in profit or loss for the respective income statement line.

Table 4.1 Specification Income/expense from equities and units

Amounts in NOK millions	2016	2015
Dividends	118 584	107 383
Realised gain/loss	107 005	132 240
Unrealised gain/loss	117 224	44 791
Income/expense from equities and units before foreign exchange gain/loss	342 813	284 414

Table 4.2 Specification Income/expense from bonds

Amounts in NOK millions	2016	2015
Interest	72 573	78 243
Realised gain/loss	30 861	21 098
Unrealised gain/loss	-3 184	-63 181
Income/expense from bonds before foreign exchange gain/loss	100 250	36 160

Table 4.3 Specification Income/expense from financial derivatives

Amounts in NOK millions	2016	2015
Dividends	102	21
Interest	-2 113	-869
Realised gain/loss	-3 251	-2 422
Unrealised gain/loss	2 049	1 286
Income/expense from financial derivatives before foreign exchange gain/loss	-3 213	-1 984

## GPFG Note 5 Holdings of Equities and units, Bonds and Financial derivatives



### ACCOUNTING POLICY

Investments in equities, units and bonds are designated upon initial recognition as at *fair value through profit or loss* and are carried in the balance sheet at fair value. Earned and accrued dividends and interest are presented in the balance sheet on the same line as the respective financial asset or liability and are specified in Tables 5.1 and 5.2 for *Equities and units* and *Bonds*. Lent equities, units and bonds are presented separately. For more information on lent securities, see Note 11 *Secured lending and borrowing*.

Financial derivatives are classified as *held for trading* and are carried in the balance sheet at fair value. Variation margin for exchange traded futures is considered to be settlement, and amounts are presented as *Deposits in banks*. Norges Bank does not engage in hedge accounting, and therefore none of the financial instruments are designated as hedging instruments.

For further information on fair value measurement of *Equities and units*, *Bonds* and *Financial derivatives*, see Note 7 *Fair value measurement*. Changes in fair value for the period are recognised in the income statement and specified in Note 4 *Income/Expense from Equities and units, Bonds and Financial derivatives*.

Table 5.1 Equities and units

Amounts in NOK millions	31 Dec. 2016		31 Dec. 2015	
	Fair value including dividends	Accrued dividends	Fair value including dividends	Accrued dividends
Equities and units	4 713 907	5 557	4 600 268	5 491
<b>Total equities and units</b>	<b>4 713 907</b>	<b>5 557</b>	<b>4 600 268</b>	<b>5 491</b>
<i>Of which equities lent</i>	340 865		312 662	

Table 5.2 Bonds

Amounts in NOK millions	31 Dec. 2016			31 Dec. 2015		
	Nominal value	Fair value including accrued interest	Accrued interest	Nominal value	Fair value including accrued interest	Accrued interest
<b>Government bonds</b>						
Government bonds issued in the government's local currency	1 290 977	1 461 360	11 356	1 326 895	1 493 128	11 803
<b>Total government bonds</b>	<b>1 290 977</b>	<b>1 461 360</b>	<b>11 356</b>	<b>1 326 895</b>	<b>1 493 128</b>	<b>11 803</b>
<b>Government-related bonds</b>						
Sovereign bonds	11 625	12 408	211	21 935	23 045	385
Bonds issued by local authorities	92 164	98 677	668	89 363	96 508	743
Bonds issued by supranational bodies	54 791	58 474	511	66 665	72 351	737
Bonds issued by federal agencies	161 022	164 578	1 000	189 712	194 925	1 409
<b>Total government-related bonds</b>	<b>319 602</b>	<b>334 137</b>	<b>2 390</b>	<b>367 675</b>	<b>386 829</b>	<b>3 274</b>
<b>Inflation-linked bonds</b>						
Inflation-linked bonds issued by government authorities	114 916	140 814	547	103 152	120 275	522
<b>Total inflation-linked bonds</b>	<b>114 916</b>	<b>140 814</b>	<b>547</b>	<b>103 152</b>	<b>120 275</b>	<b>522</b>
<b>Corporate bonds</b>						
Bonds issued by utilities	40 653	43 602	531	40 639	42 951	545
Bonds issued by financial institutions	225 022	227 803	2 264	200 160	202 030	2 203
Bonds issued by industrial companies	308 074	319 741	3 197	298 979	302 901	3 386
<b>Total corporate bonds</b>	<b>573 749</b>	<b>591 146</b>	<b>5 992</b>	<b>539 778</b>	<b>547 882</b>	<b>6 134</b>
<b>Securitised bonds</b>						
Covered bonds	140 209	147 237	1 477	158 708	168 925	2 284
Commercial mortgage backed securities	1 357	327	1	2 544	1 208	5
<b>Total securitised bonds</b>	<b>141 566</b>	<b>147 564</b>	<b>1 478</b>	<b>161 252</b>	<b>170 133</b>	<b>2 289</b>
<b>Total bonds</b>	<b>2 440 810</b>	<b>2 675 021</b>	<b>21 763</b>	<b>2 498 752</b>	<b>2 718 247</b>	<b>24 022</b>
<i>Of which bonds lent</i>		454 735			241 518	

Financial derivatives, such as futures, interest rate derivatives and foreign exchange derivatives are used in asset management to adjust the exposure in various portfolios, as a cost efficient alternative to trading in the underlying securities. This may be to adjust the exposure to equities or bonds. Furthermore, foreign exchange derivatives are used in

the financing of securities investment management. Equity derivatives with an option component are often a result of corporate actions and these can be converted to equities or sold. Participatory notes are used as an alternative to direct equity investments in certain markets.

Table 5.3 gives a specification of financial derivative holdings. Notional amounts (the nominal values of the underlying) are the basis for the calculation of any cash flows and gains/losses for the contracts. Notional amounts are presented gross, being the sum of the long and short positions, which provides information about the extent to which different types of financial derivatives are used.

Table 5.3 Financial derivatives

Amounts in NOK millions	31 Dec. 2016			31 Dec. 2015		
	Notional amount	Fair value		Notional amount	Fair value	
		Asset	Liability		Asset	Liability
Foreign exchange derivatives	321 580	4 586	1 995	351 186	4 352	1 521
Interest rate derivatives	31 284	528	2 506	37 123	553	3 745
Equity derivatives	6 645	4 252	-	4 846	3 924	-
<b>Total financial derivatives</b>	<b>359 509</b>	<b>9 366</b>	<b>4 501</b>	<b>393 155</b>	<b>8 829</b>	<b>5 266</b>

### OVER-THE-COUNTER (OTC) FINANCIAL DERIVATIVES

#### *Foreign exchange derivatives*

This item consists of foreign currency exchange contracts (forwards) which are agreements to buy or sell a specified quantity of foreign currency on an agreed future date.

#### *Interest rate derivatives*

Interest rate swaps are agreements between two parties to exchange interest payment streams based on different interest rate calculation methods. Typically, one party pays a floating rate of interest and the other pays a fixed rate.

#### *Equity derivatives*

Equity derivatives are derivatives with exposure to an underlying equity. Equity derivatives include instruments with an option component such as warrants and rights. These instruments grant the owner the right to purchase an equity at an agreed price within a certain time frame. Equity derivatives also include participatory notes, which is an instrument that provides exposure to an underlying equity.

### EXCHANGE-TRADED FUTURES CONTRACTS

Futures contracts are listed contracts to buy or sell a specified asset (security, index, interest rate or other) at an agreed price at a future point in time. Settlement is normally made in cash, with initial and daily margin settlement of gains and losses.

## GPFG Note 6 Unlisted real estate



### ACCOUNTING POLICY

Investments in unlisted real estate are made through subsidiaries of Norges Bank, which exclusively constitute investments as part of the management of the GPFG. Subsidiaries are financed through equity and long-term debt financing. Subsidiaries presented as *Unlisted real estate* are designated upon initial recognition as financial instruments at *fair value through profit or loss*. See Note 2 *Accounting policies* for more information.

The fair value of unlisted real estate is determined as the sum of the GPFG's share of the assets and liabilities in the underlying subsidiaries, measured at fair value. For further information on fair value measurement of unlisted real estate investments see Note 7 *Fair value measurement*.

Changes in fair value for the period are recognised in the income statement and are presented as *Income/expense from unlisted real estate*.

Income generated in the real estate subsidiaries may be distributed to the GPFG in the form of interest and dividends as well as repayment of equity and long-term loan financing provided from the GPFG to the subsidiary. There are no significant restrictions on distribution of dividends and interest from the subsidiaries to the GPFG.

The following accounting policies apply to the respective income and expense elements presented in Table 6.1:

*Dividends* are recognised as income when the dividends are formally approved by the shareholder's meeting, comparable responsible party, or as a consequence of the company's articles of association.

*Interest income* is recognised when the interest is earned.

*Unrealised gain/loss* represents the change in fair value for the balance sheet line item *Unlisted real estate*, that is not attributable to the realised gain from dividends and interest income.

Table 6.1 provides a specification of the income statement line *Income/Expense from unlisted real estate*, before foreign exchange gains and losses.

Table 6.1 Income/expense from unlisted real estate

Amounts in NOK millions	2016	2015
Dividend	2 167	1 931
Interest income	1 490	1 601
Unrealised gain/loss	3 285	11 005
<b>Income/expense from unlisted real estate before foreign exchange gain/loss</b>	<b>6 942</b>	<b>14 537</b>

The change in the period for the balance sheet line *Unlisted real estate* is specified in Table 6.2.

Table 6.2 Changes in carrying amounts unlisted real estate

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Unlisted real estate, opening balance for the period	180 021	106 431
Payments to new investments <sup>1</sup>	19 147	44 167
Payments to existing investments <sup>1</sup>	2 808	1 692
Payments from existing investments <sup>1</sup>	-4 686	-913
Unrealised gain/loss	3 285	11 005
Foreign currency translation effect	-12 106	17 639
<b>Unlisted real estate, closing balance for the period</b>	<b>188 469</b>	<b>180 021</b>

<sup>1</sup> This represents the net cash flows between the GPFG and subsidiaries presented as *Unlisted real estate*. The GPFG makes cash contributions to the subsidiaries in the form of equity and long-term loan financing to fund investments in real estate assets, primarily properties. Net income generated in the subsidiaries may be distributed to the GPFG in the form of repayment of equity and long-term loan financing.

#### UNDERLYING REAL ESTATE COMPANIES

Real estate subsidiaries have investments in other non-consolidated, unlisted companies. For a list of principle entities see Note 14 *Interests in other entities*.

In the tables below, a further specification of *Unlisted real estate* is provided. Table 6.3 specifies the GPFG's share of the net income generated in the underlying real estate companies, which is the basis for *Income/expense from unlisted real estate* presented in Table 6.1. Table 6.4 specifies the GPFG's share of assets and liabilities in the underlying real estate companies which comprise the closing balance for *Unlisted real estate* as presented in Table 6.2.

The following accounting policies apply to the respective income and expense elements as presented in Table 6.3:

*Rental income* is recognised as income on a straight line basis over the lease term.

*Transaction costs* are incurred as a one-time cost when purchasing or selling properties. Transaction costs include stamp duty, registration fees, due diligence costs (fees to advisors, such as lawyers and valuation experts) and insurance. Transaction costs are expensed as incurred.

Table 6.3 Income from underlying real estate companies

Amounts in NOK millions	2016	2015
Net rental income <sup>1</sup>	7 645	6 921
Realised gain/loss	109	320
Fair value changes – properties <sup>2</sup>	1 416	9 265
Fair value changes – debt <sup>2</sup>	-191	435
Transaction costs	-411	-320
Interest expense external debt	-622	-666
Tax expense payable	-151	-100
Change in deferred tax	-174	-452
Fixed fees to asset managers <sup>3</sup>	-454	-308
Variable fees to asset managers <sup>3</sup>	-39	-343
Operating costs within the limit from the Ministry of Finance <sup>4</sup>	-81	-86
Other costs	-105	-129
<b>Net income real estate companies</b>	<b>6 942</b>	<b>14 537</b>

<sup>1</sup> Net rental income mainly comprises received and earned rental income, less costs relating to the operation and maintenance of properties.

<sup>2</sup> Comprises solely fair value changes of properties and debt and will therefore not reconcile with unrealised gain/loss presented in Table 6.1 which includes undistributed profits.

<sup>3</sup> Fixed and variable fees to external asset managers are directly related to the underlying properties and are primarily linked to the operation and development of properties and leases. Variable fees are based on achieved performance over time.

<sup>4</sup> See Table 10.2 for specification of the operating costs that are measured against the management fee limit from the Ministry of Finance.

Table 6.4 Assets and liabilities underlying real estate companies

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Deposits in banks	2 272	2 491
Properties	204 635	197 549
External debt	-15 727	-17 432
Tax payable	-204	-215
Net deferred tax	-1 153	-1 048
Net other assets and liabilities	-1 354	-1 324
<b>Total assets and liabilities underlying real estate companies</b>	<b>188 469</b>	<b>180 021</b>

In addition to direct real estate investments presented in the balance sheet line *Unlisted real estate*, listed real estate investments are included in the real estate asset class. Listed real estate

investments are presented in the balance sheet line *Equities and units*, and amount to NOK 49 928m at year-end compared to NOK 54 134m at year-end 2015.

## GPFG Note 7 Fair value measurement



### ACCOUNTING POLICY

All assets and liabilities presented as *Equities and units, Bonds, Unlisted real estate, Financial derivatives, Secured lending and borrowing, Deposits in banks* and *Cash collateral posted and received* are held at fair value in the balance sheet.

Fair value, as defined by IFRS 13 *Fair Value Measurement*, is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

### 1. INTRODUCTION

The fair value of the vast majority of assets and liabilities is based on quoted market prices. If the market for a security or an asset is not active, fair value is established by using standard valuation techniques. Estimating fair value introduces valuation uncertainty, mostly due to the use of unobservable inputs used in valuation models. This valuation risk is addressed by the management and control framework in Norges Bank Investment Management, which governs fair value measurement, and is described in Section 6 of this note.

### 2. VALUATION UNCERTAINTY AND THE FAIR VALUE HIERARCHY

All balance sheet items measured at fair value are categorised in the three categories in the fair value hierarchy presented in Table 7.1. The level of valuation uncertainty determines the categorisation:

- Level 1 comprises assets that are valued on the basis of unadjusted quoted prices in active markets and are considered to have very limited valuation uncertainty.
- Assets and liabilities classified as Level 2 are valued using models with observable inputs. Inputs are considered observable if they can be directly observed from transactions in an active market, or if there is compelling external evidence demonstrating an executable exit price. Holdings classified as Level 2 have some valuation uncertainty.
- Assets classified as Level 3 are valued using models with considerable use of unobservable inputs, leading to a high degree of valuation uncertainty.

An overview of models and valuation techniques with their respective observable and unobservable inputs, categorised per type of instrument, is provided in Section 4 of this note.



### SIGNIFICANT ESTIMATE

Level 3 investments consist of instruments held at fair value that are not traded or quoted in active markets. The fair values are therefore determined using valuation techniques that use models with unobservable inputs. The resulting values are particularly uncertain estimates, due to the significant use of unobservable inputs.

Table 7.1 classifies investments by level of valuation uncertainty into the fair value hierarchy and includes all balance sheet items measured at fair value.

Table 7.1 Investments by level of valuation uncertainty

Amounts in NOK millions	Level 1		Level 2		Level 3		Total	
	31 Dec. 2016	31 Dec. 2015						
Equities and units	4 673 199	4 564 401	28 845	32 260	11 863	3 607	4 713 907	4 600 268
Government bonds	1 369 188	1 380 928	92 172	112 200	-	-	1 461 360	1 493 128
Government-related bonds	279 772	331 310	53 463	54 477	902	1 042	334 137	386 829
Inflation-linked bonds	124 646	108 484	16 168	11 791	-	-	140 814	120 275
Corporate bonds	538 692	512 577	52 293	34 824	161	481	591 146	547 882
Securitised bonds	136 088	160 797	11 149	8 128	327	1 208	147 564	170 133
Total bonds	2 448 386	2 494 096	225 245	221 420	1 390	2 731	2 675 021	2 718 247
Financial derivatives (assets)	291	359	9 075	8 470	-	-	9 366	8 829
Financial derivatives (liabilities)	-	-	-4 501	-5 266	-	-	-4 501	-5 266
Total financial derivatives	291	359	4 574	3 204	-	-	4 865	3 563
Unlisted real estate	-	-	-	-	188 469	180 021	188 469	180 021
Other <sup>1</sup>	-	-	-71 768	-26 946	-	-	-71 768	-26 946
Total	7 121 876	7 058 856	186 896	229 938	201 722	186 359	7 510 494	7 475 153
Total (percent)	94.8	94.4	2.5	3.1	2.7	2.5	100.0	100.0

<sup>1</sup> Other consists of non-investment assets and liabilities limited to money-market instruments such as secured lending and borrowing positions, deposits in banks, unsettled trades, posted and received cash collateral and other assets and liabilities.

Valuation uncertainty for the GPFG as a whole at the end of 2016 is virtually unchanged compared to the end of 2015. The majority of the total portfolio has low valuation uncertainty. At the end of 2016, 97.3% was classified as Level 1 or 2, which is essentially unchanged compared to year-end 2015. Movements between levels in the fair value hierarchy are described in Section 3 of this note.

#### Equities and units

Measured as a share of total value, virtually all equities and units (99.1%) are valued based on official closing prices from stock exchanges and are classified as Level 1. A small number of equities and units (0.6%) are classified as Level 2. These are mainly equities for which trading has recently been suspended, or illiquid securities that are not traded daily. A few securities (0.3%) that are not listed, or where trading has been suspended over a longer period, have high uncertainty related to fair value and are classified as Level 3.

#### Bonds

The majority of bonds (91.5%) have observable, executable market quotes and are classified as Level 1. A minority of bonds (8.4%) are classified as Level 2. These securities do not have a sufficient amount of observable quotes or they are priced based on comparable but liquid bonds. A few bonds (0.1%) that do not have observable quotes are classified as Level 3.

#### Unlisted real estate

All unlisted real estate investments are classified as Level 3, since models are used to value the underlying assets and liabilities with extensive use of non-observable market inputs. All unlisted real estate investments are measured at the value determined by external valuers. Exceptions to this policy are cases of newly acquired properties where the purchase price, excluding transaction costs, is normally considered to be the best estimate of fair value, or where there are indications that external valuation reports do not reflect fair value so that adjustments to valuations are warranted.

#### Financial derivatives

Some equity derivatives (rights and warrants) that are actively traded on exchanges are classified as Level 1. Other derivatives are classified as Level 2, as their valuation is based on standard models using observable market inputs. The majority of derivatives on the asset side of the balance sheet are OTC foreign exchange derivatives and equity derivatives. On the liability side, the holdings consist of foreign exchange derivatives and interest rate derivatives.

Other assets and liabilities are classified as Level 2.

### 3. MOVEMENTS BETWEEN LEVELS OF VALUATION UNCERTAINTY

#### Reclassifications between Level 1 and Level 2

The relative share of equities classified as Level 1 has decreased marginally by 0.1 percentage point compared to year-end 2015.

Bonds classified as Level 1 are reduced by 0.3 percentage point in 2016. This is mainly due to price and currency losses as well as reclassification of some holdings to Level 2. The reclassified bonds consist mainly of corporate bonds denominated in US dollars and government bonds in emerging markets.

Table 7.2 Specification of changes in Level 3 holdings

Amounts in NOK millions	1 Jan. 2016	Purchases	Sales	Settle-ments	Net gain/loss	Trans-ferred into Level 3	Trans-ferred out of Level 3	Foreign exchange gains and losses	31 Dec. 2016
Equities and units	3 607	9 956	-455	-41	-533	257	-842	- 86	11 863
Bonds	2 731	-	-1 011	-163	-33	6	-91	- 49	1 390
Unlisted real estate <sup>1</sup>	180 021	17 269	-	-	3 285	-	-	-12 106	188 469
<b>Total</b>	<b>186 359</b>	<b>27 225</b>	<b>-1 466</b>	<b>-204</b>	<b>2 719</b>	<b>263</b>	<b>-933</b>	<b>-12 241</b>	<b>201 722</b>

Amounts in NOK millions	1 Jan. 2015	Purchases	Sales	Settle-ments	Net gain/loss	Trans-ferred into Level 3	Trans-ferred out of Level 3	Foreign exchange gains and losses	31 Dec. 2015
Equities and units	1 983	418	-298	16	-397	3 021	-1 231	95	3 607
Bonds	25 269	2 859	-971	-243	-1 003	418	-24 188	589	2 731
Unlisted real estate <sup>1</sup>	106 431	44 946	-	-	11 005	-	-	17 639	180 021
<b>Total</b>	<b>133 683</b>	<b>48 223</b>	<b>-1 269</b>	<b>-227</b>	<b>9 605</b>	<b>3 439</b>	<b>-25 419</b>	<b>18 323</b>	<b>186 359</b>

<sup>1</sup> Purchases represent the net cash flow in the period from the GPFG to subsidiaries presented as *Unlisted real estate*.

The GPFG's aggregate exposure that is considered particularly uncertain with respect to valuation (Level 3) increased by NOK 15 363m in 2016, to an exposure at the end of the year of NOK 201 722m.

The relative share of equities and units classified as Level 3 has increased by 0.2 percentage point compared to 2015. This increase is mainly due to a merger of two listed portfolio companies that have previously been classified as Level 1. As compensation for the shares in one of the companies, the GPFG received shares with a lock-in period. After the lock-in period these shares can be converted to normal listed shares (Level 1). Due to the lock-in period, the valuation of these shares is model-based, with the use of unobservable inputs, leading to a Level 3 classification

There is no change in the relative share of bonds classified as Level 3. In absolute terms, the value of bonds classified as Level 3 is reduced, mainly due to sales.

All unlisted real estate investments are classified as Level 3, and the increase of NOK 8 448m in 2016 is

mainly due to new investments and to a lesser extent value increases, partly offset by currency effects.

### 4. VALUATION TECHNIQUES

Norges Bank Investment Management has defined hierarchies for which price sources to be used for valuation. Holdings that are included in the benchmark index are normally valued in accordance with the index providers' prices, while the remaining holdings of equities and bonds are valued almost exclusively using prices from other reputable external price providers. The next section sets out the main valuation techniques for those instruments included in Level 2 and Level 3 of the fair value hierarchy. Furthermore, it highlights the most significant observable and unobservable inputs to the valuation models and their interaction with sensitivity testing for instruments included in Level 3.

#### *Unlisted real estate (Level 3)*

The fair value of unlisted real estate is determined as the sum of the underlying assets and liabilities as presented in Note 6 *Unlisted real estate*. Assets and liabilities consist mainly of properties and external

debt. Properties are valued each reporting date by external independent valuation specialists using valuation models. Valuation of properties is inherently predisposed to significant forward-looking judgements. These include key assumptions and estimates with respect to each individual property type, location, future revenue streams and relevant discount rates. These assumptions represent mainly unobservable inputs and *Unlisted real estate* is therefore classified as Level 3 in the fair value hierarchy. Estimates used reflect recent comparable market transactions of properties with a similar location, condition and quality, and are based on local market conditions. Valuations reflect the best estimate of market value at the valuation date and are sensitive to fluctuations in the input factors.

Valuation of commercial real estate in the European and US markets is based on variations of discounted cash flow models.

Yields and assumptions regarding expected future cash flows are the most important variables that affect sensitivity to changes in fair value. Expected future cash flows are impacted by changes in assumptions related to, but not limited to:

- Expected inflation (market, consumer price index, costs, etc.)
- Market rental value, market rental value growth, renewal probabilities, void periods and costs
- Tenant defaults
- Changes in credit spreads and discount rates for commercial real estate loans.

Changes in key assumptions can have a material effect on the valuation of the real estate portfolio. This is illustrated in the sensitivity analysis by using other reasonable alternative assumptions for yield and market rents. The sensitivity analysis is based on a statistically relevant sample, representative for the real estate portfolio, and reflects both favourable and unfavourable changes.

#### *Equities and units (Level 2 and 3)*

Equities and units that are valued based on models with observable inputs provided by vendors according to the pricing hierarchy, are classified as Level 2. These holdings are often not traded daily, or are listed shares of suspended companies. The valuation models take into account various observable market inputs such as comparable equity quotes, last traded date, volumes and reasons for suspension.

Some holdings in Level 3 are illiquid because of lock-in periods. Valuation models for these holdings take into account both observable inputs, such as comparable equity quotes and unobservable inputs such as historic volatility.

Other holdings of Level 3 equities and units that have been suspended for a prolonged period, are valued either based on the last market price using regression analysis or based on comparable companies.

Fair value of equities classified as Level 3 is sensitive to whether trading is resumed and how markets have moved from the time the trading was suspended, as well as specific factors related to the individual company such as the financial situation and volatility.

#### *Bonds (Level 2 and 3)*

Bonds that are valued based on indicative quotes, or liquid comparable issues with executable quotes for those that are less liquid, are classified as Level 2. These holdings usually consist of less liquid bonds than those actively traded on the market.

Bonds that are valued by external price vendors, based on models making use of significant unobservable inputs are classified as Level 3. Such inputs include probability of expected cash flows, outdated indirect quotes on comparable issues and spreads to reference curves. These holdings include defaulted and highly illiquid bonds.

The fair value of bonds classified as Level 3 is sensitive to changes in risk premiums and liquidity discounts, as well as the future recovery, in the event of default. In some instances, sensitivity analyses are carried out on the underlying discount rate or spread against the discount curve.

#### *Financial derivatives (Level 2)*

Foreign exchange derivatives, consisting mainly of foreign exchange forward contracts, are valued using industry standard models with predominantly observable market data inputs such as forward rate yields.

Interest rate derivatives consist of interest rate swaps, and are valued using industry standard models with predominantly observable market data inputs such as interest from traded interest rate swaps.

Equity derivatives, such as rights and warrants, are mainly valued based on prices provided by vendors according to the pricing hierarchy. In some cases where an equity derivative is not traded, observable inputs such as conversion factors, subscription price and strike price are utilised to value the instruments. Participatory certificates are valued using the underlying price of the quoted equity, adjusted for observable inputs related to credit and liquidity risk.

## 5. SENSITIVITY ANALYSIS FOR LEVEL 3 HOLDINGS

Table 7.3 Additional specification Level 3 and sensitivities

Amounts in NOK millions	Specification of Level 3 holdings 31 Dec. 2016	Sensitivities 31 Dec. 2016		Specification of Level 3 holdings 31 Dec. 2015	Sensitivities 31 Dec. 2015	
		Unfavourable changes	Favourable changes		Unfavourable changes	Favourable changes
Equities and units	11 863	-2 638	2 606	3 607	-1 227	1 190
Government-related bonds	902	-90	90	1 042	-104	104
Corporate bonds	161	-16	16	481	-78	78
Securitised bonds	327	-33	33	1 208	-121	121
Total bonds	1 390	-139	139	2 731	-304	304
Unlisted real estate	188 469	-9 678	10 711	180 021	-7 801	8 637
Total	201 722	-12 455	13 456	186 359	-9 332	10 131

There is uncertainty associated with the fair value of investments classified as Level 3 and the downside valuation uncertainty is NOK 12 455m at year-end 2016, an increase of NOK 3 123m from 2015. Upside valuation uncertainty has increased with NOK 3 325m to NOK 13 456m at the end of 2016. The increase in valuation uncertainty compared to 2015 is mainly due to new real estate investments and increased holdings of equities classified as Level 3.

Real estate values are particularly sensitive to changes in yields and assumptions influencing future revenues. In an unfavourable change, an increase of 0.2 percentage point in the yield, and a reduction of 2% in future market rents will result in a decrease in value of the real estate portfolio of approximately 5.1% (4.3% in 2015) or NOK 9 678m. In a favourable change, a similar reduction in the yield of 0.2 percentage point and an increase in future market rents of 2% will increase the value of the real estate portfolio by 5.7% (4.8% in 2015) or NOK 10 711m.

Sensitivity of fair values for unlisted real estate investments has increased compared to last year-end. The unlisted real estate portfolio has undergone some structural shifts with sales in the logistics portfolios in Europe and the US, together with purchases in various markets. The portfolio has a slightly higher level of uncertainty related to key assumptions used in the sensitivity analysis at year-end, contributing to an increase in sensitivity.

Sensitivity in absolute values has increased for the equity portfolio and decreased for the bond portfolio, in line with the holdings classified as Level 3. The decrease in relative sensitivity for the equity portfolio compared to 2015 is caused by the fact that the valuation models used for new holdings in Level 3 are less sensitive to changes in unobserva-

ble inputs. The sensitivity in fair value for bonds is somewhat lower than for equities, particularly for bonds with shorter maturities.

### 6. CONTROL ENVIRONMENT

The control environment for fair value measurement of financial instruments and investments in unlisted real estate is organised around a formalised and documented accounting and valuation policy and guidelines, which are supported by work and control procedures. The policy document lays down valuation policies and outlines procedures for the Norges Bank Investment Management valuation committee.

The valuation environment has been adapted in accordance with market standards and established practices for valuation. This is implemented in practice through daily valuation of all holdings, except for unlisted real estate investments where valuations are performed on a quarterly basis. These processes are scalable in terms of market changes and are based on internal and external data solutions.

All holdings and investments are generally valued by external, independent valuation providers. These have been selected on the basis of thorough analyses performed by the departments responsible for valuation.

Valuation providers are monitored on an ongoing basis through regular discussions, controls and price challenges for individual securities. For a large portion of holdings, prices from independent price providers are based on quoted market prices. For holdings that are not sufficiently liquid for valuation to be based on quoted prices, widely accepted models are used. Observable inputs are used where possible, but unobservable inputs are used in some cases, due to illiquid markets.

The valuation process is subject to numerous controls, performed on a daily basis by the valuation departments. The controls are based on defined thresholds and sensitivities, which are monitored and adjusted in accordance with prevailing market conditions. At each month-end for financial instruments and at the end of each quarter for unlisted real estate investments, more extensive controls are performed to ensure valuation is in accordance with fair value. As part of this review, particular attention is paid to illiquid financial instruments and unlisted real estate investments, ie investments deemed to pose valuation challenges. Illiquid instruments are identified using sector and currency clas-

sifications, credit rating indicators, bid/ask spreads, and activity in the market.

A valuation memo and report are prepared at each quarter-end, documenting the results of the controls performed and the most important sources of valuation uncertainty.

The valuation committee, which comprises Norges Bank Investment Management's leader group, meets every quarter prior to the publication of the financial reporting. The committee reviews the valuation documentation, discusses major pricing issues and approves the valuation.

## GPFG Note 8 Risk

### INVESTMENT MANDATE FOR THE GPFG

See Note 1 for a description of the framework for management of the GPFG.

The GPFG shall seek to obtain the highest possible return after costs measured in the currency basket of the benchmark, within the set management limits. The strategic benchmark index set by the Ministry of Finance is divided into three asset classes with an allocation of 60% to equities, up to 5% to real estate and the remainder to bonds. The benchmark for equities is constructed based on market capitalisation for equities in the countries included in the benchmark. The benchmark for bonds specifies a defined allocation between government bonds and corporate bonds. The currency distribution is a result of these weighting principles. The GPFG may not invest in securities issued by Norwegian entities or issued in Norwegian kroner. These securities are also excluded from the benchmark. The GPFG can also not invest in real estate located in Norway.

### NORGES BANK'S GOVERNANCE STRUCTURE

The Executive Board of Norges Bank has delegated the responsibility for the management of the GPFG to the Chief Executive Officer (CEO) of Norges Bank Investment Management.

The CEO of Norges Bank Investment Management is authorised through a job description and an investment mandate. The Executive Board has issued principles for risk management, responsible

investment and compensation to Norges Bank Investment Management employees. The organisation must adhere to internationally recognised standards in the areas of valuation, performance measurement and management, measurement and control of risk. Reporting to the Executive Board is carried out monthly, and more extensively on a quarterly basis. The governor of Norges Bank and the Executive Board are notified immediately in the event of special events or significant matters.

### GOVERNANCE STRUCTURE

Investment responsibilities within Norges Bank Investment Management are further delegated through investment mandates. Responsibility for processes and personnel is delegated through job descriptions, while process requirements are described in policies and guidelines. The composition of the leader group and the delegation of authority shall ensure segregation of duties between investment management, treasury and trading, operations, risk management and compliance. Real estate is structured as a separate unit with its own leader group, and the CEO for Real estate reports to the CEO of Norges Bank Investment Management.

The investment risk committee complements the delegation of responsibility by advising on investment risk management, and the investment universe committee advises on the portfolio's investment universe.

Internal risk reporting requirements are set by Norges Bank Investment Management's CEO through job descriptions in the risk area. Reporting to the CEO is carried out on a daily, weekly and monthly basis. The CEO shall be notified immediately of any special events or serious breaches of the investment mandate. Equivalent reporting requirements are embedded in the real estate organisation.

#### FRAMEWORK FOR INVESTMENT RISK

In the investment mandate for the GPF, there are a number of limits and restrictions within the combined equity and bond asset class, as well as within the individual asset classes. The investment mandate contains a separate management framework for real estate investments. The framework underpins how a diversified exposure to global real estate markets shall be established and managed.

Clear roles and responsibilities are a cornerstone of process design at Norges Bank Investment Management. Changes to existing investment mandates, the portfolio hierarchy or new counterparties are monitored and require approval by the Chief Risk Officer (CRO), or a person authorised by the CRO.

The Executive Board's principles for risk management are further described through policies and guidelines. Responsibility for effective processes related to risk management is delegated to the CRO and Chief Compliance Officer (CCO). Risk management related to unlisted real estate investments is delegated to the CRO and CCO in Real Estate.

Risk management is defined as management of market risk, credit risk, counterparty risk, operational risk and risk related to environmental, social and governance factors. The first three items listed are defined as investment risk. Within Norges Bank Investment Management, the investment area is responsible for managing risk in the portfolio and in individual mandates, while the risk management areas independently measure, manage and report investment risk across the portfolio, asset classes and other levels within the portfolio that reflect the investment process. In Real Estate, independent risk analyses are required in advance of new unlisted investments.

#### *Investment risk - market risk*

Norges Bank Investment Management defines market risk as the risk of loss or a change in the market value of the portfolio, or parts of the portfolio, due to changes in financial market variables and real estate values. Market risk for the investment portfolio, both absolute and relative to the benchmark, is measured along the dimensions concentration risk, volatility and correlation risk, systematic

factor risk and liquidity risk. For real estate, this involves measurement of the share of real estate under construction, vacancy and tenant concentration. Market risk is actively taken to generate investment returns in line with the objectives of the investment mandates.

#### *Investment risk - credit risk*

Norges Bank Investment Management defines credit risk as the risk of loss due to an issuer not meeting its payment obligations. Credit risk is measured both in relation to single issuers, where the probability of default and loss given default are taken into account, and portfolio credit risk, where credit risk takes into account the correlation of credit losses between instruments and issuers. Credit risk is actively taken to generate investment returns in line with the objectives of the investment mandates.

#### *Investment risk - counterparty risk*

Norges Bank Investment Management defines counterparty risk as the risk of loss due to counterparty bankruptcy or other events leading to counterparties defaulting. Counterparties are necessary to ensure effective liquidity management and effective trading and management of market and credit risk. Counterparty risk also arises in connection with securities lending and with the management of the equity and bond portfolios, as well as the real estate portfolio. Counterparty risk is controlled and limited to the greatest extent possible, given the investment strategy.

#### *Risk management process*

Norges Bank Investment Management employs several measurement methodologies, processes and systems to control investment risk. Robust and widely accepted risk management systems and processes are complemented by internally developed measurement methodologies and processes.

#### MARKET RISK

Norges Bank Investment Management measures market risk in both absolute terms for the actual portfolio, and the relative market risk for holdings in the GPF.

Continuous monitoring, measurement and assessment of market risk is performed along multiple risk dimensions, employing a number of methodologies and approaches. Combining different and complementary risk measures provides a better insight into the risk profile of the holdings in the GPF.

#### *Asset class by country and currency*

The portfolio is invested across several asset classes, countries and currencies as shown in Table 8.1.

Table 8.1 Allocation by asset class, country and currency

Asset class	Market	Market value in percent by country and currency <sup>1</sup>		Market value in percent by asset class		Assets minus liabilities excluding management fee		
		31 Dec. 2016	Market	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015
Equities	Developed	90.5	Developed	91.0				
	US	37.6	US	35.5				
	UK	9.8	UK	11.3				
	Japan	9.0	Japan	9.3				
	Germany	5.4	Germany	5.7				
	France	5.2	Switzerland	5.5				
	Total other	23.5	Total other	23.7				
	<b>Emerging</b>	<b>9.5</b>	<b>Emerging</b>	<b>9.0</b>				
	China	2.7	China	2.9				
	Taiwan	1.5	Taiwan	1.4				
	India	1.0	India	1.1				
	Brazil	0.8	South Africa	0.5				
	South Africa	0.6	Brazil	0.5				
	Total other	2.9	Total other	2.6				
<b>Total equities</b>					<b>62.47</b>	<b>61.16</b>	<b>4 691 863</b>	<b>4 571 807</b>
Fixed-income	Developed	87.6	Developed	87.6				
	US dollar	43.7	US dollar	42.0				
	Euro	25.3	Euro	25.5				
	Japanese yen	5.9	Japanese yen	6.5				
	Pound sterling	4.6	Pound sterling	5.4				
	Canadian dollar	3.0	Canadian dollar	3.0				
	Total other	5.1	Total other	5.2				
	<b>Emerging</b>	<b>12.4</b>	<b>Emerging</b>	<b>12.4</b>				
	Mexican peso	1.9	Mexican peso	1.9				
	South Korean won	1.7	South Korean won	1.6				
	Indian rupee	0.9	Turkish lira	1.0				
	Polish zloty	0.8	Indian rupee	1.0				
	Brazilian real	0.8	Chinese yuan	0.8				
	Total other	6.3	Total other	6.1				
<b>Total fixed income</b>					<b>34.31</b>	<b>35.69</b>	<b>2 576 875</b>	<b>2 668 147</b>
Real estate	US	46.0	US	44.3				
	UK	23.0	UK	27.6				
	France	14.6	France	11.1				
	Germany	7.6	Germany	7.3				
	Switzerland	3.6	Switzerland	3.8				
	Total other	5.2	Total other	5.9				
<b>Total real estate<sup>2</sup></b>					<b>3.22</b>	<b>3.15</b>	<b>241 756</b>	<b>235 199</b>

1 Market value in percent per country and currency includes derivatives and cash.

2 Total real estate includes listed real estate investments. These are presented in the balance sheet as *Equities and units*.

### Concentration risk

The GPFG has substantial investments in government-issued bonds. The portfolio also has investments in private companies that issue both bonds and equities.

At the end of the year, the share of equities in the fund was 62.5%. This is an increase of 1.3 percentage points compared to year-end 2015, where the share was 61.2%. The share of the bond portfolio in

the fund decreased to 34.3% as per year-end 2016, from 35.7% at the end of 2015. This change in asset class allocation in 2016 was mainly a result of better returns for equities than bonds. Emerging markets had stronger equity returns than developed markets. This resulted in an increase of the share of equities invested in emerging markets. The real estate portfolio's share of the fund increased by 0.1 percentage point in 2016 to 3.2%.

Table 8.2 shows the largest holdings in bonds issued by governments. These include government bonds issued in local currency, sovereign bonds and inflation-linked bonds issued in local currency.

Table 8.2 Largest holdings within the segment government bonds

Amounts in NOK millions	Market value 31 Dec. 2016	Amounts in NOK millions	Market value 31 Dec. 2015
US	579 357	US	532 806
Japan	161 544	Japan	203 895
Germany	137 231	Germany	163 019
UK	88 983	UK	84 952
Mexico	54 214	Mexico	56 678
South Korea	51 995	South Korea	50 318
France	49 121	Spain	45 175
Italy	43 339	France	41 870
Spain	34 926	Italy	41 018
India	30 695	India	32 888

Table 8.3 shows the portfolio's largest holdings of non-government issuers, including both bond and equity holdings. Covered bonds issued by financial institutions and debt issued by other underlying companies are included in the bonds column.

Table 8.3 Largest holdings excluding sovereigns, both bonds and equities

Amounts in NOK millions	Sector	Equities	Bonds	31 Dec. 2016 Total
Nestlé SA	Consumer goods	50 985	710	51 696
Apple Inc	Technology	44 965	4 648	49 613
Royal Dutch Shell Plc	Oil and gas	46 153	3 287	49 440
Bank of America Corp	Finance	18 153	20 291	38 444
JPMorgan Chase & Co	Finance	23 211	14 998	38 209
Microsoft Corp	Technology	34 665	2 947	37 612
Alphabet Inc	Technology	36 566	955	37 521
Novartis AG	Healthcare	32 349	2 675	35 024
Roche Holding AG	Healthcare	32 896	2 110	35 005
Kreditanstalt für Wiederaufbau	Government-related	-	34 529	34 529

Amounts in NOK millions	Sector	Equities	Bonds	31 Dec. 2015 Total
Nestlé SA	Consumer goods	51 056	737	51 793
Apple Inc	Technology	41 599	2 864	44 463
Roche Holding AG	Healthcare	34 980	2 322	37 302
Novartis AG	Healthcare	33 935	3 066	37 001
Lloyds Banking Group Plc	Finance	17 412	18 516	35 928
Bank of America Corp	Finance	12 358	21 151	33 509
HSBC Holdings Plc	Finance	27 242	5 973	33 215
Kreditanstalt für Wiederaufbau	Government-related	-	33 187	33 187
Microsoft Corp	Technology	30 448	2 532	32 980
JPMorgan Chase & Co	Finance	17 583	15 074	32 657

Table 8.4 shows the composition of the real estate portfolio per sector. The allocation between sectors and between listed and unlisted real estate investments is based on net asset values.

Table 8.4 Distribution of real estate investments per sector, percent

Sector	31 Dec. 2016	31 Dec. 2015
Office	50.2	48.0
Retail	9.5	9.4
Logistics	17.5	18.8
Other	1.7	0.8
<b>Total unlisted real estate investments<sup>1</sup></b>	<b>78.9</b>	<b>77.0</b>
Listed real estate investments <sup>1</sup>	21.1	23.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

<sup>1</sup> Unlisted real estate investments are presented in the balance sheet as *Unlisted real estate*. Listed real estate investments are presented in the balance sheet as *Equities and units*.

#### Volatility and correlation risk

Norges Bank Investment Management uses models to quantify the risk of value changes associated with all or parts of the portfolio. Volatility is a standard risk measurement based on the statistical concept of standard deviation, which takes into account the correlation between different investments in the portfolio. This risk measure provides an estimate of how much one can expect the portfolio value to change or fluctuate, based on market conditions over the past three years. In two of three years, the portfolio return is expected to be lower than the estimated volatility and higher than the negative value of the estimated volatility. Expected

volatility can be expressed in terms of the portfolio's absolute risk or relative risk. Norges Bank Investment Management uses the same model for portfolio risk as for relative volatility.

In accordance with current investment mandates as per 31 December 2016 issued by the Ministry of Finance and the Executive Board of Norges Bank, as well as internal guidelines for investment and risk management, unlisted real estate investments are not included in the calculations for relative volatility. Real estate is included in the framework for relative volatility in the new investment management mandate, effective from 2017.

#### CALCULATION OF EXPECTED VOLATILITY

Expected volatility for the portfolio, and volatility relative to the benchmark index, is estimated by using a parametric calculation method based on current investments. The model weights weekly return data equally over a sampling period of three years.

In addition to the mentioned model, other risk models are employed that capture the market dynamics of recent periods to a greater extent, as well as models that measure tail risk.

Expected shortfall is a tail risk measure that measures the expected loss of a portfolio in extreme

market situations. The expected shortfall measure provides an estimate of the annualised expected loss for a given confidence level. Shortfall at a 97.5% confidence level is based on historical simulations and given by the annualised average relative return, measured in the currency basket, for the 2.5% worst weeks.

#### CALCULATION OF EXPECTED SHORTFALL

Expected shortfall for the portfolio, measured against its benchmark index, is estimated using historical simulations based on current investments. The model weights weekly returns equally over a sampling period of ten years, so that the measure can capture extreme market movements. A confidence level of 97.5% is used for the calculations.

Tables 8.5 and 8.6 present risk both in terms of the portfolio's absolute risk and the relative risk.

Table 8.5 Portfolio risk in terms of expected volatility, in percent

	Expected volatility, actual portfolio							
	31 Dec. 2016	Min 2016	Max 2016	Average 2016	31 Dec. 2015	Min 2015	Max 2015	Average 2015
Portfolio	10.6	10.2	10.7	10.5	10.4	8.1	10.4	9.5
Equities	14.0	12.9	14.1	13.7	12.9	10.9	12.9	12.0
Fixed-income	9.7	9.6	10.3	10.0	10.1	7.9	10.2	9.4

Table 8.6 Relative risk, expected relative volatility, in basis points

	Expected relative volatility							
	31 Dec. 2016	Min 2016	Max 2016	Average 2016	31 Dec. 2015	Min 2015	Max 2015	Average 2015
Equity and fixed income portfolio <sup>1</sup>	28	26	29	28	28	26	38	32
Equities	37	34	38	36	36	35	52	42
Fixed-income	44	41	55	51	52	52	64	57

<sup>1</sup> Real estate is included in the framework for relative volatility in the new investment management mandate, effective from 2017.

Risk measured as expected volatility shows a slight increase in 2016, from 10.4% at the start of the year to 10.6% at the end of 2016. Expected volatility for the equity portfolio increased by 1.1 percentage points to 14.0% at year-end 2016, while volatility for the bond portfolio decreased by 0.4 percentage point to 9.7% at year-end 2016. The risk measure indicates expected annual value fluctuations in the fund of 10.6%, or approximately NOK 800bn.

The mandate for the GPFG outlines that expected relative volatility for the aggregated equity and bond portfolio shall not exceed a limit of 125 basis points. This limit was increased from 100 basis points on 1 February 2016. Measurement of risk and follow up of compliance with the limit is monitored based on

the risk model described above. Expected relative volatility for the fund has been relatively stable in 2016 and was 28 basis points at the end of the year, which is in line with the level as per year-end 2015.

With effect from 1 March 2016, the Executive Board introduced a limit for expected shortfall for the aggregated equity and fixed-income investments and the associated benchmark index. Norges Bank Investment Management shall organise the management with the aim that the annualised expected shortfall does not exceed 3.75 percentage points. Expected shortfall is measured and monitored based on the risk models described above. At the end of the year, expected shortfall was 0.87 percentage point, compared to 0.95 percentage point at year-end 2015.

*Strengths and weaknesses*

The strength of these types of risk models is that one can estimate the risk in a portfolio across different asset classes, markets, currencies, securities and derivatives and express this risk as a single numerical value, which takes into account the correlation between different asset classes, securities and risk factors.

The model-based risk estimates are based on historical relationships and will provide reliable forecasts in markets without significant changes in volatility. Estimates will be less reliable in periods marked by significant changes in volatility and correlation. Calculated volatility gives a point estimate of risk and provides little information on the total

risk profile and any tail risk. Annualisation means that it is assumed that volatility and the composition of the portfolio are consistent over time. To compensate for these shortcomings, complementary models and methods are employed, such as stress tests and analyses of concentration risk and realised return.

**CREDIT RISK**

Credit risk is the risk of losses resulting from issuers of bonds defaulting on their payment obligations. Bonds in the portfolio's benchmark index are all rated investment grade by one of the major credit rating agencies. Investments in bonds are made based on internal assessments of expected return and risk profile.

Table 8.7 Bond portfolio specified by credit rating

Amounts in NOK millions, 31 Dec. 2016	AAA	AA	A	BBB	Lower rating	Total
Government bonds	716 767	260 859	271 238	173 321	39 176	1 461 360
Government-related bonds	143 279	136 550	36 316	15 579	2 413	334 137
Inflation-linked bonds	109 025	9 493	3 662	12 459	6 175	140 814
Corporate bonds	5 290	59 469	219 333	297 198	9 856	591 146
Securitised bonds	126 001	16 054	2 010	3 499	-	147 564
<b>Total bonds</b>	<b>1 100 361</b>	<b>482 424</b>	<b>532 559</b>	<b>502 058</b>	<b>57 620</b>	<b>2 675 021</b>

Amounts in NOK millions, 31 Dec. 2015	AAA	AA	A	BBB	Lower rating	Total
Government bonds	729 752	250 061	310 491	199 943	2 883	1 493 128
Government-related bonds	164 106	154 183	31 908	32 097	4 534	386 829
Inflation-linked bonds	86 119	6 897	3 095	24 164	-	120 275
Corporate bonds	3 216	43 196	208 613	281 665	11 193	547 882
Securitised bonds	134 834	21 973	6 626	6 566	134	170 133
<b>Total bonds</b>	<b>1 118 027</b>	<b>476 310</b>	<b>560 733</b>	<b>544 435</b>	<b>18 744</b>	<b>2 718 247</b>

During 2016, the share of holdings in government-related bonds and securitised bonds was slightly reduced while holdings in European and US corporate bonds increased. As per year-end, government and government-related bonds, including inflation-linked bonds, amounted to 72.4% of the bond portfolio compared to 73.6% at year-end 2015, while corporate bonds increased to 22.1% of the bond portfolio at the end of 2016 from 20.2% at year-end 2015.

The share of bonds grouped under *Lower rating* increased to 2.2% of the bond portfolio as per year-end 2016, compared to 0.7% per year-end 2015. This was mainly due to downgrades to this category for Brazil and Turkey as a result of lower growth forecasts and unstable political conditions.

Holdings of AAA bonds were stable through the year at 41.1% of the bond portfolio, while the share of AA bonds increased to 18.0% at the end of 2016 compared to 17.5% at year-end 2015. A and BBB bonds were similarly reduced to 19.9% and 18.8% at year-end 2016, from 20.6% and 20.0% at year-end 2015. Defaulted bonds had a market value of NOK 164m at year-end 2016, down from NOK 869m at year-end 2015. The nominal size of defaulted bonds was NOK 15.2bn at the end of 2016, compared to NOK 16.6bn at year-end 2015. Defaulted bonds are grouped under *Lower rating*. The total bond portfolio's credit quality decreased slightly during the year.

Table 8.8 Bond portfolio by credit rating and currency, in percent

31 Dec. 2016	AAA	AA	A	BBB	Lower rating	Total
US dollar	23.8	2.8	6.6	8.6	0.3	42.1
Euro	11.0	6.2	2.2	5.1	0.2	24.7
Japanese yen	-	-	6.6	-	-	6.6
Pound sterling	0.3	3.7	0.4	0.7	-	5.1
Canadian dollar	1.6	1.1	0.3	0.3	-	3.3
Other currencies	4.4	4.2	3.8	4.1	1.6	18.1
<b>Total</b>	<b>41.1</b>	<b>18.0</b>	<b>19.9</b>	<b>18.8</b>	<b>2.2</b>	<b>100.0</b>

31 Dec. 2015	AAA	AA	A	BBB	Lower rating	Total
US dollar	22.7	2.6	6.2	9.0	0.3	40.8
Euro	12.1	5.5	2.0	5.1	0.2	24.9
Japanese yen	-	-	7.8	-	-	7.8
Pound sterling	0.5	4.0	0.5	0.7	-	5.7
Canadian dollar	1.5	1.1	0.3	0.3	-	3.1
Other currencies	4.4	4.4	3.9	5.0	0.1	17.8
<b>Total</b>	<b>41.1</b>	<b>17.5</b>	<b>20.6</b>	<b>20.0</b>	<b>0.7</b>	<b>100.0</b>

At year-end 2016, there were no credit derivatives in the portfolio.

In addition to credit ratings from credit rating agencies, measurement of credit risk is complemented with credit risk models, of which one is based on credit ratings and the other is based on observable credit premiums. Both these methods also take into account correlation and expected value of bonds in a bankruptcy situation. The models are used for risk measurement and monitoring of credit risk in the fixed income portfolio.

#### COUNTERPARTY RISK

Counterparties are required to ensure efficient liquidity management and efficient trading and management of market and credit risk. Exposure to counterparty risk is related to trading in OTC derivatives and currency contracts, cleared OTC and listed derivatives, repurchase and reverse repurchase agreements, securities lending, securities posted as collateral in derivatives trades and participatory certificates. Unsecured deposits in banks are also defined as having counterparty risk. Such counterparty risk arises partly in connection with the daily cash management of the fund and in connection with purchases and sales of unlisted real estate. Furthermore, there is exposure to counterparty risk related to counterparties in the international settlement and custody systems where transactions settle. This can occur both for currency trades and for the purchase and sale of securities. Settlement risk and exposure from trades with long maturities are also defined as counterparty risk.

Various counterparties are used to reduce concentration risk and there are strict requirements for counterparty credit rating. Credit rating requirements are generally higher for counterparties to unsecured deposits in banks than in situations where collateral

is received. Changes in counterparty credit ratings are monitored continuously.

Netting agreements are in place for trades in OTC derivatives, currency contracts and repurchase and reverse repurchase agreements, in order to reduce counterparty risk. Further reduction of counterparty risk is achieved through requirements for collateral for counterparty net positions with a positive market value. For instruments where collateral is used, minimum requirements have been set, relating to the credit quality, time to maturity and concentration of the collateral. Netting and collateral agreements are entered into for all approved counterparties for these types of trades.

There are also requirements governing the way real estate transactions are conducted. Counterparty risk that arises is analysed in advance of the transaction and requires approval from the CRO. In 2016, 14 transactions were approved by the CRO through this process.

Counterparty risk is also reduced by setting exposure limits for individual counterparties. Exposure per counterparty is measured daily against limits set by the Executive Board and the CEO of Norges Bank Investment Management.

The methods used to calculate counterparty risk are in accordance with internationally recognised standards. In essence, it is the Basel regulations for banks that are used for measuring counterparty risk, with certain adjustments based on internal analyses. The risk models calculate the expected counterparty exposure in the event of a counterparty default. For OTC derivatives and currency contracts, the current exposure method in the Basel regulations is applied. For each contract, the market value and a rate for potential future exposure is calculated. Netting

agreements and collateral are taken into account in the calculation of net exposure.

For repurchase agreements, securities lending transactions executed through an external agent and securities posted as collateral in derivatives trades, a method is used that adds a premium to the market value to reflect the position's volatility. These positions are also adjusted for netting and actual collateral received and posted when determining net exposure.

Exposure to counterparty risk is related to counterparties in the settlement and custody systems, both for currency trades and for the purchase and sale of securities. Settlement risk for most currency trades is low. Settlement risk is reduced using the currency settlement system CLS (Continuous Linked Settlement), or by trading directly with custodians. In a few currencies, Norges Bank is exposed to settlement risk when the sold currency is delivered to the counterparty before the receipt of currency is confirmed. This type of exposure is included on the line *OTC derivatives including foreign exchange contracts* in Table 8.9.

Norges Bank Investment Management also invests in Saudi Arabian participatory certificates, which are instruments issued by registered foreign institutional investors to international investors. This instrument

causes counterparty risk against the issuer of the note.

In Table 8.9, exposure is broken down by type of activity/instrument associated with counterparty risk.

Total counterparty risk measured in terms of gross and net exposure has increased in 2016. Gross risk exposure increased by NOK 39.4bn to NOK 120.3bn, and net exposure increased by NOK 41.3bn to NOK 113.1bn.

The increase is mainly related to larger holdings in unsecured bank deposits and securities lending, as well as increased risk exposure from interest rate swaps cleared by a central clearing counterparty.

Gross risk exposure from securities lending increased to NOK 64.9bn at year-end 2016 from NOK 51.6bn at year-end 2015. Both bonds and equities are lent through the securities lending programme. During the year, there has been a change in the composition of securities lending transactions, where the proportion of bond lending increased to 49% of the total securities lending as per year-end 2016, from 30% at year-end 2015. The increase in net risk exposure was slightly higher than the increase in gross risk exposure throughout the year. This was mainly caused by reduced netting effects at year-end 2016 compared to year-end 2015.

Table 8.9 Counterparty risk by type of position

Amounts in NOK millions, 31 Dec. 2016	Gross exposure	Effect of netting	Collateral and guarantees	Net exposure
Securities lending	64 908	-	868	64 040
Unsecured bank deposits <sup>1</sup>	20 570	-	-	20 570
OTC derivatives including foreign exchange contracts	19 347	3 667	2 608	13 071
Cleared OTC and listed derivatives <sup>2</sup>	8 003	1 183	-1 685	8 505
Participatory certificates	3 934	-	-	3 934
Repurchase and reverse repurchase agreements	3 523	492	149	2 882
Settlement risk towards broker and long settlement transactions	50	-	-	50
<b>Total</b>	<b>120 335</b>	<b>5 342</b>	<b>1 940</b>	<b>113 054</b>

1 Includes bank deposits in non-consolidated real estate subsidiaries.

2 Relates to futures trades and interest rate swaps cleared by a central clearing counterparty.

Amounts in NOK millions, 31 Dec. 2015	Gross exposure	Effect of netting	Collateral and guarantees	Net exposure
Securities lending	51 551	-	1 390	50 161
Unsecured bank deposits <sup>1</sup>	5 084	-	-	5 084
OTC derivatives including foreign exchange contracts	17 003	7 068	340	9 595
Cleared OTC and listed derivatives <sup>2</sup>	2 327	21	-1	2 307
Participatory certificates	3 475	-	-	3 475
Repurchase and reverse repurchase agreements	1 386	728	-444	1 102
Settlement risk towards broker and long settlement transactions	60	-	-	60
<b>Total</b>	<b>80 886</b>	<b>7 817</b>	<b>1 285</b>	<b>71 785</b>

1 Includes bank deposits in non-consolidated real estate subsidiaries.

2 Relates to futures trades and interest rate swaps cleared by a central clearing counterparty.

The line *OTC derivatives including foreign exchange contracts* in the table comprises foreign exchange derivatives, equity derivatives (excluding participatory certificates) and interest rate swaps. Counterparty risk for positions in derivatives is followed up on a net basis.

Norges Bank's counterparties have a credit rating from independent credit rating agencies. An internal credit evaluation can only be used as the basis for counterparty approval in instances when the counterparty risk is considered low. Credit ratings for counterparties are monitored and complemented by alternative credit risk indicators.

Table 8.10 shows approved counterparties classified according to their credit rating category at year-end 2016. The table also includes brokers that are used when purchasing and selling securities.

Table 8.10 Counterparties by credit rating<sup>1</sup>

	Norges Bank's counterparties (excluding brokers)		Brokers	
	31 Dec. 2016	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015
AAA	-	-	-	-
AA	30	28	28	28
A	58	62	72	70
BBB	15	16	24	24
BB	1	-	11	5
B	-	-	18	15
<b>Total</b>	<b>104</b>	<b>106</b>	<b>153</b>	<b>142</b>

<sup>1</sup> As counterparties are counted per legal entity, several counterparties may be included per corporate group.

During the year, there has been a slight decrease in the number of counterparties, to 104 at year-end 2016, from 106 at year-end 2015. The number of brokers increased to 153 at year-end 2016, from 142 at year-end 2015. This is mainly due to more brokers in emerging markets such as China, Russia and South Africa.

#### Verification of models

Risk models used in estimating and controlling investment risk are continuously evaluated and verified for their ability to estimate risk. The special nature of the investment portfolio and the investment universe, as well as the GPF's long-term investment horizon are taken into account when evaluating the models.

#### LEVERAGE

Leverage may be used to ensure effective management of the investments, but not with the aim of increasing the economic exposure to risky assets. The use of leverage is regulated both in the investment management mandate issued by the Ministry of Finance and in the investment mandate issued by the Executive Board of Norges Bank to Norges Bank

Investment Management. Leverage is the difference between total net exposure and market value of the portfolio. Net exposure is determined by including the market value of securities and positions in derivatives are converted to underlying exposure. When exposure is greater than market value, the portfolio is leveraged.

The GPF's leverage was 0.9% for the aggregated equity and bond portfolio at the end of 2016, compared to 0.1% at the end of 2015. For the real estate portfolio, there are set requirements in the investment mandate from the Executive Board in Norges Bank limiting the maximum leverage of the portfolio to 35%. The real estate portfolio had a leverage of 7.7% at the end of 2016.

#### SALE OF SECURITIES NORGES BANK DOES NOT OWN

Sale of securities not owned by Norges Bank (short sales) can only be carried out if there are established borrowing agreements to cover a negative position. Such transactions are rarely undertaken, and no securities had been sold in this manner at year-end 2016.

## GPFG Note 9 Tax



### ACCOUNTING POLICY

Norges Bank is exempt from income tax on its operations in Norway, but is subject to taxes in a number of foreign jurisdictions. *Tax expense* in the income statement represents income taxes that are not reimbursed through local tax laws or treaties, and consists of taxes on dividends, interest income and capital gains related to investments in *Equities and units* and *Bonds*, as well as tax on fee income from *Secured lending*. The majority of these taxes are collected at source.

Withholding taxes, net of deductions for refundable amounts, are recognised at the same time as the related dividend or interest income. See the accounting policy in Note 4 *Income/expense from Equities and units, Bonds and Financial derivatives*. Refundable withholding taxes are recognised in the balance sheet as a receivable within *Other assets*.

Other income tax, not collected at source, is recognised in the income statement in the period the related income or gains arise and is presented in the balance sheet as a payable within *Other liabilities*, until it has been settled.

Current and deferred income taxes incurred within companies included in *Unlisted real estate* are recognised in the income statement as *Income/expense from unlisted real estate*, and are specified in Note 6 *Unlisted real estate*, Table 6.3. Tax payable and deferred tax balances are specified in Table 6.4 in the same note.

All uncertain tax positions, such as disputed refundable amounts for withholding taxes as well as tax payable positions in a limited number of jurisdictions, are assessed each reporting period. The best estimate of the probable amount for collection or payment is recognised in the balance sheet.

Table 9.1 shows tax expenses per type of investment and type of tax.

Table 9.1 Specification tax expense

Amounts in NOK millions, 2016	Gross income before taxes	Income tax on dividend, interest and fees	Capital gains tax	Other	Tax expense	Net income after taxes
<b>Income/expense from:</b>						
Equities and units	342 813	-3 887	-18	-	-3 905	338 908
Bonds	100 250	-62	-27	-	-89	100 161
Secured lending	4 013	-67	-	-	-67	3 946
Other	-	-	-	-	-	-
<b>Tax expense</b>		<b>-4 016</b>	<b>-45</b>	<b>-</b>	<b>-4 061</b>	

Amounts in NOK millions, 2015	Gross income before taxes	Income tax on dividend, interest and fees	Capital gains tax	Other	Tax expense	Net income after taxes
<b>Income/expense from:</b>						
Equities and units <sup>1</sup>	284 414	-2 490	-5	-	-2 495	281 919
Bonds	36 160	-62	-17	-	-79	36 081
Secured lending	3 266	-53	-	-	-53	3 213
Other	-	-	-	-1	-1	-
<b>Tax expense</b>		<b>-2 605</b>	<b>-22</b>	<b>-1</b>	<b>-2 628</b>	

1 Comparable amounts for *Equities and units* have been restated to conform to current year presentation.

Table 9.2 shows withholding tax receivable and tax payable recognised in the balance sheet within *Other Assets* and *Other liabilities*, respectively.

Table 9.2 Specification of tax assets and liabilities

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Withholding tax receivable	600	1 546
Tax payable	-	1

## GPFG Note 10 Management costs



### ACCOUNTING POLICY

Management fee is recognised in the GPFG's income statement as an expense. Management fee is accrued throughout the financial year, but is cash settled in the following year. Management fee payable is a financial liability classified as a loan and measured at amortised cost.

The GPFG is managed by Norges Bank. Costs relating to the management of the fund are mainly incurred in Norges Bank. Management costs are also incurred in subsidiaries of Norges Bank exclusively established as part of the management of the GPFG's investments in unlisted real estate.

### MANAGEMENT COSTS IN NORGES BANK

The Ministry of Finance reimburses Norges Bank for costs incurred in connection with the management

of the GPFG, in the form of a management fee. The management fee is equivalent to the actual costs incurred by Norges Bank, including performance-based fees to external managers, and is expensed in the income statement line *Management fee*. Costs included in the management fee are specified in Table 10.1.

Table 10.1 Management fee

Amounts in NOK millions	2016		2015	
		Basis points		Basis points
Salary, social security and other personnel related costs	1 177		1 134	
Custody costs	379		394	
IT services, systems, data and information	649		638	
Research, consulting and legal fees	261		245	
Other costs	244		200	
Allocated costs Norges Bank	161		129	
Base fees to external managers	638		615	
<b>Management fee excluding performance-based fees</b>	<b>3 509</b>	<b>4.9</b>	<b>3 355</b>	<b>4.8</b>
Performance-based fees to external managers	222		578	
<b>Total management fee</b>	<b>3 731</b>	<b>5.2</b>	<b>3 933</b>	<b>5.7</b>

### MANAGEMENT COSTS IN SUBSIDIARIES

Management costs incurred in subsidiaries consist of operating costs related to the management of the unlisted real estate portfolio. These costs are specified in Table 10.2.

Table 10.2 Management costs, real estate subsidiaries

Amounts in NOK millions	2016	2015
Salary, social security and other personnel related costs	27	26
IT services, systems, data and information	36	31
Research, consulting and legal fees	19	25
Other costs	18	13
<b>Total management costs, real estate subsidiaries</b>	<b>100</b>	<b>95</b>
<i>Of which management costs non-consolidated subsidiaries</i>	<i>81</i>	<i>86</i>
<i>Of which management costs consolidated subsidiaries</i>	<i>19</i>	<i>9</i>

Management costs incurred in non-consolidated and consolidated subsidiaries are presented in the income statement as *Income/expense from unlisted real estate* and *Other costs*, respectively.

In addition to the management costs presented in Table 10.2, operating costs are also incurred in subsidiaries related to the ongoing maintenance, operation and development of properties and leases. These costs are not defined as management costs, since they are directly related to the underlying properties, and are not part of the management of the real estate portfolio. Other operating costs are expensed directly in the portfolio result and are presented in the income statement line *Income/expense from unlisted real estate*. See Table 6.3 in Note 6 *Unlisted real estate* for further information.

#### UPPER LIMIT FOR REIMBURSEMENT OF MANAGEMENT COSTS

The Ministry of Finance has established an upper limit for the reimbursement of management costs. For 2016, the sum of total management costs incurred in Norges Bank and its subsidiaries, exclud-

ing performance-based fees to external managers, is limited to 8 basis points of average assets under management. In accordance with guidelines from the Ministry of Finance, the calculation of average assets under management is based on the market value of the portfolio in Norwegian kroner at the start of each month in the calendar year. Other operating costs incurred in subsidiaries, as well as costs incurred in partly-owned real estate entities, are not included in the costs that are measured against this limit. Total management costs that are measured against the limit amount to NOK 3 609m in 2016. This consists of management costs in Norges Bank, excluding performance-based fees to external managers, of NOK 3 509m, and management costs in subsidiaries of NOK 100m. This corresponds to 5.0 basis points of assets under management on an annual basis.

Total management costs including performance-based fees amount to NOK 3 831m in 2016. This corresponds to 5.3 basis points of assets under management on an annual basis.

## GPFG Note 11 Secured lending and borrowing

Secured lending and borrowing are transactions where the GPFG posts or receives securities or cash from a counterparty which are collateralised (secured) by other securities or cash. The transactions take place under variations of agreements such as securities lending agreements, (reverse-

repurchase agreements and equity swaps in combination with purchases or sales of equities.

The objective of secured lending and borrowing is to provide an incremental return on the securities and cash holdings of the GPFG.



### ACCOUNTING POLICY

#### *Income and expense from secured lending and borrowing transactions*

Income or expense, comprising mainly interest and net fees is recognised on a straight-line basis over the term of the agreement and is presented in the income statement as *Income/expense from secured lending* or *Income/expense from secured borrowing*, respectively.

Table 11.1 specifies income and expense from secured lending and borrowing.

Table 11.1 Income/expense from secured lending and borrowing

Amounts in NOK millions	2016	2015
Income/expense from secured lending	4 013	3 266
Income/expense from secured borrowing	23	50
<b>Net income/expense from secured lending and borrowing</b>	<b>4 036</b>	<b>3 316</b>



### ACCOUNTING POLICY

#### *Transferred financial assets*

Securities lent to counterparties in connection with secured lending and borrowing transactions are not derecognised when the agreement is entered into, as the derecognition criteria are not met. As the counterparty has the right to sell or pledge the security, the security is considered transferred. Lent securities are presented on separate lines in the balance sheet, as *Equities lent* and *Bonds lent*. During the lending period, the accounting for the underlying securities is in accordance with accounting policies for the relevant securities.

#### *Secured lending*

Cash collateral posted to counterparties in secured lending transactions is derecognised. A corresponding receivable reflecting the cash amount that will be returned is recognised as a financial asset, *Secured lending*. This asset is designated at initial recognition as a financial asset measured at *fair value through profit or loss*.

#### *Secured borrowing*

Cash collateral received in connection with secured borrowing transactions is recognised as *Deposits in banks* together with a corresponding financial liability, *Secured borrowing*. This liability is designated at initial recognition as a financial liability measured at *fair value through profit or loss*.

#### *Collateral received in the form of securities*

Collateral in the form of securities, received through *Secured lending and borrowing* transactions, where the GPFG has the right to sell or pledge the security, is not recognised in the balance sheet, unless reinvested.

Table 11.2 shows the amount presented as *Secured lending* as well as associated collateral received in the form of securities.

Table 11.2 Secured lending

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
Secured lending	134 338	123 385
Of which unsettled trades (liability)	-7 725	-20 120
<b>Secured lending excluding unsettled trades</b>	<b>126 613</b>	<b>103 264</b>
<b>Associated collateral in the form of securities (off-balance sheet)</b>		
Equities received as collateral	31 970	28 603
Bonds received as collateral	101 011	78 912
<b>Total security collateral received related to lending</b>	<b>132 981</b>	<b>107 516</b>

Table 11.3 shows transferred securities with the associated liability presented as *Secured borrowing*, as well as collateral received in the form of securities.

Table 11.3 Transferred financial assets and secured borrowing

Amounts in NOK millions	31 Dec. 2016	31 Dec. 2015
<b>Transferred financial assets</b>		
Equities lent	340 865	312 662
Bonds lent	454 735	241 518
<b>Total transferred financial assets</b>	<b>795 600</b>	<b>554 180</b>
<b>Associated cash collateral, recognised as liability</b>		
Secured borrowing	213 520	149 735
Of which unsettled trades (asset)	-4 142	-15 520
<b>Secured borrowing excluding unsettled trades</b>	<b>209 378</b>	<b>134 215</b>
<b>Associated collateral in the form of securities or guarantees (off-balance sheet)</b>		
Equities received as collateral	388 340	290 529
Bonds received as collateral	236 471	146 803
<b>Total security collateral received related to transferred financial assets</b>	<b>624 811</b>	<b>437 332</b>

None of the collateral received in the form of securities has been reinvested per year-end 2016 or 2015. Therefore, these securities are not recognised in the balance sheet.

## GPF Note 12 Collateral and offsetting



### ACCOUNTING POLICY

#### *Cash collateral OTC derivative transactions*

Cash collateral posted in connection with OTC derivative transactions is derecognised. A corresponding receivable reflecting the cash amount that will be returned is recognised as an asset, *Cash collateral posted*. Cash collateral received in connection with OTC derivative transactions is recognised as *Deposits in banks* together with a corresponding liability, *Cash collateral received*. Both *Cash collateral posted* and *Cash collateral received* are designated at initial recognition as financial assets/liabilities measured at *fair value through profit or loss*.

#### *Offsetting*

Financial assets and liabilities are not offset and presented net in the balance sheet because the criteria in IAS 32 *Financial Instruments: Presentation* is not met. Table 12.1 therefore does not include a column for amounts offset/netted in the balance sheet.

### COLLATERAL

For various counterparties and transaction types, cash collateral will both be posted to and received from the same counterparty. Therefore, received cash collateral can be netted against posted cash collateral and vice-versa as shown in Table 12.1.

*Cash collateral posted* and *Cash collateral received* in the balance sheet are related exclusively to OTC derivative transactions. Collateral in the form of cash or securities is also posted and received in connection with secured lending and borrowing transactions, see Note 11 *Secured lending and borrowing* for more information.

### OFFSETTING

Table 12.1 shows an overview of financial assets and liabilities, the effects of legally enforceable netting agreements and related collateral to reduce credit risk. The column *Assets/Liabilities in the balance sheet subject to netting* shows the carrying amounts of financial assets and liabilities that are subject to legally enforceable netting agreements. These amounts are adjusted for effects of potential

netting with the same counterparty of recognised financial assets and liabilities, together with posted or received cash collateral. This results in a net exposure in the column *Assets/Liabilities after netting and collateral*.

Some netting agreements are considered to potentially not be legally enforceable. Transactions under such contracts are shown together with unsettled trades in the column *Unsettled trades and assets/liabilities not subject to enforceable netting agreements*. Unsettled trades can be cancelled if the counterparty defaults before assets involved in the trade are transferred.

In the event of counterparty default, a collective settlement between Norges Bank and the bankruptcy estate could be performed for certain groups of instruments, irrespective of whether the instruments belong to the GPF or Norges Bank's foreign exchange reserves. Such cross nettings will be settled between these portfolios and are therefore not adjusted for in the table.

Table 12.1 Assets and liabilities subject to netting agreements

Description	Amounts subject to enforceable master netting agreements						Gross financial assets recognised in the balance sheet	
	Amounts in NOK millions, 31 Dec. 2016	Assets in the balance sheet subject to netting	Financial liabilities related to same counterparty	Cash collateral received (recognised as liability)	Security collateral received (not recognised)	Assets after netting and collateral		Unsettled trades and assets not subject to enforceable netting agreements
<b>ASSETS</b>								
Secured lending		121 263	-	106 368	14 895	-	13 075	134 338
Cash collateral posted		2 320	2 320	-	-	-	-	2 320
Financial derivatives		5 114	2 519	2 573	-	22	4 252	9 366
<b>Total</b>		<b>128 697</b>	<b>4 839</b>	<b>108 941</b>	<b>14 895</b>	<b>22</b>	<b>17 327</b>	<b>146 024</b>

Description	Amounts subject to enforceable master netting agreements						Gross financial liabilities recognised in the balance sheet	
	Amounts in NOK millions, 31 Dec. 2016	Liabilities in the balance sheet subject to netting	Financial assets related to same counterparty	Cash collateral posted (recognised as asset)	Security collateral posted (not derecognised)	Liabilities after netting and collateral		Unsettled trades and liabilities not subject to enforceable netting agreements
<b>LIABILITIES</b>								
Secured borrowing		193 462	-	106 368	87 094	-	20 058	213 520
Cash collateral received		2 755	2 573	-	-	182	933	3 688
Financial derivatives		4 501	2 519	1 982	-	-	-	4 501
<b>Total</b>		<b>200 718</b>	<b>5 092</b>	<b>108 350</b>	<b>87 094</b>	<b>182</b>	<b>20 991</b>	<b>221 709</b>

Description	Amounts subject to enforceable master netting agreements						Gross financial assets recognised in the balance sheet	
	Amounts in NOK millions, 31 Dec. 2015	Assets in the balance sheet subject to netting	Financial liabilities related to same counterparty	Cash collateral received (recognised as liability)	Security collateral received (not recognised)	Assets after netting and collateral		Unsettled trades and assets not subject to enforceable netting agreements
<b>ASSETS</b>								
Secured lending		102 486	-	74 972	27 514	-	20 899	123 385
Cash collateral posted		2 231	2 227	-	-	4	-	2 231
Financial derivatives		5 535	2 918	2 528	-	89	3 294	8 829
<b>Total</b>		<b>110 252</b>	<b>5 145</b>	<b>77 500</b>	<b>27 514</b>	<b>93</b>	<b>24 193</b>	<b>134 445</b>

Description	Amounts subject to enforceable master netting agreements						Gross financial liabilities recognised in the balance sheet	
	Amounts in NOK millions, 31 Dec. 2015	Liabilities in the balance sheet subject to netting	Financial assets related to same counterparty	Cash collateral posted (recognised as asset)	Security collateral posted (not derecognised)	Liabilities after netting and collateral		Unsettled trades and liabilities not subject to enforceable netting agreements
<b>LIABILITIES</b>								
Secured borrowing		131 499	-	74 972	56 450	77	18 236	149 735
Cash collateral received		2 570	2 528	-	-	42	-	2 570
Financial derivatives		5 400	2 918	2 229	-	253	-134	5 266
<b>Total</b>		<b>139 469</b>	<b>5 446</b>	<b>77 201</b>	<b>56 450</b>	<b>372</b>	<b>18 102</b>	<b>157 571</b>

## GPFG Note 13 Related parties



### ACCOUNTING POLICY

Norges Bank is owned by the Norwegian government and under IAS 24.25 is exempt from the disclosure requirements pertaining to related party transactions and outstanding balances, including commitments, with the Norwegian government. This includes transactions with other entities that are related parties because the Norwegian government has control of, joint control of, or significant influence over both Norges Bank and the other entities.

Norges Bank, including the GPFG, is a separate legal entity that is wholly state-owned through the Ministry of Finance. See Note 1 *General information* for information regarding the relationship between the Ministry of Finance, Norges Bank and the GPFG. The GPFG conducts all transactions at market terms.

#### TRANSACTIONS WITH THE GOVERNMENT

The Ministry of Finance has placed funds for investment in the GPFG in the form of a Norwegian krone deposit with Norges Bank (the *krone account*). The krone deposit is subsequently placed with Norges Bank Investment Management for investment. In accordance with the management mandate for the GPFG, transfers are made to and from the krone account. See additional information regarding the inflow/withdrawal for the period in the *Statement of changes in owner's capital*.

#### TRANSACTIONS WITH NORGES BANK

Norges Bank is not exposed to any economic risk from the management of the GPFG. The Ministry of Finance reimburses Norges Bank for costs incurred in connection with the management of the GPFG in

the form of a management fee, see Note 10 *Management costs*. In 2016, NOK 3.9bn was deducted from the krone account to pay the accrued management fee for 2015 to Norges Bank.

Internal trades in the form of money market lending or borrowing and repurchase agreements between the GPFG and Norges Bank's long-term reserves are presented in the balance sheet as a net balance between the two reporting entities as *Other assets* and *Other liabilities*. At year-end 2016, the net balance between portfolios represented a liability for the GPFG of NOK 1.5bn. Associated income and expense items are presented net in the income statement as *Interest income/expense*.

#### TRANSACTIONS WITH SUBSIDIARIES

Subsidiaries of Norges Bank are exclusively established as part of the management of the GPFG's investments in unlisted real estate. For an overview of the principal companies see Note 14 *Interests in other entities*. For more information regarding transactions with subsidiaries see Note 6 *Unlisted real estate*.

## GPFG Note 14 Interests in other entities

Investments in unlisted real estate are made through subsidiaries of Norges Bank, exclusively established as part of the management of the GPFG. These subsidiaries invest, through holding companies, in entities that invest in properties. These entities may be subsidiaries or joint ventures.

The overall objective of the ownership structures used for unlisted real estate investments is to safeguard the financial wealth under management and

to ensure the highest possible net return after costs, in accordance with the mandate from the Ministry of Finance. The key criteria when deciding the ownership structure are legal protection, governance and operational efficiency. Tax expense may represent a significant cost for the unlisted real estate investments. The expected tax costs for the fund are therefore among the factors considered when determining the ownership structure.

Table 14.1 shows the principal companies that own and manage the properties as well as the consolidated subsidiaries.

Table 14.1 Real estate companies

Company	Business address	Property address	Ownership share and voting right in percent	Effective ownership share of underlying properties in percent	Recognised from
<b>Non-consolidated companies</b>					
<b>United Kingdom</b>					
NBIM George Partners LP	London	London	100.00	25.00	2011
MSC Property Intermediate Holdings Limited	London	Sheffield	50.00	50.00	2012
NBIM Charlotte Partners LP	London	London	100.00	57.75	2014
NBIM Edward BT	London	London	100.00	100.00	2014
NBIM Caroline Partners LP	London	London	100.00	100.00	2015
NBIM James Partners LP	London	London	100.00	100.00	2015
NBIM Henry Partners LP	London	London	100.00	100.00	2016
NBIM Elizabeth Partners LP	London	London	100.00	100.00	2016
<b>Luxembourg</b>					
NBIM S.à r.l.	Luxembourg	N/A	100.00	I/A	2011
<b>France</b>					
NBIM Louis SAS	Paris	Paris	100.00	50.00	2011
SCI 16 Matignon	Paris	Paris	50.00	50.00	2011
Champs Elysées Rond-Point SCI	Paris	Paris	50.00	50.00	2011
SCI PB 12	Paris	Paris	50.00	50.00	2011
SCI Malesherbes	Paris	Paris	50.00	50.00	2012
SCI 15 Scribe	Paris	Paris	50.00	50.00	2012
SAS 100 CE	Paris	Paris	50.00	50.00	2012
SCI Daumesnil	Paris	Paris	50.00	50.00	2012
SCI 9 Messine	Paris	Paris	50.00	50.00	2012
SCI Pasquier	Paris	Paris	50.00	50.00	2013
NBIM Marcel SCI	Paris	Paris	100.00	100.00	2014
NBIM Victor SCI	Paris	Paris	100.00	100.00	2016
<b>Germany</b>					
Die Welle 1 Frankfurt Immobilien GmbH & Co. KG	Cologne	Frankfurt	50.00	50.00	2012
Die Welle 3 Frankfurt Immobilien GmbH & Co. KG	Cologne	Frankfurt	50.00	50.00	2012
NKE Neues Kranzler Eck Berlin Immobilien GmbH & Co. KG	Cologne	Berlin	50.00	50.00	2012
Tower SZ Munich GmbH & Co. KG	Hamburg	Munich	50.00	50.00	2013
STEG LBG 2 S.C.S	Luxembourg	Munich	94.90	94.90	2014
STEG LBG 3 S.C.S	Luxembourg	Munich	94.90	94.90	2014
<b>Switzerland</b>					
NBIM Antoine CHF S.à r.l.	Luxembourg	Zürich	100.00	100.00	2012
<b>Europe</b>					
Prologis European Logistics Partners S.à r.l.	Luxembourg	Multiple European cities	50.00	50.00	2013

Company	Business address	Property address	Ownership share and voting right in percent	Effective ownership share of underlying properties in percent	Recognised from
<b>United States</b>					
T-C 1101 Pennsylvania Venture LLC	Wilmington, DE	Washington	49.90	49.90	2013
T-C Franklin Square Venture LLC	Wilmington, DE	Washington	49.90	49.90	2013
T-C 33 Arch Street Venture LLC	Wilmington, DE	Boston	49.90	49.90	2013
T-C 470 Park Avenue South Venture LLC	Wilmington, DE	New York	49.90	49.90	2013
T-C 475 Fifth Avenue Venture LLC	Wilmington, DE	New York	49.90	49.90	2013
No. 1 Times Square Development LLC	Wilmington, DE	New York	45.00	45.00	2013
OFC Boston LLC	Wilmington, DE	Boston	47.50	47.50	2013
425 MKT LLC	Wilmington, DE	San Francisco	47.50	47.50	2013
555 12th LLC	Wilmington, DE	Washington	47.50	47.50	2013
Prologis U.S. Logistics Venture LLC	Wilmington, DE	Multiple US cities	46.30	44.96	2014
OBS Boston LLC	Wilmington, DE	Boston	47.50	47.50	2014
100 Federal JV LLC	Wilmington, DE	Boston	45.00	45.00	2014
Atlantic Wharf JV LLC	Wilmington, DE	Boston	45.00	45.00	2014
BP/CGCenter MM LLC	Wilmington, DE	New York	45.00	45.00	2014
T-C 2 Herald Square Venture LLC	Wilmington, DE	New York	49.90	49.90	2014
T-C 800 17th Street Venture NW LLC	Wilmington, DE	Washington	49.90	49.90	2014
T-C Foundry Sq II Venture LLC	Wilmington, DE	San Francisco	49.90	49.90	2014
T-C Hall of States Venture LLC	Wilmington, DE	Washington	49.90	49.90	2014
SJP TS JV LLC	Wilmington, DE	New York	45.00	45.00	2015
T-C Republic Square Venture LLC	Wilmington, DE	Washington	49.90	49.90	2015
T-C 888 Brannan Venture LLC	Wilmington, DE	San Francisco	49.90	49.90	2015
Hudson Square Properties, LLC	Wilmington, DE	New York	48.00	48.00	2015
ConSquare LLC	Wilmington, DE	Washington	48.00	48.00	2016
100 First Street Member LLC	Wilmington, DE	San Francisco	44.00	44.00	2016
303 Second Street Member LLC	Wilmington, DE	San Francisco	44.00	44.00	2016
<b>Consolidated subsidiaries</b>					
<b>Singapore</b>					
NBRE Management Singapore Pte. Ltd.	Singapore	N/A	100.00	I/A	2015
<b>Japan</b>					
NBRE Management Japan Advisors K.K.	Tokyo	N/A	100.00	I/A	2015
<b>United Kingdom</b>					
NBRE Management Europe Limited	London	N/A	100.00	I/A	2016

The activity in the consolidated subsidiaries consists of providing investment-related services to the GPF. The activity is presented in the income statement as *Other costs* and in the balance sheet as *Other assets* and *Other liabilities*.

In addition to the companies shown in Table 14.1, Norges Bank has wholly-owned holding companies,

established in connection with investments in unlisted real estate. These holding companies do not engage in any operations and do not own any properties directly. The holding companies have their business address in the same country as the properties, or in relation to NBIM S.à r.l. in Luxembourg.

# Independent auditor's report

## Report on the Audit of the Financial Statements

### *Opinion*

We have audited the financial statements of Norges Bank which comprise the balance sheet as at 31 December 2016, income statement, statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements are prepared in accordance with law and regulations and give a true and fair view of the financial position of Norges Bank as at 31 December 2016, and its financial performance and its cash flows for the year then ended in accordance with the Accounting Act and the Regulation concerning annual financial reporting for Norges Bank. The Regulation requires the financial statements for Norges Bank to be prepared in accordance with International Financial Reporting Standards as endorsed by EU, but sets certain specific presentation requirements for the investment portfolio of the Government Pension Fund Global, including subsidiaries being part of the investment portfolio.

### *Basis for Opinion*

We conducted our audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, included International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of Norges Bank as required by laws and regulations, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### *Key Audit Matters*

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

**MANAGEMENT OF THE EQUITY AND FIXED-INCOME PORTFOLIOS IN THE FOREIGN EXCHANGE RESERVES AND THE GOVERNMENT PENSION FUND GLOBAL**

KEY AUDIT MATTER	HOW THE MATTER WAS ADDRESSED IN OUR AUDIT
<p>Processes and control activities in the equity and fixed-income management related to amongst others trading, securities lending, interest income and dividends, valuation, foreign currency translation and performance- and risk measurement are largely automated.</p> <p>Deviations in the automated processes are analysed and followed up.</p> <p>Norges Bank's IT systems are based on standard systems with varying degrees of customisation and modifications. The operation of the IT systems is largely outsourced to various service providers.</p> <p>IT systems used in portfolio management are essential for accounting and reporting.</p> <p>For a more detailed description of the development, management and operation of IT systems in Norges Bank, see the annual report of the executive board.</p> <p>Effective internal controls in the automated portfolio management processes as well as in handling deviations is vital to ensure accurate, complete and reliable financial reporting and is therefore a key audit matter.</p>	<p>Norges Bank has established overall governance models and control activities for evaluation of the equity and fixed-income management.</p> <p>We assessed those elements of the overall governance models that are relevant to financial reporting.</p> <p>We assessed and tested the design of the control activities related to IT operations, change management and information security. For a sample of these controls, we have tested if they have operated effectively in the reporting period.</p> <p>We assessed and tested the design of selected automated control activities for the IT systems related to trading, securities lending, recognition of interest income and dividends, valuation, foreign currency translation and performance- and risk measurement. For a sample of these controls, we have tested if they have operated effectively in the reporting period.</p> <p>We assessed and tested the design of selected manual control activities for the areas listed above related to analysis and the monitoring of deviations identified through the automated processes. For a sample of these controls, we have tested if they have operated effectively in the reporting period.</p> <p>We assessed various third party confirmations (ISAE 3402 reports) received from service providers that Norges Bank uses in portfolio management, to assess whether these service providers had adequate internal controls in areas that are important for Norges Bank's financial reporting. We used our own IT specialists to understand the overall governance model for IT and in the assessment and testing of the control activities related to IT.</p>

## NOTES AND COINS IN CIRCULATION

KEY AUDIT MATTER	HOW THE MATTER WAS ADDRESSED IN THE AUDIT
<p>Norges Bank is responsible for issuing cash (notes and coins).</p> <p>See Note 15 for a description of accounting policies for notes and coins and a description of the criteria for when notes and coins are recognized and derecognized from Norges Bank's balance sheet.</p> <p>A secure management of notes and coins in depots and in the ordering and destruction process is essential for accurate financial reporting of notes and coins in circulation and is therefore a key audit matter.</p>	<p>Norges Bank has established various control activities related to notes and coins in circulation.</p> <p>We assessed and tested the design of a sample of internal control activities established to ensure correct balance of notes and coins, including supplies of notes and coins, ordering and receiving new notes and coins, accounting for notes and coins placed into and withdrawn from circulation and the registration of destruction. For a sample of these controls, we have tested if they have operated effectively in the reporting period.</p> <p>For a sample cash depots we obtained reports from the inventory counts conducted by external third parties. For a random cash depot we conducted a re-count of parts of the depository. We compared the reports of the external third parties and the result of our re-count with information from Norges Bank on the balances for the depots.</p> <p>We also assessed whether the information about the notes and coins in circulation in notes 1 and 15 were adequate.</p>

## VALUATION OF INVESTMENTS IN UNLISTED REAL ESTATE, GOVERNMENT PENSION FUND GLOBAL

KEY AUDIT MATTER	HOW THE MATTER WAS ADDRESSED IN THE AUDIT
<p>The Government Pension Fund Global has invested in unlisted real estate through subsidiaries of Norges Bank. Investments in subsidiaries presented as unlisted real estate in the balance sheet are measured at fair value. See note 20, SPU notes 6 and 7 for a description of the investments, accounting policies and valuation methods.</p> <p>The valuation of unlisted real estate investments involves uncertainty and is based on information about each individual property type and location, as well as a number of assumptions and estimates. The assumptions and estimates are essential for the valuation, and the valuation of unlisted real estate is therefore a key audit matter.</p>	<p>Norges Bank has established various control activities for monitoring of the valuations conducted by external valuation specialists. We have assessed and tested the design of selected control activities related to key assumptions and estimates, including future revenue streams, expenses and applicable discount rates. For a sample of properties, we have tested if these control activities have operated effectively in the reporting period.</p> <p>For a sample of commercial properties in the United Kingdom, Germany and USA, we received the external valuation reports from Norges Bank and tested that the applied valuation methods were in accordance with generally accepted valuation standards and practices. We tested a sample of rental income against budget and assessed the reasonableness of the estimates for future rental income and discount rates with external sources. We assessed the valuer's independence, qualifications and experience.</p> <p>We used our own experts in the review of the valuation reports.</p> <p>We reconciled the fair value in the financial reporting with the valuation reports.</p> <p>We assessed whether the disclosures in note 20, SPU note 6 and 7 regarding valuation of unlisted real estate was adequate.</p>



**RISK AND RETURN DISCLOSURES, GOVERNMENT PENSION FUND GLOBAL**

<b>KEY AUDIT MATTER</b>	<b>HOW THE MATTER WAS ADDRESSED IN THE AUDIT</b>
<p>Returns are measured in foreign currency based on a weighted composition of currencies in the benchmark indices for equity and fixed-income investments.</p> <p>In the investment mandate for the Government Pension Fund Global, there are several limits and restrictions for the management of the fund.</p> <p>Absolute and relative return information for the Government Pension Fund Global's equity and fixed-income investments is presented in note 20, SPU note 3 Returns per asset class. Information regarding risk is presented in note 20, SPU note 8 Risk.</p> <p>Measurement of absolute and relative returns and information regarding market risk, presented in note 20, SPU note 8, tables 8.5 and 8.6 and in the section on volatility and correlation risk, is important information about the performance of, and risk associated with, management of the Government Pension Fund Global and is therefore a key audit matter.</p>	<p>Norges Bank has established various control activities related to the calculation of returns and market risk.</p> <p>We assessed and tested selected control activities related to the application of formulas in the calculations of returns, the consistency between accounting and performance measurement, and that external sources of information were accurate and correctly applied in the calculations.</p> <p>In addition, we recalculated that the absolute returns for the year, and relative returns for selected days, were calculated in accordance with the methods described in note 20, SPU note 3.</p> <p>For information regarding market risk in note 20, SPU note 8, tables 8.5 and 8.6, and in the section on volatility and correlation risk, we assessed whether the calculations were conducted in accordance with the calculation methods and assumptions as described in note 20, SPU note 8.</p> <p>In addition, we assessed and tested the design of selected controls established by Norges Bank to monitor the service provider. For a sample of these controls, we have tested if they have operated effectively in the reporting period.</p> <p>We collected and compared the reports from the service provider regarding market risk with the disclosures in note 20, SPU note 8, tables 8.5 and 8.6, and the disclosures regarding expected shortfall in the section on volatility and correlation risk.</p> <p>We assessed whether the disclosures on returns in note 3 and the disclosures on market risk in note 8, tables 8.5 and 8.6, and in the section on volatility and correlation risk were adequate.</p>

*Other information*

Management is responsible for the other information. The other information comprises the Annual report for 2016, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### *Responsibilities of the Executive Board and the Governor for the Financial Statements*

The Executive Board and the Governor are responsible for the preparation and fair presentation of the financial statements in accordance with the Regulation concerning annual financial reporting for Norges Bank. The Regulation requires the financial statements for Norges Bank to be prepared in accordance with International Financial Reporting Standards as endorsed by EU, but sets certain specific presentation requirements for the investment portfolio of the Government Pension Fund Global, including subsidiaries being part of the investment portfolio. The Executive Board and the Governor are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibilities for the Audit of the Financial Statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, included International Standards on Auditing (ISAs), we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error. We design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Norges Bank's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Executive Board and the Governor.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Executive Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We report to the Executive Board about our compliance with relevant ethical requirements, and about our communication to them about all relationships that reasonably could be considered to influence our independence, and, where relevant, about measures taken.

From the matters communicated with the Executive Board, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

## Report on Other Legal and Regulatory Requirements

### *Opinion on the Executive Board's report*

Based on our audit of the financial statements as described above, it is our opinion that the information presented in the Executive Board's report and in statements on Corporate Social Responsibility concerning the financial statements, and the allocation of the comprehensive income is consistent with the financial statements and complies with the instructions for Norges Bank.

### *Opinion on Registration and Documentation*

Based on our audit of the financial statements as described above, and control procedures we have considered necessary in accordance with the International Standard on Assurance Engagements (ISAE) 3000, *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*, it is our opinion that management has fulfilled its duty to produce a proper and clearly set out registration and documentation of the company's accounting information in accordance with the law and bookkeeping standards and practices generally accepted in Norway.

Oslo, 8 February 2017

Deloitte AS



**Aase Aa. Lundgaard**

*State Authorised Public Accountant*

**Note: Translation from the original Norwegian version has been made for information purposes only**

# RESOLUTION OF THE SUPERVISORY COUNCIL ON THE FINANCIAL STATEMENTS FOR 2016

The Supervisory Council adopted the following decision at its meeting on 23 February 2017:

- The Supervisory Council takes note of the Annual Report of the Executive Board for 2016.
- The Supervisory Council takes note of the auditor's report for Norges Bank for 2016 and adopts Norges Bank's financial statements for 2016.

- In accordance with the guidelines, the net loss of NOK 3bn is to be covered by a transfer from the Adjustment Fund. From the Transfer Fund, one-third, or NOK 17.7bn, will be transferred to the Treasury.

## THE SUPERVISORY COUNCIL'S STATEMENT ON THE MINUTES OF THE MEETINGS OF THE EXECUTIVE BOARD AND ITS SUPERVISION OF THE BANK

Under the Norges Bank Act, the Supervisory Council submits a separate report to the Storting concerning its supervision of the Bank. The report

for 2016 will be adopted by the Supervisory Council on 16 March 2017 and published upon submission to the Storting.

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