Norges Bank

Norges Bank Annual Report 2022

Norges Bank shall promote economic stability and manage substantial assets on behalf of the nation

2022
Key figures

The policy rate was raised to
2.75%
in 2022

Annual consumer price inflation was
5.8%
in 2022

The countercyclical capital buffer rate was
2.0%
at year-end 2022

In the settlement system, interbank payments totalling on average
NOK **339bn**
were settled daily in 2022

The market value of the Government Pension Fund Global was
NOK **12 429bn**
at year-end 2022

The market value of the foreign exchange reserves was
NOK **610bn**
at year-end 2022

Norges Bank's total comprehensive income was
NOK **-11.1bn**
in 2022

Transfers to the Treasury totalled
NOK **8.1bn**
in 2022

Norges Bank had
1 007
employees from 33 countries

Contents

1. About Norges Bank

Historically high inflation

After three decades of low and stable inflation, the Norwegian and global economy was marked by high inflation in 2022.

The year 2022 reminded us once again that unexpected events can abruptly change the economic outlook. In the aftermath of Russia's invasion of Ukraine, inflation rose to the highest levels seen since the 1980s, in both Norway and surrounding countries. Price stability is crucial for maintaining a well-functioning economy. When high inflation erodes purchasing power, those with low incomes and the smallest margins are normally impacted hardest. With the aim of curbing inflation, we have raised the policy rate faster than we had envisaged at the beginning of the year. At the same time, we have sought to avoid dampening the economy beyond that required to tackle inflation.

Geopolitical tensions have given rise to new challenges and have changed the threat landscape. Norges Bank has been concerned with, among other things, being equipped to respond effectively to cyber incidents that could threaten financial stability. Uncertainty and high inflation have also had an impact on global financial markets and on the management of the Government Pension Fund Global (the fund). The decline in both equity and bond markets resulted in a sharply negative return on the fund. At the same time, high oil and gas prices have resulted in historically large capital transfers to the fund, which helped sustain its market value.

A changing world poses challenges for both central banking and investment management at Norges Bank. In 2022, we presented Norges Bank's strategy for the coming years, Strategy 25. The strategy is designed to ensure that we are best able to accomplish our mission and shows our key priorities for the next three years.

In 2022, I took over as Governor and Pål Longva was appointed Deputy Governor. This Annual Report is testimony to what has been a demanding year, but also a very eventful one. I am deeply impressed by the work carried out by my colleagues at Norges Bank in 2022, and how they have dealt with an array of new challenges. In a turbulent world, it is important that we continue to challenge our thought processes and develop the skills of our employees. This is the best way we can accomplish our mission.

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The year 2022 reminded us once again that unexpected events can abruptly change the economic outlook.

Oslo, 8 February 2023

Ida Wolden Bache
Governor

Introduction to Norges Bank

Norges Bank is Norway's central bank and is responsible for monetary policy and for promoting financial stability and an efficient and secure payment system. Norges Bank also manages the Government Pension Fund Global and Norway's foreign exchange reserves.

About Norges Bank

The foundation of Norges Bank in 1816 was an important part of the nation-building process following the dissolution of the union with Denmark. The Storting (Norwegian parliament) gave the central bank two main tasks: to issue a Norwegian currency, the speciedaler, and to extend credit to firms and private individuals.

Today, Norges Bank no longer extends credit directly to the public. On the other hand, the Bank has been assigned a number of other tasks that it performs on behalf of the Norwegian people. The Bank has executive and advisory responsibilities in the area of monetary policy, manages Norway's foreign exchange reserves and the Government Pension Fund Global and is responsible for promoting robust payment systems and financial markets. In addition, the Bank has the sole right to issue Norwegian banknotes and coins.

> Norges Bank has been assigned a number of tasks on behalf of the Norwegian people.

Governance

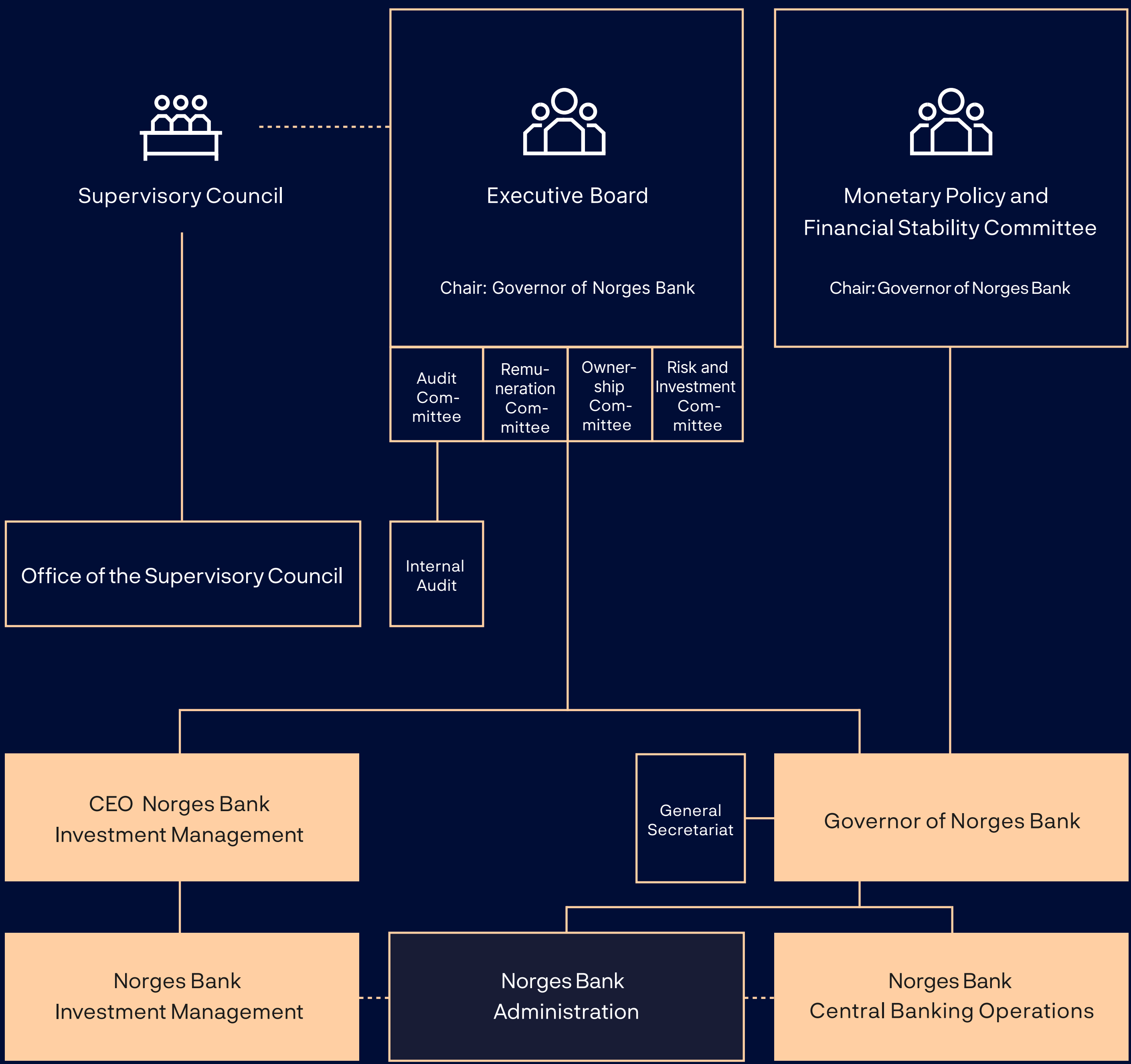
Norges Bank's activities are regulated by the Act of 21 June 2019 No 31 relating to Norges Bank and the Monetary System etc (the Central Bank Act). Norges Bank's responsibility for the management of the Government Pension Fund Global is regulated by the Central Bank Act, the Government Pension Fund Act and the management mandate for the fund issued by the Ministry of Finance.

Under the Central Bank Act, the Governor is the general manager of Norges Bank. However, the Executive Board appoints a separate CEO responsible for the management of the Government Pension Fund Global. The Executive Board, which consists of the Governor (Chair), Deputy Governors, and six external members, and two employee representatives who attend Board meetings when administrative matters are on the agenda, is further responsible for ensuring the sound and efficient organisation of the Bank's operations. The Executive Board is also responsible for the management of the Government Pension Fund Global. The Governor, the two Deputy Governors and the external members are appointed by the King in Council.

The Monetary Policy and Financial Stability Committee comprises the Governor (chair), the two Deputy Governors and two external members. The external members are appointed by the King in the Council of State. The Committee is Norges Bank's executive and advisory authority for monetary policy and is responsible for the use of instruments to achieve monetary policy objectives. Its aim is to contribute to promoting financial stability by providing advice and using the instruments at its disposal.

Norges Bank's Supervisory Council is appointed by the Storting and comprises 15 members. The Supervisory Council is Norges Bank's supervisory body. The Council's area of responsibility includes approving the budget proposed by the Executive Board, adopting the annual accounts and selecting the Bank's auditor, and approving the auditor's plans and expenses.

Organisation of Norges Bank



Organisation

Norges Bank's governing bodies are the Executive Board, the Monetary Policy and Financial Stability Committee and the Supervisory Council. Norges Bank consists of Central Banking Operations and Norges Bank Investment Management, as well as Norges Bank Administration, a unit that provides shared support functions.

Norges Bank Central Banking Operations is headed by the Governor of Norges Bank and comprises four departments: Monetary Policy, Financial Stability, Markets and IT. The head of Norges Bank Administration also reports to the Governor.

Norges Bank Investment Management is responsible for managing the Government Pension Fund Global. The separate CEO is appointed by the Executive Board. Norges Bank Investment Management comprises the following units: Technology and Operations, Governance and Compliance, Asset Strategies, Equity Strategies, Real Assets, Investment Risk and Staff.

Norges Bank Investment Management is an international organisation with offices in Oslo, London, New York, Shanghai and Singapore, and subsidiaries in Tokyo, Paris and Luxembourg.

> Norges Bank's governing bodies are the Executive Board, the Monetary Policy and Financial Stability Committee and the Supervisory Council.

Trond Grande, Deputy Chief Executive Officer, Norges Bank Investment Management, Nicolai Tangen, Chief Executive Officer, Norges Bank Investment Management and Carine Smith Ihenacho, Chief Governance and Compliance Officer, Norges Bank Investment Management, summarised the market situation and presented the report on responsible investment for the Government Pension Fund Global at a press conference in March.

Risk management and control

Pursuant to the regulation on risk management and internal control at Norges Bank, regular reviews are conducted of significant risks for all areas of activity.

The Executive Board has the primary responsibility for risk management and for the sound organisation of Norges Bank. Internal Audit supports the Executive Board in its exercise of this responsibility and submits an annual independent assessment of risk management and internal control to the Executive Board.

The division of roles and responsibilities within Norges Bank's risk management system is organised along "three lines of defence":

First line of defence: Operational risk management and control activities. Risk assessment and compliance are required to be an integral part of the Bank's business processes and include the management of outsourced services.

Second line of defence: The key risk management and compliance functions advise and support the departments. Their responsibility is to challenge the assessments made by the first line of defence and monitor the first line of defence to ensure that appropriate controls are carried out. The second lines of defence in the Norges Bank Central Banking Operations and Norges Bank Investment Management report to the Governor of Norges Bank and the CEO of Norges Bank Investment Management, respectively.

Third line of defence: Internal Audit reports to the Executive Board and is required to assess, independently of the administration, whether risk management and compliance function as intended.

The Supervisory Council has primary responsibility for supervising the Bank's operation and compliance with formal frameworks. The Supervisory Council selects the Bank's external auditor and submits an annual report to the Storting.

"The Executive Board has the primary responsibility for risk management and for the sound organisation of Norges Bank.

Press conference in March 2022

2. Annual reports

Norges Bank's Executive Board

The Executive Board comprises the Governor, the two Deputy Governors and six external board members, all appointed by the King in the Council of State. In addition, two board members are selected by and among employees to participate when administrative matters are on the agenda.

The Governor is chair, and the two Deputy Governors are first deputy chair and second deputy chair of the Executive Board. The Executive Board has four preparatory and advisory committees, whose work is to strengthen and streamline the Executive Board's discussions.

Mona Helen Sørensen, Egil Herman Sjursen, Kjersti-Gro Lindquist, Pål Longva,
Hans Aasnæs, Arne Hyttnes, Øystein Børsum,
Nina Udnes Tronstad, Kristine Ryssdal, Ida Wolden Bache and Karen Helene Ulltveit-Moe.

Audit Committee

The Committee's tasks, in accordance with instructions relating to risk management and internal control at Norges Bank, focus on the monitoring, supervision and control of Norges Bank's financial reporting, operational risk, compliance, and risk management and internal control systems.

The Audit Committee has three members elected by and from among the external members of Norges Bank's Executive Board. Internal Audit is to provide the Committee with necessary assistance.

Remuneration Committee

The Remuneration Committee contributes to thorough and independent discussions of matters pertaining to Norges Bank's salary and remuneration schemes. The Executive Board has decided that the statutory Remuneration Committee for Asset Management is to also prepare matters relating to Norges Bank Central Banking Operations.

The Committee comprises three members elected from among the external members of Norges Bank's Executive Board and one member elected from among the employee-elected board members.

Ownership Committee

The Ownership Committee is a preparatory body for the Executive Board on matters related to Norges Bank's responsible investment activities. The Committee prepares matters related, for example, to the observation or exclusion of companies from the investment universe of the Government Pension Fund Global, within the framework laid down in the Ministry of Finance's management mandate and the ethical guidelines for the management of the Government Pension Fund Global.

The Ownership Committee comprises three members and is chaired by the Deputy Governor of Norges Bank with particular responsibility for following up management of the Government Pension Fund Global. The other two members are elected among the Executive Board's external members.

> Norges Bank manages the Government Pension Fund Global with a view to achieving the highest possible long-term return within the constraints laid down in the mandate from the Ministry of Finance.

Risk and Investment Committee

The Risk and Investment Committee strengthens and streamlines the Executive Board's work related to investment strategy, current exposure, performance assessment, determination and use of risk limits, and major investment decisions.

The Risk and Investment Committee comprises three members and is chaired by the Deputy Governor of Norges Bank with particular responsibility for following up the management of the Government Pension Fund Global. The other two members are elected among the Executive Board's external members.

14
Executive Board meetings.

212
matters considered.

Work of the Executive Board in 2022

The Executive Board held 14 meetings and discussed 212 items of business in 2022. Meetings also take place in the form of seminars for more in-depth presentations and discussions with the administration on the premises for important items on the Board's agenda.

In addition, time is spent by the Executive Board's four subcommittees on preparing selected matters to be considered by the Executive Board.

The Executive Board's time for the period 2018-2019 was relatively evenly distributed between central banking operations and investment management. In the period 2020 and 2022, approximately two thirds of the Board's time was spent on investment management. This is a consequence of the new Central Bank Act where the newly established Monetary Policy and Financial Stability Committee had been assigned responsibility for areas that were previously the responsibility of the Executive Board.

Table 1 Work of the Executive Board 2018–2022.

	2018	2019	2020	2021	2022
Number of Executive Board meetings	18	18	20	14	14
Number of Executive Board seminars	10	11	4	5	6
Number of matters considered by the Executive Board	232	242	222	228	212
Committee meetings					
Audit Committee	7	5	7	11	7
Remuneration Committee	6	4	5	7	4
Ownership Committee	5	5	7	9	7
Risk and Investment Committee	6	7	10	13	13

Members of the Executive Board

Ida Wolden Bache
Appointed Governor of Norges Bank from 8 April 2022 to 2028. Bache is Chair of the Executive Board and the Monetary Policy and Financial Stability Committee.

Her work experience includes posts as Deputy Governor, Executive Director of Norges Bank Monetary Policy and Norges Bank Financial Stability. She has also been a macroeconomist at Handelsbanken Capital Markets. Bache was a member of the Systemic Risk Council in Denmark in the period between 2017 and 2022. She holds a doctorate in economics from the University of Oslo and an MSc in economics from the London School of Economics.

Pål Longva
Appointed Deputy Governor for the period 29 August 2022 through 2028. Longva has particular responsibility for central banking operations and is First Deputy Chair of the Executive Board and the Monetary Policy and Financial Stability Committee.

His work experience includes the post of Director General of the Ministry of Finance Budget Department. Longva has worked at McKinsey and as Deputy Director General and Director General at the Ministry of Labour and Social Inclusion. He holds a doctorate in economics from the University of Oslo.

Øystein Børsum
Appointed Deputy Governor for the period 2 August 2021-2027. Børsum has particular responsibility for the Government Pension Fund Global. Børsum is Second Deputy Chair of the Executive Board and the Monetary Policy and Financial Stability Committee.

His work experience includes the post of chief economist at Swedbank and positions in the Budget and Asset Management Departments of the Ministry of Finance. Børsum holds a degree in economics from the NHH Norwegian School of Economics, masters' degrees from Sciences Po and London School of Economics and a doctorate in economics from the University of Oslo.

Karen Helene Ulltveit-Moe
Appointed board member for the period to 15 May 2024. Chair of the Audit Committee and member of the Remuneration Committee of the Executive Board.

Ulltveit-Moe holds a professorship in the Department of Economics of the University of Oslo. She is chair of the NHH Norwegian School of Economics board and has held a number of directorships. She also chaired and was a member of several government-appointed commissions. Her main research interests are in international economics, tax policy and industrial policy. She is Research Fellow at the Centre for Economic Policy Research (CEPR) and CESifo and is an elected member of the Norwegian Academy of Science and Letters. Ulltveit-Moe holds an MSc in economics from the University of Mannheim and a PhD in economics from the NHH Norwegian School of Economics.

Kristine Ryssdal
Appointed board member for the period to 15 May 2026. Member of the Ownership Committee and the Remuneration Committee of the Executive Board.

Ryssdal is General Counsel at Yara. Other previous professional experience includes the positions of VP Legal at Statoil, (now Equinor), Chief Legal Officer at REC and Legal Counsel at Norsk Hydro. She served for several years as an attorney at the Office of the Attorney General. She has previously been a member of the board at Borregaard ASA, previously held various board positions in the REC group and was a member of Kommunalbanken Norway's Supervisory Board. Ryssdal holds a degree in law (Cand. jur.) from the University of Oslo and a Master of Laws from the London School of Economics. She is also qualified to appear before the Supreme Court.

Arne Hyttnes
Appointed board member for the period to 15 May 2026. Chair of the Remuneration Committee and member of the Audit Committee of the Executive Board.

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. Hyttnes holds a degree in economics and business administration from the NHH Norwegian School of Economics.

Hans Aasnæs
Appointed board member for the period to 15 May 2024. Member of the Risk and Investment Committee of the Executive Board.

Aasnes is CEO of the shipping company Western Bulk ASA. He is chair of the board at Strand Havfiske, Nordic Trustee and Investinor. He has extensive experience in investment management, real estate management and direct investment at Storebrand and the UMOE Group, among others. He also has extensive board experience from a number of companies, including the Government Pension Fund Norway, Statskog, Gjensidige pensjonsforsikring, Bergvik Skog, Foran Realestate and Fornebu Lumber Company. Aasnes is an agricultural economist from the Norwegian College of Agriculture (now the Norwegian University of Life Sciences), holds a higher degree from the NHH Norwegian School of Economics and is a certified financial analyst.

Nina Udnes Tronstad
Appointed board member for the period to 15 May 2026. Member of the Audit Committee and the Ownership Committee of the Executive Board.

Udnes Tronstad is a professional board member. She is chair of the board at Source Energy and a member of the board at Bladt Industries and Prosafe. She was executive vice president at Kværner and Statoil (now Equinor). She has been a board member at Peab AB, Trelleborg AB, Rambøll, Giek (now Eksfin) and the Norwegian University of Science and Technology (NTNU) among others. Udnes Tronstad holds an MSc in chemical engineering from the Norwegian University of Science and Technology.

Egil Herman Sjursen
Appointed board member for the period to 15 May 2024. Member of the Risk and Investment Committee of the Executive Board.

Sjursen stepped down as Chief Executive Officer of Holberg Fondsforvaltning in 2018 after having served in this position for 12 years. He has held executive positions in asset management in DNB (including London), Vesta Forsikring and Nordea Investment Management since the end of the 1980s. Egil Herman Sjursen is currently chair of the board at the Bergen Philharmonic Orchestra, Stiftelsen Universitetsforskning i Bergen (Unifob), Nysnø Klimainvesteringer AS and the Nibor Oversight Committee. Sjursen has held a number of board positions. Sjursen holds a postgaduate degree in social sciences (cand. polit.), with a major in economics, from the University of Bergen.

Mona Sørensen
Employee representative from 1 January 2016.

Member of the Remuneration Committee of the Executive Board.

Chair and chief union representative of the Finance Sector Union of Norway at Norges Bank. Mona 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.

Marianne Depraetere is alternate for Mona Sørensen.

Truls Oppedal
Employee representative from 1 January 2021.

Deputy chair of the Federation of Norwegian Professional Associations. Truls Oppedal holds a master's degree in Business and Finance from Heriot-Watt University in Edinburgh, Scotland.

Kjersti Gro Lindquist is alternate for Truls Oppedal.

Annual Report of the Executive Board for 2022

2022 was another challenging year for Norges Bank. The pandemic and the war affected all of Norges Bank's activities and the work of the employees.

> The employees put in considerable effort in a demanding period and performed their tasks with a high degree of professionalism.

The beginning of 2022 was affected by the Covid-19 pandemic. Norges Bank's premises at Bankplassen were closed down and most employees worked remotely. When the government announced that Norway could reopen on 12 February, the Bank allowed employees to return to the office.

On 24 February, only a few days after society reopened, Russia invaded Ukraine. The impact of the war and the after-effects of the pandemic influenced Norges Bank's work throughout 2022. The employees put in considerable effort in a demanding period. The Executive Board is satisfied that high performance and professional standards have been maintained and wish to express their thanks to Norges Bank's employees. 2022 saw substantial movements in global financial markets. Russia's invasion of Ukraine contributed to a sharp rise in energy prices in Europe. Together with strong demand and supply-side constraints, this led to a marked rise in global inflation. The Monetary Policy and Financial Stability Committee has therefore raised the policy rate more and faster than projected at the beginning of 2022. See the Committee's Report for more information.

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2022 saw substantial movements in global financial markets.

The return on the Government Pension Fund Global closely follows developments in global equity and bond markets. In 2022, interest rates rose, and both equity and bond market returns were negative. Weak markets during the year resulted in an overall return on the fund of -14.1%. The market value of the fund at year-end 2022 was NOK 12 429bn.

In 2022, Norges Bank worked to develop the payment system in a number of areas. The Bank has entered into formal discussions with the European Central Bank (ECB) on possible participation in the Eurosystem's TARGET Instant Payment Settlement (TIPS) service. The research into central bank digital currencies (CBDCs) has continued, and Norges Bank and Finanstilsynet (Financial Supervisory Authority of Norway) are working together to test cyber resilience in accordance with the TIBER (threat intelligence-based ethical red teaming) framework in Norway.

2022 was the last year of the strategy period 2020-2022. In the assessment of the Executive Board, Norges Bank largely achieved the ambitions in the strategy, despite the dramatic changes caused by the pandemic and the war in Ukraine. The strategy for the next three years, Strategy 25, was approved by the Executive Board in November 2022. This comprises an overarching strategy for Norges Bank as a single institution and one strategy for each of the operational areas: the central bank and Norges Bank Investment Management. See Section 4 for more details on the strategy.

In 2022, a number of changes were made to Norges Bank's executive management. In 2021, Governor Øystein Olsen announced his intention to step down on 1 March 2022. Deputy Governor Ida Wolden Bache temporarily occupied the post of Governor from 1 March 2022 and was appointed Governor from 8 April 2022. On 29 August, Pål Longva assumed the post of Deputy Governor, succeeding Ida Wolden Bache.

Management of the Government Pension Fund Global

NOK 12 429bn
in market value
at end-2022.

Norges Bank manages the Government Pension Fund Global on behalf of the Ministry of Finance. Norges Bank's mandate is to achieve the highest possible long-term return with an acceptable level of risk and within the constraints laid down in the mandate from the Ministry of Finance.

The management of the fund in 2022

The market value of the Government Pension Fund Global at year-end 2022 was NOK 12 429bn. The fund's market value is affected by the return on investments, capital inflows and withdrawals by the government and exchange rate movements.

The return in 2022 was equivalent to NOK -1 637bn. Movements in the krone exchange rate increased the market value by NOK 642bn, but this has no bearing on the fund's international purchasing power. Inflow of capital from the Norwegian government came to NOK 1 085bn net after the payment of management fees. This is the largest annual inflow since the fund was formed. The new capital was phased into the fund in an effective way.

At year-end 2022, asset allocation was 69.8% equities, 27.5% fixed income, 2.7% unlisted real estate and 0.1% unlisted renewable energy infrastructure.

In 2022, the return on the Government Pension Fund Global before management costs was -14.1% in terms of the fund's currency basket. Equities returned -15.4%, bonds -12.1%, unlisted real estate 0.1% and unlisted renewable energy infrastructure 5.1%. Management costs amounted to 0.04% of assets under management.

Norges Bank manages the fund close to the benchmark index, but all investment processes have active components. This puts Norges Bank in a better position to generate the highest possible return and be a responsible investor. Norges Bank uses a range of investment strategies in its management of the fund. They are grouped into three main categories: market exposure, security selection and fund allocation.

Norges Bank has reported contributions to the relative return from the same three strategies throughout the period since 2013. Management within each category has, however, been subject to change.

The bulk of the Government Pension Fund Global is managed under the strategy for market exposure. The main aim of this strategy is to achieve market exposure mirroring the benchmark index as cost-efficiently as possible. Transaction costs are minimised by avoiding mechanical replication of index changes. An excess return is also generated by pursuing various indexing strategies.

Security selection is based on fundamental analysis, and Norges Bank uses both internal and external mandates. Specialist expertise and delegated mandates allow investment decisions to be made independently of the market consensus.

Fund allocation is the strategy that made the largest positive contribution to the excess return in 2022. This strategy exploits how a long investment horizon and a limited need for liquidity make it possible to accept substantial fluctuations in the fund's value and to invest even where it may take a long time to realise the underlying value. Investments in unlisted real estate and unlisted renewable energy infrastructure are part of the allocation strategy. Norges Bank can also act differently to other funds in challenging market situations. At the beginning of the year, the fund had a slightly smaller allocation to equities than the benchmark index, and its bond investments had a lower duration. This helped the fund to outperform the benchmark in 2022.

Norges Bank applies these different strategies across the fund's various asset classes. The contributions to the relative return from equity, fixed income and real asset management show that management of fixed income contributed the most to excess return in 2022.

In 2022, Norges Bank achieved an overall return before management costs that was 0.87 percentage point higher than the return on the fund's benchmark index. The Executive Board notes that all three main strategies contributed positively to this excess return.

> Norges Bank manages the fund with a view to achieving the highest possible long-term return within the constraints laid down in the mandate from the Ministry of Finance.

Performance measured over time

The Executive Board emphasises the importance of assessing performance over time, and is satisfied that the return, both in 2022 and over time, has been higher than the return on the benchmark index the fund is measured against.

In the period between 1998 and 2022, the annual return on the fund was 5.7%. The annual net real return, after deductions for inflation and management costs, was 3.5%.

Over the same period, the annual return before management costs was 0.30 percentage point higher than the return on the benchmark index from the Ministry of Finance. In the period since 2013, during which the strategies have been grouped into market exposure, security selection and fund allocation, the annual excess return before management costs has been 0.33 percentage point. The contributions from the three main strategies show that fund allocation has made a slightly negative contribution to the relative return, while market exposure and security selection have both made a positive contribution.

The objective of the highest possible return is to be achieved with acceptable risk. Risk is measured, analysed and followed up using a broad set of measures and analyses. The management mandate requires Norges Bank to manage the fund with a view to ensuring that expected relative volatility (tracking error) does not exceed 1.25 percentage points. Expected relative volatility was 0.39 percentage point at the end of 2022, compared with 0.50 percentage point a year earlier.

Measured over the full period since 1998, realised relative volatility has been 0.65 percentage point.

The management of the fund is to be cost-effective. Cost-effective management supports the objective of the highest possible return after costs. In the period between 2013 and 2022, annual management costs averaged 0.05% of assets under management. In 2022, management costs amounted to NOK 5.2bn, or 0.04% of assets under management. The Executive Board is satisfied that management costs are low compared to other managers.

5.7 %

average annual return between 1998 and 2022.

Further development of the investment management

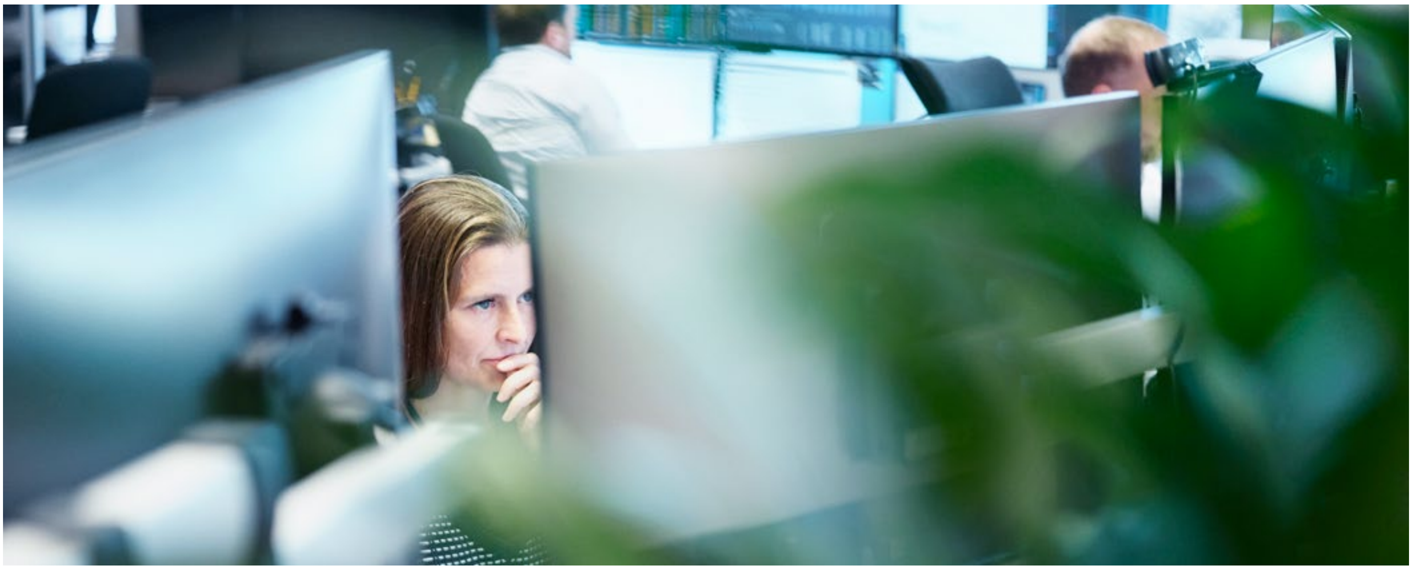
Norges Bank's Executive Board adopted a new strategy plan for the management of the Government Pension Fund Global at the end of 2022. The plan builds on previous strategy plans but makes minor adjustments to the three main strategies. These strategies are complementary and seek to exploit the fund's size and long investment horizon.

The mandate from the Ministry of Finance requires responsible investment to be an integral part of the management of the fund. A good long-term return is considered to depend on sustainable economic, environmental and social development. The management of climate risk is a priority for Norges Bank's work on responsible investment. The Ministry added a specific climate target for this work to the mandate for Norges Bank in 2022, along with new requirements for measuring, managing and reporting on climate risk. The Executive Board is pleased that Norges Bank has published a clear climate action plan for the period 2022–2025.

The work to integrate responsible investment into the management of the fund is described in the section Sustainability work in Norges Bank.

See the Annual report 2022, Government Pension Fund Global for more information on the management of the fund.

> A good long-term return is considered to depend on sustainable economic, environmental and social developments.



Management of the foreign exchange reserves

NOK **610.0bn**
in foreign exchange reserves at end-2022.

The foreign exchange reserves are held for the purpose of crisis management and are to be used as part of the conduct of monetary policy, to promote financial stability and to meet Norges Bank's international commitments. Considerable weight is given to the importance of investing the reserves in liquid assets. The aim of the management of the foreign exchange reserves is to attain the highest possible return within the set management limits.

Management of the reserves in 2022
The market value of the foreign exchange reserves was NOK 610.0bn at year-end 2022, which is NOK 32.6bn less than in 2021. The foreign exchange reserves are divided into an equity portfolio, a fixed income portfolio and the petroleum buffer portfolio. The value of the equity portfolio was NOK 110.4bn, the value of the fixed income portfolio was NOK 472.0bn and the value of the petroleum buffer portfolio was NOK 27.6bn.

Return in international currency terms reduced the value of the reserves by NOK 53.1bn in 2022. Contributions from the equity and fixed income portfolios were NOK -15.9bn and NOK -38.7bn, respectively. A weaker krone increased the value of the reserves by NOK 44.3bn. Net outflows were NOK 25.6bn, primarily from the petroleum buffer portfolio.

In 2022, the return on the equity portfolio and the fixed income portfolio was -9.4% in international currency terms. Equity investments returned -16.8%, while fixed income investments returned -7.5%. In NOK terms, the total return was NOK -2.5%. The results reflect lower share prices and higher global higher interest rates. A weaker krone dampened the impact in NOK terms.

The foreign exchange reserves are managed close to benchmark indexes set by the Executive Board, and the return closely tracks global equity and bond market developments. In 2022, the return on the equity and fixed income portfolios was 0.1 percentage point and 0.07 percentage point higher than the return on the portfolios' benchmark indexes, respectively. The Executive Board is satisfied with the return, which was higher than in the benchmark indexes in a year of negative returns.

Extraordinarily high oil and gas prices through 2022 entailed extra capital flows and large swings in the petroleum buffer portfolio through the year. The purpose of the portfolio is to provide for appropriate management of the government's need for converting foreign currency and NOK, and for any transfers to and from the Government Pension Fund Global. The portfolio normally fluctuates in value owing to the purchase or sale of currency in the market, the purchase of foreign exchange from the State's Direct Financial Interest in petroleum activities (SDFI), and monthly transfers to and from the Government Pension Fund Global. In total, agreements were entered into for more than NOK 26 000bn in the foreign exchange reserves.

The integration of responsible investment into the management of the foreign exchange reserves is discussed in the section Mission and sustainability strategy. See the report Management of Norges Bank's foreign exchange reserves for more information on the management of the Bank's foreign exchange reserves.

Government debt management

Norges Bank provides services in connection with government borrowing on behalf of the Ministry of Finance.

The government's borrowing requirement is primarily met through long-term borrowing in the market (government bonds) at a fixed interest rate. The government also borrows short-term by selling Treasury bills, which are debt instruments with a maturity of one year or less. The government borrows exclusively in NOK.

NOK **596bn**
in government debt at end-2022.

The management in 2022
At year-end 2022, government debt totalled NOK 596bn, with NOK 532bn in government bonds and NOK 64bn in Treasury bills. Of this amount, the government's own stock amounted to NOK 66bn in bonds and NOK 24bn in Treasury bills.

NOK 20bn was borrowed through a new 10-year bond issued in February by syndication. In September, a new 20-year bond worth NOK 10bn was issued by syndication. This was the first time a Norwegian government bond was issued with maturity longer than 11 years. Existing bonds were reopened in the amount of NOK 34bn at 17 auctions. NOK 12bn was issued to the government's own stock in the course of 2022.

Treasury bills worth NOK 57.65bn were issued to the market at 18 auctions. NOK 24bn was also issued to the government's own stock in the course of 2022.

In 2022, the average auction premium, measured as the difference against the mid-yield in the market, at bond issuance was -0.002 percentage point compared with 0.022 percentage point in 2021. At the end of June, owing to high volatility and uncertainty in foreign and domestic government securities markets, Norges Bank allowed primary dealers to quote higher yield spreads than normal in the interdealer market for bonds and bills. This exception was retained a number of times and remained in effect at the end of 2022.

The average yield for bonds issued in 2022 was 2.76%, compared with 1.24% in 2021. The increase reflected a general rise in interest rates.

The Executive Board is satisfied with the management of government debt in 2022.

Payment system

Norges Bank is tasked with promoting an efficient, secure and attractive payment system. Norges Bank is the ultimate settlement system for interbank payments in Norway and also issues banknotes and coins. Norges Bank oversees the payment system and other financial infrastructure, contributes to contingency arrangements and is the supervisory authority for interbank systems. The operation of the financial infrastructure in Norway was stable in 2022.

> Norges Bank is tasked with promoting an efficient, secure and attractive payment system.

Norges Bank's settlement system
Payment settlement between banks and other financial sector undertakings with an account at Norges Bank takes place in Norges Bank's settlement system (NBO). Thus, most payments in NOK are ultimately settled in NBO. The operation of NBO was stable through 2022. In 2022, NBO handled a daily average of approximately NOK 339bn in payment

transactions. At year-end 2022, banks' sight deposits and reserves on deposit with Norges Bank totalled NOK 26.3bn.

A well-functioning solution for real-time payments is an important part of an efficient payment system. Norges Bank has entered into formal discussions with the European Central Bank on possible participation in the Eurosystem's TARGET Instant Payment Settlement (TIPS) service. The primary objective is to facilitate the development of real-time payment services by banks and other market participants in the Norwegian payment system. Norges Bank is in the process of reviewing and assessing the TIPS service at a detailed level, including the technical setup, security, contingency arrangements and costs. This work will lead to a basis for deciding on possible participation in TIPS, which safeguards Norges Bank's requirements and the needs of other relevant stakeholders. In connection with Strategy 25, the Executive Board has decided to begin the process of overhauling the settlement system.

Cash

The public's access to central bank money in the form of cash is a key feature of the payment system. Cash usage in Norway has declined over many years, and the decline accelerated during the pandemic. Twice a year, Norges Bank conducts surveys on households' use of cash. The autumn 2022 survey showed that 4% of payments in shops and 4% of payments between private individuals (person-to-person) were made in cash, ie unchanged since spring 2022.

Many of the attributes of cash are of such a nature that they will continue to be important even in the event of falling cash usage. In addition to being central bank money, the fact that cash can be used independent of third parties or electronic systems is crucial for financial inclusion and contingency arrangements. In Norges Bank's opinion, it is important to ensure that cash remains available and easy to use so that it can fulfil its functions in the payment system.

Seminar on central bank digital currency organised by Norges Bank and the Norwegian Digitalisation Agency.

Central bank digital currency

The structural changes in the payment system raise questions about whether there is a need for Norges Bank to implement measures to ensure that payments can continue to be made efficiently and securely in NOK in the future. One key question is whether Norges Bank should provide central bank money to the public in digital as well as physical form, termed central bank digital currency (CBDC). Norges Bank is in the process of exploring this issue, motivated by both declining cash usage and a desire to be prepared to introduce a CBDC if necessary for the Norwegian payment system to develop in a desirable manner.

Norges Bank's research into CBDC is now in its fourth phase. Up until summer 2023, the Bank will carry out experimental testing of different technical CBDC solutions and continue its work on analysing the purpose and consequences of a potential introduction of a CBDC. As part of Strategy 25, the Executive Board has approved that Norges Bank, during the strategy period, will prepare the ground for the issue, if appropriate, of a CBDC.

Cyber resilience of the financial system

Cyber incidents are a potential threat to the financial system and financial stability. Globally, there is broad agreement that resilience against cyber attacks in the financial sector must be strengthened. This requires extensive public-private cooperation. Norges Bank and Finanstilsynet are working together to introduce cyber resilience testing in accordance with the TIBER framework in Norway (TIBER-NO) to bolster the cyber resilience of the financial system. Entities with responsibility for critical functions in the banking and payment system have agreed to be part of the TIBER-NO Forum. The first tests started in autumn 2022.

See *Financial Infrastructure Report 2022* for more information on the payment system.

> Threats to fundamental national interests and critical infrastructure are increasingly cyber-related.

Staff

At year-end 2022, Norges Bank had 1007 permanent employees. Of these, 572 were in Norges Bank Investment Management, 272 in Norges Bank Central Banking Operations and 156 in Norges Bank Administration. In addition, seven employees worked at the Office of the Supervisory Council. Norges Bank has employees from 39 countries and offices in Oslo, London, New York, Shanghai and Singapore. Norges Bank also has subsidiaries in London, Paris, Luxembourg and Tokyo.

Competent staff are important to the fulfilment of Norges Bank's mission, and they are required to have relevant expertise, insight and a high level of integrity.

Norges Bank works systematically to attract and recruit top candidates from leading national and international academic institutions. Norges Bank works continuously with career development, for example by offering targeted courses and study programmes.

> Through staff diversity, Norges Bank aims to bring to the fore a variety of perspectives in the professional discussions that contribute to maintaining the Bank at the forefront of its fields of expertise.

Norges Bank employees

39
countries

5
offices

1 007
permanent employees

Norges Bank Investment Management	572
Norges Bank Central Banking Operations	272
Norges Bank Administration	156
Office of the Supervisory Council	7

Norges Bank also has real estate offices in Tokyo, Luxembourg and Paris with a total of 23 employees.

Norges Bank aims to achieve gender balance and diversity in the workforce. The objective is a gender balance of at least 40% as a whole and the ambition is to increase the number of women in management positions and in specialist functions. Norges Bank is also one of the founding partners of Norway's Women in Finance Charter.

The share of women on the permanent staff of Norges Bank at year-end 2022 was 35%, compared with 34% in 2021. The share of women in the different areas was 29% in Norges Bank Investment Management, 35% in Norges Bank Central Banking Operations and 57% in Norges Bank Administration.

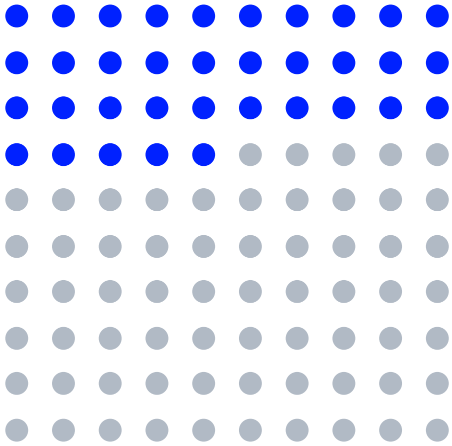
The Executive Board is not satisfied with the overall gender balance and will closely follow up the initiatives for achieving the target.

The relationship between Norges Bank's management, staff and the Bank's trade union representatives must be based on dialogue, confidence and mutual respect. The management has close contact with the representatives at Norges Bank, for example in the Co-determination and Personnel Committee, the Working Environment Committee and regular contact meetings with representatives at several levels in Norges Bank.

Norges Bank's priority is to protect the health and safety of all staff. Nine workplace accidents or injuries directly relating to work conducted at Norges Bank's premises were reported in 2022, none of which were severe or reported as occupational injuries to the Norwegian Labour Inspection Authority. Sickness absence in 2022 remained stable at a low level of 2.3%.

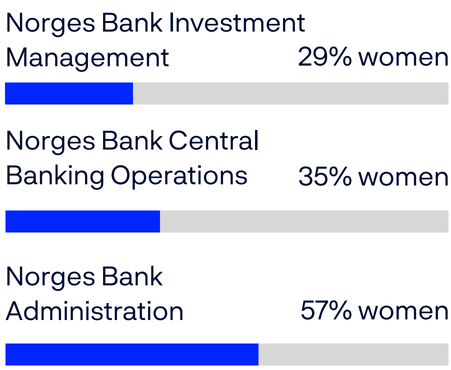
See the section on Governance, ethics and culture for more information on Norges Bank's staff.

Gender balance

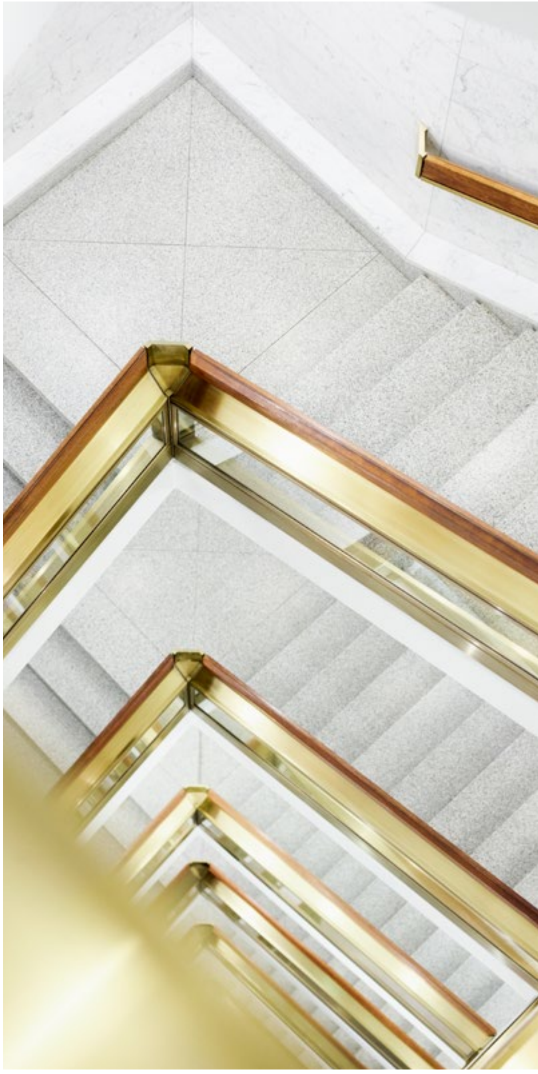


35%

share of women at end-2022.



Corporate governance



Norges Bank's governance framework aims to be in line with best practice. The Executive Board follows up the operations through periodic reporting on performance and goals, action plans, budgets, financial and operational risk and compliance.

Norges Bank's use of resources is required to be cost-efficient and prudent, with a cost level that is reasonable compared with that of similar organisations. Benchmarking, ie external comparisons of Norges Bank's use of resources with that of other similar organisations, is used as a corporate governance tool. During 2022, comparisons were conducted of management costs for the Government Pension Fund Global against 270 other funds. Size and asset composition are considered to achieve the best possible basis for comparison. The Government Pension Fund Global is the fund in the comparison group with the lowest costs measured as a share of assets under management.

Norges Bank complies with the Instructions relating to risk management and internal control at Norges Bank issued by the Ministry of Finance. The Executive Board has issued principles for risk management. In addition, the Ministry of Finance defines limits for the management of the Government Pension Fund Global, including allocation of asset classes and the benchmark index. The Executive Board sets similar limits for the management of the foreign exchange reserves. There were no breaches of the limits for the management of the Government Pension Fund Global or the foreign exchange reserves in 2022. Valuations, performance measurement, management and control of risk in investment management comply with internationally recognised standards and methods. See the notes to the financial statements for more detailed information.

Reporting and following up risks and incidents constitute an important part of the measures to improve operations and internal control. Significant risks are followed up through regular reporting and follow-up of Executive Board measures. The Executive Board has set a 12-month risk tolerance limit for Norges Bank Investment Management specifying that the probability that operational risk factors will result in a gross loss of NOK 750m or more must be less than 20%. In 2022, operational risk exposure was within the Board's risk tolerance limit.

The Executive Board continuously monitors operational and financial risk through its assessment of operational risk and internal control. The Executive Board submits an annual risk assessment to the Supervisory Council based on reporting by the administration and Internal Audit.

No material deficiencies in the risk management and control regime were identified in 2022, and the Executive Board assesses the control environment and control system at Norges Bank as satisfactory.

No directors' and officers' liability insurance has been provided for the members of the Executive Board or the chair of the Board, ie the Governor, in her role as general manager of Norges Bank. In practice, the Board members have limited liability risk, and the Bank therefore self-insures any liability for damages on behalf of Board members or equivalent executive management positions. This is in line with practice in other Nordic central banks.

> Stable IT systems are essential for Norges Bank to fulfil its mission.

Security and IT systems

Norges Bank faces a complex threat landscape in constant flux, influenced by geopolitical developments.

The continuous assessment of Norges Bank's assets, threats and vulnerabilities are important for the ongoing identification and implementation of risk mitigation measures. A range of training activities are also conducted, such as phishing drills and e-learning modules, to strengthen awareness among staff of current security threats. Relevant controls are performed based on frameworks and standards for best practice. Norges Bank uses the US National Institute of Standards and Technology Cyber Security Framework (NIST CSF) for its management of information and IT security risks.

Stable IT systems are essential for Norges Bank to fulfil its mission. The Bank works systematically to ensure a high level of operational stability and has sound disruption management and change management processes in place.

Norges Bank gives weight to automation, innovation, the replacement of outdated IT solutions and robust information security measures. This work is also highlighted in the strategic plan adopted for the following period. An operationally robust organisation helps to secure Norges Bank's values. Since the completion of the multi-year project to modernise Norges Bank

Central Banking Operation's IT operating platforms, collaboration with new suppliers has been operationalised. The new IT operating platforms have had a high level of accessibility through the year, and no faults have occurred that have affected Norges Bank's capacity to perform its mission. In the course of 2022, some IT functions, such as the IT helpdesk in Norges Bank Investment Management, were insourced to increase quality and improve flexibility.

Digital threats and organised cyber criminals represent a growing risk as agents are becoming more specialised, sophisticated and well-funded. IT security was strengthened in 2022. The number of employees working in security, particularly cyber resilience, has increased, at the same time as the use of external consultants in this area has been reduced. The employee IT security training programme has been expanded. There were no security incidents with serious consequences in 2022.

Balance sheet and financial statements

Norges Bank's balance sheet

Norges Bank's balance sheet contains a number of items directly related to the Bank's mission. The balance sheet total at year-end 2022 was NOK 13 200bn, compared with NOK 13 172bn at year-end 2021.

In line with the management mandate for the Government Pension Fund Global, the Ministry of Finance has placed a portion of the government's assets in a separate account in Norges Bank (the GPFG's krone account), presented as a liability to the Ministry of Finance. Norges Bank reinvests these funds, in its own name, and presents this as net value GPFG. The value of the GPFG's krone account will always equal the value of the investment portfolio less accrued management fee. Norges Bank, in its role as asset manager, bears no financial risk associated with the management of the Government Pension Fund Global. At year-end 2022, the market value of the fund's investments was NOK 12 429bn, compared with NOK 12 340bn at year-end 2021. See the separate section Management of the Government Pension Fund Global in the Report for more details on the management of the fund in 2022.

Detailed financial reporting for the investment portfolio of the Government Pension Fund Global is presented in Note 20 to the financial statements.

In addition, a separate annual report on the management of the fund has been published.

Excluding the Government Pension Fund Global, the foreign exchange reserves are Norges Bank's largest balance sheet asset. The foreign exchange reserves are primarily invested in equities, fixed income instruments and cash. Net foreign exchange reserves amounted to NOK 610bn at year-end 2022, compared with NOK 643bn at year-end 2021. See the separate section on Management of the foreign exchange reserves in the Report for more details on the management of the foreign exchange reserves.

Under the government's consolidated account system, all government liquidity is collected in government accounts at Norges Bank. At year-end 2022, deposits amounted to NOK 305bn, compared with NOK 344bn at year-end 2021. Except for the GPFG krone account, this is the largest liability item on the balance sheet. However, this item fluctuates considerably through the year owing to substantial incoming and outgoing payments over the government's accounts and transfers to and withdrawals from the Government Pension Fund Global.

Banknotes and coins in circulation are a liability item for Norges Bank. Norges Bank guarantees the value of this money. The amount of cash in circulation is driven by public demand. In recent years, lower demand for cash has reduced the amount in circulation. At year-end 2022, banknotes and coins in circulation amounted to NOK 40bn, unchanged compared with year-end 2021.

Deposits from banks, comprising sight deposits, reserve deposits and F-deposits, are managed by Norges Bank in accordance with its liquidity management policy. At 31 December 2022, these deposits amounted to NOK 27bn, compared with NOK 23bn at year-end 2021.

Norges Bank administers Norway's financial obligations and rights ensuing from participation in the International Monetary Fund (IMF). Norges Bank has therefore both claims on and liabilities to the IMF. At year-end 2022, Norway's net position with the IMF amounted to a claim of NOK 23bn, compared with NOK 19bn at year-end 2021. See Note 17 in the notes to the financial statements for more details on the relationship between Norges Bank and the IMF.

NOK **270bn**
in equity
at end-2022.

Norges Bank's equity at 31 December 2022 was NOK 270bn, compared with NOK 289bn at 31 December 2021. The Bank's equity consists of the Adjustment Fund and the Transfer Fund. At year-end 2022, the Adjustment Fund stood at NOK 253.3bn and the Transfer Fund at NOK 16.2bn, compared with NOK 266.5bn and NOK 22.2bn, respectively, at year-end 2021. Norges Bank's equity, excluding the GPFG's krone account, was 35% of the balance sheet total, compared with 34.7% in 2021. The Executive Board deems that the Bank's equity is sufficient to fulfil the Bank's purpose (cf Section 3-11, Sub-section 1, of the Central Bank Act).

This balance sheet composition is normally expected to generate a positive return over time, excluding foreign currency effects, as returns on the Bank's investments in equities and fixed income instruments are expected to exceed the cost of the Bank's liabilities. Norges Bank's assets are primarily invested in foreign currency, whereas its liabilities are primarily in NOK.

"Norges Bank's assets are primarily invested in foreign currency, whereas its liabilities are primarily in NOK.

Given the Bank's balance sheet composition, income will largely be affected by developments in global fixed income, equity and foreign exchange markets. Considerable volatility in income should be expected from year to year. Future increases in the value of the Government Pension Fund Global will be affected by, among other things, transfers to/from the fund.

Income statement

Net income/-expense from financial instruments

Net expense from financial instruments was NOK 55.1bn in 2022, compared with net income of NOK 24.2bn in 2021. Equity investments posted a loss of NOK 15.9bn, while fixed income investments posted a loss of NOK 38.3bn, compared with a gain of NOK 31bn and a loss of NOK 6.5bn, respectively, in 2021. Net income from financial instruments also includes a gain of NOK 45.5bn as a result of foreign currency effects. Foreign currency effects in 2021 resulted in a loss of NOK 0.3bn.

Government Pension Fund Global

The Government Pension Fund Global's total comprehensive income showed a loss of NOK -1 001bn, comprising a loss on the portfolio of NOK -995.3bn and costs related to the management fee of NOK 5.2bn. Norges Bank's total comprehensive income for 2021 amounted to NOK 1 551bn, comprising a gain on the portfolio of NOK 1 555bn net of management costs of NOK 4.6bn.

Total comprehensive income for 2022 was recognised against the GPFG's krone account at 31 December 2022. The return on the portfolio, after management costs reimbursed to Norges Bank have been deducted, is transferred in its entirety to the krone account and thus does not affect Norges Bank's total comprehensive income or equity.

Other operating income
In accordance with the management mandate for the Government Pension Fund Global, Norges Bank is reimbursed by the Ministry of Finance for its expenses related to the management of the fund up to a limit. Norges Bank was reimbursed in the amount of NOK 5.2bn in 2022, compared with NOK 4.6bn in 2021. Norges Bank also earns income from other services provided to banks and rent from external tenants. Income from these activities totalled NOK 149m in 2022, compared with NOK 118m in 2021.

Operating expenses
Operating expenses amounted to NOK 6.4bn in 2022, compared with NOK 5.9bn in 2021.

NOK 5.2bn of the operating expenses in 2022 is related to the management of the Government Pension Fund Global, compared with NOK 4.6bn in 2021. See Note 13 in the notes to the financial statements for more details on the management fee received by Norges Bank under the management mandate.

The increase in expenses compared with 2021 is mainly related to personnel expenses. Other than currency effects and ordinary wage growth, developments in personnel expenses primarily reflect a non-recurring effect in 2021 resulting from a change in the accrual accounting method for performance pay, the strengthening of the organisation in the form of more employees and increased travel. These developments are offset somewhat by, for example, lower fees to external managers of the Government Pension Fund Global.

Total comprehensive income
Change in actuarial gains and losses showed a loss of NOK 0.5bn in 2022, compared with a loss of NOK 0.1bn in 2021.

Norges Bank's total comprehensive income for 2022 showed a loss of NOK 11.1bn, compared with a profit of NOK 23bn in 2021.

Distribution of total comprehensive income
The distribution of total comprehensive income follows guidelines on the reserves and on the allocation of Norges Bank's profit, laid down by Royal Decree of 13 December 2019 pursuant to Section 3-11, Sub-section 2, of the

"

In accordance with the management mandate for the Government Pension Fund Global, Norges Bank is reimbursed by the Ministry of Finance for its expenses related to the management of the fund up to a limit.

Central Bank Act. Total comprehensive income shall 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.

Norges Bank's net loss of NOK -11.1bn will be covered by a transfer from the Adjustment Fund of NOK -13.2bn and a transfer to the Transfer Fund of NOK 2.1bn. NOK 8.1bn will be transferred from the Transfer Fund to the Treasury. The annual transfers and allocations for 2022 were made in accordance with the guidelines.

Norges Bank's Executive Board
Oslo, 8 February 2023

Ida Wolden Bache
Governor / Chair of the Executive Board

Pål Longva
First Deputy Chair

Øystein Børsum
Second Deputy Chair

Karen Helene Ulltveit-Moe

Kristine Ryssdal

Arne Hyttnes

Hans Aasnæs

Nina Udnes Tronstad

Egil Herman Sjursen

Mona Helen Sørensen
Employee representative

Truls Oppedal
Employee representative

An account of sustainability has been prepared pursuant to Section 3-3c of the Accounting Act. The report is presented in a separate document in the Annual Report. The report on sustainability is an integral part of the Executive Board's report.

Norges Bank’s Monetary Policy and Financial Stability Committee

The Monetary Policy and Financial Stability Committee comprises the Governor, the two Deputy Governors and two external members.

The external members are appointed by the King in the Council of State for terms of four years. The Governor chairs the Committee, and the two Deputy Governors are first and second deputy chairs.

The Committee had 21 meetings and discussed 92 items of business within its area of responsibility in 2022.

The Committee's work structure

The Monetary Policy and Financial Stability Committee is Norges Bank's executive and advisory authority for monetary policy and also aims to contribute to promoting financial stability. The Monetary Policy and Financial Stability Committee normally holds eight scheduled meetings a year, where policy rate decisions are made. Four of the meetings coincide with the publication of the *Monetary Policy Report* (MPR). The level of the countercyclical capital buffer is also set by the Committee four times a year.[1]

The Committee's meeting schedule is primarily determined by the dates of the eight monetary policy meetings. Prior to the meetings that coincide with the publication of the *Monetary Policy Report*, the Committee normally meets three times. Prior to the meetings without a report, the Committee normally meets twice.

In 2022, the Committee held 21 meetings and two one-day seminars. The Committee discussed the monetary policy strategy, the strategy for the countercyclical capital buffer, the *Financial Stability Report* and liquidity management, among other things.

The administration prepares and presents relevant analyses and projections that provide the basis for the Committee's discussions and advises the Committee on policy decisions. To ensure that the discussion basis is as far as possible the same for all the Committee members, all are provided with as much access as possible to the same information and analyses.

The Committee is committed to transparent and clear external communication. The "Monetary policy assessment", published in connection with policy rate decisions, and the "Assessment of the countercyclical capital buffer requirement", published in connection with the buffer decisions, reflect the view of the majority. Topics of particular concern to the members in the discussions are highlighted in the assessment. Members that disagree with the assessment of the majority may dissent, and dissenting views are published together with a brief written explanation in the minutes and in the assessment published at the same time as the rate decision. All of the Committee's decisions were unanimous in 2022. The Committee chair, the Governor, normally speaks on behalf of the Committee. Other Committee members may issue statements by agreement with the Committee chair.

> Norges Bank's staff prepare and present relevant analyses and projections that provide the basis for the Committee's discussions.

[1] From 2023, the decision will be made at the monetary policy meetings in January, May, August and November.

Members of the Monetary Policy and Financial Stability Committee

From left: Øystein Børsum, Ingvild Almås, Ida Wolden Bache, Jeanette Fjære-Lindkjenn and Pål Longva.

Ida Wolden Bache

Appointed Governor of Norges Bank from 8 April 2022 to 2028. Bache is Chair of the Executive Board and the Monetary Policy and Financial Stability Committee.

Pål Longva

Appointed Deputy Governor for the period 29 August 2022 to 2028. Pål Longva has particular responsibility for central banking operations and is First Deputy Chair of the Executive Board and the Monetary Policy and Financial Stability Committee.

Øystein Børsum

Appointed Deputy Governor for the period 2 August 2021 to 2027. Øystein Børsum has particular responsibility for the management of the Government Pension Fund Global and is Second Deputy Chair of the Executive Board and the Monetary Policy and Financial Stability Committee.

Jeanette Fjære-Lindkjenn
Appointed Committee member for the period to 31 December 2023.

Jeanette Fjære-Lindkjenn is a fellow at Housing LAB, the national centre for housing research at Oslo Metropolitan University (OsloMet). She has previously worked for DNB Markets as a macroeconomist and for Norges Bank as an analyst. Jeanette Fjære-Lindkjenn holds a degree in economics from the University of Oslo.

Ingvild Almås
Appointed committee member for the period to 31 December 2025.

Ingvild Almås holds a professorship at the Institute for International Economic Studies (IIES), Stockholm University, is Principal Investigator at the Norwegian School of Economics' FAIR centre and International Research Fellow at the Institute for Fiscal Studies (London), Centre for Economic Policy Research (CEPR), and CESifo. She previously held a professorship at NHH. She sits on the Scientific Advisory Board for the Max Planck Institute for Research on Collective Goods in Bonn, Germany and chairs the Portfolio Board for Welfare, Culture and Society at the Research Council of Norway. In autumn 2023, Ingvild Almås will be a Cowles Foundation visiting fellow at Yale university. Ingvild Almås holds a BA in economics from the University of Oslo and a PhD in economics from the NHH Norwegian School of Economics.

Deputy Governor Pål Longva and Executive Director Torbjørn Hægeland, Financial Stability, with members of the press in connection with the publication of the Financial Stability Report 2022.

Annual Report of the Monetary Policy and Financial Stability Committee for 2022

The year 2022 was marked by major shifts in the economic outlook. Owing to the post-pandemic recovery and Russia's invasion of Ukraine, the world economy was beset by high inflation and uncertain growth prospects. When inflation in Norway accelerated in spring 2022, it became clear that the policy rate was no longer adapted to the prevailing economic situation. The policy rate was therefore raised more quickly and more markedly than the Committee envisaged at the beginning of the year.

In spring 2020, the policy rate was reduced to 0% to dampen the economic downturn caused by the Covid-19 pandemic. Economic activity rebounded in 2021, and Norges Bank started to raise the policy rate in September 2021. At year-end 2021, the policy rate was 0.5%. After the last pandemic-related restrictions were removed in 2022, activity picked up further and the labour market tightened. Inflation rose rapidly and eventually markedly overshot the 2% target. To ease the pressures in the economy and to bring inflation down towards the target, the policy rate was raised several times, to 2.75% at year-end 2022.

2.75%
policy rate at end-2022.

In autumn 2022, the Committee assessed that the outlook for financial stability was weaker than in 2021, reflecting the higher risk of an economic downturn in view of the ongoing war in Ukraine and the after-effects of the pandemic. The countercyclical capital buffer (CCyB) rate, which in March 2020 was reduced from 2.5% to 1.0%, was gradually raised again to 2.5% in the course of 2021 and 2022, with the rate fully effective from 31 March 2023. In November 2022, the Committee advised the Ministry of Finance to keep the systemic risk buffer (SyRB) for banks unchanged at 4.5%, and the Ministry followed the Committee's advice.

Monetary policy

The global economy
The pandemic and related restrictions have caused large fluctuations in economic activity in recent years, both globally and in Norway. As most countries eased and later removed the restrictions, activity rebounded in the first half of 2021 and eventually exceeded pre-pandemic levels. The labour market improved, and wage growth began to rise.

At the same time, consumer price inflation rose markedly. In many countries, inflation reached levels not seen in decades. The rise in prices may partly reflect pandemic-related conditions. Lockdowns during the pandemic led to a shift in household consumption from services to goods. Strong demand for goods combined with production and transport bottlenecks led to rapidly rising prices for globally traded goods. Demand for commodities also picked up as the global economy recovered, and prices for energy, metals and agricultural products rose sharply.

Russia's invasion of Ukraine in winter 2022 led to substantial uncertainty about the global economic outlook and to a further increase in energy and other commodity prices. The decline in Russian gas supply to Europe pushed up gas and electricity prices to very high levels through summer. Gas and electricity prices edged down in autumn but remained high. In the latter half of 2022, prices for a number of other commodities fell. Oil prices, which had risen to around USD 110 per barrel in summer 2022, returned to close to USD 80 per barrel at year-end, broadly the same level as one year earlier. Global supply chain disruptions appeared to ease, and global freight rates fell substantially. Towards the end of 2022, consumer price inflation appeared to have passed its peak in some countries.

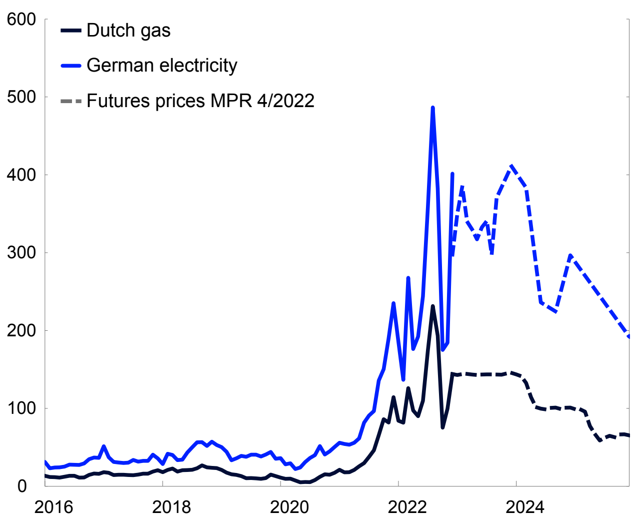
High inflation and prospects that inflation would also remain high ahead pushed up policy rate expectations among Norway's trading partners through 2022. Central banks in many countries have raised policy rates to their highest levels in more than ten years. Several central banks have raised rates by larger increments than usual.

Economic activity among Norway's trading partners rose further in 2022, and unemployment fell to low levels. At the same time, growth prospects weakened through the year, particularly in Europe. A number of firms scaled back production in response to high energy prices, and consumption growth was expected to slow on the back of high inflation and higher interest rates.

Uncertainty about energy market developments and the global growth and inflation outlook drove substantial movements in financial markets through 2022. Long-term interest rates rose substantially in 2022, while global equity indexes edged down.

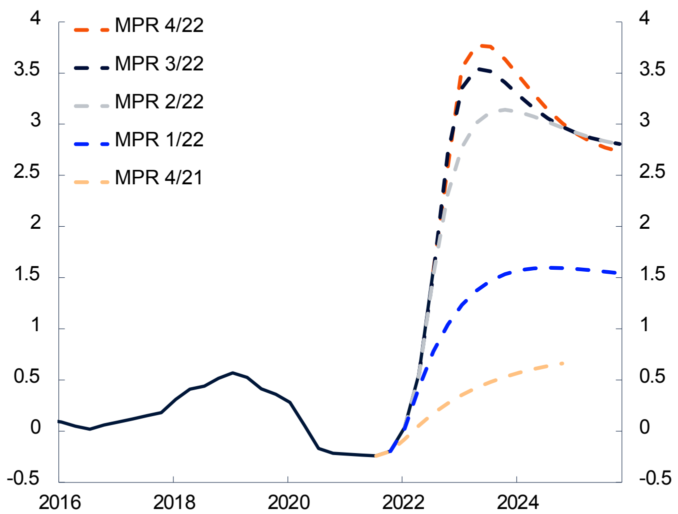
> Strong demand for goods combined with production and transport bottlenecks led to rapidly rising prices for globally traded goods.

Chart 1 Gas and electricity prices. Spot and futures prices. Øre/kWh.



SOURCE: Refinitiv Datastream

Chart 2 Money market rates among trading partners. Percent. 2016 Q1–2025 Q4.



SOURCES: Refinitiv Datastream and Norges Bank

Financial conditions in Norway
The krone exchange rate showed considerable volatility through 2022. Measured by the import-weighted exchange rate index (I-44), the krone depreciated somewhat through the year. Developments reflect a more pronounced rise in interest rates among trading partners than in Norway, as well as elevated financial market uncertainty.

Households' interest payments have risen in pace with policy rate hikes. About 85% of the increase in the policy rate since autumn 2021 has passed through to mortgage rates. The pass-through from the policy rate to deposit rates has been weaker.

Corporate bank and bond financing has also become gradually more expensive. This is because both short-term and long-term interest rates have risen at the same time as bond market risk premiums have increased. There were large movements in the Norwegian equity market through 2022, but at year-end, the Oslo Børs Benchmark Index was broadly at the same level as one year earlier.

The Norwegian economy
Activity in the Norwegian economy picked up quickly in 2021, and in autumn that same year, capacity utilisation and employment returned to pre-pandemic levels. At the beginning of 2022, activity levels once again fell slightly owing to increased infection rates and pandemic-related restrictions. However, activity picked up quickly through spring. Growth was particularly strong in the sectors affected by the restrictions. Household consumption rose more than expected. Services consumption moved up quickly and eventually returned to pre-pandemic levels.

In pace with increasing activity levels, employment rose further, and unemployment fell faster than expected. Before summer, the enterprises in Norges Bank's Regional Network reported growing shortages of intermediate goods and difficulties covering their labour needs. The Committee's assessment was that activity in the Norwegian economy had reached a high level and that spare capacity was limited.

Through autumn, signs appeared that the economy was cooling down. High inflation curbed household purchasing power, and consumption growth slowed. Household confidence indicators were at very low levels. Nonetheless, economic activity held up better than expected, partly owing to higher private consumption but also owing to a substantial upward adjustment of business investment through the year. At the same time, Regional Network enterprises revised down their expectations for activity ahead, and in November, enterprises on the whole expected a significant

> Uncertainty about energy market developments and the global growth and inflation outlook drove substantial movements in financial markets through 2022.


Regional Network meeting in Bodø in March 2022.

decline in output over the next six months. The labour market remained tight, but labour shortages appeared to ease. Unemployment remained low, but the number of job vacancies declined.

The housing market also reversed course during 2022. Strong demand and a small stock of unsold homes contributed to sustaining house price inflation through the first half of 2022, but the rise in prices slowed during summer. Through autumn, house prices fell. A large number of homes were listed for sale, and lower than normal turnover contributed to a marked upswing in the number of unsold existing homes in the market. In December, existing home prices were 1.5% higher than in the same month one year earlier.

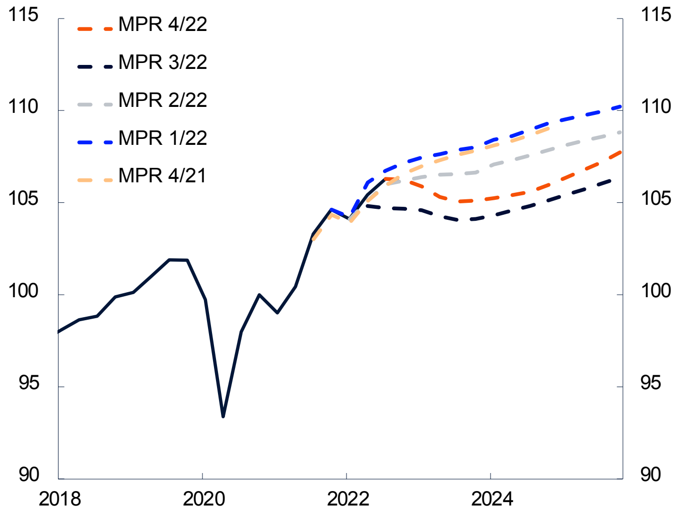
Consumer price inflation picked up faster than expected through spring and was markedly above the target. Owing to higher imported goods inflation and rising wage growth, inflation was expected to remain above target for some time. The rise in inflation continued through summer and autumn 2022. Energy and food prices showed a particularly steep increase through 2022, but prices for a range of other goods and services also increased more than normal.

Rising inflation likely helped to lift inflation expectations. Norges Bank's Expectations Survey shows that inflation expectations for the coming years have risen since mid-2021. At year-end 2022, long-term inflation expectations were above the 2% inflation target.

The rise in the consumer price index (CPI) was restrained by government support for household electricity bills, a scheme introduced in December

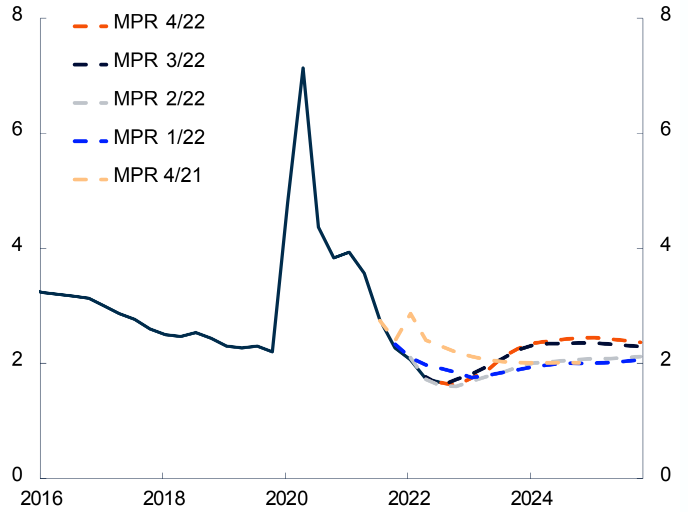
At year-end 2022, long-term inflation expectations were above the 2% inflation target.

Chart 3 GDP for mainland Norway. Projections at different times. Index. 2019 Q4 = 100.



SOURCES: Statistics Norway and Norges Bank

Chart 4 Unemployment. Registered unemployment as a percentage of the labour force. 2016 Q1–2025 Q4.



SOURCES: Norwegian Labour and Welfare Administration (NAV) and Norges Bank

2021. Even so, annual CPI inflation for 2022 was 5.8%, which is the highest annual CPI inflation rate since 1988. The consumer price index adjusted for tax changes and excluding energy products (CPI-ATE) rose by 3.9% in 2022, which is the highest annual rise since Statistics Norway began publishing the indicator in 2001. Prices for both imported goods and domestic goods and services rose at a rapid pace.

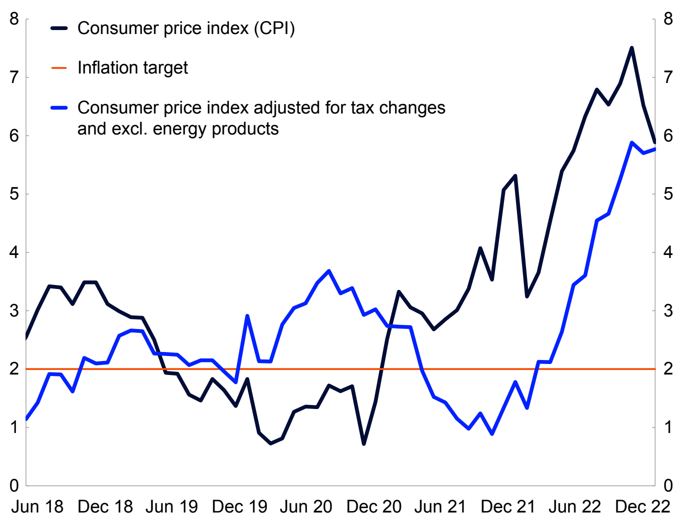
According to Statistics Norway, annual wage growth was 4.4% in 2022. Wage growth was higher than in 2021, reflecting a very tight labour market. There were prospects that wage growth would rise further in 2023.

Monetary policy trade-offs

The operational target of monetary policy is annual consumer price inflation of close to 2% over time. Inflation targeting shall be forward-looking and flexible so that it can contribute to high and stable output and employment and to counteracting the build-up of financial imbalances.

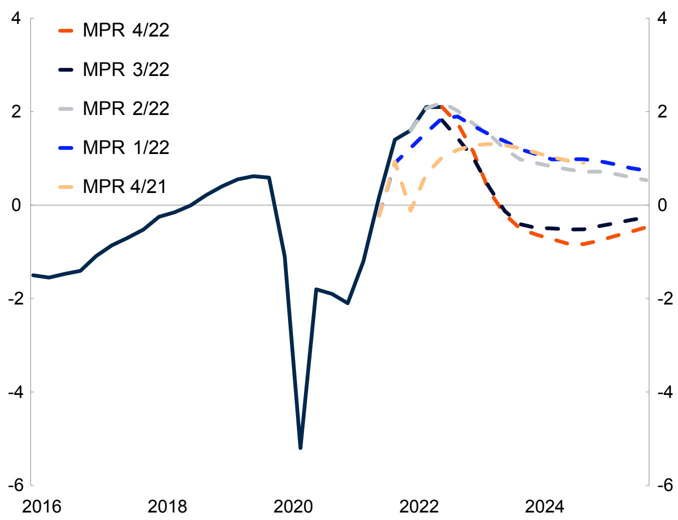
In its discussions of the monetary policy trade-offs through 2022, the Committee gave weight to the rapid rise in consumer prices and that inflation was turning out to be markedly above the target. The inflation forecasts were revised up, and there were prospects that inflation would remain high for some time. At the same time, economic activity had risen to a high level and unemployment was low. Through spring, it became clear that the policy rate no longer reflected prevailing economic conditions. The Committee gave weight to the need for higher interest rates to ease pressures in the economy and bring inflation down towards the target. The Committee also emphasised that a faster policy rate rise would reduce the risk of inflation

Chart 5 Consumer prices. Twelve-month change. Percent.



SOURCE: Statistics Norway

Chart 6 Estimated output gap. Percent. 2016 Q1–2025 Q4.



SOURCE: Norges Bank

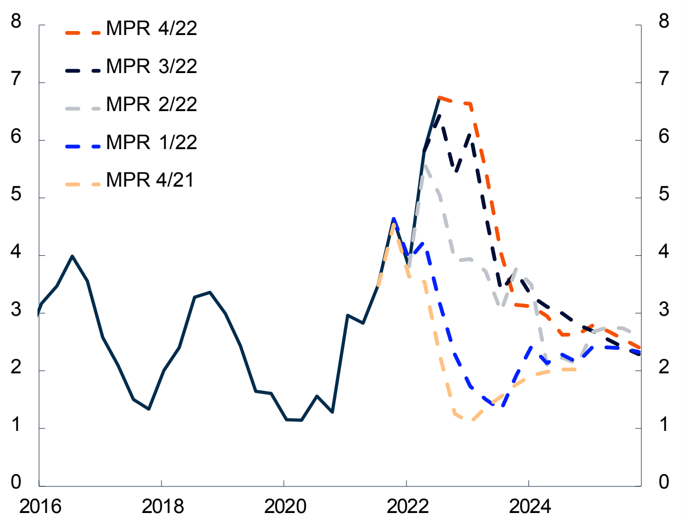
becoming entrenched at a high level. The pace of policy rate hikes was faster, and the hikes steeper, than projected earlier.

Consumer price inflation remained high through autumn. At the same time, there were signs of a slowdown in the Norwegian economy, and the projections for capacity utilisation ahead were revised down. The Committee gave weight to the marked rise in the policy rate over a short period of time and that monetary policy was beginning to have a tightening effect on the economy. The policy rate was raised more gradually towards the end of the year.

In its discussion of the balance of risks, the Committee's concerns included the considerable uncertainty surrounding the outlook and that projections were more uncertain than normal. The Committee was concerned with balancing the risk of tightening too much against the risk of tightening too little. If the policy rate was raised too little, inflation could remain high for a longer period. If households and firms begin to become used to high inflation and adjust their price and wage setting behaviour accordingly, it may then become difficult to bring down inflation again. On the other hand, if the policy rate was raised too much, economic activity could contract more than what is necessary to bring down inflation.

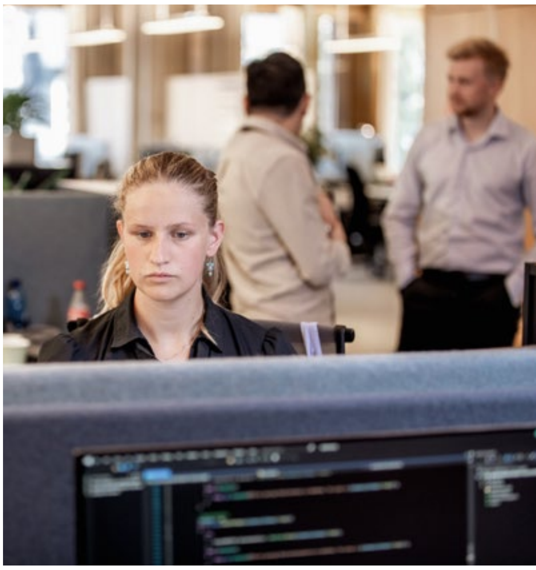
The projections in *Monetary Policy Report 4/22* implied a policy rate of about 3% in 2023. Inflation was projected to drift down and approach the target somewhat further out. Capacity utilisation was expected to decline and remain slightly below a normal level in the coming years. Unemployment was projected to rise somewhat, albeit from a low level.

Chart 7 Consumer price index (CPI). Projections at different times. Four-quarter change. Percent.



SOURCES: Statistics Norway and Norges Bank

> In its discussion of the balance of risks, the Committee's concerns included the considerable uncertainty surrounding the outlook and that projections were more uncertain than normal.



Monetary policy through 2022

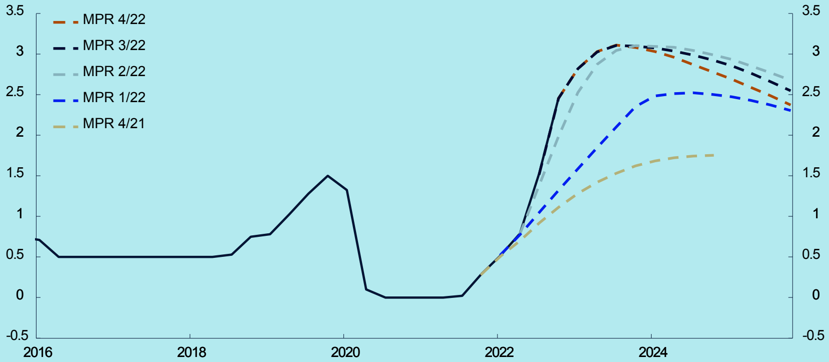
The policy rate forecast at year-end 2021 implied a policy rate that gradually increased from 0.5% to about 1.75% over the coming years.

The policy rate path was revised up through 2022, particularly in the first half of the year. Owing to higher-than-projected capacity utilisation and an inflation forecast that was revised up, the policy rate was raised from 0.5% to 0.75% and the policy rate forecast was revised up at the monetary policy meeting in March. In the period leading up to the monetary policy meeting in June, inflation had been markedly higher than projected and unemployment had fallen more than expected. The policy rate was raised by 0.5 percentage point to 1.25%, and the policy rate path was revised up further.

Inflation continued to rise more than expected through summer, at the same time as unemployment fell to a very low level. The Committee raised the policy rate further to 1.75% at the monetary policy meeting in August and to 2.25% at the meeting in September. In September, the policy rate path was revised up somewhat, partly owing to prospects that inflation would remain high for longer. At the same time, there were signs of a slowdown in the Norwegian economy, and the projections for capacity utilisation were revised down considerably. At the meeting in November, the policy rate was raised by 0.25 percentage point to 2.5%.

In the period leading up to the December meeting, inflation had been higher than projected and the labour market slightly tighter. At the same time, it appeared that the slowdown in the economy would be somewhat more pronounced than previously projected. At the meeting in December, the policy rate was raised to 2.75%, while the policy rate path was little changed.

Chart 8 Policy Rate. Projections at different times. Percent. 2016 Q1–2025 Q4.



SOURCE: Norges Bank

Financial stability

The Committee is tasked with promoting financial stability through providing advice and using the policy instruments at its disposal. Since 10 September 2021, Norges Bank has had decision-making authority for the countercyclical capital buffer (CCyB) and formal advisory responsibility for the systemic risk buffer (SyRB) for banks. The CCyB is designed to strengthen banks' solvency and mitigate the risk that banks' lending standards amplify an economic downturn. The CCyB should reflect cyclical vulnerabilities in the financial system and should be lowered if a downturn will or could cause a marked reduction in credit supply. The SyRB rate should reflect the assessment of structural vulnerabilities. Structural vulnerabilities are persistent features of the financial system that change rarely or little from year to year. These two buffer requirements constitute a substantial portion of banks' total capital requirements. The Committee sets the CCyB rate each quarter and provides advice on the SyRB at least every other year, for the first time in 2022.

Residential and commercial property prices rose sharply during the pandemic, and household credit growth accelerated. Property price inflation was more moderate in the second half of 2021, but house price inflation picked up again and was high at the beginning of 2022. On the whole, the assessment of cyclical vulnerabilities was approximately the same as before the pandemic. In March 2022, the Committee decided to raise the CCyB from 2% to 2.5%, effective from 31 March 2023, a decision that the Committee maintained in June and September 2022.

In *Financial Stability Report 2022*, which was published in November 2022, the assessment was that the ongoing war in Ukraine and the after-effects of the pandemic had increased the risk of an economic downturn, and the financial stability outlook had therefore weakened since the previous report in November 2021. The Committee judged that the Norwegian financial system had so far weathered the substantial volatility in financial markets well. Solid profitability, capital adequacy and liquidity ensured that banks had ample capacity to absorb losses and deal with market stress. The economic outlook was surrounded by substantial uncertainty. The Committee expected that banks' profitability would remain solid but judged that the risk of losses had risen.

High indebtedness in many households, banks' large commercial real estate exposures and the fact that one bank's funding is another bank's liquidity

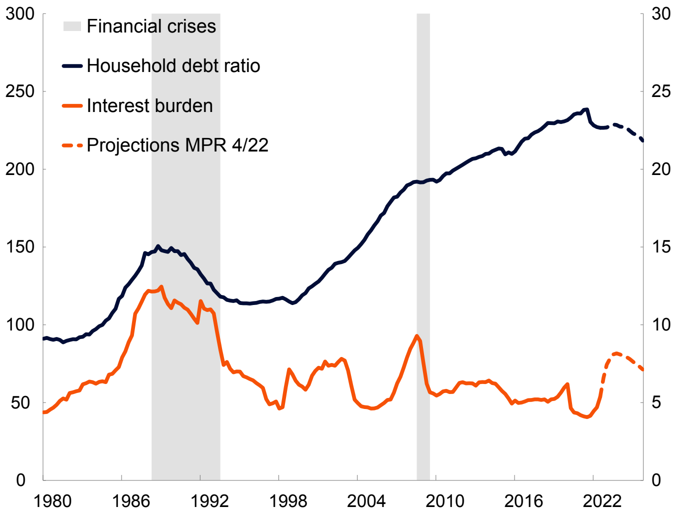
> The countercyclical capital buffer is designed to strengthen banks' solvency and mitigate the risk that banks' lending standards amplify an economic downturn.

reserves are key structural vulnerabilities in the Norwegian financial system. In addition, major cyber attacks can threaten financial stability. The Committee's assessment in November 2022 was that structural vulnerabilities were at approximately the same level as when the SyRB requirement was increased to 4.5% in 2020. In the Committee's assessment, the SyRB requirement should be maintained at the same level. In the aggregate, the buffer requirements help to ensure that Norwegian banks hold sufficient capital. In December, the Ministry of Finance decided to keep the SyRB unchanged at 4.5%, in line with the Committee's advice.

In autumn 2022, property prices fell. Household credit growth slowed, while corporate credit growth remained elevated. Creditworthy households and firms appeared to have ample access to credit, even though there were some signs of tighter bank lending standards. Against this background, the Committee decided to keep the CCyB rate at 2.5% in December 2022.

In 2022, the Committee discussed a number of responses to consultations on banking regulation. In October, Norges Bank provided input to Finanstilsynet (Financial Supervisory Authority of Norway) with a recommendation to retain the floors for IRB banks' average risk weights for residential mortgage and commercial real estate loans. This was partly because financial system vulnerabilities were at broadly the same level as when the risk-weight floors were introduced. In December, the Ministry of Finance decided to retain the risk-weight floors.

Chart 9 Household debt ratio and interest burden. Debt as a share of disposable income and interest expenses as a percentage of after-tax income. Percent. 1980 Q1 – 2025 Q4.



SOURCES: Statistics Norway and Norges Bank

> “
> In the aggregate, the buffer requirements help to ensure that Norwegian banks hold sufficient capital.

In November, Norges Bank responded to the Ministry of Finance's consultation on retaining the regulation of banks' lending standards. Norges Bank expressed the view that requirements for prudent lending should be regarded as a permanent structural measure and should not be changed frequently. In the response, Norges Bank expressed the view that the regulation could be retained without amendments, but that a broad review of the Lending Regulation should be conducted before it expires in 2024 to partly reflect experience with higher interest rates in the period ahead. In December, the Ministry of Finance decided to retain the regulation but changed, among other things, the requirement relating to the maximum rise in interest rates borrowers must be able to tolerate.

In *Financial Stability Report* 2022, the Committee also noted a need for financial institutions to ensure that they are well equipped to assess and mitigate climate risk. Banks' exposures to the sectors with the highest greenhouse gas (GHG) emissions are modest, but other firms will also be affected by the climate transition. Well-functioning financial markets are vital for financing investment that can mitigate climate change. Adequate information about climate risk is also important.

Norges Bank's Monetary Policy and Financial Stability Committee
Oslo, 8 February 2023

Ida Wolden Bache
Governor /
Chair of the Executive Board

Pål Longva
First Deputy Chair

Øystein Børsum
Second Deputy Chair

Ingvild Almås

Jeanette Fjære-Lindkjenn

Norges Bank's monetary policy strategy

In December 2021, Norges Bank's Monetary Policy and Financial Stability Committee adopted a monetary policy strategy.

The strategy describes the Committee's interpretation of the monetary policy mandate and provides a framework for the Committee's assessment of how monetary policy will respond to different shocks. The strategy is summarised below, and the full text is published on Norges Bank's website.

The operational target of monetary policy is annual consumer price inflation of close to 2% over time. Inflation targeting shall be forward-looking and flexible so that it can contribute to high and stable output and employment and to countering the build-up of financial imbalances.

Low and stable inflation
When setting the policy rate, Norges Bank aims to stabilise inflation, as measured by the annual rise in the consumer price index (CPI), around the 2% target. Provided there is confidence in low and stable inflation, variations in inflation around the target are not likely to engender any significant economic costs. How quickly the Bank seeks to return inflation to target will depend on the shocks that have occurred and whether there are conflicts between achieving the target and other monetary policy considerations. In interest rate setting, the Bank gives weight to avoiding large and persistent deviations from the inflation target, whether above or below the target.

High and stable output and employment
Monetary policy can contribute to stabilising output and employment around the highest level that is consistent with price stability over time.

The economic costs of cyclical fluctuations are asymmetrical. High unemployment involves direct costs to both society and those unable to find employment. Very low unemployment, on the other hand, does not involve any direct costs, but only indirect costs potentially in the form of excessively high wage and price inflation. The Bank will therefore not aim to quickly close a positive output gap as long as there are prospects that inflation will remain within a range close to 2% and there are no signs of financial imbalances accumulating.

By preventing downturns from becoming deep and protracted, monetary policy can contribute to keeping unemployment from becoming entrenched at a high level so that the average level of employment over time is as high as possible.

Mitigating the build-up of financial imbalances
If there are signs that financial imbalances are building up, the consideration of maintaining high and stable output and employment may, in some situations, suggest keeping the policy rate somewhat higher than otherwise. This can to some extent mitigate the risk of a severe downturn further out. Nevertheless, the regulation and supervision of financial institutions are the most important tools for cushioning shocks to the financial system.

Response pattern
The policy rate influences inflation and the real economy with a lag, and the effects are uncertain. To reduce the risk of monetary policy contributing to economic instability, Norges Bank will normally respond less forcefully to shocks than if there had not been uncertainty about the transmission of monetary policy. Furthermore, the policy rate is normally changed gradually to make monetary policy more predictable and to reduce the risk of undesirable financial market volatility and unexpected reactions of households and firms. In situations where the risk of particularly adverse outcomes is pronounced, or if there is no longer confidence that inflation will remain low and stable, it may be appropriate to react more forcefully than normal in interest rate setting.

3. Sustainability

Work on sustainability at Norges Bank

Our work on sustainability is an important part of our mission.

We must understand how climate change and the energy transition affect different parts of the economy in order to make sound assessments of the economic outlook and balance of risks.

In its management of the Government Pension Fund Global, Norges Bank's objective is to achieve the highest possible return within the limits of acceptable risk. The fund's long-term return depends on a sustainable economy, well-functioning markets and good corporate governance. Through responsible investment, Norges Bank seeks to add long-term value to its investment portfolio and reduce the financial risk from environmental and social issues associated with the companies in which we invest.

Sustainability strategy

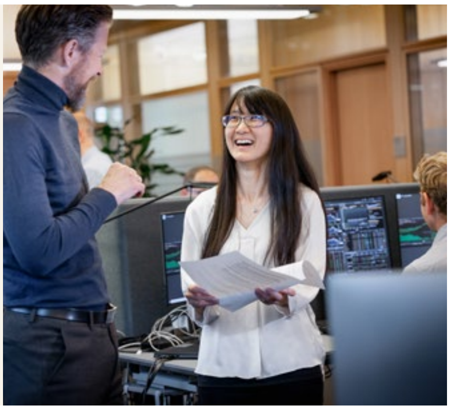
Norges Bank's sustainability strategy is divided into three main areas with specified objectives for each area. The full strategy is published on Norges Bank's website.

Climate and the environment

- Norges Bank is committed to working to reduce emissions from its own operations in line with the ambitions of the Paris Agreement.
- Norges Bank will be an active owner and a driving force for investee companies to achieve net zero emissions by 2050.
- Norges Bank will increase its understanding of the impact of climate change and energy transition.

Society and social conditions

- Norges Bank will promote a culture of diversity, inclusion and equal opportunities.
- Norges Bank will promote professional development so that staff enjoy their work, are challenged and gain the skills necessary to meet new challenges.
- Norges Bank will promote human and workers' rights through responsible investment and in its procurement processes.



Corporate governance, ethics and culture

- Norges Bank will enable its employees and partners to make sustainable choices.
- Norges Bank will report on its sustainability work in line with best practice.
- Norges Bank will support the development of standards for well-functioning markets, good corporate governance and responsible business practices.

Humpback whales swimming between melting ice sheets. Ilulissat Icefjord, Greenland.

Climate and the environment

The impact of climate change and the need to reduce emissions are increasingly influencing the global economy and therefore also how Norges Bank has worked on its core tasks over the past year.

By increasing its understanding of the effects of climate change and the energy transition, Norges Bank will be better poised to achieve the objectives of price stability, high and stable employment, and financial stability.

The climate-related risks for the Government Pension Fund Global arise from uncertainty surrounding the effects of climate change on the fund's investments, and how companies and the authorities will adapt to, and take into account these effects. In 2022, Norges Bank presented the 2025 Climate action plan for work on climate risk in the Government Pension Fund Global. The plan followed up changes in the investment management mandate issued by the Ministry of Finance, which set a responsible management target inciting companies in the investment portfolio to align their operations with global net zero emissions in line with the Paris Agreement.

The Task Force on Climate-related Financial Disclosures (TCFD) has developed a framework for climate risk reporting. Norges Bank supports the intention behind the recommendations of the TCFD and believes that the TCFD framework can contribute to more universal and consistent reporting across jurisdictions. Appendix 1 provides an overview of Norges Bank's status for 2022 in accordance with the recommendations in the TCFD framework.

"The shift to a low-carbon economy and the required energy transition entails major changes for the Norwegian economy.

Work on climate and climate risk in central banking operations

The shift to a low-carbon economy and the required energy transition entails major changes for the Norwegian economy. Efforts to strengthen our understanding of these effects are a priority area in Strategy 25.[1]

In 2018, Norges Bank became a member of the Network for Greening the Financial System (NGFS), a network for central banks and supervisory authorities. The network facilitates sharing experiences and best practice, performing analyses and designing methods for managing environment and climate risk relevant to financial authorities and the financial sector. Norges Bank will maintain its close cooperation with international organisations such as the NGFS, the Bank for International Settlements (BIS), the International Monetary Fund (IMF) and other central banks to strengthen a common understanding of the macroeconomic effects of climate change.

[1] See also blog "Hvordan arbeider sentralbanker med klima?" [How do central banks work on climate issues?] (in Norwegian only) (norges-bank.no)

Climate and monetary policy

The policy rate is not a suitable instrument for influencing the climate, but monetary policy assessments can be influenced by the effects of climate-related conditions on the Norwegian economy. For example, multiple droughts have contributed to the rise in global food prices over the past year, while the energy crisis in Europe, mainly caused by the war in Ukraine, has been exacerbated by factors related to both the weather and the climate transition. In Norway, new green industrial projects are boosting investment. At the same time, the transition to a low-carbon economy may increase uncertainty regarding future revenues and investments in the petroleum industry. In the longer term, the structure of the Norwegian economy will also change.

In order to increase knowledge about how climate-related changes affect the Norwegian economy, Norges Bank has, over the past three years, asked companies in its Regional Network how they are affected by climate-related factors. The climate transition is essentially an energy transition. Norges Bank therefore analyses the energy market in particular, see, eg *Monetary Policy Report* 3/22.

Climate risk and financial stability

An important component of Norges Bank's mission is to promote a robust financial system. A rapid and abrupt transition may entail a risk to financial stability. The transition to a low-carbon economy and new regulations involves a transition risk for the Norwegian economy in the years ahead.

Financial institutions must ensure that they are well equipped to assess and manage climate risk. High-emission sectors will face the greatest need for restructuring and are therefore most exposed to transition risk. Analyses published by Norges Bank in 2021 indicate that Norwegian banks' direct exposure to firms vulnerable to higher carbon prices is moderate.

"The policy rate is not a suitable instrument for influencing the climate, but monetary policy assessments can be influenced by the effects of climate-related conditions on the Norwegian economy.

Well-functioning financial markets are crucial for financing investments that can meet climate-related changes. Reliable information on climate risk is also decisive. In 2022, high energy costs were in focus. Norges Bank's analyses show that increased energy labelling of buildings is necessary for banks to make sound risk assessments.

Going forward, Norges Bank will continue to conduct quantitative assessments of climate risk for Norwegian banks and participate in international work concerning new reporting requirements.

See further discussion in *Financial Stability Report* 2022.

Climate risk in the foreign exchange reserves

The Executive Board's decisions on responsible investment principles and Norges Bank's sustainability strategy are part of the framework for the management of the foreign exchange reserves, including the management of climate-related issues and climate risk.

The foreign exchange reserves consist of a fixed income portfolio and an equity portfolio. The fixed income portfolio is intended to ensure that the foreign exchange reserves are sufficiently liquid for contingency purposes and for Norges Bank to fulfil its international obligations. The fixed income portfolio therefore consists of cash and liquid government bonds. Climate-related issues have therefore had little impact on the composition of the fixed income portfolio. Green bonds are included in the investment universe if they otherwise meet established criteria.

The equity portfolio of the foreign exchange reserves is managed according to the same principles and responsible investment strategies as the equity investments in the Government Pension Fund Global. This means that the 2025 Climate action plan for the Government Pension Fund Global, including the target for companies to adjust their operations for compliance with global net zero emissions by 2050, also applies to the equity portfolio in the foreign exchange reserves.

Based on the percentage holdings in each company, total emissions for the foreign exchange reserves' equity portfolio amounted to 864.323 tonnes of CO_2 equivalent in 2022. Carbon intensity, ie emissions in tonnes of CO_2 equivalent per million USD in revenue, was 128 tonnes of CO_2 equivalent per million USD in 2022.

> Climate risk and climate adaptation will be incorporated into the assessments on the need for foreign exchange reserves.

Work on climate risk in the Government Pension Fund Global

Managing climate risk is one aspect of responsible management of the Government Pension Fund Global. This is further described in the report Responsible investment – Government Pension Fund Global.

The 2025 Climate action plan describes measures to manage climate risk to be implemented in the period 2022-2025. These are targeted at improving market standards, including the framework for climate reporting, strengthening portfolio climate risk resilience and effectively engaging with portfolio companies. At the heart of this effort lies the aim of driving the Government Pension Fund Global's portfolio companies towards net zero emissions by 2050, and for them to set credible targets and plans for reducing their direct and indirect GHG emissions (Scope 1, 2 and 3). At the end of 2022, 17% of the portfolio companies had set net zero 2050 targets based on recognised standards such as the Science Based Targets initiative (SBTi) or similar standards. If emissions are weighted, about 56% of the emissions (Scope 1 and 2) of the portfolio companies are covered by such targets. Given rapid developments with regard to both the companies' objectives and recognised methods, these figures are fraught with uncertainty.

In accordance with the management mandate, the 2025 Climate action plan also calls for increased climate risk reporting in the portfolio. The reporting is to be developed in line with leading international standards and incorporated into the fund's responsible investment reporting, for example with a separate appendix with TCFD information. The fund's responsible investment report presents analyses and stress tests against various climate scenarios, including a scenario consistent with global warming of 1.5 degrees.

Norges Bank has measured and published the carbon footprint of companies in the equity portfolio and the benchmark index since 2014, based on reported and modelled data for Scope 1 and 2 emissions. Carbon footprint analyses provide insight into the level of GHG emissions generated by portfolio companies. Moreover, the analysis can bring to light risks and opportunities across industries. GHG emission reporting still

> At the heart of this effort lies the aim of driving the fund's portfolio companies towards net zero emissions by 2050.

Arial view of forest fire

varies in frequency and quality. Consequently, because many companies still do not report emission figures, large parts of the fund's carbon footprint are calculated using models.

Norges Bank has begun aligning its reporting of the Government Pension Fund Global's carbon footprint with guidance from the Partnership for Carbon Accounting Financials (PCAF). Norges Bank has measured so-called financed emissions, the companies' emissions weighted by the fund's share of their enterprise value, in 2022 for the equity and corporate bond portfolio and the benchmark index. The financed emissions in 2022 were 51.7m tonnes of CO_2 equivalent, which is 15% lower than the corresponding figure for the benchmark index. Based on percentage ownership interests in the individual companies, total emissions in the fund's equity portfolio amounted to 87.4m tonnes of CO_2 equivalent in 2022. As previously, the carbon footprint figures publicly disclosed by Norges Bank will consist of reported and estimated emission data from a single source, – S&P Global Trucost – to ensure internal consistency in the data set, as recommended by PCAF.

The companies in the fund's equity portfolio emitted 135 tonnes of CO_2 equivalent per million USD in revenue. This is referred to as the carbon intensity of the equity portfolio. In 2022, it was 12% lower than for the benchmark index. The corporate bond portfolio's carbon intensity was 13% lower than the carbon intensity benchmark index.

Norges Bank's understanding of the effects climate change has on the global economy and financial markets will continue to improve in the future. At the same time, governments will introduce new regulations, new technological advances will be seen, consumer preferences will change, and companies will adapt their strategies accordingly. These developments will influence the fund's climate risk. Ultimately, the fund's climate risk depends on government measures that provide an orderly and predictable climate transition, and on companies' ability to achieve their net zero emission targets.

> The companies in the fund's equity portfolio emitted 135 tonnes of CO_2 equivalent per million USD in revenue.

Work on climate risk in real estate management in the Government Pension Fund Global

Real estate investments have a long time horizon. Norges Bank enters into long-term leases and makes decisions on renovation and improving the buildings Norges Bank owns. Climate change considerations are therefore key. Norges Bank's real estate portfolio is exposed to both physical climate risk such as extreme weather, gradually rising sea levels and flooding that may lead to direct damage or building closures and transition risk, such as a statutory reduction of energy consumption or lower demand for buildings with high emissions. A growing number of tenants are setting net zero emission targets for their own business operations, which lead them to favour energy-efficient buildings powered by renewable energy sources.

The 2025 Climate action plan sets a target of net zero emissions by 2050 for the real estate portfolio, and a 40% reduction for Scope 1 and Scope 2 emissions by 2030. To achieve these goals, Norges Bank will seek to reduce emissions in the real estate portfolio and integrate climate risk assessments into investment processes.

Norges Bank measures progress towards the goal of net zero emissions in the real estate portfolio using research-based emission pathways consistent with global warming of 1.5 degrees for various real estate markets, developed by the Carbon Risk Real Estate Monitor (CRREM). Based on 2021 data, 26% of the real estate portfolio was aligned with these emission pathways. In addition, Norges Bank applies the global norm for sustainable real estate management Global Real Estate Sustainability Benchmark (GRESB). In 2022, the fund's real estate portfolio achieved a total point score of 81 out of 100. In addition, 82% of the fund's portfolio of office and retail buildings had green certifications at the end of 2022.

Climate impact on Norges Bank's operations

Norges Bank's ambition is to reduce emissions from its own operations in line with the Paris Agreement and work systematically to implement measures to reduce these emissions. Norges Bank will work systematically on measures to reduce its own emissions.

Norges Bank prepares an annual calculation of its carbon footprint for its own operations in accordance with the standard set by the Greenhouse Gas Protocol Initiative (GHG protocol) and the Eco-Lighthouse. The climate accounts include direct and indirect carbon emissions (Scope 1, 2 and 3).

85%

of Norges Bank's total emissions come from air travel.

TABLE 2 Annual carbon footprint for Norges Bank's operations.

Greenhouse gas (GHG) emissions, in tonnes of CO_2 equivalent[1]		2019[2]	2021	2022	Change from 2021–2022	Change from 2019–2022
Direct emissions (Scope 1)	Fuel combustion, vehicles	20	15	16	4 %	-21 %
	Diesel for heating	1	2	9	310 %	653 %
Indirect emissions (Scope 2)	Electricity	745	656	646	-1 %	-13%
	District heating	4	4	3	-16 %	-3 %
Indirect emissions, other (Scope 3)	Air travel	8 378	692	5 175	648 %	-38 %
	Hotel stays	450	32	156	384 %	-65 %
	Km. allowance	11	6	11	82 %	-1 %
	Waste	57	25	40	58 %	-30 %
Total GHG emissions[3]		**9 667**	**1 433**	**6 056**	**323 %**	**-37 %**

1 Includes the gases: CO_2, CH_4, N_2O, HFC_S, PFCS, SF_6 and NF_3. Norges Bank primarily uses emission factors from DEFRA (UK Department for Environment, Food and Rural Affairs) and CEMAsys.

2 Norges Bank has selected 2019 as a reference year. This is the last year with normal activity with reliable underlying data.

3 Norges Bank's carbon footprint include Norges Bank offices where the Bank has operational control in Oslo, London, New York, Singapore and Shanghai.

Air travel was the largest source of emissions, accounting for 85% of total emissions. The decrease in emissions from 2019 to 2021 is largely due to the Covid-19 pandemic. In 2022, travel activity increased. In the period ahead, targets and measures will be assessed on how to reduce the carbon footprint of Norges Bank's official travel.

Norges Bank is working to reduce emissions from energy consumption at Norges Bank's offices. At Norges Bank's head office at Bankplassen 2, ventilation units and other technical installations have been replaced by more energy-efficient alternatives in recent years. In the same vein, measures to reduce energy consumption related to lighting, ventilation and heating systems have been implemented. Climate-related work is key to the ongoing upgrade programme deployed at the head office, and equipment will be replaced with more energy-efficient alternatives. At Norges Bank's offices abroad, where Norges Bank is a tenant, action has been taken to reduce energy consumption from lighting and indoor temperatures have been adjusted.

The carbon accounts evolve over time by including an increasing number of sources, such as emissions from the operation of data centres. Norges Bank requires data centres to be constructed and operated in an eco-friendly manner to ensure efficient resource utilisation and use of renewable sources.

Norges Bank's head office at Bankplassen 2 is Eco-Lighthouse certified, which provides access to tools that support the Bank in measuring and improving environmental performance. In 2022, the Bank included new industry-specific criteria for banking and finance. These criteria mainly apply to responsible investment topics.

Society and social conditions

Norges Bank is committed to being a transparent central bank. Broad knowledge of Norges Bank's work, tasks and responsibilities is important for building public trust. Norges Bank will attract, develop and retain highly skilled and motivated employees. The Bank promotes job satisfaction, stimulating work and the expertise necessary to meet new challenges.

At the end of 2022, Norges Bank had 1 007 permanent employees. Of these, 572 were employed in Norges Bank Investment Management, 272 in Norges Bank Central Banking Operations, 156 in Norges Bank Administration and seven employed in the Office of the Supervisory Council. Norges Bank is a global organisation in which 45% of our employees work at offices in London, New York, Singapore and Shanghai, as well as at subsidiaries represented in London, Paris, Luxembourg and Tokyo.

A transparent central bank

In 2022, as society reopened following lockdown, prominence was given to talks and lectures. The executive management and subject matter experts from Norges Bank Investment Management and the central bank have held a number of lectures for various target groups. Special efforts were made to reach students and meet the public in new arenas. In addition to this, Norges Bank seeks to visit all regions of Norway every year. In 2022, the Bank also participated in KÅKÅnomics, an annual Nordic economics event held in Stavanger, as well as Arendalsuka, an annual week of events for leaders in politics and business, the media and the public held in the city of Arendal. Following the policy rate decision in August, the Bank organised a press conference in Arendal that was open to the public. In November, the Bank also held a press conference following the policy rate decision taken at an interim monetary policy meeting.

Through the Norges Bank and Norges Bank Investment Management websites, Norges Bank seeks to communicate clearly with both the Norwegian people and international target groups. Norges Bank continually seeks to share information of potential interest to the general public and publishes a number of reports and publications on topics within the fields of economics and finance.

Social media and the blog "Bankplassen" are an important part of Norges Bank's transparency strategy. In 2022, Norges Bank Investment Management launched the podcast "In Good Company", where Nicolai Tangen interviews senior executives of some of the largest companies in the fund's portfolio. The purpose is to offer the Norwegian people, who are the owners of the fund, deeper insight into companies the fund is invested in. By the same token, the intent is to provide an opportunity for the Norwegian people to become acquainted with the managers of these companies.

Norges Bank's research community is the link between the Bank and academia. Thus, in 2022, researchers at Norges Bank maintained extensive contact with researchers from universities and other central banks through joint research projects and presentations of ongoing work at national and international conferences, as well as at seminars. In 2022, eight articles written by researchers at Norges Bank were approved for publication in peer-reviewed journals.

> Norges Bank seeks to share information of potential interest to the general public.

Collaborations and initiatives

Norges Bank engages in extensive international cooperation. In addition to formalised international cooperation, Norges Bank maintains regular contact with the Nordic central banks, the European Central Bank (ECB) and other central banks to favour information- and knowledge-sharing.

International Monetary Fund (IMF)
Norges Bank manages Norway's rights and obligations related to Norway's participation in the IMF. The Governor of Norges Bank is the Norwegian government's representative in the IMF's highest decision-making body, the Board of Governors. The main source of financing for IMF loans is member countries' quotas, which all member countries are obligated to pay to the IMF. Norges Bank has a standing obligation to make foreign exchange available in an amount equivalent to Norway's quota to finance IMF lending. Furthermore, Norges Bank makes foreign exchange reserves available to the IMF in the form of agreed drawing rights. By agreement, Norges Bank advises the Ministry of Finance on Norway's position in matters submitted to the IMF's Executive Board.

Technical assistance to the Bank of Mozambique
Norges Bank has since 2017 provided technical assistance to the Bank of Mozambique with the aim of contributing to the modernisation of the central bank's functions. The assistance covers all aspects of central banking and is provided in cooperation with the IMF and financed by the Ministry of Foreign Affairs.

Bank for International Settlements (BIS)
Norges Bank is a co-owner of the BIS, whose main task is to foster cooperation among central banks. The BIS provides banking services for central banks, prepares analyses and statistics. Moreover, the BIS organises meetings and discussions between member central banks. The Governor of Norges Bank regularly takes part in BIS meetings. In 2021, the BIS Innovation Hub Nordic Centre was established in Stockholm, a collaboration between the BIS and the central banks of Sweden, Norway, Denmark and Iceland. The centre will place specific importance on analysing financial innovations of significance to central banks.

"Norges Bank engages in extensive international cooperation.

Network for greening the financial system (NGFS)
Norges Bank has been a member of the NGFS since December 2018. The NGFS is a network for central banks and supervisory authorities that aims to increase knowledge about methods financial authorities and the financial sector may employ to take account of climate risk and the environment.

Participation in EU supervisory work
Norges Bank is a member of the European Systemic Risk Board (ESRB), but without the right to vote. The ESRB identifies and analyses threats to financial stability in the EU and seeks to limit systemic risk by providing recommendations on good policy and issuing warnings about adverse developments. The Governor of Norges Bank is a member of the ESRB's highest decision-making body, the General Board. Finanstilsynet (Financial Supervisory Authority of Norway) is a non-voting member of the European Banking Authority (EBA), the European regulatory authority for banking supervision. Norges Bank accompanies Finanstilsynet to meetings of the Board of Supervisors, which is the main decision-making body of the EBA.

Financial Stability Board (FSB)
Norges Bank, the Ministry of Finance and Finanstilsynet are members of the FSB's Regional Consultative Group for Europe (RCGE). The Governor is Norges Bank's representative. The FSB is a G20 body that prepares analyses and assessments of financial matters included in the body's various processes. The RCGE is a group for the exchange of information and views between European countries within and outside the G20.

Organisation for Economic Co-operation and Development's (OECD) Committee on Financial Markets (CFM)
Norges Bank and the Ministry of Finance are members of the OECD's CFM. The Committee works to promote efficient, open, stable and sound financial systems through analyses and political dialogue.

Nordic-Baltic cooperation on financial market issues
Norges Bank participates in the Nordic-Baltic Macroprudential Forum (NBMF) and in the Nordic-Baltic Stability Group (NBSG). In the NBMF, central banks and supervisory authorities discuss issues related to systemic risk and cross-border banking in the region. More precisely, the NBSG's main task is to strengthen preparedness for handling cross-border threats to financial stability in the region. The Nordic finance ministries also participate in this group.

Norges Bank Academic Programme

The objective of the Academic Programme is to promote macroeconomic and financial economic research and education in Norway. The programme is coordinated jointly by Norges Bank Central Banking Operations and Norges Bank Investment Management. It consists of three programmes: PhD Scholarship programme, co-financing for hiring and co-financing of PhD-courses.

Government Pension Fund Global

In its management of the Government Pension Fund Global, Norges Bank supports initiatives whereby companies or investors join forces to find common standards for sustainable business conduct. Such initiatives work best when many companies in a particular industry or value chain face the same challenges. Our initiatives look at challenges such as supply chain management and reporting.

Norges Bank supports and initiates research projects to understand and contribute to better market standards. Norges Bank works with academic institutions to learn from the latest research and obtain analyses that may be relevant to its investment strategy, risk analyses and ownership. In 2022, Norges Bank supported two research projects about climate risk and three projects on corporate governance and ownership structure.

Meeting of the Nordic central bank governors November 2022.

Diversity, equity and inclusion

Norges Bank aims to be recognised as a leading institution in its field of expertise and believes that increased diversity and inclusion make us better. More precisely, the Bank considers that diversity adds perspectives, stimulates creativity and improves decision-making. Norges Bank has committed to the Women in Finance Charter and works systematically to achieve gender balance.

Norges Bank aims for a gender balance reaching at least 40% for the Bank as a whole, and likewise has a long-term goal of gender balance at management level and specialist functions of 40%.

Norges Bank works systematically to identify the risk of discrimination or other barriers to equality through HR data development, staff surveys, performance appraisals and HSE work. In the strategy period ahead, The Bank will pursue and strengthen the work on specifying goals and measures pertaining to diversity, equity and inclusion.

Norges Bank aims to be recognised as a leading institution in its field of expertise and believes that increased diversity and inclusion make us better.

A packed auditorium and lively debate at Norges Bank's event to mark International Woman's Day and discuss the #BreakTheBias theme.

Employees and gender balance

Norges Bank staff is composed of a total of 39 different nationalities, 11 in Norges Bank Central Banking Operations, nine in Norges Bank Administration and 35 in Norges Bank Investment Management. The share of women in Norges Bank at the end of 2022 was 35%. This represents an increase from 34% in 2021 and 33% in 2020. The share of women in Norges Bank Investment Management was 29% in 2022, which is an increase from 27% in 2021 and 25% in 2020. In Norges Bank Central Banking Operations, the share of women was 35% in 2022, which represents an increase from 34% in 2021 and 33% in 2020. In Norges Bank Andministration, the share of women has remained stable in recent years, at 57% in 2022, 58% in 2021 and 57% in 2020.

35%

total share of women in Norges Bank in 2022.

Table 3 Share of women and men per job category at Norges Bank's head office in Oslo.[1]

Job category	2022		2021		2020	
	Share of men	Share of women	Share of men	Share of women	Share of men	Share of women
Head of department	75%	25%	76%	24%	82%	18%
Head of section	62%	38%	68%	32%	73%	27%
Chief analyst	100%	0%	-	-	-	-
Special adviser	72%	28%	71%	29%	74%	26%
Senior adviser	61%	39%	65%	35%	65%	35%
Adviser	50%	50%	51%	49%	51%	49%
Analyst	65%	35%	-	-	-	-
Consultant	56%	44%	47%	53%	47%	53%
Support staff	0%	100%	0%	100%	25%	75%

[1] In 2022, the job categories analyst and chief analyst were established in the framework for job categories across Norges Bank Central Banking Operations, Norges bank Administrasjon and Norges Bank Investment Management. Previously, these were included in the categories adviser and special adviser, which will therefore entail a change to the job category sample for 2022.

Over the past year, the balance between women and men has improved for a number of job categories and Norges Bank will continue its efforts to increase the share of women in middle management positions by both internal promotion and external recruitment. Norges Bank will work systematically towards a better gender balance at all levels of the Bank. This will be achieved for example by succession planning, setting specific development plans for individual employees, strengthening recruitment processes and improving the reputation management in the candidate market.

The candidate market is still under pressure and particularly challenging for IT positions. Nevertheless, the market appears to show a tendency towards seeking greater security through employment in the public sector. In 2022, Norges Bank climbed more than ten ranking places among the employed in Universum's ranking of Norway's most attractive IT positions. This is the second year in a row that Norges Bank has climbed more than ten places and demonstrates that the reputation management work is showing results. In Norges Bank Central Banking Operations and Norges Bank Administration, the gender distribution among applicants in 2022 was 62% men and 38% women, of which 56% men and 44% women were hired. The corresponding figures for Norges Bank Investment Management were 70% men and 24% women among applicants (6% did not wish to disclose), of which 65% men and 35% women were hired.

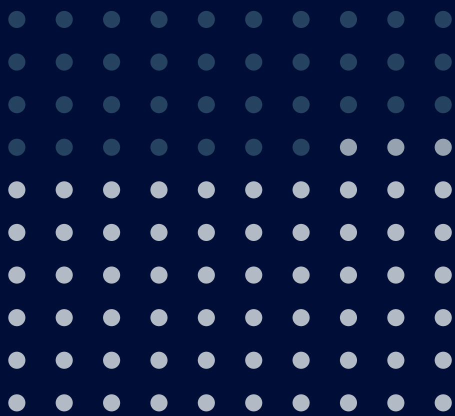
Diversity has also been important in Norges Bank Investment Management's 2022 graduate programme. In addition to seeking diversified skills backgrounds, candidates were also sought from diverse socioeconomic and minority backgrounds. In 2022, 16 graduates were recruited, of which 63% were men and 37% were women with varied backgrounds, experience and with education from different educational institutions nationally and internationally. Of these, 56% were Norwegian nationals, 38% had dual nationality and 13% had other nationalities. Furthermore, 30 interns were recruited to Norges Bank Investment Management's summer internship programme in 2022, of which 60% were men and 40% were women. This was an increase from 25 interns in 2021, of which 64% were men and 36% were women. In Norges Bank Central Banking Operations and Norges Bank Administration, student internships are used actively in various areas. At the end of 2022, there were 33 student internships, of which 52% were women and 48% were men.

A network initiative for female employees has been established in Norges Bank Investment Management with the aim of building and strengthening relationships, as well as creating an arena for personal development, knowledge and experience-sharing globally and within each location.

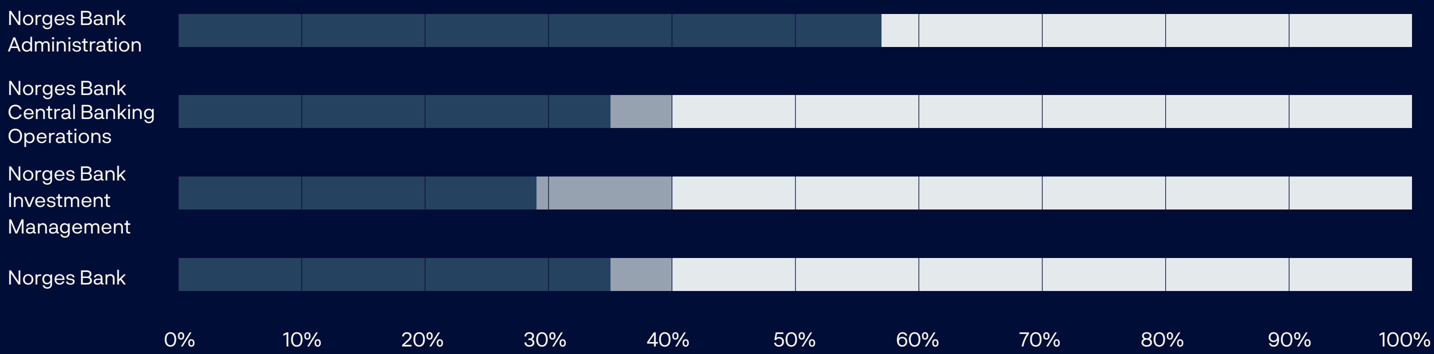
New graduates in 2022.

Gender balance

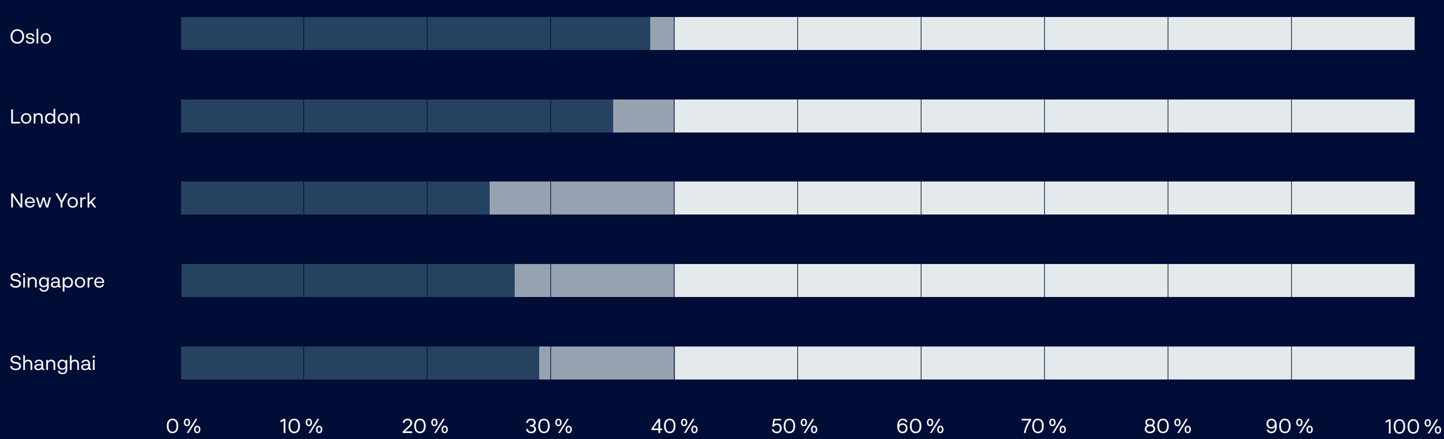
Graduates



Gender balance per operational area



Gender balance per office



Salary and compensation schemes

The Executive Board sets the limits for Norges Bank's salary and compensation schemes and monitors how they are put into practice. The wage level is expected to be competitive, but not market-leading.

Salaries are set on an individual basis and reflect the position holder's level of responsibility, qualifications, experience and performance. The table below shows the breakdown of the gender balance, fixed salaries and total pay in different job categories at the end of 2022 at the head office in Oslo. Total pay includes fixed salary, performance pay and overtime pay. All employees working on investment decisions are eligible for performance pay. For privacy reasons, there must be at least five of each gender per job category to be able to publish pay data. Privacy considerations do not allow survey results to be shown for certain job categories or for the Bank's offices abroad.

Differences in salary between men and women can be observed, reflecting a preponderance of men in positions involving investment decisions. Positions with investment responsibility generally offer higher salaries in the market compared with positions at the same level in other areas. In both operational areas, overtime pay also has an effect on the figures for total pay. In 2022, men were generally seen to have worked relatively more overtime than women.

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Salaries are set on an individual basis and reflect the position holder's level of responsibility, qualifications, experience and performance.

TABLE 4 Salaries for fixed salary employees in different job categories at Norges Bank Oslo.

Norges Bank Oslo	Median fixed salary		Wage gap – women's pay as a percentage of men's pay	Average fixed salary		Wage gap – women's pay as a percentage of men's pay
	Men	Women		Men	Women	
Head of department	1 668 000	1 570 000	94%	1 912 000	1 701 000	89%
Head of section	1 363 000	1 325 000	97%	1 422 000	1 346 000	95%
Special adviser	1 224 000	1 198 000	98%	1 289 000	1 203 000	93%
Senior adviser	950 000	950 000	100%	982 000	970 000	99%
Adviser	766 000	760 000	99%	798 000	769 000	96%
Analyst	575 000	553 000	96%	588 000	571 000	97%
Consultant	741 000	720 000	97%	752 000	699 000	93%

Table 5 Salaries for employees' total pay in different job categories at Norges Bank Oslo.

Norges Bank Oslo	Median total pay		Wage gap – women's pay as a percentage of men's pay	Average total pay		Wage gap – women's pay as a percentage of men's pay
	Men	Women		Men	Women	
Head of department	1 690 000	1 570 000	93%	2 170 000	1 788 000	82%
Head of section	1 451 000	1 402 000	97%	1 585 000	1 416 000	89%
Special adviser	1 349 000	1 262 000	94%	1 491 000	1 273 000	85%
Senior adviser	980 000	964 000	98%	1 062 000	1 014 000	95%
Adviser	800 000	765 000	96%	834 000	780 000	94%
Analyst	578 000	553 000	96%	593 000	596 000	101%
Consultant	837 000	756 000	90%	850 000	722 000	85%

Table 6 Salaries for employees' fixed salaries in different job categories within Norges Bank Central Banking Operations (NBCBO) and Norges Bank Administration (NBA).

NBCBO and NBA in Oslo	Median fixed salary		Wage gap – women's pay as a percentage of men's pay	Average fixed salary		Wage gap – women's pay as a percentage of men's pay
	Men	Women		Men	Women	
Head of department	1 546 000	1 522 000	98%	1 595 000	1 537 000	96%
Head of section	1 167 000	1 281 000	110%	1 215 000	1 290 000	106%
Special adviser	1 200 000	1 185 000	99%	1 217 000	1 165 000	96%
Senior adviser	942 000	924 000	98%	950 000	933 000	98%
Adviser	762 000	760 000	100%	777 000	759 000	98%
Analyst	635 000	584 000	92%	624 000	590 000	95%
Consultant	741 000	720 000	97%	752 000	699 000	93%

Table 7 Salaries for employees' total pay in different job categories within Norges Bank Central Banking Operations (NBCBO) and Norges Bank Administration (NBA).

NBCBO and NBA in Oslo	Median total pay		Wage gap – women's pay as a percentage of men's pay	Average total pay		Wage gap – women's pay as a percentage of men's pay
	Men	Women		Men	Women	
Head of department	1 559 000	1 522 000	98%	1 601 000	1 537 000	96%
Head of section	1 167 000	1 281 000	110%	1 222 000	1 297 000	106%
Special adviser	1 220 000	1 220 000	100%	1 246 000	1 222 000	98%
Senior adviser	970 000	942 000	97%	981 000	959 000	98%
Adviser	808 000	765 000	95%	818 000	770 000	94%
Analyst	646 000	600 000	93%	634 000	618 000	97%
Consultant	837 000	756 000	90%	850 000	722 000	85%

Table 8 Salaries for employees' fixed salaries in different job categories within Norges Bank Investment Management.

Norges Bank Investment Management Oslo	Median fixed salary		Wage gap – women's pay as a percentage of men's pay	Average fixed salary		Wage gap – women's pay as a percentage of men's pay
	Men	Women		Men	Women	
Head of section	1 580 000	1 450 000	92%	1 593 000	1 422 000	89%
Special adviser	1 300 000	1 295 000	100%	1 374 000	1 294 000	94%
Senior adviser	980 000	1 003 000	102%	1 014 000	1 041 000	103%
Adviser	770 000	763 000	99%	807 000	790 000	98%
Analyst	550 000	550 000	100%	565 000	557 000	99%

Table 9 Salaries for employees' total pay in different job categories within Norges Bank Investment Management.[1]

Norges Bank Investment Management Oslo	Median total pay		Wage gap – women's pay as a percentage of men's pay	Average total pay		Wage gap – women's pay as a percentage of men's pay
	Men	Women		Men	Women	
Head of department	1 670 000	1 537 000	92%	1 885 000	1 579 000	84%
Head of section	1 674 000	1 350 000	81%	1 782 000	1 394 000	78%
Special adviser	1 007 000	1 034 000	103%	1 144 000	1 119 000	98%
Senior adviser	800 000	763 000	95%	841 000	802 000	95%
Adviser	550 000	550 000	100%	564 000	580 000	103%
Analyst	550 000	550 000	100%	565 000	557 000	99%

1 Analyst and chief analyst job categories were new in 2022, which entails changes in the job category sample of employees and the analysis of adviser and special adviser job categories.

Recruitment

Norges Bank works systematically to attract and recruit the most talented candidates from the foremost academic communities nationally and internationally. Recruitment across nationality, gender, age, background, knowledge and expertise gives rise to a variety of experiences and contrasting perspectives, reflecting the goal of greater diversity in the Bank.

The recruitment process is an important part of promoting diversity. Job advertisements are designed to attract diverse candidates, and external recruitment agencies are required to comply with diversity requirements. Checkpoints have been established in the interview process to ensure that candidates are treated on an objective and fair basis, and guidelines for wage determination and wage reporting ensure equal treatment irrespective of gender and background. When selecting candidates, managers are made aware of the danger of "unconscious selection". All recruitments must be processed and approved by the Co-determination and Personnel Committee, where management and trade union representatives sit.

In its efforts to achieve a gender balance target of at least 40%, Norges Bank is working to make female employees more visible so that they may act as role models in various arenas. Moreover, female employees across the organisation are encouraged to apply for senior positions internally.

By means of the Knowledge Centre, corporate presentations and lectures at schools, universities, and in relevant networks, Norges Bank seeks to increase awareness about the Bank among students and school pupils. Through the Norges Bank Teaching Initiative and NBIM Teach, Bank employees give lectures at universities on economics, finance and

“Norges Bank hires across nationalities, gender, age, background, knowledge and expertise to increase diversity in the organisation.

technology. Furthermore, Norges Bank holds an annual nationwide case competition for students. The purpose of the competitions is to stimulate students and school pupils by offering insight into economic issues within central banking operations' core tasks. A new initiative was launched in 2022, Case NM Junior, a separate national championship in economics for upper-secondary school pupils in Norway who are given the choice between competing on the subjects of monetary policy or investment management.

In March, Norges Bank organised the final round of its national championship for economics students – "Rate setting in practice 2022". The ten finalist teams were from the Norwegian University of Science and Technology, the NHH Norwegian School of Economics, the University of Stavanger, the University of Oslo and the University of Bergen.

Career development and succession planning

Norges Bank shall facilitate a development process emphasising the employee's potential, creating engagement and a sense of belonging.

Norges Bank believes in the value of lifelong learning. In 2022, particular focus was placed on learning through digital platforms and leadership development. Employees can apply for residency and further education at educational institutions. Moreover, the Bank has a scheme whereby employees gain experience by working temporarily in other Norges Bank departments and locations. Some employees are offered the opportunity for secondment to other central banks and relevant institutions.

Norges Bank works strategically with development and succession planning to safeguard diversity and gender balance in senior and management roles. Succession planning is carried out in meetings with the management teams and provides a good opportunity to take account of employee expertise and experience across all departments.

Flexibility

Surveys conducted by Norges Bank reveal that flexibility has proven to be an important factor when recruiting and retaining staff. Norges Bank facilitates flexible working arrangements and adjusts to varying needs throughout staffs' career paths. In 2021, the Bank introduced a trial scheme offering staff the possibility to work from home up to two days a week. In 2022, the Bank decided to continue this scheme.

Most Norges Bank employees have signed full-time contracts, with the exception of a few employees at the Bank's training and conference centre and various forms of hourly paid work. The majority of temporary employees at Norges Bank have signed contracts in connection with research and a degree of hourly paid work. If employees aspire to work part-time during periods of employment, they must apply for one year at a time. Thus, Norges Bank does not consider that involuntary part-time work is not seen as an issue at the Bank.

Norges Bank offers gender-neutral parental leave of 16 weeks, which is in addition to 10 weeks of maternity leave for employees at all the Bank's offices abroad. The Bank also facilitates a gradual transition to retirement when requested. Through its retiree consultant scheme, Norges Bank can retain experienced workforce and support employees in their desire to take part in working life, even after the transition to retirement.

TABLE 10 Share of temporary employees, employees on parental leave and part-time employees in Oslo.

	Men	Women
Percentage of temporary employees	1,2 %	1,8 %
Percentage of employees in part-time positions	0,5 %	1,3 %
Average number of weeks of parental leave[1]	9	17

[1] Number of weeks taken out in the financial year and not the number of weeks the employee has taken out in total.

Health, Safety and the Environment

Through the annual staff survey, the Bank measures employee engagement, well-being and health, and maps incidents related to discrimination and undesirable behaviour. Results and measures are presented and monitored annually in management groups as well as in the Working Environment Committee, which consists of both management and employee representatives. The results of the survey and measures are followed up by managers in dialogue with their employees. HR provides support to managers and employees when needed.

In 2022, Norges Bank worked actively to maintain a good psychosocial working environment. Throughout the year, several initiatives were specifically aimed at methods for managers and employees to ensure a positive working environment, the implications of psychological safety for the working environment, as well as techniques to identify bullying and harassment risks. All employees have been trained to show mutual respect, to be inclusive, to actively listen to different perspectives and to exchange constructive feedback. Various initiatives relating to the themes of mental health and stress management have also been made available to employees.

"In 2022, Norges Bank worked actively to maintain a good psychosocial working environment.

Norges Bank cooperates closely with the occupational health service and in 2022 has worked on the further development of systematic HSE work. To reduce the risk of musculoskeletal disorders, the occupational health service has been engaged in the ergonomic adaptation of the workplace in both the office and home office. The Bank also offers a wide range of fitness activities and has provided facilities to enable employees to cycle to work. In the ongoing upgrade of the head office, the focus is on improving the indoor climate and increasing flexible working arrangements.

Norges Bank's safety representative service, with safety representatives and chief safety representatives, carry out the important work of safeguarding employees' interests relating to working environment matters. They are consulted during the planning and follow-up of measures that are important for the working environment.

Sickness absence at Norges Bank is stable at a low level, and was 2.3% in 2022, an increase from 1.7% in 2021. The Inclusive Working Life Agreement now covers all workplaces in Norway, and the Bank supports efforts to prevent sick leave. Norges Bank has continued the policy of additional self-certified sick leave for employees in line with the guidelines in the Inclusive Working Life Agreement.

In 2022, 12 HSE-related incidents related directly to work in Norges Bank's office premises, courses or conference centres were reported. No injuries or accidents have been sufficiently severe to require reporting to the Norwegian Labour Inspection Authority in 2022.

Cooperation with the trade unions

The relationship between Norges Bank's management, the employees and their elected representatives is to be built on dialogue, trust and mutual respect. The Bank's management maintains close contact with trade unions, including the Co-determination and Personnel Committee, the Working Environment Committee and regular contact meetings with trade union representatives at several levels of the Bank. Two employee representatives attend Executive Board meetings when administrative matters are on the agenda.

> “The relationship between management, the employees and their elected representatives is to be built on dialogue, trust and mutual respect.

Corporate governance, ethics and culture

The ethical principles state that Norges Bank shall maintain high ethical standards, respect human rights, act socially responsible and comply with applicable laws and regulations. The rules include, among other elements, employees' own-account trading, activities outside the Bank, gifts, and loyalty to the Bank in general. In autumn 2022, the Executive Board reviewed and updated the ethical principles for employees.

The Ministry of Finance has laid down its own rules on impartiality for members of Norges Bank's Executive Board and members of the Monetary Policy and Financial Stability Committee. The Executive Board has adopted its own additional rules on, among other things, impartiality and restrictions concerning own-account trading for the external members of these two bodies.

Norges Bank has zero tolerance for all forms of corruption. An anti-corruption framework and programme has been established that includes executive-level support, risk management, ethical rules, processing of whistleblowing reports, procurement procedures, background checks of staff and suppliers, financial reporting and systematic training and control. In 2022, 580 employees in Norges Bank Investment Management took part in training focusing on addressing conflicts of interest and anti-corruption. In 2022, there were no confirmed incidents related to corruption.

Norges Bank attaches considerable importance to training and raising awareness of the most significant ethical risk areas. Measures include introductory courses, one-to-one training, an annual test and confirmation from all employees that they have reviewed the ethical principles.

The Executive Board has laid down principles for internal whistleblowing on misconduct at Norges Bank. Whistleblowing procedures have been established so that Norges Bank staff and employees of the Bank's suppliers can report unethical or illegal behaviour anonymously. All reports must be dealt with in an appropriate manner, in accordance with the case processing rules for whistleblowing, external and internal whistleblowing requirements, and without the risk of retaliation against the whistleblower. In 2022, four whistleblowing cases were reported.

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Norges Bank attaches considerable importance to training and raising awareness of the most significant ethical risk areas.

Responsible management of the Government Pension Fund Global

The Government Pension Fund Global shall be managed responsibly. The Executive Board has laid down Principles for Responsible Investment in Norges Bank. The principles are based on international precepts and guidelines for good corporate governance and responsible business conduct established by the United Nations (UN) and the Organisation for Economic Co-operation and Development (OECD). The objective for the management of the fund is to achieve the highest possible return with acceptable risk. Responsible management supports the fund's objective in two ways. First, by promoting long-term value creation in investments. Second, by reducing the financial risk associated with environmental and social practices of the portfolio companies. Due diligence assessments are carried out to identify and manage investments presenting a risk of negative impact on individuals and the environment.

The investment management mandate requires responsible investment activities to be integrated into the management of the fund. The fund's task is to safeguard and develop financial assets for future generations. The fund's long-term return depends on sustainable growth, well-functioning and legitimate markets and good corporate governance. Norges Bank's work on responsible investment can be divided into three main areas: the market, the portfolio and the companies.

Market

The fund is global. It owns a small portion of over 9 000 listed companies in 70 countries and relies on global solutions to solve common challenges such as climate change. Norges Bank contributes to the development of relevant international standards, and is, for example, represented by the Vice-Chair of the International Sustainability Standards Board (ISSB)'s Investor Advisory Group (IIAG). In 2022, the Bank participated in 12 public consultations related to responsible investment. All consultation responses are published on the fund's website. The consultations concern, among other elements, significant issues such as corporate governance, climate-related reporting and responsible business conduct.

Norges Bank supports initiatives in which several companies or investors join forces to set common standards for sustainable business conduct.

> Long-term return depends on sustainable growth, well-functioning and legitimate markets and good corporate governance.

Such initiatives are more efficient when several companies in one industry or value chain face the same challenge. Norges Bank currently participates in a number of initiatives in cooperation with investors, companies and civil society. Within the investment mandate, Norges Bank participates in initiatives that do not impose constraints on voting or investment decisions or are primarily aimed directly at political authorities. Norges Bank makes a thorough assessment of cost, complexity and benefit before launching or entering into an initiative.

Since 2008, Norges Bank has formulated clear expectations of portfolio companies on how they address relevant global challenges linked to their operations. Accordingly, the Bank has defined explicit expectations of how boards should establish appropriate strategies, control functions and reporting procedures. Expectations form the basis for dialogue with companies, and the companies' work is measured against these expectations on an annual basis. In 2022, Norges Bank presented new expectations concerning companies' Human Capital Management (HCM). Furthermore, expectations regarding climate change, human rights and children's rights were updated during the year.

Portfolio

Norges Bank assesses corporate governance and sustainability to gain greater insight into risks and opportunities associated with the fund's investments. Norges Bank monitors the portfolio's exposure to risks and identifies industries and companies for further follow-up.

Norges Bank encourages companies to move from words to numbers in their reporting to provide a better understanding of financial opportunities and risks. Performing analyses requires relevant, comparable and reliable data on environmental, social and governance conditions. Norges Bank analyses carbon emissions from companies in the portfolio and various climate scenarios for the Government Pension Fund Global.

Norges Bank uses three main approaches to identify and manage risks associated with environmental, social and governance conditions in the portfolio. The first is pre-screening companies due to enter the funds's benchmark index for equities. The second is continuous monitoring of companies in the portfolio through daily analyses of news reports, as well as more in-depth thematic analyses of specific markets and sectors. The third approach involves conducting quarterly due diligence assessments on the companies, assessing them against the expectations Norges Bank sets for sustainability. In its annual report on responsible investment, the Bank provides more information pertaining to the due diligence process.

When Norges Bank identifies high risk companies, further analyses are conducted to assess whether dialogue should be initiated with the company, Norges Bank's voting should be changed, or whether the company should be considered for a risk-based divestment.

In emerging markets, the Government Pension Fund Global can also benefit from the external managers' in-depth knowledge of the markets, industries and companies in which the fund is invested. This is particularly important as it can often be more difficult to obtain relevant company data in emerging markets.

Norges Bank identifies investment opportunities by analysing, among other things, the companies' governance, operations and environmental and social risks and opportunities. Norges Bank also invests in renewable energy infrastructure. However, in 2022 there were not any new investments in this sector. Moreover, the Ministry of Finance decided to terminate the fund's special environmental mandates, against the backdrop of a more ambitious climate risk management and reporting programme for the entire fund, cf amendments to the management mandate on 12 September 2022.

Norges Bank can divest from companies in order to limit the fund's exposure to unacceptable risk. This applies principally to activities that burden other companies and society as a whole with substantial costs, which are therefore unsustainable in the long term. Risk-based divestments may be appropriate if it's considered that the company poses particularly high long-term financial risk, if investments are not substantial, and if active ownership is not considered to be a suitable instrument. Unlike ethical exclusion, risk-based divestment does not require independent advice from the Council on Ethics.

In 2022, Norges Bank divested from 74 companies following risk assessments related to environmental, social and corporate governance issues. The fund has divested from a total of 440 companies since 2012. Since 2012, risk-based divestments have contributed positively to the cumulative return on equity management by about 0.26 percentage point, or 0.01 percentage point annually.

74

divestments following risk assessments related to environmental, social and corporate governance issues.

Companies

As a long-term investor, Norges Bank engages in regular dialogue with the largest companies to promote good corporate governance and responsible business conduct. The fund held a total of 2 911 meetings with 1 307 companies and maintained written contact with 405 companies in the portfolio in 2022. The size of the fund's investments provides access to board members, senior executives and specialists in the companies. The fund is interested in understanding how companies are governed and how they address essential sustainability issues. In addition to meetings, the fund also communicates with portfolio companies in writing.

117 392

resolutions at 11 616 shareholder meetings in 2022.

Norges Bank annually assesses companies' reporting on governance structure, strategy, risk management and objectives on the basis of their public expectations of companies. In 2022, Norges Bank changed the methodology of these assessments in order to benefit from artificial intelligence and machine reading of companies' sustainability reporting. This means that the basis for comparison with previous years is limited, but that future measurements will offer the possibility of covering a larger number of companies and indicators.

Companies with unsubstantial or limited reporting are contacted and encouraged to improve their reporting by, among other things, participating in established reporting initiatives. In 2022, letters regarding their reporting across the expectation areas were sent to 102 companies.

Voting is one of the most important instruments Norges Bank has as a shareholder to safeguard the fund's assets. At the end of 2022, the fund held a stake in 9 228 companies worldwide. Norges Bank voted on 117 392 matters at 11 616 shareholder meetings in 2022. Norges Bank voted in line with the Board's recommendation in 94% of matters and at 70% of shareholder meetings. The voting guidelines are publicly available.

Since 2021, Norges Bank has published its vote five days before shareholder meetings. The voting intentions are available on the fund's website www.nbim.no. Users can search for individual companies or download the full dataset of the fund's votes since 2013 and obtain access to daily updates on voting intentions five days before the company's general meeting.

The Ministry of Finance has stipulated guidelines for the observation and exclusion of companies from the Government Pension Fund Global, based on the companies' products or conduct. The Council on Ethics and Norges Bank are responsible for following up these guidelines. The Council on Ethics is an independent body established by the Ministry of Finance. Decisions concerning the observation and exclusion of companies from the Government Pension Fund Global are made by Norges Bank's Executive Board, based on recommendations from the Council on Ethics. By not investing in such companies, the fund reduces its exposure to unacceptable risks. In 2022, Norges Bank announced the exclusion of 13 companies and placed four new companies under observation. In addition, Norges Bank revoked the exclusion of two companies and ended the observation of four companies and special active ownership in one case. Since 2006, the equity benchmark index has returned 2.4 percentage points less than it would have done without any ethical exclusions. On an annualised basis, the return has been 0.06 percentage points lower.

Further details on responsible investment can be found in a separate report.

“ The Ministry of Finance has stipulated guidelines for the observation and exclusion of companies from the fund, based on the companies' products or conduct.

Responsible management of the foreign exchange reserves

The equity portfolio of the foreign exchange reserves is managed by Norges Bank Investment Management according to the same principles and strategies for responsible investment that apply to equity investments in the Government Pension Fund Global. Securities issued by companies excluded according to the guidelines for the observation and exclusion from the fund are excluded from the foreign exchange reserves' investment universe.

Norges Bank exercises active ownership in its management of the foreign exchange reserves by setting clear expectations of companies, voting at all shareholder meetings where Norges Bank is a shareholder and conducting a dialogue with selected companies. Decisions on risk-based divestment from individual companies that Norges Bank finds appropriate for the fund's equity portfolio are also applied to the equity portfolio of the foreign exchange reserves.

Norges Bank has divested from a total of eight companies in the foreign exchange reserves' equity portfolio based on environmental, social and governance risk assessments. An additional 40 companies were excluded from the foreign exchange reserves' benchmark index and nine companies were put under observation based on ethical guidelines. One company was removed from observation in 2022.

Responsible procurements

Norges Bank procured goods and services totalling approximately NOK 4.8bn in 2022. The largest procurement categories are external management services, IT system development and operation, as well as goods and services related to the operation of the Bank's offices. This places a responsibility on Norges Bank as a responsible procurer.

Norges Bank is subject to public procurement regulations and is enjoined to set requirements for wage and working conditions pursuant to regulations on wage and working conditions in public contracts. Suppliers and any subcontractors shall upon request be able to document compliance with wage and working conditions. In 2022, 16 controls of conditions were carried out among the Bank's suppliers. Two violations were detected, where the wages paid were lower than the statutory minimum wage based on position and seniority. At Norges Bank's request, the suppliers corrected the wage and any outstanding wage claims were met. The Public Procurement Act includes a requirement that limits the number of tiers in the supply chain for procurements in sectors with a high incidence of work-related crime, such as construction and cleaning services. Norges Bank accepts no more than two tiers of sub-contractors. All suppliers with access to the Bank's premises or systems are responsible for ensuring that personnel performing services or work for Norges Bank are conscious of the ethical rules.

Furthermore, Norges Bank expects a responsible and sustainable supply chain and sets environmental requirements for procurements where relevant.

The management of the Government Pension Fund Global requires specific insight into markets around the world. In emerging markets, Norges Bank mostly uses external managers. Sustainability risk is inherently higher in some of these markets. External managerss are required to take good corporate governance and environmental and social issues into account in their investment activities. In addition, managers' approach to corporate social responsibility is assessed as an element of the selection process. This is followed up as part of the annual assessment of external managers.

> It is important that Norges Bank takes an active role in all its procurements to promote respect for human rights and the environment in its supply chain.

Appendix 1

Information in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

The Task Force on Climate-related Financial Disclosures (TCFD) has drawn up a framework for climate risk reporting. Norges Bank supports the intention of the recommendations and considers that the framework will promote more universal and consistent reporting across jurisdictions. The recommendations specify the information that should be disclosed within four areas: governance, strategy, risk management, and metrics and targets. The table provides an overview of Norges Bank's status for 2022 in accordance with the recommendations in the TCD framework. See the sections Work on climate and climate risk in central banking operations, Work on climate risk in the Government Pension Fund Global, Climate impact on Norges Bank's operations and Responsible management of the Government Pension Fund Global for more detailed information. See also the report Responsible investment management Government Pension Fund Global 2022 for more detailed information.

Governance	
TCFD requirement: Disclose the organisation's management of climate-related risks and opportunities, including board and management involvement.	The Executive Board has primary responsibility for the Bank's strategy work related to climate change and climate risk. Topics related to climate change and the Norwegian economy are discussed in the Monetary Policy and Financial Stability Committee. Strategy 25 was approved by the Executive Board in November 2022. Norges Bank's sustainability strategy was updated in December 2022. The strategies are to be integrated into the Bank's governance system, implemented in the various departments and specified in action plans. The Executive Board of Norges Bank has laid down principles for the responsible management of the Global Pension Fund Global and follows up strategy and annual reporting in this area. In 2022, the Bank presented a climate action plan for the work on climate risk in the Government Pension Fund Global up to 2025. The Executive Board has approved that the equity portfolio of the foreign exchange reserves is required to follow the same principles and strategies for responsible management that apply to the management of equity investments in the fund. The Ministry of Finance has issued guidelines for the observation and exclusion of companies from the Government Pension Fund Global on the basis of their products or conduct. The Council on Ethics, an independent body established by the Ministry of Finance, and Norges Bank are tasked with following up these guidelines. Norges Bank's Executive Board decides which companies are to be placed under observation or excluded from the fund, based on recommendations from the Council on Ethics. The Executive Board has appointed a preparatory and advisory ownership committee for matters relating to responsible investment and decisions on observation or exclusion.

Strategy	
TCFD requirement: Disclose the actual and potential impact of climate-related risks and opportunities associated with the organisation's operations and strategy.	Climate change and measures to mitigate its effects have an impact on the Norwegian and global economy and hence on Norges Bank's performance of its core tasks: monetary policy, financial stability and the management of the Government Pension Fund Global. Priority is given to understanding the effects of climate change and the energy transition in Norges Bank's strategy. The Bank must better understand the impact of climate change and the energy transition on different parts of the economy. This is why the Bank is increasing staff expertise in this area and is continuing to integrate factors related to climate change and energy transition into our analytical work. Norges Bank's sustainability strategy sets out how the Bank will assess and manage climate-related and environmental risks in its investment management to create long-term value and be a global leader in responsible investment management. Climate change is one of many risk factors affecting the management of the Government Pension Fund Global and the foreign exchange reserves. The Government Pension Fund Global is a broadly diversified and market-weighted portfolio and will generally have the same financial climate risk profile as the underlying markets and sectors in which it is invested. Norges Bank's investments will be well positioned to face climate change. The Bank places particular weight on developing strategies to analyse and manage climate risk and on being a driving force for effective reporting standards for climate risk.

Risk management	
TCFD requirement: Disclose how the organisation identifies, assesses and manages climate-related risks, and how this approach is integrated into the organisation's overall risk management.	To learn more about how climate-related changes affect the Norwegian economy, Norges Bank has asked enterprises in the Bank's Regional Network, over the last three years, how they are affected by climate-related factors. Analyses of how the Norwegian economy is affected by climate-related changes are communicated in the quarterly *Monetary Policy Report*. In *Financial Stability Report* 2022, Norges Bank assesses climate risk in the financial system. The Bank has assessed that climate risk in Norwegian banks is moderate. For example, Norges Bank has also assessed the scope of energy labelling of commercial buildings and the impact on asset valuation of these buildings when electricity prices are higher. A number of tools are employed to identify and assess the Government Pension Fund Global's exposure to climate risk. The fund's equity portfolio has been stress-tested against the goals of the Paris Agreement. See further discussion in the report Responsible investment – Government Pension Fund Global. Norges Bank reviews its overall exposure in the Government Pension Fund Global at portfolio level and assesses whether the Bank should divest from companies with particularly high risk, within the limits set out in the mandate. The Bank is also seeking to take advantage of investment opportunities resulting from the climate transition. The 2025 Climate action plan for the Government Pension Fund Global requires additional reporting on climate risk associated with the portfolio. The reporting shall be developed in line with leading international standards and is included in the fund's reporting on responsible investment and in a separate appendix on TCFD information.
Objectives and methods	
TCFD requirement: Disclose the calculations and targets employed when assessing climate-related risks and opportunities.	The Government Pension Fund Global's carbon footprint has been measured and published since 2014. Similarly, the carbon footprint of the equity portfolio of the foreign exchange reserves is also measured. The 2025 Climate action plan for the Government Pension Fund Global describes measures to manage climate risk to be implemented in the period 2022-2025. The core of the work is to drive the companies the fund is invested in towards net zero emissions by 2050 and to set credible targets and plans to reduce their direct and indirect greenhouse gas (GHG) emissions (Scope 1, 2 and 3). Norges Bank's head office is certified under the Eco-lighthouse certification scheme. In 2022, the Bank included new industry-specific criteria for banking and finance. Norges Bank measures GHG emissions from its own operations in accordance with the Greenhouse Gas Protocol standard.

4. Strategy

Strategy 25

Our mission is our guide in all we do, and Strategy 25 is designed to ensure that we are best able to accomplish our mission. On 23 November 2022, the Executive Board approved the strategy for Norges Bank and its business areas. The following is a summary of our ambitions and plans for the coming years.

Norges Bank's strategy

The Covid-19 pandemic and Russia's invasion of Ukraine have shown how unforeseen events can quickly change the economic outlook and balance of risks. Geopolitical uncertainty is contributing to a complex and challenging threat landscape. Climate change and the need to reduce global emissions will continue to impact the global economy.

In the current situation, both Norges Bank Central Banking Operations and Norges Bank Investment Management are confronting difficult issues. To succeed in our missions, we need to understand economic developments and the risk landscape and be prepared to act quickly. Norges Bank will be a well-run and transparent institution, an attractive and future-fit workplace, and will strengthen its work on climate and the environment.

“To succeed in our missions, we need to understand economic developments and the risk landscape and be prepared to act quickly.

The central bank's strategy

In the strategy, we emphasise four preconditions for success. They are not unique to this strategy period, but are of such importance that we will pursue ambitious goals for continual improvement within each:

Competent and engaged employees: To attract, develop and retain highly skilled employees every employee will be given the opportunity to enhance and update their skills through professional challenges and targeted development plans. At the same time, we will foster an inclusive culture where we encourage different opinions and views, inspire one another to do our best and where work is enjoyable.

Stable, secure and efficient operations: Corporate governance and risk management at the Bank will be in line with best practice and we will work to simplify and streamline our processes. An uncertain geopolitical situation requires further development of our work on security, contingency preparedness and crisis management, with particular focus on cyber resilience.

High-quality and relevant analysis: We aim to be Norway's leading macroeconomics institution and base our assessments, advice and decisions on high-quality and relevant research-based analyses. During the strategy period, we will also seek to improve and increase the flexibility of our work processes so that we are better able to update analyses and use instruments when the world around us changes.

Transparent, clear and accessible: We will adapt our communication to our target audience, invite dialogue, listen to input and participate in the public debate in areas important to us. To reach out, our aim is for more of our employees to represent Norges Bank externally and contribute to disseminating knowledge in their areas of speciality.

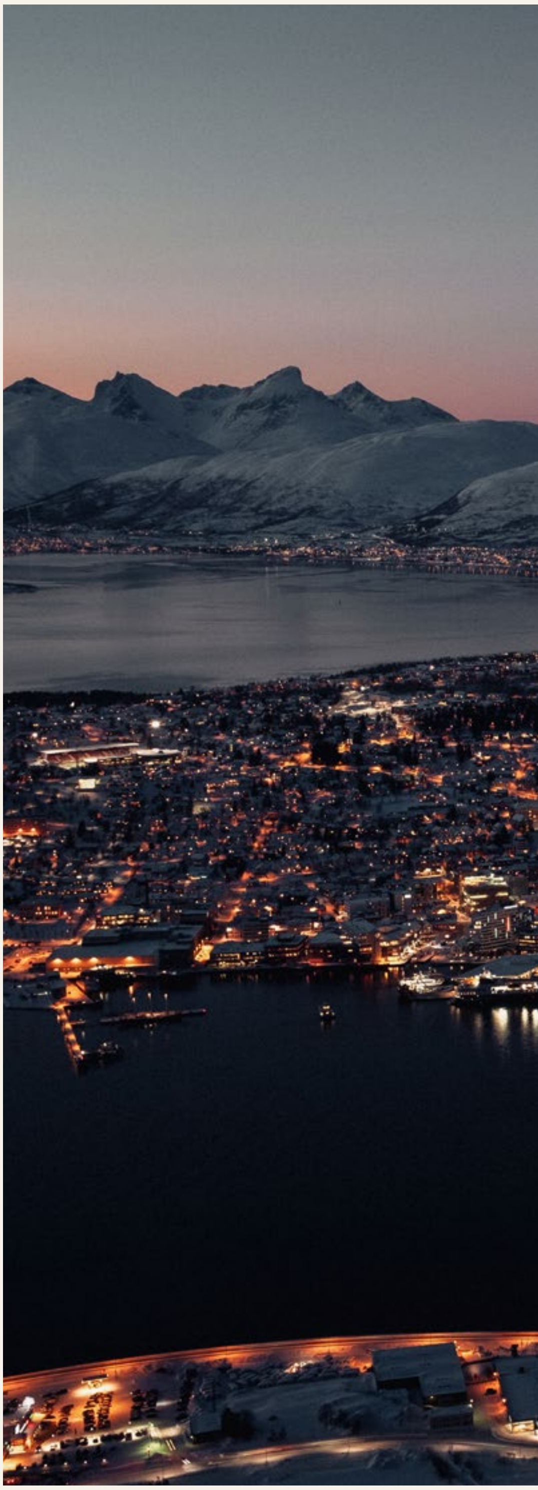
"We will adapt our communication to our target audience, invite dialogue, listen to input and participate in the public debate in areas important to us.

In addition, there are three focus areas that require special effort in the coming years:

Researching and designing the payment system of the future: We will face important choices when designing the payment system of the future. Over the strategy period, Norges Bank will decide on the design of the next generation NOK settlement system and be ready, if appropriate, to issue a central bank digital currency (CBDC).

Understanding the impacts of climate change and energy transition: To make sound assessments of the economic outlook and balance of risks, we must better understand how climate change and energy transition affect different parts of the economy. We will therefore increase staff expertise in this area and further integrate factors related to climate change and energy transition into analytical work.

Using data more effectively with the aid of new technology: The volume of data is growing, while technological advances make possible new kinds of analyses. We will enable more effective data use by establishing a new data platform and providing ample access to more data. We will also pursue more effective management and control of the data we use.



Strategy for Norges Bank Investment Management

We manage the Government Pension Fund Global on behalf of the Norwegian people. Responsible and long-term management ensures that the fund will benefit both current and future generations. We take advantage of the fund's size, long horizon and limited short-term liquidity needs when we invest. In this strategy period we will strengthen our long-term mindset, be patient, and vary active risk as market conditions change. We can withstand large fluctuations in the fund's value and make investments whose underlying value may take a long time to realise.

We use a range of investment strategies in our management of the fund. They are grouped into three main categories: market exposure, security selection, and fund allocation. Our investment strategies are complementary and tailored to our characteristics – a large fund with a

long horizon. We manage the Government Pension Fund Global close to this index. However, we believe some investment opportunities diversify the fund beyond the reference index, particularly unlisted assets. We will target a real estate portfolio of between 3% and 7% of the fund. We will also continue to build a portfolio of renewable energy infrastructure assets and investigate new investment opportunities related to the energy transition.

We place great emphasis on being a responsible investor. Responsible investment and active ownership support long-term value creation and our goal of highest possible return. Managing climate-related risks and opportunities is a key priority. We work with responsible investment and active ownership at three levels. We work at the market level to elevate global standards for all companies. We work at the portfolio level to strengthen the monitoring of Environment, Social and Governance (ESG) information and integrate this into the management of the fund. We work at the company level to promote good governance and sustainable business practices.

Operational robustness is essential to achieving our goal of highest possible return in a secure and cost-efficient way. We will strengthen business continuity and crisis management, enabling us to better respond to crises and incidents. Technology is key to fulfilling our management assignment in a secure and robust way. We focus on innovation and building our own solutions with our own people. To succeed, we need to attract, develop, and retain the best people. People are the driving force behind our success and our most important resource. We will grow the organisation in prioritised areas to ensure capacity, quality, and robustness. However, we will remain lean, flexible, and cost-efficient.

We aim to be a diverse and inclusive organisation where we all work to safeguard and develop the Government Pension Fund Global. To succeed in a challenging, fast-paced working environment, we believe it is important to have fun at work. The strength of our teams determines our success. Managing the fund on behalf of the Norwegian people requires transparency. Transparency builds trust and knowledge about the fund, both in Norway and internationally.

Strategy 2020–2022

In autumn 2019, the Executive Board of Norges Bank approved a strategic plan for the period 2020-2022. In 2020, the Board appointed a new CEO of Norges Bank Investment Management. The part of the strategic plan about the management of the Government Pension fund Global was therefore revised in spring 2021.

The past three years were marked by major changes that have influenced Norges Bank's operations. A new Central Bank Act on 1 January 2020 resulted in a new governance structure for the Bank, with the establishment of a committee with specific responsibility for monetary policy and financial stability. At the same time, changes were made to Norges Bank's administrative organisation. External conditions, such as the Covid-19 pandemic and Russia's invasion of Ukraine, also made an impact during the strategy period.

A summary of Norges Bank's efforts to achieve the objectives in the strategy period 2020-2022 appears below.

Succeeding together

With the Government Pension Fund Global under the aegis of Norges Bank, we are a global organisation with a third of our employees located outside Norway and with employees representing almost 40 nationalities. The aim has been to work in a way characterised by team spirit and a willingness to change, and our ambition has been to be transparent and communicate reliably and clearly. In the strategy period, we have:

- Communicated more frequently and proactively than before and reached a wider audience. We have platforms such as the Bank's Bankplassen blog and launched the podcast "In Good Company". The purpose of the podcast is to provide a better insight into the companies the fund is invested in. We have increased our presence on social media.
- Worked to increase knowledge of Norges Bank by meeting students and school pupils through the Knowledge Centre, corporate presentations and lectures at schools, universities and in relevant networks.
- Strengthened internal communication on digital platforms and developed new digital arenas for professional and social interaction.

- Become one of the founding partners of Norway's Women in Finance Charter, whose purpose is to increase the proportion of women in leading positions in Norway's financial industry.
- Arranged annual activities and initiatives that focus on diversity and inclusion.
- Relaunched the Norges Bank Investment Management trainee programme to foster workplace diversity.

A well-run bank

Our goal was to take advantage of synergies and economies of scale across the organisation. At the same time, it was essential that the different parts of the Bank retained their distinctive professional characteristics and responsibility for their performance. Our ambition was to further develop a well-run and secure central bank. In the strategy period, we have:

- Renewed and updated the Bank's governance structure in the light of the Central Bank Act.
- Modernised Norges Bank Central Banking Operations' IT operating platforms, which has made the Bank's systemically critical systems more secure and other systems more flexible.
- Completed a substantial investment in IT security in both operational areas.
- Insourced some IT functions to improve quality and resilience.
- Strengthened sustainability initiatives and further developed external sustainability reporting.
- Combined HR, communications and procurement services in the two operational areas, leading to more standardised processes and strengthened operational resilience.
- Digitalised large parts of our historical archives.

Long-term and responsible investment management

Our aim is to achieve the highest possible return over time, within the framework of the mandate issued by the Ministry of Finance. The Bank seeks to achieve this goal in the most secure, cost-efficient, responsible and transparent manner possible. The market value of the Government Pension Fund Global grew from NOK 10 088bn at the end of 2019 to NOK 12 429bn at the end of 2022. In the strategy period, we have:

- Continued to cooperate with investee companies with regard to their financial performance as well as corporate governance and sustainability. We aim to vote at all shareholder meetings, promote long-term value creation at companies and protect the fund's assets.
- Launched our 2025 Climate action plan. The plan outlines our approach to managing climate risk and opportunities and describes the measures we aim to implement in the period 2022-2025.
- Developed an investment simulator to analyse our investment decisions. The simulator is designed to provide portfolio managers with analyses and feedback so that they can make better investment decisions.
- Scaled back back allocation to systematic risk factors and certain segments outside the benchmark index.
- Invested 5% of the fund in real estate, 62% of which is in unlisted assets and 38% in listed assets. We have made our first investment in unlisted renewable energy infrastructure. This investment is in an offshore wind farm and accounts for 0.1% of the value of the fund.
- Communicated more frequently and proactively. We reached a wider audience than previously, partly by raising our profile and engagement in social media.
- Increased the number of employees from 540 at the end of 2019 to 572 by December 2022. Despite having grown during the strategy period in prioritised areas such as investment and technology, we will continue to be a small, flexible and cost-efficient organisation.

At the forefront of central banking

The objective of central banking operations is to promote a well-functioning and stable economy. Our aim has been to perform our tasks in line with international best practice. In the strategy period, we have:

- Further developed monetary policy communication by communicating more directly with a broader segment of the population and being accessible in more arenas than previously.
- Performed analyses of long-term economic developments, with a particular focus on developments in productivity, labour share and neutral real rates.
- Utilised new sources of information to better understand developments in the light of abrupt shifts in the economy.
- Established a robust and effective solution to manage microdata for use in research and political analysis.
- Adopted a reformed version of the overnight rate Nowa as the alternative Norwegian krone reference rate.
- Established a new and more automated trading system for liquidity management.
- Continued work to strengthen the protection of Norges Bank's settlement system (NBO) against adverse events, particularly cyber attacks.
- Continued work to facilitate real-time payments.
- Introduced and implemented TIBER-NO, a framework developed by Norges Bank and Finanstilsynet (Financial Supervisory Authority of Norway) for testing the cyber resilience of Norway's financial sector.
- Developed and revised the framework for key macroprudential tools.
- Met society's need for cash in a manner that ensures preparedness and promotes efficiency. Contributed to appropriate rules to ensure that cash is available, easy to use and can fulfil its functions in the payment system.
- Continued research into a central bank digital currency, including experimental testing of different technological solutions.
- Participated actively in the Network for Greening the Financial System, which provides a forum for sharing experiences and best practices, performs analyses and designs methods for managing environmental and climate risk.

5. Financial statements

Main points

Net income/-expense from financial instruments before foreign exchange gains/-losses	
NOK -55bn	2022
NOK 25bn	2021

Foreign exchange gains/-losses	
NOK 46bn	2022
NOK -0.3bn	2021

Profit/loss, Government Pension Fund Global (GPFG)	
NOK -1 001bn	2022
NOK 1 551bn	2021

Profit/loss, GPFG withdrawn from/-transferred to the krone account	
NOK 1 001bn	2022
NOK -1 551bn	2021

Other income	
NOK 5.4bn	2022
NOK 4.8bn	2021

- of which management fee, GPFG	
NOK 5.2bn	2022
NOK 4.6bn	2021

Operating expenses	
NOK -6.4bn	2022
NOK -5.9bn	2021

- of which management costs, GPFG	
NOK -5.2bn	2022
NOK -4.6bn	2021

Total comprehensive income	
NOK -11bn	2022
NOK 23bn	2021

Transfer to the Treasury	
NOK 8bn	2022
NOK 11bn	2021

Costs for Norges Bank´s primary tasks

Norges Bank allocates costs to its primary tasks. The purpose of this allocation is to identify the costs associated with these tasks and help to make operations cost-effective.

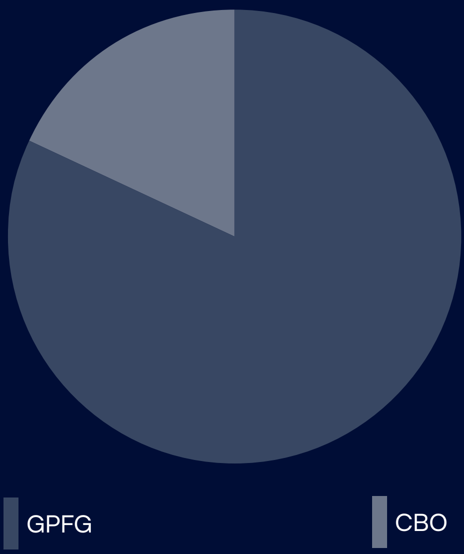
Costs are allocated to these primary tasks:

1. Management of the Government Pension Fund Global (GPFG)
2. Monetary policy
3. Financial stability
4. Management of the foreign exchange reserves
5. Banknotes and coins
6. Settlement services for banks
7. Government debt management
8. The Treasury single account system

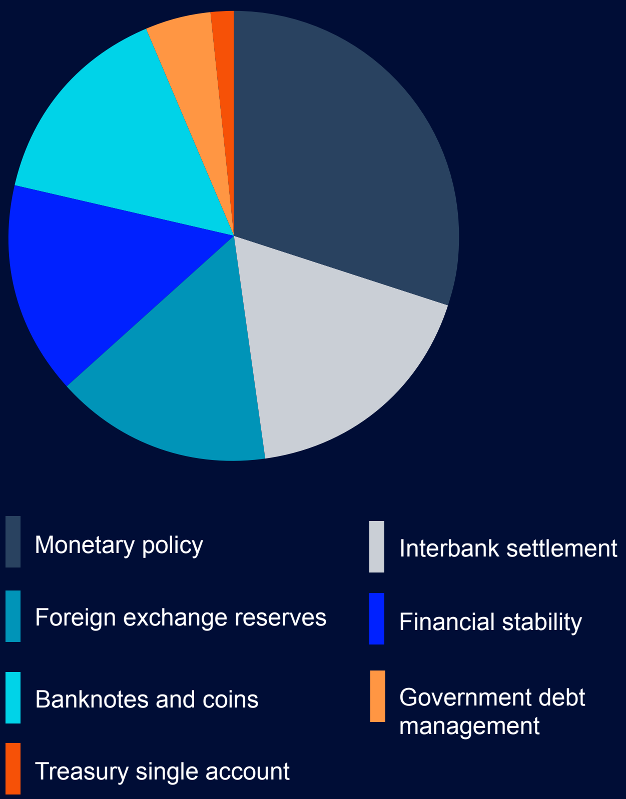
The costs for the Bank’s primary tasks include direct and indirect costs. Common costs are allocated based on an assessment of cost drivers. The size of the allocation key represents the best estimate of actual resource use.

The Bank’s total operating expenses in 2022 were NOK 6 399m. Management of the GPFG was by far the most resource-intensive task and accounted for NOK 5 226m or 82% of the Bank’s total costs. Costs for Norges Bank’s other primary tasks amounted to NOK 1 173m.

Costs by primary task



Costs by primary task in Central Banking Operations (CBO)



Content

Financial reporting

Income statement

Amounts in NOK millions	Note	2022	2021
Net income/-expense from financial instruments			
Net income/-expense from:			
-Equities	3	-15 916	30 980
-Bonds	3	-38 331	-6 536
-Financial derivatives		-418	-131
-Secured lending	9	135	-27
-Secured borrowing	9	-	-
Interest income and expense from deposits in banks		1 529	8
Interest income from lending to banks	18	595	86
Interest expense on deposits from banks and the Treasury	18	-2 979	-19
Net interest income from the IMF	17	251	177
Tax expenses	3	-2	-25
Other financial income/-expenses		62	-4
Net income/-expense from financial instruments before foreign exchange gains/-losses		**-55 074**	**24 509**
Foreign exchange gains/-losses	8	45 513	-303
Net income/-expense from financial instruments		**-9 561**	**24 206**
Management of the Government Pension Fund Global (GPFG)			
Total comprehensive income, GPFG	20	-1 000 551	1 550 628
Withdrawn from/-transferred to the krone account of the GPFG	20	1 000 551	-1 550 628
Other operating income			
Management fee, GPFG	13	5 226	4 640
Other operating income	15	149	118
Total other operating income		**5 374**	**4 758**
Operating expenses			
Personnel expenses	12	-2 350	-1 799
Other operating expenses	15	-3 895	-3 859
Depreciation, amortisation and impairment losses	14	-154	-200
Total operating expenses		**-6 399**	**-5 857**
Profit/-loss for the period		**-10 586**	**23 107**
Statement of comprehensive income			
Profit/-loss for the period		-10 586	23 107
Change in actuarial gains/-losses	11	-504	-114
Total comprehensive income		**-11 090**	**22 993**

Balance sheet

Amounts in NOK millions	Note	31.12.2022	31.12.2021
Assets			
Financial assets			
Deposits in banks		32 334	49 628
Secured lending	9,10	18 685	27 007
Cash collateral posted	9,10	6	-
Unsettled trades		917	325
Equities	4,7	106 843	117 715
Equities lent	4,8,9,10	3 987	4 454
Bonds	4,8	462 853	467 667
Financial derivatives		15	26
Claims on the IMF	17	126 560	117 325
Lending to banks	18	15 895	45 101
Other financial assets	13	529	377
Total financial assets		**768 624**	**829 625**
Net value, GPFG	20	**12 429 334**	**12 340 085**
Non-financial assets			
Pensions	11	-	293
Non-financial assets	14	2 047	2 010
Total non-financial assets		**2 047**	**2 303**
Total assets		**13 200 005**	**13 172 013**

Amounts in NOK millions	Note	31.12.2022	31.12.2021
Liabilities and equity			
Financial liabilities			
Secured borrowing	8,9,10	37	28
Unsettled trades	8,9,10	13 469	22 197
Financial derivatives	8	31	5
Other financial liabilities		3 919	4 003
Liabilities to the IMF	17	103 378	98 044
Deposits from banks	18	26 821	23 372
Deposits from the Treasury	18	304 606	344 142
Notes and coins in circulation	16	40 075	39 745
Total financial liabilities		**492 336**	**531 536**
Deposits in krone account, GPFG	20	**12 429 334**	**12 340 085**
Other liabilities			
Pensions	11	170	-
Other liabilities	19	8 645	11 688
Total other liabilities		**8 815**	**11 688**
Total liabilities		**12 930 485**	**12 883 309**
Equity		**269 520**	**288 704**
Total liabilities and equity		**13 200 005**	**13 172 013**

Oslo, 8 February 2023

Ida Wolden Bache
(Governor / Chair of the Executive Board)

Pål Longva
(First Deputy Chair)

Øystein Børsum
(Second Deputy Chair)

Karen Helene Ulltveit-Moe

Kristine Ryssdal

Arne Hyttnes

Hans Aasnæs

Nina Udnes Tronstad

Egil Herman Sjursen

Mona Helen Sørensen
(Employee representative)

Truls Oppedal
(Employee representative)

Statement of cash flows

Amounts in NOK millions, inflows (+)/outflows (-)	2022	2021
Operating activities		
Receipts of dividend from equities	2 244	2 341
Receipts of interest from bonds	4 598	4 809
Net receipts of interest and fee from secured lending and borrowing	189	25
Receipts of dividend, interest and fee from holdings of equities and bonds	*7 031*	*7 175*
Net cash flow from purchase and sale of equities	-2 366	26 022
Net cash flow from purchase and sale of bonds	-3 053	-32 285
Net cash flow financial derivatives	1 317	719
Net cash flow related to deposits in banks	850	180
Net cash flow secured lending and borrowing	1 582	-487
Net cash flow related to other expenses, other assets and other liabilities	-10 692	-9 096
Net cash flow related to other financial assets and other financial liabilities	32 677	5 991
Net cash flow to/-from the Treasury	1 050 176	-89 143
Inflow from the Norwegian government to the GPFG	-1 089 712	-78 846
Withdrawals by the Norwegian government from the GPFG	-	199 000
Management fee received from the GPFG	4 964	10 481
Net cash flow from operating activities	**-7 226**	**39 711**
Investing activities		
Net cash flow related to non-financial assets and liabilities	-128	-81
Net cash flow from investing activities	**-128**	**-81**
Financing activities		
Cash flow to the Treasury from the Transfer Fund	-11 108	-15 169
Net cash flow from financing activities	**-11 108**	**-15 169**
Net change in cash		
Deposits in banks at 1 January	49 628	24 920
Net increase/-decrease of cash in the period	-18 462	24 461
Net foreign exchange gains and losses on cash	1 168	247
Deposits in banks at 31 December	**32 334**	**49 628**

Accounting policy

The statement of cash flows has been prepared in accordance with the direct method. Major classes of gross payments are presented separately, with the exception of specific transactions primarily arising from the purchase and sale of financial instruments, which are shown net.

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, 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 2021	246 481	30 338	276 819
Total comprehensive income	20 007	2 986	22 993
31 December 2021 before transfer to the Treasury	*266 488*	*33 324*	*299 812*
Transferred to the Treasury	-	-11 108	-11 108
31 December 2021	**266 488**	**22 216**	**288 704**
1 January 2022	266 488	22 216	288 704
Total comprehensive income	-13 155	2 065	-11 090
31 December 2022 before transfer to the Treasury	*253 333*	*24 281*	*277 614*
Transferred to the Treasury	-	-8 094	-8 094
31 December 2022	**253 333**	**16 187**	**269 520**

Accounting policy

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 the Guidelines for provisions and allocations of Norges Bank's profit or loss laid down on 13 December 2019, pursuant to Section 3-11, Sub-section 2, of the Central Bank Act.

Notes
Financial reporting

Note 1 General information

1. Introduction
Norges Bank is Norway's central bank. The Bank is a separate legal entity and is owned by the State. The Bank's main office is at Bankplassen 2, Oslo, Norway.

Norges Bank shall promote economic stability and manage substantial assets on behalf of the nation. The aim of central banking operations is to promote stability in the economy. The Bank conducts monetary policy, monitors financial stability, promotes robust and efficient payment systems and financial markets and manages Norway's foreign exchange reserves.

Norges Bank manages the Government Pension Fund Global (GPFG) on behalf of the Ministry of Finance in accordance with Section 3, second paragraph, of the Government Pension Fund Act and the management mandate for the GPFG issued by the Ministry of Finance.

The GPFG shall support government saving to finance future expenditure and underpin long-term considerations relating to the use of Norway's petroleum revenues. The 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 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 portfolio consisting of equities, bonds, real estate and infrastructure for renewable energy. The GPFG is invested in its entirety outside of Norway.

Transfers are made to and from the krone account in accordance with the management mandate. When the Norwegian State's petroleum revenue exceeds the use of petroleum revenue in the fiscal budget, deposits will be made into the krone account. In the opposite situation, withdrawals will be made. Transfers to and from the krone account lead to a corresponding change in Owner's capital.

For further information about the management mandate for the GPFG, Norges Bank's governance structure and risk management see Note 20.9 *Investment risk*. For further information about transactions between Norges Bank and the GPFG, see Note 19 *Related parties*.

Norges Bank is not exposed to financial risk from its management of the GPFG. The return on the portfolio, less the management fee to Norges Bank, 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, less the accrued management fee. This 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 2022 were approved by the Executive Board on 8 February 2023 and approved by the Supervisory Council on 23 February 2023. The annual financial reporting for the GPFG is an excerpt of Norges Bank's financial reporting and is included in Norges Bank's annual financial statements as Note 20.

Note 2 Accounting policies

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

Significant estimates and critical accounting judgements

The preparation of the financial statements involves the use of uncertain estimates and assumptions relating to future events that affect the reported amounts for assets, liabilities, income and expenses. Estimates are based on historical experience and reflect management's expectations about future events. Actual outcomes may deviate from estimates. The preparation of the financial statements also involves the use of judgement when applying accounting policies, which may have a significant impact on the financial statements.

In cases where there are particularly uncertain estimates or accounting judgements, these are described in the respective notes.

1. Basis of preparation

Pursuant to Section 4-3 of the Central Bank Act, the annual financial statements of Norges Bank have been prepared in accordance with the Accounting Act and Regulation on the financial reporting for Norges Bank (the Regulation), laid down by the Ministry of Finance.

The Regulation entails that the financial reporting of the GPFG is prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, subject to the additions and exemptions specified in the Accounting Act and the Regulation. It sets forth that the return on the investment portfolio and the return assigned to the krone account of the GPFG shall be presented on separate lines in the income statement, the net value of the GPFG and the deposits in the krone account of the GPFG shall be presented on separate lines in the balance sheet, inflows to and withdrawals from the krone account of the GPFG shall be presented on separate lines in the statement of cash flows and the annual financial reporting of the GPFG shall be presented in a separate note in Norges Bank´s annual financial statements, see Note 20. See also Section 4.2 *Subsidiaries* below for the consolidation of certain subsidiaries.

The financial statements are presented in a manner that is most relevant to an understanding of the Bank's financial performance.

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

2. Changes in accounting policies, including new and amended standards and interpretations, in the period

Accounting policies applied are consistent with the policies applied in the previous accounting year. There are no new or amended IFRS standards and interpretations that have become effective for the accounting year beginning on 1 January 2022 that have had any material effect on the Bank's financial statements.

3. New and amended standards and interpretations effective from 2023 or later

Issued IFRS standards, changes in existing standards and interpretations issued with effective dates from 2023 or later are expected to be immaterial or not applicable for the Bank's financial reporting at the time of implementation.

4. Accounting policies for the financial statements as a whole

4.1 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.

Financial assets are derecognised when the contractual rights to the cash flows expire, or when the financial assets and substantially all the risks and rewards of ownership are transferred. See Note 9 *Secured lending and borrowing* and Note 20.13 *Secured lending and borrowing* for details on transferred assets that are not derecognised.

Financial liabilities are derecognised when the obligation is extinguished, i.e. when the obligation specified in the contract is discharged, cancelled or expires.

Purchase or sale of a financial asset where the contractual terms require settlement in accordance with normal market conditions, is recognised on the trade date.

Classification and measurement

Financial assets are classified based on the business model used for managing the assets and their contractual cash flow characteristics.

The investment portfolio of the GPFG is managed in accordance with the management mandate issued by the Ministry of Finance, the investment mandate issued by the Executive Board of Norges Bank and investment strategies issued by the management of Norges Bank Investment Management. These mandates and strategies, including the risk management strategies, entail that financial assets are managed and evaluated on a fair value basis. The financial assets in the GPFG are therefore measured at fair value through profit or loss.

The foreign exchange reserves are managed in accordance with the principles issued by the Executive Board and are managed and their performance evaluated on a fair value basis. Other financial assets are measured at amortised cost.

Financial liabilities are measured at amortised cost, except for financial liabilities designated as at fair value through profit or loss. This applies to financial liabilities integrated into the foreign exchange reserves that are managed and their performance evaluated on a fair value basis. For the GPFG, financial liabilities, except for Management fee payable, are integrated into the investment portfolio that is managed and evaluated on a fair value basis, and are therefore designated at fair value through profit or loss. Management fee payable is measured at amortised cost.

Financial derivatives are measured at fair value through profit or loss.

For further specification of the classification of financial instruments, see Note 6 *Measurement* and Table 6.2 *Classification of financial instruments*.

Impairment

For financial assets classified as measured at amortised cost, an allowance for expected credit losses is recognised. Expected credit losses are estimated per loan and are based on the loan's exposure at default, probability of default and loss given default. The recognised amount comprises expected credit losses within the 12 months after the reporting date. In the event of a substantial increase in credit risk since initial recognition, an expected loss allowance is recognised over the expected life of the asset.

4.2 Subsidiaries

Investments in real estate and infrastructure for renewable energy are made through subsidiaries of Norges Bank, which are exclusively established as part of the management of the fund. The subsidiaries are controlled by the GPFG. Control over an entity exists when the GPFG is exposed to or has rights to variable returns from its involvement in the entity and is able to influence those returns through its power over the entity. For further information, see Note 20.16 *Interests in other entities*.

The GPFG is an investment entity in accordance with IFRS 10 *Consolidated financial statements*. IFRS 10 defines an investment entity and introduces a mandatory exemption from consolidation for investment entities.

Subsidiaries measured at fair value through profit or loss

Subsidiaries that invest in real estate or infrastructure for renewable energy through ownership interests in other entities, are investment entities. These subsidiaries are measured at fair value through profit and loss in accordance with the principles for financial assets, as described in Section 4.1 *Financial assets and liabilities above*. Subsidiaries that invest in real estate are presented in the balance sheet as *Unlisted real estate*. Subsidiaries that invest in infrastructure for renewable energy are presented in the balance sheet as *Unlisted infrastructure*. See Note 20.6 *Unlisted real estate* and Note 20.7 *Unlisted infrastructure for renewable energy* for supplementing policies.

Consolidated subsidiaries

Subsidiaries that perform investment-related services, and which are not investment entities themselves, are consolidated. Consolidated subsidiaries do not own, neither directly nor indirectly, investments in real estate or infrastructure for renewable energy.

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.

The GPFG does not have an explicit strategy that defines a specific time for the realisation of each investment, but the investments are assessed continuously, and purchase and sale assessments are made. After an overall assessment, it has been concluded that the GPFG meets the criteria in the definition of an investment entity.

Note 3 Income/expense from equities and bonds

Accounting policy

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

Interest income/-expense is recognised using the effective interest rate method.

Realised gain/-loss primarily represents amounts realised when assets or liabilities have been derecognised. Average acquisition cost is assigned at derecognition. 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 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

Amounts in NOK millions	2022	2021
Dividends	2 299	2 363
Realised gain/-loss	1 115	17 225
Unrealised gain/-loss	-19 330	11 392
Income/-expense from equities before foreign exchange gains/-losses	**-15 916**	**30 980**

Table 3.2 Income/-expense from bonds

Amounts in NOK millions	2022	2021
Interest	4 914	4 625
Realised gain/-loss	-2 604	1 242
Unrealised gain/-loss	-40 641	-12 403
Income/-expense from bonds before foreign exchange gains/-losses	**-38 331**	**-6 536**

Tax expense
Norges Bank is exempt from income tax on its operations in Norway but is liable to taxes in some other jurisdictions. Tax expense comprises income tax that will not be refunded under local tax rules or tax treaties to Norges Bank. This pertains primarily to withholding tax on dividends related to the foreign exchange reserves' equity investments.

Accounting policy

Withholding tax, after deduction of refunded amounts, is recognised at the same time as the related dividend. Refundable withholding tax is recognised in the balance sheet as a receivable under *Other assets*.

Due to a revised assessment of the foreign exchange reserves' tax position in Spain, there was a reversal of previously paid tax expense of NOK 23.8m in 2022. Partly because of this, the tax expense was NOK 1.9m in 2022, compared with NOK 24.9m in 2021. Japan and Germany are the markets with the highest tax expense in 2022, amounting to NOK 8.1m and NOK 7.6m, respectively. Norway's tax treaties with these countries entail a tax rate of 15%. Tax expense in other respects refers to smaller amounts divided among several other jurisdictions.

Accounting policies for taxation are further detailed in Note 20.10 *Tax*.

Note 4 Holdings of equities and bonds

Accounting policy

Investments in equities and bonds are measured at fair value through profit or loss. Earned dividends and interest are presented in the balance sheet on the same line as the underlying financial instrument. The balance sheet line *Equities* includes investments in depository receipts (GDRs/ADRs) and units in listed funds. *Equities lent* are presented separately.

For further information on measurement, see Note 6 *Measurement*.

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

Table 4.1 Equities

	31.12.2022		31.12.2021	
Amounts in NOK millions	**Fair value including dividends**	**Accrued dividends**	**Fair value including dividends**	**Accrued dividends**
Equities	110 830	94	122 169	73
Total equities	**110 830**	**94**	**122 169**	**73**
Of which equities lent	*3 987*	-	*4 454*	-

Table 4.2 Bonds

	31.12.2022			31.12.2021		
Amounts in NOK millions	**Nominal value[1]**	**Fair value including accrued interest**	**Accrued interest**	**Nominal value[1]**	**Fair value including accrued interest**	**Accrued interest**
Bonds	498 837	462 853	1 659	460 136	467 667	1 343
Total bonds	**498 837**	**462 853**	**1 659**	**460 136**	**467 667**	**1 343**
Of which bonds lent	-	-	-	-	-	-

[1] 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 income statement or balance sheet.

Bank for International Settlements (BIS)
The Bank for International Settlements (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. Norges Bank´s share of the total shares in the BIS was equal to 1.5% at year-end 2022, the same as at year-end 2021.

When the shares were issued, the BIS required payment of only 25% of the share capital, with the remaining 75% committed capital not recognised in the balance sheet.

Shares in the BIS and dividend received from the BIS, as shown in Table 4.3 *Shares in the BIS*, are also included as part of equities in Table 4.1 *Equities and dividends* in Table 3.1 *Income/-expense from equities*, respectively.

Table 4.3 Shares in the BIS

Amounts in NOK millions	31.12.2022	31.12.2021
Shares in the BIS	217	200
Share capital in the BIS not paid, not recognised	422	397
Dividend received from the BIS	31	56

Note 5 Foreign exchange reserves

The foreign exchange reserves are to be available for use in foreign exchange market transactions or as part of the conduct of monetary policy, with a view to promoting financial stability and to meet Norges Bank's international commitments. The foreign exchange reserves are divided into a fixed income portfolio, an equity portfolio and a petroleum buffer portfolio. See further discussion in Note 7 *Investment risk*.

The petroleum buffer portfolio is intended to receive the government's cash flow from petroleum activities in foreign currency and any transfers to and from the GPFG. The purpose of the portfolio is to provide for an appropriate management of the government's need for converting foreign currency and NOK.

See Note 8 *Currency* for a specification of the foreign exchange reserves' currency breakdown.

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, income statement

	Portfolios					2022
Amounts in NOK millions	**Equities**	**Fixed Income**	**Petroleum buffer**	**Total foreign exchange reserves**	**Other**	**Total**
Income statement						
Net income/-expenses from:						
- Equities	-15 963	-	-	-15 963	47	-15 916
- Bonds	-	-38 331	-1	-38 331	-	-38 331
- Financial derivatives	-1	-417	-	-418	-	-418
- Secured lending	22	29	83	135	-	135
- Secured borrowing	-	-	-	-	-	-
Interest income and expense from deposits in banks	-	34	1 494	1 528	1	1 529
Interest income from lending to banks	-	-	-	-	595	595
Interest expense on deposits from banks and the Treasury	-	-	-	-	-2 979	-2 979
Net interest income from the IMF	-	-	-	-	251	251
Tax expense	-2	-	-	-2	-	-2
Other financial income/-expenses	-3	-	-	-3	65	62
Net income/-expense from financial instruments before foreign exchange gains/-losses	**-15 947**	**-38 684**	**1 577**	**-53 054**	**-2 020**	**-55 074**
Foreign exchange gains/-losses	4 436	35 423	4 462	44 321	1 192	45 513
Net income/-expense from financial instruments	**-11 511**	**-3 261**	**6 039**	**-8 733**	**-828**	**-9 561**

	Portfolios					2021
Amounts in NOK millions	**Equities**	**Fixed Income**	**Petroleum buffer**	**Total foreign exchange reserves**	**Other**	**Total**
Income statement						
Net income/-expenses from:						
- Equities	30 924	-	-	30 924	56	30 980
- Bonds	-	-6 536	-	-6 536	-	-6 536
- Financial derivatives	-59	-72	-	-131	-	-131
- Secured lending	19	-18	-28	-27	-	-27
- Secured borrowing	-	-	-	-	-	-
Interest income and expense from deposits in banks	-	-1	9	8	-	8
Interest income from lending to banks	-	-	-	-	86	86
Interest expense on deposits from banks and the Treasury	-	-	-	-	-19	-19
Net interest income from the IMF	-	-	-	-	177	177
Tax expense	-25	-	-	-25	-	-25
Other financial income/-expenses	-	-	-1	-1	-3	-4
Net income/-expense from financial instruments before foreign exchange gains/-losses	**30 859**	**-6 627**	**-20**	**24 212**	**297**	**24 509**
Foreign exchange gains/-losses	244	-1 464	923	-297	-6	-303
Net income/-expense from financial instruments	**31 103**	**-8 091**	**903**	**23 915**	**291**	**24 206**

Table 5.2 Foreign exchange reserves by portfolio, balance sheet

	Portfolios					31.12.2022
Amounts in NOK millions	**Equities**	**Fixed income**	**Petroleum buffer**	**Total foreign exchange reserves**	**Other**	**Total**
Balance sheet						
Financial assets						
Deposits in banks	-5	10 999	21 115	32 109	224	32 334
Secured lending	50	3 916	14 719	18 685	-	18 685
Cash collateral posted	-	6	-	6	-	6
Unsettled trades	2	915	-	917	-	917
Equities	106 626	-	-	106 626	217	106 843
Equities lent	3 987	-	-	3 987	-	3 987
Bonds	-	462 853	-	462 853	-	462 853
Financial derivatives	2	13	-	15	-	15
Claims on the IMF	-	-	-	-	126 560	126 560
Lending to banks	-	-	-	-	15 895	15 895
Other financial assets	122	-	-	122	408	529
Total financial assets	**110 784**	**478 702**	**35 834**	**625 320**	**143 304**	**768 624**
Financial liabilities						
Secured borrowing	37	-	-	37	-	37
Unsettled trades	-	6 740	6 729	13 469	-	13 469
Financial derivatives	-	16	15	31	-	31
Other financial liabilities	302	-	1 468	1 770	2 149	3 919
Liabilities to the IMF	-	-	-	-	103 378	103 378
Deposits from banks	-	-	-	-	26 821	26 821
Deposits from the Treasury	-	-	-	-	304 606	304 606
Notes and coins in circulation	-	-	-	-	40 075	40 075
Total financial liabilities	**339**	**6 756**	**8 212**	**15 307**	**477 029**	**492 336**
Net foreign exchange reserves	**110 445**	**471 946**	**27 622**	**610 013**		

Amounts in NOK millions	Portfolios Equities	Fixed income	Petroleum buffer	Total foreign exchange reserves	Other	31.12.2021 Total
Balance sheet						
Financial assets						
Deposits in banks	41	9 142	40 111	49 295	333	49 628
Secured lending	28	7 198	19 781	27 007	-	27 007
Cash collateral posted	-	-	-	-	-	-
Unsettled trades	21	303	-	325	-	325
Equities	117 515	-	-	117 515	200	117 715
Equities lent	4 454	-	-	4 454	-	4 454
Bonds	-	467 667	-	467 667	-	467 667
Financial derivatives	3	2	21	26	-	26
Claims on the IMF	-	-	-	-	117 325	117 325
Lending to banks	-	-	-	-	45 101	45 101
Other financial assets	52	-	-	52	325	377
Total financial assets	**122 114**	**484 313**	**59 913**	**666 340**	**163 284**	**829 625**
Financial liabilities						
Secured borrowing	28	-	-	28	-	28
Unsettled trades	-	6 758	15 439	22 197	-	22 197
Financial derivatives	-	5	-	5	-	5
Other financial liabilities	130	-	1 381	1 511	2 492	4 003
Liabilities to the IMF	-	-	-	-	98 044	98 044
Deposits from banks	-	-	-	-	23 372	23 372
Deposits from the Treasury	-	-	-	-	344 142	344 142
Notes and coins in circulation	-	-	-	-	39 745	39 745
Total financial liabilities	**158**	**6 763**	**16 820**	**23 741**	**507 795**	**531 536**
Net foreign exchange reserves	**121 956**	**477 550**	**43 093**	**642 599**		

Note 6 Measurement

Accounting policy

All assets and liabilities presented as *Equities, Bonds, Financial derivatives, Secured lending and borrowing* and *Deposits in banks* are measured at fair value through profit or loss 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
Fair value for the vast majority of assets and liabilities is based on quoted market prices or observable market data. If the market is not active, fair value is established by using standard valuation techniques. Estimating fair value may be complex and require the use of judgement, in particular when observable inputs are not available. The valuation risk addressed by the control environment at Norges Bank, which is responsible for fair value measurement.

2. The fair value hierarchy
All securities in the foreign exchange reserves are measured at fair value. The securities have been classified in the fair value hierarchy presented in Table 6.1 *Foreign exchange reserves investments by level of valuation uncertainty*. The classification is determined by:

- Level 1 comprises assets that are valued on based on unadjusted quoted prices in active markets and are considered to have very limited valuation uncertainty. An active market is a market in which transactions take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

- Assets and liabilities classified as Level 2 are valued using models with inputs that are either directly or indirectly observable. Inputs are considered observable when they are based on market data reflecting actual events or transactions.

- Assets classified as Level 3 are valued using models with significant use of unobservable inputs. Unobservable inputs are inputs for which market data are not available and that are developed using the best information available about the assumptions that market participants would use when pricing the asset.

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

Classification in the fair value hierarchy is based on fixed criteria, of which some of the criteria may require the use of judgement.

Level 3 investments consist of instruments measured at fair value that are not traded or quoted in active markets. Fair value is determined using valuation techniques that use models with significant use of unobservable inputs. A considerable degree of judgement is applied in determining the assumptions that market participants would use when pricing the asset or liability, when observable market data are not available.

Table 6.1 Foreign exchange reserves investments by level of valuation uncertainty

	Level 1		Level2		Level3		Total	
Amounts in NOK millions	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**
Equities	110 154	121 474	456	495	3	-	110 613	121 969
Bonds	451 318	457 621	11 535	10 046	-	-	462 853	467 667
Financial derivatives (assets)	15	26	-	-	-	-	15	26
Financial derivatives (liabilities)	-31	-5	-	-	-	-	-31	-5
Other[1]	-	-	36 563	52 942	-	-	36 563	52 942
Total	**561 456**	**579 116**	**48 554**	**63 483**	**3**	**-**	**610 013**	**642 599**
Total (percent)	**92.0%**	**90.1%**	**8.0%**	**9.9%**	**0.0%**	**0.0%**	**100%**	**100%**

[1] *Other* comprises other assets and liabilities limited to money market instruments, including reverse repurchase agreements, deposits in banks, short-term borrowing, unsettled trades and other assets and liabilities.

At year-end 2022, the valuation uncertainty for the foreign exchange reserves was generally unchanged compared with year-end 2021. The majority of foreign exchange reserves are associated with low valuation risk and are classified as Level 1. At year-end 2022, 99.6% of equity holdings and 97.5% of bond holdings are classified as Level 1, and valuation is thus based on quoted market prices.

Accounting policy

Transfers between levels in the fair value hierarchy are deemed to take place at the beginning of the reporting period.

3. Movements between levels in the hierarchy
There have been no substantial movements between levels in the fair value hierarchy.

4. Valuation techniques
Norges Bank has defined hierarchies for which price sources are to be used for valuation. Holdings that are included in the benchmark indices 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. For equities and derivatives traded in active markets (Level 1), the close price is used. For bonds traded in active markets, the bid price is generally used.

The next section sets out the valuation techniques used for equities and bonds classified as Level 2 in the fair value hierarchy.

Equities (Level 2)
Equities that are valued based on models with observable inputs provided by vendors are classified as Level 2 in the fair value hierarchy. These holdings are not traded in active markets and include listed shares in companies where trading has been suspended. The valuation models take into account various observable market inputs, such as the price of comparable equity quotes, last traded price and volume.

Bonds (Level 2)
Bonds classified as Level 2 are valued based on observable market inputs from comparable issues, in addition to direct indicative or binding quotes. These holdings usually consist of less liquid bonds than those classified as Level 1, i.e. where there is not an activity volume for binding trades and a low activity volume for indicative price quotes at the measurement date.

5. Control environment
The control environment for fair value measurement is organised around a formalised and documented valuation policy and guidelines, which are supported by work and control procedures. The portfolios managed by Norges Bank Markets contain only liquid government securities, where valuation risk is very low. 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 price providers. They have been chosen on the basis of analyses performed by the Norges Bank units responsible for valuation.

Price 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 prevailing market conditions. At each month-end, more extensive controls are performed to ensure valuation in accordance with fair value.

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

The NBIM investment meeting, which includes 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 the foreign exchange reserves. These are investments undertaken by Norges Bank in its role as Norway's central bank of Norway to preserve 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 217m and would have been 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.

7. Classification of financial instruments
Financial assets are classified in three measurement categories: fair value through profit or loss (designated or mandatory), fair value through other comprehensive income (OCI) and amortised cost. The measurement category is determined at initial recognition of the asset.

Financial liabilities shall generally be measured at amortised cost, except for financial derivatives measured at fair value through profit or loss.

The carrying amount of financial assets and liabilities measured at amortised cost is considered a reasonable estimate of fair value, thus comparable fair value amounts have not been calculated.

Table 6.2 Classification of financial instruments

Amounts in NOK millions	Fair value through profit or loss Designated	Mandatory	Amortised cost	31.12.2022 Total
Financial assets				
Deposits in banks	32 110	-	224	32 334
Secured lending	18 685	-	-	18 685
Cash collateral posted	6	-	-	6
Unsettled trades	917	-	-	917
Equities	106 843	-	-	106 843
Equities lent	3 987	-	-	3 987
Bonds	462 853	-	-	462 853
Financial derivatives	-	15	-	15
Claims on the IMF	-	-	126 560	126 560
Lending to banks	-	-	15 895	15 895
Other financial assets	121	-	408	529
Total financial assets	**625 522**	**15**	**143 087**	**768 624**
Financial liabilities				
Secured borrowing	37	-	-	37
Unsettled trades	13 469	-	-	13 469
Financial derivatives	-	31	-	31
Other financial liabilities	1 770	-	2 149	3 919
Liabilities to the IMF	-	-	103 378	103 378
Deposits from banks	-	-	26 821	26 821
Deposits from the Treasury	-	-	304 606	304 606
Notes and coins in circulation	-	-	40 075	40 075
Total financial liabilities	**15 276**	**31**	**477 029**	**492 336**

	Fair value through profit or loss			31.12.2021
Amounts in NOK millions	**Designated**	**Mandatory**	**Amortised cost**	**Total**
Financial assets				
Deposits in banks	49 295	-	333	49 628
Secured lending	27 007	-	-	27 007
Cash collateral posted	-	-	-	-
Unsettled trades	325	-	-	325
Equities	117 715	-	-	117 715
Equities lent	4 454	-	-	4 454
Bonds	467 667	-	-	467 667
Financial derivatives	-	26	-	26
Claims on the IMF	-	-	117 325	117 325
Lending to banks	-	-	45 101	45 101
Other financial assets	52	-	325	377
Total financial assets	**666 515**	**26**	**163 084**	**829 625**
Financial liabilities				
Secured borrowing	28	-	-	28
Unsettled trades	22 197	-	-	22 197
Financial derivatives	-	5	-	5
Other financial liabilities	1 511	-	2 492	4 003
Liabilities to the IMF	-	-	98 044	98 044
Deposits from banks	-	-	23 372	23 372
Deposits from the Treasury	-	-	344 142	344 142
Notes and coins in circulation	-	-	39 745	39 745
Total financial liabilities	**23 736**	**5**	**507 795**	**531 536**

Note 7 Investment risk

The foreign exchange reserves are held for the purpose of crisis management and shall be used as part of the conduct of monetary policy with a view to promoting financial stability and to meeting Norges Bank's international commitments. The aim of the management of the foreign exchange reserves is to attain the highest possible return within established limits. The foreign exchange reserves are divided into an equity portfolio, a fixed income portfolio and the petroleum buffer portfolio.

1. Organisation

The Executive Board has the overarching responsibility for risk management at Norges Bank and has established principles for risk management in Central Banking Operations, including financial risk. The Executive Board also lays down the overarching principles for the management of Norges Bank's foreign exchange reserves, including strategic asset allocation, benchmark indexes, investment universe and overarching risk measures.

The Risk and Investment Committee is a preparatory and advisory body to strengthen and improve the Executive Board's work related to investment strategy and risk limits for the foreign exchange reserves.

The Governor is responsible for the management of the foreign exchange reserves. The Governor has operationalised the Executive Board's principles in guidelines issued for the management for the equity portfolio, fixed income portfolio and petroleum buffer portfolio. Operational responsibility for management has been delegated to NBIM and Norges Bank Markets, respectively, with supplemental guidelines.

The division of roles and responsibilities in the risk management system is organised along three lines of defence. The first line of defence comprises the operational risk management and control activities that are performed by the operating units. The second line of defence comprises the central risk management and compliance functions, which are tasked with advising and supporting the operating units. Their task is to challenge the assessments of the first line of defence and ensure that the first line of defence performs adequate controls. The third line of defence is the internal audit function. Internal audit is placed under the Executive Board, independently of the administration, and shall assess whether risk management and compliance function as required.

2. Framework

The composition of the foreign exchange reserves and associated risk depends primarily on the strategic equity allocation and the portfolios' benchmark indexes, which are both defined by the Executive Board. The strategic equity allocation of the total equity and fixed income portfolio is 20%.

The benchmark index for the equity portfolio is a tax-adjusted version of the FTSE ALL World Developed Market Index, limited to euro area countries, the US, UK, Japan, Canada, Australia, Switzerland, Sweden and Denmark. The equity portfolio may be invested in cash deposits and equities listed on a regulated and recognised exchange.

The benchmark index for the fixed income portfolio is a market-weighted index of all nominal government bonds with a residual maturity of between one month and 10 years issued by France, Germany, Japan, China, the UK and the US. The fixed income portfolio may be invested in cash deposits and in Treasury bills and government bonds issued by the countries in the benchmark index.

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

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. For the management of the foreign exchange reserves, risk management is defined as the management of these risks. The units with operational responsibility for management have the responsibility for managing risk in accordance with current principles and guidelines.

3. 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.

4. Market risk

Market risk is defined 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 the equity, fixed income or foreign exchange market, including changes in credit premiums.

Continuous monitoring, measurement and assessment of market risk are performed along multiple dimensions. Combining different and complementary risk measures provides a better insight into the portfolios' risk profile. Norges Bank measures both absolute and relative risk for the investments in the portfolios.

Allocation by geography and industry

The foreign exchange reserves primarily contain investments in sovereign bonds and listed companies. In accordance with the investment management framework, the investments are allocated to several countries and currencies. The following tables show investments broken down by geography and industry.

Table 7.1 Foreign exchange reserves´ allocation by asset class and region/sovereign issuer

		31.12.2022		31.12.2021	
Amounts in NOK millions		**Market value in percent**	**Market value**	**Market value in percent**	**Market value**
Equity portfolio					
Equities	Americas	71%	78 185	72%	87 306
	Europe	19%	21 005	19%	23 105
	Asia and Oceania	10%	11 255	9%	11 545
Total equity portfolio		**100%**	**110 445**	**100%**	**121 956**
Fixed income portfolio					
Bonds	US	49%	233 101	49%	235 087
	France	18%	85 726	18%	87 762
	Germany	15%	70 521	15%	71 144
	UK	7%	32 443	7%	32 919
	Japan	7%	31 708	7%	31 736
	China	2%	9 354	2%	9 019
Total bonds		**98%**	**462 853**	**98%**	**467 667**
Deposits		2%	9 093	2%	9 883
Total fixed income portfolio		**100%**	**471 946**	**100%**	**477 550**
Petroleum buffer portfolio					
Deposits	Americas	57%	15 835	54%	23 192
	Europe	43%	11 787	46%	19 901
Total petroleum buffer portfolio		**100%**	**27 622**	**100%**	**43 093**
Total foreign exchange reserves		**100%**	**610 013**	**100%**	**642 599**

Table 7.2 Equity portfolio by industry

	31.12.2022		31.12.2021	
Amounts in NOK millions	**Market value**	**Share**	**Market value**	**Share**
Technology	22 377	20%	30 608	25%
Health care	16 532	15%	15 627	13%
Financials	16 167	15%	16 005	13%
Consumer discretionary	15 374	14%	19 505	16%
Industrials	14 751	13%	16 200	13%
Consumer goods	7 366	7%	6 848	6%
Energy	4 827	4%	3 222	3%
Basic materials	3 888	4%	3 767	3%
Telecommunications	3 172	3%	3 744	3%
Utilities	3 097	3%	2 885	2%
Real estate	2 968	3%	3 487	3%
Other[1]	- 74	0%	58	0%
Total equity portfolio	**110 445**	**100%**	**121 956**	**100%**

[1] Includes other asset and liability items in the equity portfolio.

Table 7.3 Foreign exchange reserves' 10 largest holdings of equities

			31.12.2022
Amounts in NOK millions	**Sector**	**Market value**	**Share[1]**
Apple Inc	Technology	4 593	4.2%
Microsoft Corp	Technology	4 220	3.8%
Alphabet Inc	Technology	2 366	2.1%
Amazon.com Inc	Consumer discretionary	1 759	1.6%
Berkshire Hathaway Inc	Financials	1 317	1.2%
UnitedHealth Group Inc	Health care	1 168	1.1%
Johnson & Johnson	Health care	1 093	1.0%
Exxon Mobil Corp	Energy	1 066	1.0%
JPMorgan Chase & Co	Financials	924	0.8%
Procter & Gamble Co	Consumer goods	842	0.8%
Total		**19 349**	**17.5%**

			31.12.2021
Amounts in NOK millions	**Sector**	**Market value**	**Share[1]**
Apple Inc	Technology	5 612	4.6%
Microsoft Corp	Technology	5 185	4.3%
Alphabet Inc	Technology	3 452	2.8%
Amazon.com Inc	Consumer discretionary	2 958	2.4%
Tesla Inc	Consumer discretionary	1 747	1.4%
Meta Platforms Inc	Technology	1 635	1.4%
NVIDIA Corp	Technology	1 440	1.2%
Berkshire Hathaway Inc	Financials	1 132	0.9%
UnitedHealth Group Inc	Health care	964	0.8%
JPMorgan Chase & Co	Financials	952	0.8%
Total		**25 077**	**20.6%**

[1] Percentage of the total equity portfolio.

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 NOK. Consequently, the value of these investments is exposed to foreign exchange rate risk. See Note 8 *Currency* for further information on the exchange rates used and the currency distribution in the foreign exchange reserves.

Interest rate risk

A substantial portion of the foreign exchange reserves is invested in sovereign bonds issued by the US, Germany, France, the UK, Japan and China. The value of fixed income instruments is affected by changes in interest rates in these countries. The investments' interest rate sensitivity is measured by modified duration. At year-end 2022, modified duration was 3.59 for the fixed income portfolio. In isolation, this means that a 1% fall in yields corresponds to a 3.59% rise in bond prices. By comparison, modified duration at year-end 2021 was 3.83.

Volatility and correlation risk

Norges Bank uses models to quantify the risk of value changes associated with the foreign exchange reserves. This is measured by the standard deviation of the return and is usually referred to as volatility. Absolute volatility provides an estimate of how much the portfolio value can be expected to change in the course of a year, given the current portfolio composition. Relative volatility (tracking error) provides an indication of how much the portfolio is expected to fluctuate compared with its benchmark index. In accordance with the Executive Board's principles for management of the foreign exchange reserves, the maximum expected relative volatility is set at 50 basis points for the equity and fixed income portfolios, respectively. This implies that that the relative return on the portfolios is expected to lie within the range of ±50 basis points in two out of three years.

The risk models make it possible to estimate the risk in a portfolio across asset classes, markets, currencies, securities and instruments. Risk is then expressed as a single numerical value, which takes into account the correlation between risk factors. The models use historical relationships, which provide reliable forecast in markets that are not experiencing substantial changes in volatility and correlation. Estimates will be less reliable in periods marked by significant market movements. Regular testing of the models is performed to validate the model's ability to estimate risk. Reported risk measures are annualised.

Table 7.4 Portfolio risk

	Expected volatility							
	31.12.2022	Min 2022	Max 2022	Avg. 2022	31.12.2021	Min 2021	Max 2021	Avg. 2021
Equity portfolio	15.2%	14.6%	15.5%	15.1%	14.7%	14.6%	15.3%	15.1%
Fixed income portfolio	14.6%	10.3%	15.0%	13.3%	10.3%	9.1%	13.9%	10.9%

	Expected relative volatility, basis points							
	31.12.2022	Min 2022	Max 2022	Avg. 2022	31.12.2021	Min 2021	Max 2021	Avg. 2021
Equity portfolio	6	4	9	6	8	8	12	9
Fixed income portfolio	3	2	4	2	2	1	6	2

At year-end 2022, expected absolute volatility was measured at 15.2% for the equity portfolio and 14.6% for the fixed income portfolio. This means that yearly value fluctuations on the order of NOK 17bn and NOK 69bn, respectively, can be expected. At year-end 2021, the corresponding expected value fluctuations were NOK 18bn and NOK 49bn, respectively. At year-end 2022, expected relative volatility for the equity and fixed income portfolios was 6 and 3 basis points, respectively, compared with 8 and 2 basis points, respectively, at year-end 2021.

5. Credit risk

Credit risk is defined as the risk of loss due to an issuer being unable to meet its payment obligations.

The fixed income portfolio comprises only sovereign bonds issued by the US, Germany, France, the UK, Japan and China, all rated investment grade by external credit rating agencies. The credit risk of bond investments in the foreign exchange reserve is therefore regarded as low.

Table 7.5 Bonds specified by sovereign issuer and credit rating

		31.12.2022		31.12.2021	
Amounts in NOK millions	**Credit rating**	**Market value**	**Share**	**Market value**	**Share**
US	AAA	233 101	50%	235 087	50%
Germany	AAA	70 521	15%	71 144	15%
France	AA	85 726	19%	87 762	19%
UK	AA-	32 443	7%	32 919	7%
China	A+	9 354	2%	9 019	2%
Japan	A	31 708	7%	31 736	7%
Total bonds		**462 853**	**100%**	**467 667**	**100%**

6. Counterparty risk

Counterparty risk is defined as the risk of loss due to a counterparty default on its obligations. Counterparty risk includes the risk associated with counterparty insolvency, settlement risk and custodial risk. Counterparty risk is primarily related to securities lending, reverse repurchase agreement, unsecured bank deposits, foreign exchange contracts and futures.

In the management of the foreign exchange reserves a large number of counterparties are used to limit concentration.

To reduce counterparty exposure, requirements have been set for the credit quality of counterparties. Norges Bank's counterparties usually have credit rating from several 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.

Counterparty risk is also reduced by setting exposure limits for individual counterparties. Netting agreements are in place for trades in currency contracts and reverse repurchase agreements, and there are collateral requirements for counterparty net positions with a positive market value. Minimum requirements have also 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. For securities lending transactions, a premium is added to the market value to reflect the position's volatility, and these positions are also adjusted for netting and actual collateral received and posted when determining net exposure. See Note 10 *Collateral and offsetting* for further information.

At year-end 2022, counterparty risk is regarded as low. Collateral has been posted in excess of the exposure in the open reverse repurchase agreements, and unsecured bank deposits almost exclusively comprise deposits with the Federal Reserve (US dollar) or with other central banks.

Table 7.6 Counterparties[1] by credit rating

	Non brokers		Brokers	
	31.12.2022	31.12.2021	31.12.2022	31.12.2021
AAA	3	3	-	-
AA	24	24	17	18
A	57	55	38	39
BBB	12	12	15	15
BB	2	2	11	9
B	-	-	4	4
Total	**98**	**96**	**85**	**85**

[1] Counterparties in the category "Brokers" are defined as equity and bond brokers and futures brokers. Counterparties in other transactions are classified as "Non brokers". In cases where a counterparty is used for trading securities and for other transactions, the same counterparty will be included in both categories. As counterparties are counted per legal entity, several counterparties may be included per corporate group. Counterparties that are central banks are not included in the table.

Leverage

Leverage may be used to ensure effective management of the investments in the equity portfolio, but not with the aim of increasing the economic exposure to risky assets. Leverage is the difference between total net exposure and the market value of the portfolio. Leverage in the portfolio was 0.11% at year-end 2022, compared with 0.02% at year-end 2021.

Sale of securities that Norges Bank does not own ("short sale")

The sale of securities that Norges Bank does not own is not permitted in the management of the foreign exchange reserves.

7. 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. There is little or no liquidity risk associated with the Bank's liabilities, which are primarily in NOK. The majority of assets are held in foreign currency and are highly liquid financial instruments. They may be realised at short notice without a substantial change in value, and the liquidity risk associated with them is therefore regarded as low. Assets in foreign currency are regarded as sufficient for meeting foreign currency obligations.

8. Climate risk

Climate risk is defined as the risk related to future physical climate changes and changes related to the transition to a low-carbon society.

The Executive Board has decided that the equity portfolio in the foreign exchange reserves shall be managed according to the same principles and strategies for responsible management as the equity investments in the GPFG, which includes mitigating climate risk in investment mangement. The fixed income portfolio in the foreign exchange reserves consists exclusively of government bonds, and climate related issues will have little effect on the composition of the bond portfolio.

9. Other risk

Credit risk associated with lending to banks

Credit and counterparty risk associated with F-loans and intraday/overnight loans (D-loans) is managed by requiring collateral for such loans, in the form of securities pledged to Norges Bank. The total lending facility for banks is determined by collateral pledged to Norges Bank, F-deposits and deposits with the Scandinavian Cash Pool.

Norges Bank stipulates more detailed terms for pledging securities and fund units as collateral for loans in Norges Bank pursuant to Section 6 of the Regulation on the Access of Banks to Borrowing and Deposit Facilities in Norges Bank etc. The current guidelines have been issued in Norges Bank's Circular No. 5/2022 from November 2022. See Note 18 *Loans and deposits* for more information.

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).

Loans to the IMF

The State of Norway is a member of the IMF. Norges Bank shall, in accordance with the Central Bank Act, manage the country´s rights and obligations as a member of the IMF. This includes making currency available for IMF lending. Norges Bank considers the risk related to IMF loans to be low.

Expected credit losses

Assets measured at amortised cost are allocated on the reporting date to Stages 1, 2 or 3.

On initial recognition, assets are allocated to Stage 1. Stage 1 requires an estimation of a 12-month expected credit loss. The expected loss in Stage 1 reflects the entire loss on an asset weighted by the probability that the loss will occur in the next 12 months. On each reporting date, an assessment shall be made of whether the credit risk of a financial asset has increased significantly since initial recognition. If this is the case, the exposure must be moved to Stages 2 or 3. Stages 2 and 3 require estimation of an expected credit loss over the entire life of the exposure.

No loss provisions had been made for expected credit losses at year-end 2022 and 2021

Table 7.7 Expected credit loss

	31.12.2022		31.12.2021	
Amounts in NOK millions	**Carrying amount**	**Expected credit loss**	**Carrying amount**	**Expected credit loss**
Loans to and net claims on the IMF	23 182	-	19 281	-
Lending to banks	15 895	-	45 101	-
Other	237	-	167	-
Total	**39 314**	**-**	**64 549**	**-**

Note 8 Currency

Critical accounting judgement

The management of Norges Bank has concluded that the Bank's functional currency is the Norwegian krone (NOK), since this is the dominant currency in the Bank's underlying activities.

Owner's capital, in the form of the GPFG's krone account, is denominated in NOK and a share of the costs related to management of the GPFG are in NOK. The investment portfolio's nominal return is reported internally and to the owner in NOK, while the percentage return is reported in NOK and in the currency basket specified in the management mandate issued by the Ministry of Finance. Furthermore, no single investment currency stands out as dominant in the asset management.

Accounting policy

Foreign currency transactions are recognised in the financial statements using 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. The foreign exchange element, which is linked to realised and unrealised gains and losses on assets and liabilities, is disaggregated in the income statement and presented on a separate line, *Foreign exchange gain/-loss.*

Accounting policy

Gains and losses on financial instruments are due to changes in the price of the instrument (security element) and changes in foreign exchange rates (foreign exchange element). These are presented on separate lines in the income statement. The method for allocating total gains and losses in NOK to a security element and a foreign exchange element is described below.

Foreign exchange element

Unrealised gains or losses due to changes in foreign exchange rates are calculated based on the original 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 recognised in the income statement in previous periods are deducted to arrive at the gain or loss for the current period. For realised gains or losses, the foreign exchange rate on the date of sale is used for calculating realised gains or losses.

Security element

Unrealised gains or losses from changes in the security price are calculated based on the change in the instrument's price from the purchase date to the balance sheet date and the closing exchange rate at the balance sheet date. If the holding was acquired in a previous period, 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. When the holding is sold, the holding's selling price is used for calculating realised gains or losses.

Table 8.1 Foreign exchange reserves by currency

						31.12.2022
Amounts in NOK millions	**USD**	**EUR**	**GBP**	**JPY**	**Other**	**Total**
Financial assets						
Deposits in banks	18 840	10 005	648	2 318	298	32 109
Secured lending	6 443	7 738	4 503	-	-	18 685
Cash collateral posted	6	-	-	-	-	6
Unsettled trades	-	245	-	672	-	917
Equities	74 647	10 511	4 072	6 693	10 703	106 626
Equities lent	1 076	407	333	1 744	427	3 987
Bonds	233 101	156 248	32 443	31 708	9 354	462 853
Financial derivatives	1	-1	-	11	3	15
Other financial assets	1	78	-	-	42	122
Total financial assets	**334 115**	**185 232**	**41 999**	**43 146**	**20 827**	**625 320**
Financial liabilities						
Secured borrowing	37	-	-	-	-	37
Unsettled trades	3 014	7 593	2 612	250	-	13 469
Financial derivatives	11	17	4	-	-	31
Other financial liabilities	1 503	44	22	-	201	1 770
Total financial liabilities	**4 564**	**7 653**	**2 638**	**250**	**201**	**15 307**
Net foreign exchange reserves	**329 551**	**177 579**	**39 361**	**42 896**	**20 626**	**610 013**

						31.12.2021
Amounts in NOK millions	**USD**	**EUR**	**GBP**	**JPY**	**Other**	**Total**
Financial assets						
Deposits in banks	28 017	9 014	9 937	1 635	691	49 295
Secured lending	9 623	17 385	-	-	-	27 007
Cash collateral posted	-	-	-	-	-	-
Unsettled trades	19	-	303	2	-	325
Equities	84 104	10 832	4 487	7 382	10 710	117 515
Equities lent	282	1 637	166	1 584	784	4 454
Bonds	235 087	158 906	32 919	31 736	9 019	467 667
Financial derivatives	-	20	2	-	3	26
Other financial assets	1	44	-	-	7	52
Total financial assets	**357 131**	**197 839**	**47 816**	**42 340**	**21 214**	**666 340**
Financial liabilities						
Secured borrowing	28	-	-	-	-	28
Unsettled trades	7 391	14 421	-	384	-	22 197
Financial derivatives	3	-	-	2	-	5
Other financial liabilities	1 480	-	-65	-	96	1 511
Total financial liabilities	**8 902**	**14 421**	**-65**	**386**	**96**	**23 741**
Net foreign exchange reserves	**348 229**	**183 418**	**47 881**	**41 954**	**21 118**	**642 599**

Total comprehensive income is affected by exchange rate movements. A 1% depreciation of NOK against all currency crosses will result in a positive impact on the income statement of around NOK 6bn, and a corresponding negative impact on the income statement from a 1% appreciation of NOK.

Table 8.2 Exchange rates

	31.12.2022	31.12.2021	Change[1]
US dollar	9.85	8.82	12%
Euro	10.51	10.03	5%
Pound sterling	11.85	11.94	-1%
Japanese yen	0.07	0.08	-13%
Special Drawing Rights (SDR)[2]	13.15	12.36	6%

1 Percentage change in the exchange rate.

2 See Note 17 *International Monetary Fund (IMF)* for further description

Note 9 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 and reverse repurchase agreements.

Accounting policy

Income and expense from secured lending and borrowing transactions
Income and expenses from secured lending and borrowing transactions 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 lending* and *Income/-expense from secured borrowing*, respectively.

Table 9.1 Income/expense from secured lending and borrowing

Amounts in NOK millions	2022	2021
Income/-expense from secured lending	135	-27
Income/-expense from secured borrowing	-	-
Net income/-expense from secured lending and borrowing	**135**	**-27**

The purpose of secured lending and borrowing is to generate additional income from securities and cash holdings as a part of liquidity management and contributes to efficient market pricing. The share of securities lent shall not exceed 20% of the equity portfolio's market value. Lending is governed by demand for the equities in the portfolio and market pricing. All lending is secured by sufficient collateral received.

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. Transferred securities are presented on a separate line in the balance sheet, as *Equities 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 measured at fair value.

Secured borrowing
Cash collateral received is recognised as *Deposits in banks* together with a corresponding liability, *Secured borrowing.* This liability is measured at fair value.

Collateral received in the form of securities
Collateral received in the form of securities, where Norges Bank has the right to sell or pledge the security, is not recognised in the balance sheet, unless reinvested.

Table 9.2 Lending associated with securities financing transactions

Amounts in NOK millions	31.12.2022	31.12.2021
Secured lending	18 685	27 007
Of which unsettled trades (liability)	*9 845*	*18 857*
Secured lending excluding unsettled trades	**8 840**	**8 150**
Associated collateral in the form of securities (off-balance sheet)		
Equities received as collateral	-	-
Bonds received as collateral	9 216	8 517
Total security collateral received related to lending	**9 216**	**8 517**

Table 9.3 Transferred financial assets and secured borrowing

Amounts in NOK millions	31.12.2022	31.12.2021
Transferred financial assets		
Equities lent	3 987	4 454
Total transferred financial assets	**3 987**	**4 454**
Associated cash collateral, recognised as liability		
Secured borrowing	37	28
Of which unsettled trades (assets)	-	-
Secured borrowing excluding unsettled trades	**37**	**28**
Associated collateral in the form of securities (off-balance sheet)		
Equities received as collateral	2 685	3 366
Bonds received as collateral	1 628	2 859
Total security collateral received related to transferred financial assets	**4 313**	**6 225**

Cash collateral received is reinvested in its entirety. No securities received as collateral were reinvested at year-end 2022 or 2021. Therefore, these securities are not recognised in the balance sheet.

Note 10 Collateral and offsetting

Accounting policy

Cash collateral, derivative transactions
Cash collateral posted in connection with derivative transactions is derecognised. A corresponding receivable reflecting the cash amount that will be returned is recognised in the balance sheet as *Cash collateral posted*. Cash collateral received in connection with 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 measured at fair value.

Offsetting
Financial assets and liabilities are not offset and presented net in the balance sheet, as the criteria in IAS 32 *Financial Instruments:* Presentation, are not met. Therefore, Table 10.1 *Assets and liabilities subject to netting agreements* does not include a column for amounts offset/netted in the balance sheet.

1. Collateral
The balance sheet lines *Cash collateral posted* and *Cash collateral received* are exclusively associated with derivative transactions. In connection with secured lending and borrowing transactions, collateral will be posted or received in the form of securities or cash, see Note 9 *Secured lending and borrowing* for further information.

2. Offsetting
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, as shown in Table 10.1 *Assets and liabilities subject to netting agreements*. The table shows an overview of financial assets and liabilities, the effects of legally enforceable netting agreements and related collateral to reduce credit risk. The column *Amount 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 of recognised financial assets and liabilities, together with posted or received cash collateral, with the same counterparty. The remaining net exposure is presented in the column *Amount after netting and collateral.*

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 therefore not adjusted for in this table.

Table 10.1 Assets and liabilities subject to netting agreements

							31.12.2022
			Amounts subject to enforceable netting agreements				
Amounts in NOK millions	Gross amount as recognised in the balance sheet	Amount in the balance sheet not subject to enforce-able netting agreements	Amount in the balance sheet subject to netting	Amount related to same counter-party	Cash collateral (recognised)	Security collateral (not recognised)	Amount after netting and collateral
Assets							
Secured lending	18 685	9 845	8 840	-	-	8 840	-
Financial derivatives	15	15	-	-	-	-	-
Total	**18 700**	**9 860**	**8 840**	**-**	**-**	**8 840**	**-**
Liabilities							
Secured borrowing	37	-	37	-	-	37	-
Financial derivatives	31	31	-	-	-	-	-
Total	**68**	**31**	**37**	**-**	**-**	**37**	**-**

							31.12.2021
			Amounts subject to enforceable netting agreements				
Amounts in NOK millions	Gross amount as recognised in the balance sheet	Amount in the balance sheet not subject to enforce-able netting agreements	Amount in the balance sheet subject to netting	Amount related to same counter-party	Cash collateral (recognised)	Security collateral (not recognised)	Amount after netting and collateral
Assets							
Secured lending	27 007	18 857	8 150	-	-	8 150	-
Financial derivatives	26	26	-	-	-	-	-
Total	**27 033**	**18 883**	**8 150**	**-**	**-**	**8 150**	**-**
Liabilities							
Secured borrowing	28	-	28	-	-	28	-
Financial derivatives	5	5	-	-	-	-	-
Total	**33**	**5**	**28**	**-**	**-**	**28**	**-**

Note 11 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), among others. 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. 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 significant 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. 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. Service credit for retirement benefits is generally earned for each year the employee is working up until age 70. 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 11.1 Number of pension plan members (funded plan)

	31.12.2022	31.12.2021
Members drawing retirement benefits	924	932
Active members (including all those affected by restructuring)	801	751
Members who have left the Bank with vested rights	1 180	1 094
Total number of pension plan members	**2 905**	**2 777**

1. 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 pension 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 2022 or later.

Significant estimate

Measurement of the present value of Norges Bank's pension benefit obligation requires determination of a number of economic and demographic 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 the economic assumptions. The guideline assumptions are assessed against actual conditions at Norges Bank before a decision is made to apply them.

Table 11.2 Economic and demographic assumptions

	31.12.2022	31.12.2021
Discount rate	3.00%	1.90%
Interest rate on assets	3.00%	1.90%
Rate of compensation increase	3.50%	2.75%
Rate of pension increase	2.60%	1.75%
Increase in social security base amount (G)	3.25%	2.50%
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	K2013BE
Disability table	KU	KU

Table 11.3 Net liability recognised in the balance sheet

Amounts in NOK millions	31.12.2022	31.12.2021
Change in defined benefit obligation (DBO) incl. payroll tax		
DBO at beginning of year	5 697	5 082
Service cost	187	198
Interest cost	107	85
Payroll tax on employer contribution	-27	-55
Benefits paid	-154	-142
Remeasurement loss/-gain	-110	529
DBO at year-end	**5 700**	**5 697**
Change in plan assets		
Fair value of assets at beginning of year	5 991	5 238
Interest income	107	83
Employer contribution incl. payroll tax	220	444
Payroll tax on employer contribution	-27	-54
Benefits paid	-146	-135
Remeasurement (loss) gain	-614	415
Fair value of assets at year-end	**5 531**	**5 991**
Pension scheme not recognised in the actuarial calculation	1	1
Net amount recognised in the balance sheet	**170**	**-293**

Table 11.4 Specification of funded and unfunded plans

	31.12.2022			31.12.2021		
Amounts in NOK millions	**Funded plan**	**Unfunded plans**	**Total**	**Funded plan**	**Unfunded plans**	**Total**
Accrued benefit obligations	5 474	227	5 701	5 472	226	5 698
Plan assets	-5 531	-	-5 531	-5 991	-	-5 991
Net benefit obligation/-net plan assets	**-57**	**227**	**170**	**-519**	**226**	**-293**

Table 11.5 Allocation of plan assets for funded plan

Amounts in NOK millions	**31.12.2022**	**31.12.2021**
Bonds	2 533	2 957
Equities	2 258	2 283
Real estate fund	740	751
Total	**5 531**	**5 991**

2. Pension expense for employees in Norway

Pension expense includes current service cost, interest expense and expected return on plan assets.

The change in the unfunded plans is included in the overall pension expense.

Expenses relating to employees associated with NBIM are covered in their entirety by the management fee and amounted to NOK 90.6m in 2022 and NOK 98.8m in 2021.

Table 11.6 Pension expense

	2022	**2021**
Service cost incl. interest and payroll tax	187	198
Administration cost incl. payroll tax	5	5
Effect of plan amendments incl. payroll tax	-	-
Service cost and cost of benefit changes	**192**	**203**
Net interest cost/-income incl. payroll tax	-6	-3
Net periodic pension cost	**187**	**200**
Other comprehensive income (OCI) in the period		
Remeasurement loss/-gain – change in discount rate	-1 125	-202
Remeasurement loss/-gain – change in other economic assumptions	798	527
Remeasurement loss/-gain – change in mortality table	-	-
Remeasurement loss/-gain – change in other demographic assumptions	-	-
Remeasurement loss/-gain – experience adjustments, DBO	216	204
Remeasurement loss/-gain – experience adjustments, assets	574	-452
Investment management cost	40	37
OCI losses/-gains in the period	**504**	**114**

3. Sensitivity analysis

The sensitivity analysis has been prepared in the light of possible changes in the assumptions discount rate and wage growth, which are expected to have the most pronounced effect on the pension obligation. The other actuarial assumptions are kept unchanged in the sensitivity analysis.

Table 11.7 Sensitivity analysis

				31.12.2022
	Discount rate	General compensation increase	ABO pensioners / DBO other[1]	Change[2]
Assumptions at 31 Dec. 2022	3.00%	3.50%	5 700	I/A
Discount rate + 0.5 percentage point	3.50%	3.50%	5 193	-8.89%
Discount rate - 0.5 percentage point	2.50%	3.50%	6 288	10.32%
General compensation increase + 0.5 percentage point	3.00%	4.00%	5 897	3.46%
General compensation increase - 0.5 percentage point	3.00%	3.00%	5 519	-3.18%

[1] Amounts in NOK millions.

[2] Percentage change in the pension benefit obligation.

4. Pension plans for locally employed staff of foreign offices

Locally employed staff at Norges Bank's offices in London, New York and Singapore 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 10% of fixed salary for employees in London, up to 8% of fixed salary for employees in New York, 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. Locally employed staff at Norges Bank's offices in Shanghai have no pension plan beyond what has been established by the authorities. This is in line with market practice. Recognised expenses for the plans in London, New York, Singapore and Shanghai amounted to NOK 40.3m in 2022 and NOK 34.8m in 2021. The cost of pension plans for locally employed staff of offices outside of Norway is presented under *Other personnel expenses* in Table 12.1 *Personnel expenses*.

Note 12 Personnel expenses

Accounting policy

Pay comprises all types of remuneration to the Bank's own employees and is expensed as earned. Ordinary pay may be either a fixed salary or hourly wages and is earned and disbursed on an ongoing basis. Holiday pay is earned on the basis of ordinary pay and is normally disbursed during the holiday months of the subsequent year. Performance-based pay is earned and calculated on the basis of various performance targets and is disbursed in subsequent years (See separate discussion in Section 1. *Salary system*).

Payroll tax is calculated and expensed for all pay-related expenses and normally paid in arrears every other month. Pensions are earned under separate rules (see Note 11 *Pension*).

1. Salary system

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 Bank's salary system is based on individual assessments and is subject to agreements with the unions representing Bank employees. There is a separate system of individually determined salaries at NBIM.

Salary levels at Norges Bank are to be competitive, but not market-leading. Norges Bank employs external consultants to perform annual comparisons of salary levels with other employers. The Executive Board has a Remuneration Committee comprising three of the external members and one employee representative. The Committee contributes to thorough and independent discussion of matters pertaining to the salary and remuneration schemes.

The Executive Board sets salary bands for the CEO of NBIM, executive managers and employees in Central Banking Operations (CBO) and Norges Bank Administration whose salary is determined by the Governor. The Governor determines, within band set, the annual salary adjustment based on the managers´ performance in the previous year.

The Executive Board sets further salary bands for the employees in NBIM who are part of the NBIM´s leader group. The CEO of NBIM determines, within band set, the annual salary adjustment based on the managers´ performance in the previous year.

Performance-based pay

Norges Bank's Executive Board lays down the principles for NBIM's salary system. The leader group receive only a fixed salary.

In addition to a fixed salary, 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 calculated on the basis of the performance of the GPFG, group and individual measured against set targets. Accrued performance-based pay is paid over several years. 50% is paid the year after it is accrued, and the other 50% is held back and paid over the following three years. The amount held back is adjusted for the return on the GPFG. For employees with performance base pay above 100% of fixed salary, 40% is paid the year after it is accrued, and the other 60% is held back and paid over the following three years. Performance-based pay is capped at 100% of fixed salary for employees in Norway. For a limited number of employees at international offices, the cap may be up to 200% of fixed salary. Employees receiving performance- based pay earned on average 73% of the total limit for 2022, based on performance over several years.

At year-end 2022, 226 employees of NBIM received performance-based pay, 13 of whom were employed by subsidiaries. Their total upper limit for performance-based pay was NOK 502m.

The remuneration scheme is reviewed annually. In addition, Norges Bank Internal Audit conducts an independent review of compliance with rules and guidelines for remuneration. The review in 2022 confirmed that the implementation of the remuneration scheme for 2021 was in compliance with the rules. The remuneration scheme for employees of NBIM follows the rules in the Securities Fund Regulation, in line with the mandate of the Ministry of Finance. There were no material changes to the remuneration scheme in 2022.

Employees of CBO 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. The maximum bonus payment per year may not exceed the fixed salary. 60% of the calculated performance-based pay is paid the year after it is accrued, and the other 40% is held back and paid over the following three years.

Ten employees had a performance-based pay agreement in 2022. Employees receiving performance-based pay earned on average 35% of the total limit for 2022.

Table 12.1 Personnel expenses

Amounts in NOK millions	2022	2021
Salary and fees	1 678	1 259
Employer's social security contributions	204	164
Pension expense, see Note 11 *Pension*	187	200
Other personnel expenses	281	176
Personnel expenses	**2 350**	**1 799**

Table 12.2 Number of employees/FTEs

	31.12.2022	31.12.2021
Number of employees	1 007	940
Number of FTEs	999	938

2. Benefits to governing bodies

Supervisory Council

Total remuneration paid in 2022 was NOK 1 072 000. Of this amount, fixed remuneration was NOK 960 000. Remuneration rates for 2022 were set by the Storting as from 1 January 2022 (cf Recommendation 40 S (2021-2022)).

The remaining NOK 111 400 is other remuneration for attending meetings, including for lost earnings. Total remuneration paid in 2021 was NOK 1 051 430.

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 2022.

Table 12.3 Remuneration to the Supervisory Council and the Permanent Committee

			2022
Amounts in NOK	**Total remuneration per member**	**Supervisory Council**	**The Permanent Committee**
Chair	175 400	70 200	105 200
Deputy chair	117 000	46 800	70 200
Three members of the Permanent Committee	105 400	35 200	70 200
10 members of the Supervisory Council	35 200	35 200	-

			2021
Amounts in NOK	**Total remuneration per member**	**Supervisory Council**	**The Permanent Committee**
Chair	165 200	66 100	99 100
Deputy chair	110 200	44 100	66 100
Three members of the Permanent Committee	99 200	33 100	66 100
10 members of the Supervisory Council	33 100	33 100	-

Executive Board – external members

Service on the Executive Board is remunerated at fixed annual rates. 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 2 817 100 in 2022, compared with NOK 2 735 400 in 2021.

Table 12.4 Remuneration to the Executive Board

						2022
Amounts in NOK	**Total remuneration**	**Executive Board**	**Audit Committee**	**Remuneration Committee**	**Ownership Committee**	**Risk and Investment Committee**
Karen Helene Ulltveit-Moe[1]	510 350	368 400	86 100	16 683		39 167
Kristine Ryssdal	448 300	368 400		28 600	51 300	
Arne Hyttnes	469 100	368 400	72 100	28 600		
Hans Aasnæs	462 400	368 400				94 000
Nina Udnes Tronstad[2]	482 342	368 400	72 100	11 917	29 925	
Egil Herman Sjursen[3]	444 608	368 400			21 375	54 833

1 Member in the period 1 January 2022 to 30 May 2022 in the Risk and Investment Committee and 1 June 2022 to 31 December 2022 in the Remuneration Committe.
2 Member in the period 1 January 2022 to 30 May 2022 in the Remuneration Committee and 1 June 2022 to 31 December 2022 in the Ownership Committee.
3 Member in the period 1 January 2022 to 30 May 2022 in the Ownership Committee and 1 June 2022 to 31 December 2022 in the Risk and Investment Committee.

						2021
Amounts in NOK	**Total remuneration**	**Executive Board**	**Audit Committee**	**Remuneration Committee**	**Ownership Committee**	**Risk and Investment Committee**
Karen Helene Ulltveit-Moe	532 600	357 700	83 600			91 300
Kristine Ryssdal	435 300	357 700		27 800	49 800	
Arne Hyttnes	455 500	357 700	70 000	27 800		
Hans Aasnæs	449 000	357 700				91 300
Nina Udnes Tronstad	455 500	357 700	70 000	27 800		
Egil Herman Sjursen	407 500	357 700			49 800	

Monetary Policy and Financial Stability Committee – external members

Service on the Monetary Policy and Financial Stability Committee is remunerated at fixed annual rates as set by the Ministry of Finance. Total remuneration to the external members of the committee was NOK 673 600 in 2022, compared with NOK 654 000 in 2021.

Table 12.5 Remuneration to the Monetary Policy and Financial Stability Committee

Amounts in NOK	**2022**	**2021**
Ingvild Almås	336 800	327 000
Jeanette Fjære-Lindkjenn	336 800	327 000

3. Benefits to senior executives

Senior executives are entitled to the same retirement benefits and have the same borrowing rights as the Bank's other employees. Pension benefits earned for the year are equal to the individual executive's accrued service cost for the year. Pension plans are discussed in Note 11 *Pension*, and loans to employees are discussed in a separate section in this note.

Senior executives do not earn performance-based or other variable remuneration. See above Section 1. *Salary system* for further information regarding performance-based pay.

Value of other benefits shows the tax value of benefits-in- kind and primarily comprise coverage of electronic communication, personal insurance and some travel expenses.

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.

A six-month quarantine period applies to the Governor and Deputy Governors after stepping down or the end of their terms of office. The Ministry of Finance may grant an exemption from this quarantine period. As long as the quarantine period is in force, the Governor and Deputy Governor are entitled to maintain a normal salary and other remuneration.

Table 12.6 Remuneration to the Norges Bank Executive Management Team

Amounts in NOK					2022
Position	**Name**	**Gross salary**	**Value of other benefits**	**Pension benefits earned**	**Employee loan**
Governor	Ida Wolden Bache[1]	2 012 823	10 106	355 675	-
Deputy Governor	Øystein Børsum	2 019 671	10 249	439 433	-
Deputy Governor	Pål Longva[2]	735 217	4 203	150 991	-
Chief Executive Officer – NBIM	Nicolai Tangen	6 872 066	11 012	411 431	-
Chief of Staff / Deputy Chief Executive Officer – NBIM	Trond Grande	4 930 080	9 610	447 975	-
Executive Director, General Secretariat	Birger Vikøren	1 955 109	9 653	356 586	-
Former senior executives					
Governor	Øystein Olsen[3]	987 606	30 613	49 038	-
Deputy Governor	Ida Wolden Bache[1]	352 666	1 420	71 135	-
Executive Director, Norges Bank Administration	Jane Kristin Aamodt Haugland[4]	1 805 351	9 018	380 444	-

1 Began in the position as Governor on 2 March 2022. Resigned from the position as Deputy Governor on 1 March 2022. Remuneration shown from-/up until the date the appointment/resignation of the respective positions became effective.
2 Began in the position as Deputy Governor on 29 August 2022. Remuneration shown from the date the appointment became effective.
3 Resigned from this position on 28 February 2022. Remuneration shown up until the date the resignation became effective.
4 Resigned from this position on 1 November 2022. Remuneration shown up until the date the resignation became effective.

Amounts in NOK					2021
Position	**Name**	**Gross salary**	**Value of other benefits**	**Pension benefits earned**	**Employee loan**
Governor	Øystein Olsen	2 592 843	178 529	287 199	-
Deputy Governor	Ida Wolden Bache[1]	2 120 667	8 681	369 480	-
Deputy Governor	Øystein Børsum[2]	824 928	3 500	182 997	-
Chief Executive Officer - NBIM	Nicolai Tangen	6 285 080	9 768	398 628	-
Chief of Staff / Deputy Chief Executive Officer – NBIM	Trond Grande	4 713 889	8 866	389 615	-
Executive Director, Norges Bank Administration	Jane Kristin Aamodt Haugland	2 069 249	7 764	396 937	1 704 952
Executive Director, General Secretariat	Birger Vikøren	1 862 452	7 800	425 651	-

1 Gross salary includes holiday pay received. Part of the holiday pay was earned in another position.
2 Began in this position on 2 August 2021. Remuneration shown from the date the appointment became effective.

Benefits to senior executives in Norges Bank's Central Banking Operations

Table 12.7 Remuneration to senior executives in Norges Bank's Central Banking Operations

Amounts in NOK					2022
Position	**Name**	**Gross salary**	**Value of other benefits**	**Pension benefits earned**	**Employee loan**
Executive Director, Financial Stability	Torbjørn Hægeland	2 129 677	16 100	382 825	-
Executive Director, Monetary Policy	Ole Christian Bech-Moen	2 129 677	9 204	358 953	-
Executive Director, ICT	Øystein Kruge[1]	151 966	710	50 298	-
Former senior executives					
Executive Director, Markets and ICT	Olav Andreas Bø[2]	1 098 323	4 992	209 407	-

1 Began in this position on 1 December 2022. Remuneration shown from the date the appointment became effective.
2 Resigned from this position on 1 July 2022. Remuneration shown up until the date the resignation became effective.

Amounts in NOK					2021
Position	**Name**	**Gross salary**	**Value of other benefits**	**Pension benefits earned**	**Employee loan**
Executive Director, Financial Stability	Torbjørn Hægeland	2 010 485	7 779	350 494	-
Executive Director, Monetary Policy	Ole Christian Bech-Moen[1]	2 346 344	7 764	314 114	-
Executive Director, Markets and ICT	Olav Andreas Bø	2 122 245	7 764	359 440	-

1 Gross salary includes holiday pay received. Part of the holiday pay was earned in another position.

Remuneration to senior executives in Norges Bank Investment Management

A quarantine period of six months applies to the CEO of NBIM after stepping down or the end of his term of office. Moreover, he has contractually waived his rights to employment protection in exchange for severance pay. Severance pay shall be paid for six months in the event of dismissal by Norges Bank and for three months in the event of resignation. Any income from a new employer will be deducted from this compensation.

Table 12.8 Remuneration to senior executives in Norges Bank Investment Management

Amounts in NOK						2022
Position	**Name**	**Gross salary**	**Gross performance pay**	**Value of other benefits**	**Pension benefits earned**	**Employee loan**
Chief Executive Officer	Nicolai Tangen	6 872 066	-	11 012	411 431	-
Chief of Staff/Deputy Chief Executive Officer	Trond Grande	4 930 080	-	9 610	447 975	-
Chief Operating Officer	Birgitte Bryne	3 700 102	-	11 451	481 639	-
Chief Real Assets Officer	Mie Caroline Holstad	3 204 829	-	13 720	375 668	-
Chief Risk Officer	Dag Huse	4 650 270	-	8 520	733 944	-
Chief Governance and Compliance Officer	Carine Smith Ihenacho	4 863 553	-	107 773	486 355	-
Chief Real Assets Strategies Officer	Geir Øivind Nygård	4 545 620	-	11 527	348 028	-
Chief Equities Officer	Pedro Furtado Reis[1,5]	5 224 435	-	74 777	522 444	-
Chief Equities Officer	Daniel Balthasar[2,5]	5 224 435	-	76 181	522 444	-
Former senior executives						-
Chief Technology Officer	Age Bakker[3]	937 500	-	2 594	125 429	-
Chief Equities Officer	Petter Johnsen[4]	4 871 388	-	112 708	487 139	-

1 Began in this position on 1 July 2022. Remuneration shown from the date the appointment became effective.

2 Began in this position on 1 July 2022. Remuneration shown from the date the appointment became effective.

3 Resigned from this position on 1 April 2022. Remuneration shown up until the resignation became effective.

4 Resigned from this position on 1 July 2022. Remuneration shown up until the resignation became effective.

5 Members of the leader group in Norges Bank Investment Management only receive a fixed salary. Some members of the leader group who previously had a performance-based salary no longer have this scheme, but will in the coming years be paid the withheld performance salary. The amounts stated in the table are performance salaries paid in the financial year, but earned and recognized in the income statement in previous periods.

Amounts in NOK						2021
Position	**Name**	**Gross salary**	**Gross performance pay**	**Value of other benefits**	**Pension benefits earned**	**Employee loan**
Chief Executive Officer	Nicolai Tangen	6 285 080	-	9 768	398 628	-
Chief of Staff/Deputy Chief Executive Officer	Trond Grande	4 713 889	-	8 866	389 615	-
Chief Technology Officer	Age Bakker	3 807 453	-	9 852	458 735	-
Chief Operating Officer	Birgitte Bryne	3 400 726	-	10 683	423 164	-
Chief Real Assets Officer	Mie Caroline Holstad	2 983 050	-	8 295	325 485	-
Chief Risk Officer	Dag Huse	4 561 828	-	7 764	652 734	-
Chief Governance and Compliance Officer	Carine Smith Ihenacho	4 715 388	79 651	93 012	471 539	-
Chief Equities Officer	Petter Johnsen	8 251 932	-	106 903	825 193	-
Chief Real Assets Strategies Officer	Geir Øivind Nygård	4 492 583	-	7 764	296 300	-

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 the lowest amount of the purchase price and documented market value, limited to NOK 3 653 000 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 permanent employees in a minimum half-time position with an employment contract in Norway. 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. The norm rate at December 2022 was 2.3%. Total loans to employees at 31 December 2022 were NOK 217.5m, compared with NOK 167.3m at 31 December 2021.

Note 13 Management fee, GPFG

Accounting policy

The management fee for management of the GPFG accrues during the financial year and is presented in the income statement as *Management fee, GPFG.* Unsettled management fee at year-end is 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, excluding administrations fees invoiced separately to Norges Bank's subsidiaries in Norway and including performance-based fees to external managers. The management fee was NOK 5 226m in 2022 and NOK 4 640m in 2021. See Note 20.12 *Management costs* for a specification and further information

Note 14 Non-financial assets

Accounting policy

In the balance sheet, the assets are described below grouped under the line *Non-financial assets*.

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

Gold comprises gold coins and gold bars that are part of the Bank's historical collections. The holdings were recognised at estimated cost in accordance with fair value on the date the gold was reclassified from international reserves to non-current assets. In the event the metallic value of gold rises, the holdings of gold are not revalued.

The collection of art and numismatic objects such as medals, banknotes and coins is 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.

Table 14.1 Non-financial assets

Amounts in NOK millions	31.12.2022	31.12.2021
Non-current assets	1 481	1 508
Gold	291	291
Art and numismatic collections	90	89
Other assets	185	122
Non-financial assets	**2 047**	**2 010**

Table 14.2 Non-current assets

	2022					
	Intangible assets	**Property, plant and equipment**				
Amounts in NOK millions	**Software**	**Buildings**	**Land**	**Other**	**Plant under construction**	**Total**
Cost at 1 Jan.	677	3 333	60	261	38	4 370
+ Additions for the year	9	100	-	9	10	128
- Disposals for the year	-10	-	-	-11	-	-21
-/+ Adjustments for the year	-	-	-	-	-	-
Cost at 31 Dec.	**676**	**3 434**	**60**	**258**	**48**	**4 476**
- Accumulated depreciation and impairment at 1 Jan.	-610	-2 014	-	-237	-	-2 862
+ Disposals depreciation for the year	10	-	-	7	-	17
- Depreciation for the year	-29	-115	-	-8	-	-151
- Impairment for the year	-	-	-	-	-	-
Depreciation and impairment at 31 Dec.	**-629**	**-2 129**	**-**	**-237**	**-**	**-2 995**
Carrying amount at 31 Dec.	**47**	**1 305**	**60**	**21**	**48**	**1 481**
Depreciation schedule, no. of years	3–6	5–75	none	4–10	none	

	2021					
	Intangible assets	**Property, plant and equipment**				
Amounts in NOK millions	**Software**	**Buildings**	**Land**	**Other**	**Plant under construction**	**Total**
Cost at 1 Jan.	726	3 266	60	268	36	4 356
+ Additions for the year	12	67	-	1	2	82
- Disposals for the year	-61	-	-	-8	-	-69
-/+ Adjustments for the year	-	-	-	-	-	-
Cost at 31 Dec.	**677**	**3 333**	**60**	**261**	**38**	**4 370**
- Accumulated depreciation and impairment at 1 Jan.	-588	-1 906	-	-236	-	-2 730
+ Disposals depreciation for the year	61	-	-	8	-	68
- Depreciation for the year	-71	-108	-	-9	-	-188
- Impairment for the year	-13	-	-	-	-	-13
Depreciation and impairment at 31 Dec.	**-610**	**-2 014**	**-**	**-237**	**-**	**-2 862**
Carrying amount at 31 Dec.	**67**	**1 319**	**60**	**24**	**38**	**1 508**
Depreciation schedule, no. of years	3–6	5–75	none	4–10	none	

Bankplassen 4

In 1986, Bankplassen 4 was transferred from Norges Bank to the government by the then Norwegian Directorate of Public Construction and Property, now Statsbygg. The transfer agreement pertains to ownership rights to the building and a ground lease, limited to the plot the building occupies. Norges Bank does not receive rent for the right of use. The term of the lease is 80 years, with the option of 10-year extensions. If the lease is not renewed, the building reverts to Norges Bank free of charge. The building is fully depreciated and its carrying amount at 31 December 2022 is NOK 0.

Note 15 Other operating expenses and other operating income

1. Other operating expenses

Table 15.1 Other operating expenses

Amounts in NOK millions	2022	2021
Custody costs	498	494
IT services, systems and data	948	922
Research, consulting and legal fees	339	358
Other costs	429	349
Total other operating expenses excl. external managers	**2 215**	**2 123**
Base fees to external managers	963	896
Performance-based fees to external managers	717	840
Total fees to external managers	**1 680**	**1 736**
Total other operating expenses	**3 895**	**3 859**
Depreciation, amortisation and impairment losses	154	200
Personnel expenses	2 350	1 799
Total operating expenses	**6 399**	**5 857**
Of which covered by mangement fee, GPFG	*5 226*	*4 640*

See Note 20.12 *Management costs* for specification and further information regarding costs covered by management fee.

Table 15.2 *Fees, external auditor* shows the breakdown of fees to external auditor between Norges Bank and subsidiaries.

Table 15.2 Fees, external auditor

	Norges Bank		Subsidiaries	
Amounts in NOK thousands, inclusive VAT	**2022**	**2021**	**2022**	**2021**
Statutory audit	13 111	14 806	8 953	7 631
Other assurance services	1 286	1 842	-52	89
Tax advice	2 153	-	-	-
Other services	-	-	-	-
Total fees, external auditor	**16 551**	**16 648**	**8 901**	**7 720**

Statutory audit

Statutory audit consists of audit fees of Central Banking Operations and the GPFG. Norges Bank´s external auditor is Ernst & Young AS (EY). EY began as elected auditor for the audit of the financial year 2022. Former external auditor Deloitte AS (Deloitte) resigned after the end of their engagement, at the end of the audit of the financial year 2021. In 2022, the fees for Norges Bank to EY and Deloitte were NOK 9.5m and NOK 3.6m, respectively.

Norges Bank has established subsidiaries which invest exclusively as part of Norges Bank´s management of the investment portfolio of the GPFG. The subsidiaries have separate engagement agreements with their external auditors and are not bound by the agreement between Norges Bank and EY.

Other assurance services

The external auditor assists the Supervisory Council in several of their supervisory reviews. The fees for this work are agreed separately and are presented as *Other assurance services*. In 2022, the fees for Norges Bank to EY and Deloitte were NOK 0.9m and NOK 0.3m, respectively.

Tax advice

Services provided to Norges Bank in 2022 relate exclusively to services provided by EY. This is mainly related to tax advice to NBIM in London provided by EY Norway and EY UK.

2. Other operating income

Accounting policy

Other operating income is recognised at the time a service is rendered. The transaction price is agreed annually and primarily contains fixed elements.

Table 15.3 Other operating income

Amounts in NOK millions	2022	2021
Services, banks	108	90
Rent (see Note 19 *Related parties*)	33	27
Other income	7	1
Total other operating income	**149**	**118**

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 16 Notes and coins

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. Notes and coins are put into circulation at the time they are removed from a central bank depot and transferred to private banks. Likewise, they are removed from circulation when they are returned to a central bank depot.

Norges Bank is obliged to redeem withdrawn notes and coins at face value. When it is no longer deemed likely that withdrawn notes and coins will be redeemed, they are recognised as income in profit or loss as *Other financial income/ expenses*. Notes and coins that are redeemed after first being recognised as income, are 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*.

Table 16.1 Notes and coins in circulation

Amounts in NOK millions	31.12.2022	31.12.2021
Denomination		
50-krone	1 044	1 026
100-krone	2 026	2 064
200-krone	5 779	5 842
500-krone	19 436	19 185
1 000-krone	7 526	7 332
Total notes	**35 811**	**35 449**
Total coins	**4 264**	**4 296**
Total	**40 075**	**39 745**

Of notes and coins in circulation at 31 December 2022, NOK 5 652m comprised withdrawn notes. This pertains to all denominations in Series VII, which were withdrawn in 2018, 2019 and 2020. Norges Bank is still obliged to redeem these notes at face value.

In 2022, NOK 69m was recognised as income related to withdrawn notes and coins. This is due to a previously recognised income, from withdrawn banknotes, being too low. No withdrawn notes and coins were recognised as income in 2021.
In 2022, withdrawn notes and coins were redeemed in the amount of NOK 7.2m, compared with NOK 7.5m in 2021.

Note 17 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 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 3-10, Sub-section 1, of the Central Bank Act, Norges Bank shall administer Norway's financial rights and obligations ensuing from participation in the International Monetary Fund (IMF).

Norway helps to finance the IMF through Norway's IMF quota subscription and various lending agreements with the IMF. The current lending agreements are: the multilateral lending programme New Arrangements to Borrow (NAB), bilateral borrowing agreements with the IMF and agreements to finance the Poverty Reduction and Growth Trust (PRGT).

Table 17.1 Claims on and liabilities to the IMF

					31.12.2022
Amounts in NOK millions	Loan resource commitments[1]	Amounts drawn on commitments	Subscription[2]	SDRs	Total amount recognised
Financial assets					
IMF subscription (quota)	-	-	49 609	-	49 609
Holdings of Special Drawing Rights (SDRs)	-	-	-	72 328	72 328
Loans to the IMF– NAB	51 736	248	-	-	248
Loans to the IMF – Bilateral borrowing agreement	34 001	-	-	-	-
Loans to the IMF – PRGT	15 126	4 375	-	-	4 375
Claims on the IMF	**-**	**4 623**	**49 609**	**72 328**	**126 560**
Financial liabilities					
Krone liability to the IMF	-	-	35 173	-	35 173
Equivalent value of SDR allocations	-	-	-	68 205	68 205
Liabilities to the IMF	**-**	**-**	**35 173**	**68 205**	**103 378**
Net positions with the IMF	**-**	**4 623**	**14 436**	**4 123**	**23 182**

					31.12.2021
Amounts in NOK millions	Loan resource commitments[1]	Amounts drawn on commitments	Subscription[2]	SDRs	Total amount recognised
Financial assets					
IMF subscription (quota)	-	-	46 426	-	46 426
Holdings of Special Drawing Rights (SDRs)	-	-	-	66 207	66 207
Loans to the IMF – NAB	48 630	571	-	-	571
Loans to the IMF – Bilateral borrowing agreement	31 959	-	-	-	-
Loans to the IMF – PRGT	12 636	4 121	-	-	4 121
Claims on the IMF		**4 692**	**46 426**	**66 207**	**117 325**
Financial liabilities					
Krone liability to the IMF	-	-	34 220	-	34 220
Equivalent value of SDR allocations	-	-	-	63 824	63 824
Liabilities to the IMF	**-**	**-**	**34 220**	**63 824**	**98 044**
Net positions with the IMF	**-**	**4 692**	**12 206**	**2 383**	**19 281**

1 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.

2 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 draw 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.

1. 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 basic source of funding for loans. The amount of the subscription reflects the member country's relative position 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 quota at 31 December 2022 was SDR 3 755m, unchanged from year-end 2021.

2. Holdings and equivalent value of Special Drawing Rights (SDRs)

SDRs are periodically allocated to IMF member countries, most recently in 2021. Equivalent value of SDR allocations shows the amount of SDRs Norway has been allocated since the scheme was established. Holdings of SDRs may be used to pay in quota increases, for other transactions with the IMF or for purchase or sale of SDRs from or to other IMF members. However, SDRs cannot be used for direct purchases of goods and services. As at 31 December 2022, a total of SDR 5 162m had been allocated to Norway, unchanged from year-end 2021. Norway's holdings of SDRs have been deposited with the IMF and amounted to SDR 5 474m at 31 December 2022, compared with SDR 5 355m at year-end 2021.

3. Norges Bank's loans to the IMF

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. At 31 December 2022, Norway's total resource commitments under the NAB were SDR 3 933m, unchanged from year-end 2021. Norges Bank's loans to the IMF under the NAB at 31 December 2022 totalled SDR 19m compared with SDR 46m at year-end 2021.

Bilateral borrowing agreement

In 2017, the IMF and Norges Bank concluded a new bilateral borrowing agreement, after the previous such agreement terminated on 4 November 2016. Under the agreement, the IMF is provided with a borrowing facility in the form of a drawing arrangement of up to SDR 2 585m. The agreement is part of a broader international effort to ensure the IMF sufficient resources to meet the borrowing requirements of member countries in times of crisis. This borrowing agreement has for the time being not been drawn on.

Poverty Reduction and Growth Trust (PRGT)

Norway participates in the financing of the IMF's subsidised lending programme for low-income countries under four agreements. Norway signed such agreement in 2010 and 2016 to provide SDR 300m each. These facilities have been fully drawn by the IMF, and the IMF will henceforth only make interest and principal payments without the ability to draw further amounts. In 2020 and 2022, Norway signed new borrowing agreements with the IMF for further SDR 400m and SDR 150m, respectively. Loans to the PRGT at 31 December 2022 totalled SDR 331m, compared with SDR 333m at year-end 2021.

4. The IMF's deposits with Norges Bank

The IMF has deposited its entire NOK holdings with Norges Bank, referred to 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 2022, krone deposits from the IMF totalled SDR 2 662m, compared with SDR 2 768m at year-end 2021.

5. Net interest income on claims on and liabilities to the IMF

Table 17.2 Net interest income, claims on/liabilities to the IMF

				2022
Amounts in NOK millions	**Amount drawn on loan resource commitments**	**Subscription**	**SDRs**	**Total**
Interest income from the IMF	57	583	855	1 495
Interest expenses to the IMF	-	-424	-819	-1 243
Net interest income from the IMF	**57**	**158**	**36**	**251**

				2021
Amounts in NOK millions	**Amount drawn on loan resource commitments**	**Subscription**	**SDRs**	**Total**
Interest income from the IMF	3	193	19	215
Interest expenses to the IMF	-	-18	-19	-37
Net interest income from the IMF	**3**	**174**	**-**	**177**

6. SDR interest rate

The SDR interest rate forms the basis for interest income and expense related to member countries' relationship with the IMF. The rate is calculated and published every week by the IMF. It is based on a weighted average of the three-month sovereign yields in countries/currency areas included in the SDR basket (USD/EUR/CNY/JPY/GBP). The interest rate has a floor of 5 basis points.

7. Interest on the IMF quota subscription and interest on the krone liability to the IMF

Interest on the reserve tranche position 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 based on the IMF's SDR, with the deductions and additions resulting from the IMF´s Burden Sharing mechanism.

8. 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 the current SDR interest rate at any given time.

9. Interest on IMF lending programmes

Interest is calculated monthly and netted quarterly. The interest rate is the current SDR interest rate at any given time.

Note 18 Loans and deposits

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.

At initial recognition, deposits from banks and deposits from the Treasury are recognised in the balance sheet at fair value. Subsequent measurement is at amortised cost, where the effective interest 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	31.12.2022	31.12.2021
Fixed-rate loans to banks	15 895	45 101
Total lending to banks	**15 895**	**45 101**

Table 18.2 Deposits from banks

Amounts in NOK millions	31.12.2022	31.12.2021
Sight and reserve deposits from banks	26 353	23 011
Fixed-rate deposits from banks	-	-
Other deposits	468	361
Deposits from banks	**26 821**	**23 372**

Table 18.3 Deposits from the Treasury

Amounts in NOK millions	31.12.2022	31.12.2021
Deposits from the Treasury	304 606	344 142
Deposits from the Treasury	**304 606**	**344 142**

Table 18.4 Interest income from lending to banks

Amounts in NOK millions	2022	2021
Interest income on Fixed-rate loans to banks	595	86
Total interest income from lending to banks	**595**	**86**

1. 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 to banks 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 floating rate F-loans to banks was 3.8 days in 2022 and 5.5 days in 2021. Average maturity on fixed rate F-loans to banks was 1.0 day in 2022, compared with 3.5 days in 2021.

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. The interest rate is normally close to the policy rate.

D-loans may be intraday or overnight. Intraday D-loans improve the efficiency of payment settlement, as banks can obtain cover for their positions. These loans are interest-free and are normally repaid by the end of the day. If the loan extends overnight, it becomes an interest-bearing D-loan, with an interest rate 1 percentage point above the policy rate.

Table 18.5 Interest expense on deposits from banks and the Treasury

Amounts in NOK millions	2022	2021
Interest expense on sight and reserve deposits from banks	-421	-19
Interest expense on fixed-rate deposits from banks	-109	-
Interest expense on depots operated by banks	-7	-
Interest expense on deposits from the Treasury	-2 442	-
Total interest expense on deposits from banks and the Treasury	**-2 979**	**-19**

2. 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 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 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 offer 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 was 2.1 days in 2022 and 1.5 days in 2021.

3. 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 interest rate on the government's account is calculated on the basis of yields on foreign short-term government securities, weighted by the investments in the foreign exchange reserves.

In 2022, interest on Treasury deposits was paid at an annual rate of 0% in Q1 and Q2, 0.50% in Q3 and 1.75% in Q4. In 2021, interest was paid on these deposits at an annual rate of 0% throughout the whole year.

Note 19 Related parties

Accounting policy

Norges Bank is owned by the Norwegian government and under IAS 24 *Related Party Disclosures* 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. All transactions are carried out in its own name and on market terms.

For information regarding transactions with governing bodies and senior executives of Norges Bank, see Note 12 *Personnel expenses*.

1. The 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 financial instruments, real estate and renewable energy infrastructure.

Inflow to/ -withdrawal from the Ministry of Finance´s krone account
Inflow to/ -withdrawal from the krone account are carried out by monthly transfers between the GPFG and Norges Bank. In 2022, net inflow amount to the krone account was NOK 1 090bn, compared with net withdrawal amount from the krone account of NOK 120bn in 2021.

Of the transferred amount, 5% is held back to the month after, in order to adjust the transferred currency amount to the amount in NOK instructed by the Ministry of Finance. Unsettled transfers between the GPFG and Norges Bank are presented in the balance sheet as a net balance between the two reporting entities, either on the balance sheet line *Other financial assets* or *Other financial liabilities*. Unsettled transfers were NOK 1.5bn at year-end 2022, compared with NOK 1.4bn at year-end 2021.

See additional information regarding inflow/withdrawal during the period in Note 20 GPFG *Statement of changes in owner's capital*.

Management fee
Norges Bank charges the Ministry of Finance a management fee relating to management of the GPFG. The management fee amounted to NOK 5 226m in 2022 and NOK 4 640m in 2021.

The management fee is withdrawn from the krone account during the year based on forecasts. The difference between the total amount withdrawn and the actual management fee for the year is presented either on the balance sheet line *Other financial assets* or *Other financial liabilities*.

In 2022, Norges Bank received a payment of NOK 5.0bn withdrawn from the krone account, compared with NOK 10.5bn in 2021. The amount withdrawn in 2021 included the management fee for 2020 and 2021. This is due to a change in the time of withdrawal to before year end. At year-end 2022, Norges Bank has a liability of NOK 274m to the GPFG, compared to a liability of NOK 536m to the GPFG at year-end 2021.

For further information, see Note 20.12 *Management costs*.

2. Transactions between Norges Bank and the GPFG
Internal trades in the form of money market lending or borrowing between the GPFG and Norges Bank's equity portfolio are presented in the balance sheet as a net balance between the portfolios, either on the balance sheet line *Other financial assets* or *Other financial liabilities*. For Norges Bank, net balance between the portfolios amounted to a liability of NOK 302m at year-end 2022, compared to a liability of NOK 130m at year-end 2021.

Associated income and expense items are presented net in the income statement as *Other financial income/expense*. All transactions are carried out at market prices.

3. Transactions between Norges Bank and wholly owned subsidiaries
As part of the management of the GPFG's investments in real estate and infrastructure for renewable energy, Norwegian subsidiaries have been established that are wholly owned by Norges Bank. These subsidiaries are charged a quarterly administration fee. In 2022, invoiced administration fees totalled NOK 2.1m, compared to NOK 1.6m in 2021.

4. Other transactions with the government
Pursuant to Section 3-7 of the Central Bank Act, Norges Bank provides services in connection with government borrowing and government debt management and the central government's group account. Under the new Central Bank Act in force from 1 January 2020, Norges Bank's costs related to these tasks are no longer covered by the Ministry of Finance.

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 8.1bn for 2022 and NOK 11.1bn for 2021.

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

5. 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 33.8m in 2022 and NOK 27.2m in 2021.

Note 20 Government Pension Fund Global (GPFG)

Income statement

Amounts in NOK million	Note	2022	2021
Profit/loss on the portfolio before foreign exchange gain/loss			
Income/expense from:			
- Equities	4	-1 201 835	1 593 618
- Bonds	4	-453 128	-40 905
- Unlisted real estate	6	-2 213	35 811
- Unlisted infrastructure	7	897	1 198
- Financial derivatives	4	23 926	-4 839
- Secured lending	13	4 845	3 842
- Secured borrowing	13	-4 792	21
Tax expense	10	-4 850	-8 887
Interest income/expense		-22	-13
Other income/expense		-4	11
Profit/loss on the portfolio before foreign exchange gain/loss		**-1 637 176**	**1 579 857**
Foreign exchange gain/loss	11	641 850	-24 589
Profit/loss on the portfolio		**-995 326**	**1 555 269**
Management fee	12	-5 226	-4 640
Profit/loss and total comprehensive income		**-1 000 551**	**1 550 628**

Balance sheet

Amounts in NOK million	Note	31.12.2022	31.12.2021
Assets			
Deposits in banks		12 061	18 450
Secured lending	13,14	462 982	297 405
Cash collateral posted	14	21 601	3 725
Unsettled trades		11 428	15 767
Equities	5	8 138 602	8 383 302
Equities lent	5,13	451 799	505 117
Bonds	5	2 968 272	2 795 536
Bonds lent	5,13	886 555	623 367
Financial derivatives	5,14	20 498	7 879
Unlisted real estate	6	329 732	310 134
Unlisted infrastructure	7	14 489	14 287
Withholding tax receivable	10	8 937	3 427
Other assets	17	2 017	1 860
Management fee receivable		274	536
Total assets		**13 329 248**	**12 980 791**
Liabilities and owner's capital			
Secured borrowing	13,14	796 082	591 960
Cash collateral received	14	14 801	11 848
Unsettled trades		44 329	22 607
Financial derivatives	5,14	40 159	9 055
Deferred tax	10	4 488	5 180
Other liabilities	17	56	56
Total liabilities		**899 915**	**640 706**
Owner's capital		12 429 334	12 340 085
Total liabilities and owner's capital		**13 329 248**	**12 980 791**

Statement of cash flows

Accounting policy

The statement of cash flows is prepared in accordance with the direct method. Major classes of gross cash receipts and payments are presented separately, with the exception of specific transactions that are presented on a net basis, primarily relating to the purchase and sale of financial instruments. Cash flows related to the fund's investment activities are presented as operating activities, since they represent the income-generating activities of the fund. Inflows and withdrawals between the GPFG and the Norwegian government are financing activities. These transfers have been settled in the period. Accrued inflows/withdrawals are shown in the statement of changes in owner's capital.

Amounts in NOK million, receipt (+) / payment (-)	Note	2022	2021
Operating activities			
Receipts of dividend from equities		190 235	166 040
Receipts of interest from bonds		55 724	46 449
Receipts of interest and dividend from unlisted real estate	6	6 156	6 088
Receipts of interest from unlisted infrastructure	7	162	80
Net receipts of interest and fee from secured lending and borrowing		1 521	3 883
Receipts of dividend, interest and fee from holdings of equities, bonds, unlisted real estate and unlisted infrastructure		253 797	222 540
Net cash flow from purchase and sale of equities		-719 766	495 674
Net cash flow from purchase and sale of bonds		-702 877	-646 867
Net cash flow to/from investments in unlisted real estate	6	-3 930	-7 056
Net cash flow to/from investments in unlisted infrastructure	7	1 143	-13 375
Net cash flow financial derivatives		52 485	-542
Net cash flow cash collateral related to derivative transactions		-16 013	8 502
Net cash flow secured lending and borrowing		52 860	74 976
Net payment of taxes	10	-11 058	-7 202
Net cash flow related to interest on deposits in banks and bank overdraft		30	-42
Net cash flow related to other income/expense, other assets and other liabilities		478	878
Management fee paid to Norges Bank[1]		-4 964	-10 481
Net cash inflow/outflow from operating activities		**-1 097 816**	**117 005**
Financing activities			
Inflow from the Norwegian government		1 089 712	78 846
Withdrawal by the Norwegian government		-	-199 000
Net cash inflow/outflow from financing activities		**1 089 712**	**-120 154**
Net change deposits in banks			
Deposits in banks at 1 January		18 450	18 258
Net increase/decrease of cash in the period		-8 104	-3 149
Net foreign exchange gain/loss on cash		1 715	3 341
Deposits in banks at end of period		**12 061**	**18 450**

1 Management fee in the statement of cash flows consists of transfers to/from the krone account in connection with the settlement of management costs incurred in Norges Bank.

Statement of changes in owner's capital

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. Owner's capital corresponds to the Ministry of Finance's krone account in Norges Bank.

Amounts in NOK million	Inflows from owner	Retained earnings	Total owner's capital
1 January 2021	3 086 570	7 821 887	10 908 457
Profit/loss and total comprehensive income	-	1 550 628	1 550 628
Inflow during the period	80 000	-	80 000
Withdrawal during the period	-199 000	-	-199 000
31 December 2021	**2 967 570**	**9 372 515**	**12 340 085**
1 January 2022	2 967 570	9 372 515	12 340 085
Profit/loss and total comprehensive income		-1 000 551	-1 000 551
Inflow during the period	1 089 800	-	1 089 800
Withdrawal during the period	-	-	-
31 December 2022	**4 057 370**	**8 371 964**	**12 429 334**

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 are described in Note 2 Accounting policies.

GPFG Note 3 Returns

Table 3.1 shows return for the fund and for each asset class.

Table 3.1 Returns

	2022	2021
Returns measured in the fund's currency basket (percent)		
Return on equity investments	-15.36	20.76
Return on fixed-income investments[1]	-12.11	-1.93
Return on unlisted real estate investments	0.07	13.64
Return on unlisted infrastructure investments[2]	5.12	4.15
Return on fund	-14.11	14.51
Relative return on fund (percentage points)[1]	0.87	0.75
Returns measured in Norwegian kroner (percent)		
Return on equity investments	-9.27	20.67
Return on fixed-income investments	-5.78	-2.01
Return on unlisted real estate investments	7.27	13.55
Return on unlisted infrastructure investments[2]	12.69	7.24
Return on fund	-7.93	14.42

1 The fund's relative return and return on fixed-income investments for 2021 have been adjusted up by 0.01 percent due to an update of the return on the benchmark index.

2 The first investment in unlisted renewable energy infrastructure was completed on 31 May 2021. Therefore, return figures for the asset class apply from June 2021.

A time-weighted rate of return methodology is applied. The fair value of holdings is determined at the time of cash flows into and out of the asset classes and the fund as a whole. Geometric linking of periodic returns is used for longer return periods.

Returns are calculated net of transaction costs, non-reclaimable withholding taxes on dividends and interest, and taxes on capital gains.

Returns are measured both in Norwegian kroner and in the fund's currency basket. The currency basket is weighted according to the currency composition of the benchmark index for equities and bonds. Returns measured in the fund's currency basket are calculated as the geometric difference between the fund's returns measured in Norwegian kroner and the return of the currency basket.

The fund's relative return is calculated as the arithmetic difference between the fund's return and the return of the fund's benchmark index. The fund's benchmark index consists of global equity and bond indices determined by the Ministry of Finance and is calculated by weighting the monthly returns of the benchmark indices for each of the two asset classes, using the weight in the actual benchmark at the beginning of the month for the respective asset class.

GPFG Note 4 Income/expense from equities, bonds and financial derivatives

Accounting policy

Dividends are recognised when the dividend is formally approved by the general meeting or equivalent decision-making body.

Interest income and expense is recognised in accordance with the effective interest method.

Realised gain/loss mainly represents amounts realised when assets or liabilities are derecognised. Average acquisition cost is assigned upon derecognition. 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 bonds, these normally comprise commission fees and stamp duty.

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

Tables 4.1 to 4.3 specify the income and expense elements for equities, bonds and financial derivatives respectively, where the line Income/expense shows the amount recognised in profit or loss for the relevant income statement line.

Table 4.1 Specification Income/expense from equities

Amounts in NOK million	2022	2021
Dividends	197 631	170 556
Realised gain/loss	191 774	652 455
Unrealised gain/loss	-1 591 241	770 608
Income/expense from equities before foreign exchange gain/loss	**-1 201 835**	**1 593 618**

Table 4.2 Specification Income/expense from bonds

Amounts in NOK million	2022	2021
Interest	66 093	47 885
Realised gain/loss	-130 749	6
Unrealised gain/loss	-388 472	-88 796
Income/expense from bonds before foreign exchange gain/loss	**-453 128**	**-40 905**

Table 4.3 Specification Income/expense from financial derivatives

Amounts in NOK million	2022	2021
Interest	7 449	-877
Realised gain/loss	12 616	-2 223
Unrealised gain/loss	3 862	-1 738
Income/expense from financial derivatives before foreign exchange gain/loss	**23 926**	**-4 839**

GPFG Note 5 Holdings of equities, bonds and financial derivatives

Accounting policy

Investments in equities and bonds are measured at fair value through profit or loss. Earned dividends and interest are presented in the balance sheet on the same line as the underlying financial instruments. The balance sheet line Equities includes investments in depository certificates (GDR/ADR) and units in listed funds, such as REITs. Lent equities and bonds are presented separately. For more information on lent securities, see note 13 Secured lending and borrowing.

Financial derivatives are measured at fair value through profit or loss. Variation margin for exchange traded futures is considered to be settlement, and amounts are presented in the balance sheet as Deposits in banks. Norges Bank does not engage in hedge accounting, therefore no financial instruments are designated as hedging instruments.

For further information on fair value measurement, see note 8 Fair value measurement. Changes in fair value are recognised in the income statement and specified in note 4 Income/expense from equities, bonds and financial derivatives.

Table 5.1 Equities

	31.12.2022		31.12.2021	
Amounts in NOK million	**Fair value incl. earned dividends**	**Earned dividends**	**Fair value incl. earned dividends**	**Earned dividends**
Equities	8 590 402	10 306	8 888 419	7 353
Total equities	**8 590 402**	**10 306**	**8 888 419**	**7 353**
Of which equities lent	451 799		505 117	

Table 5.2 specifies investments in bonds per category. Notional value represents the amount that shall be returned at maturity, also referred to as the par value of the bond.

Table 5.2 Bonds

	31.12.2022			31.12.2021		
Amounts in NOK million	**Notional value**	**Fair value incl. earned interest**	**Earned interest**	**Notional value**	**Fair value incl. earned interest**	**Earned interest**
Government bonds						
Government bonds issued in the government's local currency	2 366 163	2 165 605	10 509	1 855 432	1 914 848	5 585
Total government bonds	**2 366 163**	**2 165 605**	**10 509**	**1 855 432**	**1 914 848**	**5 585**
Government-related bonds						
Sovereign bonds	11 053	9 460	63	10 034	10 016	42
Bonds issued by local authorities	149 232	132 412	784	125 037	131 218	600
Bonds issued by supranational bodies	104 967	90 526	436	69 365	70 640	167
Bonds issued by federal agencies	162 295	149 450	750	154 055	155 965	394
Total government-related bonds	**427 547**	**381 848**	**2 034**	**358 941**	**367 840**	**1 204**
Inflation-linked bonds						
Inflation-linked bonds issued by government authorities	250 560	243 441	485	160 158	195 879	371
Total inflation-linked bonds	**250 560**	**243 441**	**485**	**160 158**	**195 879**	**371**
Corporate bonds						
Bonds issued by utilities	83 977	74 812	898	61 423	66 264	622
Bonds issued by financial institutions	427 297	382 224	3 506	321 224	327 240	2 149
Bonds issued by industrial companies	419 297	372 278	3 740	331 394	354 885	2 771
Total corporate bonds	**930 570**	**829 314**	**8 145**	**714 041**	**748 389**	**5 542**
Securitised bonds						
Covered bonds	269 778	234 618	1 045	200 604	191 948	544
Total securitised bonds	**269 778**	**234 618**	**1 045**	**200 604**	**191 948**	**544**
Total bonds	**4 244 619**	**3 854 827**	**22 218**	**3 288 727**	**3 418 903**	**13 246**
Of which bonds lent		886 555			623 367	

Financial derivatives

Financial derivatives such as foreign exchange derivatives, interest rate derivatives, credit derivatives and futures, are used to adjust the exposure in various portfolios as a cost-efficient alternative to trading in the underlying securities. Foreign exchange derivatives are also used in connection with liquidity management. Equity derivatives with an option component are often a result of corporate actions, and can be converted into equities or sold. The GPFG also uses equity swaps in combination with purchase and sale of equities.

Table 5.3 specifies financial derivatives recognised in the balance sheet. Notional amounts are the basis for calculating any cash flows and gains/losses for derivative contracts. This provides information on the extent to which different types of financial derivatives are used.

Table 5.3 Financial derivatives

	31.12.2022			31.12.2021		
		Fair value			Fair value	
Amounts in NOK million	Notional amount	Asset	Liability	Notional amount	Asset	Liability
Foreign exchange derivatives	1 028 213	6 955	28 135	791 724	5 920	5 278
Interest rate derivatives	390 528	13 049	11 615	199 485	1 330	2 870
Credit derivatives	53 290	-	375	29 563	164	902
Equity derivatives[1]	-	274	-	-	349	-
Exchange-traded futures contracts[2]	91 638	221	34	57 062	116	5
Total financial derivatives	**1 563 669**	**20 498**	**40 159**	**1 077 834**	**7 879**	**9 055**

[1] Notional amounts are not considered relevant for equity derivatives and are therefore not included in the table.

[2] Exchange-traded futures contracts are settled daily with margin payments and fair value is normally zero at the balance sheet date, with the exception of futures contracts in certain markets where there is different timing for setting the market value for recognition in the balance sheet and daily margining.

Foreign exchange derivatives

This 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, where one party pays a floating rate of interest and the other pays a fixed rate.

Credit derivatives

This comprises credit default swaps indices (CDS Indices) for corporate bonds, where one party (the seller) assumes the credit risk and the other party (the buyer) reduces the credit risk on the underlying index of corporate bonds. Under a CDS Index contract, the seller receives a periodic coupon from the buyer as compensation for assuming the credit risk. The buyer only receives payment if the credit protection is triggered by for instance default on the underlying credit in the index (credit event).

Equity derivatives

Equity derivatives are derivatives with exposure to an underlying equity. Equity derivatives recognised in the balance sheet include instruments with an option component, such as rights and warrants. These instruments grant the owner the right to purchase an equity at an agreed price within a certain time frame.

Futures contracts

Futures contracts are listed contracts to buy or sell a specified asset (security, index, interest rate, power or similar assets) at an agreed price at a future point in time.

Equity swaps in combination with purchase or sale of equities

Equity swaps are not recognised in the balance sheet. See the accounting policy in note 13 Secured lending and borrowing for further information. At the end of 2022, equities purchased in combination with offsetting equity swaps amounted to NOK 104 billion (NOK 80 billion at the end of 2021). Equity sales in combination with offsetting equity swaps amounted to NOK 105 billion (NOK 64 billion at the end of 2020). See also table 14.1 in note 14 Collateral and offsetting. The GPFG has virtually no net exposure from equity swaps in combination with purchase or sale of equities.

GPFG Note 6 Unlisted real estate

Accounting policy

Investments in unlisted real estate are made through subsidiaries of Norges Bank, exclusively established as part of the management of the GPFG. Subsidiaries presented as Unlisted real estate in the balance sheet are measured at fair value through profit or loss. See note 2 Accounting policies for further information.

The fair value of unlisted real estate is equivalent to the sum of the GPFG's share of assets and liabilities in the underlying subsidiaries, measured at fair value. For further information, see note 8 Fair value measurement.

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

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

Interest is recognised when it is earned.

Dividends are recognised when the dividend is formally approved by the general meeting or equivalent decision-making body, or is paid out in accordance with the company's articles of association.

Table 6.1 Income/expense from unlisted real estate

Amounts in NOK million	2022	2021
Payments of interest and dividend	6 156	6 088
Unrealised gain/loss[1]	-8 369	29 723
Income/expense from unlisted real estate before foreign exchange gain/loss	**-2 213**	**35 811**

[1] Earned interest and dividends which are not cash-settled are included in Unrealised gain/loss.

Table 6.2 Changes in carrying amounts unlisted real estate

Amounts in NOK million	31.12.2022	31.12.2021
Unlisted real estate at 1 January	**310 134**	**272 507**
Net cash flow to/from investments	3 930	7 056
Unrealised gain/loss	-8 369	29 723
Foreign exchange gain/loss	24 036	849
Unlisted real estate, closing balance for the period	**329 732**	**310 134**

Cash flows between the GPFG and subsidiaries presented as unlisted real estate

The GPFG makes cash contributions to subsidiaries in the form of equity and long- term loan financing, to fund investments in real estate assets, primarily properties. Net income in the underlying real estate companies can be distributed back to the GPFG in the form of interest and dividend as well as repayment of equity and long-term loan financing. Net income generated in the underlying real estate companies that is not distributed back to the GPFG, is reinvested in the underlying entities to finance for instance property development and repayment of external debt. There are no significant restrictions on the distribution of interest and dividend from subsidiaries to the GPFG.

Tables 6.3 specifies cash flows between the GPFG and subsidiaries presented as Unlisted real estate, related to ongoing operations and other activities.

Table 6.3 Cash flow unlisted real estate

Amounts in NOK million	2022	2021
Interest from ongoing operations	1 568	1 599
Dividend from ongoing operations	4 200	4 438
Repayments of intercompany loans and paid-in capital from ongoing operations	1 694	1 692
Cash flow from ongoing operations unlisted real estate	**7 463**	**7 729**
Payments for new investments	-7 074	-13 486
Payments for property development	-1 186	-866
Net payments external debt	72	4 039
Repayments of intercompany loans from sales	2 564	1 565
Interest from sales	219	51
Dividend from sales	168	-
Cash flow to/from other activities unlisted real estate	**-5 237**	**-8 697**
Net cash flow unlisted real estate[1]	**2 225**	**-968**

[1] Shown in the statement of cash flows as Receipts of interest and dividend from unlisted real estate and Net cash flow to/from investments in unlisted real estate.

Net income in the underlying real estate companies which is distributed back to the GPFG in the form of interest and dividends is presented in the statement of cash flows as Receipts of interest and dividend from unlisted real estate. In 2022 this amounted to NOK 6 156 million (NOK 6 088 million in 2021).

Cash flows between the GPFG and real estate subsidiaries in the form of equity and loan financing, as well as repayment of these, are presented in the statement of cash flows as Net cash flows to/from investments in unlisted real estate. In 2022 this amounted to NOK -3 930 million (NOK -7 056 million in 2021).

A net cash flow from the GPFG to subsidiaries will result in an increase in the value of Unlisted real estate in the balance sheet, while a net cash flow from subsidiaries to the GPFG will result in a decrease.

Underlying real estate companies

Real estate subsidiaries have investments in other non-consolidated, unlisted companies. For further information, see note 16 Interests in other entities.

Principles for measurement and presentation

The following principles apply for the respective income and expense elements presented in table 6.4:

Rental income is recognised on a straight-line basis over the lease term. Net rental income mainly comprises accrued rental income, less costs relating to the operation and maintenance of properties.

Asset management fees are directly related to the underlying properties and are primarily linked to the operation and development of properties and leases. Fixed fees are expensed as incurred. Variable fees to external asset managers are based on achieved performance over time. The provision for variable fees is based on the best estimate of the incurred fees to be paid. The change in best estimate in the period is recognised in profit or loss.

Transaction costs and fees from purchases and sales of properties are incurred as one-off costs and expensed as incurred.

Table 6.4 specifies the GPFG's share of 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 Income from underlying real estate companies

Amounts in NOK million	2022	2021
Net rental income	12 807	11 173
External asset management - fixed fees	-1 071	-819
External asset management - variable fees	-33	-30
Internal asset management - fixed fees[1]	-99	-84
Operating costs in wholly-owned subsidiaries[2]	-65	-63
Operating costs in joint ventures	-166	-109
Interest expense external debt	-644	-673
Tax expense	-303	-253
Net income from ongoing operations	**10 427**	**9 141**
Realised gain/loss	769	424
Unrealised gain/loss[3]	-13 085	26 387
Realised and unrealised gain/loss	**-12 316**	**26 811**
Transaction costs and fees from purchases and sales	**-324**	**-141**
Net income underlying real estate companies	**-2 213**	**35 811**

1 Internal asset management is carried out on 100 percent owned properties by employees in a wholly-owned, consolidated subsidiary.

2 Operating costs in wholly-owned subsidiaries are measured against the upper limit from the Ministry of Finance, see note 12 Management costs for more information.

3 Unrealised gain/loss presented in table 6.1 includes net income in the underlying real estate companies which is not distributed back to the GPFG, and will therefore not correspond to Unrealised gains/loss presented in table 6.4.

Table 6.5 specifies the GPFG's share of assets and liabilities in the underlying real estate companies, which comprises the closing balance for Unlisted real estate as presented in table 6.2.

Table 6.5 Assets and liabilities underlying real estate companies

Amounts in NOK million	31.12.2022	31.12.2021
Properties	356 518	336 332
External debt	-24 751	-22 780
Net other assets and liabilities[1]	-2 036	-3 417
Total assets and liabilities underlying real estate companies	**329 732**	**310 134**

1 Net other assets and liabilities comprise cash, tax and operational receivables and liabilities.

Agreements for purchases and sales of properties

When purchasing and selling property, there will normally be a time period between entering into the agreement and completion of the transaction. Properties are recognised or derecognised in the underlying real estate companies upon transfer of control. This will normally be the date the consideration is transferred and the transaction is completed. Transactions are normally announced when the agreement is entered into. Previously announced agreements for purchases and sales of properties which were not completed at the end of 2022, are described below.

Table 6.6 Announced agreements for purchases and sales of properties[1]

Type	Property address	City	Ownership percent	Currency	Price in stated currency (million)[2]	Quarter announced	Expected completion
Purchase	Voltairstrasse 8-10	Berlin	65.0	EUR	297	3Q 2022	1Q 2023

1 Purchases and sales above USD 100 million are announced.
2 The stated price is for the GPFG's share.

Norges Bank also entered into agreements in 2019 to acquire a 48 percent interest in two to-be-constructed properties in New York at 555 Greenwich Street and 92 Avenue of the Americas. The properties will be acquired upon completed construction. 555 Greenwich Street is expected to be completed in early 2023. Construction has not yet commenced for 92 Avenue of the Americas.

GPFG Note 7 Unlisted renewable energy infrastructure

Accounting policy

Investments in unlisted renewable energy infrastructure (Unlisted infrastructure) are made through subsidiaries of Norges Bank, exclusively established as part of the management of the GPFG. Subsidiaries presented as Unlisted infrastructure in the balance sheet are measured at fair value through profit or loss. See note 2 Accounting policies for further information.

The fair value of unlisted infrastructure is equivalent to the sum of the GPFG's share of assets and liabilities in the underlying subsidiaries, measured at fair value. For further information, see note 8 Fair value measurement.

Changes in fair value are recognised in the income statement and presented as Income/expense from unlisted infrastructure.

The following accounting policies apply to the respective income and expense elements presented in table 7.1:

Interest is recognised when it is earned.

Dividends are recognised when the dividend is formally approved by the general meeting or equivalent decision-making body, or is paid out in accordance with the company's articles of association.

Table 7.1 Income/expense from unlisted infrastructure

Amounts in NOK million	2022	2021
Payments of interest	162	80
Unrealised gain/loss[1]	735	1 118
Income/expense from unlisted infrastructure before foreign exchange gain/loss	**897**	**1 198**

[1] Earned interest which is not cash-settled is included in Unrealised gain/loss.

Table 7.2 Changes in carrying amounts unlisted infrastructure

Amounts in NOK million	31.12.2022	31.12.2021
Unlisted infrastructure at 1 January	**14 287**	**-**
Net cash flow to/from investments	-1 143	13 375
Unrealised gain/loss	735	1 118
Foreign exchange gain/loss	609	-207
Unlisted infrastructure, closing balance for the period	**14 489**	**14 287**

Cash flows between the GPFG and subsidiaries presented as Unlisted infrastructure
The GPFG makes cash contributions to subsidiaries in the form of equity and long- term loan financing, to fund investments in renewable energy infrastructure. Net income in the underlying infrastructure companies can be distributed back to the GPFG in the form of interest and dividend as well as repayment of equity and long-term loan financing. There are no significant restrictions on the distribution of interest and dividend from subsidiaries to the GPFG.

Tables 7.3 specifies cash flows between the GPFG and subsidiaries presented as Unlisted infrastructure, related to ongoing operations and other activities.

Table 7.3 Cash flow unlisted infrastructure

Amounts in NOK million	2022	2021
Interest from ongoing operations	162	80
Repayments of intercompany loans and paid-in capital from ongoing operations	1 143	648
Cash flow from ongoing operations unlisted infrastructure	**1 305**	**728**
Payments for new investments	-	-14 023
Cash flow to/from other activities unlisted infrastructure	**-**	**-14 023**
Net cash flow unlisted infrastructure[1]	**1 305**	**-13 295**

[1] Shown in the statement of cash flows as Receipts of interest from unlisted infrastructure and Net cash flow to/from investments in unlisted infrastructure.

Net income in the underlying infrastructure companies which is distributed back to the GPFG in the form of interest is presented in the statement of cash flows as Receipts of interest from unlisted infrastructure. In 2022 this amounted to NOK 162 million (NOK 80 million in 2021).

Cash flows between the GPFG and infrastructure subsidiaries in the form of equity and loan financing, as well as repayment of these, are presented in the statement of cash flows as Net cash flows to/from investments in unlisted infrastructure. In 2022 this amounted to NOK 1 143 million (NOK -13 375 million in 2021).

A net cash flow from the GPFG to subsidiaries will result in an increase in the value of Unlisted infrastructure in the balance sheet, while a net cash flow from subsidiaries to the GPFG will result in a decrease.

Underlying infrastructure companies

Infrastructure subsidiaries have investments in other non-consolidated, unlisted companies. For further information, see note 16 Interests in other entities.

Principles for measurement and presentation

The following principles apply for the respective income and expense elements presented in table 7.4:

Income from the sale of renewable energy is recognised at time of delivery. Net income from the sale of renewable energy mainly comprises accrued income from power sales, less costs relating to the operation and maintenance of infrastructure assets.

Transaction costs and fees from purchases and sales of infrastructure for renewable energy are incurred as one-off costs and expensed as incurred.

Table 7.4 specifies the GPFG's share of net income generated in the underlying infrastructure companies, which is the basis for Income/expense from unlisted infrastructure presented in table 7.1.

Table 7.4 Income from underlying infrastructure companies

Amounts in NOK million	2022	2021
Net income from sale of renewable energy	2 175	747
Operating costs in wholly-owned subsidiaries[1]	-6	-7
Operating costs in joint ventures	-16	9
Tax expense	-353	-160
Net income from ongoing operations	**1 799**	**589**
Unrealised gain/loss[2]	**-898**	**639**
Transaction costs and fees from purchases and sales	**-4**	**-31**
Net income underlying infrastructure companies	**897**	**1 198**

[1] Operating costs in wholly-owned subsidiaries are measured against the upper limit from the Ministry of Finance, see note 12 Management costs for more information.

[2] Unrealised gain/loss presented in table 7.1 includes net income in the underlying infrastructure companies which is not distributed back to the GPFG, and will therefore not correspond to Unrealised gains/loss presented in table 7.4.

Table 7.5 specifies the GPFG's share of assets and liabilities in the underlying infrastructure companies, which comprises the closing balance for Unlisted infrastructure as presented in table 7.2.

Table 7.5 Assets and liabilities underlying infrastructure companies

Amounts in NOK million	31.12.2022	31.12.2021
Wind farm	13 983	14 290
Net other assets and liabilities[1]	506	-3
Total assets and liabilities underlying infrastructure companies	**14 489**	**14 287**

[1] Net other assets and liabilities comprise cash, tax and operational receivables and liabilities.

GPFG Note 8 Fair value measurement

Accounting policy

All assets and liabilities presented as Equities, Bonds, Unlisted real estate, Unlisted infrastructure, Financial derivatives, Secured lending and borrowing, Deposits in banks and Cash collateral posted and received are measured at fair value through profit or loss.

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

Fair value for the majority of assets and liabilities is based on quoted market prices or observable market inputs. If the market is not active, fair value is established using standard valuation techniques. Estimating fair value can be complex and requires the use of judgement, in particular when observable inputs are not available. This valuation risk is addressed by the control environment in Norges Bank Investment Management, which is described in section 6 of this note.

2. The fair value hierarchy

All assets and liabilities that are part of the investment portfolio are classified in the three categories in the fair value hierarchy presented in table 8.1. The classification is determined by the observability of the market inputs used in the fair value measurement:

- Level 1 comprises assets that are valued based on unadjusted quoted prices in active markets. An active market is defined as a market in which transactions take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

- Assets and liabilities classified as Level 2 are valued using models with market inputs that are either directly or indirectly observable. Inputs are considered observable when they are developed based on market data reflecting actual events and transactions.

- Assets classified as Level 3 are valued using models with significant use of unobservable inputs. Inputs are considered to be unobservable when market data is not available, and the input is developed using the best available information on the assumptions that market participants would use when pricing the asset.

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 estimates

Classification in the fair value hierarchy is based on set criteria, some of which may require the use of judgement.

Level 3 investments consist of instruments held at fair value that are not traded or quoted in active markets. Fair value is determined using valuation techniques that use models with significant use of unobservable inputs. A considerable degree of judgement is applied in determining the assumptions that market participants would use when pricing the asset or liability, when observable market data is not available.

Table 8.1 Categorisation of the investment portfolio by level in the fair value hierarchy

	Level 1		Level 2		Level 3		Total	
Amounts in NOK million	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**
Equities	**8 556 594**	**8 849 354**	**30 602**	**37 716**	**3 206**	**1 349**	**8 590 402**	**8 888 419**
Government bonds	1 929 618	1 494 936	235 987	419 912	-	-	2 165 605	1 914 848
Government-related bonds	303 108	278 345	78 406	89 495	334	-	381 848	367 840
Inflation-linked bonds	204 037	177 457	39 404	18 422	-	-	243 441	195 879
Corporate bonds	740 645	674 632	88 663	73 750	6	7	829 314	748 389
Securitised bonds	202 781	162 737	31 837	29 211	-	-	234 618	191 948
Total bonds	**3 380 189**	**2 788 107**	**474 297**	**630 790**	**340**	**7**	**3 854 827**	**3 418 903**
Financial derivatives (assets)	429	246	20 024	7 633	45	-	20 498	7 879
Financial derivatives (liabilities)	-409	-	-39 750	-9 055	-	-	-40 159	-9 055
Total financial derivatives	**20**	**246**	**-19 726**	**-1 422**	**45**	**-**	**-19 661**	**-1 176**
Unlisted real estate	**-**	**-**	**-**	**-**	**329 732**	**310 134**	**329 732**	**310 134**
Unlisted infrastructure	**-**	**-**	**-**	**-**	**14 489**	**14 287**	**14 489**	**14 287**
Other (assets)[1]	-	-	519 026	340 634	-	-	519 026	340 634
Other (liabilities)[2]	-	-	-859 756	-631 651	-	-	-859 756	-631 651
Total	**11 936 803**	**11 637 707**	**144 443**	**376 067**	**347 812**	**325 777**	**12 429 059**	**12 339 549**
Total (percent)	**96.0**	**94.3**	**1.2**	**3.1**	**2.8**	**2.6**	**100.0**	**100.0**

1 Other (assets) consists of the balance sheet lines Deposits in banks, Secured lending, Cash collateral posted, Unsettled trades (assets), Withholding tax receivable and Other assets.

2 Other (liabilities) consists of the balance sheet lines Secured borrowing, Cash collateral received, Unsettled trades (liabilities), Deferred tax and Other liabilities.

The majority of the total portfolio is priced based on observable market prices. At the end of 2022, 97.2 percent of the portfolio was classified as Level 1 or 2, which is a marginal decrease compared to year-end 2021. Movements between levels in the fair value hierarchy are described in section 3 of this note.

Equities

Measured as a share of total value, virtually all equities (99.61 percent) were valued based on official closing prices from stock exchanges at the end of 2022 and classified as Level 1. A small share of equities (0.36 percent) were classified as Level 2 at year-end. These are mainly equities for which trading has recently been suspended, or illiquid securities that are not traded daily. The share of equities valued with significant use of unobservable inputs and classified as Level 3 at year-end was 0.04 percent. These are equities that are not listed, or where trading has been suspended and an adjustment applied to the last traded price based on company- or country-specific factors.

Bonds

The majority of bonds have observable, executable market quotes in active markets and 87.69 percent of bond holdings were classified as Level 1 at the end of 2022. Bond holdings that do not have a sufficient number of observable quotes or that are priced based on comparable liquid bonds are classified as Level 2. These amounted to 12.30 percent of bond holdings at year-end. An insignificant share of bond holdings (0.01 percent) that did not have observable quotes were classified as Level 3 at year-end, since the valuation was based on significant use of unobservable inputs.

Unlisted real estate and unlisted renewable energy infrastructure

All investments in unlisted real estate and unlisted infrastructure are classified as Level 3, since models are used to value the underlying assets and liabilities with extensive use of unobservable market inputs. Properties and investments in unlisted infrastructure are measured at the value determined by external valuers. Exceptions to this policy are 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 and adjustments to valuations are therefore warranted.

Financial derivatives

Some equity derivatives (rights and warrants) and credit derivatives (CDS indices) that are actively traded are classified as Level 1. The majority of derivatives are classified as Level 2, since the valuation of these is based on standard models using observable market inputs. Certain derivatives are valued based on models with significant use of unobservable inputs and are classified as Level 3.

Other assets and liabilities that are part of the investment portfolio are classified as Level 2.

3. Movements between the levels in the fair value hierarchy

Accounting policy
Transfers between levels in the fair value hierarchy are deemed to have occurred at the beginning of the reporting period.

Reclassifications between Level 1 and Level 2

The share of equities classified as Level 1 was virtually unchanged compared to year-end 2021. There were no significant reclassifications of equities between Level 1 and Level 2.

The share of bonds classified as Level 1 increased by 6.1 percentage points compared to year-end 2021, with a corresponding decrease in the share of Level 2 holdings. The primary drivers of this change were purchases of government bonds classified as Level 1 during the year and the maturity of several bonds that were classified as Level 2 at year-end 2021. There was a net reclassification during the year from Level 1 to Level 2 of NOK 29 billion, primarily relating to corporate bonds and government bonds.

Reclassification between Level 1 and Level 3

Extensive sanctions were introduced on trading in Russian securities in 2022. As a consequence, price observability was limited and equity securities were either suspended from trading or trading with restrictions. In order to estimate the price that would be received for the sale of the shares under the current market conditions, a downward adjustment was applied to the last traded price of these securities at year-end. The adjustment reflects the estimated discount that market participants would demand to reflect the risk associated with the inherent uncertainty in the cash flows of the shareholdings, as well as the inability to access a public market to trade the shares. The adjustment to the last traded price is based on unobservable inputs and is considered to be significant to the fair value measurement. All equity holdings where an adjustment has been applied to the last traded price were therefore reclassified to Level 3. At the end of the year, these equity securities had a value of NOK 3 billion, compared to NOK 28 billion at year-end 2021.

Table 8.2 Changes in Level 3 holdings

Amounts in NOK million	01.01.2022	Pur-chases	Sales	Settle-ments	Net gain/loss	Transferred into Level 3	Transferred out of Level 3	Foreign exchange gain/loss	31.12.2022
Equities	1 349	83	-1 014	310	-28 634	27 678	-152	3 585	3 206
Bonds	7	237	-	-	-20	103	-	13	340
Financial derivatives (assets)	-	-	-	-	-20	60	-	5	45
Unlisted real estate[1]	310 134	3 930	-	-	-8 369	-	-	24 036	329 732
Unlisted infrastructure[1]	14 287	-1 143	-	-	735	-	-	609	14 489
Total	**325 777**	**3 108**	**-1 014**	**310**	**-36 308**	**27 841**	**-152**	**28 248**	**347 812**

Amounts in NOK million	01.01.2021	Pur-chases	Sales	Settle-ments	Net gain/loss	Transferred into Level 3	Transferred out of Level 3	Foreign exchange gain/loss	31.12.2021
Equities	597	908	-16	-	-327	242	-68	13	1 349
Bonds	28	-	-	-	-22	-	-	1	7
Financial derivatives (assets)	4	-	-	-	-	-	-4	-	-
Unlisted real estate[1]	272 507	7 056	-	-	29 723	-	-	849	310 134
Unlisted infrastructure[1]	-	13 375	-	-	1 118	-	-	-207	14 287
Total	**273 136**	**21 339**	**-16**	**-**	**30 492**	**242**	**-72**	**656**	**325 777**

[1] Purchases represent the net cash flow to investments in unlisted real estate and unlisted infrastructure, as presented in the Statement of cash flows.

The share of the portfolio classified as Level 3 was 2.8 percent at the end of 2022, an increase from 2.6 percent at year-end 2021. The GPFG's aggregate holdings in Level 3 amounted to NOK 347 812 million at year-end 2022, an increase of NOK 22 035 million compared to year-end 2021. The increase is mainly due to investments in unlisted real estate which are all classified as Level 3.

Investments in unlisted real estate amounted to NOK 329 732 million at year-end, an increase of NOK 19 598 million compared to year-end 2021. The increase is mainly due to foreign exchange gains and new investments, partly offset by unrealised losses.

The relative share of both equities and bonds classified as Level 3 increased slightly compared to year-end 2021. For equities, the increase in absolute value of Level 3 holdings was due to the reclassification of Russian equities from Level 1. The absolute value of bonds classified as Level 3 increased due to the purchase of two bond holdings classified as Level 3 and reclassification of three bond holdings from Level 2 during the year.

4. Valuation techniques

Norges Bank Investment Management has defined hierarchies for which price sources are to be used in the valuation. Holdings that are included in the benchmark indices are normally valued in accordance with prices from the index providers, while the remaining holdings of equities and bonds are valued almost exclusively using prices from other external price providers. For equities and derivatives traded in active markets (Level 1), the close price is used. For bonds traded in active markets, the bid price is generally used. Market activity and volumes are monitored using several price sources that provide access to market prices, quotes and transactions at the measurement date.

The next section sets out the valuation techniques used for instruments classified as Level 2 and Level 3 in the fair value hierarchy. Furthermore, the most significant observable and unobservable inputs used in the valuation models are described.

Unlisted real estate (Level 3)

Unlisted real estate investments constitute the vast majority of holdings classified as 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 at each reporting date by external certified and independent valuation specialists using valuation models. Valuation of properties is inherently dependent on significant forward-looking judgements. These include key assumptions and estimates with respect to each individual property type, location, future estimated net cash flows and relevant yields. These assumptions represent primarily 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.

Valuation of commercial real estate is based on variations of discounted cash flow models.

Yields and assumptions regarding expected future cash flows are the most important inputs in the valuation models. Expected future cash flows are affected by changes in assumptions related to, but not limited to:

- Estimated market rental values and market rental value growth
- Changes in tenancy situation
- Expected inflation (market, consumer price index, costs, etc.)
- Renewal and tenant default probabilities, void periods, operating costs and capital costs

Future cash flows are valued with a combination of capitalisation and discount rates. These take into account a range of factors reflecting the specific investment, including asset level characteristics, market outlook, comparable market transactions and the local and global economic environment.

Table 8.3 provides information on the significant unobservable inputs used in the measurement of fair value for investments in unlisted real estate.

Table 8.3 Unobservable inputs - Unlisted real estate

	Fair value in NOK million			Average equivalent yield/ discount rate in percent		Average annual market rent per square meter (in NOK)	
Property type	**31.12.2022**	**31.12.2021**	**Valuation methodology**	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**
Office							
Europe	81 048	76 135	Income capitalisation	3.6	3.4	7 183	6 793
US	89 789	87 507	Discounted cash flow	6.3	5.9	8 018	7 185
Retail							
Europe	35 104	35 011	Income capitalisation	3.8	3.6	16 791	15 111
Logistics							
US	79 108	66 143	Discounted cash flow	6.4	5.4	1 651	1 119
Europe	33 963	34 783	Income capitalisation	5.0	4.1	902	782
Tokyo							
Office/Retail	8 016	8 043	Discounted cash flow	2.4	2.4	17 134	16 816
Other	2 703	2 514					
Total	**329 732**	**310 134**					

Unlisted renewable energy infrastructure (Level 3)

The fair value of unlisted infrastructure is determined as the sum of the underlying assets and liabilities as presented in note 7 Unlisted renewable energy infrastructure, which mainly consist of wind farm assets. At year-end, the fund had only one investment in this asset class, with no collateralised debt. This investment is valued by an external, independent valuation specialist using a bespoke valuation model. Valuation of unlisted infrastructure is inherently predisposed to significant forward-looking judgements. These include key assumptions and estimates with respect to each individual asset type, location, future revenue streams and relevant discount rates. These assumptions represent primarily unobservable inputs and Unlisted infrastructure is therefore classified as Level 3 in the fair value hierarchy.

Discount rates and assumptions regarding expected future revenue streams (power prices) are the most important inputs in the valuation models. Power prices are forecasted by independent, energy market forecasters.

Forecasted future cash flows are discounted with a discount rate using a valuation model. The model takes into account estimates of risk premiums both for the market in general and for the specific infrastructure assets. In addition, the external valuer also compares this value with value estimates calculated using market multiples (trading factors from similar companies) and transaction multiples (metrics from recent comparable transactions), before determining the final estimate of fair value.

Equities (Level 2 and Level 3)

Equities that are valued based on models with observable inputs are classified as Level 2 in the fair value hierarchy. These holdings are not traded in active markets and include listed shares in companies where trading has been suspended. The valuation models take into account various observable market inputs such as comparable equity quotes, last traded price and volume.

Holdings in Level 3 consist of equities that are not listed or have been suspended from trading, where the valuation models use unobservable inputs to a significant extent. For equities that are suspended from trading, the value is adjusted down compared to last-traded price, based on an assessment of company and country-specific factors. For equities that are not listed, an adjustment for liquidity risk is applied. Valuation models for these holdings take into account unobservable inputs such as historical volatility, company performance and analysis of comparable companies and securities.

Bonds (Level 2 and Level 3)

Bonds classified as Level 2 are valued using observable inputs from comparable issues, as well as direct indicative or executable quotes. These holdings usually consist of less liquid bonds than those classified as Level 1, i.e. where there is no trading volume of binding offers and a low volume of indicative quotes at the measurement date.

Bonds classified as Level 3 are valued based on models using unobservable inputs such as probability for future cash flows and spreads to reference curves. These holdings include defaulted and highly illiquid bonds.

Financial derivatives (Level 2 and Level 3)

Foreign exchange derivatives consist mainly of foreign exchange forward contracts, and are valued using industry standard models which predominantly use observable market data inputs such as forward rates.

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

Equity derivatives and credit derivatives, are mainly valued using observable prices provided by vendors according to the price hierarchy. In some cases where an equity derivative is not traded, inputs such as conversion factors, subscription price and strike price are utilised to value the instruments.

5. Sensitivity analysis for Level 3 holdings

The valuation of holdings in Level 3 involves the use of judgement when determining the assumptions that market participants would use when observable market data is not available. In the sensitivity analysis for Level 3 holdings, the effect of using reasonable alternative assumptions is shown.

Table 8.4 Additional specification Level 3 and sensitivities

Amounts in NOK million	Key assumptions	Change in key assumptions	Specification of Level 3 holdings 31.12.2022	Sensitivities 31.12.2022		Specification of Level 3 holdings 31.12.2021	Sensitivities 31.12.2021	
				Unfavourable changes	Favourable changes		Unfavourable changes	Favourable changes
	Adjustment for country-specific factors Russia		2 997	-2 997	-	-	-	-
	Suspension adjustment	20.0 percent	209	-42	42	1 349	-270	270
Equities			**3 206**	**-3 039**	**42**	**1 349**	**-270**	**270**
Bonds	Probability of future cash flows	10.0 percent	**340**	**-34**	**34**	**7**	**-1**	**1**
Financial derivatives (assets)	Other		**45**	**-9**	**9**	**-**	**-**	**-**
	Yield	0.2 percentage point		-15 944	17 896		-15 219	17 050
	Market rent	2.0 percent		-5 362	5 370		-5 253	5 253
Unlisted real estate			**329 732**	**-21 306**	**23 266**	**310 134**	**-20 472**	**22 302**
	Discount rate	0.25 percentage point		-312	287		-385	404
	Power price forecast	5.0 percent		-804	780		-435	438
Unlisted infrastructure			**14 489**	**-1 116**	**1 066**	**14 287**	**-820**	**843**
Total			**347 812**	**-25 504**	**24 417**	**325 777**	**-21 563**	**23 416**

Unlisted real estate

Changes in key assumptions can have a material effect on the valuation of unlisted real estate investments. A number of key assumptions are used, of which yields and growth forecasts for future market rents are the assumptions that have the largest impact when estimating property values. 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 that is representative for the unlisted real estate portfolio, and reflects both favourable and unfavourable changes.

In an unfavourable outcome, an increase in the yield of 0.2 percentage point, and a reduction in market rents of 2 percent would result in a decrease in value of the unlisted real estate portfolio of approximately NOK 21 306 million or 6.5 percent (6.6 percent at year-end 2021). In a favourable outcome, a reduction in the yield of 0.2 percentage point and an increase in market rents of 2 percent would result in an increase in value of the unlisted real estate portfolio of approximately NOK 23 266 million or 7.1 percent (7.2 percent at year-end 2021). The isolated effects of changes in yields and future market rents are presented in table 8.4. Changes outside of the ranges specified above are considered to be less reasonable alternative assumptions, however if the range of alternative assumptions were to be expanded, the value changes would be linear.

Unlisted renewable energy infrastructure

The sensitivity analysis for unlisted infrastructure investments is adapted to each individual investment. A number of key assumptions are used, of which discount rates and future power prices are the assumptions that have the largest impact when estimating values. This is illustrated in the sensitivity analysis by using other reasonable alternative assumptions for discount rates and future power prices.

In an unfavourable outcome, an increase in the discount rate of 0.25 percentage point, and a reduction in power prices of 5 percent would result in a decrease in value of unlisted infrastructure of approximately NOK 1 116 million or 7.7 percent (5.7 percent at year-end 2021). In a favourable outcome, a reduction in the discount rate of 0.25 percentage point and an increase in power prices of 5 percent would result in an increase in value of unlisted infrastructure of approximately NOK 1 066 million or 7.4 percent (5.9 percent at year-end 2021). The isolated effects of changes in discount rates and power prices are presented in table 8.4.

Equities

Fair value of equities classified as Level 3 is sensitive to assumptions regarding whether trading will be resumed and how markets have moved from the time the trading was suspended, as well as specific factors related to the country and the individual company such as trading restrictions and the company's financial situation. Sensitivity in absolute values has increased significantly for the equity portfolio, and is almost entirely driven by Russian holdings, where it has been assumed in an unfavourable outcome that the Russian equity holdings were worthless at year-end.

6. Control environment

The control environment for fair value measurement of financial instruments and investments in unlisted real estate and unlisted infrastructure is organised around a formalised and documented valuation policy and guidelines, supported by work and control procedures.

The valuation environment has been adapted in accordance with market standards and established valuation practices. This is implemented in practice through daily valuation of all holdings, except for investments in unlisted real estate and unlisted infrastructure, where valuations are performed quarterly. For unlisted real estate, the quarterly valuations are performed by external valuers. For unlisted infrastructure, external valuers perform the valuations at the end of the second and fourth quarters, while the internal valuation department performs the valuations at the end of the first and third quarters. 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 price providers. These have been selected based on analyses performed by the departments responsible for valuation.

Price 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 recognised 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 daily controls by the valuation departments. These controls are based on defined thresholds and sensitivities, which are monitored and adjusted in accordance with prevailing market conditions. At the end of each month for financial instruments and at the end of each quarter for investments in unlisted real estate and unlisted infrastructure, more extensive controls are performed to ensure the valuations represent fair value in accordance with IFRS. Particular attention is paid to illiquid financial instruments and unlisted investments, i.e. investments deemed to pose valuation challenges. Illiquid instruments are identified using sector and currency classifications, credit rating indicators, bid/ask spreads, and market activity.

Valuation memos and reports are prepared each quarter-end, documenting the results of the controls performed and the most important sources of uncertainty in the valuations. Prior to the publication of the financial reporting, the valuation documentation is reviewed, significant pricing issues are discussed, and the valuation is approved in the NBIM Leader Group Investment meeting.

GPFG Note 9 Investment risk

Management mandate for the GPFG
The GPFG is managed by Norges Bank on behalf of the Ministry of Finance, in accordance with section 3, second paragraph of the Government Pension Fund Act and the management mandate for the GPFG issued by the Ministry of Finance.

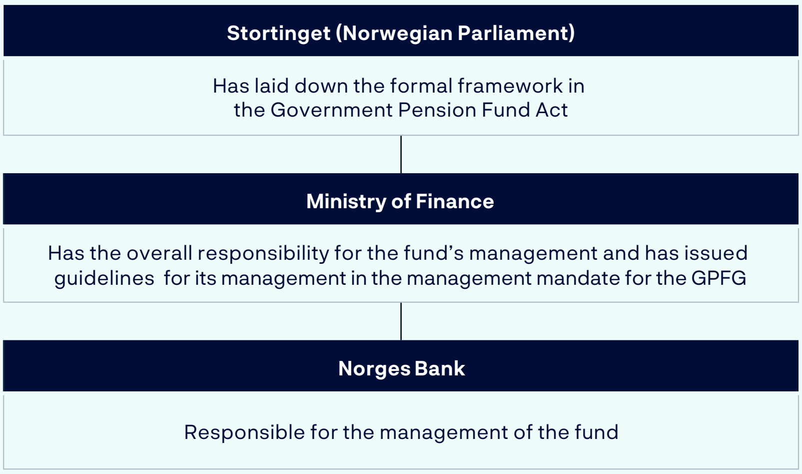
The GPFG shall seek to generate the highest possible return, net of costs, measured in the currency basket of the investment portfolio, within the applicable investment management framework. The strategic benchmark index set by the Ministry of Finance is divided into two asset classes, equities and bonds, with an allocation of 70 percent to equities and 30 percent to bonds.

The benchmark index for equities is constructed based on the market capitalisation for equities in the countries included in the benchmark. The benchmark index for bonds specifies a defined allocation between government bonds and corporate bonds, with a weight of 70 percent to government bonds and 30 percent to corporate bonds. The currency distribution is a result of these weighting principles.

Investments in unlisted real estate and unlisted renewable energy infrastructure are not defined by the fund's benchmark index. The management mandate sets a maximum allocation to unlisted real estate of 7 percent of the investment portfolio. Investments in unlisted infrastructure can amount to up to 2 percent of the investment portfolio. The fund's allocation to unlisted real estate and unlisted infrastructure is further regulated in the investment mandate issued by the Executive Board of Norges Bank. It is up to Norges Bank to determine the allocation to unlisted real estate and unlisted infrastructure within the limits set in the management mandate, and how this shall be financed.

The fund may not invest in securities issued by Norwegian entities, securities issued in Norwegian kroner, or real estate and infrastructure located in Norway. The fund can also not invest in companies which are excluded following the guidelines for observation and exclusion from the GPFG.

Chart 9.1 Management mandate for the GPFG



Norges Bank's governance structure
The Executive Board of Norges Bank has delegated 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, among other things, risk management, responsible investment and compensation to employees in Norges Bank Investment Management. Internationally recognised standards are applied in the areas of valuation and performance measurement as well as 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.

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 the investment areas, trading, operations, risk management and compliance and control.

Chart 9.2 Norges Bank's governance structure

The NBIM Leader Group Investment Meeting complements the delegation of responsibility by advising on investment risk management and the portfolio's investment universe.

Internal risk reporting requirements are set by the CEO of Norges Bank Investment Management, 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.

Framework for investment risk

In the management mandate for the GPFG, there are a number of limits and restrictions within the combined equity and bond asset class, as well as within the individual asset classes. Investments in unlisted real estate and unlisted renewable energy infrastructure are regulated by a separate management framework in the investment mandate. The framework underpins how a diversified exposure to unlisted real estate and unlisted infrastructure shall be established and managed.

Clear roles and responsibilities are a cornerstone of process design at Norges Bank Investment Management. Changes to investment mandates, the portfolio hierarchy and 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 in policies and guidelines. Responsibility for effective processes related to risk management is delegated to the CRO and the Chief Corporate Governance & Compliance Officer.

Risk management is defined as the 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. The investment area in Norges Bank Investment Management 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, at asset class level and other levels within the portfolio that reflect the investment process. Separate risk assessments are required in advance of investments in unlisted real estate and unlisted infrastructure.

Table 9.1 Investment risk

Type	Market risk	Credit risk	Counterparty risk
Definition	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, real estate and infrastructure values	Risk of loss due to a bond issuer not meeting its payment obligations	Risk of loss due to counterparty bankruptcy or other events leading to counterparties defaulting
Main dimensions	Measured both absolute and relative to the benchmark - Concentration risk - Volatility and correlation risk - Systematic factor risk - Liquidity risk	Measured at single issuer and portfolio levels - Probability of default - Loss given default - Correlation between instruments and issuers at portfolio level	Measured risk exposure by type of position - Securities lending - Unsecured bank deposits and securities - Derivatives including FX contracts - Repurchase and reverse repurchase agreements - Settlement risk towards brokers and long settlement transactions

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, as well as real estate and infrastructure 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 unlisted real estate, this involves measurement of the share of real estate under construction, vacancy, tenant concentration and geographic concentration. For unlisted infrastructure, this involves measurement of exposure towards different sectors, share of income from government subsidies, development exposure, and geographic 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 resulting from a bond issuer defaulting on their 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 at portfolio level, where the correlation of credit losses between instruments and issuers is taken into account. 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 and infrastructure portfolios. 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 recognised 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 GPFG.

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 GPFG's holdings.

Concentration risk

Concentration analysis complements statistical risk estimation by describing the concentration of a single exposure or a group of exposures. More concentrated portfolios tend to contribute to less diversification. Concentration is measured across different dimensions depending on the asset class, including country, currency, sector, issuer and company exposure.

The portfolio is invested across several asset classes, countries and currencies as shown in table 9.2.

Table 9.2 Allocation by asset class, country and currency

	Market value in percent by country and currency[1]				Market value in percent by asset class		Assets minus liabilities excluding management fee	
Asset class	**Market**	**31.12.2022**	**Market**	**31.12.2021**	**31.12.2022**	**31.12.2021**	**31.12.2022**	**31.12.2021**
Equities	**Developed**	**89.1**	**Developed**	**89.5**				
	US	44.7	US	44.9				
	Japan	7.3	Japan	7.0				
	UK	7.0	UK	7.0				
	France	4.8	France	4.9				
	Switzerland	4.5	Switzerland	4.7				
	Total other	20.8	Total other	20.9				
	Emerging	**10.9**	**Emerging**	**10.5**				
	China	3.8	China	3.8				
	India	2.0	Taiwan	2.3				
	Taiwan	2.0	India	1.6				
	Brazil	0.5	Brazil	0.5				
	South Africa	0.4	South Africa	0.4				
	Total other	2.2	Total other	2.0				
Total equities					**69.77**	**71.95**	**8 672 186**	**8 878 464**
Fixed income	**Developed**	**99.7**	**Developed**	**99.6**				
	US dollar	50.2	US dollar	50.3				
	Euro	28.1	Euro	27.6				
	Japanese yen	8.0	Japanese yen	7.9				
	British pound	4.5	British pound	4.9				
	Canadian dollar	3.8	Canadian dollar	3.8				
	Total other	5.1	Total other	5.0				
	Emerging[2]	**0.3**	**Emerging**	**0.4**				
Total fixed income					**27.45**	**25.41**	**3 412 044**	**3 135 259**
Unlisted real estate	US	51.8	US	50.1				
	France	16.5	UK	17.8				
	UK	16.4	France	17.1				
	Germany	5.0	Germany	3.9				
	Switzerland	3.4	Switzerland	3.6				
	Total other	7.0	Total other	7.4				
Total unlisted real estate					**2.66**	**2.52**	**330 300**	**311 538**
Total unlisted infrastructure					**0.12**	**0.12**	**14 530**	**14 288**

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

[2] The share of individual emerging market currencies in the fixed income portfolio is insignificant.

At the end of 2022, the equity portfolio's share of the fund was 69.8 percent, down from 72.0 percent at year-end 2021. The bond portfolio's share of the fund was 27.5 percent, up from 25.4 percent at year-end 2021. Unlisted real estate amounted to 2.7 percent of the fund at year-end, compared to 2.5 percent at year-end 2021. Unlisted infrastructure amounted to 0.1 percent of the fund at year-end, which was the same as year-end 2021.

For equity investments, concentration in the portfolio is further measured by sector. Table 9.3 shows the composition of the equity asset class by sector.

Table 9.3 Allocation of equity investments by sector[1], percent

Sector	31.12.2022	31.12.2021
Technology	17.5	20.5
Financials	15.8	14.4
Consumer discretionary	13.3	14.6
Industrials	13.1	13.4
Health care	12.7	11.4
Consumer staples	6.6	6.0
Real estate	5.5	6.3
Basic materials	4.4	4.4
Energy	4.4	3.7
Telecommunications	3.1	3.2
Utilities	2.7	2.4

[1] Does not sum up to 100 percent because cash and derivatives are not included.

The GPFG has substantial investments in government-issued bonds. Table 9.4 shows the largest holdings in bonds issued by governments. These include government bonds issued in local and foreign currency and inflation-linked bonds issued in local currency.

Table 9.4 Largest holdings within the segment government bonds

Amounts in NOK million	Market value 31.12.2022
US	1 022 086
Japan	475 342
Germany	171 336
Singapore	155 332
UK	106 701
France	73 898
Canada	64 837
Italy	63 415
Australia	44 187
Spain	31 959

Amounts in NOK million	Market value 31.12.2021
US	877 936
Japan	370 519
Singapore	145 217
Germany	121 399
UK	93 596
France	74 825
Italy	63 741
Canada	55 754
Australia	45 988
Spain	45 547

The portfolio is also invested in companies which issue both equities and bonds. Table 9.5 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 9.5 Largest holdings excluding sovereigns, both bonds and equities

Amounts in NOK million, 31.12.2022	Sector	Equities	Bonds	Total
Apple Inc	Technology	209 674	9 662	219 336
Microsoft Corp	Technology	199 878	1 581	201 459
Alphabet Inc	Technology	110 219	1 717	111 936
Nestlé SA	Consumer staples	88 149	1 994	90 143
Amazon.com Inc	Consumer discretionary	80 207	9 260	89 466
Roche Holding AG	Health care	62 055	1 498	63 554
Shell PLC	Energy	60 710	272	60 982
Taiwan Semiconductor Manufacturing Co Ltd	Technology	60 040	-	60 040
Bank of America Corp	Finance	33 303	25 468	58 771
Berkshire Hathaway Inc	Finance	51 834	6 169	58 003

Amounts in NOK million, 31.12.2021	Sector	Equities	Bonds	Total
Apple Inc	Technology	216 952	7 094	224 046
Microsoft Corp	Technology	210 468	1 368	211 836
Alphabet Inc	Technology	144 417	1 809	146 226
Amazon.com Inc	Consumer discretionary	121 160	6 639	127 799
Nestlé SA	Consumer staples	89 082	1 775	90 857
Meta Platforms Inc	Technology	83 016	-	83 016
Taiwan Semiconductor Manufacturing Co Ltd	Technology	72 171	1 176	73 347
Tesla Inc	Consumer discretionary	68 097	-	68 097
Roche Holding AG	Health care	65 283	1 453	66 736
ASML Holding NV	Technology	64 496	252	64 748

Table 9.6 shows the composition of the unlisted real estate asset class by sector.

Table 9.6 Distribution of unlisted real estate investments by sector, percent

Sector	31.12.2022	31.12.2021
Office	53.7	54.6
Retail	11.7	12.3
Logistics	34.2	32.4
Other	0.4	0.7
Total	**100.0**	**100.0**

Volatility and correlation risk

Norges Bank Investment Management uses models to quantify the risk of fluctuations in value for all or parts of the portfolio. Volatility is a standard risk measure based on the statistical concept of standard deviation, which takes into account the correlation between different investments in the portfolio. This risk measure gives an estimate of how much one can expect the portfolio's value to change or fluctuate during the course of a year, based on market conditions over the past three years. In two of three years, the portfolio return is expected to be within the negative and positive value of the estimated volatility. Expected volatility can be expressed in terms of the portfolio's absolute or relative risk. Norges Bank Investment Management uses the same model both for portfolio risk and for relative volatility.

All the fund's investments are included in the calculation of expected relative volatility and are measured against the fund's benchmark index consisting of global equity and bond indices.

The modelling of unlisted investments is challenging due to few or no historical prices. For investments in unlisted real estate, the exposure to a group of relevant risk factors is mapped to the model framework in MSCI's Barra Private Real Estate 2 (PRE2) model. These are decided by key attributes such as location and property type. The model uses time series of valuations and actual transactions as a starting point, but also includes listed real estate share prices to establish representative, daily time series. For investments in unlisted infrastructure, the starting point is a combination of time series available in the existing framework for listed markets. The exposure to generic, listed risk factors is mapped for each project based on attributes such as share of contractually agreed prices, project lifetime, project phase, sector, country, and the quality of counterparties.

The risk model from MSCI then uses these factors for unlisted investments in the same way as ordinary equity and fixed-income risk factors, to calculate expected absolute and relative volatility, as well as expected shortfall for the fund's investments.

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.

Tables 9.7 and 9.8 present risk both in terms of the portfolio's absolute risk and relative risk.

Table 9.7 Portfolio risk, expected volatility, percent

	Expected volatility, actual portfolio							
	31.12.2022	Min 2022	Max 2022	Average 2022	31.12.2021	Min 2021	Max 2021	Average 2021
Portfolio	10.1	9.6	10.4	10.1	10.3	10.1	10.7	10.5
Equities	14.2	13.8	14.4	14.2	14.1	14.0	14.7	14.4
Fixed income	11.1	10.0	11.1	10.7	10.1	9.7	10.1	9.8
Unlisted real estate	12.1	11.7	12.4	12.0	11.7	10.5	11.7	10.8
Unlisted infrastructure	14.9	8.9	14.9	11.7	13.1	9.7	13.1	11.2

Table 9.8 Relative risk measured against the fund's reference index, expected relative volatility, basis points

	Expected relative volatility							
	31.12.2022	Min 2022	Max 2022	Average 2022	31.12.2021	Min 2021	Max 2021	Average 2021
Portfolio	39	39	53	45	50	42	56	47

Risk measured as expected volatility indicates an expected annual value fluctuation in the fund of 10.1 percent, or approximately NOK 1 250 billion at the end of 2022, compared to 10.3 percent at year-end 2021. Expected volatility for the equity portfolio was 14.2 percent at year-end, up from 14.1 percent at year-end 2021, while expected volatility for the fixed-income portfolio was 11.1 percent, up from 10.1 percent at year-end 2021.

The management mandate for the GPFG specifies that expected relative volatility for the fund shall not exceed 1.25 percentage points. The measurement of risk and follow-up of the limit is performed based on the risk model described above. The fund's expected relative volatility was 39 basis points at the end of the year, down from 50 basis points at year-end 2021. The decrease in the fund's expected relative volatility in 2022 is mainly due to lower active exposure.

In addition to the above-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 quantifies the expected loss of a portfolio in extreme market situations. Expected shortfall measured on relative returns provides an estimate of the annual expected relative underperformance versus the benchmark index for a given confidence level. Using historical simulations, relative returns of the current portfolio compared to the benchmark index are calculated on a weekly basis over a sampling period from January 2007 until the end of the last accounting period. The expected shortfall at a 97.5 percent confidence level is then given by the annualised average relative return, measured in the currency basket for the 2.5 percent worst weeks.

The Executive Board has determined that the fund shall be managed in such a way that the annual expected shortfall measured against the benchmark index does not exceed 3.75 percentage points. Expected shortfall is measured and monitored based on the risk model described above. At the end of the year, expected shortfall was 1.22 percentage points, compared to 1.52 percentage points at year-end 2021.

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 from January 2007 until the end of the last accounting period, so that the measure can capture extreme market movements. A confidence level of 97.5 percent is used for the calculations.

Strengths and weaknesses

The strength of these types of risk model is that one can estimate the risk associated with 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, as well as capturing deviations from a normal distribution.

The model-based risk estimates are based on historical relationships in the markets and are expected to provide reliable forecasts in markets without significant changes in volatility and correlation. 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 constant over time. To compensate for these shortcomings, complementary models and methods are employed, such as stress tests and analyses of concentration risk and realised returns.

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 GPFG's long-term investment horizon, are taken into account when evaluating the models.

Credit risk
Credit risk is the risk of losses resulting from issuers of bonds defaulting on their payment obligations. Fixed-income instruments 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 with regards to expected return and risk profile.

Table 9.9 Bond portfolio specified by credit rating

Amounts in NOK million, 31.12.2022	AAA	AA	A	BBB	Lower rating	Total
Government bonds	1 365 320	192 142	509 240	75 988	22 914	2 165 605
Government-related bonds	173 893	136 251	51 670	18 168	1 867	381 848
Inflation-linked bonds	154 708	58 278	14 368	16 087	-	243 441
Corporate bonds	7 761	61 407	366 585	383 325	10 236	829 314
Securitised bonds	198 124	34 817	1 677	-	-	234 618
Total bonds	**1 899 805**	**482 896**	**943 540**	**493 569**	**35 018**	**3 854 827**

Amounts in NOK million, 31.12.2021	AAA	AA	A	BBB	Lower rating	Total
Government bonds	1 186 701	183 432	443 812	78 790	22 113	1 914 848
Government-related bonds	163 648	131 307	57 669	13 485	1 731	367 840
Inflation-linked bonds	132 701	45 525	6 321	11 027	305	195 879
Corporate bonds	6 433	52 623	303 970	372 433	12 930	748 389
Securitised bonds	162 060	27 641	1 585	661	-	191 948
Total bonds	**1 651 543**	**440 528**	**813 357**	**476 397**	**37 078**	**3 418 903**

The market value of the bond portfolio increased to NOK 3 855 billion at year-end 2022, from NOK 3 419 billion at year-end 2021. The share of holdings in corporate bonds was reduced by 0.4 percentage point during the year, to 21.5 percent of the bond portfolio at year-end 2022. Government bonds, including inflation-linked bonds, comprised 62.5 percent of the bond portfolio at year-end, an increase of 0.8 percentage point compared to year-end 2021.

The share of bonds with credit rating AAA increased by 1.0 percentage point during the year to 49.3 percent of the total bond portfolio at year-end 2022. This increase was mainly due to an increase in the holdings of securitised bonds in the category AAA. The share of bonds with credit rating BBB decreased by 1.1 percentage points compared to year-end 2021, to 12.8 percent at year-end 2022. This was mainly due to an increase in the value of the total bond portfolio, as the value of bonds with credit rating BBB also increased during the year

The share of bonds in the Lower rating category was reduced to 0.9 percent at year-end 2022, from 1.1 percent at year-end 2021. This was mainly due to a combination of a higher market value of the bond portfolio, at the same time as holdings of government bonds in the Lower rating category also increased. Defaulted bonds had a market value of NOK 27 million at year-end 2022, compared to NOK 38 million at year-end 2021. Defaulted bonds are grouped under Lower rating.

Table 9.10 Bond portfolio by credit rating and currency, percent

31.12.2022	AAA	AA	A	BBB	Lower rating	Total
US dollar	27.5	2.1	7.1	7.1	0.2	44.0
Euro	10.9	5.6	3.5	4.2	0.1	24.4
Japanese yen	-	-	12.8	-	-	12.8
Canadian dollar	2.9	0.7	0.3	0.2	-	4.1
Singapore dollar	4.0	-	-	-	-	4.0
Other currencies	3.9	4.0	0.7	1.4	0.6	10.7
Total	**49.3**	**12.5**	**24.5**	**12.8**	**0.9**	**100.0**

31.12.2021	AAA	AA	A	BBB	Lower rating	Total
US dollar	26.8	2.0	6.5	7.4	0.3	43.0
Euro	10.0	6.0	4.3	4.9	0.2	25.3
Japanese yen	-	-	11.7	-	-	11.7
British pound	0.3	2.9	0.5	0.7	-	4.3
Singapore dollar	4.3	-	-	-	-	4.3
Other currencies	7.0	1.9	0.8	1.0	0.6	11.4
Total	**48.3**	**12.9**	**23.8**	**13.9**	**1.1**	**100.0**

At year-end 2022, investments had been made in purchased credit default swaps with a nominal value of NOK 53.3 billion, an increase from NOK 29.1 billion at year-end 2021. These were mainly in the category where the underlying issuers have a high credit rating. There were no investments in sold credit default swaps at year-end 2022, whilst there were investments in sold credit default swaps with a nominal value of NOK 0.4 billion at year-end 2021. See table 5.3 in note 5 Holdings of equities, bonds and financial derivatives for further information. When investing in purchased credit default swaps, the credit risk in the bond portfolio is reduced when the portfolio has investments in the same underlying bonds as in the credit default swaps. At year-end 2022, the credit risk exposure was reduced by NOK 28.5 billion as a result of purchased credit default swaps, compared to a reduction of NOK 15.7 billion at year-end 2021.

In addition to credit ratings from credit rating agencies, measurement of credit risk is complemented by two credit risk models, of which one is based on credit ratings and the other is based on observable credit premiums. Both of these methods also take into account the correlation and expected value of bonds in a bankruptcy situation. The models also take into account credit default swaps, and these reduce or increase the credit risk depending on whether credit risk is bought or sold. The models are used for risk measurement and monitoring of credit risk in the fixed-income portfolio. The overall credit quality of the bond portfolio improved slightly during the year.

Counterparty risk

Counterparties are necessary to trade in the markets and to ensure effective management of liquidity, market and credit risk. Exposure to counterparty risk is related to trading in derivatives and foreign exchange contracts, securities lending, and repurchase and reverse repurchase agreements. Counterparty risk also arises from unsecured bank deposits and in connection with the daily liquidity management of the fund, as well as purchases and sales of unlisted real estate and unlisted infrastructure. 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 a long settlement period are also defined as counterparty risk.

Various counterparties are used to reduce concentration and there are strict requirements for counterparty credit rating. Credit rating requirements are generally higher for counterparties to unsecured deposits in banks than in cases where collateral is received. Changes in counterparty credit ratings are monitored continuously.

Netting agreements are in place for trades in OTC derivatives, currency contracts, as well as repurchase and reverse repurchase agreements, in order to reduce counterparty risk. Many derivatives are also cleared, meaning that the counterparty risk is mainly towards the clearing house instead of banks. 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 and infrastructure transactions are conducted in order to ensure acceptable counterparty risk. Counterparty risk that arises during the acquisition process is analysed in advance of the transaction and requires approval by the CRO. In 2022, 13 real estate transactions were analysed and approved by the CRO through this process, compared to 22 transactions in 2021. No investments were made in unlisted infrastructure in 2022, while in 2021 one transaction was analysed and approved through this process.

Counterparty risk is also limited by setting exposure limits for individual counterparties. In most instances, the exposure limit is determined by the credit rating of the counterparty, where counterparties with strong credit ratings have a higher limit than counterparties with weaker credit rating. Exposure per counterparty is measured daily against limits set by the Executive Board and the CEO of Norges Bank Investment Management.

The methodologies used to calculate counterparty risk are in accordance with internationally recognised standards. As a rule, the Basel regulations for banks are used for measuring counterparty risk, with certain adjustments based on internal analyses. The risk model calculates the expected counterparty exposure in the event of a counterparty default. The Standardised Approach in the Basel regulations (SA-CCR) is used for derivatives and foreign exchange contracts. The Standardised Approach takes into account collateral received and netting arrangements when calculating counterparty risk.

For repurchase agreements, securities lending transactions executed through an external agent and securities posted as collateral in derivative trades, a method is used that adds a premium to the market value to reflect the position's volatility. When determining counterparty risk exposure for these positions, an adjustment is also made for netting and actual collateral received and posted.

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 is reduced using the currency settlement system CLS (Continuous Linked Settlement), or by trading directly with the settlement bank. For some 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 Settlement risk towards brokers and long settlement transactions in table 9.11.

In table 9.11, exposure is broken down by type of activity/instrument associated with counterparty risk.

Total counterparty risk increased to NOK 172.0 billion at year-end 2022, from NOK 155.3 billion at year-end 2021, an increase of 10.8 percent. The largest increase in counterparty risk exposure came from derivatives, including foreign exchange contracts, due to an increase in activity in these instruments. This increase amounted to NOK 11.2 billion in 2022, and was largest for futures and foreign exchange contracts. There was also an increase in risk exposure from repurchase and reverse repurchase agreements at year-end 2022 compared to year-end 2021. This is mainly due to increased lending activity at year-end 2022.

There was a decrease in counterparty risk exposure from the securities lending programme to NOK 62.3 billion at year-end 2022, from NOK 68.5 billion at year-end 2021. The decrease was mainly due to lower equity lending. Both equities and bonds are lent through the securities lending programme. Counterparty risk exposure from securities lending accounted for 36 percent of the fund's total counterparty risk exposure at the end of 2022, compared to 44 percent at the end of 2021.

Table 9.11 Counterparty risk by type of position

Amounts in NOK million	Risk exposure 31.12.2022	Risk exposure 31.12.2021
Derivatives including foreign exchange contracts	72 319	61 144
Securities lending	62 291	68 494
Unsecured bank deposits[1] and securities	21 662	18 072
Repurchase and reverse repurchase agreements	13 986	7 459
Settlement risk towards brokers and long settlement transactions	1 699	93
Total	**171 956**	**155 262**

[1] Includes bank deposits in non-consolidated subsidiaries.

Norges Bank's counterparties have a credit rating from independent credit rating agencies or a documented internal credit rating. Credit ratings for counterparties are monitored and complemented by alternative credit risk indicators.

Table 9.12 shows approved counterparties classified by credit rating category. The table also includes brokers that are used when purchasing and selling securities.

Table 9.12 Counterparties by credit rating[1]

	Norges Bank's counterparties (excluding brokers)		Brokers	
	31.12.2022	31.12.2021	31.12.2022	31.12.2021
AAA	3	3	1	1
AA	38	33	34	33
A	62	61	87	86
BBB	11	9	31	33
BB	2	2	22	21
B	0	0	4	4
Total	**116**	**108**	**179**	**178**

[1] The table shows the number of legal entities. The same legal entity can be included as both broker and counterparty.

The number of counterparties and brokers increased slightly during the year. There were 116 counterparties at year-end 2022, compared to 108 at year-end 2021. The number of brokers increased to 179 at year-end 2022, from 178 at year-end 2021. The overall credit quality of brokers and counterparties remained unchanged from year-end 2021.

Leverage

Leverage may be used to ensure effective management of the investments within the equity and bond portfolios, but not with the aim of increasing the economic exposure to risky assets. The use of leverage is regulated in both the management mandate and the investment mandate. Leverage is the difference between total net exposure and market value of the portfolio. Net exposure is determined by including securities at market value, cash at face value and positions in derivatives by converting them to the underlying exposure. When the exposure is greater than market value, the portfolio is leveraged.

The GPFG's leverage was 2.8 percent for the aggregated equity and bond portfolio at the end of 2022, compared to 1.6 percent at the end of 2021. For investments in unlisted real estate, requirements are set in the investment mandate, limiting the maximum leverage of the portfolio to 35 percent. The unlisted real estate investments had a debt ratio of 7.6 percent at the end of 2022, compared to 6.6 percent at the end of 2021. At year-end 2022, the unlisted infrastructure investments did not have external debt.

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 2022.

GPFG Note 10 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 bonds, tax on fee income from secured lending and taxes in consolidated subsidiaries. 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, bonds and financial derivatives.

Other income tax, which is not collected at source, is recognised in the income statement in the same period as the related income or gain and presented in the balance sheet as a liability within Other liabilities, until it has been settled. Deferred tax in the balance sheet mainly consists of capital gains tax. Capital gains tax is recognised as a liability based on the expected future payment when the GPFG is in a gain position in the applicable market. No deferred tax asset is presented in the balance sheet when the GPFG is in a loss position, since the recognition criteria are not considered to be met.

Tax incurred in subsidiaries presented in the balance sheet lines Unlisted real estate and Unlisted infrastructure is recognised in the income statement as Income/expense from unlisted real estate and Income/expense from unlisted infrastructure, respectively. Only the tax expense in consolidated subsidiaries is included in the income statement line Tax expense. This is specified in table 10.1 in the line Other.

All uncertain tax positions, such as disputed withholding tax refunds, are assessed each reporting period. The best estimate of the probable reimbursement or payment is recognised in the balance sheet.

Table 10.1 shows tax expense by type of investment and type of tax.

Table 10.1 Specification tax expense

Amounts in NOK million, 2022	Gross income before taxes	Income tax on dividends, interest and fees	Capital gains tax	Other	Tax expense	Net income after taxes
Income/expense from:						
Equities	-1 201 835	-4 347	-266	-	-4 613	-1 206 448
Bonds	-453 128	-25	-	-	-25	-453 153
Secured lending	4 845	-202	-	-	-202	4 643
Other	-	-	-	-9	-9	-
Tax expense		**-4 574**	**-266**	**-9**	**-4 850**	

Amounts in NOK million, 2021	Gross income before taxes	Income tax on dividends, interest and fees	Capital gains tax	Other	Tax expense	Net income after taxes
Income/expense from:						
Equities	1 593 618	-5 221	-3 474	-	-8 695	1 584 923
Bonds	-40 905	-10	13	-	3	-40 902
Secured lending	3 842	-186	-	-	-186	3 656
Other	-	-	-	-10	-10	-
Tax expense		**-5 417**	**-3 460**	**-10**	**-8 887**	

Table 10.2 shows receivables and liabilities recognised in the balance sheet related to tax.

Table 10.2 Specification balance sheet items related to tax

Amounts in NOK million	31.12.2022	31.12.2021
Withholding tax receivable	8 937	3 427
Tax payable[1]	12	18
Deferred tax	4 488	5 180

[1] Included within the balance sheet line item Other liabilities.

Table 10.3 specifies the line Net payment of taxes in the statement of cash flows.

Table 10.3 Specification net payment of taxes

Amounts in NOK million	2022	2021
Receipt of refunded withholding tax	6 617	8 252
Payment of taxes	-17 676	-15 453
Net payment of taxes	**-11 058**	**-7 202**

GPFG Note 11 Foreign exchange gains and losses

In accordance with the management mandate, the fund is not invested in securities issued by Norwegian companies, securities denominated in Norwegian kroner nor real estate or infrastructure located in Norway. The fund's returns are measured primarily in the fund's currency basket, which is a weighted combination of the currencies in the fund's benchmark index for equities and bonds. The fund's market value in Norwegian kroner is affected by changes in exchange rates, but this has no bearing on the fund's international purchasing power.

Accounting judgement

The management of Norges Bank has concluded that the Norwegian krone is the bank's functional currency, since this currency is dominant for the bank's underlying activities. Owner's equity, in the form of the GPFG krone account, is denominated in Norwegian kroner and a share of the costs related to management of the GPFG is incurred in Norwegian kroner. Returns on the investment portfolio are reported both internally and to the owner in Norwegian kroner, while the percentage return is measured both in Norwegian kroner and in the currency basket defined by the Ministry of Finance. Furthermore, there is no single investment currency that stands out as dominant within the investment management.

Accounting policy

Foreign currency transactions are recognised in the financial statements using the exchange rate prevailing on the transaction date. Assets and liabilities in foreign currencies are translated into Norwegian kroner using the exchange rate at the balance sheet date. The foreign exchange element linked to realised and unrealised gains and losses on assets and liabilities is disaggregated in the income statement and presented on a separate line, Foreign exchange gain/loss.

Accounting policy

Gains and losses on financial instruments are due to changes in the price of the instrument (security element) and changes in foreign exchange rates (foreign exchange element). These are presented separately in the income statement. The method used to allocate the total gain/loss in Norwegian kroner to a security element and a foreign exchange element is described below.

Foreign exchange element
Unrealised gain/loss due to changes in foreign exchange rates is calculated based on the cost of the holding in foreign currency and the change in the exchange rate from the time of purchase until the balance sheet date. If the holding has been purchased in a prior period, previously recognised gain/loss is deducted to arrive at the gain/loss in the current period. Upon realisation, the exchange rate on the date of sale is used when calculating the realised gain/loss.

Security element
Unrealised gain/loss due to changes in the security price is calculated based on the change in the security price from the purchase date to the balance sheet date, and the exchange rate at the balance sheet date. If the holding has been purchased in a prior period, previously recognised gain/loss is deducted to arrive at the gain/loss in the current period. Upon realisation, the selling price is used when calculating the realised gain/loss.

The change in the fund's market value due to changes in foreign exchange rates is presented in table 11.1.

Table 11.1 Specification foreign exchange gain/loss

Amounts in NOK million	2022	2021
Foreign exchange gain/loss - USD/NOK	445 752	104 202
Foreign exchange gain/loss - EUR/NOK	100 638	-77 636
Foreign exchange gain/loss - GBP/NOK	-6 685	13 272
Foreign exchange gain/loss - JPY/NOK	-11 871	-55 115
Foreign exchange gain/loss - CHF/NOK	28 912	-643
Foreign exchange gain/loss - other	85 104	-8 668
Foreign exchange gain/loss	**641 850**	**-24 589**

Table 11.2 gives an overview of the distribution of the market value of the investment portfolio for the main currencies the GPFG is exposed to. This supplements the overview of the allocation by asset class, country and currency shown in table 9.2 in note 9 Investment risk.

Table 11.2 Specification of the investment portfolio by currency

Amounts in NOK million	31.12.2022	31.12.2021
US dollar	5 706 838	5 506 906
Euro	2 301 709	2 225 143
British pound	936 868	925 209
Japanese yen	804 707	855 724
Swiss franc	502 895	532 796
Other currencies	2 176 043	2 293 771
Market value investment portfolio	**12 429 059**	**12 339 549**

Table 11.3 gives an overview of exchange rates at the balance sheet date for the main currencies the GPFG is exposed to.

Table 11.3 Exchange rates

	31.12.2022	31.12.2021	Percent change
US dollar	9.85	8.82	11.7
Euro	10.51	10.03	4.8
British pound	11.85	11.94	-0.8
Japanese yen	0.07	0.08	-2.5
Swiss franc	10.65	9.68	10.0

GPFG Note 12 Management costs

Accounting policy

Management fee is recognised in the GPFG's income statement as an expense when incurred.

Performance-based fees to external managers are based on achieved excess returns relative to the applicable benchmark index over time. The provision for performance-based fees is based on the best estimate of the incurred fee to be paid. The effect of changes in estimates is recognised in profit or loss in the current period.

Management costs comprise all costs relating to the management of the fund. These are mainly incurred in Norges Bank, but management costs are also incurred in subsidiaries of Norges Bank that are exclusively established as part of the management of the GPFG's investments in unlisted real estate and unlisted renewable energy infrastructure.

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 12.1.

Table 12.1 Management fee

	2022		2021	
Amounts in NOK million		**Basis points**		**Basis points**
Salary, social security and other personnel-related costs[1]	1 579		1 102	
Custody costs	473		468	
IT services, systems, data and information	632		591	
Research, consulting and legal fees	247		210	
Other costs	274		232	
Allocated costs Norges Bank	339		301	
Base fees to external managers	963		896	
Management fee excluding performance-based fees	**4 508**	**3.8**	**3 801**	**3.3**
Performance-based fees to external managers	718		840	
Management fee	**5 226**	**4.4**	**4 640**	**4.0**

1 Costs were reduced by NOK 265 million in 2021, due to a one-off accounting adjustment following a change in the method for accruing performance-based pay.

Management costs in subsidiaries

Management costs incurred in wholly-owned subsidiaries consist of costs related to the management of the investments in unlisted real estate and unlisted renewable energy infrastructure. These costs are expensed directly in the portfolio result and are not part of the management fee.

Management costs incurred in non-consolidated subsidiaries are presented in the income statement lines Income/expense from unlisted real estate and Income/expense from unlisted infrastructure. Management costs incurred in consolidated subsidiaries are presented in the income statement line Other income/expense. These costs are specified in table 12.2.

Table 12.2 Management costs subsidiaries

Amounts in NOK million	2022	2022 Basis points	2021	2021 Basis points
Salary, social security and other personnel-related costs	30		29	
IT services, systems, data and information	4		5	
Research, consulting and legal fees	38		38	
Other costs	42		41	
Total management costs, subsidiaries[1]	**114**	**0.1**	**113**	**0.1**
Of which management costs non-consolidated subsidiaries	71		69	
Of which management costs consolidated subsidiaries	43		43	

[1] For 2022, the amount consists of NOK 108 million related to investments in unlisted real estate and NOK 6 million related to investments in unlisted renewable energy infrastructure. For 2021, NOK 106 million was related to investments in unlisted real estate and NOK 7 million was related to investments in unlisted renewable energy infrastructure.

Upper limit for reimbursement of management costs

Every year the Ministry of Finance establishes an upper limit for the reimbursement of management costs. Norges Bank is only reimbursed for costs incurred within this limit. Norges Bank is also reimbursed for performance-based fees to external managers. These fees are not measured against the upper limit.

For 2022, total management costs incurred in Norges Bank and its subsidiaries, excluding performance-based fees to external managers, were limited to NOK 5 600 million. In 2021, the limit was NOK 5 400 million.

Total management costs measured against the upper limit amounted to NOK 4 622 million in 2022. This consisted of management costs in Norges Bank, excluding performance-based fees to external managers, of NOK 4 508 million and management costs in subsidiaries of NOK 114 million. Total management costs including performance-based fees to external managers amounted to NOK 5 340 million in 2022.

Costs measured as a share of assets under management

Costs are also measured in basis points, as a share of average assets under management. Average assets under management are calculated based on the market value of the portfolio in Norwegian kroner at the start of each month in the calendar year.

In 2022, management costs incurred in Norges Bank and its subsidiaries, excluding performance-based fees to external managers, corresponded to 3.9 basis points of assets under management. Management costs including performance-based fees to external managers corresponded to 4.5 basis points of assets under management.

Other operating costs in subsidiaries

In addition to the management costs presented in table 12.2, other operating costs are also incurred in subsidiaries related to the ongoing maintenance, operation and development of the investments. These are not costs related to investing in real estate or renewable energy infrastructure but are costs for operating the underlying investments once they are acquired. Therefore, they are not defined as management costs. Other operating costs are expensed directly in the portfolio result and are not part of the management fee. They are also not included in the costs measured against the upper limit.

Other operating costs incurred in non-consolidated subsidiaries are presented in the income statement lines Income/expense from unlisted real estate and Income/expense from unlisted infrastructure. For further information, see table 6.4 in note 6 Unlisted real estate and table 7.4 in note 7 Unlisted renewable energy infrastructure. Other operating costs incurred in consolidated subsidiaries are presented in the income statement line Other income/expense.

GPFG Note 13 Secured lending and borrowing

Secured lending and borrowing consists of collateralised (secured) transactions, where the GPFG posts or receives securities or cash to or from a counterparty, with collateral in the form of other securities or cash. These transactions take place under various agreements such as securities lending agreements, repurchase and 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 GPFG's holdings of securities and cash. These transactions are also used in connection with liquidity management.

Accounting policy

Income and expense from secured lending and borrowing
Income and expense mainly consist of interest and net fees. Interest income and expense is recognised in accordance with the effective interest method, whilst net fees are recognised on a straight-line basis over the term of the agreement. These are presented in the income statement as Income/expense from secured lending and Income/expense from secured borrowing.

Table 13.1 Income/expense from secured lending and borrowing

Amounts in NOK million	2022	2021
Income/expense from secured lending	4 845	3 842
Income/expense from secured borrowing	-4 792	21
Net income/expense from secured lending and borrowing	**53**	**3 863**

Accounting policy

Transferred financial assets
Securities transferred 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. Since the counterparty has the right to sell or pledge the security, the security is considered to be transferred. Transferred securities are therefore presented separately in the balance sheet lines Equities lent and Bonds lent. During the lending period, the underlying securities are accounted for in accordance with accounting policies for the relevant securities.

When an equity is sold in combination with the purchase of an equivalent equity swap, the sold equity is presented in the balance sheet as Equities lent, since the GPFG's exposure to the equity is virtually unchanged. The equity swap (derivative) is not recognised in the balance sheet, since this would lead to recognition of the same rights twice. When an equity is purchased in combination with the sale of an equivalent equity swap, the GPFG has virtually no exposure to the equity or the derivative and neither the equity nor the derivative are recognised in the balance sheet.

Secured lending
Cash collateral posted to counterparties in secured lending transactions is derecognised, and a corresponding receivable reflecting the cash amount that will be returned is recognised as a financial asset, Secured lending. This asset is measured at fair value.

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 measured at fair value.

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

Table 13.2 shows the amount presented as Secured lending, and the associated collateral received in the form of securities.

Table 13.2 Secured lending

Amounts in NOK million	31.12.2022	31.12.2021
Secured lending	462 982	297 405
Total secured lending	**462 982**	**297 405**
Associated collateral in the form of securities (off balance sheet)		
Equities received as collateral	169 631	118 669
Bonds received as collateral	303 525	185 951
Total collateral received in the form of securities related to secured lending	**473 157**	**304 620**

Table 13.3 shows transferred securities with the associated liability presented as Secured borrowing, and collateral received in the form of securities or guarantees.

Table 13.3 Transferred financial assets and secured borrowing

Amounts in NOK million	31.12.2022	31.12.2021
Transferred financial assets		
Equities lent	451 799	505 117
Bonds lent	886 555	623 367
Total transferred financial assets	**1 338 354**	**1 128 484**
Associated cash collateral, recognised as liability		
Secured borrowing	796 082	591 960
Total secured borrowing	**796 082**	**591 960**
Associated collateral in the form of securities or guarantees (off balance sheet)		
Equities received as collateral	226 054	267 575
Bonds received as collateral	342 978	304 538
Guarantees	19 953	12 519
Total collateral received in the form of securities or guarantees related to transferred financial assets	**588 985**	**584 632**

GPFG Note 14 Collateral and offsetting

Accounting policy

Cash collateral derivative transactions
Cash collateral posted in connection with derivative transactions is derecognised and a corresponding receivable, reflecting the cash amount that will be returned, is recognised in the balance sheet as Cash collateral posted. Cash collateral received in connection with derivative transactions is recognised in the balance sheet as Deposits in banks, with a corresponding liability Cash collateral received. Both Cash collateral posted and Cash collateral received are measured at fair value.

Offsetting
Financial assets and liabilities are not offset and presented net in the balance sheet because the criteria in IAS 32 Financial instruments: Presentation are not met. Table 14.1 does not therefore 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 14.1. The balance sheet lines Cash collateral posted and Cash collateral received are related exclusively to 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 13 Secured lending and borrowing for further information.

Offsetting
Table 14.1 provides 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 the effect of potential netting of financial assets and liabilities recognised in the balance sheet with the same counterparty, together with posted or received cash collateral. This results in a net exposure, which is shown in the column Assets/liabilities after netting and collateral.

Some netting agreements could potentially not be legally enforceable. Transactions under the relevant contracts are shown in the column Assets/liabilities not subject to enforceable netting agreements.

In the event of counterparty default, a collective settlement between Norges Bank and the bankruptcy estate could be agreed for certain groups of instruments, irrespective of whether the instruments belong to the GPFG or Norges Bank's foreign exchange reserves. Such a settlement will be allocated proportionately between these portfolios and is therefore not adjusted for in the table.

Table 14.1 Assets and liabilities subject to netting agreements

Amounts in NOK million, 31.12.2022			Amounts subject to enforceable master netting agreements				
Description	Gross financial assets recognised in the balance sheet	Assets not subject to enforceable netting agreements[1]	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
Assets							
Secured lending	462 982	137 371	325 611	-	151 451	174 150	10
Cash collateral posted	21 601	-	21 601	18 699	-	-	2 901
Financial derivatives	20 498	495	20 004	19 619	386	-	-
Total	**505 081**	**137 866**	**367 215**	**38 318**	**151 837**	**174 150**	**2 912**

Amounts in NOK million, 31.12.2022			Amounts subject to enforceable master netting agreements				
Description	Gross financial liabilities recognised in the balance sheet	Liabilities not subject to enforceable netting agreements[2]	Liabilities in the balance sheet subject to netting	Financial assets related to same counterparty	Cash collateral posted (recognised as asset)	Security collateral posted (not derecogni-sed)	Liabilities after netting and collateral
Liabilities							
Secured borrowing	796 082	210 665	585 417	-	151 451	431 960	2 006
Cash collateral received	14 801	-	14 801	11 211	-	-	3 590
Financial derivatives	40 159	34	40 124	19 619	15 170	-	5 335
Total	**851 041**	**210 699**	**640 342**	**30 830**	**166 621**	**431 960**	**10 931**

Amounts in NOK million, 31.12.2021			Amounts subject to enforceable master netting agreements				
Description	Gross financial assets recognised in the balance sheet	Assets not subject to enforceable netting agreements[1]	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
Assets							
Secured lending	297 405	82 735	214 669	-	124 868	89 801	-
Cash collateral posted	3 725	-	3 725	3 652	-	-	73
Financial derivatives	7 879	465	7 413	6 093	1 174	-	146
Total	**309 009**	**83 200**	**225 807**	**9 745**	**126 042**	**89 801**	**219**

Amounts in NOK million, 31.12.2021			Amounts subject to enforceable master netting agreements				
Description	Gross financial liabilities recognised in the balance sheet	Liabilities not subject to enforceable netting agreements[2]	Liabilities in the balance sheet subject to netting	Financial assets related to same counterparty	Cash collateral posted (recognised as asset)	Security collateral posted (not derecogni-sed)	Liabilities after netting and collateral
Liabilities							
Secured borrowing	591 960	77 216	514 743	-	124 868	388 193	1 682
Cash collateral received	11 848	-	11 848	3 635	-	-	8 212
Financial derivatives	9 055	5	9 050	6 093	2 149	-	808
Total	**612 863**	**77 221**	**535 641**	**9 728**	**127 017**	**388 193**	**10 702**

[1] Secured lending includes amounts related to shares purchased in combination with equity swaps. In 2022, this amounted to NOK 104 billion (NOK 80 billion in 2021). See note 13 Secured lending and borrowing for further information.

[2] Secured borrowing includes amounts related to shares sold in combination with equity swaps. In 2022, this amounted to NOK 105 billion (NOK 64 billion in 2021). See note 13 Secured lending and borrowing for further information.

GPFG Note 15 Related parties

Accounting policy

Norges Bank is owned by the Norwegian government and is, in line with IAS 24 Related party disclosures, 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 management. In accordance with the management mandate, 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 12 Management costs for further information. The management fee is deducted from the krone account throughout the year based on forecasts. The difference between the total amount deducted and final management fee for the year is presented in the balance sheet as Management fee receivable or Management fee payable and is settled in the following year. In 2022, NOK 5.0 billion was deducted from the krone account to pay the accrued management fee for 2022, while NOK 10.5 billion was deducted in 2021. The amount deducted in 2021 included the management fee for 2020 and 2021, since the timing for settlement of the management fee was changed in 2021 to before year-end. Management fee receivable was NOK 274 million at the end of 2022, compared to a receivable of NOK 536 million at the end of 2021.

Inflows to or withdrawals from the krone account are carried out through monthly transfers between the GPFG and Norges Bank. Five percent of the transferred amount is held back until the following month, in order to adjust the transferred amount in transaction currency to the instructed amount stated in Norwegian kroner from the Ministry of Finance. Unsettled transfer constitutes an outstanding balance between the GPFG and Norges Bank, and is presented in the balance sheet line Other assets or Other liabilities. Unsettled inflow at the end of 2022 presented in Other assets amounted to NOK 1 468 million. At the end of 2021, NOK 1 381 million was presented in Other assets related to unsettled inflow.

Internal trades in the form of money market lending or borrowing between the GPFG and Norges Bank's foreign exchange reserves are presented as a net balance between the two portfolios in the balance sheet lines Other assets and Other liabilities. At the end of 2022, the net balance between the portfolios represented a receivable for the GPFG of NOK 302 million, compared to a receivable of NOK 130 million at the end of 2021. Related income and expense items are presented net in the income statement as Interest income/expense.

Transactions with subsidiaries

Subsidiaries of Norges Bank are established as part of the management of the GPFG's investments in unlisted real estate and unlisted renewable energy infrastructure. For an overview of the companies that own and manage the investments, as well as consolidated subsidiaries, see note 16 Interests in other entities. For further information regarding transactions with subsidiaries, see note 6 Unlisted real estate and note 7 Unlisted renewable energy infrastructure.

GPFG Note 16 Interests in other entities

Investments in unlisted real estate and unlisted renewable energy infrastructure 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 and renewable energy infrastructure. These entities may be subsidiaries or joint ventures.

The overall objective of the ownership structures used for investments in unlisted real estate and unlisted infrastructure is to safeguard the financial wealth under management and to ensure the highest possible net return after costs, in accordance with the management mandate issued by the Ministry of Finance. Key criteria when deciding the ownership structure are legal protection, governance and operational efficiency. Taxes may represent a significant cost for the unlisted investments. Expected tax expense for the fund is therefore one of the factors considered when determining the ownership structure.

Table 16.1 shows the companies that own and manage the properties and infrastructure assets, as well as consolidated subsidiaries.

Table 16.1 Real estate and infrastructure companies

Company	Business address	Property address[1]	Ownership share and voting right in percent	Effective ownership share of underlying properties in percent	Recognised from
Non-consolidated companies					
United Kingdom					
NBIM George Partners LP[2]	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 Partners LP	London	London	100.00	100.00	2014
NBIM Caroline 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
NBIM Eleanor Partners LP	London	London	100.00	100.00	2018
WOSC Partners LP	London	London	75.00	75.00	2019
PELP UK Limited	Solihull	Mulitiple British cities	50.00	50.00	2022
Longfellow Strategic Value UK I LP	Bristol	Cambridge	48.75	48.75	2022
Luxembourg					
NBIM S.à r.l.	Luxembourg	N/A	100.00	N/A	2011
France					
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

Company	Business address	Property address[1]	Ownership share and voting right in percent	Effective ownership share of underlying properties in percent	Recognised from
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
NBIM Eugene SCI	Paris	Paris	100.00	100.00	2017
NBIM Beatrice SCI	Paris	Paris	100.00	100.00	2018
NBIM Jeanne SCI	Paris	Paris	100.00	100.00	2019
Rodolphe Paris 1 SCI	Paris	Paris	65.00	65.00	2022
Germany					
NKE Neues Kranzler Eck Berlin Immobilien GmbH & Co. KG	Frankfurt	Berlin	50.00	50.00	2012
NBIM Helmut 2 GmbH & Co KG	Berlin	Berlin	100.00	100.00	2020
Sochribel GmbH	Berlin	Berlin	50.00	50.00	2022
Switzerland					
NBIM Antoine CHF S.à r.l.	Luxembourg	Zürich	100.00	100.00	2012
Europe					
Prologis European Logistics Partners S.à r.l.	Luxembourg	Multiple European cities	50.00	50.00	2013
United States					
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
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 American 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

Company	Business address	Property address[1]	Ownership share and voting right in percent	Effective ownership share of underlying properties in percent	Recognised from
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	47.50	47.50	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
900 16th Street Economic Joint Venture (DE) LP	Wilmington, DE	Washington	49.00	49.00	2017
1101 NYA Economic Joint Venture (DE) LP	Wilmington, DE	Washington	49.00	49.00	2017
375 HSP LLC	Wilmington, DE	New York	48.00	48.00	2017
T-C 501 Boylston Venture LLC	Wilmington, DE	Boston	49.90	49.90	2018
SVF Seaport JV LLC	Wilmington, DE	Boston	45.00	45.00	2018
OMD Venture LLC	Wilmington, DE	Boston	47.50	47.50	2021
ARE-MA Region No. 102 JV LLC	Wilmington, DE	Boston	41.00	41.00	2021
Japan					
TMK Tokyo TN1	Tokyo	Tokyo	70.00	70.00	2017
Tokyo MN1 TMK	Tokyo	Tokyo	100.00	39.90	2020
Netherlands					
Borssele Wind Farm C.V.	The Hague	Borssele 1&2	50.00	50.00	2021
Consolidated subsidiaries					
Japan					
NBRE Management Japan Advisors K.K.	Tokyo	N/A	100.00	N/A	2015
United Kingdom					
NBRE Management Europe Limited	London	N/A	100.00	N/A	2016

[1] For investments in unlisted real estate, the property address is shown. For investments in unlisted infrastructure, the project name is shown.
[2] One property in this company, 20 Air Street, has an ownership share of 50 percent.

Activity in the consolidated subsidiaries consists of providing investment-related services to the GPFG. This activity is presented in the income statement line Other costs and included in the balance sheet lines Other assets and Other liabilities.

In addition to the companies shown in table 16.1, Norges Bank has wholly-owned holding companies established in connection with investments in unlisted real estate and unlisted renewable energy infrastructure. These holding companies do not engage in any operations and do not own any properties or infrastructure assets directly. The holding companies have their business address either in the same country as the investments, in connection with NBIM S.à r.l. in Luxembourg, or in Norway for the holding companies established for investments in Japan, France, Germany and the Netherlands.

GPFG Note 17 Other assets and other liabilities

Table 17.1 Other assets

Amounts in NOK million	31.12.2022	31.12.2021
Net balance Norges Bank's foreign exchange reserves[1]	302	130
Unsettled inflow krone deposit[1]	1 468	1 381
Accrued income from secured lending	227	311
Other	20	38
Other assets	**2 017**	**1 860**

1 See note 15 Related parties for further information.

Table 17.2 Other liabilities

Amounts in NOK million	31.12.2022	31.12.2021
Tax payable	12	18
Other	44	38
Other liabilities	**56**	**56**

Reports, resolution and statements

Financial statements

Independent auditor's report

To the Supervisory Council of Norges Bank

Opinion
We have audited the financial statements of Norges Bank, which comprise the balance sheet as at 31 December 2022, the income statement, 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 financial statements comply with applicable legal requirements and give a true and fair view of the financial position of Norges Bank as at 31 December 2022 and its financial performance and cash flows for the year then ended 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 adopted by EU, with 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 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 in accordance with the requirements of the relevant laws and regulations in Norway and the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)* (IESBA Code), 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 for 2022. 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. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.

Valuation of investments
Basis for the key audit matter
Listed investments measured at fair value in the equity and fixed income portfolios in the foreign exchange reserves in Norges Bank's central banking operations and the investment portfolio of the Government Pension Fund Global (hereinafter "the GPFG") are valued at market price if the investment is traded in what is considered to be an active market. These investments are classified as level 1 assets in the valuation hierarchy. Listed investments valued using models that use directly or indirectly observable market data are classified as level 2 assets. Investments classified in level 1 and 2 of the valuation hierarchy as of 31.12 amounts to NOK 110 612 million and NOK 12 081 246 million for the foreign exchange reserves and the GPFG, respectively.

Investments valued based on models which mainly use inputs that are not observable in the market place, are classified as level 3 assets in the valuation hierarchy. These valuations are to a larger extent influenced by judgmental assessments and therefore have a higher inherent risk of misstatement. As of 31.12.22, these assets in the GPFG amount to NOK 347 812 million.

Investments measured at fair value in the foreign exchange reserves and the GPFG constitute the most material share of assets as at 31.12. The material amount, the measurement at fair value with occasional use of judgments and the classification to levels 1, 2 or 3 respectively in the fair value hierarchy, and the fact that the GPFG's return on investment measurement follows from these valuations, we have considered these investments to be a key audit matter.

The foreign exchange reserves measured at fair value are disclosed in note 6. The investments in the GPFG are disclosed in Note 20, "GPFG Note 8" and "GPFG Note 3".

Our audit response

For both listed and unlisted investments, we assessed the design and tested the operating effectiveness of internal controls over valuation processes, including controls over management's determination and approval of the methodology and assumptions used for valuation. For listed investments, we furthermore compared the recognized value at the balance sheet date, against the external market price.

Our audit procedures for unlisted level 3 investments also comprised management's use of external experts and valuations, including the experts' expertise and objectivity. We have used EY's internal valuation specialists to review assumptions and calculations of valuation reports on a sample basis.

We have furthermore evaluated the design and tested the operating effectiveness of internal controls over the classification in the fair value hierarchy. For a sample of investments, we have tested the detailed classification in levels 1, 2 and 3 in the fair value hierarchy.

IT systems that support financial reporting

Basis for the key audit matter

Norges Bank has a complex and automated IT environment and is dependent on IT processes for reporting financial information. To ensure complete and accurate processing and reporting of financial information, it is important that controls over access management and system changes are designed and operate effectively. Key IT processes are also dependent on a well-functioning control environment at external service providers. IT systems that support financial reporting are considered to be a key audit matter as the IT environment is important to ensure accuracy, completeness and reliable financial reporting.

Our audit response

We obtained an understanding of Norges Bank's IT systems, IT environment and controls of importance to the financial reporting. We tested IT general controls over access management, system changes and IT operations. For selected system of particular importance, we also performed tests of detailed data on a sample basis to directly verify the accuracy and completeness of information from IT systems that support the financial reporting, against external data.

For relevant IT systems managed by external service providers, we evaluated third-party systems and organizations controls reports (ISAE 3402 reports) for the service provider's control environment. We further assessed the design and tested the operating effectiveness of Norges Bank's own controls relating to outsourced services. We have used our own IT specialists in our work to understand the organization's IT environment as well as in assessing the design of control activities and conducting the testing of the operating effectiveness of controls.

Notes and coins in circulation

Basis for the key audit matter

Norges Bank is responsible for issuing cash (notes and coins). Effective internal control over the handling of notes and coins, including in the circulation of cash and in depots, is important for correct financial reporting of notes and coins in circulation, and is therefore considered a key audit matter.

Banknotes and coins are disclosed in Note 16.

Our audit response

Norges Bank has established various controls relating to notes and coins in circulation. We assessed and tested the design of selected controls relating to the holding of notes and coins, including orders and receipt of new notes and coins, registration of inflows and withdrawals, and counting of central bank depots. For Norges Bank's central bank depot, we conducted an independent sample based control count at year-end.

Other information

Other information consists of the information included in the annual report other than the financial statements and our auditor's report thereon. The Executive Board and management (management) is responsible for the other information. 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 board of directors' report and the statement on corporate social responsibility contain the information required by applicable legal requirements and 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 or that the information required by applicable legal requirements is not included in the board of directors' report or the statement on corporate social responsibility, we are required to report that fact.

We have nothing to report in this regard, and in our opinion, the board of directors' report and the statement on corporate social responsibility are consistent with the financial statements and contain the information required by applicable legal requirements.

Responsibilities of management for the financial statements

Management is 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 adopted by EU, with certain specific presentation requirements for the investment portfolio of the Government Pension Fund Global, including subsidiaries being part of the investment portfolio. Management is also responsible for such internal control as it determines necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The financial statements are prepared on a going concern basis.

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 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 the 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 ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, 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 the Norges Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on Norges Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report.
- 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.

Vi kommuniserer med hovedstyret blant annet om det planlagte omfanget av og tidspunktet for revisjonsarbeidet og eventuelle vesentlige funn i revisjonen, herunder vesentlige svakheter i den interne kontrollen som vi avdekker gjennom revisjonen.

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.

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.

Oslo, 8 February 2023

ERNST & YOUNG AS

Kjetil Rimstad
State Authorised Public Accountant (Norway)

(This translation from Norwegian has been prepared for information purposes only.)

Independent accountant's assurance report

To Norges Banks Representantskap

Scope

We have been engaged by Norges Bank to perform a limited assurance engagement, as defined by International Standards on Assurance Engagements, here after referred to as the engagement, to report on Norges Bank's climate and environment, and responsible management reporting as defined in Norges Bank's «Attachment 2: Reference to the sustainability reporting standards published by Global Reporting Initiative (GRI)» in Norges Bank's Annual report (the "Subject Matter") as of 31 December 2022 and for the period from 1 January to 31 December 2022.

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Annual report, and accordingly, we do not express a conclusion on this information.

Criteria applied by Norges Bank

In preparing the Subject Matter, Norges Bank has reported the information cited in the Subject Matter with reference to the GRI Standards (the "Criteria"). The Criteria can be accessed at globalreporting.org and are available to the public. Such Criteria were specifically designed for companies and other organizations that want to report their sustainability impacts in a consistent and credible way. As a result, the Subject Matter information may not be suitable for another purpose.

Norges Bank's responsibilities

In preparing the Subject Matter, Norges Bank has reported the information cited in the Subject Matter with reference to the GRI Standards (the "Criteria"). The Criteria can be accessed at globalreporting.org and are available to the public. Such Criteria were specifically designed for companies and other organizations that want to report their sustainability impacts in a consistent and credible way. As a result, the Subject Matter information may not be suitable for another purpose.

EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance *Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000').* This standard requires that we plan and perform our engagement to obtain limited assurance about whether, in all material respects, the Subject Matter is presented in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Our Independence and Quality Control

We are independent of the company in accordance with the requirements of the relevant laws and regulations in Norway and the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements. Our firm applies *International Standard on Quality Control 1, Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements*, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained if a reasonable assurance engagement had been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained if a reasonable assurance engagement had been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information and applying analytical and other appropriate procedures.

Our procedures included:

- Conducted interviews with personnel to understand the business and reporting process
- Conducted interviews with key personnel to understand the process for collecting, collating and reporting the subject matter during the reporting period
- Checked that the calculation criteria have been correctly applied in accordance with the methodologies outlined in the Criteria
- Undertook analytical review procedures to support the reasonableness of the data
- Identified and testing assumptions supporting calculations
- Tested, on a sample basis, underlying source information to check the accuracy of the data
- Checked that the presentation requirements outlined in the Criteria have been correctly applied

We believe that our procedures provide us with an adequate basis for our conclusion. We also performed such other procedures as we considered necessary in the circumstances.

Conclusion
Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the Subject Matter as of 31 December 2022 and for the period from 1 January 2022 to 31 December 2022 in order for it to be in accordance with the Criteria.

Oslo, 10. February 2023
ERNST & YOUNG AS

Kjetil Rimstad
State Authorised Public Accountant

This translation from Norwegian has been made for information purposes only

Appendix 2

Reference to sustainability reporting standards issued by Global Reporting Initiative (GRI)

Norges Bank has reported information referred to in the table below for the period from 1 January 2022 until 31 December 2022 with reference to the sustainability reporting standards issued by Global Reporting Initiative (GRI 1: Foundation 2021). This information has been attested by Norges Bank's external auditor. Norges Bank does not continuously refer to the GRI indicators in the *Annual Report* 2022. The information appears in *Annual Report* 2022 as described in the table below.

GRI Standard	**GRI indicator**	**Description**	**Reference in *Annual Report* 2022**
Equity portfolio			
GRI 305: Emissions 2016	305-4 Greenhouse gas (GHG) emissions intensity	The Government Pension Fund Global equity portfolio's total emissions based on the percentage holdings in each company: 87.4m tonnes of CO_2 equivalent	Work on climate risk in the Government Pension Fund Global
		The equity portfolio's carbon intensity: 135 tonnes of CO_2 equivalent per million USD in revenue	Work on climate risk in the Government Pension Fund Global
Corporate bond portfolio			
GRI 305: Emissions 2016	305-4 GHG emissions intensity	The corporate bond portfolio's carbon intensity: 133 tonnes of CO_2 equivalent per million USD in revenue	Work on climate risk in the Government Pension Fund Global
Equity portfolio – foreign exchange reserves			
GRI 305: Emissions 2016	305-4 GHG emissions intensity	The foreign exchange reserves' equity portfolio's total emissions based on the percentage holdings in each company: 864 323 tonnes of CO_2 equivalent	Climate risk in the foreign exchange reserves Work on climate risk in the Government Pension Fund Global
		The foreign exchange reserves' equity portfolio's carbon intensity: 128 tonnes of CO_2 equivalent per million USD in revenue	Climate risk in the foreign exchange reserves Work on climate risk in the Government Pension Fund Global

GRI Standard	GRI indicator	Description	Reference in *Annual Report* 2022
Responsible investment: total portfolio			
GRI 415: Public Policy 2016	415-1 Political contributions	Participation in number of public consultations related to responsible investment management: 12 (Norges Bank has made no political monetary contributions)	Responsible management of the Government Pension Fund Global – Market
GRI G4: Financial Services Sector Disclosures 2014	FS10 Percentage and number of companies held in the institution's portfolio with which the reporting organisation has interacted on environmental or social issues	Number of meetings held with companies: 2 911 meetings with 1 307 companies (14% of all companies). Held 1 477 meetings with 794 companies during which topics related to governance were discussed, and 1 490 meetings with 781 companies during which various sustainability topics were discussed (in all, environmental, social and governance (ESG) topics were raised in 66% of all company meetings, and with companies covering 57% of the value of the equity portfolio). In particular, written communication with companies on ESG-related topics: 405 (4.4% of all companies) Number of matters where Norges Bank voted at shareholder meetings: 117 392 (97.7% of all matters) at 11 616 shareholder meetings (Norges Bank voted at 97.5% of shareholder meetings)	Responsible management of the Government Pension Fund Global – Companies
GRI G4: Financial Services Sector Disclosures 2014	FS11 Percentage of holdings subject to positive and negative environmental or social screening	Number of companies Norges Bank is divested from following risk assessments related to ESG issues: 74 Number of excluded companies: 13 Number of new companies placed under observation: 4	Responsible management of the Government Pension Fund Global – Portfolio Responsible management of the Government Pension Fund Global – Companies
Responsible management: foreign exchange reserves			
GRI G4: Financial Services Sector Disclosures 2014	FS11 Percentage of assets subject to positive and negative environmental or social screening	Number of companies in the foreign exchange reserves' equity portfolio Norges Bank has divested from following risk assessments related to ESG issues: 8 Number of companies excluded from the foreign exchange reserves' benchmark index: 40	Responsible management of the foreign exchange reserves
Emissions from own operations			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Direct emissions (Scope 1): 25 tonnes of CO_2 equivalent	Climate impact on Norges Bank's operations
	305-2 Energy indirect (Scope 2) GHG emissions	Indirect emissions (Scope 2): 649 tonnes CO_2 equivalent	Climate impact on Norges Bank's operations
	305-3 Other indirect (Scope 3) GHG emissions	Indirect emissions, other (scope 3): 5 382 tonnes CO_2 equivalent	Climate impact on Norges Bank's operations

Resolution of the Supervisory Council on the financial statements for 2022

Norges Bank´s Supervisory Council adopted the following decision at its meeting 23 February 2023:

- The Supervisory Council takes note of the Annual Report of the Executive Board for 2022.
- The Supervisory Council takes note of the auditor´s report for Norges Bank and independent accountant´s assurance report.
- The Supervisory Council approves Norges Bank´s financial statements for 2022.
- In accordance with the guidelines, the net profit of NOK -11.1bn is to be transferred as follows: NOK -13.2bn will be transferred from the Adjustment Fund and NOK 2.1bn to the Transfer Fund. From the Transfer Fund, one-third, or NOK 8.1bn, 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 2022 will be adopted by the Supervisory Council on 9 March 2023 and published upon submission to the Storting.

Norges Bank 2022

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