Annual Report

2023

"In these uncertain times, our role as our customers' trusted financing partner has grown even more important.

MuniFin

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CEO's review

Operations remained stable – sustainability now even more front and centre

The year 2023 was the fourth consecutive year marked by instability. The rising geopolitical tensions and market volatility did not affect MuniFin's performance, and we were able to successfully carry out our core mandate of ensuring the availability of affordable long-term financing for our customers.

In 2023, the inflation exacerbated by the Russian invasion of Ukraine in 2022 took a downward turn, and interest rate hikes tapered off. Geopolitical tensions increased across the world throughout the year, and expectations of central bank measures caused uncertainty in the capital markets.

In Finland, the first half of the year was characterised by the parliamentary elections held in April and the ensuing government formation talks that stretched into June. The new government programme is unlikely to affect municipal operations directly. In the housing sector, our customers have been concerned about the government programme's entries concerning right-of-occupancy housing and state-subsidised housing production. In this uncertain operating environment, our role in ensuring our customers' operations and acting as our customers' trusted partner has grown even more important.

“In this uncertain operating environment, our role in ensuring our customers' operations and acting as our customers' trusted partner has grown even more important.

Demand for financing remained strong

The demand for financing from our customers in the municipality sector was quiet at the beginning of the year, but demand picked up towards the end of the year close to the previous year's level. In municipal finances, 2023 was still a relatively good year. Temporary tax benefits boosted municipal finances, causing municipalities to have lower financing needs than in the previous year.

In the affordable social housing sector, financing needs were higher than in the year before. Our housing sector customers have suffered from rising construction costs for several years now, which has delayed the start of new building contracts. Rising interest expenses have taken a further toll on them since 2022. Towards the end of the year, however, the demand for financing started to pick up as construction costs levelled off and right-of-occupancy project starts were rushed because of the new government programme's entries.

The new wellbeing counties started their operations on 1 January 2023, and we financed them within the limits set by the Municipal Guarantee Board (MGB). The EUR 400 million limit for long-term finance set by the MGB was reached before the end of the year, and we could no longer fulfil wellbeing services counties' financing requests for 2023 after that.

The transfer of healthcare, social welfare and rescue services from municipalities to wellbeing services counties in 2023 marked a significant shift in municipal finances, whereas housing sector finances were influenced by inflation and rising interest rates. In 2023, we helped municipalities, wellbeing services counties and housing sector customers navigate these changes and continued to support them in their financial forecasting and investment capacity assessments.

Our funding operations were a success despite the fluctuation in the capital markets. Our issuances were well-timed, and all our transactions were successful. We continued to keep our liquidity at a high level throughout the year to ensure the availability of financing for our customers in all conditions.

Our operations continued in the usual manner in 2023, and our profitability was slightly higher than in 2022.

New strategy puts sustainability front and centre
In 2023, we revised our strategy to further underline our core mandate. Our revised strategy highlights sustainability and our role as an enabler of sustainable welfare in society. We also made efforts to better assess and measure the impact of our operations.

In October, we published our sustainability agenda, which sets the framework and goals for our long-term sustainability work. The agenda focuses on our business operations, i.e. the products and services offered to our customers, and the impact achieved through them. It sets an even clearer direction and goals for our sustainability work.

We have identified skills development as a strategic development area. The changing operating environment and the evolution of work require all of us at MuniFin to be able to develop professionally and learn new skills. We offer a wide range of opportunities and support measures for this. Our goal is to ensure that everyone is equipped to work in a way that brings out the best in them.

Our remote working practices are flexible, and hybrid work has become the new norm for us. In 2023, we strengthened our hybrid work expertise by offering hybrid leadership training for supervisors and training on practices that promote successful hybrid work for our entire staff.

I wish to thank our staff for their commitment to our shared work in enabling sustainable welfare in society and our customers for their continued confidence and collaboration!

Esa Kallio
President and CEO
MuniFin

MuniFin and the year 2023 in brief

We help secure Finland's operational reliability, development opportunities and security of supply. The results of our work can be seen in the everyday lives of Finns.

MuniFin in brief

Strengthening Finland's operability and security of supply

MuniFin helps secure Finland's operational reliability, development opportunities and security of supply. Our role is to ensure that our limited customer base, which is assigned to carry out public duties, has access to affordable financing under all market conditions. The results of our work can be seen in the everyday lives of Finns.

We want to be the main financing partner for our customers. We offer a wide range of financing and financial advisory services to municipalities, wellbeing services counties and affordable social housing organisations. We offer financing to environmentally sustainable and socially responsible projects, such as schools, day-care centres, hospitals, health centres and affordable housing. Our customers include municipalities, joint municipal authorities, wellbeing services counties, joint county authorities and corporate entities under their control, and non-profit organisations and projects nominated by the Housing Finance and Development Centre of Finland (Ara). We are the largest single provider of financing for our customer segments.

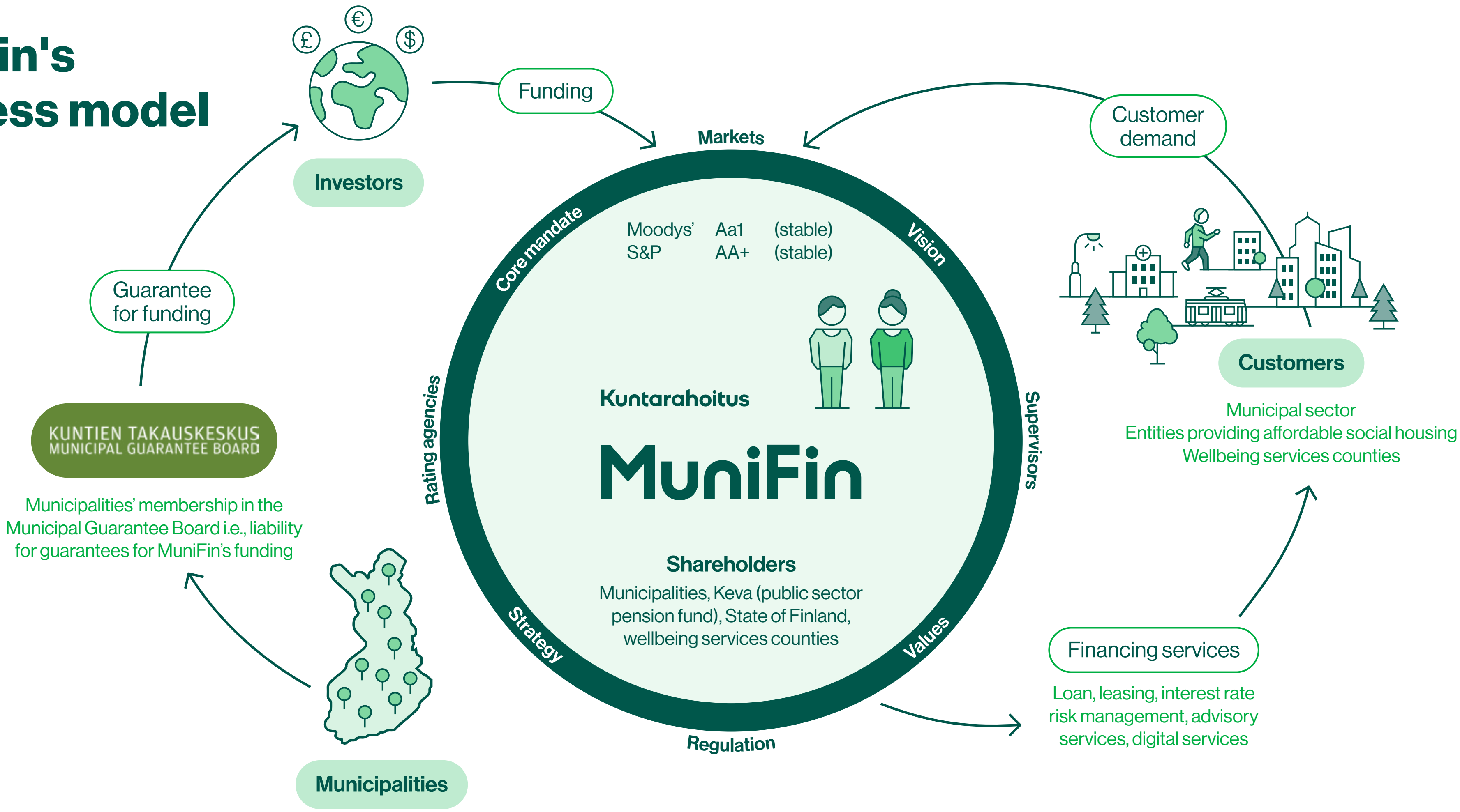
We take sustainability into account in all our operations. Our experts help our customers make investment decisions that are sustainable for the economy, environment and society. We help our customers with the management of all their investment and financial needs, including investment planning and the identification of funding opportunities, all the way to the end of the lifecycle of the funded project.

To meet the needs of our customers, we acquire funding from the international capital markets, where we are known as a reliable and highly responsive market participant. Our funding is guaranteed by the Municipal Guarantee Board, a public law institution whose members consists of all the municipalities in mainland Finland.

MuniFin is one of Finland's largest credit institutions, and our key shareholders include Finnish municipalities, public sector pension provider Keva and the State of Finland. We do not seek to maximise profit but to serve the long-term interests of our customers. We promote sustainable investments by offering a margin discount to investments that are especially friendly to the climate and environment or that produce widespread social benefits.

MuniFin employs about 185 financial and economic experts. We want to provide an attractive and adaptable working environment with values-based management.
In addition to the parent company Municipality Finance Plc, Municipality Finance Group includes Financial Advisory Services Inspira Ltd, which specialises in financial advisory services for the municipal sector.

MuniFin's business model



Year 2023 in figures

AA+
Aa1
Credit rating
Standard & Poor's: AA+
Moody's: Aa1

Shareholders %
53 / 31 / 16
Municipalities / Keva / State of Finland

Key figures (Group)

Net operating profit excluding unrealised fair value changes

2023	2022
176 EUR million	170 EUR million

Leverage ratio %

2023	2022
12.0	11.6

Long-term customer financing
32.0
EUR billion

Green finance
4.8
EUR billion

ESG ratings

9.3
Sustainalytics ESG risk rating, 6 Jan 2024

7.6
MSCI

C+Prime
ISS ESG

New long-term funding
10.0
EUR billion

Social finance
2.2
EUR billion

Willingness to recommend (scale 1–7)
6.53

Highlights of 2023

01 — **2 January:** CMD Portal awarded MuniFin as the Best Structured Note Issuer for the third year in a row.

02 — **15 February:** Our EUR 1 billion green bond broke records, becoming the largest EUR green bond to date for MuniFin as well as the largest EUR green bond of all time in the Nordic SSA market.

03 — **14 March:** MuniFin was ranked among Finland's most inspiring workplaces in the PeoplePower employee experience survey and nominated the biggest riser in the category of medium-sized organisations.

29 March: Together with our communications partner SEK, we received an award for our persistent communications on social matters in the international SABRE Awards EMEA competition.

04 — **5 April:** We kicked off our online event series entitled 'Economy & municipalities'. The series included four online events spread across the year, discussing economic themes topical for municipalities and sharing best practices and practical examples.

12 April: We launched a new ESG application, which allows our municipal sector customers to monitor their ESG indicators and compare them to those of other municipalities.

05 — **4 May:** We expanded our digital services to cover the application of finance. Our customers report that digital services make their work easier. In late 2023, about half of all our loan applications were already submitted online.

06 — **7 June:** For the first time ever, our quarterly economic forecast included a forecast on municipal finances. Our new municipal finances forecast received ample media attention in Finland.

07

08

09

10 — **13 October:** We published our first sustainability agenda. Entitled 'Enabler of sustainable welfare in society', this agenda establishes the framework and goals for MuniFin's long-term sustainability work.

11 — **29 November:** We awarded the City of Kokkola and the Piispanmäki multipurpose building with the 2023 Green Pioneer of the Year award. The award criteria placed an emphasis on extensive long-term commitment to sustainable development.

12 — **21 December:** CMD Portal awarded MuniFin as the Best SSA ESG Bond Issuer for 2024.

Strategy and sustainability agenda

Our revised strategy underlines our core mandate and highlights sustainability and our role as an enabler of sustainable welfare in society.

Strategy

MuniFin's core mandate is now more important than ever

MuniFin plays a key role in securing the development and operational reliability of Finnish society because we are the only credit institution in Finland that specialises in financing the municipal sector, affordable social housing production and wellbeing services counties. Our vision is to be the best financing partner for our customers. Our work is guided by our values of customer centricity, responsibility and transparency.

Our core mandate is to ensure the availability of affordable financing

We revised our strategy in 2023. The purpose of the revision was to underline our core mandate of ensuring that our limited customer base, which is assigned to carry out public duties, has access to affordable financing under all market conditions. In line with our strategy, we meet our customers' financing needs in a responsible and efficient manner and seek an adequate level of profitability to secure our operations in the long term. We do not seek to maximise our profit but to serve the genuine interests of our customers in the long term. Our core mandate limits not just our customer base, but also our range of products and services: we only develop and offer services that support our core mandate.

Our updated strategy highlights sustainability, which is at the heart of our operations. It also puts an emphasis on the need to develop skills, processes and IT systems to meet future needs.

Strategy and business model as resources in the changing operating environment

Recent years have been marked by crises such as the COVID pandemic and Russia's war of aggression, and the economic uncertainty, inflation, energy crisis and changes in the geopolitical situation resulting from them. These turbulent times have further highlighted our role in Finnish society.
In 2023, we were again able to successfully carry out our core mandate and ensure the availability of affordable financing for our customers despite the various global and national challenges in the operating environment. This demonstrates that our business model and strategy evoke trust and confidence in international investors even in volatile market conditions. In 2023, we put special effort into improving our digital services and information security. Strong customer demand and successful funding operations further solidified our role as the main financing partner to our customers.

> "Our core mandate is to ensure that our customers have access to affordable financing under all market conditions.

Our vision
To be the main financing partner for our customers

Our values
Customer centricity, responsibility, transparency

MuniFin's sustainability agenda

Enabler of sustainable welfare in society

Our updated strategy puts sustainability even more front and centre in our operations. Our sustainability work is now guided by the sustainability agenda we published in October 2023.

Sustainability and sustainable development in general are an increasingly integral part of the operations of MuniFin, our customers, investors and the financial markets. The dynamic between the financial markets and the real economy has been permanently altered by international and national sustainable development goals and increasing regulation. Financial sector organisations are now in an even better position to redirect financial flows to investments that promote sustainable development. We want to do our part in solving pressing issues within the context of our own sustainability work and operating environment.

Our new sustainability agenda, entitled 'Enabler of sustainable welfare in society', focuses especially on our business operations and the impact achieved through them. It also crystallises our role and long-term sustainability goals. The programme is built around two main themes: foundation of the Finnish welfare society and driver of the green transition. Our goal is to support the development of a sustainable welfare society and promote investments that are friendly for the climate and environment.

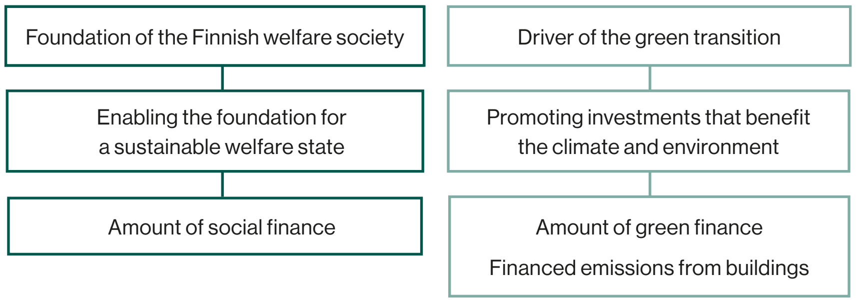
A stable social foundation also enables the green transition

Our sustainability agenda is based on the Doughnut Economics model by Kate Raworth (2017), in which sustainable development is realised by meeting the social foundation – the social requirements that affect people's wellbeing – while still staying within the Earth's ecological limits. Finland's municipal sector, wellbeing services counties and affordable social housing organisations have a key role in both social and ecological sustainability. Supporting the Finnish welfare society is MuniFin's raison d'être.

In the spring of 2023, we conducted a materiality analysis of sustainability topics and used the results when formulating our sustainability agenda's two main themes and the related goals and indicators. This analysis involved gathering insights on various sustainability factors from our own experts and our key external and internal stakeholder groups. We also conducted a separate materiality analysis focusing on climate and environmental risks and used the results when creating our sustainability agenda.

We are pursuing our goals by increasing the proportion of sustainable finance in our long-term customer finance portfolio and by reducing our financed emissions.

Enabler of sustainable welfare in society



Amount of sustainable finance spearheads our sustainability agenda

The amount of sustainable finance offers a clear and commensurate measure of our impact and describes the sustainability of our operations. Our goal is for green finance to account for 25% and social finance for 8% of the long-term customer finance portfolio by 2030. In 2023, green finance accounted for 14.6% and social finance for 6.8% of long-term customer financing.

The decisions and investments of our customers play a pivotal role in driving the green transition in Finland. Our sustainability agenda sets our first financed emissions goal, aiming for financed emissions from buildings to have an emissions intensity of 8 kgCO_2e/m^2 by 2035. Our emission calculations are based on the most recent available information. In 2022, the emissions intensity of our portfolio was 12 kgCO_2e/m^2.

Commitment to continuous improvements

Our sustainability work requires constant improvements, and these are not limited to the goals outlined in our sustainability agenda alone. Although the majority of our environmental impacts are indirect as they are created through the activities of our customers, we take environmental responsibility into consideration in our work by being committed to

Indicators for our long-term goals

- Financed emissions from buildings: emission intensity 8 kgCO_2e/m^2 by 2035
- Amount of green finance: 25% of our long-term customer finance portfolio by 2030
- Amount of social finance: 8% of the long-term customer finance portfolio by 2030
- Amount of sustainable finance: 25% of our long-term customer finance portfolio by 2027

Sustainable development

Sustainable development seeks to ensure people's wellbeing within the limits of the planet's carrying capacity. A stable social foundation is a prerequisite for the achievement of climate goals.

continuously reducing the negative environmental impacts of our operations.

MuniFin has received the WWF Green Office certification. Green Offices are required to take environmental issues into broad consideration in their business premises, decision-making and operations. Green Offices also commit to continuously improving the environmental impact of their operations.

We report on the climate and environmental impact of our operations on an annual basis. Understanding the impact of our own operations, liquidity investments and the projects we have financed is an important part of our environmental responsibility. We are improving our readiness to meet future sustainability reporting requirements.

We compensate for the emissions generated by our employees' air travel. In 2023, we prevented a total of 78.1 tonnes of CO_2 emissions through the EU Emissions Trading System. Due to the the growing popularity of remote working technology, we have organised fewer events and travelled substantially less.

Ensuring the wellbeing of our employees and following responsible operating practices are absolutely crucial for achieving any of our goals.

Case

Green Pioneer of the Year took the reins on sustainability

MuniFin's Green Finance Team selected the City of Kokkola and its Piispanmäki multipurpose building as the 2023 Green Pioneer of the Year.

"The Piispanmäki multipurpose building is a testament to the City of Kokkola's strong commitment to sustainable investments. To ensure that it will achieve its environmental goals, the City wanted to take the project's implementation into its own hands. Succeeding in this has required careful resource allocation, engagement and commitment throughout the organisation and efforts to dismantle silo thinking and rethink set ways to create new practices.

The project's design shows a great understanding of the green finance criteria, such as energy efficiency and self-sufficiency in renewable energy. We were impressed by the depth in which the City of Kokkola team had looked at sustainable construction, but also by the thorough and detailed material that made it easy for us to assess the project. The City of Kokkola has taken the reins of change and chosen to do the work rather than outsource it. This has yielded excellent results in the Piispanmäki project."

Rami Erkkilä
Senior Specialist, sustainable finance,
MuniFin

Business operations

MuniFin's business operations remained strong in 2023. After two steady first quarters, demand for financing spiked towards the end of the year.

Financing and other services

Demand for financing picked up towards the end of the year

In 2023, our customers faced cost pressures due to the relatively high inflation and rising interest rates. After a steady first half of the year, the demand for financing spiked in late 2023.

MuniFin's customers include municipalities, joint municipal authorities, wellbeing services counties, corporate entities under their control, and non-profit organisations and projects nominated by the Housing Finance and Development Centre of Finland (Ara). We are by far the largest single provider of financing for our customer segments, offering our customers a wide range of financing services and extensive support in investment planning and financial management.

Our business operations remained strong in 2023, propelled especially by the housing sector's record-high demand for financing late in the year. The number of credit applications and the amount of housing finance we granted exceeded previous years' figures by a wide margin, partly because Ara production picked up speed when the rise in construction costs levelled out. The demand for financing gained a further boost in late 2023 after the Government decided to remove subsidies given to new right-of-occupancy homes in 2024.

In municipalities, 2023 was the first year when municipalities were no longer responsible for organising healthcare, social welfare and rescue services. Municipal finances were supported by temporary tax benefits stemming from the health and social services reform, which meant that municipalities experienced less demand for financing. Municipalities had also prepared relatively well for the general rise in interest rate levels through interest rate hedging and long-term interest rates.

Lending portfolio 2019–2023, EUR billion

2019	2020	2021	2022	2023
24.0	26.9	27.9	27.8	30.6

Key sustainability indicators in customer operations

- Customer satisfaction is at a very good level
- Training sessions, seminars and events for customers

Hospital districts – the predecessors of the new wellbeing services counties – had proactively prepared for their financing needs by withdrawing financing in advance, but wellbeing services counties' demand for financing nevertheless increased towards the end of the year. MuniFin transferred financing contracts and other commitments from hospital districts, special care districts and voluntary joint municipal authorities for health and social services to the wellbeing services counties in early 2023. These commitments totalled about four billion euros.

In 2023, the Municipal Guarantee Board's limit for MuniFin's long-term loans to wellbeing services counties was EUR 400 million. Because the counties' government-authorised borrowing powers in 2023 were considerably higher than this, their financing needs were also higher than the limit imposed on us. We reached the EUR 400 million limit before the end of the year and could no longer fulfil counties' financing requests for 2023 after that.

> We reached the EUR 400 million limit for long-term loans to wellbeing services counties before the end of the year.

tCO_2

Annual CO_2 emissions avoided/reduced in green finance projects

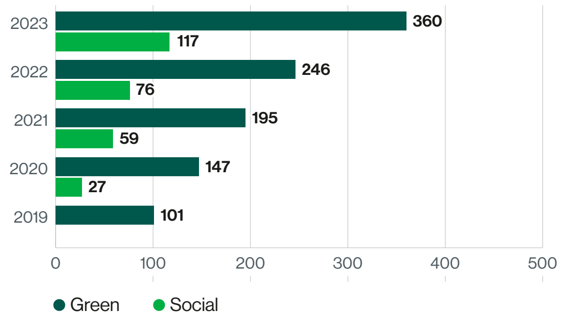
81,366

MWh

Annual energy savings in green finance projects (avoided/reduced)

51,736

Number of green and social finance projects in 2019–2023



New long-term customer financing remained on the 2022 level

New long-term customer financing remained almost on the same level as in 2022. Our new long-term customer financing totalled EUR 4.4 billion (EUR 4.4 billion), of which EUR 4.1 billion (EUR 4.1 billion) consisted of loans and EUR 0.3 billion (EUR 0.3 billion) of leased assets. In total, long-term customer financing at year-end amounted to EUR 32.0 billion (EUR 29.1 billion), of which loans totalled EUR 30.6 billion (EUR 27.8 billion) and leased assets EUR 1.4 billion (EUR 1.3 billion). Short-term customer financing in commercial papers totalled EUR 1.6 billion (EUR 1.5 billion) at the end of 2023.

MuniFin's subsidiary company Inspira specialises in financial advisory services for the municipal sector. In 2023, the demand for Inspira's services was robust, and Inspira's turnover was EUR 1.4 million (EUR 1.6 million). Inspira supports its customers in designing and implementing sustainable economic and financial solutions. The shifting operating environment increased customers' needs to find, prepare and implement measures to balance their finances and operations. In 2023, the most popular services were services that help customers balance their finances and services that help wellbeing services counties plan their finances and their property ownership and management.

In response to Russia's war of aggression, the European Commission approved in late 2022 a subsidised loan and guarantee scheme that allows MuniFin to finance Finnish municipal energy companies under the EU State Aid Temporary Crisis Framework. The arrangement was valid until the end of 2023, but there was little demand for this type of financing.

The amount of finance granted grew by

9.9%

from 2022 to 2023.

Of this, EUR

30.6 billion

consisted of loans

and EUR

1.4 billion

of leased assets.

Sustainable finance totalled EUR

7.0 billion

with green and social finance combined.

More digital leaps

In 2023, we devoted significant resources to the development of our digital services. We expanded our previously available digital services for commercial papers to cover the application process for long-term finance, and by the end of the year, about half of all loan applications were submitted online. The digital trade of commercial papers launched in 2022 increased its popularity in 2023, and almost all commercial papers were traded online by the end of the year.

Moreover, we launched a new ESG application, which aroused interest among our customers. The application allows municipal sector customers to monitor their ESG indicators and compare them to those of other municipalities. Our other applications continued to enjoy popularity. For instance, the widely-used loan portfolio application proved invaluable in planning finances amidst the changing interest rate environment.

We support and encourage our customers to manage their finances in a sustainable way and to make sustainable investment decisions. We also offer regular economic reports, training for our digital services and other events to support decision-making. Our training sessions, seminars and events are very popular, and they again attracted thousands of attendees interested in economic topics.

> We expanded our previously available digital services for commercial papers to cover the application process for long-term finance, and by the end of the year, about half of all loan applications were submitted online.

Case

Inspira's advisory services support financial planning in Kuopio

The outlook in municipal finances is challenging. The past years have been exceptional: municipalities have faced not only the COVID pandemic, energy crisis and steep interest rate hikes, but also the health and social services reform slashing their central government transfers to one sixth of their previous level.

The City of Kuopio tasked Inspira with drawing up a situation analysis to support its budget drafting. The analysis confirmed what administrators had suspected: the City is suffering from structural deficit. The analysis also included recommended measures, which the City used to plan and prepare its balancing measures and productivity programme.

The analysis and its scenarios were presented to the City of Kuopio's elected officials, budget preparers, the City Group and Group subsidiaries.

> A long-term analysis of the situation has proven very helpful in planning finances in more detail. We want to keep our finances in balance and continue to offer our residents excellent services also in the future. Especially in times of change, an analysis like this is a vital tool.

Marja-Leena Martikainen
Finance Director, City of Kuopio

Case

The 'Economy & municipalities' event series discussed investments and the economy amidst change

The municipal operating environment has undergone various changes in the past few years, and financially difficult years are expected to come. We wanted to initiate conversations and offer our stakeholders different perspectives on municipal finances amidst these changes. Our 'Economy & municipalities' event series included four events in which experts discussed the role and finances of municipalities in their current state and in the future.

The first event looked at what the role, responsibilities and finances of municipalities are looking like after the health and social services reform and discussed the effects of the transfer of employment and economic development services (TE services) to municipalities that will take place on 1 January 2025. The following two events approached investments from the perspectives of regional vitality and sustainable development, and the final event sketched out new directions for municipal finances and sought ways to balance municipal economy.

The online events attracted more than 600 people.

Sustainable finance products keep increasing in popularity

We offer our customers green and social finance for their sustainable investments. Our green finance is aimed at investments that are friendly for the climate and environment, whereas our social finance is aimed at investments that produce widespread social benefits.

The demand for our green finance remained exceptionally high. At the end of 2023, there were 360 (246) green projects with outstanding financing, and our green finance totalled EUR 4.8 billion (EUR 3.3 billion). Social finance also continued to gain more demand. At the end of 2023, there were 117 (76) social projects with outstanding financing, and our social finance totalled EUR 2.2 billion (EUR 1.7 billion). The housing sector was impacted by the new government programme's entries, which may have an effect on the amount of green and social finance in the future. Of particular relevance are the reductions on interest subsidy loan authorisations and the rate of investment grants for specific groups.

Through our green and social finance, we want to encourage our customers to make environmentally and socially sustainable investments. To do so, we grant a margin discount for eligible projects, which encourages our customers to assess the impacts of their investments more extensively and make choices that are sustainable for the environment and society. In 2023, we increased the incentive to apply for green finance by increasing the margin discount granted to green projects. The impacts of our sustainable finance are discussed in more detail in our Green Impact Report and Social Impact Report.

Sustainability-related reporting requirements are growing in the financial sector, increasingly obliging us and our customers to document the impacts of our operations in more detail. We have high regard for the work our customers are proactively doing to improve their sustainability. We also work actively to improve our own and our customers and stakeholders' sustainability competence and commitments.

In 2023, we were involved in a steering group set up by Rakennusteollisuuden Koulutuskeskus RATEKO, an organisation providing training in the construction industry, seeking to establish clear definitions and implementation measures for the criteria under the EU taxonomy for sustainable finance in the Finnish construction sector. We also funded the Knowledge-based management in resource-wise municipalities (REIJO) project and held a seat in its steering group. The project seeks novel ways of obtaining and using knowledge on the wise use of resources more effectively and is a continuation of the 2022 Municipalities' financial and climate management (REETTA) project, in which were also closely involved. In 2023, the theme of sustainable construction was prominent also in our 'Economy & municipalities' online event series, and we participated actively in discussions about sustainable construction in the context of the sustainability work of our sustainable finance customers.

In 2023, we continued our work to measure the emissions of both our own operations and the projects we finance. We follow the Partnership for Carbon Accounting Financials (PCAF) method in our emissions calculations. Our goal is to systematically reduce the carbon footprint of our financed emissions, offer our customers more support with emission reductions and better manage the climate and environmental risks associated with our operations. In late 2023, we published our first-ever sustainability agenda with the goal of increasing the proportion of sustainable finance and reducing financed emissions from buildings.

We report the impact of our sustainable finance extensively

Green finance promotes the achievement of climate targets

In 2023, we granted a record amount of green finance. How do we assess green projects and what kinds of impacts do they have? Read more about this in our Green Impact Report.

Long-term benefits for individuals and society

In 2023, we granted social finance to 37 projects, including hospitals and housing for the most vulnerable population. Read more about the projects and their impacts in our Social Impact Report.

Funding

Funding operations highly successful despite market turmoil

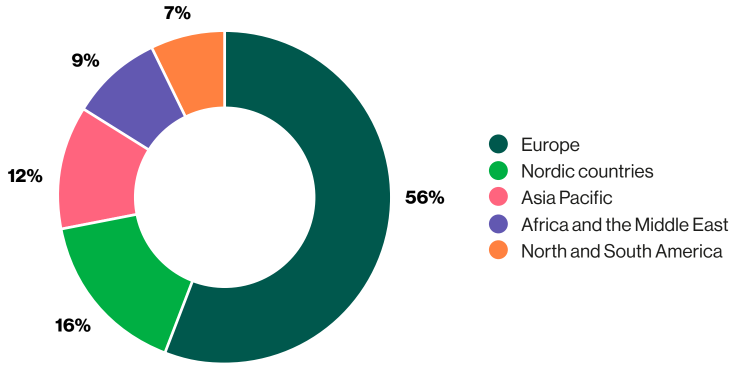
Fluctuating markets required carefully timed funding transactions in 2023.

MuniFin acquires its funding from the international capital markets as standardised issuances under debt programmes. Our funding strategy relies on diversifying our funding sources to ensure that our customers have access to financing in all market conditions.

Capital markets were highly unstable in 2023. The year was marked by uncertainty resulting from geopolitical confrontations and central bank actions to curb inflation. These resulted in problems for the banking sector, particularly in the US. The hikes in interest rates that began in 2022 continued until the autumn of 2023.

In early 2023, our funding operations were complicated by the rapidly growing inflation, global banking sector problems and swiftly rising interest rates. In this fast-changing environment, the careful timing of transactions was particularly critical.

New long-term funding by region in 2023



New long-term funding 2019–2023 (EUR billion)

2019	2020	2021	2022	2023
7.4	11.0	9.4	8.8	10.1

Key sustainability indicators in funding

- Survey of North European issuers

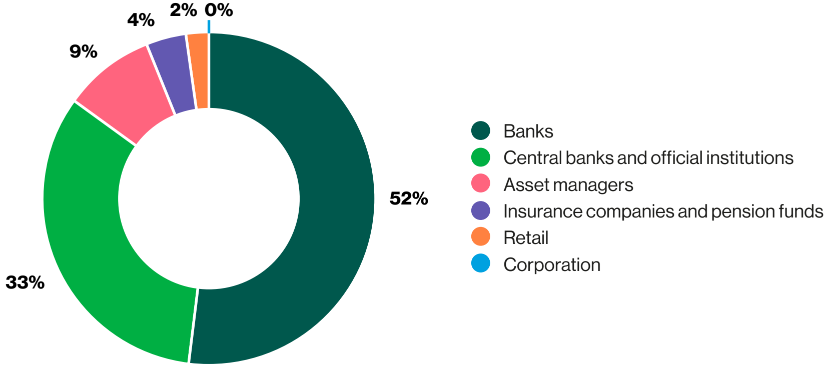
Towards the spring, the actions of the central banks became more transparent, inflation started to subside, and markets regained confidence during the summer and early autumn. In the autumn, however, the deteriorating overall economic outlook brought on new challenges. Late in the year, margins grew wider and the situation in the euro market became particularly difficult.

Funding operations larger than initially expected

Once again, our funding strategy proved effective despite the unstable market environment. We retained strong access to capital markets throughout the year, and the average cost of our funding remained at a low level. We expanded our funding programme somewhat when our customers required more financing than we had initially anticipated.

We successfully issued five benchmark bonds in 2023: three denominated in euros and two in US dollars. All five bonds were successful. In the first half of the year, we mainly focused on the euro markets, while in the second half, we shifted our focus on the US dollar.

New long-term funding by investor type in 2023



Main funding operations

January: 5-year benchmark, EUR 1.5 billion

February: Long 5-year green bond, EUR 1.0 billion

April: 7-year benchmark, EUR 1.0 billion

May: 5-year bond, CHF 150 million

June: Short 5-year benchmark, USD 1.0 billion

August: Short 4-year benchmark, GBP 250 million

August: 4-year social bond, USD 100 million

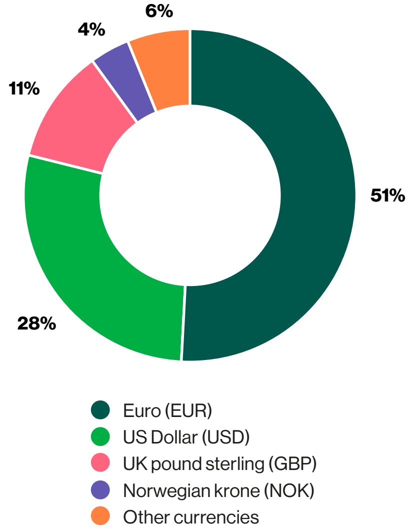
October: Long 3-year benchmark, USD 1.25 billion

The benchmark bond of EUR 1.5 billion issued in January marked our largest transaction in two years and was quickly oversubscribed despite the challenging market situation. Another milestone was reached in February, when we issued a green bond totalling EUR 1 billion, making it our largest green bond to date and also the largest EUR green bond of all time in the Nordic SSA category.

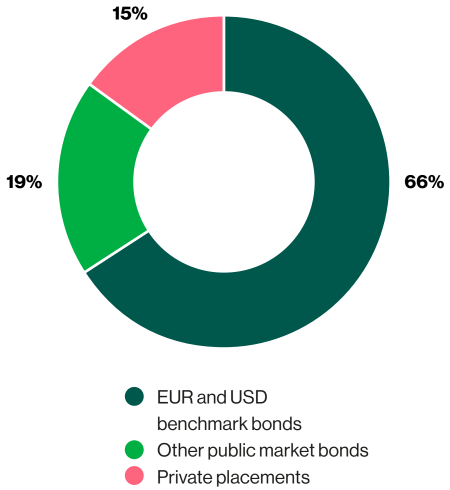
We also made several increases to previously issued bonds. In addition to the strategic benchmark bonds, we also conducted a variety of other funding operations, being particularly active in the markets for pounds sterling and Norwegian krone and re-entering the Swiss franc market with two transactions. We revised our funding strategy in 2023, now placing even more emphasis on diversification.

During the financial year, we repaid the EUR 2 billion debt acquired through the European Central Bank's targeted longer-term refinancing operations (TLTRO III).

New long-term funding by currency 2023



New long-term funding by funding class in 2023



In total, we made 87 (180) long-term funding arrangements in 12 (13) different currencies. Our new long-term funding in 2023 totalled EUR 10.1 billion (EUR 8.8 billion).

At the end of 2023, our total funding amounted to EUR 43.3 billion (EUR 40.2 billion), of which the Euro Commercial Paper (ECP) programme totalled EUR 4.0 billion (EUR 4.6 billion). Of our total funding, 54.0% (48.5%) was denominated in euros and 46.0% (51.5%) in foreign currencies.

Sustainable benchmark bonds have established their position as financial products, but their supply in the capital markets has decreased slightly. MuniFin has gained a reputation as a responsible market participant, and our sustainable bonds have been positively met by partner banks. In October 2023, underscoring our pioneering role in sustainable finance, we published our sustainability agenda that includes a goal for green finance and our first emission reduction goal.

In August, we issued a social bond of USD 100 million. In December, the CMD Portal awarded MuniFin as the Best SSA ESG Bond Issuer for 2024.

Case

Our eighth green bond broke records

The EUR 1 billion green bond we issued in February was record-breaking. It was our largest green bond to date and the largest EUR green bond of all time in the Nordic SSA market.

The transaction was more than twice oversubscribed in just a few hours. Nearly 80% of the orderbook was allocated to ESG investors.

Our green bonds allow us to finance our customers' climate and environmentally friendly investments across Finland.

> It was delightful to see how well our green bond was received in the markets. Being part of such a significant transaction was a rewarding experience.

Aaro Koski
Analyst
MuniFin

Liquidity management

Excellent liquidity ensured the availability of customer finance

We maintained a high level of liquidity in 2023.

MuniFin's liquidity has remained excellent. Our long-term risk appetite framework specifies that our total liquidity must be enough to cover uninterrupted business for a survival horizon of at least 12 months, but we have increased our liquidity substantially above this limit because of the unusual political and market situation. With the amount held at the end of the year, we could uphold all our commitments with no additional funding for 16 months (15 months). Our main reason for maintaining a high level of liquidity is to safeguard the availability of financing for our customers in all situations.

In 2022, we allocated more of our investments in central bank deposits because of the general market uncertainty. In late 2023, we partially restored our focus on longer-term investments. At the end of 2023, our total liquidity stood at EUR 11.6 billion (EUR 11.5 billion). Of this, central bank deposits totalled EUR 8.0 billion (EUR 8.1 billion) and investments in liquid, low-risk securities EUR 3.6 billion (EUR 3.3 billion), with the average credit rating of AA+ (AA+) and average maturity of 2.9 years (2.6 years). In addition to this, our money market deposits in credit institutions totalled EUR 74 million (EUR 32 million).

Total liquidity in 2019–2023, EUR billion

2019	2020	2021	2022	2023
9.9	10.1	12.2	11.5	11.6

Key sustainability indicators in liquidity management

- ESG score of the investment portfolio compared to the benchmark
- Total amount of socially responsible investments (SRIs)

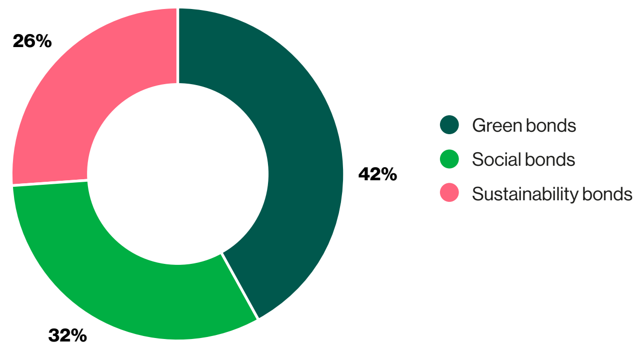
We mainly hedge against the interest rate risk of liquidity investments with interest rate swaps. Changes in interest rates therefore do not have a direct impact on changes in the market value of our liquidity investments.

The minimum amount of short-term liquidity, measured by the liquidity coverage ratio (LCR), must meet the regulatory requirement of 100% on a daily basis. Available stable funding, measured by the net stable funding ratio (NSFR), must stay at 100% or above. At the end of 2023, our LCR stood at 409.1% (256.7%) and NSFR at 124.1% (120.3%).

MuniFin's Sustainable Investment Framework summarises the sustainability principles, processes and responsibilities of our investment operations. In addition to low credit risk and high liquidity, sustainability is a key factor in our liquidity investments. We monitor the sustainability of our investments through their ESG (environmental, social and governance) score.

At the end of 2023, our liquidity investments had an average ESG score of 7.59 (7.65) on a scale of 0 to 10, above the benchmark index of 7.41 (7.43). We held a total of EUR 635 million (EUR 498 million) in direct socially responsible investments (SRIs), which is 17.8% (15.0%) of all our investments in securities. Our ratio of sustainable investments was higher than the market benchmark of 17.4% (8.1%). The ratio of socially responsible investments to our own green and social funding was 14.0% (14.5%).

MuniFin's socially responsible investments (SRIs)



Total amount of MuniFin's SRIs, EUR 635 million.

> Our main reason for maintaining a high level of liquidity is to safeguard the availability of financing for our customers in all situations.

Organisation

Our employee experience has developed positively, and
we were ranked among Finland's most inspiring workplaces.

Personnel

Employee experience efforts yielded great results

In 2023, we put extra emphasis on supporting hybrid work and improving our employee experience.

At the end of 2023, MuniFin had 185 employees (175) working in various specialist positions. This year, most of our new hires were in information management.

Hybrid work became a permanent fixture at MuniFin in 2023. We have flexible remote work arrangements with no company-wide mandatory office presence. In 2023, we bolstered our successful hybrid culture by giving everyone training and support in hybrid working practices and the use of modern tools. Supervisors were also given training in hybrid leadership and facilitation skills.

We modified our offices to better support multi-location work and communality. Our offices have both collaborative and quiet workspaces, allowing employees to choose a workspace that best suits the task at hand.

To support communality and culture building, we have office days during which employees gather for a shared agenda and breakfast. Our office days have included discussions about our values, developing our office working practices and culture, updating our performance appraisal and improving our orientation process.

Key sustainability indicators in HR

- Personnel satisfaction is at a good level
- Gender distribution of employees
- Gender distribution of managerial staff
- Gender distribution of the Board of Directors
- Gender distribution of the Executive Management Team
- 100% of employees have completed Sustainability Policy training
- Training days per employee
- Gender pay gap
- Employee turnover
- Developing wellbeing at work

Employee experience is improved together

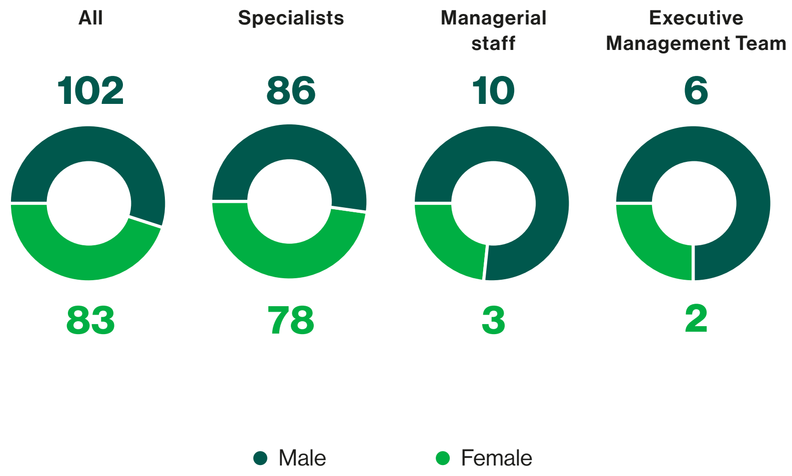
Good employee experience is an important goal for us. We measure employee satisfaction through an anonymous survey conducted annually by an independent research company and follow up with a development plan based on the results, focusing on the most important areas of development identified together. Our employees have been closely involved in planning and implementing measures to improve our employee experience.

Our employee experience has developed positively. In March 2023, we were ranked among Finland's most inspiring workplaces based on the results of our 2022 employee experience survey. Our 2023 survey results not only exceeded the average for Finnish expert organisations, but also showed an improvement over the previous year.

In 2023, we increased professional development opportunities by setting up knowledge communities and facilitating task rotation. We also started to digitalise our orientation process and took steps to clarify the roles of our technology services and business units.

We have also revamped our development processes. We have wanted to increase interaction and influencing opportunities by dedicating certain afternoons to development work. We have also organised training for steering group members and project managers and improved our development tools, practices and reporting.

Gender distribution of employees



Investing in skills development

The evolution of work and changes in our operating environment call for all MuniFin employees to adopt the mindset and approaches that achieving our desired organisational culture requires. This entails learning new skills, adapting to change, taking an independent approach to their duties and assuming responsibility for the effects their actions have on others.

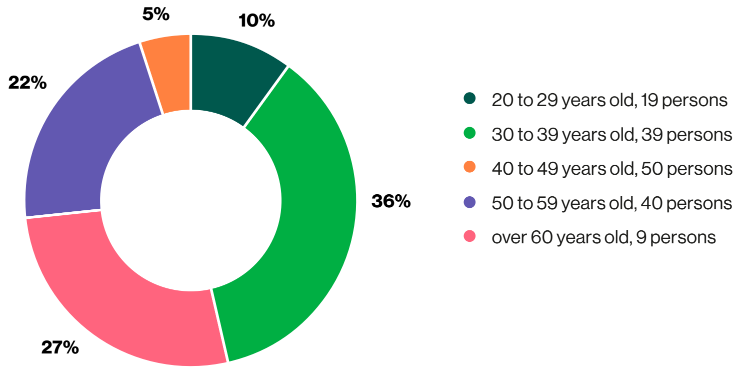
In updating our strategy, we established skills development as one of our strategic cornerstones. In 2024, we will invest in professional development. We aim to ensure the availability of skilled talent and will continue to consistently hone our reputation and employer image among potential recruits. We also want to nurture our good employee experience.

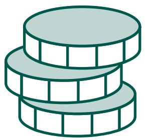
Diversity and inclusion

Diversity and inclusion are vital to our corporate culture. What this means to us is that we treat everyone as equal, appreciate the value of diversity and individual differences and believe in everyone's right to be included. We promote equal opportunities and are strongly opposed to discrimination. We value and make use of different types of expertise and experience. We cherish community spirit and are committed to our shared values and goals.

We want all our employees to reach their full potential and continue to develop their expertise. We embrace the existence of individual differences and see them as a strength. Our goal is for all our employees to feel that they are equal members of our team and that they are valued as they are.

Employees by age





Gender pay gap in similar positions

0%

Gender pay gap in positions of the same pay grade. The basis of equal pay is founded on a pay grade system, which determines each employee's pay level. We also commission an annual pay gap survey conducted by an external party.

Our objective is to promote diversity at all levels of the organisation. By acknowledging and valuing diversity, we can improve workplace wellbeing and productivity. We are committed to securing equal opportunities and opposing discrimination. In 2023, we organised training on diversity and equality for both supervisors and employees.

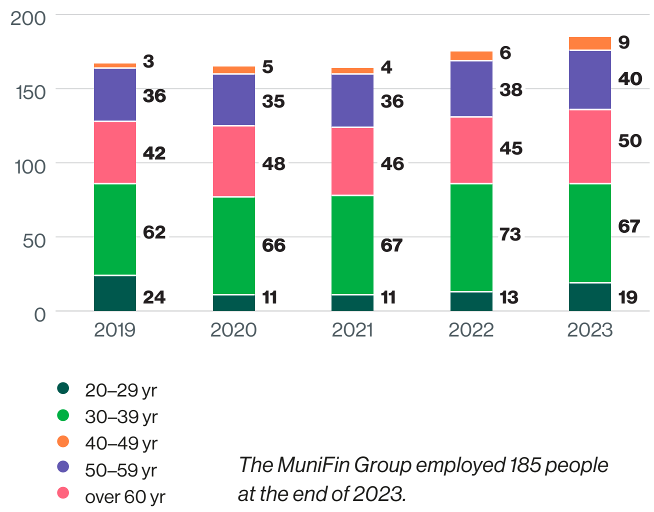
Employee wellbeing is a priority

We invest in employee wellbeing in many ways. We strive to promote the wellbeing of our employees and to prevent work-related stress and excessive workloads. We support our employees at the different stages of their life and career, taking into account their different skills and needs.

We provide extensive healthcare services and resources promoting work ability and offer good training opportunities and recreational benefits. We also organise joint leisure-time activities. Our employees have had very few absences due to sickness, and none have claimed disability pension due to reduced working ability. MuniFin therefore ranks in the best employer's pension (TyEL) category (1).

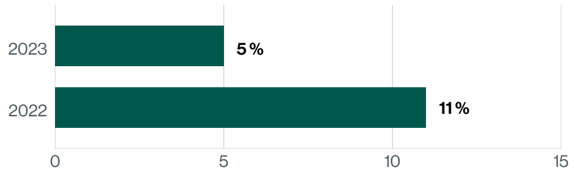
> We strive to promote the wellbeing of our employees and to prevent work-related stress and excessive workloads.

Age distribution and number of employees



The MuniFin Group employed 185 people at the end of 2023.

Employee turnover



Employer's pension insurance (TyEL) category

1

The TyEL contribution category indicates the rate of disability pensions due to reduced working ability. The fewer people are granted disability pension, the better the employer's category (with 1 being the best on a scale of 1–11). Due to its smaller payroll, the TyEL categories do not apply to Inspira, which pays the average TyEL contribution instead of a category-based contribution.

Case

MuniFin ranked among Finland's most inspiring workplaces

"Good employee experience is an important goal for us. We monitor our personnel satisfaction through an annual employee experience survey.

In March 2023, MuniFin was ranked among Finland's most inspiring workplaces in the PeoplePower employee experience survey. Our employee experience survey results had improved considerably from 2021 to 2022, and we were nominated the biggest riser in the category of medium-sized organisations.

At MuniFin, we are united by our socially significant work, sustainability and the company culture we have created together. Fostering this culture is a continuing long-term effort – a journey in which every employee plays a key role. We are by no means there yet, but we are headed in the right direction. Our improved employee experience is a testament to this."

Minna Piitulainen
Executive Vice President,
Development and HR Services
MuniFin

Governance

Corporate governance

The financial sector is heavily regulated and supervised. As a credit institution, our operations are governed by laws and related supervisory guidelines, which contain a considerable amount of requirements on governance. Our operations are supervised by the European Central Bank and the Finnish Financial Supervisory Authority.

We deem it important that our corporate governance is professional and efficient and creates a solid basis for healthy business principles. We promote a level of responsibility in all our decisions and structures that goes over and above minimum legal requirements. This means, for example, adhering to various non-binding recommendations. Our commitment to strong corporate governance is emphasised in our key values and strategy and implemented in all our operations.

The financial sector is undergoing constant regulatory development, requiring us to keep up with the changes and meet new requirements. We actively follow regulatory developments and try to influence regulatory projects in their preparatory phases by voicing our positions on them when relevant. In terms of supervision, we have established clear processes to ensure that we respond to requests for information and implement the development measures required by the authorities, for example. During all our years of operation, there have been no material regulatory violations that would have led to official sanctions.

Key sustainability indicators in governance

- Sustainalytics ESG risk rating
- Violations of regulations

In addition to internal control mechanisms, we have a compliance function that oversees our compliance with regulation based on an annual monitoring plan and provides internal guidance and support in compliance-related matters. Our website has a whistleblowing channel that can be used to report any suspected misconduct, also anonymously. Any significant contraventions of regulations are reported on a monthly basis to the executive management and the Board of Directors as part of our risk position reporting. This reporting practice is part of our risk appetite framework.

Our decision-making and responsibilities are set out in the Corporate Governance Policy approved by the Board of Directors and in the Corporate Governance Statement published annually. Our operations are also guided by our Board-approved Sustainability Policy and ethical principles, which support decision-making especially when no binding rules or guidelines apply.

Strong corporate governance also includes our HR policy. In the terms and conditions of employment, we comply with Finnish legislation and the collective agreement for the financial sector, ensuring fairness and legal compliance for all employees.

MuniFin is a signatory to the United Nations Global Compact. This membership demonstrates we are committed to operating in ways that meet and promote fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption wherever they have a presence. We expect any partners we work with to also adhere to responsible practices.

> Our commitment to strong corporate governance is emphasised in our key values and strategy and implemented in all our operations.

Memberships of associations, networks, projects and national interest organisations

- European Association of Public Banks
- FIBS Pro – sustainable business network
- Finsif – Finland's Sustainable Investment Forum
- Green Building Council Finland FIGBC
- Hinku network – Towards Carbon Neutral Municipalities and Regions
- International Capital Markets Association ICMA
- International Swaps and Derivatives Association ISDA
- Nordic Capital Markets Forum
- Partnership for Carbon Accounting Financials PCAF (joined in 2022)
- REETTA – Economic and climate management project for municipalities
- REIJO – Knowledge management in resource-smart Finnish municipalities
- WWF Green Office

Commitments

- Commitment 2050 initiative of the Finnish Prime Minister's Office
- UN Global Compact initiative

Sustainability reporting principles and scorecard

Our sustainability indicators are based on our strategy, the goals set out in our sustainability agenda and the materiality analysis conducted in 2023.

Principles of sustainability reporting

We are not obliged to disclose non-financial information under the EU Non-financial Reporting Directive or the Finnish Accounting Act, but we have chosen to incorporate the Global Reporting Initiative (GRI) Standards' contents and themes in our sustainability reporting where relevant. Our report does not adhere to the GRI Standards.

MuniFin will be subject to the EU Corporate Sustainability Reporting Directive (CSRD), which will impact our future reporting requirements. Starting in 2026, we will include 2025 data in our Report of the Board of Directors. We have started to prepare for these requirements.

In our work, sustainability is realised particularly through our business operations, organisation and governance. We have compiled our key sustainability indicators in the sustainability scorecard found on page 38. Our sustainability indicators are based on our strategy, the goals set out in our new sustainability agenda and the materiality analysis conducted in 2023.

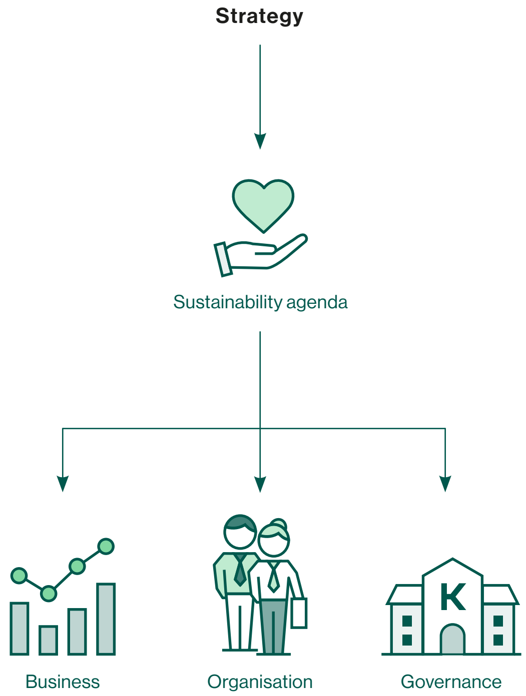
In our materiality analysis, we used questionnaires and interviews to gauge what both external and internal stakeholder groups thought of different sustainability factors in terms of their impact materiality and financial materiality.

We sent a summary of the results to the stakeholders who participated in the analysis. As before, top themes included climate change mitigation and adaptation as well as the importance of personnel and good governance. Our sustainability scorecard therefore includes indicators that track our current situation and progress in these themes.

We reserve the right to add, remove or change the existing indicators and goals, but any changes must be in line with the key principles specified in our sustainability strategy. Potential materiality analysis updates may also affect our indicators.

In addition to our Annual Report, we publish our Green Impact Report and Social Impact Report annually.

MuniFin's sustainability reporting has not been verified by an external party.



Sustainability scorecard

We report the indicators for our key principles of sustainability and our performance in a sustainability scorecard.

Key principles	Indicator	2023 performance	Limit values
MuniFin's sustainability agenda	Financed emissions from buildings: emission intensity 8 $kgCO_2e/m^2$ by 2035	12 $kgCO_2e/m^2$	**Green:** Improvement in line with the target path **Orange:** Improvement falling short of the target path **Red:** No improvement
	Amount of green finance: 25% of our long-term customer finance portfolio by 2030	14.6%	**Green:** Growth in line with the target path **Orange:** Growth falling short of the target path **Red:** No growth
	Amount of social finance: 8% of our long-term customer finance portfolio by 2030	6.8%	**Green:** Growth in line with the target path **Orange:** Growth falling short of the target path **Red:** No growth
Strategic goal (2027)	Amount of sustainable finance: 25% of our long-term customer finance portfolio (2024 goal: 20%)	21.3%	**Green:** Growing in line with the growth path **Orange:** Growing at 1–2 percentage points below the growth path **Red:** Growing at more than 2 percentage points below the growth path
Personnel	Personnel satisfaction is at a good level	AA Good	**Green:** AA Good, AA+ Good+, AAA Excellent **Orange:** A Satisfactory, A+ Satisfactory+ **Red:** C Poor, B Passable
	Gender distribution of managerial staff	76/24	**Green:** 40–60% (of either gender) **Orange:** 61–79% or 21–39% (of either gender) **Red:** 80% or higher / 20% or lower (of either gender)
	Gender distribution of the Board of Directors	62.5/37.5	**Green:** 40–60% (of either gender) **Orange:** 61–79% or 21–39% (of either gender) **Red:** 80% or higher / 20% or lower (of either gender)
	100% of employees have completed Sustainability Policy training	100%	**Green:** > 95% **Orange:** 90–95% **Red:** < 90%
	Gender distribution of the Executive Management Team	75/25	**Green:** 40–60% (of either gender) **Orange:** 61–79% or 21–39% (of either gender) **Red:** 80% or higher / 20% or lower (of either gender)

Continued on the next page →

Key principles	Indicator	2023 performance	Limit values
Personnel	Training days per employee	2.7	**Green:** ≥ 4 **Orange:** 2–3.9 **Red:** < 2
	Gender pay gap	0%	**Green:** By pay grade, average difference max 3% **Orange:** By pay grade, average difference 3.1–5% **Red:** By pay grade, average difference more than 5%
	Gender distribution of employees	55/45	**Green:** 40–60% (of either gender) **Orange:** 61–79% or 21–39% (of either gender) **Red:** 80% or higher / 20% or lower (of either gender)
	Employee turnover	5%	**Green:** ≤ 10% **Orange:** 10.1–13% **Red:** > 13%
Governance	Sustainalytics ESG risk rating	9.3 (partial update 6 Jan 2024)	**Green:** Improvement in line with the target path **Orange:** Improvement from the previous year, but falling behind the target path **Red:** Decrease from the previous year
	Violations of regulations	No violations	**Green:** No violations **Orange:** Formal public statement by a supervisor requiring actions due to regulatory violation but no sanction measures are posed **Red:** Material sanction from supervisors or regulators (administrative fine, public warning or penalty payment)

Key principles	Indicator	2023 performance	Limit values
Financing and other services	Customer satisfaction is at a very good level	6.07	Green: ≥ 5.5 Orange: 4–5.4 Red: < 4
	Training sessions, seminars and events for customers	23	Green: ≥ 16 per year Orange: 11–15 per year Red: < 11 per year
Funding	Survey of North European issuers	1	Green: First or second place in our category Orange: Third or fourth place in our category Red: Fifth or lower place in our category
Liquidity management	ESG score of the investment portfolio compared to the benchmark	Above	Green: Above the benchmark index Red: Below the benchmark index
	Total amount of socially responsible investments (SRIs)	14%	Green: > 10% of issued responsible funding Orange: 8–10% of issued responsible funding Red: < 8% of issued responsible funding

Board of Directors and Executive Management Team

Board of Directors

Under the Articles of Association, the Board of Directors has a minimum of five and a maximum of nine members. The Annual General Meeting (AGM) elects the members of the Board, and each member's term of office will terminate when the AGM following their election concludes.

In accordance with the proposal of the Shareholders' Nomination Committee, the 2023 Annual General Meeting elected eight members to the Board of Directors for the 2023–2024 term (from the end of the AGM to the end of the next AGM).

Kari Laukkanen, b. 1964
Chair, on the Board of Directors since 2018
Education: M.Sc. (Econ.)
Primary occupation: Board professional and financial consultant (Lauvest Oy, CEO, Chair of the Board of Directors, consultancy company owned by Kari Laukkanen, not a full time position)
Other material positions of trust: Chair of the Board of Directors at Emittor Oy
Independence: Independent of the Company and its significant shareholders
Previous key work history and positions of trust: Long and diverse international banking experience in various positions at a global banking group (Citigroup, 1990–2016, last 13 years Managing Director, Citi Country Officer of the Finnish branch).

Maaria Eriksson, b. 1967
Vice-Chair, on the Board of Directors since 2019
Education: M.Sc. (Econ), CEFA
Primary occupation: Deputy CIO, COO, Investments, Keva
Other material positions of trust: Member of the Advisory Committee for Investments of the University of Oulu (non-commercial)
Independence: Independent of the Company, not independent of its significant shareholders (works for a significant shareholder)
Previous key work history and positions of trust: Long and diverse experience in capital market tasks at Keva, Finland's largest occupational pension insurance company (since 1998) and before that as portfolio manager and economist in the banking sector (Merita 1996–1998) and as an economist at the Bank of Finland (1994–1996).

Markku Koponen, b. 1957
On the Board of Directors since 2018
Education: Master of Laws, Trained on the bench, EMBA
Primary occupation: Board professional
Other material positions of trust: No other positions
Independence: Independent of the Company and its significant shareholders
Previous key work history and positions of trust: Long and diverse experience in communications, legal affairs and banking regulation at OP Financial Group, one of the largest banking groups in Finland (1985–2017, during which more than 20 years of experience in the executive management team and the board of directors).

Tuomo Mäkinen, b. 1972
On the Board of Directors since 2021
Education: M.Sc. (Econ)
Primary occupation: Finance Manager, City of Helsinki
Other material positions of trust: Chair of the Board of Directors at Helsinki Stadion Oy (Helsinki City Group, non-commercial entity)
Independence: Not independent of the Company and its significant shareholders (works for a significant shareholder and customer)
Previous key work history and positions of trust: Long experience of executive-level financial responsibilities at the City of Helsinki since 2000. Finance Manager since 2014.

Minna Smedsten, b. 1976
On the Board of Directors since 2021
Education: M.Sc. (Econ)
Primary occupation: CFO, Tietoevry Banking, Tietoevry Corporation, starting from 1 February 2024.
Smedsten's position as the CFO of Taaleri Group ended at the end of 2023. Her positions of trust in the Group ended at the same time.
Other material positions of trust: No other positions
Independence: Independent of the Company and its significant shareholders
Previous key work history and positions of trust: Long experience in executive-level financial management positions in the financial sector since 2000 (Taaleri, GreenStream, Kaupthing Bank, Norvestia).

Denis Strandell, b. 1958
On the Board of Directors since 2020
Education: M.Sc. (Econ)
Primary occupation: Mayor, City of Hanko
Other material positions of trust: Chair of the Board of Directors at Asunto Oy Lappohjan kerrostalot (non-commercial housing company); member of the Board of Directors at C-Fiber Hanko Oy
Independence: Independent of the company and its significant shareholders
Previous key work history and positions of trust: Long and diverse experience in capital market tasks and investment services at Finnish and Nordic banking and investment services groups (1986–2011: Protos, Aktia, Unibank, Danske Bank, FIM). Long experience (since 2000) of Finnish municipal sector administration in the Kirkkonummi municipal council and municipal government prior to becoming the Mayor of the City of Hanko (since 2015).

Leena Vainiomäki, b. 1961
On the Board of Directors since 2021
Education: Master of Political Sciences, MBA
Primary occupation: Board professional
Other material positions of trust: Member of the Board of Directors at LRV Corp Oy and Veikkaus Oy; member of the Board of Directors and Audit Committee at Finnish Rail Ltd (non-commercial entity)
Independence: Independent of the Company and its significant shareholdersa
Previous key work history and positions of trust: Long and diverse experience in executive-level positions in the financial sector. Country Manager at Danske Bank (2018–2020), other executive-level positions at Danske Bank since 2011 and at Nordea and its predecessors since 1988. Has also held Board positions at companies belonging to the Danske Group.

Arto Vuojolainen, b. 1963
On the Board of Directors since 2023
Education: Master of Science in Technology
Primary occupation: Operational and Financial Director, City of Tampere
Other material positions of trust: Member of the Board of Directors at the Tor, Joe and Pentti Borg Foundation (non-commercial); member of the Board of Directors at the Tampere University of Applied Sciences Foundation (non-commercial)
Independence: Not independent of the Company, independent of its significant shareholders (works for a significant customer)
Previous key work history and positions of trust: Experience in financial management positions at the City of Tampere since 2007. Prior experience in expert and managerial positions in credit granting and customer relations in the banking sector (Nordea, Handelsbanken) since 1991.

MuniFin

Executive Management Team

Under the Articles of Association, the company has a CEO and a Deputy to the CEO appointed by the Board of Directors. The CEO's duty is to manage the company's operations in order to implement the resolutions made by the Board of Directors and maintain the company's operations in line with the strategy, risk management principles and limits set by the Board of Directors. Supported by the Executive Management Team, the CEO is responsible for ensuring the company's effective day-to-day operations and organisational structure and reporting to the Board of Directors.

Esa Kallio, b. 1963
President and CEO
Employed by the Company since: 2005, President and CEO as from 2018
Education: M.Sc. (Econ)

Mari Tyster, b. 1975
Executive Vice President, Legal and Communications, secretary to the Board of Directors and its Committees, Deputy to the CEO as from 2018
Employed by the Company since: 2009
Education: Master of Laws

Aku Dunderfelt, b. 1975
Executive Vice President, Customer Solutions
Employed by the Company since: 2019
Education: BBA

Toni Heikkilä, b. 1965
Executive Vice President, CRO, Risk Management and Compliance
Employed by the Company since: 1997
Education: Lic.Sc. (Econ), M.Sc. (Finance)

Joakim Holmström, sb. 1977
Executive Vice President, Capital Markets and Sustainability
Employed by the Company since: 2008
Education: M.Sc. (Econ)

Harri Luhtala, b. 1965
Executive Vice President, CFO, Finance
Employed by the Company since: 2019
Education: M.Sc. (Econ)

Minna Piitulainen, b. 1973
Executive Vice President, Development and HR Services
Employed by the Company since: 2018
Education: M.Sc. (Psychology)

Juha Volotinen, sb. 1975
Executive Vice President, Technology Services
Employed by the Company since: 2021
Education: M.Sc. (Econ)

Tax footprint

Tax footprint

MuniFin's taxation strategy and operating principles

The management of tax affairs is organised as part of the Group's financial management. The main observations and measures related to tax issues and tax risks are reported to the Board of Directors.

The Municipality Finance Group complies with the tax legislation in the payment, remittance and notification of taxes and charges. MuniFin's strategy in taxation is to support the business solutions and take taxation into account as one of the factors influencing the planning and decision-making related to the business solutions. Tax planning aims at controlling the uncertainties related to taxation and avoiding risks in interpretation. Therefore, MuniFin requests the tax authorities to provide preliminary rulings whenever necessary.

The taxes and tax-like payments paid and remitted

MuniFin acquires financing from the international capital markets but conducts business only in Finland. Therefore, MuniFin pays income taxes in full to Finland. MuniFin does not receive any income from abroad for which relevant withholding tax at the source is paid. MuniFin has no investments or operations in countries defined by the OECD as tax havens.

In 2023, the MuniFin Group employed 185 people, of whom 174 worked for the parent company. The Group's turnover was EUR 2,680 million and the profit before tax EUR 139 million. As a credit institution, MuniFin had the possibility to assign a credit loss provision in its accounting and taxation, in accordance with the Business Tax Act. The credit loss provision involves a deferred tax liability.

MuniFin's operations are mainly exempt from value-added tax. As MuniFin is unable to deduct the VAT related to purchases in its operations exempt from VAT, the VAT remains as final costs for MuniFin. MuniFin also runs leasing operations and offers digital services to the customers that are subject to VAT, for which VAT is paid and the VAT included in the purchases is deducted. The operations of MuniFin's subsidiary Inspira are subject to VAT. Inspira deducts VAT from its purchases and pays VAT for its sales. The amounts of VAT paid and remitted vary according to business volumes, and value-added taxes are not taken into account in the taxes paid and remitted.

Taxes and tax-like payments paid (EUR 1,000)	2023	2022
Income tax	16,877	34,545
Employer's social security contributions	3,389	3,121
Stability fee to the EU crisis resolution fund	7,353	9,185
Total	**27,618**	**46,851**

Taxes to be remitted (EUR 1,000)	2023	2022
Withholding taxes	5,550	4,799
Employee's social security contributions	1,537	1,413
Total	**7,087**	**6,211**

Report of the Board of Directors and Financial Statements

2023

This is a voluntarily published pdf report, so it does not fulfill the disclosure obligation pursuant to Section 7:5§ of the Securities Markets Act.

MuniFin

Report of the Board of Directors
1 January–31 December 2023

In brief: MuniFin Group in 2023

- The Group's net operating profit excluding unrealised fair value changes in January–December increased by 3.2% and amounted to EUR 176 million (EUR 170 million). The net interest income grew by 7.5% propelled by rising short-term market rates and totalled EUR 259 million (EUR 241 million). The growth in result was slowed down by an increase in costs.

- Net operating profit amounted to EUR 139 million (EUR 215 million). Unrealised fair value changes amounted to EUR -37 million (EUR 45 million) in the financial year. Unrealised fair value changes were influenced in particular by changes in interest rate expectations and credit risk spreads in the Group's main funding markets.

- Costs in the financial year amounted to EUR 82 million (EUR 73 million). The growth in costs was primarily driven by the almost quadrupled guarantee commission of EUR 13 million (EUR 4 million) paid to the Municipal Guarantee Board, which resulted from a change in the calculation method. The guarantee commission is a compensation for the guarantees the Municipal Guarantee Board grants to MuniFin's funding.

- The Group's leverage ratio continued to strengthen, standing at 12.0% (11.6%) at the end of December.

- At the end of December, the Group's CET1 capital ratio was very strong at 103,4% (97.6%). CET1 capital ratio was well over the total requirement of 13.9%, with capital buffers accounted for. Because MuniFin Group only has CET1 capital, Tier 1 and total capital ratios are the same with the CET1 capital ratio, 103.4% (97.6%).

- The Russian invasion of Ukraine has not had a significant effect on the Group's operations. The war has accelerated inflation and pushed up market interest rates, which has had a positive effect on the Group's net interest income, but also increased costs. Because of the geopolitical uncertainty caused by the war, the Group has maintained strong liquidity buffers. Otherwise, the war has had only a minor effect on the Group's operations.

- Long-term customer financing (long-term loans and leased assets) excluding unrealised fair value changes totalled EUR 32,948 million (EUR 30,660 million) at the end of December and saw an increase of 7.5% (5.5%). New long-term customer financing in January–December was at the same level as in the previous year and amounted to EUR 4,370 million (EUR 4,375 million). Short-term customer financing totalled EUR 1,575 million (EUR 1,457 million).

- Of all long-term customer financing, the amount of green finance aimed at environmentally sustainable investments totalled EUR 4,795 million (EUR 3,251 million) and the amount of social finance aimed at investments promoting equality and communality totalled EUR 2,234 million (EUR 1,734 million) at the end of December. The total amount of this financing increased by 41.0% (42.9%) from the previous year. The ratio of green and social finance to long-term customer financing excluding unrealised fair value changes grew by 5.1 percentage points to 21.3%. In late 2023, the Group published its sustainability agenda, which extends to the year 2035. By the end of 2030, the Group's goal is to increase the share of green and social financing to one third of all long-term customer financing, and by the end of 2035 reduce emissions from financed properties by 38% from the 2022 level.

- In 2023, new long-term funding reached EUR 10,087 million (EUR 8,827 million). At the end of December, the total funding was EUR 43,320 million (EUR 40,210 million), of which long-term funding made up EUR 39,332 million (EUR 35,560 million). In March and in June 2023, the Group decided to repay the debt related to the European Central Bank's targeted longer-term refinancing operations (*TLTRO III*). The debt totalled EUR 2,000 million.

- The Group's total liquidity remained very strong, standing at EUR 11,633 million (EUR 11,506 million) at the end of the financial year. The liquidity coverage ratio (*LCR*) stood at 409% (257%) and the net stable funding ratio (*NSFR*) at 124% (120%) at the end of the year.

- The Board of Directors proposes to the Annual General Meeting to be held in spring 2024 a dividend of EUR 1.69 per share, totalling EUR 66.0 million. The total dividend payment in 2023 was EUR 1.73 per share, totalling EUR 67.6 million.

- Outlook for 2024: The Group expects its net operating profit excluding unrealised fair value changes to be at the same level or higher than in 2023. The Group expects its capital adequacy ratio and leverage ratio to remain strong. The valuation principles set in the IFRS framework may cause significant but temporary unrealised fair value changes, some of which increase the volatility of net operating profit and make it more difficult to estimate. A more detailed outlook is presented in the section *Outlook for 2024*.

Comparison figures deriving from the income statement and figures describing the change during the reporting period are based on figures reported for the corresponding period in 2022. Comparison figures deriving from the balance sheet and other cross-sectional items are based on the figures of 31 December 2022 unless otherwise stated.

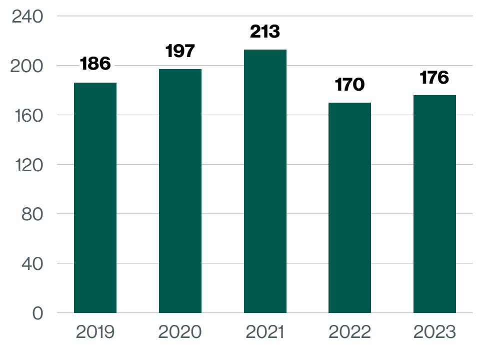
Key figures (Group)

	Jan–Dec 2023	Jan–Dec 2022	Change, %
Net operating profit excluding unrealised fair value changes (EUR million)*	176	170	3.2
Net operating profit (EUR million)*	139	215	-35.5
Net interest income (EUR million)*	259	241	7.5
New long-term customer financing (EUR million)*	4,370	4,375	-0.1
New long-term funding (EUR million)*	10,087	8,827	14.3
Cost-to-income ratio, %*	32.4	23.9	35.7
Return on equity (*ROE*), %*	6.6	9.9	-33.5
	31 Dec 2023	**31 Dec 2022**	**Change, %**
Long-term customer financing (EUR million)*	32,022	29,144	9.9
Balance sheet total (EUR million)	49,736	47,736	4.2
CET1 capital (EUR million)	1,550	1,482	4.6
Tier 1 capital (EUR million)	1,550	1,482	4.6
Total own funds (EUR million)	1,550	1,482	4.6
CET1 capital ratio, %	103.4	97.6	5.9
Tier 1 capital ratio, %	103.4	97.6	5.9
Total capital ratio, %	103.4	97.6	5.9
Leverage ratio, %	12.0	11.6	3.8
Personnel	185	175	5.7

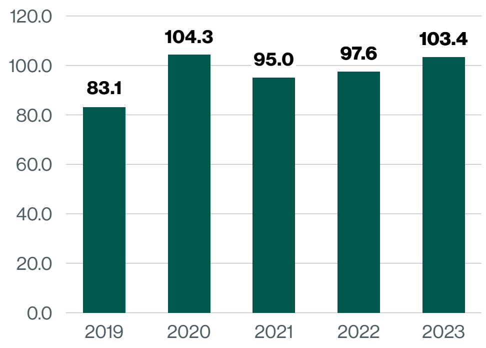
** Alternative performance measure.*

The calculation formulas for all key figures can be found on pages 86–94. All figures presented in the Report of the Board of Directors are those of MuniFin Group, unless otherwise stated.

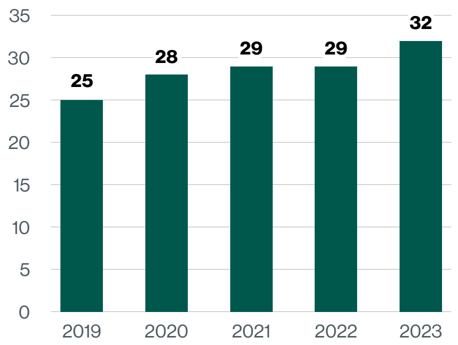
Net operating profit excluding unrealised fair value changes, EUR million*



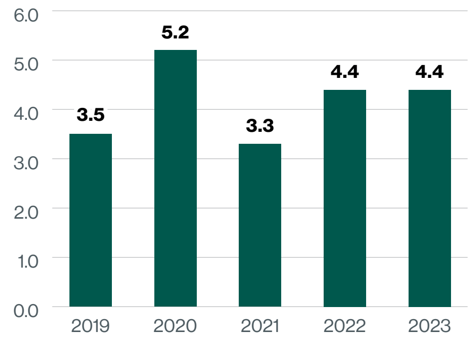
CET1 capital ratio, %



Long-term customer financing, EUR billion*



New long-term customer financing, EUR billion*



**Alternative performance measure.*

The calculation formulas for all key figures can be found on pages 86–94. All figures presented in the Report of the Board of Directors are those of MuniFin Group, unless otherwise stated.

Operating environment in 2023

The year 2023 was characterised by central banks' continuing efforts to tame inflation. The US Federal Reserve raised its key interest rate from a targeted range of 3.75–4.00% to a range of 5.25–5.5%, and the European Central Bank (*ECB*) hiked its deposit facility rate from 2.00% to 4.00%. Central banks also hastened the contraction of their balance sheets in 2023. Russia's ongoing war of aggression and other challenges in international politics, such as the tensions between the US and China and the breakout of the Israel–Hamas war, caused further economic uncertainty.

Despite the rapid tightening of monetary policy and the geopolitical risks at play, Western economies maintained a surprisingly positive trend for a long time. Rising interest rates created a downward trend in construction and manufacturing already in 2022, but the service sector, which generates the majority of the GDP in Western countries, stayed on a strong growth track in the first half of 2023. Expansionary fiscal policy also boosted growth, especially in the US. The effects of interest rate hikes became clearer in the second half of the year, however, when the euro area GDP began to contract and inflation fell faster than anticipated.

The negative economic trend hit Finland harder than the rest of the euro area. In Finland, the popularity of variable-rate loans and the major role of construction investments amplified the effects of the tightening monetary policy. The export industry's order intake also suffered from the rising cost of financing. In the housing market, the volume of sales stayed considerably below normal, and the full-year average price per square metre fell markedly. Despite the weak economic cycle, Finland's employment situation remained relatively good. In 2023, the average unemployment rate was only 0.5 percentage points higher than in 2022.

Central banks' rapid interest rate hikes and changes in the monetary policy outlook caused strong periodic fluctuation in the interest rate markets. The 12-month Euribor rate rose from 3.29% to 3.51% during the year, but long-term interest rates, on the other hand, ended up at a lower level than at the beginning of the year. Germany's 10-year bond yield came down from 2.56% to 2.02%, while Finland's corresponding rate fell from 3.09% to 2.57%.

Effects of the health and social services reform on MuniFin Group

On 1 January 2023, Finland's long-prepared health and social services reform became effective and the new wellbeing services counties began their operations. The operative work of the wellbeing services counties is largely being funded by the central government, but the counties have government authorisation to acquire long-term funding for their investments outside of central government funding. The counties can also independently seek short-term funding.

MuniFin continued to act as a lender and counterparty to the loans and other commitments that were transferred to the wellbeing services counties at the start of 2023. These totalled about four billion euros.

Legislation allows MuniFin to also finance new investments and other new financing needs by the wellbeing services counties. This new financing is currently affected by the fact that the wellbeing services counties are not liable for the guarantees for MuniFin's funding because, unlike municipalities, wellbeing services counties are not members of the Municipal Guarantee Board (*MGB*). For this reason, the MGB, which guarantees MuniFin's funding, has decided to set an annual limit to the amount of new financing MuniFin can grant to wellbeing services counties.

In 2023, the MGB's limit for MuniFin's long-term loans to wellbeing services counties was EUR 400 million. Because the wellbeing counties' government-authorised borrowing powers in 2023 were considerably higher than this, their financing needs were also higher than the limit. MuniFin reached the EUR 400 million limit before the end of the year and could no longer fulfil counties' financing requests for 2023 after that. Wellbeing services counties continued to have access to financing from other credit institutions. According to MuniFin's estimate, MuniFin's temporary absence from the market may increase wellbeing services counties' financing costs, which may not support the general goals of curbing the costs of the health and social services sector.

The MGB's limit for MuniFin's new short-term financing to wellbeing services counties, i.e. commercial papers to wellbeing services counties, was EUR 900 million in 2023. This limit was EUR 900 million also in 2022.

In MuniFin's view, legislation and the wellbeing services counties' financing model should be amended so that in the future, wellbeing services counties could either be members of the MGB or otherwise liable for the guarantees for the funding related to the financing targeted at them. This would ensure that their financing needs could be secured in the long-term and met cost-effectively. In late 2023, the MGB decided on the limits for 2024. They remain the same as in 2023, which means that the challenges in securing cost-effective financing for the investments of wellbeing services counties will also remain the same in 2024.

Information on the Group results

Consolidated income statement (EUR million)	Jan–Dec 2023	Jan–Dec 2022	Change, %
Net interest income	259	241	7.5
Other income	0	2	-93.7
Income excluding unrealised fair value changes	**259**	**243**	**6.5**
Commission expenses	-16	-6	>100
HR expenses	-20	-19	9.1
Other items in administrative expenses	-20	-19	8.8
Depreciation and impairment on tangible and intangible assets	-7	-10	-37.2
Other operating expenses	-19	-20	-2.5
Costs	**-82**	**-73**	**12.4**
Credit loss and impairments on financial assets	-1	0	<-100
Net operating profit excluding unrealised fair value changes	**176**	**170**	**3.2**
Unrealised fair value changes	-37	45	<-100
Net operating profit	**139**	**215**	**-35.5**
Income tax expense	-28	-43	-34.8
Profit for the financial year	**111**	**172**	**-35.7**

The sum of individual results may differ from the displayed total due to rounding.
Changes of more than 100% are shown as >100% or <-100%.

The Group's net operating profit excluding unrealised fair value changes

MuniFin Group's core business operations remained strong in 2023. The Group's net operating profit excluding unrealised fair value changes increased by 3.2% and amounted to EUR 176 million (EUR 170 million). The growth resulted from an increase in net interest income. Russia's invasion of Ukraine had only a minor effect on the result both in the financial year and in the comparison period. The Group's net interest income benefited overall from the rising market interest rates resulting from the accelerating inflation.

The Group's income excluding unrealised fair value changes was EUR 259 million (EUR 243 million) and grew by 6.5%. Net interest income grew by 7.5%, totalling EUR 259 million (EUR 241 million). Net interest income was positively affected by growing business volumes, the continued low cost of funding and the positive effect that rising market interest rates have had on net interest income through equity.

Other income totalled EUR 0.1 million (EUR 2 million). Other income includes mainly the turnover of MuniFin's subsidiary company, Financial Advisory Services Inspira Ltd (*Inspira*) and capital gains and losses on net income from foreign exchange differences. At 0.1% (0.9%), other income relative to income excluding unrealised fair value changes forms only a minor part of the Group's income.

The Group's costs were EUR 82 million (EUR 73 million), rising by 12.4% from the year before. The increase in costs was primarily driven by the Municipal Guarantee Board's decision to change the guarantee commission of MuniFin's funding from a fixed fee to a fee tied to the amount of guaranteed funding, which increased the sum considerably to EUR 13 million (EUR 4 million). In contrast, the lower contribution fee to the Single Resolution Fund, which fell by 20.0% to EUR 7 million (EUR 9 million), helped curb the growth of expenses. In the comparison year, costs included a non-recurring item of EUR 5 million resulting from the discontinuation of a major IT project.

Commission expenses totalled EUR 16 million (EUR 6 million), and the growth in commission expenses was mainly due to the aforementioned increase in guarantee commission. HR and administrative expenses reached EUR 41 million (EUR 37 million) and grew by 9.0% (7.6%). HR expenses comprised EUR 20 million (EUR 19 million) and other administrative expenses EUR 20 million (EUR 19 million). Employee numbers grew during the year, and the average number of employees in the Group was 183 (172). Other items in administrative expenses grew by 8.8% (8.9%). The growth is mainly due to the increased costs of maintaining and developing information systems.

During the financial year, depreciation and impairment of tangible and intangible assets reached EUR 7 million (EUR 10 million). This included the EUR 5 million impairment of the termination of the aforementioned IT project in the comparison year.

Other operating expenses decreased by 2.5% (growth in the previous year was 27.0%) to EUR 19 million (EUR 20 million). The reduction in fees was mainly due to the lower contribution fee to the Single Resolution Fund. Excluding fees collected by authorities other operating expenses totalled EUR 9 million (EUR 8 million), growing by 9.9%.

The amount of expected credit losses (*ECL*) amounted to EUR 1.2 million (EUR 0.1 million positive). During the financial year, the Group updated the probability of defaults in accordance with the update cycle, the recovery rates used in loss given default calculations and loss given default for certain customer segments. In addition, macro scenarios were updated to take into account forward-looking information. The Group has assessed the impact of rapidly increased interest rate environment on its receivables from customer financing and on credit risk. Based on the Group's assessment some customers may face challenges in the sufficiency of cash flows during the first half of 2024, so the Group's management still justified to recognise an additional discretionary provision of EUR 0.6 million based on a group-specific assessment.

The Group's overall credit risk position has remained low. At the end of December 2023, the Group had no guarantee receivables from public sector entities due to customer insolvency (EUR 4 million). The amount of forborne loans was EUR 491 million (EUR 80 million), while non-performing exposures amounted to EUR 140 million (EUR 7 million) at the end of the year. The non-performing exposures were less than 0.4% (0.02%) of total customer exposures. All the Group's customer financing receivables are from Finnish municipalities, joint municipal authorities, wellbeing services counties or joint county authorities, or accompanied by a securing municipal, joint municipal authority, wellbeing services county or joint county authority guarantee or a state deficiency guarantee supplementing real estate collateral, and therefore no final credit losses will arise. According to the management's assessment, all receivables from customers will be fully recovered. During the Group's history of almost 35 years, it has never recognised any final credit losses in its customer financing.

The credit risk of the liquidity portfolio has remained at a low level, and the average credit rating of the debt securities in the portfolio is AA+ (AA+). More information on the credit risks of financial assets and other commitments is available in Note *25* to the Consolidated Financial Statements.

The Group's profit and unrealised fair value changes

The Group's net operating profit was EUR 139 million (EUR 215 million). Unrealised fair value changes decreased the Group's net operating profit by EUR 37 million (in 2022: increased by EUR 45 million). In January–December, unrealised fair value changes in hedge accounting amounted to EUR -27 million (EUR 36 million) and unrealised net income from financial assets and liabilities through profit or loss to EUR -10 million (EUR 8 million).

The Group's effective tax rate in the financial year was 20.2% (20.0%). Taxes in the consolidated income statement amounted to EUR 28 million (EUR 43 million). After taxes, the Group's profit for the financial year was EUR 111 million (EUR 172 million).

The Group's full-year return on equity (*ROE*) was 6.6% (9.9%). Excluding unrealised fair value changes, the ROE was 8.4% (7.8%).

The Group's other comprehensive income includes unrealised fair value changes of EUR 109 million (EUR -21 million). During the financial year, the most significant item affecting the other comprehensive income was net change in fair value due to changes in own credit risk of financial liabilities designated at fair value through profit or loss totalling EUR 75 million (EUR -0.2 million). The cost-of-hedging amounted to EUR 25 million (EUR -15 million). Net change in fair value of financial assets at fair value through other comprehensive income was EUR 8 million (EUR -6 million).

On the whole, unrealised fair value changes net of deferred tax affected the Group's equity by EUR 56 million (EUR 19 million) and CET1 capital net of deferred tax in capital adequacy by EUR -3 million (EUR 16 million). The cumulative effect of unrealised fair value changes on the Group's own funds in capital adequacy calculations was EUR 45 million (EUR 47 million).

Unrealised fair value changes reflect the temporary impact of market conditions on the valuation levels of financial instruments at the time of reporting. The value changes may vary significantly from one reporting period to another, causing volatility in profit, equity and own funds in capital adequacy calculations. The effect on individual contracts will be removed by the end of the contract period. In the financial year, unrealised fair value changes were influenced in particular by changes in interest rate expectations and credit risk spreads in the Group's main funding markets.

In accordance with its risk management principles, the Group uses derivatives to hedge against interest rate, exchange rate and other market and price risks. Cash flows under agreements are hedged, but due to the generally used valuation methods, changes in fair value differ between the financial instrument and the respective hedging derivative. Changes in the shape of the interest rate curve and credit risk spreads in different currencies affect the valuations, which cause the fair values of hedged assets and liabilities and hedging instruments to behave in different ways. In practice, the changes in valuations are not realised on a cash basis because the Group primarily holds financial instruments and their hedging derivatives almost always until the maturity date. The counterparty credit risk related to derivatives is comprehensively covered by collateral management. Changes in credit risk spreads are not expected to be materialised as credit losses for the Group, because the Group's liquidity reserve has been invested in instruments with low credit risk.

The Parent Company and subsidiary company Inspira's results

In 2023, MuniFin's net interest income amounted to EUR 259 million (EUR 237 million) and net operating profit to EUR 139 million (EUR 211 million). The comparison period included interest expenses of EUR 4 million for an AT1 capital instrument redeemed in April 2022.

The turnover of MuniFin's subsidiary company, Inspira, was EUR 1.4 million (EUR 1.6 million), and its net operating profit amounted to EUR 0.0 million (EUR 0.0 million).

Information on the consolidated statement of financial position

Consolidated statement of financial position (EUR million)	31 Dec 2023	31 Dec 2022	Change, %
Cash and balances with central banks	0	0	4.5
Loans and advances to credit institutions	9,187	9,625	-4.6
Loans and advances to the public and public sector entities	32,022	29,144	9.9
Debt securities	5,145	4,787	7.5
Derivative contracts	1,857	2,707	-31.4
Other items included in the assets	1,526	1,473	3.6
Total assets	**49,736**	**47,736**	**4.2**
Liabilities to credit institutions	214	2,333	-90.8
Liabilities to the public and public sector entities	2,588	2,530	2.3
Debt securities issued	40,602	35,592	14.1
Derivative contracts	3,373	4,616	-26.9
Other items included in the liabilities	1,216	1,052	15.6
Total equity	1,744	1,614	8.1
Total liabilities and equity	**49,736**	**47,736**	**4.2**

The sum of individual results may differ from the displayed total due to rounding.
Changes of more than 100% are shown as >100% or <-100%.

MuniFin Group's consolidated statement of financial position saw a growth of 4.2% (3.0%) and totalled EUR 49,736 million (EUR 47,736 million). The growth in assets was mainly due to the increase in the long-term loan portfolio in loans and advances to the public and public sector entities. In liabilities, the largest changes were the repayment of the TLTRO III debt in liabilities to credit institutions, and new debt issuances in debt securities issued.

At the end of the financial year, the Group's equity stood at EUR 1,744 million (EUR 1,614 million). The Group's equity was increased by the financial year's profit of EUR 111 million (EUR 171 million), and change in own credit revaluation reserve, fair value reserve of investments and cost-of-hedging reserve in total of EUR 87 million (EUR -17 million). In the consolidated accounts, dividends of EUR 68 million (EUR 40 million) for the financial year 2022, paid to MuniFin's shareholders in April 2023, were deducted from the equity.

The Parent Company's balance sheet at the end of the year was EUR 49,735 million (EUR 47,736 million).

Financing and other services for customers

MuniFin's customers include municipalities, joint municipal authorities, wellbeing services counties, corporate entities under their control, and non-profit organisations and projects nominated by the Housing Finance and Development Centre of Finland (*ARA*). The Group is by far the largest single provider of financing for its customer groups, offering its customers a wide range of financing services and extensive support in investment planning and financial management.

In 2023, the relatively high inflation and rising interest rates caused cost pressure for customers. MuniFin's business operations remained strong in 2023, propelled especially by the housing sector's higher demand for financing late in the year. The number of credit applications and the amount of granted housing finance exceeded previous years' figures by a wide margin, partly because ARA production picked up speed when the rise in construction costs levelled out. The demand for financing gained a further boost after the Government decided to remove subsidies given to new right-of-occupancy homes in 2024 and the reform of the Act on Interest Subsidy.

With the health and social services reform, 2023 was the first year when municipalities were no longer responsible for organising healthcare, social welfare and rescue services and investments related to these services. Municipal finances were supported by temporary tax benefits stemming from the health and social services reform, which meant that municipalities experienced less financing needs. Municipalities had also prepared relatively well for the general rise in interest rate levels through interest rate hedging and long-term interest rates.

Hospital districts – the predecessors of the new wellbeing services counties – had proactively prepared for their financing needs by withdrawing financing in advance, but wellbeing services counties' demand for financing nevertheless increased towards the end of the year. MuniFin transferred financing contracts and other commitments from hospital districts, special care districts and voluntary joint municipal authorities for health and social services to the wellbeing services counties in the beginning of 2023. These commitments totalled about four billion euros.

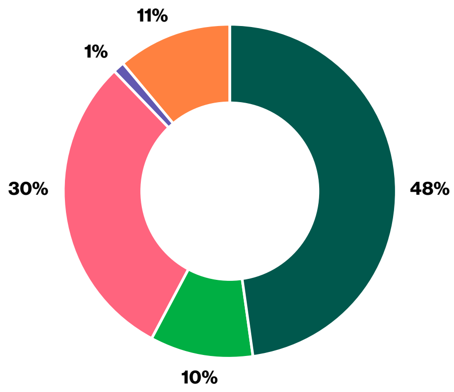
In 2023, the Municipal Guarantee Board's limit for MuniFin's long-term loans to wellbeing services counties was EUR 400 million. The government-authorised borrowing powers in 2023 as well as wellbeing services counties' financing needs were considerably higher than the limit effecting on MuniFin's operations. MuniFin reached the EUR 400 million limit before the end of the year and could no longer fulfil counties' financing requests for 2023 in the last quarter of the year.

New long-term customer financing remained on the 2022 level

New long-term customer financing remained almost on the same level as in 2022, decreasing by 0.1% (in the comparison year it grew by 19.2%). The Group's new long-term customer financing totalled EUR 4,370 million (EUR 4,375 million), of which EUR 4,103 million (EUR 4,074 million) consisted of loans and EUR 268 million (EUR 301 million) of leased assets. In total, long-term customer financing at year-end amounted to EUR 32,022 million (EUR 29,144 million), of which long-term loan portfolio totalled EUR 30,580 million (EUR 27,841 million) and leased assets EUR 1,442 million (EUR 1,303 million). 48% of the long-term loan portfolio is for housing corporations, 42% for municipalities, entities controlled by them and joint municipal authorities and 10% for wellbeing services counties. Long-term customer financing excluding unrealised fair value changes was EUR 32,948 million (EUR 30,660 million) at the end of December, and it grew by 7.5% (5.5%).

Short-term customer financing in commercial papers totalled EUR 1,575 million (EUR 1,457 million) at the end of 2023.

Long-term loan portfolio by customer type 31 Dec 2023, %



MuniFin's subsidiary company Inspira specialises in financial advisory services for the municipal sector. In 2023, the demand for Inspira's services was robust, and Inspira's turnover was EUR 1.4 million (EUR 1.6 million). Inspira supports its customers in designing and implementing sustainable economic and financial solutions. The shifting operating environment increased customers' needs to find, prepare and implement measures to balance their finances and operations. In 2023, the most popular services were services that help customers balance their finances and services that help wellbeing services counties plan their finances and their property ownership and management.

In response to Russia's war of aggression, the European Commission approved in late 2022 a subsidised loan and guarantee scheme that allows MuniFin to finance Finnish municipal energy companies under the EU State Aid Temporary Crisis Framework. The arrangement was valid until the end of 2023, but there was little demand for this type of financing.

More digital leaps

In 2023, MuniFin devoted significant resources to the development of its digital services. MuniFin expanded its previously available digital services for commercial papers in short-term customer financing to cover the application process for long-term finance, and by the end of the year, around half of all loan applications were submitted online. The digital trade of commercial papers for MuniFin's customers launched in 2022 increased its popularity in 2023, and almost all commercial papers were traded online by the end of the year.

MuniFin also launched a new ESG application, which aroused interest among customers. The application allows municipal sector customers to monitor their ESG indicators and compare them to those of other municipalities. MuniFin's other applications continued to enjoy popularity. For instance, the widely-used loan portfolio application proved invaluable in planning finances amidst the changing interest rate environment.

MuniFin supports and encourages its customers to manage their finances in a sustainable way and to make sustainable investment decisions. MuniFin also offers regular economic reports, training for its digital services and various events to support decision-making. MuniFin's training sessions, seminars and events are very popular, and they again attracted thousands of attendees interested in economic topics.

New sustainability agenda sets a high bar for sustainability work

In 2023, MuniFin continued to measure the emissions of its own operations and the projects it finances. The goal in this work is to systematically reduce the carbon footprint of MuniFin's financed emissions, offer customers support with emission reductions and better manage the climate and environmental risks associated with the Group's operations.

In late 2023, MuniFin published its first sustainability agenda with the goal of increasing the proportion of sustainable finance and through it reducing financed emissions from buildings. The amount of sustainable finance offers a clear and commensurate measure of the Group's impact and describes the sustainability of its operations. The goal is for green finance to account for 25% and social finance for 8% of the long-term customer finance portfolio by 2030. In 2023, green finance accounted for 14.6% and social finance for 6.8% of long-term customer financing excluding unrealised fair value changes. The sustainability agenda also includes the Group's first financed emissions goal, aiming for financed emissions from buildings to have an emissions intensity of 8 $kgCO_2e/m2$ by 2035. The emissions intensity of the Group's portfolio was 12 $kgCO_2e/m2$ based on the data of 2022.

MuniFin works actively to improve its own and its customers' sustainability competence and commitments such as participating actively in working groups and in discussions promoting sustainability.

Sustainable finance products keep increasing in popularity

MuniFin Group offers its customers green and social finance for their sustainable investments. Green finance is aimed at investments that are friendly for the climate and environment, whereas social finance is aimed at investments that produce widespread social benefits. Together they form the spearhead of MuniFin's sustainability agenda.

Through green and social finance, MuniFin Group wants to encourage its customers to make environmentally and socially sustainable investments. To achieve this, the Group grants a margin discount for eligible projects, which encourages customers to assess the impacts of their investments more extensively and make choices that are sustainable for the environment and society. In 2023, the Group gave further incentive to apply for green finance by increasing the margin discount granted to most green project categories.

The demand for MuniFin's green finance remained high. At the end of 2023, there were 411 (246) green projects with outstanding financing, and green finance totalled EUR 4,795 million (EUR 3,251 million). Social finance also continued to gain more demand. At the end of 2023, there were 123 (76) social projects with outstanding financing, and social finance totalled EUR 2,234 million (EUR 1,734 million). For the housing sector, the guidelines of Finnish government's new programme have been relevant in 2023, which may have an impact on the amount of social finance in the future. The effects are particularly related to the reduction of authorisation of interest subsidy loans and investment aid for special groups.

Concurrently with this Report of the Board of Directors and the Financial Statements, MuniFin Group publishes a separate Green Impact Report and Social Impact Report for 2023, which are both available on MuniFin's website.

Funding and liquidity management

MuniFin Group acquires its funding mainly from the international capital markets as issuances under debt programmes. The funding strategy relies on wide diversification into multiple currencies, maturities, geographical areas and investor groups to secure access to funding under all market conditions.

The Group's strategy has proved highly successful during recent monetary and security policy upheavals: the Group retained strong access to capital markets throughout the year, and the average cost of funding remained at a low level. In the first half of 2023, rising inflation, global challenges in the banking sector and rapidly rising interest rate levels created uncertainty in the market. As the year progressed, risk premiums continued to widen as a result of cyclical concerns in the global economy, conflict in the Middle East, and the rapid contraction of central banks' balances. At the end of the year, the reference rates fell clearly, when inflation slowed down faster than expected and the markets began to price the central banks' future interest rate cuts more strongly than before.

The Group issued five benchmark bonds in 2023: three denominated in euros and two in US dollars. All five bonds were highly successful. The Group also made several tap issues to previously issued bonds. In addition to the strategic benchmark bonds, the Group also conducted a variety of other funding operations on account of the increased market volatility. The Group was particularly active in the markets for pound sterling and Norwegian krone and re-entered the Swiss franc market.

MuniFin repaid its EUR 2 billion debt acquired through the European Central Bank's targeted longer-term refinancing operations *(TLTRO III)* in March and in June 2023, and acquired a corresponding amount through other long-term funding operations.

In 2023, the Group's new long-term funding totalled EUR 10,087 million (EUR 8,827 million). A total of 87 (180) long-term funding arrangements were made in 12 (13) different currencies. The Group uses derivatives to hedge against market risks in funding.

At the end of 2023, the Group's total funding amounted to EUR 43,320 million (EUR 40,210 million), of which the Euro Commercial Papers *(ECP)* totalled EUR 3,987 million (EUR 4,650 million). Of total funding, 54.0% (48.5%) were denominated in euros and 46.0% (51.5%) in foreign currencies.

Debt programmes used by MuniFin

Medium Term Note *(MTN)* programme	EUR 45,000 million
Euro Commercial Paper *(ECP)* programme	EUR 10,000 million
AUD debt programme *(Kangaroo)*	AUD 2,000 million

MuniFin's funding is guaranteed by the Municipal Guarantee Board *(MGB)*, a public law institution whose members consist of all the municipalities in mainland Finland. The members are responsible for the liabilities of the MGB in proportion to their population. The MGB has granted guarantees for both the debt programmes and funding arrangements outside the programmes. Based on this, debt instruments issued by MuniFin are classified as zero-risk when calculating the capital adequacy of credit institutions and solvency of insurance companies, and as Level 1 liquid assets in liquidity calculation in the EU.

Investor interest in sustainable finance products continues to increase, and regulation is also steering markets towards a more sustainable direction. The Group is committed to issuing new green and social bonds regularly. In 2023, the Group issued a EUR 1 billion green bond that became the largest EUR green bond to date for MuniFin as well as the largest EUR green bond of all time in the Nordic SSA (*Sovereigns,* *Supranationals, Agencies*) market. The bond was many times oversubscribed despite the challenging market backdrop, and nearly 80% of the participating investors were dedicated ESG investors. The Group issued one social bond as a private placement.

The geopolitical situation and market volatility have impacted MuniFin's liquidity planning, the aim of which is to ensure the availability of financing for customers in all market conditions. The Group's long-term risk appetite framework specifies that total liquidity must cover uninterrupted business for a survival horizon of at least 12 months. With the amount held at the end of the year, the Group could uphold all its commitments with no additional funding for almost 16 months (15 months).

Because of the general market uncertainty, MuniFin continued to keep its largest allocations in central bank deposits also in 2023. At the end of the year, the Group's total liquidity stood at EUR 11,633 million (EUR 11,506 million). Of this, central bank deposits totalled EUR 7,989 million (EUR 8,144 million) and investments in liquid, low-risk securities EUR 3,570 million (EUR 3,330 million), with the average credit rating of AA+ (AA+) and average maturity of 2.9 years (2.6 years). In addition to this, the Group's money market deposits in credit institutions totalled EUR 74 million (EUR 32 million). The Group's liquidity investments are hedged with interest rate swaps. Changes in interest rates therefore do not have a direct impact on profit and loss.

The Group's Sustainable Investment Framework summarises the sustainability principles, processes and responsibilities of the Group's investment operations. In addition to low credit risk and high liquidity, sustainability is a key factor in the Group's liquidity investments. The Group monitors the sustainability of its investments through their ESG *(Environmental, Social and Governance)* score, calculated quarterly by an external service provider. The ESG score takes into account what the most significant ESG risks and opportunities facing the issuer and its industry are, how exposed the issuer is to those risks and opportunities, how well the issuer manages key risks and opportunities, what the overall picture for the issuer is and how it compares to its global peer group. These aspects are evaluated through ten different ESG themes on a scale of 0 to 10 to calculate the final ESG score, where 10 corresponds to the best rating.

At the end of 2023, the Group's liquidity investments had an average ESG score of 7.59 (7.65), above the benchmark index of 7.41 (7.43). The Group held a total of EUR 635 million (EUR 498 million) in direct socially responsible investments *(SRIs)*, which is 17.8% (15.0%) of all the Group's investments in securities. The ratio of sustainable investments was higher than the market benchmark of 17.4% (8.1%). The ratio of socially responsible investments to the Group's own green and social funding was 14.0% (14.5%).

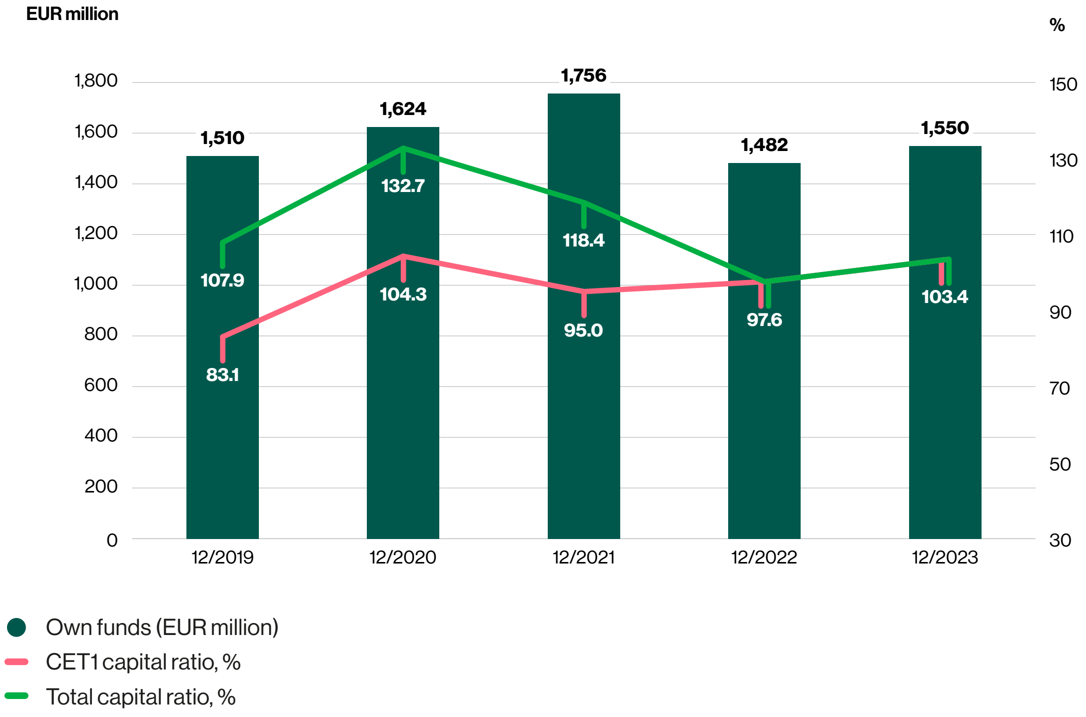
MuniFin's credit ratings

Rating agency	Long-term funding	Outlook	Short-term funding
Moody's Investors Service	Aa1	Stable	P-1
Standard & Poor's	AA+	Stable	A-1+

MuniFin's credit ratings correspond to those of the Government of Finland. The credit ratings did not change during the financial year. The Municipal Guarantee Board, which guarantees MuniFin Group's funding, also has the corresponding ratings.

Capital adequacy

MuniFin Group's own funds and capital adequacy



MuniFin Group's own funds and capital adequacy

MuniFin Group's capital adequacy is very strong. The Group's CET1 capital ratio was 103.4% (97.6%), which corresponds to its Tier 1 capital ratio and total capital ratio at the end of December 2023 (97.6%) because the Group only had CET1 capital at the time. The Group's CET1 capital ratio is over seven times the required minimum of 13.9%, taking capital buffers into account.

Consolidated own funds (EUR 1,000)	31 Dec 2023	31 Dec 2022
Common Equity Tier 1 before regulatory adjustments	1,677,800	1,546,129
Regulatory adjustments to Common Equity Tier 1	-127,991	-64,519
Common Equity Tier 1 (*CET1*)	**1,549,809**	**1,481,610**
Additional Tier 1 capital before regulatory adjustments	-	-
Regulatory adjustments to Additional Tier 1 capital	-	-
Additional Tier 1 capital (*AT1*)	**-**	**-**
Tier 1 capital (*T1*)	**1,549,809**	**1,481,610**
Tier 2 capital before regulatory adjustments	-	-
Regulatory adjustments to Tier 2 capital	-	-
Tier 2 capital (*T2*)	**-**	**-**
Total own funds	**1,549,809**	**1,481,610**

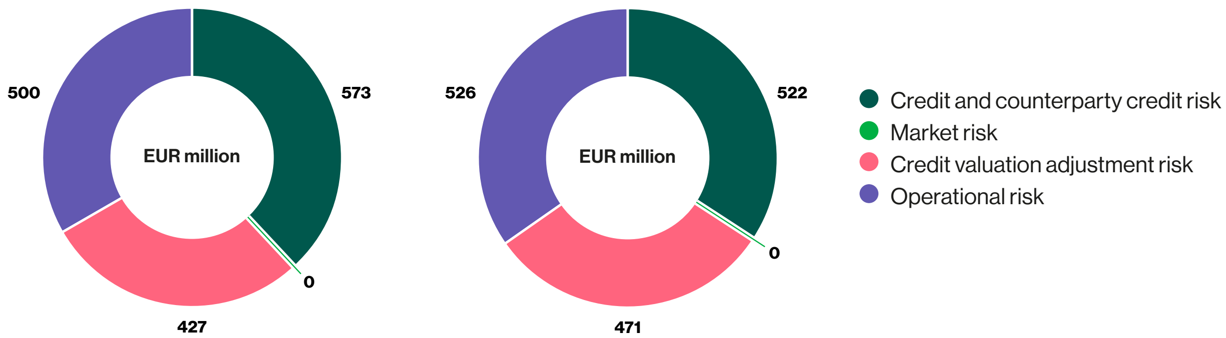
At the end of the year, the Group's CET1 capital totalled EUR 1,550 million (EUR 1,482 million). The Group had no Additional Tier 1 instruments or Tier 2 capital at the end of the financial year, so its CET1 capital was therefore equal to its Tier 1 capital and total own funds, EUR 1,550 million (EUR 1,482 million).

The CET1 capital includes profit for the financial year. This profit has been subject to a financial review by auditors and can therefore be included in CET1 capital based on the permission granted by the ECB in accordance with the Capital Requirements Regulation *(CRR)*. The Board's 2023 dividend proposal of EUR 66 million has been deducted from the Group's own funds.

During the financial year the Group further developed its additional valuation adjustment *(AVA)* models, but these changes did not have a significant impact on its own funds.

Total risk exposure amount 12/2023
EUR 1,500 million

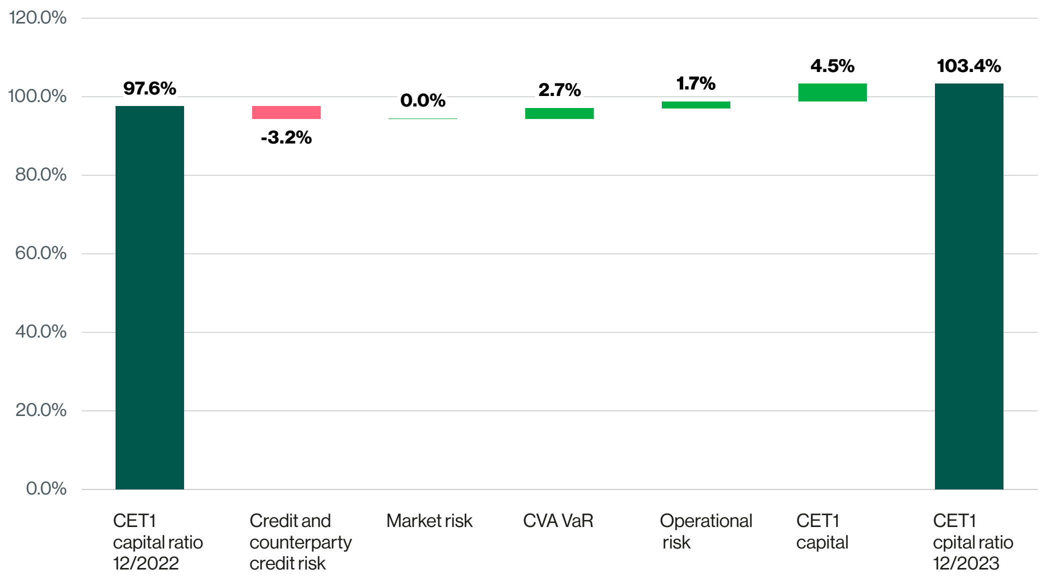
Total risk exposure amount 12/2022
EUR 1,518 million



The Group's total risk exposure amount decreased by 1.2% from the end of 2022, totalling EUR 1,500 million (EUR 1,518 million) at the end of the financial year.

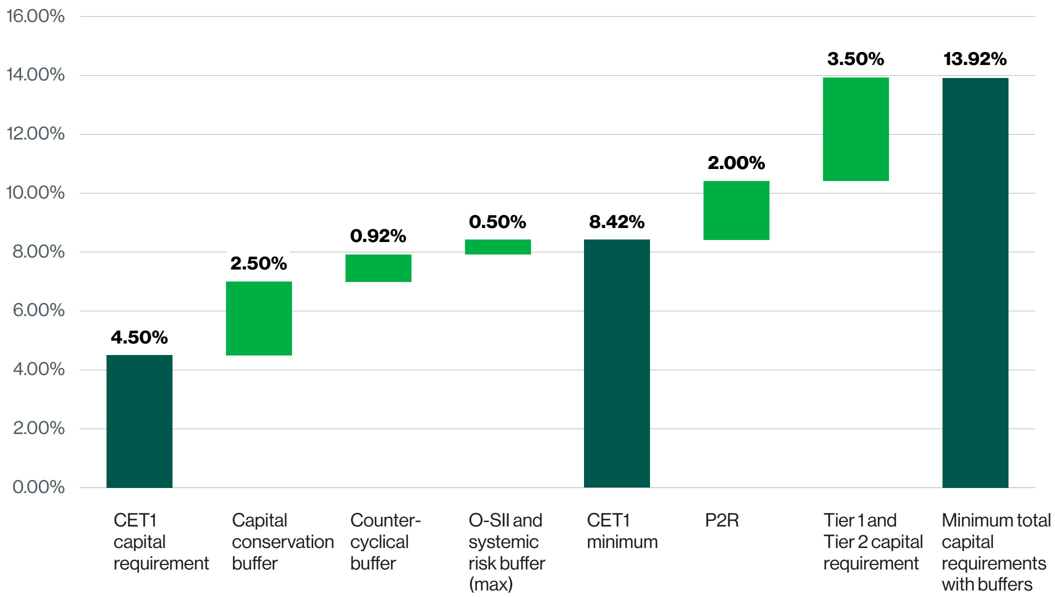
The risk exposure amount for credit and counterparty credit risk increased by EUR 51 million from the end of 2022. There was no capital requirement for market risk at the end of the financial year or in the comparison year, because the currency position was less than 2% of the Group's own funds, and, based on Article 351 of the CRR, the own funds requirement for market risk has therefore not been calculated. The credit valuation adjustment *(CVA VaR)* decreased to EUR 427 million (EUR 471 million). The risk exposure amount of operational risk was EUR 500 million (EUR 526 million). MuniFin Group has further developed in 2023 the calculation methods for calculating risk exposures of derivatives counterparty credit risk, which has diminished both CVA Var as well as SA-CCR risk exposure amount

CET1 capital ratio changes, %



Detailed key figures on the capital adequacy of both MuniFin Group and the Parent Company are provided in the Notes to this Report. The principles of capital adequacy management are described in Note *2 Risk management principles and the Group's risk position* to the Consolidated Financial Statements. Concurrently with this Report of the Board of Directors and the Financial Statements, MuniFin Group publishes a separate Pillar III Disclosure Report on its risk management, capital adequacy and remuneration, which is available in English on MuniFin's website.

The Group's minimum capital requirements and capital buffers, %



The Group's minimum capital requirements and capital buffers

The minimum capital requirement is 8% for total capital adequacy and 4.5% for CET1 capital adequacy. Under the Act on Credit Institutions, the capital conservation buffer is 2.5%. An additional capital requirement for other systemically important credit institutions *(O-SII buffer)* is 0.5% for MuniFin Group. At the end of June 2023, the Finnish Financial Supervisory Authority *(FIN-FSA)* gave its yearly decision on O-SII buffers and kept MuniFin Group's buffer unchanged at 0.5%. At the end of March 2023, the FIN-FSA decided on a systemic risk buffer *(SyRB)* requirement of 1% for MuniFin Group. This decision is effective as of 1 April 2024 and also applies to other Finnish credit institutions at the same level. Before April 2024, the SyBR is 0%.The systemic risk buffer and the O-SII buffer are parallel buffers, of which only the greater is applied.

MuniFin

In December 2023, the FIN-FSA decided to keep the countercyclical capital buffer requirement unchanged at the baseline level of 0%. For MuniFin Group, the credit institution-specific countercyclical capital buffer requirement that is imposed based on the geographical distribution of exposures is 0.9% (0.8%). The Group therefore has a minimum requirement of 8.4% (8.3%) for its CET1 capital ratio and 11.9% (11.8%) for its total capital ratio.

In addition to the abovementioned requirements, the ECB has imposed a bank-specific Pillar 2 requirement *(P2R)* of 2.0% on MuniFin Group as part of the annual Supervisory Review and Evaluation Process *(SREP)*. This requirement remained unchanged from the year before. Including this P2R requirement, the total SREP capital requirement ratio *(TSCR)* was 10.0% (10.0%) at the end of December 2023.

The minimum level of total capital ratio was 13.9% (13.8%) including P2R and other additional capital buffers.

Leverage ratio, liquidity coverage ratio and net stable funding ratio

At the end of the year, MuniFin Group's leverage ratio was 12.0% (11.6%). MuniFin fulfils the CRR II definition of a public development credit institution and may therefore deduct all credit receivables from municipalities, wellbeing services counties and the central government in the calculation of its leverage ratio. The amount of credit receivables from municipalities, wellbeing services counties and the central government was EUR 35,251 million (EUR 31,853 million) at the end of the year. After the deduction, the Group's leverage ratio exposures totalled EUR 12,877 million (EUR 12,777 million). The minimum required leverage ratio is 3%.

At the end of the year, MuniFin Group's liquidity coverage ratio *(LCR)* was 409.1% (256.7%) and its net stable funding ratio *(NSFR)* was 124.1% (120.3%). Both have a minimum requirement of 100%.

Liabilities under the Act on the Resolution of Credit Institutions and Investment Firms

MuniFin's crisis resolution authority is the EU's Single Resolution Board *(SRB)*. The SRB has imposed on MuniFin a binding minimum requirement for own funds and eligible liabilities *(MREL)*. The size of the MREL requirement is 10% of the total risk exposure amount and 3% of the leverage ratio exposure. The MREL requirement takes into account the SRB's decision on the simplified resolution strategy being applied to MuniFin.

The MREL requirement took effect on 1 January 2024, but MuniFin has had to fully comply with the final MREL target levels, which equal the capital and leverage ratio requirements, from January 2022 onwards. MuniFin's own funds and eligible liabilities currently exceed the MREL requirement multiple times, and there is no present need for MuniFin to issue Tier 3 instruments.

Changes in banking regulation

In March 2023, MuniFin Group published as part of the 2022 Pillar III Disclosure Report its ESG risks in accordance with CRR Article 449a, and taking into account the requirements of the technical standard EBA/ITS/2022/01 of the European Banking Authority. During 2023, the Group started preparing for the disclosure of the phase 2 information of Green Asset Ratio *(GAR)* in March 2024.

At the end of October 2021, the European Commission published its proposal for the implementation of the final Basel III banking regulatory standards in the EU *('CRR III package')*. This reform will affect banks' solvency calculation, especially in the context of credit, market and operational risks, credit valuation adjustment *(CVA VaR)*, and leverage ratio. It also introduces a new output floor. MuniFin Group's business model is based on zero-risk-weighted customer financing, which will not change with the implementation of the Basel III package. The reform will, however, affect MuniFin's capital adequacy calculations and reporting methods.

During the financial year, the Group assessed the potential impact of the regulatory changes. According to the Group's current estimate, the changes in regulation will result in increased capital requirements related to derivatives, but otherwise their impact on capital adequacy is expected to be minor. The impact assessment entails some uncertainty because these regulatory changes are not yet interpreted in an established way. The Group nevertheless expects to exceed the minimum regulatory capital requirements many times over due to its strong capital position, also in the future. The regulatory changes are not expected to impact MuniFin's leverage ratio.

Sustainability-related reporting requirements are growing in the financial sector, increasingly obliging MuniFin and its customers to document the impacts of their operations in more detail. The Group has started preparations in connection with the Corporate Sustainability Reporting Directive *(CSRD)*, approved by the European Parliament in November 2022. The implementation of CSRD into national legislation has been approved at the end of 2023. The reporting requirement applies to the Group from 2025, so that the first reporting will be done in the first half of 2026.

The Group has also started preparations for Digital Operational Resiliency Act *(DORA)* in the financial sector to take into account changes in ICT agreements and to the processes of maintaining information systems both within MuniFin Group and with IT vendors related to the systems. The regulation entered into force in January 2023 and will apply from January 2025. The regulation contains requirements aimed at improving the ability of the financial sector to tolerate errors and disturbances in information systems.

MuniFin's revised strategy, emphasizing sustainability

In September 2023, the MuniFin Board of Directors ratified the Group's revised strategy. This new strategy builds on previous strategies and rather refines the Group's strategy than introduces any major reforms. This means that the core of MuniFin Group's strategy and business model remained fundamentally unchanged.

The objective of the strategy work was to clarify the interpretation of the Group's core mandate in a changed operating environment and to integrate sustainability even more broadly to the Group's operations. MuniFin's mandate is to ensure that MuniFin's limited customer base, which is assigned to carry out public duties, has access to affordable financing under all market conditions, that MuniFin Group meets its customers' financing needs in a responsible and efficient manner and that the Group seeks to serve the genuine interests of its customers in the long term.

MuniFin's core mandate highlights the determined growth of customer benefits and the long-term focus, sustainability and ease of operations, without forgetting the interests of MuniFin's owners. Together with a clear business model and the Group's values of customer centricity, responsibility and transparency, the core mandate guides the entire Group's operations.

The strategy contains key policies that guide MuniFin Group's operations in terms of its core mandate, sustainability, skills development and operational development. These key policies have the following objectives:

- Ensuring and securing MuniFin's role in the evolving Finnish society and public sector.
- Acting as a supportive partner to our customers as they build a sustainable society and managing the Group's own climate and environmental risks.
- Investing in skills development by nurturing expertise, encouraging accountability and increasing learning opportunities.
- Simplifying, streamlining and automating operations to enable the continuous improvement of customer benefits and employee experience.

MuniFin Group's financial objectives

MuniFin's core mandate is to ensure that its limited customer base, which is assigned to carry out public duties, has access to affordable financing under all market conditions. This core mandate necessitates keeping MuniFin's capital quantity and quality and liquidity at levels that exceed even the strictest regulatory requirements at all times, thus enabling the continuation of normal business operations even during financially difficult times. MuniFin has conservative risk management policies and maintains a strong risk-bearing capacity in both quantity and quality.

Due to its specialised business model, the Group's strictest regulatory capital requirement is the leverage ratio, unlike in most credit institutions. The leverage ratio requirement is a prudential tool defined under the Capital Requirements Regulation *(CRR)* that complements minimum capital adequacy requirements. Its purpose is to prevent credit institutions from building up excessive leverage. The leverage ratio is calculated as a ratio between the institution's Tier 1 capital and total exposure calculated based on the assets and off-balance sheet items as described in the regulatory framework. MuniFin fulfils the CRR II (Regulation (EU) 2019/876) definition of a public development credit institution and may therefore deduct all credit receivables from municipalities, wellbeing services counties and the central government in the calculation of its leverage ratio. After the deduction, the most significant factor affecting MuniFin's leverage ratio is the size of its liquidity portfolio, which safeguards the Group's liquidity.

MuniFin's aim is for the Group's Common Equity Tier 1 *(CET1)* capital to always surpass 7%, which is the sum of the minimum requirement set in regulation (3%) and the capital buffers set by the management (4%). The Group uses these capital buffers to prepare for events and changes that have an adverse effect on its capital position. These can include realised business risks or regulatory changes. The capital requirement for business risk is based on a strict stress test, and it mostly results from unrealised fair value changes, which are temporary in nature.

At the end of December 2023, the Group's leverage ratio calculated with CET1 capital was 12.0%. Capital exceeding the Group's minimum target covers fluctuation in capital requirements caused by changes in the total liquidity amount and safeguards the Group's continuity of operations and ability to pay dividends.

Considering that MuniFin's objective as a public development credit institution is not to maximise profits, the Group aims at a result that will ensure the Group's ability to carry out its core mandate in the long term. The Group's objective is to achieve at least a result that is sufficient to cover any increases in capital requirements arising from increased business operations and to satisfy the shareholders' expected yield in the long term. MuniFin uses long-term pricing strategies and other measures to maximise its customer benefits while also ensuring the continuity of its operations and the yield expectation of its shareholders.

In March 2023, the Annual General Meeting (*AGM*) ratified MuniFin's dividend policy. According to this policy, MuniFin aims to pay 30–60% of the Group's financial year's profit in dividends, as long as it does not jeopardise the Parent Company's solvency, liquidity or ability to meet its commitments. When drafting the annual dividend proposal and deciding on the distribution of profits, the following factors influencing the Group's capital position are taken into account on a broad spectrum:

- Uncertainties and changes in the operating environment and regulation
- Assessments of the Group's financial situation in the future
- The Group's funding position and liquidity
- Changes to the Group's risk position
- Unrealised fair value changes affecting the Group's own funds
- Assessments of the Group's liquidity development
- Views of supervisory authorities and credit rating agencies
- Accruals of possible AT1 capital instruments not recognised in profit and loss.

Risk management

MuniFin Group's operations require adequate risk management mechanisms to ensure that its risk position remains within the limits set by the Parent Company's Board of Directors. To preserve its strong credit rating, the Group applies conservative risk management principles and aims to keep the overall risk status low.

The relevant risk types associated with the Group's operations include credit and counterparty risk, market risk and liquidity risk. All business operations also involve strategic risks, ESG risks and operational risks, including compliance risk.

The Group's risks are described in more detail in Note *2 Risk management principles and the Group's risk position* to the Consolidated Financial Statements. Concurrently with this Report of the Board of Directors and the Financial Statements, MuniFin Group publishes a separate Pillar III Disclosure Report on capital adequacy, risk management and remuneration, which is available in English on MuniFin's website.

The Group's risk position

There were no material changes in MuniFin Group's risk position during 2023, and risks remained within the risk appetite limits set by the Board of Directors. The Russian invasion of Ukraine continued to have little effect on the Group's financial position and results. The year was marked by the shifting capital market landscape and challenging market environment. The combination of rapidly escalating inflation, soaring interest rates and worldwide issues within the banking sector caused market uncertainty that complicated the acquisition of funding. Despite these challenges, MuniFin's own funding continued in the usual manner during the financial year, and the Group has nevertheless kept as a precaution strong liquidity buffers. Russia's war of aggression mainly affects the Group's risks indirectly through market conditions. Cyberattacks targeted at the Group could also affect its risks, but the Group has carefully prepared for these.

Despite the changes in the operating environment, the Group's risk position remained stable and at a low level during the financial year. Unrealised fair value changes of financial instruments caused earnings volatility. The Group continuously monitors and analyses the volatility arising from valuations and prepares for any impacts this may have on its profit and capital adequacy.

In the first half of 2023, MuniFin Group took part in the SSM Stress Test carried out by the European Central Bank, covering the years 2023–2025. The test's results were published in July 2023. MuniFin Group's capital clearly exceeds the capital needs calculated under the stress test adverse scenario.

The Group is exposed to credit risks as part of its business, but due to the nature of its customer base, these risks are low. The Group's credit risks emerge almost exclusively from customer financing, liquidity portfolio investments and the derivatives portfolio. MuniFin also offers derivative products for its customers for hedging their interest rate positions. These products are covered with offsetting contracts from the market. The Group only uses derivatives for hedging against market risks.

In view of its credit risk mitigation techniques (mortgage collateral and guarantees received) and the exemptions set out in CRR Article 400 related to the calculation of large exposures, MuniFin Group is not exposed to the customer risk referred to in the regulation in its customer financing, and thus the customer risk of any individual customer does not exceed 10% of the Group's own funds. The amount of expected credit losses was EUR 1.2 million (EUR 0.1 million positive) recognised in the income statement for the financial year. The amount of forborne loans was EUR 491 million (EUR 80 million), while non-performing exposures amounted to EUR 140 million (EUR 7 million) at the end of the year. For these non-performing exposures, MuniFin has absolute guarantees by municipalities or by wellbeing services counties, or real estate collateral and state deficiency guarantee, and these exposures are therefore not expected to carry the risk of a final credit loss. Non-performing exposures represented less than 0.4% (0.02%) of total customer exposures.

MuniFin's credit risk position remained stable and at a low level during the year. It is expected to remain stable and in line with the Group's credit risk strategy also in the future.

Market risks include interest rate risk, exchange rate risk and other market and price risks. The Group uses derivatives to hedge against market risks. Derivatives can only be used for hedging purposes as the Group does not engage in trading activities. Interest rate risk mainly arises from the differences in reference rates applicable to the assets and liabilities in the balance sheet. The Group actively monitors and hedges its interest rate risk. Ten scenarios are used in the calculation of the net interest income *(NII)* risk, of which the least favourable outcome is considered. One-year NII risk at the end of December was EUR -18 million, and the least favourable scenario was a short rate shock up (at the end of 2022, the least favourable scenario was a parallel shock down of -200 basis points, EUR -25 million). Several scenarios are also used in the calculation of the economic value of equity *(EVE)*, of which the least favourable outcome is considered. At the end of the year, the least favourable scenario was a parallel shock up of 200 basis points, resulting in EVE of EUR -93 million (at the end of 2022, the least favourable scenario was a parallel shock up of 200 basis points, EUR -34 million).

The Group mitigates its foreign exchange *(FX)* risk by using derivative contracts to swap all funding and investments denominated in foreign currency into euros. The Group's customer financing is denominated in euros, and the Group has no significant open FX positions. In practice, a small temporary exchange rate risk may occasionally arise due to collateral management in the clearing of derivatives by central counterparties, but this risk is actively monitored and hedged. Derivatives are also used to hedge against other market and price risks.

The Group has also determined valuation risk as a significant risk for its business. During the financial year, unrealised fair value changes of financial instruments increased the Group's earnings volatility. Unrealised fair value changes were influenced in particular by changes in interest rate expectations and credit risk spreads in the Group's main funding markets and by challenges in the banking sector. The Group continuously monitors and analyses the volatility arising from valuations and prepares for any impacts this may have on its profit and capital adequacy.

The Group's market risk has remained stable despite the market changes.

MuniFin Group manages its refinancing risk by limiting the average maturity between financial assets and liabilities. In addition, the Group manages its liquidity risk by setting a limit for the minimum adequacy of the available short-term and long-term liquidity. The Group's survival horizon was almost 16 months (15 months) at the end of the year. The Group's liquidity remained good, with the liquidity coverage ratio *(LCR)* being 409.1% (256.7%) at the end of the year. The availability of long-term funding is monitored via the net stable funding ratio (*NSFR*), which stood at 124.1% (120.3%) at the end of the year. The availability of funding remained good throughout the year, and the Group issued EUR 10,087 million (EUR 8,827 million) in long-term funding.

MuniFin Group's operational risks are estimated to be at a moderate level, and there were no material losses from operational risks in 2023.

ESG risks include environmental, social and governance risks. There have been no material changes in ESG risks during the financial year.

According to the Group's assessment, its exposure to climate and environmental risks is low. As per the Group's business model, customer receivables originate from the Finnish municipal and wellbeing services counties sectors or are from the State of Finland after credit mitigation (state deficiency guarantee). MuniFin Group recognises that its customers may be exposed to both physical risk caused by climate change and transition risk related to climate change mitigation. The Group can also be exposed to these risks through its customers. Identified risks are related to real estate collateral, but given the existing guarantee arrangements, even the materialisation of a climate or environmental risk is not expected to incur final credit losses. The Group's investment counterparties are governments, central banks, SSA sector entities and credit institutions. According to the Group's assessment, the impact of climate and environmental risks on these operators for the Group is minor. MuniFin Group only invests in counterparties whose risks it considers to be low. This also applies to the Group's derivative counterparties.

According to the Group's assessment, environmental and climate risks are unlikely to manifest substantially in the short term, but they may have an adverse economic effect on the Group's customers in the medium and long term. Although the Group assesses the climate and environmental risks to it as low, it recognises that as climate change progresses, the risks associated with it will increase and the uncertainty will rise. Therefore, MuniFin Group assesses its exposure to climate and environmental risks at least annually.

According to the Group's estimate, it is currently not exposed to any substantial social or governance risks. The perceived low exposure to social risks stems from the lack of identified material risks related to non-compliance with labour laws, human rights or other aspects of social justice. The Group monitors the governance of its customers and investment counterparties through an ESG scoring model, which it uses to evaluate their reported governance and other ESG factors.

In 2023, the Group continued to build its ESG risk management framework in line with regulatory requirements and feedback received from the European Central Bank. This work will continue in the coming years.

Governance

In addition to corporate legislation, MuniFin complies with the governance requirements of the Finnish Act on Credit Institutions and supervisory guidelines. The governance policy is described in more detail on MuniFin's website. MuniFin publishes at the same time with the Annual Report, a Corporate Governance Statement for 2023, pursuant to chapter 7, section 7 of the Finnish Securities Market Act. The statement includes a description of the main features of the internal audit and risk management systems pertaining to the financial reporting process. The statement also includes the governance descriptions required by the Act on Credit Institutions as well as information on how MuniFin complies with the Finnish Corporate Governance Code for listed companies published by the Finnish Securities Market Association. This code applies to Finnish listed companies, i.e. companies whose shares are listed on Nasdaq Helsinki Ltd (Helsinki Stock Exchange). Since MuniFin is exclusively an issuer of listed bonds, and its shares are not subject to public trading, this code does not apply directly to MuniFin.

Group structure

Municipality Finance Group (*MuniFin Group* or *the Group*) consists of Municipality Finance Plc (*MuniFin* or *the Parent Company*) and Financial Advisory Services Inspira Ltd (*Inspira*). Inspira is fully owned by MuniFin. No changes to the group structure took place in the reporting period.

General meeting

The Annual General Meeting (*AGM*) of MuniFin was held on 28 March 2023. The AGM confirmed the Financial Statements for 2022 and discharged the members of the Board of Directors, the CEO and the Deputy CEO from liability for the financial year 2022. In addition, in accordance with the proposal of the Board of Directors, the AGM authorised a dividend of EUR 1.73 per share to be paid, totalling EUR 67.6 million. The amount of distributable funds on the Group's balance sheet on 31 December 2022 was EUR 365.8 million.

Based on the proposal of the Shareholders' Nomination Committee, the AGM decided to appoint eight Board members for the 2023–2024 term, lasting from the 2023 AGM to the end of the subsequent AGM. The AGM also confirmed the Shareholders' Nomination Committee's proposal on the remuneration of Board members.

In accordance with the Board's proposal, the AGM elected KPMG Oy Ab as MuniFin's auditor, with APA Tiia Kataja as the principal auditor. Kataja acted as the principal auditor during the previous term as well. The AGM also noted that MuniFin must elect a new auditor for the term beginning in 2024 to comply with the mandatory audit firm rotation requirement. At the AGM, the Audit Committee's recommendation regarding the election of the auditor for the term starting in 2024 and the Board's proposal for auditor for the following year's annual general meeting were noted for information. The proposal of MuniFin's Board for the 2024 annual general meeting is that the new auditor will be PricewaterhouseCoopers Oy.

The AGM ratified MuniFin's dividend policy as proposed by the Board of Directors. According to this policy, MuniFin aims to pay 30–60% of the Group's financial year's profit in dividends, as long as it does not jeopardise MuniFin's solvency, liquidity or ability to meet its commitments. The dividend distribution is described in more detail in the section *MuniFin Group's financial objectives*.

Also based on the proposal of the Board of Directors, the AGM approved the incorporation of MuniFin's shares into the book-entry system at the time decided by the Board, as well as necessary changes to MuniFin's Articles of Association. The required measures for the incorporation of MuniFin's shares into the book-entry system are still in progress. In addition, more technical revisions were made to MuniFin's Articles of Association. The AGM's resolutions are published on MuniFin's website.

Board of Directors

The Shareholders' Nomination Committee made a proposal to the AGM held on 28 March 2023 regarding the members to be elected for the term that began at the end of the 2023 AGM and will conclude at the end of the subsequent AGM.

The AGM elected the following members to the Board of Directors: Maaria Eriksson, Markku Koponen, Kari Laukkanen, Tuomo Mäkinen, Minna Smedsten, Denis Strandell, Leena Vainiomäki and Arto Vuojolainen. As per the Committee's proposal, the MuniFin Board nominated Kari Laukkanen as the Chair of the Board and Maaria Eriksson as the Vice Chair.

MuniFin has statutory audit, risk and remuneration committees established by the Board of Directors. The committees act as assisting and preparatory bodies to the Board of Directors. The MuniFin Board selected Markku Koponen (Chair), Tuomo Mäkinen, Minna Smedsten and Denis Strandell as the members of the Audit Committee. In the Risk Committee, the Board selected Leena Vainiomäki (Chair), Maaria Eriksson, Kari Laukkanen and Arto Vuojolainen. In the Remuneration Committee, the Board selected Kari Laukkanen (Chair), Leena Vainiomäki and Maaria Eriksson.

From the 2022 AGM to the 2023 AGM, the members of the Board of Directors were Kari Laukkanen (Chair), Maaria Eriksson (Vice Chair), Markku Koponen, Vivi Marttila, Tuomo Mäkinen, Minna Smedsten, Denis Strandell and Leena Vainiomäki. Vivi Marttila was not available for the Board's 2023–2024 term.

The operations of the MuniFin Board of Directors and its committees are described in more detail on MuniFin's website.

Personnel

At the end of December 2023, MuniFin Group had 185 (175) employees, of which 174 (165) worked for the Parent Company. Salaries and remuneration paid across the Group amounted to EUR 16.9 million (EUR 15.5 million).

The President and CEO of MuniFin is Esa Kallio, with Mari Tyster, Executive Vice President, acting as deputy to the CEO. In addition, the MuniFin Executive Management Team includes Executive Vice Presidents Aku Dunderfelt, Toni Heikkilä, Joakim Holmström, Harri Luhtala, Minna Piitulainen and Juha Volotinen.

Salaries and remuneration

The remuneration paid to MuniFin Group's management and employees consists of fixed remuneration (base salary and fringe benefits) and a variable element based on the conditions of the remuneration scheme. The principles of the remuneration scheme are confirmed by the Parent Company's Board of Directors, and they are reviewed on an annual basis. The Remuneration Committee advises the Board of Directors on remuneration-related matters. For more information on salaries and remuneration, refer to Note *43 Salaries and remuneration* in the Consolidated Financial Statements. Concurrently with this Report of the Board of Directors and the Financial Statements, MuniFin Group publishes a separate Pillar III Disclosure Report on capital adequacy, risk management and remuneration, which is available in English on MuniFin's website.

Internal audit

The purpose of MuniFin Group's internal audit is to monitor the reliability and accuracy of the Group's information on finances and other management. It also ensures that MuniFin Group has sufficient and appropriately organised manual operations and IT systems and that the risks associated with the operations are adequately managed. Mauri Mikola has started in the position of Head of Internal Audit in March 2023.

Share capital and shareholders

At the end of the 2023 financial year, MuniFin had paid share capital registered in the Trade Register to the amount of EUR 43,008,044.20, and the number of shares was 39,063,798. The Company has two series of shares (A and B), with equal voting and dividend rights. Each share confers one vote at the Annual General Meeting.

At the end of 2023, MuniFin had 276 (276) shareholders.

10 largest shareholders 31 Dec 2023		No. of shares	Per cent
1.	Keva	11,975,550	30.7
2.	Republic of Finland	6,250,000	16.0
3.	City of Helsinki	4,066,525	10.4
4.	City of Espoo	1,547,884	4.0
5.	VAV Asunnot Oy (City of Vantaa)	963,048	2.5
6.	City of Tampere	919,027	2.4
7.	City of Oulu	903,125	2.3
8.	City of Turku	763,829	2.0
9.	City of Kuopio	592,303	1.5
10.	City of Lahti	537,926	1.4

The number of shares presented in the above table does not include any shares owned by the Group companies of the listed shareholders.

MuniFin is not aware of any material changes in the holdings of major shareholders during the year.

Events after the reporting period

The MuniFin Board of Directors is not aware of any events having taken place after the end of the financial year that would have a material effect on the Group's financial standing.

Outlook for 2024

The global economy is starting 2024 in a weakening economic cycle. The demand-slowing effects of interest rate hikes are reaching their peak and making sources of growth scarce, while fiscal policies are contracting as governments need to curb their debt. The geopolitical environment continues to remain unpredictable. On the upside, the cooling economy is helping to cushion cost pressures, and inflation is falling towards the ECB's target of 2% in the euro area. The ECB is expected to commence interest rate cuts in 2024.

In Finland, the combined effect of factors saddling growth will peak in the first half of 2024. As the months pass and inflation eases, consumer purchasing power increases and interest rates start to come down moderately, the domestic market will gradually kick off economic recovery. Towards the end of the year, the export market may also start to contribute to recovery. Because of the low starting level, Finland's GDP growth may nevertheless remain slightly in the negative in 2024.

The economic downturn will inevitably reflect on employment. In many sectors, Finland is suffering from such high structural labour shortages that strong growth in unemployment seems unlikely, but the employment outlook is nevertheless looking risky. It remains difficult to estimate how severe the construction sector's recession will become and what multiplier effects this will have in other sectors. The euro area's inflation trajectory is also looking somewhat uncertain. If inflation proves more persistent than anticipated and expected interest rate cuts are postponed, the downturn may drag on and push unemployment up more than expected.

Although Finland's government programme sports ambitious fiscal efforts, public finances are projected to continue to show a significant deficit and high levels of debt in the coming years. The higher-than-expected increase in health and social services expenditure and financing costs and the cyclical decrease in tax income are making public finances difficult to balance. After a few exceptionally strong years, the municipal sector will return into serious deficit as various positive non-recurring items cancel out, costs increase and central government transfers decrease. The main uncertainties in municipal finances stem from the general economic development, the upcoming changes to central government transfers and the potential additional costs arising from the transfer of employment and economic development services (*TE services*) to municipalities.

Considering the above-mentioned circumstances, the Group expects its net operating profit excluding unrealised fair value changes to be at the same level as or higher than in 2023. The Group expects its capital adequacy ratio and leverage ratio to remain strong. The valuation principles set in the IFRS framework may cause significant but temporary unrealised fair value changes, some of which increase the volatility of net operating profit and make it more difficult to estimate.

These estimates are based on a current assessment of the development of MuniFin Group's operations and the operating environment.

The Board's proposal concerning the use of the profit shown in the balance sheet and the distribution of dividends

Municipality Finance Plc has distributable funds of EUR 365.6 million, of which the profit for the financial year totalled EUR 67.4 million.

In accordance with the dividend policy ratified by the Annual General Meeting (*AGM*) in March 2023, MuniFin aims to pay 30–60% of the Group's financial year's profit in dividends. The Board of Directors proposes to the AGM that based on the confirmed balance sheet, EUR 1.69 per share be paid in dividend, totalling EUR 66.0 million. This is 59.7% of the Group's financial year's profit. The total dividend payment for financial year 2022 was EUR 67.6 million.

MuniFin's result for the financial year was strong. The Board of Directors considers the payment of the proposed dividend to be justified. MuniFin clearly exceeds all the prudential requirements set for it. No events have taken place since the end of the financial year that would have a material effect on the Company's financial position. According to the Board's assessment, the proposed distribution of profits does not place the fulfilment of the capital requirements or the Company's liquidity in jeopardy or conflict with binding legislation.

Dividends will be paid to shareholders who are recorded in the Company's list of shareholders on 21 May 2024. The Board of Directors proposes that the dividends be paid on 28 May 2024 at the earliest.

Development of the Group's key figures in 2019–2023

	Jan–Dec 2023	Jan–Dec 2022	Jan–Dec 2021	Jan–Dec 2020	Jan–Dec 2019
Turnover (EUR million)	2,680	759	535	532	718
Net interest income (EUR million)*	259	241	280	254	240
% of turnover	9.7	31.8	52.4	47.7	33.5
Net operating profit (EUR million)*	139	215	240	194	131
% of turnover	5.2	28.3	44.8	36.5	18.3
Unrealised fair value changes (EUR million)*	-37	45	27	-3	-54
Net operating profit excluding unrealised fair value changes (EUR million)*	176	170	213	197	186
Cost-to-income ratio, %*	32.4	23.9	21.7	21.6	29.9
Cost-to-income ratio excluding unrealised fair value changes, %*	27.4	28.4	23.8	21.3	23.2
Return on equity (*ROE*), %*	6.6	9.9	10.7	9.4	6.8
Return on equity (*ROE*) excluding unrealised fair value changes, %*	8.4	7.8	9.6	9.6	9.6
Return on assets (*ROA*), %*	0.2	0.4	0.4	0.4	0.3
Return on assets (*ROA*) excluding unrealised fair value changes, %*	0.3	0.3	0.4	0.4	0.4
New long-term customer financing (EUR million)*	4,370	4,375	3,671	5,157	3,486
New long-term funding (EUR million)*	10,087	8,827	9,395	10,966	7,385

	31 Dec 2023	31 Dec 2022	31 Dec 2021	31 Dec 2020	31 Dec 2019
Long-term customer financing (EUR million)*	32,022	29,144	29,214	28,022	24,798
Green finance (EUR million)*	4,795	3,251	2,328	1,786	1,263
Social finance (EUR million)*	2,234	1,734	1,161	589	-
Total funding (EUR million)*	43,320	40,210	40,712	38,139	33,929
Equity (EUR million)	1,744	1,614	1,862	1,705	1,594
Total balance sheet (EUR million)	49,736	47,736	46,360	44,042	38,934
Total liquidity (EUR million)*	11,633	11,506	12,222	10,089	9,882
Liquidity Coverage Ratio (*LCR*), %	409.1	256.7	334.9	264.4	430.2
Net Stable Funding Ratio (*NSFR*), %	124.1	120.3	123.6	116.4	116.3
Equity ratio, %*	3.5	3.4	4.0	3.9	4.1
CET1 capital (EUR million)	1,550	1,482	1,408	1,277	1,162
Tier 1 capital (EUR million)	1,550	1,482	1,756	1,624	1,510
Total own funds (EUR million)	1,550	1,482	1,756	1,624	1,510
CET1 capital ratio, %	103.4	97.6	95.0	104.3	83.1
Tier 1 capital ratio, %	103.4	97.6	118.4	132.7	107.9
Total capital ratio, %	103.4	97.6	118.4	132.7	107.9
Leverage ratio, %**	12.0	11.6	12.8	3.9	4.0
Personnel	185	175	164	165	167

* *Alternative performance measure.*

** *MuniFin fulfils the CRR II definition of a public development credit institution, and may therefore deduct all credit receivables from municipalities, wellbeing services counties and the central government in the calculation of its leverage ratio. CRR II Regulation entered into force in June 2021.*

The calculation formulas for all key figures can be found on pages 86–94. All figures presented in the Report of the Board of Directors are those of MuniFin Group, unless otherwise stated.

Note 1. Key figures

MuniFin Group defines the Alternative Performance Measures (*APMs*) to be financial measures that have not been defined in the IFRS standards or the capital requirements regulation (*CRD/CRR*). The APMs improve comparability between companies in the same sector and between reporting periods and provide valuable information to the readers of the financial reports. The APMs provide a more consistent basis for comparing the results of financial periods and for assessing MuniFin Group's performance. They are also an important aspect of the way in which the Group's management defines operating targets and monitors performance.

The APMs are presented in MuniFin Group's financial reports in accordance with the guidelines for Alternative Performance Measures issued by the European Securities and Markets Authority (*ESMA*).

The calculation formulas of key ratios have been updated, where applicable, to take into account the Finnish Financial Supervisory Authority's amendments to the *Regulations and Guidelines 2/2016* (valid from 1 Jan 2023) for certain items in the income statement. The comparison data has also been updated to reflect the updated guidelines.

Alternative Performance Measure EUR million	Definition / Explanation	Reconciliation	Jan–Dec 2023	Jan–Dec 2022
Net interest income	Interest income and expense from financial assets and liabilities are recognised in net interest income. A significant part of the Group's revenues consists of net interest income.	Interest and similar income (incl. Leasing)	2,718	712
		interest and similar expense	-2,458	-471
		Net interest income	**259**	**241**
Unrealised fair value changes	According to IFRS 9 standard, part of financial instruments are measured at fair value through profit and loss which increases PnL volatility. To enhance comparability of business performance between periods and companies, it is often necessary to exclude the PnL effect of the unrealised fair value changes. Items in the calculation formula are from consolidated income statement's line item *Net income on financial instruments at fair value through profir or loss*.	Net income from financial assets and liabilities through profit or loss, unrealised fair value changes	-10	8
		Net income from hedge accounting	-27	36
		Unrealised fair value changes	**-37**	**45**
Net operating profit	Net operating profit describes the Group's operating profit before taxes.	**Net operating profit**	**139**	**215**
Net operating profit excluding unrealised fair value changes	Net operating profit excluding unrealised fair value changes as an APM is of interest for showing MuniFin Group's underlying earnings capacity.	Net operating profit	139	215
		- Unrealised fair value changes	-37	45
		Net operating profit excluding unrealised fair value changes	**176**	**170**
Income	Income, which describes the Group's total income including net interest income, is used e.g. as a denominator (excl. Commission expenses) in Cost-to-income ratio.	Net interest income	259	241
		Commission income	2	2
		Net income on financial instruments at fair value through profit or loss	-39	45
		Net income on financial assets at fair value through other comprehensive income	0	0
		Other operating income	0	0
		Income	**222**	**288**

Alternative Performance Measure EUR million	Definition / Explanation	Reconciliation	Jan–Dec 2023	Jan–Dec 2022
Income excluding unrealised fair value changes	Income excluding unrealised fair value changes reflects the Group's operating income, of which the most significant is net interest income.	Income	222	288
		- Unrealised fair value changes	-37	45
		Income excluding unrealised fair value changes	**259**	**243**
Other income	Other income includes all other income of the Group except net interest income and unrealised fair value changes.	Commission income	2	2
		Net income from financial assets and liabilities through profit or loss, realised	0	-
		Net income from FX differences	-2	0
		Net income on financial assets at fair value through other comprehensive income	0	0
		Other operating income	0	0
		Other income	**0**	**2**
Costs	Costs, which describe the Group's total costs, is used e.g. as a numerator (excl. Commission expenses) in Cost-to-income ratio.	Commission expenses	16	6
		HR and administrative expenses	41	37
		Depreciation and impairment on tangible and intangible assets	7	10
		Other operating expenses	19	20
		Costs	**82**	**73**
Costs excluding the non-recurring item	Costs excluding the non-recurring item reflects the amount of costs comparable between financial periods.	Costs	82	73
		Non-recurring item (expenses on terminated IT system implementation)	-	-5
		Costs excluding the non-recurring item	**82**	**69**
Cost-to-income ratio	Cost-to-income ratio is an established key ratio in the banking sector for assessing the relationship between expenses and income. The ratio gives investors a comparative view of MuniFin Group's cost-effectiveness.	Costs (excl. Commission expenses)	67	68
		÷ Income (incl. Net commission income)	205	283
		Cost-to-income ratio, %	**32.4%**	**23.9%**

Alternative Performance Measure EUR million	Definition / Explanation	Reconciliation	Jan–Dec 2023	Jan–Dec 2022
Cost-to-income ratio excluding unrealised fair value changes	Cost-to income ratio excluding unrealised fair value changes gives a more precise picture of MuniFin Group's operative effectiveness as it excludes the income volatility of unrealised fair value changes. It improves comparability of operative effectiveness between companies and reporting periods.	Costs (excl. Commission expenses)	67	68
		÷ (Income (incl. Net commission income)	205	283
		- Unrealised fair value changes)	-37	45
		Cost-to-income ratio excluding unrealised fair value changes, %	**27.4%**	**28.4%**
The effect of unrealised fair value changes on other comprehensive income and equity net of tax	Key indicator used in management reporting to describe the effect of unrealised fair value changes during the reporting period on the Group's comprehensive income and equity net of tax.	Unrealised fair value changes through PnL	-37	45
		Taxes related to the unrealised fair value changes through PnL	7	-9
		Net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss, net of tax	60	0
		Net change in Cost-of-Hedging, net of tax	20	-12
		Net change in fair value of financial assets at fair value through other comprehensive income, net of tax	6	-5
		Net change in expected credit loss of financial assets at fair value through other comprehensive income, net of tax	0	-
		The effect of unrealised fair value changes on other comprehensive income and equity net of tax	**57**	**19**
New long-term customer financing	Key indicator used in management reporting to describe MuniFin Group's business volume during the reporting period. The indicator includes the amount of new loans excluding unrealised fair value changes and new leased assets excluding unrealised fair value changes.	New lending	4,103	4,074
		New leased assets	268	301
		New long-term customer financing	**4,370**	**4,375**
New long-term funding	Key indicator used in management reporting to describe MuniFin Group's funding activity during the reporting period. The indicator includes the amount of new funding (over 1 year) issued excluding unrealised fair values changes.	**New long-term funding**	**10,087**	**8,827**

Alternative Performance Measure EUR million	Definition / Explanation	Reconciliation	Jan–Dec 2023	Jan–Dec 2022
Return on Equity (*ROE*), %	ROE measures the efficiency of MuniFin Group's capital usage. It is a commonly used performance measure and as an APM improves comparability between companies.	((Net operating profit	139	215
		- Taxes)	-28	-43
		÷ Equity and non-controlling interest (average of values at the beginning and end of the period)) x100	1,679	1,738
		Return on Equity (*ROE*), %	**6.6%**	**9.9%**
Return on Equity (*ROE*) excluding unrealised fair value changes, %	MuniFin Group's strategy indicator. Excluding the unrealised changes in fair values increases comparability between reporting periods.	((Net operating profit excluding unrealised fair value changes	176	170
		- Taxes)	-35	-34
		÷ Equity and non-controlling interest (average of values at the beginning and end of the period)) x100	1,679	1,738
		Return on Equity (*ROE*) excluding unrealised fair value changes, %	**8.4%**	**7.8%**
Return on Assets (*ROA*), %	ROA measures the efficiency of MuniFin Group's investments. It is a commonly used performance measure and as an APM improves comparability between companies.	((Net operating profit	139	215
		- Taxes)	-28	-43
		÷ Average balance sheet total (average of values at the beginning and end of the period)) x100	48,736	47,048
		Return on Assets (*ROA*), %	**0.2%**	**0.4%**
Return on Assets (*ROA*) excluding unrealised fair value changes, %	Excluding the unrealised changes in fair values increases comparability of ROA between reporting periods.	((Net operating profit excluding unrealised fair value changes	176	170
		- Taxes)	-35	-34
		÷ Average balance sheet total (average of values at the beginning and end of the period)) x100	48,736	47,048
		Return on Assets (*ROA*) excluding unrealised fair value changes, %	**0.3%**	**0.3%**

Alternative Performance Measure EUR million	Definition / Explanation	Reconciliation	31 Dec 2023	31 Dec 2022
Equity ratio, %	Equity ratio is an investment leverage and solvency ratio that measures the amount of assets that are financed by equity. It is a commonly used performance measure and as an APM improves comparability between companies.	(Equity and non-controlling interest	1,744	1,614
		÷ Balance sheet total) x100	49,736	47,736
		Equity ratio, %	**3.5%**	**3.4%**
Long-term loan portfolio	Key indicator used in management reporting to describe MuniFin Group's business volume.	Loans and advances to the public and public sector entities	32,022	29,144
		- Leasing	1,442	1,303
		Long-term loan portfolio	**30,580**	**27,841**
Long-term customer financing	Key indicator used in management reporting to describe MuniFin Group's business volume.	Loans and advances to the public and public sector entities	32,022	29,144
		Long-term customer financing	**32,022**	**29,144**
Long-term customer financing excluding unrealised fair value changes	Key indicator used in management reporting to describe MuniFin Group's business volume. In this indicator the unrealised fair value changes have been excluded to enhance comparability of business performance between periods.	Loans and advances to the public and public sector entities	32,022	29,144
		- Unrealised fair value changes	926	1,516
		Long-term customer financing excluding unrealised fair value changes	**32,948**	**30,660**
Ratio of green finance and social finance to long-term customer financing excluding unrealised fair value changes	Key indicator used in management reporting to describe MuniFin Group's business volume.	Green finance	4,795	3,251
		Social finance	2,234	1,734
		(Total of green and social finance	**7,029**	**4,985**
		÷ Long-term customer financing excluding unrealised fair value changes) x100	32,948	30,660
		Ratio of green finance and social finance to long-term customer financing excluding unrealised fair value changes	**21.3%**	**16.3%**
Short-term customer financing	Key indicator used in management reporting to describe MuniFin Group's business volume.	Debt securities, commercial papers from customers	1,575	1,457
		Short-term customer financing	**1,575**	**1,457**

Alternative Performance Measure EUR million	Definition / Explanation	Reconciliation	31 Dec 2023	31 Dec 2022
Total funding	Key indicator used in management reporting to describe MuniFin Group's funding volume.	Liabilities to credit institutions	214	2,333
		Liabilities to the public and public sector entities	2,588	2,530
		Debt securities issued	40,602	35,592
		Total	**43,404**	**40,454**
		- CSA collateral (received)	-82	-244
		- Liabilities to credit institutions, payable on demand	-2	-
		Total funding	**43,320**	**40,210**
Long-term funding	Key indicator used in management reporting to describe MuniFin Group's funding volume.	Total funding	43,320	40,210
		- Short-term issued funding (*ECP*)	-3,987	-4,650
		Long-term funding	**39,332**	**35,560**
Total liquidity	Key indicator used in management reporting to describe MuniFin Group's liquidity position.	Debt securities	5,145	4,787
		- Short-term customer financing	-1,575	-1,457
		Investments in securities total	**3,570**	**3,330**
		Cash and balances with central banks	0	0
		Deposits	8,063	8,176
		Other investments total	**8,063**	**8,176**
		Total liquidity	**11,633**	**11,506**
Ratio of socially responsible investments to MuniFin Group's own green and social funding	Key indicator used in management reporting for social responsibility area.	(Socially responsible investments	635	498
		÷Green and social funding) x100	4,523	3,430
		Ratio of socially responsible investments to MuniFin Group's own green and social funding	**14.0%**	**14.5%**

Other measures EUR million	Definition	Reconciliation	Jan–Dec 2023	Jan–Dec 2022
Turnover	Defined in IFRS (IAS 1). Turnover is not disclosed in MuniFin Group's income statement so the formula for turnover should be given even though it is not considered to be an APM.	Interest and similar income (incl. Leasing)	2,718	712
		Commission income	2	2
		Net income on financial instruments at fair value through profit or loss	-39	45
		Net income on financial assets at fair value through other comprehensive income	0	0
		Other operating income	0	0
		Turnover	**2,680**	**759**

			31 Dec 2023	31 Dec 2022
Liquidity Coverage Ratio (*LCR*), %	Defined in CRR.	(Liquid assets	10,909	10,882
		÷ (Liquidity outflows - liquidity inflows in a stress situation)) x100	2,667	4,240
		Liquidity Coverage Ratio (*LCR*), %	**409.1%**	**256.7%**
Net Stable Funding Ratio (*NSFR*), %	Defined in CRR.	(Available Stable Funding (*ASF*)	36,279	31,966
		÷ Required Stable Funding (*RSF*)) x100	29,244	26,583
		Net Stable Funding Ratio (*NSFR*), %	**124.1%**	**120.3%**
CET1 capital ratio, %	Defined in CRR.	(Common Equity Tier 1 (*CET1*) capital	1,550	1,482
		÷ Risk exposure amount) x100	1,500	1,518
		CET1 capital ratio, %	**103.4%**	**97.6%**

Other measures EUR million	Definition	Reconciliation	31 Dec 2023	31 Dec 2022
Tier 1 capital ratio, %	Defined in CRR.	(Tier 1 capital	1,550	1,482
		÷ Risk exposure amount) x100	1,500	1,518
		Tier 1 capital ratio, %	**103.4%**	**97.6%**
Total capital ratio, %	Defined in CRR.	(Total own funds	1,550	1,482
		÷ Risk exposure amount) x100	1,500	1,518
		Total capital ratio, %	**103.4%**	**97.6%**
Leverage ratio, %	Defined in CRR.	(Tier 1 capital	1,550	1,482
		÷ Total exposure) x100	12,877	12,777
		Leverage ratio, %	**12.0%**	**11.6%**

Note 2. The Group's capital adequacy position

Table 1. Minimum capital requirements and capital buffers

Minimum capital requirements and capital buffers, % 31 Dec 2023	Capital requirement	Capital conservation buffer [1]	Countercyclical buffer [2]	O-SII [3]	Systemic risk buffer [4]	Total capital buffers	Total
Common Equity Tier 1 (*CET1*) capital	4.50%	2.50%	0.92%	0.50%	0.00%	3.92%	8.42%
Tier 1 (*T1*) Capital	6.00%	2.50%	0.92%	0.50%	0.00%	3.92%	9.92%
Total own funds	8.00%	2.50%	0.92%	0.50%	0.00%	3.92%	11.92%

Minimum capital requirements and capital buffers (EUR 1,000) 31 Dec 2023	Capital requirement	Capital conservation buffer [1]	Countercyclical buffer [2]	O-SII [3]	Systemic risk buffer [4]	Total capital buffers	Total
Common Equity Tier 1 (*CET1*) capital	67,480	37,489	13,850	7,498	0	58,837	126,316
Tier 1 (*T1*) Capital	89,973	37,489	13,850	7,498	0	58,837	148,810
Total own funds	119,964	37,489	13,850	7,498	0	58,837	178,801

Minimum capital requirements and capital buffers, % 31 Dec 2022	**Capital requirement**	**Capital conservation buffer [1)]**	**Countercyclical buffer [2)]**	**O-SII [3)]**	**Systemic risk buffer [4)]**	**Total capital buffers**	**Total**
Common Equity Tier 1 (*CET1*) capital	4.50%	2.50%	0.81%	0.50%	0.00%	3.81%	8.31%
Tier 1 (*T1*) Capital	6.00%	2.50%	0.81%	0.50%	0.00%	3.81%	9.81%
Total own funds	8.00%	2.50%	0.81%	0.50%	0.00%	3.81%	11.81%

Minimum capital requirements and capital buffers (EUR 1,000) 31 Dec 2022	**Capital requirement**	**Capital conservation buffer [1)]**	**Countercyclical buffer [r 2)]**	**O-SII [3)]**	**Systemic risk buffer [4)]**	**Total capital buffers**	**Total**
Common Equity Tier 1 (*CET1*) capital	68,312	37,951	12,320	7,590	0	57,861	126,173
Tier 1 (*T1*) Capital	91,082	37,951	12,320	7,590	0	57,861	148,943
Total own funds	121,443	37,951	12,320	7,590	0	57,861	179,304

[1] Act on Credit Institutions (610/2014), Chapter 10, Section 3, and the EU Capital Requirements Regulation (575/2013; CRR) and Directive (2013/36/EU; CRD IV). Valid from 1 January 2015.

[2] Act on Credit Institutions (610/2014) Sect 10:4-6 § and the EU Capital Requirements Regulation (575/2013; CRR) and Directive (2013/36/EU; CRD IV). On 19 Dec 2023 (16 Dec 2022), the Board of Financial Supervisory Authority (*FIN-FSA*) decided not to set countercyclical capital buffer requirement for credit exposures allocated to Finland. The institution-specific countercyclical capital buffer requirement is determined on the basis of the geographical distribution of the exposures. For MuniFin Group it is 0.92% (0.81%).

[3] Other Systemically Important Institutions additional capital requirements: Act on Credit Institutions (610/2014) Sect 10:8 § and the EU Capital Requirements Regulation (575/2013; CRR) and Directive (2013/36/EU; CRD IV). Additional capital requirement (*O-SII*) for MuniFin Group is 0.5% (0.5%). The decision of the Board of FIN-FSA on 28 Jun 2023, effective immediately.

[4] Act on Credit Institutions (610/2014) Sect 10:6a § and the EU Capital Requirements Regulation (575/2013; CRR) and Directive (2013/36/EU; CRD IV). At the end of March 2023, the FIN-FSA decided on a systemic risk buffer (*SyRB*) requirement of 1% for MuniFin Group. This decision is effective as of 1 April 2024 and corresponds to the requirement set for other Finnish credit institutions at the same time. Prior to April 2024, the systemic risk buffer is set at 0%. The systemic risk buffer and the O-SII buffer are parallel buffers, of which only the greater is applied.

In addition to the above, the ECB has imposed a bank-specific Pillar 2 Requirement (*P2R*) of 2% on MuniFin Group as part of the annual Supervisory Review and Evaluation Process (*SREP*). Including this P2R requirement, the total SREP capital requirement ratio (*TSCR*) was 10.0% (10.0%) at the end of December 2023. The minimum level of total capital ratio was 13.92% (13.81%) including P2R and other additional capital buffers.

Table 2. Own Funds

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Share capital	42,583	42,583
Reserve for invested non-restricted equity	40,366	40,366
Retained earnings	1,576,480	1,533,535
Fair value reserve	84,111	-3,052
Other reserves	277	277
Foreseeable dividend	-66,018	-67,580
Common Equity Tier 1 (*CET1*) capital before regulatory adjustments	**1,677,800**	**1,546,129**
Intangible assets	-6,311	-8,831
Deferred tax assets that rely on future profitability and do not arise from temporary differences	-9	-763
Deductions due to prudential filters on Common Equity Tier 1 capital	-121,670	-54,925
Common Equity Tier 1 (*CET1*) capital	**1,549,809**	**1,481,610**
Instruments included in Additional Tier 1 capital	-	-
Additional Tier 1 (*AT1*) capital	**-**	**-**
Tier 1 (*T1*) capital	**1,549,809**	**1,481,610**
Tier 2 (*T2*) capital	**-**	**-**
Total own funds	**1,549,809**	**1,481,610**

Common Equity Tier 1 capital includes the profit for the financial year, which has been subject to a financial review by the external auditor, and therefore can be included in CET1 capital on the basis of permission granted by the ECB in accordance with the Capital Requirements Regulation. Deductions due to prudential filters on CET1 capital are made up of MuniFin's debt value adjustment (*DVA*) and additional valuation adjustment (*AVA*). In addition, the amount of foreseeable dividend has been deducted from CET1 capital.

Change in own credit risk is not included in the own funds (CRR Art. 33).

Table 3. Consolidated key figures for capital adequacy

	31 Dec 2023	31 Dec 2022
CET1 capital ratio, %	103.35	97.60
Tier 1 capital ratio, %	103.35	97.60
Total capital ratio, %	103.35	97.60

Table 4. Consolidated minimum requirement for own funds

The capital requirement for credit risk is calculated using the standardised approach.

When calculating the capital requirements for market risk, only foreign exchange risk is taken into account as the Group does not have a trading book nor share or commodity positions. As foreign exchange risk is hedged by swapping all currency denominated funding and investments into euros, the Group's foreign exchange position is very small. On 31 December 2023, the FX net position was EUR 4.7 million (EUR 4.8 million), which is less than 2% of total own funds. There was no capital requirement for market risk since the FX net position did not exceed 2% of the total own funds (CRR 575/2013 Art. 351) at the end of financial year or comparison period.

Guarantees granted by the Municipal Guarantee Board for certain derivative counterparties are not taken into account in credit valuation adjustment risk. The capital requirement for operational risk is calculated using the basic indicator approach.

	31 Dec 2023		31 Dec 2022	
(EUR 1,000)	Capital requirement	Risk exposure amount	Capital requirement	Risk exposure amount
Credit and counterparty credit risk, standardised approach	**45,826**	**572,829**	**41,727**	**521,592**
Exposures to central governments or central banks	-	0	-	0
Exposures to regional governments or local authorities	430	5,372	419	5,240
Exposures to public sector entities	441	5,507	639	7,983
Exposures to multilateral development banks	-	0	-	0
Exposures to institutions	29,511	368,890	26,800	335,004
Exposures to corporates	1,850	23,130	3,297	41,210
Exposures in the form of covered bonds	10,630	132,874	8,723	109,041
Other items	2,964	37,056	1,849	23,113
Market risk	**-**	**-**	**-**	**-**
Credit valuation adjustment risk (*CVA VaR*), standard method	**34,154**	**426,924**	**37,644**	**470,552**
Operational risk, basic indicator approach	**39,984**	**499,797**	**42,071**	**525,892**
Total	**119,964**	**1,499,550**	**121,443**	**1,518,036**

The capital requirement for counterparty risk is EUR 3,047 thousand (EUR 5,640 thousand).

Table 5. Consolidated exposure by class

31 Dec 2023 (EUR 1,000) Exposure classes	On-balance sheet exposure	Off-balance sheet exposure	Derivatives exposure	Total exposure	Average exposure amount over the period	Risk exposure amount
Exposures to central governments or central banks	8,149,371	-	-	8,149,371	7,904,436	0
Exposures to regional governments or local authorities	16,153,608	704,628	31,379	16,889,615	16,202,529	5,372
Exposures to public sector entities	225,075	-	-	225,075	243,318	5,507
Exposures to multilateral development banks	93,031	-	-	93,031	95,351	0
Exposures to international organisations	127,234	-	-	127,234	116,637	0
Exposures to institutions	1,432,518	-	577,401	2,009,919	1,963,686	368,890
Exposures to corporates	6,093,478	2,366,584	76,786	8,536,848	7,878,379	23,130
Exposures secured by mortgages on immovable property	11,779,567	-	-	11,779,567	11,431,067	0
Exposures in default	141,215	-	-	141,215	71,014	0
Exposures in the form of covered bonds	1,328,736	-	-	1,328,736	1,237,797	132,874
Other items	59,852	-	-	59,852	42,629	37,056
Total	**45,583,684**	**3,071,212**	**685,567**	**49,340,463**	**47,186,842**	**572,829**

31 Dec 2022 (EUR 1,000) Exposure classes	On-balance sheet exposure	Off-balance sheet exposure	Derivatives exposure	Total exposure	Average exposure amount over the period	Risk exposure amount
Exposures to central governments or central banks	8,294,139	-	-	8,294,139	9,206,789	0
Exposures to regional governments or local authorities	14,615,347	845,466	22,881	15,483,694	15,456,426	5,240
Exposures to public sector entities	293,300	-	-	293,300	317,351	7,983
Exposures to multilateral development banks	108,801	-	-	108,801	124,784	0
Exposures to international organisations	121,432	-	-	121,432	127,218	0
Exposures to institutions	1,278,256	-	635,051	1,913,306	1,892,380	335,004
Exposures to corporates	5,600,553	1,618,498	89,662	7,308,714	7,621,870	41,210
Exposures secured by mortgages on immovable property	10,874,824	-	-	10,874,824	10,570,175	0
Exposures in default	7,092	-	-	7,092	79,266	0
Exposures in the form of covered bonds	1,090,411	-	-	1,090,411	1,042,511	109,041
Other items	26,304	-	-	26,304	26,725	23,113
Total	**42,310,459**	**2,463,964**	**747,594**	**45,522,018**	**46,465,494**	**521,592**

Table 6. Leverage ratio

Consolidated leverage ratio (EUR 1,000)	31 Dec 2023	31 Dec 2022
Tier 1 (*T1*) capital	1,549,809	1,481,610
Total exposure	12,876,965	12,777,216
Leverage ratio, %	12.04	11.60

Consolidated exposures (EUR 1,000)	31 Dec 2023	31 Dec 2022
On-balance sheet exposures (excl. derivatives and intangible assets)	45,899,684	42,601,459
Derivatives exposure	777,859	864,243
Off-balance sheet exposure	1,450,415	1,164,571
Excluded exposures of public development credit institutions (promotional loans)	-35,250,993	-31,853,057
Total	**12,876,965**	**12,777,216**

Breakdown of consolidated on-balance sheet exposure (excluding derivatives and exempted exposures) (EUR 1,000)	31 Dec 2023 Leverage ratio exposure value	31 Dec 2022 Leverage ratio exposure value
Covered bonds	1,328,736	1,090,411
Exposures treated as sovereigns	8,868,248	9,116,446
Exposures to regional governments, multilateral development banks, international organisations and public sector entities not treated as sovereigns	54,397	66,117
Institutions	1,432,518	1,278,256
Secured by mortgages of immovable properties	0	-
Corporate	355,355	335,439
Exposures in default	0	-
Other exposures	66,163	35,135
Total	**12,105,417**	**11,921,804**

Note 3. The Parent Company's capital adequacy position

Table 1. Own funds

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Share capital	43,008	43,008
Reserve for invested non-restricted equity	40,743	40,743
Retained earnings	1,575,567	1,532,647
Fair value reserve	84,111	-3,052
Other reserves	277	277
Foreseeable dividend	-66,018	-67,580
Common Equity Tier 1 (*CET1*) capital before regulatory adjustments	**1,677,688**	**1,546,042**
Intangible assets	-6,314	-8,837
Deferred tax assets that rely on future profitability and do not arise from temporary differences	-8	-763
Deductions due to prudential filters on Common Equity Tier 1 capital	-121,670	-54,925
Common Equity Tier 1 (*CET1*) capital	**1,549,695**	**1,481,518**
Instruments included in Additional Tier 1 capital	-	-
Additional Tier 1 (*AT1*) capital	**-**	**-**
Tier 1 (*T1*) capital	**1,549,695**	**1,481,518**
Tier 2 (*T2*) capital	**-**	**-**
Total own funds	**1,549,695**	**1,481,518**

Common Equity Tier 1 capital includes the profit for the financial year, which has been subject to a financial review by the external auditor, and therefore can be included in CET1 capital on the basis of permission granted by the ECB in accordance with the Capital Requirements Regulation. Deductions due to prudential filters on CET1 capital are made up of MuniFin's debt value adjustment (*DVA*) and additional valuation adjustment (*AVA*). In addition, the amount of foreseeable dividend has been deducted from CET1 capital.

Change in own credit risk is not included in the own funds (CRR Art. 33).

Table 2. Key figures for capital adequacy

	31 Dec 2023	31 Dec 2022
CET1 capital ratio, %	104.32	99.21
Tier 1 capital ratio, %	104.32	99.21
Total capital ratio, %	104.32	99.21

Table 3. Minimum requirement for own funds

The capital requirement for credit risk is calculated using the standardised approach.

When calculating the capital requirements for market risk, only foreign exchange risk is taken into account as MuniFin does not have a trading book nor share or commodity positions. As foreign exchange risk is hedged by swapping all currency denominated funding and investments into euros, the Company's foreign exchange position is very small. On 31 December 2023, the FX net position was EUR 4.7 million (EUR 4.8 million), which is less than 2% of total own funds. There was no capital requirement for market risk since the FX net position did not exceed 2% of the total own funds (CRR 575/2013 Art. 351) at the end of the financial year or comparison period.

Guarantees granted by the Municipal Guarantee Board for certain derivative counterparties are not taken into account in credit valuation adjustment risk.

The capital requirement for operational risk is calculated using the basic indicator approach.

	31 Dec 2023		31 Dec 2022	
(1 000 €)	Capital requirement	Risk exposure amount	Capital requirement	Risk exposure amount
Credit and counterparty credit risk, standardised approach	**45,906**	**573,825**	**41,811**	**522,644**
Exposures to central governments or central banks	-	0	-	0
Exposures to regional governments or local authorities	430	5,372	419	5,240
Exposures to public sector entities	441	5,507	639	7,983
Exposures to multilateral development banks	-	0	-	0
Exposures to institutions	29,494	368,671	26,784	334,800
Exposures to corporates	1,850	23,130	3,297	41,210
Exposures in the form of covered bonds	10,630	132,874	8,723	109,041
Equity exposure	131	1,639	131	1,639
Other items	2,931	36,631	1,818	22,729
Market risk	**-**	**-**	**-**	**-**
Credit valuation adjustment risk (*CVA VaR*), standardised method	**34,154**	**426,924**	**37,644**	**470,552**
Operational risk, basic indicator approach	**38,781**	**484,758**	**40,014**	**500,171**
Total	**118,841**	**1,485,507**	**119,469**	**1,493,367**

The capital requirement for counterparty risk is EUR 3,047 thousand (EUR 5,640 thousand).

Table 4. Exposure by class

31 Dec 2023 (EUR 1,000) Exposure classes	On-balance sheet exposure	Off-balance sheet exposure	Derivatives exposure	Total exposure	Risk exposure amount
Exposures to central governments or central banks	8,149,364	-	-	8,149,364	0
Exposures to regional governments or local authorities	16,153,608	704,628	31,379	16,889,615	5,372
Exposures to public sector entities	225,075	-	-	225,075	5,507
Exposures to multilateral development banks	93,031	-	-	93,031	0
Exposures to international organisations	127,234	-	-	127,234	0
Exposures to institutions	1,431,423	-	577,401	2,008,825	368,671
Exposures to corporates	6,093,478	2,366,584	76,786	8,536,848	23,130
Exposures secured by mortgages on immovable property	11,779,567	-	-	11,779,567	0
Exposures in default	141,215	-	-	141,215	0
Exposures in the form of covered bonds	1,328,736	-	-	1,328,736	132,874
Equity exposures	656	-	-	656	1,639
Other items	59,428	-	-	59,428	36,631
Total	**45,582,814**	**3,071,212**	**685,567**	**49,339,594**	**573,825**

31 Dec 2022 (EUR 1,000) Exposure classes	On-balance sheet exposure	Off-balance sheet exposure	Derivatives exposure	Total exposure	Risk exposure amount
Exposures to central governments or central banks	8,294,139	-	-	8,294,139	0
Exposures to regional governments or local authorities	14,615,347	845,466	22,881	15,483,694	5,240
Exposures to public sector entities	293,300	-	-	293,300	7,983
Exposures to multilateral development banks	108,801	-	-	108,801	0
Exposures to international organisations	121,432	-	-	121,432	0
Exposures to institutions	1,277,238	-	635,051	1,912,288	334,800
Exposures to corporates	5,600,553	1,618,498	89,662	7,308,714	41,210
Exposures secured by mortgages on immovable property	10,874,824	-	-	10,874,824	0
Exposures in default	7,092	-	-	7,092	0
Exposures in the form of covered bonds	1,090,411	-	-	1,090,411	109,041
Equity exposures	656	-	-	656	1,639
Other items	25,912	-	-	25,912	22,729
Total	**42,309,706**	**2,463,964**	**747,594**	**45,521,265**	**522,644**

Municipality Finance Group Consolidated Financial Statements

1.1.–31.12.2023

MuniFin

Consolidated Financial Statements

MuniFin

Consolidated Income Statement

(EUR 1,000)	Note	Jan–Dec 2023	Jan–Dec 2022
Interest and similar income	(3)	2,717,519	711,740
Interest and similar expense	(3)	-2,458,266	-470,585
Net interest income		**259,253**	**241,155**
Commission income	(4)	2,275	2,302
Commission expense	(4)	-15,638	-5,517
Net income on financial instruments at fair value through profit and loss	(5)	-39,461	44,583
Net income on financial assets at fair value through other comprehensive income	(6)	-257	-149
Other operating income	(9)	139	90
HR and administrative expenses	(10)	-40,711	-37,361
Depreciation and impairment on tangible and intangible assets	(11)	-6,543	-10,423
Other operating expenses	(12)	-19,271	-19,774
Credit loss and impairments on financial assets	(13)	-1,203	118
Net operating profit		**138,583**	**215,024**
Income tax expense	(14)	-28,058	-43,023
Profit for the financial year		**110,526**	**172,001**

In the Consolidated Income Statement, where applicable, the Finnish Financial Supervisory Authority's amendments to the *Regulations and Guidelines 2/2016* (valid from 1 Jan 2023) have been taken into account for certain items in the income statement.

The accompanying notes are an integral part of the Financial Statements.

Consolidated Statement of Comprehensive Income

(EUR 1,000)	Note	Jan–Dec 2023	Jan–Dec 2022
Profit for the financial year		110,526	172,001
Components of other comprehensive income			
Items not to be reclassified to income statement in subsequent periods			
Net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss	(5)	75,401	-184
Net change in Cost-of-Hedging	(24)	25,417	-15,166
Items to be reclassified to income statement in subsequent periods			
Net change in fair value of financial assets at fair value through other comprehensive income	(6)	7,851	-5,961
Net amount reclassified to the income statement on the sales of financial assets at fair value through other comprehensive income	(6)	287	-
Net change in expected credit loss of financial assets at fair value through other comprehensive income	(25)	-2	3
Taxes related to components of other comprehensive income		-21,791	4,262
Total components of other comprehensive income		87,163	-17,046
Total comprehensive income for the financial year		**197,689**	**154,955**

The accompanying notes are an integral part of the Financial Statements.

Consolidated Statement of Financial Position

(EUR 1,000)	Note	31 Dec 2023	31 Dec 2022
Assets			
Cash and balances with central banks	(19)	2	2
Loans and advances to credit institutions	(20)	9,187,071	9,625,488
Loans and advances to the public and public sector entities	(21)	32,021,717	29,144,361
Debt securities	(22)	5,144,963	4,786,768
Derivative contracts	(18, 23)	1,856,769	2,707,103
Intangible assets	(26, 28)	6,311	8,831
Tangible assets	(27, 28)	9,648	5,062
Other assets	(29)	1,073,885	1,234,810
Accrued income and prepayments	(30)	435,982	223,104
Deferred tax assets	(31)	9	763
Total assets	**(15, 16, 17)**	**49,736,359**	**47,736,293**

(EUR 1,000)	Note	31 Dec 2023	31 Dec 2022
Liabilities and equity			
Liabilities			
Liabilities to credit institutions	(32, 35)	213,695	2,332,623
Liabilities to the public and public sector entities	(33, 35)	2,588,275	2,529,585
Debt securities issued	(34, 35)	40,601,646	35,592,065
Derivative contracts	(18, 23)	3,372,514	4,616,111
Provisions and other liabilities	(36)	418,275	593,848
Accrued expenses and deferred income	(37)	474,620	166,635
Deferred tax liabilities	(31)	323,517	291,717
Total liabilities	**(15, 16, 17)**	**47,992,542**	**46,122,584**
Equity			
Share capital	(38)	42,583	42,583
Reserve fund	(38)	277	277
Fair value reserve of investments	(38)	2,052	-4,457
Own credit revaluation reserve	(38)	60,238	-83
Cost-of-Hedging reserve	(38)	21,821	1,488
Reserve for invested non-restricted equity	(38)	40,366	40,366
Retained earnings	(38)	1,576,480	1,533,535
Total equity attributable to Parent Company equity holders		**1,743,817**	**1,613,709**
Total equity		**1,743,817**	**1,613,709**
Total liabilities and equity		**49,736,359**	**47,736,293**

The accompanying notes are an integral part of the Financial Statements.

Consolidated Statement of Changes in Equity

	Total equity attributable to Parent Company equity holders									
(EUR 1,000)	Share capital	Reserve fund	Fair value reserve of investments	Own credit revaluation reserve	Cost-of-Hedging reserve	Reserve for invested non-restricted equity	Retained earnings	Total	Other equity instruments issued	Total equity
Equity at 31 December 2021	**42,583**	**277**	**309**	**64**	**13,621**	**40,366**	**1,416,916**	**1,514,136**	**347,454**	**1,861,590**
Redemption of Additional Tier 1 capital instrument	-	-	-	-	-	-	-2,546	-2,546	-347,454	-350,000
Interest paid on Additional Tier 1 capital instrument	-	-	-	-	-	-	-12,600	-12,600	-	-12,600
Dividends paid for 2021	-	-	-	-	-	-	-40,236	-40,236	-	-40,236
Profit for the financial year	**-**	**-**	**-**	**-**	**-**	**-**	**172,001**	**172,001**	**-**	**172,001**
Components of other comprehensive income net of tax										
Items not to be reclassified to income statement in subsequent periods										
Net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss	-	-	-	-147	-	-	-	-147	-	-147
Net change in Cost-of-Hedging	-	-	-	-	-12,133	-	-	-12,133	-	-12,133
Items to be reclassified to income statement in subsequent periods										
Net change in fair value of financial assets at fair value through other comprehensive income	-	-	-4,769	-	-	-	-	-4,769	-	-4,769
Net amount reclassified to the income statement on the sales of financial assets at fair value through other comprehensive income	-	-	-	-	-	-	-	-	-	-
Net change in expected credit loss of financial assets at fair value through other comprehensive income	-	-	2	-	-	-	-	2	-	2
Equity at 31 December 2022	**42,583**	**277**	**-4,457**	**-83**	**1,488**	**40,366**	**1,533,535**	**1,613,709**	**-**	**1,613,709**

(EUR 1,000)	Total equity attributable to Parent Company equity holders								Other equity instruments issued	Total equity
	Share capital	Reserve fund	Fair value reserve of investments	Own credit revaluation reserve	Cost-of-Hedging reserve	Reserve for invested non-restricted equity	Retained earnings	Total		
Redemption of Additional Tier 1 capital instrument	-	-	-	-	-	-	-	-	-	-
Interest paid on Additional Tier 1 capital instrument	-	-	-	-	-	-	-	-	-	-
Dividends paid for 2022	-	-	-	-	-	-	-67,580	-67,580	-	-67,580
Profit for the financial year	-	-	-	-	-	-	110,526	110,526	-	110,526
Components of other comprehensive income net of tax										
Items not to be reclassified to income statement in subsequent periods										
Net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss	-	-	-	60,320	-	-	-	60,320	-	60,320
Net change in Cost-of-Hedging	-	-	-	-	20,334	-	-	20,334	-	20,334
Items to be reclassified to income statement in subsequent periods										
Net change in fair value of financial assets at fair value through other comprehensive income	-	-	6,281	-	-	-	-	6,281	-	6,281
Net amount reclassified to the income statement on the sales of financial assets at fair value through other comprehensive income	-	-	230	-	-	-	-	230	-	230
Net change in expected credit loss of financial assets at fair value through other comprehensive income	-	-	-2	-	-	-	-	-2	-	-2
Equity at 31 December 2023	**42,583**	**277**	**2,052**	**60,238**	**21,821**	**40,366**	**1,576,480**	**1,743,817**	**-**	**1,743,817**

The accompanying notes are an integral part of the Financial Statements.

Consolidated Statement of Cash Flows

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Cash flow from operating activities	**84,900**	**-7,975,442**
Net change in long-term funding	2,782,391	2,063,033
Net change in short-term funding	-719,460	1,103,027
Net change in long-term loans	-2,305,076	-1,637,350
Net change in short-term loans	-107,788	-368,992
Net change in investments	2,566	-7,919,967
Net change in collaterals	166,962	-1,332,255
Interest on assets	1,517,912	97,307
Interest on liabilities	-1,196,347	93,906
Other income	62,955	54,080
Payments of operating expenses	-84,091	-61,490
Taxes paid	-35,125	-66,742
Cash flow from investing activities	**-545**	**-3,550**
Acquisition of tangible assets	-7	-16
Proceeds from sale of tangible assets	138	149
Acquisition of intangible assets	-676	-3,684
Cash flow from financing activities	**-69,765**	**-407,887**
Redemption of AT1 capital instrument	-	-350,000
Paid interest on AT1 capital instrument	-	-15,750
Dividend paid	-67,580	-40,236
Total cash flow from leases	-2,185	-1,902
Change in cash and cash equivalents	**14,590**	**-8,386,879**
Cash and cash equivalents at 1 Jan	**48,624**	**8,435,504**
Cash and cash equivalents at 31 Dec	**63,214**	**48,624**

The accompanying notes are an integral part of the Financial Statements.

Notes to the Consolidated Financial Statements

Notes to the accounting policies and risk management

Note 1. Summary of significant accounting policies

1. General information on the Group and the basis of preparation

Municipality Finance Group (referred to as MuniFin Group or the Group) consists of Municipality Finance Plc (referred to as MuniFin or the Parent Company) and Financial Advisory Services Inspira Ltd (referred to as Inspira or the Subsidiary). The Group's Parent Company is a Finnish public limited liability company established under Finnish legislation and domiciled in Helsinki. Its registered address is Jaakonkatu 3 A, 00100 Helsinki. The Subsidiary's domicile is Helsinki and registered address Jaakonkatu 3 A, 00100 Helsinki. A copy of the Consolidated Financial Statements is available online at www.munifin.fi or from the Group's Parent Company at Jaakonkatu 3 A, 00100 Helsinki.

The Board of Directors of MuniFin has approved these Financial Statements for disclosure at its meeting on 9 February 2024. According to the Finnish Limited Liability Companies Act, shareholders may accept or reject the Financial Statements at the Annual General Meeting held after the publication. The Annual General Meeting may also decide to alter the Financial Statements.

MuniFin Group publishes the Financial Statements on its website in a unified electronic reporting format (*European Single Electronic Format, ESEF*) as an XHTML file in connection with the publication of the Financial Statements.

These Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (*IFRS*) and in compliance with IAS and IFRS standards and the SIC and IFRIC interpretations in force on 31 December 2023. International Financial Reporting Standards refer to the standards and their interpretations approved for application in the EU in accordance with the procedure stipulated in EU Regulation (EC) No. 1606/2002 and embodied in the Finnish Accounting Act and the decrees enacted under it. In addition, the notes to the Consolidated Financial Statements comply with the requirements of the Finnish accounting and corporate legislation complementing the IFRS requirements.

Capital adequacy information in compliance with Part Eight of the EU Capital Requirements Regulation ((EU) No 575/2013) and its amending regulation ((EU) No 876/2019) is presented in a Pillar III Disclosure Report which is a separate report from the Report of the Board of Directors and the Financial Statements.

The Consolidated Financial Statements have been prepared under historical cost convention, except for financial assets and liabilities measured at fair value and hedged items in fair value hedge accounting for the risk hedged.

The functional currency of the Parent Company is euro. The notes of the Financial Statements are presented in thousands of euros. All figures in the notes have been rounded, so the total of individual figures may differ from the total figure presented.

2. Changes in accounting policies and application of new standards

The Consolidated Financial Statements have been prepared in accordance with the same accounting policies as in 2022, with the exception of the following new standards, interpretations and amendments to existing standards that the Group has applied starting from 1 January 2023.

Disclosure of Accounting Policies* – Amendments to IAS 1 *Presentation of Financial Statements* and IFRS Practice Statement 2 *Making Materiality Judgements (effective for financial years beginning on or after 1 January 2023). The amendments clarify the application of materiality to disclosure of accounting policies. The amendment did not have a significant impact on the Consolidated Financial Statements of MuniFin Group.

Definition of Accounting Estimates* – Amendments to IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors (effective for financial years beginning on or after 1 January 2023). The amendments clarify how companies should distinguish changes in accounting policies from changes in accounting estimates, with a primary focus on the definition of and clarifications on accounting estimates. The amendment did not have a significant impact on the Consolidated Financial Statements of MuniFin Group..

Deferred Tax related to Assets and Liabilities arising from a Single Transaction* – Amendments to IAS 12 *Income Taxes (effective for financial years beginning on or after 1 January 2023). The amendments narrow the initial recognition exemption (*IRE*) and clarify that the exemption does not apply to transactions such as leases and decommissioning obligations which give rise to equal and offsetting temporary differences. The amendment did not have a significant impact on the Consolidated Financial Statements of MuniFin Group..

International Tax Reform — Pillar Two Model Rules* – Amendments to IAS 12 *Income Taxes (the temporary mandatory exception is effective immediately upon publication on 28 May 2023; disclosures requirements are effective for annual reporting periods beginning on or after 1 January 2023). The amendments give relief from accounting for deferred taxes arising from the OECD's (*Organisation for Economic Co-operation and Development*) international tax reform and require new disclosures to compensate for the potential loss of information resulting from the relief. The amendment did not have an impact on the Consolidated Financial Statements of MuniFin Group.

Other new or amended standards and interpretations that entered into effect in 2023 did not have a material impact on the Consolidated Financial Statements.

The Finnish Financial Supervisory Authority's (*FIN-FSA*) amendments to the *Regulations and Guidelines 2/2016*, about the changes of the certain income statement line-items that entered into effect from the beginning of 2023, have been taken into account in the Financial Statements where applicable. The comparative information has also been updated according to the revised guidelines.

Line item in the income statement until the end of 2022	Line item in the income statement from beginning of 2023
Net income from securities and foreign exchange transactions	Net income on financial instruments at fair value through profit or loss
Net income from hedge accounting	Net income on financial instruments at fair value through profit or loss
Administrative expenses	HR and administrative expenses

3. Accounting policies requiring management judgement and key uncertainty factors related to estimates

In preparing the Financial Statements under IFRS, the Group management is required to make certain estimates and use judgement in the application of the accounting policies that affect the revenue, expenses, assets and liabilities presented in the Financial Statements.

The key assumptions made by the Group concern key uncertainty factors pertaining to the future and the estimates at the financial statement date. These relate to, among other things, the determination of fair value and the expected credit losses and impairment of financial assets.

3.1 Management judgement related to the determination of fair value

The level of management judgement required in establishing the fair value of financial instruments for which there is a quoted price in an active market is usually minimal. For the valuation of financial instruments where prices quoted in active markets are not available, the Group uses valuation techniques to establish fair value. These valuation techniques involve some level of management estimation and judgement, the degree of which will depend on the observability of the input parameters and the instrument's complexity. For instruments valued using valuation models which are standard across the industry and where all inputs are quoted in active markets, the level of subjectivity or judgement required is low. The level of subjectivity and degree of management judgement required is more significant for those instruments valued using sophisticated models where some or all of the inputs are less liquid or unobservable. Management judgement is required in the selection and application of appropriate parameters, assumptions and modelling techniques in particular, where data is obtained from infrequent market transactions or extrapolation techniques are applied.

MuniFin Group discloses financial assets and liabilities according to their fair value hierarchy levels in the notes to the Financial Statements. Management judgement is required in determining the hierarchy level to which a financial instrument should be classified specifically when the valuation is determined by a number of inputs, of which some are observable and others are not. Furthermore, the classification of an instrument can change over time to reflect changes in input liquidity. The Group also discloses a sensitivity analysis of the impact on the level 3 financial instruments by using reasonably possible alternatives for the unobservable input. The determination of reasonably possible alternatives requires management judgement.

The valuation methods and controls and quantitative disclosures with respect to the determination of fair value as well as the fair value hierarchy levels and sensitivity analysis are disclosed in Note *16 Fair values of financial assets and liabilities*. The changes in the fair values of financial instruments impact the income statement line items *Net income on financial instruments at fair value through profit or loss* as well as the other comprehensive income line items *Net change in fair value of financial assets at fair value through other comprehensive income, Net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss* and *Net change in Cost-of-Hedging.*

3.2 Management judgement related to the expected credit losses

The measurement of impairment losses under IFRS 9 across all categories of financial assets requires judgement, in particular, with the estimation of amount and timing of future cash flows and collateral values when determining impairment losses and the assessment of a significant increase in credit risk. These estimates are driven by a number of factors, changes in which can result in different levels of allowances. Expected credit losses are disclosed in Note *25 Credit risks of financial assets and other commitments.* The changes of the expected credit losses are recognised under the income statement line *Credit loss and impairments of financial assets*.

The Group's ECL calculations are an output of complex models with a number of underlying assumptions regarding the choice of variable inputs and their interdependencies. Elements of ECL models that are considered accounting judgements and estimates include:

- The Group's internal credit scoring model, which assigns probabilities of default (*PD*) to the individual grades.
- The Group's criteria for assessing if there has been a significant increase in credit risk and qualitative assessment.
- Development of ECL models, including the various formulas and the choice of inputs.
- Determination of relationships between macroeconomic scenarios and economic inputs, such as unemployment levels and collateral values and their effect on PDs, EADs (*Exposures at Default*) and LGDs (*Loss Given Default*).
- Selection of forward-looking macroeconomic scenarios and their probability weightings, to derive the economic inputs into the ECL models.

The Group regularly reviews its models in the context of actual loss experience and adjusts them when necessary. MuniFin Group has updated in the first half of 2023 the probability of defaults according to the update cycle. In addition, macro scenarios were updated to take into account forward-looking information at the end of the financial year. At the same time, the recovery rates used in loss given default calculations were updated as well as loss given default for certain customer segments.

The Group has assessed the impact of rapidly increased interest rate environment on its receivables from customer financing and on credit risk. At the end of June 2023, the Group's management decided to record an additional discretionary provision of EUR 609 thousand based on a group-specific assessment as some customers may face challenges in the sufficiency of cash flows during the second half of 2023. At the end of the financial year 2023, the Group's management assessed again the need of additional discretionary provision and recognised an additional provision of EUR 16 thousand. Based on the Group's assessment some customer may face challenges in the sufficiency of cash flows during the first half of 2024, which may appear in increased payment delays and forbearances for MuniFin Group. The total amount of additional discretionary provision based on a group-specific assessment was EUR 625 thousand at the end of 2023. The additional discretionary provision relates to the balance sheet item *Loans and advances to the public and public sector entities*. The additional discretionary provision has not been allocated to the contract level.

4. Basis of consolidation

The Consolidated Financial Statements encompass the Financial Statements of MuniFin, the Parent Company, and the Subsidiary Financial Advisory Services Inspira Ltd, in which the Parent Company has control. MuniFin has control over an investee if it is exposed or has rights to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Inspira is fully owned by MuniFin and thus the control is based on votes. Intra-group holdings have been eliminated by using the acquisition method. Intra-group transactions, receivables, and liabilities as well as distribution of profit have been eliminated in the Consolidated Financial Statements.

5. Segment reporting

The Group's line of business is credit institution operations and providing financial services. The Group operates in a single segment, which also forms the basis of reporting to the Group's chief operating decision maker. Group-level information on products and services is presented in Note *3 Interest income and expense* and *4 Fee and commission income and expense*. The Group has not broken down income or assets based on geographical areas due to operating in Finland only. The Group regularly monitors the development of the lending portfolio by customer and the proportion of interest paid by each customer of the total interest income. The largest cities measured by population and non-profit companies focused on rental housing development are the largest borrowers. There is no customer group that accumulates over 10% of the Group's total interest income. The chief operating decision maker of the Group is the Chief Executive Officer of the Parent Company as he is responsible for allocating resources and assessing the performance of the Group.

6. Translation of foreign currency denominated items

Transactions denominated in a foreign currency have been recorded in euro, the Group's Parent Company's functional currency, using the exchange rates of the transaction dates. On the reporting date, monetary receivables and liabilities denominated in a foreign currency have been translated into euros using the European Central Bank's average exchange rate of that date. The resulting translation differences are recorded in the income statement under *Net income on financial instruments at fair value through profit or loss*. The fair value changes of financial assets denominated in a foreign currency and classified as fair value through other comprehensive income are divided into translation differences arising from changes to the amortised cost of the asset and other changes in carrying amount. Translation differences related to changes in amortised cost are recognised in the income statement, while other changes in carrying amount are recognised in other comprehensive income.

7. Classification, recognition and measurement of financial instruments

The classification of financial instruments at initial recognition depends on their contractual terms and for financial assets on the business model for managing the instruments. Financial instruments are initially measured at fair value taking into account transaction costs that are incremental and directly attributable to the acquisition cost or issue of the financial asset or liability, unless the financial asset or liability is measured at fair value through profit or loss. Trade receivables are measured at the transaction price.

7.1 Classification and measurement of financial assets

The classification of financial assets is dependent on:

- the business model applied to managing the financial assets and
- the characteristics of their contractual cash flows.

Financial assets are reclassified only when the business model for managing financial assets is changed. On initial recognition, a financial asset is classified as amortised cost (*AC*), fair value through other comprehensive income (*FVOCI*) or fair value through profit or loss (*FVTPL*). Certain financial assets, that otherwise meet the requirements to be classified as amortised cost or fair value through other comprehensive income, can be irrevocably designated to be measured at fair value through profit or loss by applying fair value option (*FVO*).

7.1.1 Business model assessment

The Group has determined its business models at the level that best reflects how it manages groups of financial assets to achieve its business objective. Business model is not assessed on an instrument-by-instrument basis, but at a higher level of aggregation and is based on observable factors such as:

- How the performance of the business model and the financial assets held within that business model are evaluated and reported to the Group's key management personnel.
- The risks that affect the performance of the business model and the financial assets held within that business model and, in particular, the way those risks are managed.
- How managers of the business are compensated, for example, whether the compensation is based on the fair value of the assets managed or on the contractual cash flows collected.
- The expected frequency, value and timing of sales.

The business model assessment is based on reasonably expected scenarios without taking "worst case" or "stress case" scenarios into account. If cash flows after initial recognition are realised in a way that is different from original expectations, the Group does not change the classification of the remaining financial assets held in that business model but incorporates such information when assessing newly originated or newly purchased financial assets going forward.

MuniFin Group has identified two different business models for managing financial assets: the first business model is based on holding financial assets and collecting contractual cash flows. The other business model is based on collecting contractual cash flows and selling financial assets.

The Group's lending is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows. In addition, financial assets such as bank account balances, bank deposits, CSA collateral receivables and reverse repurchase agreements are held within a business model whose objective is to hold financial assets in order to collect contractual cash flows.

Liquidity investments are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets. Thus, based on the business model the financial assets are classified as fair value through other comprehensive income (*FVOCI*).

7.1.2 The Solely Payment of Principal and Interest (SPPI) test

As a second step of its classification process the Group assesses the contractual terms of financial assets to identify whether they meet the SPPI test. In the SPPI test, the contractual cash flows of the financial asset are assessed. In order to pass the SPPI test, the cash flows need to consist solely of payments of principal and interest.

"Principal" for the purpose of this test is defined as the fair value of the financial asset at initial recognition and it may change over the life of the financial asset for example, if there are repayments of principal or amortisation of the premium or discount.

The most significant elements of interest within a lending arrangement are typically the consideration for the time value of money and credit risk. To make the SPPI assessment, the Group applies judgement and considers relevant factors such as the currency in which the financial asset is denominated, and the period for which the interest rate is set.

Financial assets are required to be classified at fair value through profit or loss, if:

- they contain contractual terms that are unrelated to a basic lending agreement and
- they give rise to cash flows that are not solely payments of principal and interest on the amount outstanding.

These contractual terms are required to introduce a more than de minimis exposure to risks or volatility in the contractual cash flows, in order for the financial asset to fail the SPPI test. Some of the Group's structured lending agreements do not fulfil the SPPI criteria and are thus classified mandatorily at fair value through profit or loss. As a result of the requirements in the SPPI test, embedded derivatives in financial assets would be classified at fair value through profit or loss. IFRS 9 does not allow for the separation of embedded derivatives from financial asset host contracts.

7.1.3 Amortised cost
A financial asset is classified at amortised cost if it meets both of the following conditions and is not designated at fair value through profit or loss:

- The asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets in this category are initially recognised at fair value adjusted by directly attributable transaction costs. Subsequently, these assets are measured at amortised cost using the effective interest method. The measurement of impairment is based on the expected credit loss model described in Section *9. Impairment of Financial assets*. Interest received on financial assets at amortised cost is recognised in the income statement under *Interest and similar income*. The expected credit losses are recognised in the income statement under *Credit loss and impairments on financial assets*.

Based on the business model assessment, financial assets that are classified at amortised cost include the Group's lending portfolio consisting of short-term and long-term lending, money market deposits, reverse repurchase agreements, bank account balances and CSA collateral receivables. Not all aforementioned assets can be classified at amortised cost as required by the business model as certain lending agreements fail the test of solely payments of principal and interest. These structured lending agreements are classified mandatorily at fair value through profit or loss.

As a rule, the Group hedges fixed rate lending and lending at long-term reference rates and applies fair value hedge accounting to these. Lending that is designated as hedged item in a hedge relationship is measured at fair value for the risk hedged. Hedge accounting principles are described in Section *10. Hedge accounting* of this note. Note *24 Hedge accounting* describes how hedge accounting has been implemented in the Group.

7.1.4 Fair value through other comprehensive income
A financial asset, that is a debt instrument, is classified at fair value through other comprehensive income if it meets both of the following conditions and is not designated at fair value through profit or loss:

- The asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets in this category are initially recognised at fair value adjusted by directly attributable transaction costs. Subsequent changes in fair value are recognised through the other comprehensive income and are presented in *Fair value reserve* adjusted by deferred tax. The measurement of impairment is based on the expected credit loss model described in Section *9. Impairment of Financial assets*. Foreign exchange gains and losses on debt securities denominated in foreign currencies are recognised in the income statement *Net income on financial instruments at fair value through profit or loss*. Interest received on debt securities is recognised in the income statement under *Interest and similar income*. The expected credit losses are recognised in the income statement under *Credit loss and impairments on financial assets*. Upon disposal, the cumulative gain or loss previously recognised in the other comprehensive income is reclassified from fair value reserve in equity to the income statement and presented under *Net income on financial assets at fair value through other comprehensive income*.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in fair value in the other comprehensive income. When this election is made, amounts presented in the other comprehensive income are not subsequently transferred to the income statement. Dividends on such investments are recognised in the income statement unless the dividend clearly represents a partial recovery of the initial investment. This election is made on an investment-by-investment basis. The Group classifies all of its investments in equity instruments at fair value through profit or loss.

Based on the business model assessment, investments of the Group's liquidity portfolio are classified at fair value through other comprehensive income. The majority of the liquidity portfolio consists of fixed and floating rate debt securities and investments in commercial papers. These investments pass the SPPI test.

7.1.5 Fair value through profit or loss

A financial asset is classified at fair value through profit or loss unless it is classified at amortised cost or fair value through other comprehensive income. In MuniFin Group, this category comprises of the following assets:

- derivative assets,
- debt instruments with contractual terms that do not represent solely payments of principal and interest on the principal amount outstanding,
- investments in equity instruments and
- financial assets designated at fair value through profit or loss on initial recognition.

Financial assets in this category are initially recognised at fair value, with transaction costs recognised in the income statement as incurred. Subsequently, these assets are measured at fair value through profit or loss. Fair value changes are recorded in the income statement under *Net income on financial instruments at fair value through profit or loss*. Interest received on financial assets at fair value through profit or loss is recognised in the income statement under *Interest and similar income*.

7.1.6 Designated at fair value through profit or loss

On initial recognition, the Group can designate certain financial assets at fair value through profit or loss (f*air value option, FVO*). This irrevocable designation is made if doing so eliminates or significantly reduces measurement or recognition inconsistencies (i.e., eliminates an accounting mismatch) which would otherwise arise from measuring financial assets on different bases. Financial assets that the Group has designated at fair value through profit or loss include debt securities of the liquidity portfolio and individual lending agreements of which the interest rate risk and/or foreign exchange risk is hedged with interest rate and cross currency interest rate swaps.

7.2 Classification and measurement of financial liabilities

On initial recognition, a financial liability is classified at amortised cost (*AC*) or fair value through profit or loss (*FVTPL*). Certain financial liabilities, that otherwise meet the requirements to be classified at amortised cost, can be irrevocably designated at fair value through profit or loss by applying the fair value option (*FVO*). Financial liabilities are not reclassified after initial recognition.

7.2.1 Amortised cost

Financial liabilities are classified at amortised cost, except for:

- derivative liabilities and
- liabilities that are designated at fair value through profit or loss.

Financial liabilities in this category are initially recognised at fair value adjusted by directly attributable transaction costs. Subsequently, these financial liabilities are measured at amortised cost using the effective interest method. Interest paid on liabilities is recognised in the income statement under *Interest and similar expense*.

Financial liabilities that are classified at amortised cost include liabilities to credit institutions, liabilities to the public and public sector entities and debt securities issued. MuniFin Group applies fair value hedge accounting according to IFRS 9 to financial liabilities at amortised cost which have been hedged. Hedge accounting principles are described in Section *10. Hedge accounting* of this note. Note *24 Hedge accounting* describes how hedge accounting has been implemented in the Group.

7.2.2 Fair value through profit or loss
A financial liability is classified at fair value through profit or loss unless it is classified at amortised cost. This category includes derivative contracts and financial liabilities that are designated at fair value through profit or loss upon initial recognition.

Financial liabilities in this category are initially recognised at fair value. Subsequent changes in fair value are recorded in the income statement under *Net income on financial instruments at fair value through profit or loss.* Interest paid on liabilities is recognised in the income statement under *Interest and similar expense.*

7.2.3 Designated at fair value through profit or loss
On initial recognition, the Group can designate certain financial liabilities at fair value through profit or loss. This designation is made:

- if it eliminates or significantly reduces an accounting mismatch or
- if financial liabilities are both managed, and their performance evaluated on a fair value basis in accordance with a documented risk management or investment strategy.

The Group has designated short-term debt instruments denominated in foreign currencies, which have been hedged with FX swaps at fair value through profit or loss. The designation reduces accounting mismatch which would otherwise arise between the measurement of the derivative and financial liability. In addition, the Group has also designated certain financial liabilities at fair value through profit or loss. These consist of financial liabilities, which have been hedged according to the Group's risk management policy, but to which fair value hedge accounting in accordance with IFRS 9 is not applied. To eliminate the accounting mismatch resulting from the economic hedge, these debt instruments have been designated at fair value through profit or loss. As a result of the designation all financial liabilities containing embedded derivatives requiring separation are classified at fair value through profit or loss.

An embedded derivative is part of a hybrid financial instrument, which contains a non-derivative host and an embedded derivative which causes the contractual cash flows to be modified in a similar way to that of stand-alone derivative cash flows. If the economic characteristics and risks of an embedded derivative are not closely related to the characteristics and risks of the host contract, the embedded derivative of a debt instrument is required to be separated. The separated embedded derivative is measured at fair value through profit or loss. If the fair value of the embedded derivative cannot be separately measured, the entire hybrid instrument is designated at fair value through profit or loss. Debt securities issued by MuniFin can contain interest or redemption terms with the economic characteristics and risks that are not closely related to the host contract. The Group hedges all structured interest and redemption terms in its issued debt securities with offsetting derivatives and designates them at fair value through profit and loss and thus the above-mentioned components are not separated from the host contract.

The fair value changes of financial liabilities designated at fair value through profit or loss are recorded in the income statement under *Net income on financial instruments at fair value through profit or loss*, except for fair value changes attributable to changes in the Group's own credit risk. The fair value changes of the derivative hedging the financial liability are recorded in the same income statement line item. When a financial liability is designated at fair value through profit or loss, the fair value changes due to changes of the Group's credit risk are presented separately in the other comprehensive income under *Net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss*.

The Group applies the income approach to the separation of fair value changes related to changes in own credit risk from the fair value changes of the financial liability. For the majority of financial liabilities designated at fair value through profit or loss, no market price is available as there is no active secondary market. The methodology for separation of own credit risk utilises:

- MuniFin's benchmark curves,
- cross currency basis spreads and
- credit spreads of MuniFin's issued debt securities as input.

Based on the aforementioned inputs, valuation curves can be constructed for various reporting periods for valuing financial liabilities designated at fair value through profit or loss. By comparing fair values calculated using the trade date and reporting date curves, the impact of the change in own credit risk on the fair value of the financial liability can be determined.

8. Recognition and derecognition of financial assets and liabilities

Financial assets are recognised on the statement of financial position on the settlement day. Financial liabilities are recognised when the consideration is received. Derivatives are recognised on the trade date.

Financial assets are derecognised when the contractual right to the assets expires or when the rights have been transferred to another party. Financial liabilities are derecognised when the obligations have been fulfilled.

8.1 Derecognition due to substantial modification of terms and conditions

The Group derecognises a financial asset, such as a loan to a customer, when the terms and conditions have been renegotiated to the extent that, substantially, it becomes a new loan. These newly recognised loans are classified at stage 1 for the purposes of measurement of expected credit loss, unless the Group determines that the modified loan is deemed to be a credit-impaired financial asset (*Purchased or Originated Credit Impaired, POCI*). If the modification does not result in cash flows that are substantially different, the modification does not result in derecognition.

If an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of the existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability.

9. Impairment on financial assets

The impairment requirements are based on a three-stage approach to measure expected credit losses (*ECL*). Financial assets classified as amortised cost or fair value through other comprehensive income are in scope for recognising impairment under the IFRS 9 standard. Finance lease receivables and off-balance sheet binding loan commitments are also in scope for recognising impairment due to their credit risk. For further information on the classification of financial assets, see Section *7. Classification, recognition and measurement of financial instruments* above.

Impairment of financial assets is calculated based on the credit loss expected to arise over a 12-month period, unless there has been a significant increase in credit risk since origination, in which case, the allowance is calculated based on the expected credit losses over the life of the asset. Both lifetime and 12-months expected credit losses (*ECL*) are calculated on an individual basis. Collective assessment may be used to determine a possible management overlay provision.

9.1 Measurement of ECL

The assets in the scope of the expected credit loss impairment model are classified into three stages.

- Stage 1 includes assets with no significant increase in credit risk,
- Stage 2 includes assets with significantly increased credit risk since origination, and
- Stage 3 includes assets that are credit impaired and thus fulfil the definition of default.

Default is defined as a situation where the obligor is more than 90 days-past-due or the obligor is considered unlikely to pay its credit obligations for example due to the obligor's bankruptcy or distressed restructuring. The definition of default is in line with the Group's capital adequacy calculations and risk management as well as with the requirements from international regulators (European Banking Authority's (*EBA*) guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013: EBA/GL/2016/07 and EBA/RTS/2016/06).

The provision for stage 1 is equivalent to the credit loss expected for 12 months. For stages 2 and 3, the provision is equivalent to the expected credit losses for the entire lifetime. The Group calculates ECL based on three probability-weighted scenarios to measure the expected cash shortfalls. The net present value of the contractual cash flows of the exposure are compared to the sum of the net present value of expected future cash flows. If the contractual cash flows are higher than the expected future cash flows, the difference is recognised as an expected credit loss. The expected future cash flows are discounted with the effective interest rate (*EIR*). The fair value of collateral and received guarantees are taken into account when calculating expected future cash flows.

The key elements of the ECL calculations are, as follows:

PD	The probability of default is an estimate of the likelihood of default over a given time horizon. A default may only happen at a certain time over the assessed period, if the exposure has not been previously derecognised and is still in the portfolio. The PD used in stage transition is defined on a client level. The PD used to calculate the exposure's expected credit loss takes also into account the guarantees received, so that the Finnish government PD is applied in the ECL calculation instead.
EAD	The exposure at default is an estimate of the exposure at a future default date, taking into account expected changes in the exposure after the reporting date, including prepayments of principal and interest, whether scheduled by contract or otherwise, expected drawdowns on committed facilities, and accrued interest from missed payments.
LGD	The loss given default is an estimate of the loss arising in the case where a default occurs at a given time. It is based on the difference between the contractual cash flows due and those that the lender would expect to receive, including cash flows from the realisation of any collateral.

When estimating the ECL, the Group considers three scenarios. Each of these are associated with different PDs, EADs and LGDs. When relevant, the Group's assessment of multiple scenarios also incorporates how defaulted loans are expected to be recovered, including the probability that the loans will cure and the value of collateral or the amount that might be received for selling the asset. The maximum period for which the credit losses are determined is the contractual life of a financial instrument unless the Group has the legal right to call it earlier.

Impairment losses and their reversals are accounted for and disclosed separately from modification losses or gains that are accounted for as an adjustment of the financial asset's gross carrying amount.

The accounting principles of ECL are summarised below:

- Stage 1: If there has been no significant increase in credit risk since initial recognition, the provision for exposures is based on the 12-month expected loss. The 12-month ECL is calculated as the portion of the lifetime ECL that represents the ECL that result from default events on a financial instrument that are possible within the 12 months after the reporting date. The Group calculates the 12-month ECL allowance based on the expectation of a default occurring in the 12 months following the reporting date. These expected 12-month default probabilities are applied to a forecast EAD and multiplied by the expected LGD and discounted by an EIR.
- Stage 2: When the exposure has shown a significant increase in credit risk since origination but is not credit-impaired, the Group records a provision for the lifetime expected credit losses. The mechanics are similar to those explained above, including the use of multiple scenarios, but PDs and LGDs are estimated over the lifetime of the instrument. The expected cash shortfalls are discounted by their EIR.
- Stage 3: For assets considered credit-impaired, the Group recognises the lifetime expected credit losses. For these exposures interest revenue is calculated by applying the EIR to the amortised cost (*net of provision*).
- Purchased or originated credit impaired assets (*POCI*) are financial assets that are credit-impaired on initial recognition.
- Loan commitments: When estimating ECL for undrawn loan commitments, the Group estimates the expected portion of the loan commitment that will be drawn down over its expected life. The ECL is then calculated based on the present value of the expected shortfalls in cash flows if the loan is drawn down, based on probability-weighting of the three scenarios. The expected cash shortfalls are discounted at an approximation to the expected EIR of the loan.

9.2 Significant increase in credit risk

At each reporting date, the Group assesses whether there has been a significant increase in credit risk for exposures since initial recognition on an individual basis by comparing the risk of default occurring over the expected life between the reporting date and the date of initial recognition. If one of the following factors indicates that credit risk has increased significantly, the instrument is transferred from stage 1 to stage 2:

- Thresholds for a significant increase in credit risk compared to the initial stage: a threefold (200%) increase in lifetime probability of default compared to the initial, and a single point in time (*PiT*) probability of default of a financial instrument for the year in question is greater than 0.3%.
- Additional qualitative factors, such as forbearance on a financial asset or watch list of counterparties
- Financial assets which repayments are more than 30 days past due.

Movements between stage 2 and stage 3 are based on whether a financial asset is credit-impaired due to the change in credit risk. A financial asset is impaired if there is objective evidence of the impairment. An exposure will migrate through the ECL stages as asset quality deteriorates. If, in a subsequent period, asset quality improves and also reverses any previously assessed significant increase in credit risk since origination after a probation period and after fulfilment of certain criteria, then the calculation basis for ECL reverts from lifetime ECL to 12-month ECL.

Transitions from stage 1 to stages 2 and 3, and from stage 2 to stage 3 are immediate. Transition from stage 2 to stage 1 and from stage 3 to stage 2 requires that the criteria for transition must be met for six months before transition (*probation period*).

In the measurement of expected credit losses, the Group includes forward-looking information and macroeconomic scenarios in the model. The scenarios are the same as used in the Group's annual financial planning and stress testing. The macroeconomic projections cover a three-year period and as no reliable macroeconomic projections exceeding a three-year time horizon are available, forward-looking adjustment will be limited to a three-year period. Mainly three scenarios are used: base, optimistic and adverse. Scenarios also include probability weights. The ECL model consists of the following macroeconomic variables for Finnish counterparties of financial assets; Finnish government long-term EUR-rates, the development of residential housing prices and unemployment rate. The projections are included in the macroeconomic scenarios. For non-Finnish financial assets, stress test scenarios published by the European Central Bank are used.

9.3 Forborne and modified loans

The Group sometimes makes concessions or modifications to the original terms of loans or other receivables as a response to the borrower's financial difficulties, rather than enforcing the collection of collateral. Forbearance measures are concessions to original contractual payment terms agreed at the customer's initiative to help the customer through temporary payment difficulties. Performing forborne exposures include forborne exposures reclassified as performing during their probation period or forbearance measures made into a performing loan. Loan modifications due to reasons other than the customer's financial difficulties are not classified as forborne exposures. The Group considers a loan forborne when such concessions or modifications are provided as a result of the borrower's present or expected financial difficulties and the Group would not have agreed to them if the borrower had been financially healthy.

Once a loan or other receivable has been classified as forborne, it will remain forborne for a minimum 24-month probation period. In order for the loan or other receivable to be reclassified out of the forborne category, the customer has to meet all of the following criteria:

- All of its loan facilities and other receivables have to be considered performing.
- The probation period of two years has passed from the date the forborne contract was considered performing
- The Group has received regular payments of more than an insignificant amount of principal or interest during at least half of the probation period.
- The customer does not have any contract that is more than 30 days past due.

Forborne loans and payment delays are regularly reported to the Group's management as an indicator of anticipated client payment ability/solvency.

9.4 Presentation of allowance for ECL in the statement of financial position

Loss allowances for ECL are recognised in the income statement with a corresponding charge to the statement of financial position as follows:

- Financial assets classified at amortised cost: as a deduction from the gross carrying amount of the assets.
- Debt instruments classified at FVOCI: no loss allowance is recognised as a deduction from the gross carrying amount of the assets in the statement of financial position because the carrying amount of these assets is at fair value. However, the loss allowance is recognised through the other comprehensive income in the fair value reserve. The accumulated loss recognised in the fair value reserve is recycled through OCI to the income statement upon derecognition of the financial assets.
- Finance lease receivables: as a deduction from the gross carrying amount of the assets.
- Binding loan commitments: recognised in *Provisions and other liabilities*.

9.5 Write-off

Financial assets are written off, either partially or in full, when the Group has no reasonable expectations of recovering the financial asset. This is generally the case when the Group determines that the borrower or guarantor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to impairment. The Group's credit risks and credit risk management are further discussed in Note *2 Risk management principles and the Group's risk position*. If the amount to be written off is greater than the accumulated loss allowance of the expected credit losses, the difference is first treated as an addition to the allowance that is then applied against the gross carrying amount.

Financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of the amounts due. Subsequent recoveries of amounts previously written off reduce the amount of the expense in the income statement.

10. Hedge accounting

The interest rate and foreign exchange rate risk of the Group are managed by entering into derivative transactions. According to the Market Risk Policy the Group's hedging strategy is to mainly hedge all material foreign exchange and interest rate risks of financial assets and liabilities with maturities exceeding one year. As a result, foreign currency denominated items are translated into euros and fixed rate and long-term reference rates are swapped to floating interest rates with shorter terms.

MuniFin Group applies fair value hedge accounting to:

- Financial assets and liabilities and lease agreements denominated in euros, where the plain-vanilla interest rate of the hedged item has been swapped to a floating rate using derivatives.
- Foreign currency denominated financial liabilities with fixed interest rates, which have been hedged by exchanging the principal into euros and the interest rate into a floating rate.

The Group has documented the hedge relationships within hedge accounting and they comply with the Group's risk management objectives and strategy. The Group does not apply cash flow hedge accounting.

The carrying amounts of assets and liabilities in hedge accounting are presented in Note *15 Financial assets and liabilities*. The fair values of derivatives included in hedge accounting are presented in Note *23 Derivative contracts*. The notionals of hedged items, the fair value of the hedged items, the impact of hedge accounting on profit or loss and on equity are shown in Note *24 Hedge accounting*. The impact of hedge accounting on profit or loss is also shown in Note *7 Net income from hedge accounting*.

The change in fair value due to foreign exchange differences of derivatives in hedge accounting and the hedged items is recognised in the income statement under *Net income on financial instruments at fair value through profit or loss*. Other changes in fair value of hedged items and the derivatives hedging them, and the ineffective portion of the hedging relationship are also recognised in the same income statement line item. The interest received and paid on derivative contracts is recognised as an adjustment to *Interest and similar expenses* of hedged liabilities or as an adjustment to *Interest and similar income* of hedged assets.

The Group applies both hedge accounting according to IFRS 9 and portfolio hedge accounting according to IAS 39.

10.1 IFRS 9 hedge accounting

Fair value hedge accounting according to IFRS 9 is applied to:

- Fixed rate funding and zero-coupon funding denominated in euros. The hedged item for euro denominated funding is interest rate risk.
- Fixed rate funding and zero-coupon funding denominated in foreign currencies; and
- Structured lending and finance lease agreements at fixed and long-term reference rates.

For all foreign currency hedge relationships, the Group has elected to utilise Cost-of-Hedging. For each hedge relationship, when the cross-currency swap is designated as a hedging instrument, the cross-currency basis spread is separated and excluded from the designation and accounted for as Cost-of-Hedging. The difference between the changes in fair value of the actual derivative and the designated portion of the derivative are recorded through the other comprehensive income under *Net change in Cost-of-Hedging* to the *Cost-of-Hedging reserve*. Thus, changes in cross currency basis spreads will impact other comprehensive income and not create ineffectiveness in the hedge relationship.

For financial liabilities, the hedged item is at amortised cost, excluding the portion of hedged interest risk, which is subject to fair value hedge accounting. The credit risk of the Group is not included in the hedging relationship. For each financial liability in fair value hedge accounting, the Group determines the credit spread of each trade at inception. The credit spread corresponds to the margin, which needs to be added to the discount curve in order for the fair value at inception to match the issue price. The credit spread is held constant throughout the hedge relationship and based on its present value, the fair value of the financial liability with respect to the hedged risk can be calculated. The change in the value of the hedged risk is recognised as an adjustment to the carrying amount of the hedged item in the income statement under item *Net income on financial instruments at fair value through profit or loss.* Ineffectiveness between the hedged item and the designated portion of the hedge is recorded in the income statement. Separating the credit risk from the fair value is a requirement for applying hedge accounting only on interest rate and foreign exchange risks. The Group uses interest rate swaps and cross currency interest rate swaps as hedging instruments.

In addition, fair value hedge accounting according to IFRS 9 is applied to structured lending, which passes the SPPI test and is thus at amortised cost and which has been hedged 1:1 with interest rate swaps. The customer marginal of the lending agreement is not part of the hedge relationship.

Both funding and structured lending are hedged with hedging instruments with terms that match the hedged item. The hedge ratio between the hedged item and hedging instrument is 1:1. As a result, it is expected that the fair value changes of the derivative offset the fair value changes of the hedged item related to the hedged risk. Prospective effectiveness testing has been performed by verifying that the critical terms match. Ineffectiveness is introduced into the hedge relationship due to the differences in the interest rate curves used in valuing the hedged item and hedging instrument. In addition, ineffectiveness could be created if the critical terms would differ or if the credit risk of the derivative would increase. MuniFin has CSA collateral agreements with its derivative counterparties to mitigate the counterparty credit risk related to derivatives. The effectiveness of all hedge relationships is verified at inception of the hedge relationship and regularly after that on a quarterly basis.

Fair value hedge accounting according to IFRS 9 is also applied to finance lease agreements at fixed and long-term reference rates. The interest risk of these lease agreements is hedged with interest rate derivatives. Due to the size of the agreements, several lease agreements are hedged with one interest rate derivative. The terms of the derivative match the combined terms of the hedged agreements. The customer marginal of the finance lease agreement is not part of the hedge relationship. The principles of fair value hedge accounting applied to lease agreements resemble those presented above to a large extent. Due to the way the agreements are hedged, the prospective effectiveness testing is performed using sensitivity analysis. In the analysis the fair value change of the hedged item and hedging instrument is simulated by shifting the interest rate curves.

The hedged items, finance lease agreements and structured lending are measured at amortised cost excluding the portion of hedged interest risk, which is subject to fair value hedge accounting. The change in the value of the hedged risk is recognised as an adjustment to the carrying amount of the hedged item and in the income statement under item *Net income on financial instruments at fair value through profit or loss*.

10.2 IAS 39 portfolio hedge accounting

For financial assets, the Group applies fair value hedge accounting in accordance with IAS 39 portfolio hedge accounting to lending at fixed rates and long-term reference rates. The hedged risk is interest rate risk. The customer marginal of the lending agreement is not part of the hedge relationship. The negative reference rates are taken into account as part of the eliminated margin. Lending is hedged as a portfolio, as such the hedged item consists of several lending agreements. The lending agreements are grouped and hedged by pricing and re-fixing dates. The interest rates and payment dates of the interest rate derivatives hedging the lending agreements contained in the portfolio are defined so that the notionals and cash flows match the terms of the lending agreements of the hedged item. Therefore, the fair value changes of the hedging instrument are assumed to offset thoset of the lending agreements. The effectiveness of the hedge relationship is expected to be effective throughout the hedged period, until maturity. As the portfolio consists of several hedges and lending agreements, prospective effectiveness testing is performed for each new group of hedged items and for the entire portfolio at the inception of each new hedge. Prospective effectiveness testing is performed as a sensitivity analysis and by reviewing the notionals of the hedges and hedged items by maturity bucket. The Group performs retrospective effectiveness testing using regression analysis on fair value changes.

The hedged items of the portfolio are measured at amortised cost excluding the portion of hedged interest risk, which is subject to fair value hedge accounting. The change in the value of the hedged risk is recognised as an adjustment to the carrying amount of the hedged item and in the income statement under item *Net income on financial instruments at fair value through profit or loss*.

11. Offsetting financial instruments

Financial assets and liabilities are offset, and the net amount is reported on the statement of financial position, when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. Offsetting financial instruments are presented in Note *18 Offsetting financial assets and liabilities*.

12. Cash and cash equivalents

MuniFin Group's cash and cash equivalents contain cash and loans and advances to credit institutions payable on demand. Deposits and investments with maturities less than three months on the date of the acquisition can also be included in cash and cash equivalents.

13. Determination of fair value

Fair value is the price that would be received to sell the asset or paid to transfer the liability in an orderly transaction between market participants at the measurement date. The fair values of financial instruments are determined on the basis of either price quotations obtained from functioning markets or, if such markets do not exist, by applying valuation methods. A market is deemed to be functioning if price quotations are readily and consistently available, and they reflect real market transactions executed in a consistent manner between independent parties.

If a quoted price in an active market is not available for a financial instrument, the Group uses valuation techniques standard across the industry and for which sufficient information is available to determine the fair value. The chosen valuation technique should include all factors that market participants would consider in pricing the financial instrument. The valuation technique maximises the use of observable inputs and as few as possible unobservable inputs are used.

The Group measures fair values using the following fair value hierarchy, which reflects the significance of the inputs used in making the measurements:

- Level 1: Inputs that are quoted market prices (unadjusted) for identical instruments in active markets that the Group can access at the measurement date. The market is considered to be active if trading is frequent and price data is regularly available. These quotes (mid) represent the price for an orderly transaction between parties in the market on the valuation date.
- Level 2: Inputs other than quoted prices included within level 1 that are observable either directly (i.e. as prices) or indirectly (i.e. derived from prices). This level includes instruments valued using quoted prices for identical instruments in markets that are considered less than active or other valuation techniques in which all significant inputs are directly or indirectly observable from market data.
- Level 3: This level includes all instruments for which the valuation technique includes inputs that are unobservable, and the unobservable inputs have a significant impact on the instrument's valuation. If the valuation input is illiquid, extrapolated or based on historical prices, the valuation input will be defined as a level 3 valuation input as these types of inputs are per definition unobservable. Unobservable inputs are used only to the extent that no relevant observable inputs are available.

If the inputs used to measure fair value are categorised into different levels of the fair value hierarchy, the fair value measurement is categorised in its entirety in the level of the lowest level input that is significant to the entire measurement.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price. If the fair value on initial recognition differs from the transaction price and the fair value is evidenced, neither by a quoted price in an active market for an identical asset or liability, nor based on a valuation technique for which any unobservable inputs are judged to be insignificant in relation to the measurement, then the financial instrument is initially measured at fair value and adjusted to defer the difference between the fair value on initial recognition and the transaction price (*Day 1 gain or loss*). The difference is amortised on a straight-line basis throughout the lifetime of the contract.

MuniFin Group takes into account the guarantee given by the Municipal Guarantee Board in its issued debt securities in the fair value of those financial liabilities on a net basis.

The fair value hierarchy levels, the Group's valuation methods and the valuation framework is described in more detail in Note *16 Fair values of financial assets and liabilities*.

14. Leases

A lease is defined as a contract, or part of a contract, that conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

14.1 MuniFin Group as a lessee

Lease liabilities are initially measured at the present value of the remaining lease payments, discounted using the incremental borrowing rate. The lease liability is subsequently measured at amortised cost using the effective interest method. Right-of-use assets are initially measured at cost which is the amount equal to lease liability. Lease liabilities are presented in the statement of financial position under *Provisions and other liabilities* and the interest expense under *Interest and similar expense*. Lease payments are allocated between interest expense and the deduction of the lease liability. Right-of-use assets are presented under *Tangible assets*. The right-of-use assets are depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

The right-of-use assets the Group has leased consist of various items such as office space, cars, storage units and parking facilities. The lease terms are negotiated on an individual basis and they can contain extension options. The use of extension options is considered on a contractual basis. When the Group is reasonably certain to exercise extension and termination options, they are included in the determination of the lease term.

An incremental borrowing rate (*IBR*) by MuniFin Group is used. Maturity has been defined based on the lease term of office premises and parking spaces. The same maturity for the discount rate is used for all leases since the impact of other leases than office premises are considered not material.

At each reporting date, MuniFin Group assess whether there is any indication that right-of-use assets may be impaired based on either internal or external sources of information. Typically, a company's decision to sub-let or vacate leased property indicates that the right-of-use asset may be impaired. If impairment indicators exist, then MuniFin Group performs impairment testing and determines the level at which it carries out impairment testing – i.e., at the asset or cash-generating unit level.

14.2 MuniFin Group as a lessor

Lease agreements, where the Group is the lessor, have been classified as finance leases. A lease is a finance lease if the financial benefits and risks of the asset are substantially transferred to the lessee. The finance lease agreements are recognised on the statement of financial position as a finance lease receivable at an amount corresponding to the Group's net investment in the lease. The proceeds from the leases are divided into repayments and interest income. Interest income is recognised over the term of the lease in a way that the remaining net investment yields the same rate of return over the period of the lease. Finance leases are presented in the statement of financial position under *Loans and advances to the public and public sector entities*. Interest received is presented in the income statement under *Interest income and similar income*.

The Group's finance leases are long-term leases of movable fixed assets such as machines, medical equipment, furniture, vehicles, IT and office equipment. In addition, the Group offers property leasing. Leasing customers are the same as in lending, i.e., municipalities, cities, joint municipal authorities, and companies owned and controlled by municipalities and wellbeing services counties and joint county authorities for wellbeing services, other units of wellbeing services counties that are wholly owned or under control of wellbeing services county administration and wellbeing services enterprises. The Group does not bear the residual value risk of the lease agreements.

15. Intangible assets

An intangible asset is recognised in the statement of financial position only if it fulfils the criteria for intangible assets that is for example that the Group has control over the asset, and it is probable that the expected future economic benefits that are attributable to the asset will flow to the Group and the acquisition cost can be measured reliably. The initial measurement is at cost. The acquisition cost includes all costs that are directly attributable to preparing the asset for its intended use, including internal personnel costs. The recognised intangible asset does not include costs of using the asset, staff training expenses or administration and other overhead costs.

After initial recognition, an intangible asset is recognised at its cost less accumulated depreciation and impairment. Intangible assets are depreciated at straight-line basis over 3–8 years depending on the useful life of the asset. Depreciation begins when the asset is available for use. At each reporting date, all intangible assets are reviewed for indications of impairment and change in their useful lives. An intangible asset that is not yet available for use is tested for impairment at least annually. Impairment testing is performed more frequently if required due to any indication of impairment. The impairment charge is the difference between the carrying amount and the recoverable amount of the intangible asset. The recoverable amount is determined for the cash generating unit to which the asset belongs to. A cash-generating unit is the smallest identifiable group of assets whose cash flows are largely independent of the cash inflows from other asset groups. As MuniFin's operations are treated as a single segment and the operations cannot be divided into smaller, fully independent cash-generating units, the impairment is determined by considering MuniFin as a single cash-generating unit.

16. Cloud computing arrangements

In cloud computing arrangements, such as software as a service (*SaaS*) arrangement, the cloud vendor has the control over the asset and thus cloud computing arrangements cannot be recognised as an intangible asset in the Group's statement of financial position. However, the implementation costs of the cloud computing arrangement may be recorded in the statement of financial position as a prepaid asset under *Accrued income and prepayments* and amortised as an expense over the period of the access to the software, but only if the implementation costs consist of costs paid to the cloud vendor which are not distinct from the access to the software. The implementation costs are not distinct when the implementation service could only be performed by the cloud vendor, for example when the cloud vendor agrees to customise the software by modifying the existing software code or writing new code. All other expenses such as internal personnel costs, external project management costs etc. are to be recognised as expenses when incurred.

17. Tangible assets

Tangible assets are recognised in the statement of financial position at historical cost, net of accumulated depreciation and impairment. Assets are depreciated on a straight-line basis over their estimated useful lives. The estimated useful lives are:

Office renovation costs	the lease term
Buildings	25 years
Machinery and equipment	5 years
IT equipment	4 years

The assets' residual values and useful lives are reviewed at each financial statement date and, if necessary, adjusted to reflect the changes in the expected economic benefit.

The Group assesses at each reporting date whether there is any evidence of the tangible assets being impaired. If evidence of impairment is identified, the recoverable amount is assessed for the given assets. If the carrying amount of an asset item is greater than the recoverable amount, an impairment loss is recognised in the income statement.

18. Provisions and contingent liabilities

A provision is recognised if there is an obligation resulting from a past event and it is probable that the obligation will be realised, yet the timing and the exact amount are uncertain. The obligation needs to be based on either an actual or legal obligation towards a third party. Provisions may arise, for example, from onerous contracts or as a result of reorganisations that have a material effect on the nature and focus of the Group's operations. Restructuring provision is recognised when the Group has prepared a detailed restructuring plan and has begun to implement the plan or communicated the matter. Provisions are disclosed in Note *36 Provisions and other liabilities.*

A contingent liability is a potential obligation based on past events. The existence of the obligation will not be confirmed until the uncertain future event outside the control of the Group occurs. Contingent liabilities can also be such obligations that do not require an outflow to settle or of which the amount cannot be reliably estimated. Contingent liabilities are disclosed in Note *39 Contingent assets and liabilities*.

19. Equity

Equity consists of share capital, retained earnings and reserves of equity (reserve fund, fair value reserve, own credit revaluation reserve, Cost-of-Hedging reserve and reserve for invested non-restricted equity). Other instruments issued by the Group can be classified into equity based on their nature. Perpetual instruments with interest payments which are at the discretion of the issuer are classified as equity in the Consolidated Financial Statements. Equity is presented in Note *38 Equity*.

During the financial year 2022, MuniFin redeemed its EUR 350 million Perpetual Fixed rate Resettable Additional Tier 1 Securities originally issued on 1 October 2015. The redemption date was the first repayment date of the securities in accordance with the terms and conditions thereof. The securities were redeemed at 100% of the aggregate nominal amount together with accrued and unpaid interest until the redemption date.

20. Recognition of income and expenses

20.1 Net interest income

Interest income and expense from financial assets and liabilities are recognised in net interest income. Transaction expenses and premium or discount as well as commissions and fees received and paid which are considered as a compensation for the risk incurred by the Group in relation to the financial instrument and are considered as an integral part of the effective interest rate, are taken into account when the effective interest rate is calculated. For floating rate financial liabilities premium or discount is amortised from the date of issuance to the next interest payment date. For fixed rate financial liabilities, the premium or discount is amortised until maturity. The Group amortises the premium or discount of floating rate debt security investments until maturity. In the current market conditions, the premium or discount on a financial asset is not based on changes in market rates, but credit risk. The market value of a floating rate investment does not reset to the nominal when its interest rate is re-fixed to market interest rates, therefore the amortisation to the next interest date is not justifiable. The Group evaluates the impact of changes in market conditions on the amortisation principle and its application regularly.

The negative interest income from assets is presented as interest expense and the negative interest expense from liabilities is presented as interest income. The Group recognises interest income and expenses on derivatives hedging liabilities in hedge accounting in interest expense and the interest income and expenses on derivatives hedging assets in hedge accounting in interest income.

20.2 Commission income and expense

Fees that are not an integral part of the effective interest rate of a financial instrument are accounted for in accordance with IFRS 15 standard. Commission income is recognised when the Group transfers control of services' performance obligations to a customer. The key criterion is the transfer of control. Commission income is recognised to the extent that the Group is expected to be entitled of the services rendered to the customer.

The Group's commission income consists of fees for financial advisory services and fees for digital services. The performance obligations of the services are met either over time or at a point in time, depending on the nature of the service. The commissions for advisory services are mainly charged from the customer after the service has been performed in accordance with the terms of the agreement. The service is considered completed when the tasks according to the assignment agreement are completed. Commission for digital services are charged once a year and recognised over time. Other commissions are charged and recognised at the time of the service being provided.

Commission expenses include paid guarantee fees, custody fees as well as funding programme update fees. Commission expenses are recognised on accrual basis.

20.3 Net income on financial instruments at fair value through profit or loss

Item *Net income on financial instruments at fair value through profit or loss* includes fair value changes of financial assets and liabilities measured at fair value through profit or loss, fair value changes of derivative contracts at fair value through profit or loss (not included in hedge accounting) as well as capital gains and losses related to these items.

Item *Net income on financial instruments at fair value through profit or loss* also consists of unrealised and realised translation differences for all items denominated in foreign currencies, translation differences related to the hedged items and hedging instruments in hedge accounting.

Furthermore, item *Net income on financial instruments at fair value through profit or loss* consists of the net income from hedge accounting, which includes the net result from recognising financial assets and liabilities and derivative contracts hedging them at fair value for the hedged risk.

20.4 Net income on financial assets at fair value through other comprehensive income

Item *Net income on financial assets at fair value through other comprehensive income* includes realised gains and losses of the financial assets at fair value through other comprehensive income.

20.5 Other operating income

Item *Other operating income* includes gains from the disposal of tangible and intangible assets and other operating income.

20.6 HR and administrative expenses

Item *HR and administrative expenses* includes salaries and fees, pension costs as well as other social security costs. In addition, costs related to IT, marketing and other administrative costs are presented as HR and administrative expenses.

20.7 Depreciation and impairment on tangible and intangible assets

Item *Depreciation and impairment on tangible and intangible assets* includes depreciation and possible impairment of tangible and intangible assets as well as right-of-use assets. The depreciation principles are discussed in Sections *15. Intangible assets, 17. Tangible assets* and *14. Leases* of this Note.

20.8 Other operating expenses

Item *Other operating expenses* includes expenses to authorities, rental expenses and other expenses from credit institution operations paid by the Group.

Expenses to authorities include stability fees as well as other administrative and supervisory fees to the Finnish Financial Supervisory Authority (*FIN-FSA*) and the European Central Bank (*ECB*). Stability fees are contributions paid to the EU crisis resolution fund. The Resolution Fund is managed by the EU Single Resolution Board (*SRB*), which decides on the amount of the stability fees. The stability fee is determined by the size of the entity and the risks involved in its business. The fee is fully expensed at the beginning of the financial year using an estimate of the amount of the payment and adjusted after the payment has been made. In addition to the stability fee, the Group pays to the SRB an annual administrative fee. Also, the Group pays the Financial Stability Agency (*FSA*) an administrative fee that is determined on the same basis as the FIN-FSA's supervisory fee. The administrative fees are recognised on an accrual basis as *Other operating expenses*.

The FIN-FSA's supervisory fee is based on the fixed basic fee and the total assets. The supervisory fee payable to the ECB is determined on the basis of the significance and the risk profile to be monitored. Supervisory fees are recognised on an accrual basis as *Other operating expenses*.

20.10 Credit loss and impairments on financial assets

Item *Credit loss and impairments on financial assets* includes the expected credit losses recognised for the financial assets classified as amortised cost and fair value through other comprehensive income as well as write-offs and subsequent recoveries recognised for all financial assets.

The accounting principles of the impairments are discussed in Section *9. Impairment of financial assets* of this Note.

21. Remuneration

21.1 Short-term employee benefits

Short-term employee benefits consist of salaries, fringe benefits, annual leave and performance bonuses. The Group recognises the cost of these benefits for the period in which the employees render the related service.

Short-term employee benefits are employee benefits (other than termination benefits) that are expected to be settled in their entirety within twelve months of the financial reporting period in which the employees render the related service. The income statement line-item *HR and administrative expenses/ Salaries and remuneration* consists of short-term employee benefits and termination benefits.

21.2 Termination benefits

Termination benefits are employee benefits provided in exchange for the termination of an employee's employment as a result of the Group's decision to terminate an employee's employment before the normal retirement date or an employee's decision to accept an offer of benefits in exchange for the termination of employment. Termination benefits are based on termination of employment, not on work performance.

21.3 Post-employment benefits

Post-employment benefits are paid to recipients after termination of employment. In MuniFin Group, these benefits consist of pensions. The Group's pension plans are defined contribution plans. Pension coverage has been arranged via an external pension insurance group. For defined contribution plans, the Group makes fixed payments to external pension insurance companies. After this, the Group has no legal or actual obligation to make further payments if the pension insurance company does not have sufficient assets to pay the employees' pensions for current or preceding periods. The contributions payable are recognised as expenses in the income statement for the period to which the payments relate.

The Group's remuneration system is in its entirety contribution based. The description of the remuneration system is available at MuniFin's website www.munifin.fi.

22. Income taxes

Item *Income taxes* in the consolidated income statement comprises taxes that are determined based on the taxable income for the period generated by the Group companies, and changes in deferred taxes. Taxes are recognised in the income statement, with the exception of taxes related to items recognised in other comprehensive income or in equity. In this case, the tax is also recognised correspondingly in other comprehensive income or directly in equity. Taxes based on the taxable income for the period are calculated based on tax rate and legislation enacted or approved in practice by the financial statement date. This tax is adjusted for any taxes related to previous financial years.

Deferred taxes are recognised for temporary differences between the assets' and liabilities' carrying amounts and taxable value as well as for unused tax losses and unused tax credits. Deferred taxes in the Consolidated Financial Statements consist of the release and transfer to equity of the voluntary credit loss provision and depreciation difference recorded by the Parent Company. In addition, deferred taxes arise from financial assets measured at fair value through other comprehensive income, changes in own credit risk on financial liabilities designated at fair value through profit or loss and Cost-of-Hedging recorded through other comprehensive income. Deferred taxes are presented in Note *31 Deferred tax*. Deferred tax liabilities and receivables are calculated based on the tax rate that is anticipated to be in force at the time of the temporary difference being released.

23. IBOR reform

IBOR reform is a global change aimed at replacing Interbank Offered Rates (*IBORs*) with alternative nearly risk-free rates (*RFR*). In the European Union the reform is regulated by the EU Benchmark Regulation (*EU BMR*). Most prominently, IBOR reform affects the London Interbank Offered Rate (*LIBOR*), a panel-based benchmark that is available in five currencies (*USD, GBP, EUR, CHF, JPY*). GBP, EUR, CHF, JPY and USD (*1-week and 2-month*) LIBOR quotation expired at the end of 2021, and for other, longer maturities (*1-, 3-, 6- and 12-month*) of the USD LIBOR reference rate, the quotation expired at the end of June 2023.

Euribor is the most important IBOR used by MuniFin Group. The calculation methodology of Euribor changed during 2019. In July 2019, the Belgian Financial Services and Markets Authority (*FSMA*) granted authorisation with respect to Euribor under the EU BMR. This allows market participants to continue to use Euribor for both existing and new contracts. The Group's current view is that Euribor will continue to exist as a benchmark rate for the foreseeable future.

MuniFin Group has adopted the Interest Rate Benchmark Reform – Amendments to IFRS 9, IAS 39, IFRS 7 and IFRS 16 for phases 1 and 2, published by the IASB (*International Accounting Standards Board*). The phase 1 amendments modify specific hedge accounting requirements related to the uncertainty arising from the IBOR reform to the timing and amount of cash flows of a hedged item or hedging instrument during the period of uncertainty to allow hedge accounting to continue for affected hedge relationships. The Group has initially adopted IBOR reform related phase 1 amendments to IFRS 9, IAS 39 and IFRS 7 from 1 January 2020. The Group will cease to apply the phase 1 amendments when the uncertainty arising from the IBOR reform is no longer present with respect to the timing and the amount of the interest rate benchmark-based cash flows of the hedged item or hedging instrument, or when the hedge accounting is discontinued.

The phase 2 amendments address issues that might affect financial reporting when an existing interest rate benchmark is actually replaced. The phase 2 amendments allow hedge accounting not to be discontinued simply because the hedged item, hedging instrument or hedged risk is changed as a direct consequence of the IBOR reform. The phase 2 amendments introduce simplifications for the accounting treatment of changes to financial instruments. MuniFin Group has applied the phase 2 amendments as of 31 December 2020. The phase 2 amendments will cease to apply once the changes required by IBOR reform have been implemented.

At the end of 2022, MuniFin Group had some liabilities and derivative contracts linked to USD LIBOR reference rate with maturity beyond June 2023. The liabilities have been restructured during the financial year 2023. The derivative contracts include derivative contracts in hedge accounting and other derivative contracts made in hedging purposes. The fallback conditions were applied to instruments in hedge accounting taking into account phase 2 amendments, so there was no impact on hedge accounting. Otherwise, the hedging contracts are restructured.

24. New and amended standards and interpretations not yet adopted

* = Not yet endorsed for use by the European Union as of 31 December 2023.

The Group has not yet adopted the following new and amended standards and interpretations already issued by the IASB. The Group will adopt them on their effective date or, if the date is other than the first day of the financial year, from the beginning of the subsequent financial year. Standards published by IASB that enter into effect after 1 January 2023:

Lease Liability in a Sale and Leaseback* – Amendments to IFRS 16 *Leases (effective for financial years beginning on or after 1 January 2024, early application is permitted). The amendments introduce a new accounting model for variable payments and will require seller-lessees to reassess and potentially restate sale-and-leaseback transactions entered into since the implementation of IFRS 16 in 2019. The change is not estimated to have a material impact on the Consolidated Financial Statements of MuniFin Group.

Amendments to IAS 1 *Presentation of Financial Statements**: ***Classification of Liabilities as Current or Non-current Date; Classification of Liabilities as Current or Non-current – Deferral of Effective Date; Non-current Liabilities with Covenants*** (effective for financial years beginning on or after 1 January 2024, early application is permitted). The amendments are to promote consistency in application and clarify the requirements for determining if a liability is current or non-current. The amendments specify that covenants to be complied with after the reporting date do not affect the classification of debt as current or non-current at the reporting date. The amendments require to disclose information about these covenants in the notes to the financial statements. The amendments also clarify that transfer of a company's own equity instruments is regarded as settlement of a liability. Liability with any conversion options might affect classification as current or non-current unless these conversion options are recognized as equity under IAS 32. The change is not estimated to have an impact on the Consolidated Financial Statements of MuniFin Group.

The Group's management assesses that other standards and interpretations to be applied in future financial periods do not have a material impact on the Consolidated Financial Statements.

Note 2. Risk management principles and the Group's risk position

1. General risk management principles

MuniFin Group's operations require sufficient risk management mechanisms to ensure that the Group's risk positions remain within the limits set by the Parent Company's Board of Directors. MuniFin Group applies very conservative principles to its risk management. The aim is to keep the overall risk profile at such a low level that MuniFin's strong credit rating is not compromised.

The Group regularly surveys risks related to its operations and continuously develops methods for recognising, measuring and managing risks. Risks are assessed with regular risk analyses. The aim of the analyses is to recognise new challenges and risks created by changes in the operating environment and prioritise the risks and their management on the basis of the results. The Group mitigates risks it has identified with collateral, guarantees, derivative contracts, insurance and active risk management. According to its own analysis, the Group does not have any liabilities containing wrong-way risk (the likelihood of a default by counterparty is positively correlated with general market risk factors).

The Board of Directors has ratified the Group's Risk and Governance Framework and, as part of it, key policies and processes for the effective implementation of internal control and risk management, as shown in the following table.

RISK & GOVERNANCE FRAMEWORK

BOARD OF DIRECTORS

STRATEGY	BUSINESS MODEL	CORPORATE GOVERNANCE POLICY & AUTHORISATIONS	SUSTAINABILITY POLICY

RISK POLICIES

Risk Management Policy

Market Risk Policy	Credit Risk Policy	Liquidity & Funding Risk Policy	Compliance & Operational Risk Policy	Valuation Policy	Model Risk Management Policy

RISK ASSESSMENT DOCUMENTS

ICAAP	ILAAP	Contingency Funding Plan	Recovery Plan	Stress Testing Programme

Risk Appetite Framework (RAF)
Risk appetite setting and articulation of the operational limits for the material risk

CUSTOMER CONDUCT POLICIES

AML & CTF Policy	Investment Services Policy

INTERNAL GOVERNANCE DOCUMENTS

Remuneration Framework	Internal Audit Charter	Fit & Proper Policy	Code of Conduct

Outsourcing Policy	Disclosure Policy	Accounting Policies

MuniFin Group's Risk Appetite Framework (*RAF*) defines target and maximum levels for risk indicators. The framework is updated regularly, at least annually, and the Board of Directors of the Parent Company approves the document. RAF enables the Group to:

- Effectively identify, assess and manage the risks inherent in its strategy as well as other internal and external business risks,
- Understand and decide on the amount of risk it is willing to take in executing its business strategy, and to actively communicate it,
- Promote sound discussions of MuniFin Group's risk appetite and enable the challenging of business and risk-taking decisions.

The Risk Appetite Framework is linked to both short-term and long-term strategic plans, capital and financial plans, the recovery plan and the remuneration policy. It is fully aligned with the ICAAP (*Internal Capital Adequacy Assessment Process*) and the ILAAP (*Internal Liquidity Adequacy Assessment Process*).

The Risk Appetite Framework is described in the following table. The Group has remained within the risk appetite set by the Board of Directors during the financial year.

Summary of Risk Appetite Framework indicators

Risk pillars	Risk indicators	Objectives
Profitability & Capital	Disassociation of the credit rating from the Finnish sovereign rating Leverage ratio Net interest income ratio / balance-sheet interest bearing-items Change in CET1 ratio	Maintain a sufficient level of earnings, profitability and capital, even in stress periods.
Liquidity & Funding	Liquidity Coverage Ratio Net Stable Funding Ratio Financing gap Indicators related to funding Survival Horizon	Maintain an adequate liquidity buffer and a sustainable funding position and profile, even in stress periods.
Credit risk	Non-performing exposures Expected credit losses (*ECL*) Average credit rating (customer financing) Single-name concentration (customer financing) Energy efficiency of real estate Climate-related & environmental risk score (municipality financing) Share of green finance of all long-term customer financing Average credit rating (liquidity portfolio) Geographic concentration (liquidity portfolio) ESG score (liquidity portfolio) Stressed CCR derivative loss	Maintain a sound credit risk profile appropriate for MuniFin's business model.
Market risk	Total EVE risk Total NII risk NII Basis risk FX risk Credit spread risk Fair value VaR Prudent valuation	Maintain a sound market risk profile appropriate for MuniFin's business model.
Operational risk	Ouflow index of staff Frequency of material IT disruption IT downtime Number of material IT system and data breaches and availability of data and systems Number of internal fraud incidents Number of complaints and claims Regulatory breaches Company ESG risk rating Significant operational losses	Maintain an effective operational control and compliance to support functional and responsible operations.

There were no material changes in the Group's risk position in 2023. The Group's risk position has remained stable and at a moderate level. Based on the Group's assessment, risk management met the requirements set for it. MuniFin Group's risk management and internal control practices and processes are developed continuously. During 2023, the development of ESG (*Environmental, Social, Governance*) risk capabilities have been continued in particular, and the Group has been preparing for the new disclosure requirements that came into force at the end of 2023. In addition, the Group further developed its prudent valuation framework. The Group's risk position is reported at least monthly to the Board of Directors, and, in addition, the Chief Risk Officer provides the Risk Committee of the Board a quarterly extended risk review of the Group's risk positions.

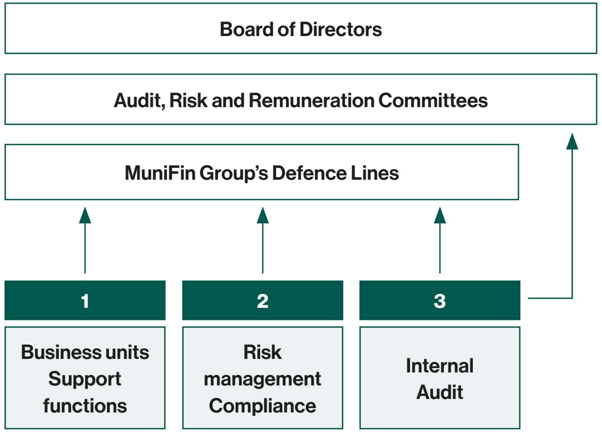
Increase of geopolitical tensions and market volatility has not impacted the Group's performance during the financial year. Russia's invasion of Ukraine has continued to only have a minor effect on the Group's financial position and results. The year was marked by the shifting capital market landscape and challenging market environment. The combination of rapidly escalating inflation, soaring interest rates and worldwide issues within the banking sector caused market uncertainty that complicated the acquisition of funding. Despite these challenges, the Group's funding continued in the usual manner during the year. Because of the uncertainty the Group has nevertheless maintained strong liquidity buffers as a precaution. Russia's invasion of Ukraine mainly affects the Group's risks indirectly through market conditions. Cyberattacks targeted at the Group could also affect its risks, but the Group has carefully prepared for these.

Unrealised fair value changes of financial instruments caused the volatility of profits during the financial year. The Group continuously monitors and analyses the volatility arising from valuations and prepares for its potential profitability and solvency impacts.

MuniFin Group has finished all tasks related to IBOR reform during the financial year. IBOR reform was a global change aimed at replacing Interbank Offered Rates (*IBORs*) with alternative nearly risk-free rates (*RFR*). For longer maturities (*1-, 3-, 6- and 12-month*) of the USD LIBOR reference rate, the quotation expiring date ended in June 2023. MuniFin Group had some USD LIBOR reference rated liabilities and derivatives, which had a maturity date after June 2023. Therefore, these liabilities and hedging instruments have been restructured during the financial year. The fallback conditions were applied to instruments in hedge accounting taking into account phase 2 amendments, so there was no impact on hedge accounting.

2. Organisation of risk management and capital adequacy management

For the implementation of an internal control framework, the Group applies the three lines of defence model. MuniFin Group has an extensive risk management organisation, which covers all operations including the tasks and responsibilities of different departments and decision-making bodies. The internal control framework is supported by controls of different processes. Internal control is performed at all levels of the organisation and the nature and scope of operations are taken into account in defining the operating methods used in internal control. Internal control is primarily carried out in line operations, where internal control is continuous and part of day-to-day operations.



The Board of Directors of the Parent Company is responsible for the Group's management and the proper arrangement of its operations. The Board of Directors is responsible for the duties specified for it in the Limited Liability Companies Act, the Articles of Association and other legislative provisions and regulations issued by the authorities. Duties and principles of the Board of Directors are confirmed as part of MuniFin's Corporate Governance Policy and the appended Board's Rules of Procedure. The Corporate Governance Statement is available on MuniFin's website. The main duties of the Board include confirming the Group's strategy, annual operating plan and budget, monitoring the Group's financial situation and ensuring through supervision that the management, and risk management in particular, are properly arranged by management. The Board of Directors also makes all the far-reaching decisions related to the nature and scope of the activities.

As demanded by the regulation and in order to organise its work as efficiently as possible, the Board has established an Audit Committee, a Risk Committee, and a Remuneration Committee for assistance and for the preparation of matters. The Board may also establish other committees as necessary.

The purpose of the Audit Committee, as a preparatory body, is to assist the Board of Directors in duties related to financial reporting and internal control. The Audit Committee supervises the work of external and internal audit.

The Risk Committee assists the Board in the matters in regard to the Group's overall risk appetite and strategy, and in overseeing that the management complies with the risk strategy decided by the Board. The Risk Committee is to estimate whether the prices for the services that tie up capital correspond with the Group's business model and risk strategy and, in the event that this is not the case, to present a remedy plan to the Board. Furthermore, the Risk Committee shall assist the Remuneration Committee in the establishment of sound remuneration policies, and in assessing whether the incentives provided by the remuneration system take into consideration the Group's risks, capital and liquidity requirements, and the likelihood and timing of the earnings.

The Remuneration Committee of the Board of Directors is responsible for preparatory work to assist in the Board's decision-making concerning the setting of objectives related to the Group's remuneration system, assessment of whether the objectives are attained, development of the remuneration system and the remuneration and other benefits for the CEO and persons reporting to the CEO.

In the first line of defence, business units and support functions have the ownership of material risk types and are responsible for identifying, measuring, managing, monitoring and reporting risks. The Group's risk appetite, guidelines, processes, controls and limits guide this work. All employees who work in the first line of defence are responsible for the risk management of their own work.

The second line of defence includes Risk Management and Compliance functions. The Risk Management function supplements the business units' work with their independent supervisory and reporting responsibilities. Independent Risk Management is responsible for continuous development of risk management methods, risk-related policies and processes, advice and information, the alignment of risk strategy, risk limits and risk appetite as part of RAF, as well as informing the EMT and the Board of Directors of matters that may affect MuniFin's risk profile or risk strategy. The main responsibilities of the Compliance function include reporting to the management of the changes in the regulations affecting the operations of MuniFin Group including their potential impact on operational activities. In addition, the tasks include internal communication, training and advice for the staff to ensure compliance with the regulations, assessment of internal processes for ensuring compliance with the regulations as well as communication with the supervising authorities and monitoring the related actions within the Group.

In the third line of defence, an independent internal audit regularly conducts risk-based audits in accordance with the annual plan approved by the Board. The task of internal audit is to conduct an independent review of the first two lines of defence.

3. Stress testing

MuniFin Group constantly conducts stress testing related to its business in accordance with the stress testing program approved by the Board of Directors. The annual ICAAP and ILAAP processes include stress testing on group-level solvency and liquidity adequacy. Risk management, independent of the Group's business, is responsible for designing stress scenarios in cooperation with business units. The main objective of the stress testing conducted in 2023 was to analyse the development of MuniFin Group's solvency and profitability in 2023–2026. Business, market and credit risks and their estimated economic impact under different circumstances were tested. In addition, the liquidity adequacy of the Group was tested with several different stress scenarios. As in previous years, the results of the stress tests showed that with the current capital requirements, the level of equity in the Group during the period under review is sufficient even under very unfavourable conditions. In addition, the Group's total own funds also fulfilled the 3% minimum leverage ratio requirement. In terms of liquidity, stress tests showed that the liquidity of the Group is sufficient even under very unfavourable conditions.

In late 2022, the Group also carried out so-called reverse stress testing as part of its recovery plan. This stress test aims to find extremely negative scenarios that threaten the Group's business continuity, as well as the steps that the Group can take to cope with the situation and continue its business.

MuniFin Group took part in the ECB's SSM Stress Test for the years 2023–2025. The test's results were published in July 2023. MuniFin Group's capital clearly exceeds the capital needs calculated under the stress test adverse scenario.

Furthermore, MuniFin Group is taking part in the ECB's climate risk related stress test Fit-for-55, the goal of which is to assess the resilience of climate risk in the financial sector and gain insights into the capacity of the financial system to support the transition to a low-carbon economy under condition of stress. MuniFin Group also started to prepare for the ECB's cyber resilience stress test during the end of 2023. In stress test, it is assessed how banks under the SSM supervision respond to and recover from a cyber attack.

4. Capital adequacy management principles

MuniFin Group's objectives regarding equity in relation to risk-taking and the operating environment are defined as part of the annual planning. The planning horizon extends to at least the following three years, in order to be able to predict the business performance trend and the sufficiency of own funds with respect to the increasing capital requirements arising from changing regulation and to be able to react to potential needs for additional capitalisation in sufficient time. The Board of Directors approves the capital adequacy plan and monitors it. The Group updates its capital adequacy plan at least annually and follows implementation of the plan quarterly.

The aim for the capital adequacy management is to monitor the capital adequacy and to confirm that the Group's capital adequacy fulfills its targets and requirements set by financial authorities to ensure the continuity of operations. Controlling capital adequacy is continuous and an essential part of the Group's strategic planning process, which covers setting strategic goals, specifying development projects and making financial forecasts for the following years. This is done in cooperation with management and the Board. The Board of the Parent Company approves the final strategy. Management ensures that the operative measures of the Group correspond with the principles determined in the strategy approved by the Board. As part of the annual planning, the management prepares a business plan for the coming year and business forecasts for the years that follow. The Group's risk position and its effect on the Group's financial status are also evaluated. Regular risk analyses as well as various stress test scenarios are used for evaluating and measuring risks. Based on these, the capital adequacy plan is updated annually, and actions needed to strengthen own funds are determined. The adequacy of own funds is also monitored through monthly business analyses.

The Group calculates its capital adequacy based on the EU Capital Requirements Regulation ((EU) No 575/2013) and its amending regulation ((EU) No 876/2019) as well as Directive (2013/36/EU). The capital adequacy requirement for credit risk is calculated using the standardised approach, and the capital adequacy requirement for operational risks using the basic indicator approach. As the Group has neither a trading book nor share and commodity positions, only currency risks are taken into account in the capital adequacy calculations for market risk. MuniFin Group's FX risk is hedged by using derivative contracts to swap all funding and investments denominated in foreign currency into euros. The Group's lending and other customer finance items are denominated in euros. The Group has no significant open FX positions. In practice, a small temporary exchange rate risk may arise due to collateral management in the clearing of derivatives by central counterparties. This exchange rate risk is actively monitored and hedged.

The credit ratings given by Standard & Poor's, Moody's Investor Service and Fitch Ratings are used for determining the risk weights used in the capital adequacy calculations. The aforementioned companies are credit rating institutions approved by the Finnish Financial Supervisory Authority for capital adequacy calculations. In capital adequacy calculations for the credit risk, the Group uses methods for reducing the credit risk such as guarantees provided by municipalities as well as deficiency guarantees given by the State of Finland. For derivatives, netting agreements, collateral agreements (*ISDA/Credit Support Annex*) and guarantees granted by the Municipal Guarantee Board (*MGB*) are used for reducing the capital adequacy requirement related to the counterparty risk of derivative counterparties.

Concurrently with this Report of the Board of Directors and the Consolidated Financial Statements, the Group publishes a separate Pillar III Disclosure Report on capital adequacy, risk management and remuneration, which is available in English on MuniFin's website.

5. Strategic risks

Strategic risk means that MuniFin Group would choose a wrong strategy for pursuing financially profitable operations or that the Group would fail to adapt its strategy to changes in the operating environment.

The management of strategic risks is based on continuous monitoring and analyses of customers' needs, forecasts of market trends, and analyses of changes in the competition and the operating environment. Risks and their significance are assessed annually as a part of the strategy process and in connection with annual assessment of the Board of Directors. The strategy of MuniFin Group has been updated during the autumn 2023. The objective of the strategy work was to clarify the interpretation of the Group's core mandate. MuniFin's core mandate highlights the determined growth of customer benefits and the long-term focus, sustainability and ease of operations, without forgetting the interests of MuniFin's owners. The strategy's need for updating is evaluated at least annually.

6. Liquidity risks

6.1 Refinancing and liquidity risk

Refinancing risk means the risk related to the refinancing of loans. The Group manages refinancing risk by limiting the average maturity of financial assets and liabilities. The financing gap is calculated as the difference between average maturity of assets (*customer financing and liquidity portfolio*) and average maturity of liabilities (*funding portfolio*).

Liquidity risk means the risk of the Group not being able to perform its payment obligations arising from settling financial agreements or other financing activities on their due date. The Group manages the liquidity risk by limiting the short-term liquidity coverage ratio (*LCR*) and net stable funding ratio (*NSFR*) and the survival horizon for the long-term liquidity.

In order to maintain its conservative liquidity and funding risk profile as defined in RAF, MuniFin Group has identified several sources of liquidity. Primary sources of liquidity are short-term and long-term funding, liquidity portfolio, repo markets and cash. Central Bank liquidity facility is a secondary source of liquidity.

MuniFin Group follows the principle of prefunding and acquires its funding in the form of short- and long-term funding. This is to ensure that adequate liquidity is available at any given time and in all market conditions. For this purpose, the required minimum amount for the liquidity portfolio is determined through scenario analyses to meet internal and regulatory liquidity requirements. In the case that the Group needed to acquire additional liquidity, it would first assess the availability of funding from the capital markets in the form of short-term or long-term funding. If this is not available, the Group could utilise the liquidity portfolio as a source of liquidity by selling assets or using them as collateral in the repo markets. MuniFin Group has existing agreements in place with counterparties to enter into bilateral repurchase agreements (*repo agreements*). These repo agreements could be used to cover funding redemptions in the short term and to cover any unexpected changes in the liquidity position. MuniFin Group regularly tests in accordance with the regulatory requirement the liquidity of the liquidity portfolio by making short-term repo transactions on the market.

A key aspect of the Group's liquidity and funding risk management is the maintenance of a well-balanced, low risk liquidity portfolio in the form of highly liquid assets. The overall liquidity portfolio mainly consists of prefunding that is raised from the markets, but not yet utilised for customer financing. In case of a sudden outflow of funds, the Group holds a liquidity portfolio at such a level that its LCR and Survival Horizon have a sufficient buffer to continue normal operations even under such conditions. The high-quality liquid assets (*HQLA*) defined in LCR regulations[1] used to manage the Group's liquidity are presented in the following table:

Liquid assets, HQLA (EUR 1,000)	31 Dec 2023	%	31 Dec 2022	%
Level 1	10,138,579	77%	10,169,999	79%
Level 2a	1,042,525	8%	967,241	7%
Level 2b	-	-	24,814	0%
Level N*	1,908,562	15%	1,781,017	14%
Total	**13,089,668**	**100%**	**12,943,074**	**100%**

* Includes EUR 1,574,954 thousand (EUR 1,457,098 thousand) of short-term customer financing in money market papers.

[1] Commission Delegated Regulation (EU) 2015/61 and Commission Delegated Regulation (EU) 2018/1620.

The liquidity portfolio is divided into liquidity quality levels so that levels 1, 2a and 2b are considered high-quality liquid assets. Assets on the liquidity level N are liquid in normal market conditions (*other liquid assets*).

The secondary source of liquidity is a public funding source in the form of the existing Central Bank liquidity facility, which is considered as an alternative, if primary sources were either not sufficient, available in a timely manner or the cost of using primary sources of liquidity was considered too high. A significant part of loans granted by MuniFin Group to the municipal sector are accepted as collateral for this facility and the Group has pre-pledged part of the loan portfolio in order to ensure access to this liquidity source at any time, if required (Note *40 Collateral given*). In addition, the Group is able to increase the facility through pledging additional loans to the collateral pool. The facility is tested regularly to ensure that the liquidity is available intraday, if needed.

Liquidity stress testing is a key tool used by MuniFin Group to assess liquidity adequacy. The main objective is to determine whether the Group has sufficient liquidity to continue its normal business operations under both business-as-usual or baseline scenario and stress scenarios.

The Group prepares, in connection with the business planning process, a Liquidity and funding plan (*L&F plan*). The plan is approved by the Board of the Parent Company and reviewed on a quarterly basis by the Risk Committee, which reports its observations to the Board. The L&F plan and the quarterly review of the plan include regular back testing. The L&F plan is part of the Group's ongoing Internal Liquidity Adequacy Assessment Process (*ILAAP*) and it includes forecasting and planning of funding and liquidity position. The L&F plan is aligned with the ICAAP baseline scenario during the annual business planning process. The plan aims at keeping the level of the Group's liquidity and funding within its risk appetite defined by the Board. It also takes into account economic perspective to ensure a sufficient long-term profitability for the Group.

Within the ILAAP performed annually, the Group assesses the adequacy of its liquidity resources to cover the forecast liquidity needs under the business-as-usual and stress scenarios. ILAAP is an integral part of the Group's risk management framework that includes other strategic processes such as RAF, ICAAP, Recovery Plan and remuneration framework. RAF formalises the interplay between these processes. Stress tests are required to assess the Group's liquidity adequacy in a comprehensive, integrated and forward-looking manner. ILAAP consists of a baseline scenario and adverse scenarios and is fully aligned with the ICAAP baseline scenario, the only exception being the assumed restricted access to funding markets.

The Group aims to maintain strong credit ratings in all market conditions to be able to execute its funding plan in an efficient and cost-efficient manner. To support the cost efficiency and quick execution, the Group has in place debt issuance programmes of standardised templates. Standardised programmes provide the Group flexibility and ease of execution. Furthermore, MuniFin Group uses bilateral loan documentation with some funding counterparties. All funding issued by MuniFin is explicitly guaranteed by the Municipal Guarantee Board (*MGB*).

Funding concentration risk refers to the risk that the Group is overly dependent on funding from a limited number of products, markets, geographical areas, investors or maturities. To mitigate the risk, MuniFin Group ensures the funding is diversified across various products, markets, maturities and investor types and that not too much reliance is placed on any single funding source. MuniFin Group aims to keep this mix relatively stable, with the goal being to ensure continuity of funding while simultaneously avoiding overreliance on any specific market. To maintain access to diversified funding sources, the Group aims to maintain its good relationship with investors and arranging banks and to actively seek new potential markets and investors. The diversification of the Group's funding requirements is set out and planned for in detail through the annual L&F plan.

The following tables present the maturity breakdown of MuniFin Group's financial liabilities.

Breakdown of financial liabilities by maturity 31 Dec 2023 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	over 10 years	Total
Liabilities to credit institutions	84,516	3,458	70,340	62,267	20,389	240,969
Liabilities to the public and public sector entities	106,240	174,631	1,144,765	671,645	928,590	3,025,870
Debt securities issued	6,389,618	4,851,648	24,077,826	6,277,658	1,522,661	43,119,410
Provisions and other liabilities	401,010	-	-	-	-	401,010
Total	**6,981,383**	**5,029,736**	**25,292,930**	**7,011,570**	**2,471,640**	**46,787,259**

Breakdown of financial liabilities by maturity 31 Dec 2022 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	over 10 years	Total
Liabilities to credit institutions	244,850	2,401	65,919	17,848	19,943	350,960
Liabilities to the public and public sector entities	172,630	111,005	1,041,125	799,275	868,092	2,992,127
Debt securities issued	7,515,278	3,671,580	19,320,190	4,580,355	2,028,517	37,115,919
Provisions and other liabilities	574,192	-	-	-	-	574,192
Total	**8,506,949**	**3,784,986**	**20,427,233**	**5,397,478**	**2,916,552**	**41,033,198**

The breakdown of financial liabilities by maturity is presented using carrying amounts and future interest payments translated into euros using year-end foreign exchange rates. Financial liabilities containing a call option are shown in the maturity bucket of the next call date. Based on the current call forecast, about 10–45% of callable liabilities are expected to be called during 2024. In 2023, 32% of callable liabilities were called at the next call date. Line item *Liabilities to credit institutions* contains CSA collateral totalling EUR 81,640 thousand (EUR 244,220 thousand). These are presented in the maturity bucket 0–3 months although their outflow date is not known and is dependent on the development of derivative fair values.

The following tables present the maturity breakdown of MuniFin Group's derivatives at fair value.

Breakdown of funding derivatives by maturity 31 Dec 2023 (EUR 1,000)	**0–3 months**	**3–12 months**	**1–5 years**	**5–10 years**	**over 10 years**	**Total**
Derivative assets	-5,418	56,065	581,860	765,649	458,614	1,856,769
Derivative liabilities	-130,860	-151,436	-1,165,137	-789,438	-1,135,643	-3,372,514
Interest flows related to derivative assets and liabilities	-32,752	-227,276	306,806	-267,903	-85,633	-306,758

Breakdown of funding derivatives by maturity 31 Dec 2022 (EUR 1,000)	**0–3 months**	**3–12 months**	**1–5 years**	**5–10 years**	**over 10 years**	**Total**
Derivative assets	178,219	137,873	610,048	1,111,638	669,325	2,707,103
Derivative liabilities	-202,197	-270,480	-1,454,294	-1,046,791	-1,642,348	-4,616,111
Interest flows related to derivative assets and liabilities	46,388	-147,629	-359,775	-356,449	-121,189	-938,655

The Group hedges all of its funding to floating rate euros. In addition, all lending is hedged to floating rates. Due to the strategy of earnings stabilisation, part of the fixed-rate loan exposure might be left unhedged. For evaluating the impact of derivatives, the interest flows of derivative assets and liabilities are shown as net amount on one line. Derivatives containing a call option are shown in the table in the maturity bucket during which the derivative can be called on the next call date.

The Group has presented the maturities of financial assets based on their maturity dates in Note *17 Breakdown of financial assets and liabilities at carrying amount by maturity*.

6.2 Market liquidity risk

Market liquidity risk means that the Group would fail to realise or cover its position at the market price, because the market lacks depth or is not functioning due to a disruption.

The Group monitors the liquidity of markets and products on a continuous basis. In addition, established market standards are observed when derivative contracts are transacted. Almost all market values of debt securities valued at fair value are calculated based on quotations received from the market. For the remaining debt securities, the market value is calculated using other market information. The valuation techniques and valuation inputs are described in more detail in Note *16 Fair values of financial assets and liabilities*.

Despite the market turbulence, the Group continued to acquire funding without interruption during the year. The funding strategy relies on wide diversification into multiple currencies, maturities, geographical areas and investor groups to secure access to funding under all market conditions. The strategy of MuniFin Group has proved highly successful during the upheaval of monetary and security policies: the Group retained strong access to capital markets throughout the year.

7. Credit risk

Credit risk means the risk of a counterparty defaulting on its commitments to the Group. Credit risk has been identified as a material risk in the RAF but is mitigated by the loan guarantees and/or collaterals as well as the fact that MuniFin only finances public-sector entities or social housing financing operators with a zero-percent risk weighting. Customer financing is one source of credit risk, but credit risk can also arise from other types of receivables, such as bonds, short-term debt instruments and derivative contracts as well as off-balance sheet items such as unused credit facilities, limits and guarantees. In addition, geographical concentration and settlement risks are considered as credit risks.

The following table presents the Group's maximum exposure to credit risk grouped by the items on the statement of financial position.

	31 Dec 2023			31 Dec 2022		
Maximum exposure to credit risk (EUR 1,000)	**Amortised cost and Fair value through other comprehensive income**	**, of which expected credit losses**	**Fair value through profit or loss***	**Amortised cost and Fair value through other comprehensiveincome**	**, of which expected credit losses**	**Fair value through profit or loss***
Cash and balances with central banks	2	-	-	2	-	-
Loans and advances to credit institutions	9,187,071	-73	-	9,625,488	-109	-
Loans and advances to the public and public sector entities	31,963,909	-2,237	57,808	29,084,839	-800	59,522
Debt securities	1,944,623	-43	3,200,340	1,624,734	-45	3,162,034
Derivative contracts	-	-	1,856,769	-	-	2,707,103
Other assets	1,048,412	-6	-	1,219,541	-203	-
Credit commitments (off-balance sheet item)	3,071,228	-15	-	2,463,964	-14	-
Total	**47,215,246**	**-2,375**	**5,114,918**	**44,018,569**	**-1,171**	**5,928,659**

* Includes all financial assets measured at fair value through profit or loss (IFRS 9 classifications; designated at fair value through profit or loss, mandatorily at fair value through profit or loss and fair value through profit or loss).

The Act on the Municipal Guarantee Board (*MGB Act*) defines for what MuniFin's funding guaranteed by the Municipal Guarantee Board (*MGB*) can be used for and it can also be considered as a credit risk management tool. The MGB is an institution governed by the public law. The MGB can grant guarantees to the funding of credit institutions controlled or owned directly or indirectly by municipalities if the funding is used for financing of municipalities, joint municipal authorities, wellbeing services counties or joint wellbeing services counties authorities as well as entities wholly owned by the aforementioned entities or controlled by them, in addition to non-profit corporations and other non-profit entities nominated by the Housing Finance and Development Centre of Finland (*ARA*). All funding issued by MuniFin has a MGB guarantee. In addition, MuniFin has guarantees granted by the MGB to mitigate the counterparty credit risk of some derivative counterparties.

In addition to the MGB Act, a material credit risk management principle is that all customer financing and the derivatives offered to customers have to obtain the so-called zero risk-weight in MuniFin Group's capital adequacy calculation. As a business model, this zero risk requirement for all customer financing is different from other credit institutions and the credit risk principles inherent and required in their credit risk policies. MuniFin Group's Credit risk policy and credit risk management practices rely significantly on this principle.

MuniFin's customers consist of municipalities, joint municipal authorities, municipality-controlled entities, wellbeing services counties and joint county authorities for wellbeing services, other units of wellbeing services counties that are wholly owned or under control of wellbeing services county administration and wellbeing services enterprises, as well as non-profit corporations and other non-profit organisations nominated by the Housing Finance and Development Centre of Finland (*ARA*). MuniFin Group may only grant loans and leasing financing without a separate security directly to a municipality, joint municipal authority, wellbeing services counties or joint county authorities for wellbeing services. For others, loans must be secured with an absolute guarantee issued by a municipality, joint municipal authority, wellbeing services county or joint county authority for wellbeing services or a real estate collateral and a state deficiency guarantee. The guarantee or guarantee together with a real estate collateral has to fully cover the financing provided. Guarantees and the fair value of collateral received are also taken into account in the calculation of expected credit losses. The Group does not bear the residual value risk for the objects of its leasing services. MuniFin Group has not had credit losses from the financing of its customers after the realisation of any real estate collateral and guarantees have taken place.

Municipal customers are divided into three sectors: municipalities, joint municipal authorities and municipal companies. By law, a Finnish municipality cannot default (*Bankruptcy Act 120/2004*). The municipalities have an unlimited right to increase local income tax rates and due to this, together with other elements of autonomy, the Finnish municipal sector has, similar to sovereigns, a zero credit risk weighting in capital adequacy calculation of credit institutions. Finnish municipalities and cities can also establish joint municipal authorities to provide services that they are legally required to provide for their citizens or undertake regional development activities. Municipalities are jointly members of these joint municipal authorities and are commonly responsible for their funding and other liabilities. All loans to municipal companies are guaranteed by municipalities (or joint municipal authorities). Thus, there is always a municipality, that cannot default by law, to carry the risk of default. When a loan has a 100% absolute guarantee from a municipality or a joint municipal authority, MuniFin Group can apply for payment directly from the guarantor in accordance with the terms of the loan. The guarantor is committed based on the guarantee commitment to pay the interest and other ancillary costs in addition to the principal.

The new wellbeing services counties began their operations in the beginning of 2023. The operative work of the wellbeing services counties is largely being funded by the central government, but the counties have government authorisation to acquire long-term funding for their investments outside of central government funding. The counties can also independently seek short-term funding. In terms of financing, the legislation adopted in the summer of 2021 allows MuniFin to continue to act as a lender and counterparty to the loans and other liabilities that were transferred to the counties at the start of 2023. The amendments to the Act on the Municipal Guarantee Board passed by the Finnish Parliament in April 2022 allow MuniFin to also finance new investments and other new financing needs by the wellbeing services counties. In January 2022, the Finnish Financial Supervisory Authority (*FIN-FSA*) decided that like the central government and municipalities, wellbeing services counties will also fall in the zero-risk category in the capital adequacy regulation of credit institutions. This decision simplifies the counties' financing arrangements because it means that government guarantees are not required.

At this stage, wellbeing services counties are not liable for the guarantees for MuniFin's funding used for wellbeing services counties financing, because unlike municipalities, wellbeing services counties are not members of the MGB. For this reason, the MGB has decided to set an annual limit to the amount of new financing MuniFin can grant to wellbeing services counties. The MGB's limit for MuniFin's long-term financing to wellbeing services counties was EUR 400 million in 2023. Because the counties' government-authorised borrowing powers in 2023 were considerably higher than this, their financing needs were higher than the limit. MuniFin reached the EUR 400 million limit before the end of the year and could no longer fulfil counties' financing requests for 2023 after that. The MGB's limit for MuniFin's new short-term financing to wellbeing services counties, i.e. commercial papers to wellbeing services counties, was EUR 900 million in 2023. The limit for the short-term financing for wellbeing services counties was EUR 900 million also in 2022.

The housing customer group consists different types of housing institutions: institutions owned or controlled by municipalities (or joint municipal authorities), state-subsidised housing institutions and companies that are wholly owned or under control of wellbeing services counties or joint county authorities for wellbeing services. Loans for housing companies owned by municipalities or joint municipal authorities are guaranteed by municipalities, or these loans can also be categorised as state-subsidised housing loans. In such cases there is real estate collateral and a deficiency guarantee from the State of Finland. State-subsidised housing institutions are defined as corporations designated by state authority and engaged in the renting or production and maintenance of housing, or corporations controlled by them. The housing companies are nominated by the Housing Finance and Development Centre of Finland (*ARA*), a governmental agency operating under the supervision of the Ministry of the Environment. Loans for housing companies have a deficiency guarantee from the State of Finland that covers the residual risk over the collateral value of the respective property. When a loan has a deficiency guarantee by the State of Finland, primary pledge of mortgage collateral is mainly required unless the loan is a state-subsidised housing loan granted for a municipality or a joint municipal authority in which case there is no collateral required by law. The amount of the primary pledge must be at least 1.3 times the amount of the loan. Under deficiency guarantee, the State of Finland is responsible for the primary debt in respect of the part that is not covered from the liquidation of the mortgage collateral.

Despite MuniFin Group's business model, which is based on the zero risk-weighting customers, the Group has a risk rating system for all customers, which assigns a risk score to the customer as part of the credit granting process. In addition, independent Risk Management prepares an annual analysis of all customers, which identifies their respective risk rating. The annual analysis and update of the risk rating is based on the financial statements, the report of the board of directors and other available information. The analysis takes into account the environmental, social and governance risks (*ESG*) insofar as information about the customer is available for assessment. The assessment highlights the potential impacts of climate and environmental risks, which may materialise to customers either directly as physical risks or as transition risks related to preparing for climate change. The customer's risk rating will affect the need for further analysis of the customer in the process of granting financing, the financing decisions, decision-making power inside the Group and possibly also the pricing. The Group has customer-specific credit limits in use. In addition, MuniFin Group calculates the loan-to-value (*LTV*) ratio for its loans with real estate collateral and regularly monitors the development of LTV values.

The following table shows the risk rating (of which risk rating 5 represents the best credit worthiness) distribution of the Group's customer financing in relation to total exposure, which includes lending, leased assets, short-term customer financing and off-balance sheet credit commitments.

Risk rating	31 Dec 2023	31 Dec 2022
5	15.8%	22.8%
4	31.5%	30.6%
3	41.8%	38.9%
2	9.4%	6.6%
1	1.6%	1.2%
Total	**100.0%**	**100.0%**

In addition to the above mentioned, the Group's credit risk management is based on proactive customer relationship management, customer knowledge (*Know Your Customer, KYC*), careful selection of counterparties, credit rating and volume limits for counterparties, trustworthy and professional staff, decision-making powers, comprehensive documentation and an on-going internal monitoring and reporting.

The Group defines the non-performing exposures (*NPE*) as receivables that fulfil at least one of the criteria below.

- Significant receivables past due more than 90 days;
- MuniFin Group's Credit Group's (*customer financing*) or Capital Markets and Sustainability Management Team's (*liquidity portfolio*) assessment that it is probable that the debtor is not likely to pay its obligation in full without the realisation of collateral, regardless of whether there have been any delays in payments or how many days the payments have been past due.

Non-performing exposures are treated as stage 3 receivables in the calculation of expected credit losses.

Forborne exposures include exposures that have been renegotiated due to the customer's financial difficulties. Details about the principles applied to forborne and modified exposures are described in the accounting policies (Note *1*) in Section *9.3 Forborne and modified loans*. The non-performing and forborne exposures are disclosed in Note *25* in table *Non-performing and forborne exposures*.

Impairments for loans and other financial assets, which are classified according to IFRS 9 as amortised cost (*AC*) or fair value through other comprehensive income (*FVOCI*), are measured using the expected credit loss model under IFRS 9 standard. In addition, lease agreements and off-balance sheet credit commitments are subject to expected credit loss calculation due to the credit risk involved in the contracts. The methods used for calculating expected credit losses are described in the accounting policies (Note *1*) in Section *9. Impairment of financial assets*. Quantitative information on the Group's expected credit losses and their development during the financial year is presented in the Notes *13 Credit losses and impairments on financial assets* and *25 Credit risks of financial assets and other commitments*.

The amount of the Group's expected credit losses in relation to the Group's statement of financial position is very low, 0.005% (0.002%). Expected credit losses in relation to the total assets and commitments included in the calculations are 0.010% (0.003%). The amount of expected credit losses is materially influenced by the Group's conservative risk management principles, in particular the guarantees and collaterals received by the Group, as well as the customer base and the high credit ratings of counterparties.

MuniFin Group has updated the probability of defaults (*PD*) and loss given default (*LGD*) models in the expected credit loss (*ECL*) calculations. In addition, macro scenarios were updated to take into account forward-looking information. During the financial year 2023, the Group has assessed the impact of the quickly increased interest rate environment on its receivables from customer financing and credit risk. Hence, the Group's management decided to record an additional discretionary provision of EUR 0.6 million based on a group-specific assessment at the end of June 2023. At the end of the financial year 2023, the Group's management assessed again the need for an additional discretionary provision and decided to increase it by a small amount. According to the management judgement, some customers may face challenges in the sufficiency of cash flows also during the first half of 2024, which may appear in increased payment delays and forbearances for MuniFin Group. The additional discretionary provision based on the group-specific assessment was EUR 0.6 million at the end 2023.

MuniFin Group is also exposed to credit risk from its liquidity portfolio investments and derivative instruments. In selecting counterparties, MuniFin evaluates credit risk with principles and limits, approved by the Parent Company's Board of Directors, based on external credit ratings. The credit rating of investments is one of the key indicators used by the Group to make investment decisions concerning its liquidity portfolio. Nominal values of debt securities and equivalent credit values of derivatives (*fair value method*) are used in monitoring credit risk. Counterparties are also regularly subject to an internal risk assessment, which assesses economic and qualitative factors as well as ESG risks by comparing the individual issuer's ESG score with the reference value of the general market index for the asset class.

The following table presents the credit rating breakdown of the liquidity portfolio investments.

Credit rating	31 Dec 2023	31 Dec 2022
AAA	60.2%	60.0%
AA+	8.7%	7.6%
AA	5.8%	12.9%
AA-	16.8%	13.5%
A+	4.2%	3.4%
A	3.1%	2.5%
A-	1.2%	0.1%
Total	**100.0%**	**100.0%**

In addition, MuniFin Group has central bank deposits in total EUR 7,954 million (EUR 8,112 million).

The Group limits the credit risk arising from its derivative contracts with ISDA Credit Support Annexes. MuniFin Group has 36 (36) derivative counterparties with which it has valid derivative contracts. The Group has the above-mentioned collateral agreement with all of these counterparties.

Breakdown of nominal value of derivative contracts by counterparty credit rating (EUR 1,000)	31 Dec 2023	31 Dec 2022
Finnish municipal and wellbeing services counties customers	1,467,896	1,597,248
Central counterparty	46,386,905	43,840,377
AA	15,394,010	14,855,710
A	11,512,902	13,570,171
BBB	-	12,133
Total	**74,761,713**	**73,875,640**

Given and received cash collateral based on CSA agreements (EUR 1,000)	31 Dec 2023	31 Dec 2022
Given collateral	-1,060,940	-1,400,620
Given collateral to central counterparty	-1,048,419	-1,219,744
Given collateral as debt securities	70,062	24,942
Received collateral	81,640	244,440
Received collateral from central counterparty	392,173	570,922
Net collateral	**-1,565,484**	**-1,780,060**

The Credit Valuation Adjustment (*CVA*) that measures counterparty credit risk and MuniFin Group's own Debt Valuation Adjustment (*DVA*) are both taken into account when calculating credit risk exposures arising from derivative counterparties. The CVA is estimated for each derivative counterparty by calculating the Group's expected positive exposure throughout the maturity of the derivative portfolio, taking into account the probability of default and the estimated amount of loss in the possible event of default. Input data for the calculation is based on the terms of CSA agreements, generally accepted assumptions in the markets on the loss given default and expected probabilities calculated based on credit default swaps (*CDS*). Similarly, the DVA is determined on the basis of MuniFin Group's expected negative exposures, taking into account the probability of MuniFin's own default and the loss given default. In addition, the Group calculates Funding Valuation Adjustment for those derivative contracts that do not hold cash collateral arrangements (derivatives made with MuniFin Group's customers).

MuniFin Group uses central counterparties (*CCPs*) in the clearing of standard over-the-counter (*OTC*) derivative contracts, as required by the European Markets Infrastructure Regulation (*EMIR*). In this model, at the end of a clearing process, a CCP becomes the counterparty to each cleared trade. The purpose of CCP clearing is to reduce counterparty risk. Two global banks provide clearing broker services to the Group. The variation margin of the derivatives with the CCPs is based on the daily margining of the cash collateral (*Collateralised-to-Market, CTM*). MuniFin also uses securities collateral in the central counterparty clearing when exchanging the initial margin.

The European Commission's delegated regulation (2016/2251) regarding the use of securities as initial margin in over-the-counter derivatives entered into force in September 2022. MuniFin has been prepared for the exchange of initial margin with the securities as collaterals, however, for now the initial margin has not been exchanged with the securities because the threshold limits have not been met.

MuniFin Group may also be exposed to settlement risks in the course of its operations in respect to issued bonds, customer financing, liquidity portfolio investments or derivative transactions. The Group's customer financing transactions are dependent on the operations of domestic payment banks and similarly its capital market transactions are dependent on the operations of the Group's international payment banks and clearing parties. In order to minimise the credit risk associated with clearing and settlement, transactions are in principle carried out through delivery against payment.

Taking into account the nature of MuniFin Group's business model, the Group has acknowledged risk concentration in customer financing in i.e. geographical areas (locally), customer types (municipality sector, state-subsidised housing production) and collaterals (mortgages). The Group's largest subportfolio in customer financing is for municipality sector. This risk concentration on the municipality sector is unavoidable and inherent to MuniFin's business model. In addition, a considerable portion of the exposure to customers is indirectly related to Finnish sovereign risk due to the deficiency guarantee in loan arrangements for the state-subsidised housing production. This is inextricably linked to MuniFin's business model and to its place in the Finnish social system.

Furthermore, MuniFin has been established specifically to finance the municipal sector and social housing and its operations are limited by the MGB Act. Therefore, the concentration risk inherent in the business model cannot be significantly modified. On the other hand, all of the Group's receivables are in the zero risk weight class in capital adequacy calculations and therefore the concentration risk is acceptable considering the Group's business model and it is in line with the Group's business strategy. In addition, in the calculation of large exposures, all receivables from customers are zero after mitigation techniques. Due to these factors, the Group accepts the concentration risk in its customer financing as inherent to its business model.

Concentration risk is also inherent in the liquidity portfolio due to investments being made in a narrow selection of high-quality liquid assets. In order to manage this to the extent possible, MuniFin Group defines country-specific limits on the concentration of its liquidity portfolio in any single country. The following table presents the geographical distribution of the liquidity portfolio investments.

Country/counterparty	31 Dec 2023	31 Dec 2022
Finland	19.9%	14.5%
France	14.1%	12.1%
Canada	11.7%	14.9%
Norway	9.4%	11.2%
Sweden	8.8%	9.1%
Germany	5.7%	6.0%
Denmark	5.0%	7.4%
Supranational	4.8%	5.5%
Belgium	4.8%	2.7%
Netherlands	3.5%	3.8%
South Korea	3.0%	3.3%
Australia	2.1%	2.8%
New Zealand	2.0%	2.1%
Luxembourg	1.5%	1.7%
Japan	1.4%	1.5%
Great Britain	0.8%	0.5%
Spain	0.6%	-
Austria	0.4%	0.8%
Latvia	0.4%	-
Switzerland	0.1%	0.1%
Total	**100.0%**	**100.0%**

In addition, MuniFin Group has central bank deposits in total EUR 7,954 million (EUR 8,112 million).

MuniFin's credit risk position remained stable and at a low level during the year. It is expected to remain stable and in line with the Group's credit risk strategy also in the future.

8. Market risk

Market risk is the risk of the Group incurring a loss as a result of an unfavourable change in market price or its volatility. Market risks include interest rate, foreign exchange, share price and other price risks.

MuniFin Group has identified under RAF the following sources of material market risks: Interest rate risk (*Interest Rate Risk in the Banking Book, IRRBB*), FX risk and spread risk as well as fair valuation risk.

The Group hedges its market risk with derivative contracts. Derivative contracts may only be used for hedging purposes. The Group applies fair value hedge accounting in accordance with IFRS 9 and IAS 39 standards. The application of hedge accounting is described in more detail in the accounting policies (Note *1*) in Section *10. Hedge accounting* and quantitative information on current hedging relationships and their impact on earnings is presented in the Notes *24 Hedge accounting* and *7 Net income from hedge accounting*. The Group also makes use of the fair value option (*FVO*) permitted by IFRS 9 standard in some of its hedging relationships to eliminate or to significantly reduce accounting mismatch due to hedging. The use of fair value option is described in the accounting policies (Note *1*) in Section *7.1.6 and 7.2.3 Designated at fair value through profit or loss.* Quantitative information on the use of fair value option is presented in Note *5 Net income on financial instruments at fair value through profit or loss* and in Note *15 Financial assets and liabilities*.

8.1 Interest rate risk

MuniFin Group manages the interest rate risk arising from its business operations by means of derivative contracts. Interest rate risk arises mainly from the difference in euribor rate terms between assets and liabilities.

MuniFin Group's strategy for interest rate risk in the banking book (*IRRBB*) is to ensure sustainable profitability regardless of the level of interest rates. Therefore, the focus is to stabilise earnings by minimising NII risk measure. Economic Value of Equity (*EVE*) of interest rate sensitivity is a secondary measure but also kept within risk appetite.

The main principle for managing the Group's interest rate risk hedging is to utilise interest rate swaps to hedge fixed rate exposures back-to-back to floating rate. The back-to-back interest rate swaps (*IRS*) replicate all the details of the underlying liability, asset or portfolio of assets to offset the risk of the underlying transaction.

However, given the strategy of earnings stabilisation, the Group may decide on strategic mismatch position, i.e. leave fixed rate exposures unhedged in order to steer the Group's net interest income towards the objective of earnings stabilisation. The strategic mismatch position is created using assets only and includes both fixed and revisable rate loans as well as fixed rate investments in the liquidity portfolio. Derivatives are not used in the creation of the strategic mismatch.

8.1.1 NII risk

NII risk refers to the negative impact of interest rate changes on the Group's net interest income. Several different scenarios are used to measure interest rate risk, the most unfavourable one being considered. The impact is examined in relation to the Group's total net interest income for the previous year. The Group measures the NII risk both with and without the zero floor option. The following table takes into account the zero floor option in the loans.

NII risk (EUR 1,000)	Impact	In relation to own funds
31 Dec 2023	-18,430	1.2%
31 Dec 2022	-25,160	9.0%

The following scenarios are used in calculating the NII risk:

1. Parallel shock up (+50 bp)
2. Parallel shock up (+200bp)
3. Parallel shock down (-50 bp)
4. Parallel shock down (-200bp)
5. Steepener shock (short rates down and long rates up)
6. Flattener shock (short rates up and long rates down)
7. Short rates shock up
8. Short rates shock down.
9. Supervisory Outlier Test (*SOT*), parallel shock up (+200 bp)
10. Supervisory Outlier Test (*SOT*), parallel shock down (-200 bp)

At the end of 2023, the least favourable scenario was based on the assumption of the short rates shock up, which had an impact of EUR -18.4 million and 1.2% in relation to own funds. At the end of 2022 the most unfavourable scenario was the parallel shock down (-200bp), which had an impact of EUR -25.2 million.

8.1.2 Economic Value of Equity

Economic Value of Equity (*EVE*) describes the interest rate sensitivity of the present value of the statement of financial position. It is measured by calculating the change in the present value of interest rate sensitive cash flows for different interest rate curve changes. Several interest rate scenarios are used to measure interest rate risk, the most unfavourable one being considered. The impact will be examined in relation to the Group's total own funds. The Group measures the Economic Value of Equity both with and without the zero floor option. The following table below takes into account the zero floor option in the loans.

Economic Value of Equity (EUR 1,000)	Impact	In relation to own funds
31 Dec 2023	-92,760	6.0%
31 Dec 2022	-33,530	2.3%

When calculating EVE at the end of 2023, the most unfavourable scenario was the parallel shock up of 200 basis points, which had an impact of EUR -92.8 million and 6.0% in relation to own funds. During 2022 the most unfavourable scenario was also the parallel shock up of 200 basis points, which had an impact of EUR -33.5 million.

The following scenarios are used in calculating the EVE:

1. Parallel shock up (+50 bp)
2. Parallel shock up (+200bp)
3. Parallel shock down (-50 bp)
4. Parallel shock down (-200bp)
5. Steepener shock (short rates down and long rates up)
6. Flattener shock (short rates up and long rates down)
7. Short rates shock up
8. Short rates shock down.

8.1.3 Basis risk

The basis risk measure captures interest rate risk that results from narrowing or widening of tenor basis swap spreads. The impact is examined in relation to the Group's total net interest income for the previous year. The figures below take into account the zero floor option in the loans.

Basis risk (EUR 1,000)	Impact	In relation to net interest income
31 Dec 2023	-2,240	0.1%
31 Dec 2022	-8,980	3.2%

The worst of two scenarios is used to measure basis risk:

- Narrowing basis swap spreads assuming that the basis swap spreads are narrowed to zero from their current level
- Widening basis swap spreads based on basis swap spread changes experienced during the euro area crises in 2011.

8.2 FX risk

MuniFin Group's FX risk strategy is in line with its conservative market risk management. The Group does not bear any material foreign exchange risk. The Group's lending and other customer finance items are denominated in euros. FX risk is hedged by translating all foreign currency denominated funding and liquidity investments into euros using derivatives. However, due to collateral management related to Central Counterparty clearing (*CCP*) activities, the Group may temporarily incur minor FX risk. The functionality of the cross-currency derivative markets is always assessed before entering into new funding or liquidity investments in order to ensure that currency hedges can be put in place according to hedging strategy in order to hedge all transactions back to euros. Furthermore, all foreign currency denominated funding transactions with early call options are hedged fully for potential call situations.

The following tables present the breakdown of the Group's financial assets and liabilities into domestic and foreign currency denominated items.

Financial assets in domestic and foreign currencies 31 Dec 2023 (EUR 1,000)	Domestic currency	Foreign currency	Total
Cash and balances with central banks	2	-	2
Loans and advances to credit institutions	9,125,525	61,547	9,187,071
Loans and advances to the public and public sector entities	30,963,194	-	30,963,194
Debt securities	5,135,344	9,620	5,144,963
Other assets	941,438	106,974	1,048,412
Total	**46,165,503**	**178,141**	**46,343,644**

Financial assets in domestic and foreign currencies 31 Dec 2022 (EUR 1,000)	Domestic currency	Foreign currency	Total
Cash and balances with central banks	2	-	2
Loans and advances to credit institutions	9,578,824	46,663	9,625,488
Loans and advances to the public and public sector entities	28,115,321	-	28,115,321
Debt securities	4,757,376	29,392	4,786,768
Other assets	1,008,232	211,310	1,219,541
Total	**43,459,754**	**287,366**	**43,747,120**

Financial liabilities in domestic and foreign currencies 31 Dec 2023 (EUR 1,000)	Domestic currency	Foreign currency	Total
Liabilities to credit institutions	213,695	-	213,695
Liabilities to the public and public sector entities	2,568,350	19,924	2,588,275
Debt securities issued	20,674,897	19,926,749	40,601,646
Provisions and other liabilities	401,010	-	401,010
Total	**23,857,953**	**19,946,673**	**43,804,626**

Financial liabilities in domestic and foreign currencies 31 Dec 2022 (EUR 1,000)	Domestic currency	Foreign currency	Total
Liabilities to credit institutions	2,332,623	-	2,332,623
Liabilities to the public and public sector entities	2,509,865	19,720	2,529,585
Debt securities issued	14,918,101	20,673,964	35,592,065
Provisions and other liabilities	574,192	-	574,192
Total	**20,334,782**	**20,693,684**	**41,028,465**

The following tables present the currency breakdown of the Group's financial assets and liabilities at their carrying amount and their corresponding hedges.

Distribution of financial assets by currency based on carrying amounts and hedges

31 Dec 2023 (EUR 1,000)	USD	GBP	NOK	CHF	Other currencies	Total
Loans and advances to credit institutions	60,460	384	2	417	283	61,547
Debt securities	9,620	-	-	-	-	9,620
Other assets	106,974	-	-	-	-	106,974
Currency risk total	**177,054**	**384**	**2**	**417**	**283**	**178,141**
Hedging derivatives	-173,420	-	-	-	-	-173,420
Total	**3,634**	**384**	**2**	**417**	**283**	**4,720**

Distribution of financial liabilities by currency based on carrying amounts and hedges

31 Dec 2023 (EUR 1,000)	USD	GBP	NOK	CHF	Other currencies	Total
Long-term funding	-6,960,949	-3,936,549	-2,643,340	-1,091,659	-1,614,643	-16,247,141
Short-term funding	-3,452,441	-247,091	-	-	-	-3,699,532
Provisions and other liabilities	-	-	-	-	-	-
Currency risk total	**-10,413,390**	**-4,183,640**	**-2,643,340**	**-1,091,659**	**-1,614,643**	**-19,946,673**
Hedging derivatives	10,413,390	4,183,640	2,643,340	1,091,659	1,614,643	19,946,673
Total	**0**	**0**	**0**	**0**	**0**	**0**
Net currency position	**3,634**	**384**	**2**	**417**	**283**	**4,720**

Distribution of financial assets by currency based on carrying amounts and hedges
31 Dec 2022

(EUR 1,000)	USD	GBP	NOK	CHF	Other currencies	Total
Loans and advances to credit institutions	45,629	386	3	388	258	46,663
Debt securities	29,392	-	-	-	-	29,392
Other assets	211,310	-	-	-	-	211,310
Currency risk total	**286,331**	**386**	**3**	**388**	**258**	**287,366**
Hedging derivatives	-282,533	-	-	-	-	-282,533
Total	**3,798**	**386**	**3**	**388**	**258**	**4,832**

Distribution of financial liabilities by currency based on carrying amounts and hedges
31 Dec 2022

(EUR 1,000)	USD	GBP	NOK	CHF	Other currencies	Total
Long-term funding	-7,181,725	-2,701,197	-3,134,281	-994,265	-2,362,082	-16,373,549
Short-term funding	-3,460,032	-860,103	-	-	-	-4,320,135
Provisions and other liabilities	-	-	-	-	-	-
Currency risk total	**-10,641,757**	**-3,561,299**	**-3,134,281**	**-994,265**	**-2,362,082**	**-20,693,684**
Hedging derivatives	10,641,757	3,561,299	3,134,281	994,265	2,362,082	20,693,684
Total	**0**	**0**	**0**	**0**	**0**	**0**
Net currency position	**3,798**	**386**	**3**	**388**	**258**	**4,832**

8.2.1 Currency position
The currency position is calculated as the euro-denominated difference between assets and liabilities in various currencies.

Currency position (EUR 1,000)	Currency position
31 Dec 2023	4,721
31 Dec 2022	4,833

8.3 Price risk
Price risk refers to the possibility of changes in the market values of the prefunding liquidity investments due to a change in the market's required return as a consequence of a change in the investment's risk or in the market's risk sensitivity. Main principle in portfolio management is to guarantee a sufficient amount of earnings within the liquidity requirements, such as LCR, NSFR and Survival horizon.

Spread risk (EUR 1,000)	Impact	In relation to own funds
31 Dec 2023	-44,200	2.9%
31 Dec 2022	-37,200	2.5%

The change in required return is calculated at a 99.9% confidence level.

8.4 Fair valuation risk
MuniFin Group has identified fair valuation risk as a material risk for its operations. Unrealised fair value changes of financial instruments increase the volatility of profits. In addition to the profit, the Group's own funds are also affected by valuations measured at fair value through other comprehensive income (*OCI*). The classification and measurement of financial instruments are described in more detail in the accounting policies (Note *1*) in Section *7. Classification, recognition and measurement of financial instruments*.

The volatility of the fair valued instruments arises from changes in market risk factors, such as tenor basis spreads as the spread between different interest rate curves changes. In accordance with the market practice and IFRS 13 standard, the Group discounts the financial assets and liabilities measured at fair value and the hedged items with the swap curve and the hedging derivatives with the OIS curve, which causes a significant part of the Group's valuation volatility. The unrealised fair value changes of financial instruments are recorded in the income statement under line item *Net income on financial instruments at fair value through profit or loss* and they are specified in Note *5*. In addition, the unrealised fair values of financial instruments in hedge accounting (both hedged items and hedging instruments) are recorded under line item *Net income on financial instruments at fair value through profit or loss* and specified in Note *7*. The Group continuously monitors and analyses the volatility arising from valuations and prepares for its potential profitability and solvency impacts. A sensitivity analysis related to valuations is presented in Note *16 Fair values of financial assets and liabilities*.

During the reporting period, unrealised fair value changes of financial instruments caused earnings volatility for the Group. Unrealised fair value changes were influenced in particular by changes in interest rate expectations and credit risk spreads in the Group's main funding markets and by challenges in the banking sector. The Group continuously monitors and analyses the volatility arising from valuations and prepares for any impacts this may have on its profit and capital adequacy.

9. Operational risks
Operational risk refers to the risk of loss due to insufficient or failed internal processes, insufficient or failed policies, systems or external factors. Operational risks also include risks arising from failure to comply with internal and external regulation (compliance risk) and legal risks. Operational risks may result in expenses, payable compensation, loss of reputation, false information on position, risk and financial results or the interruption of operations.

Operational risks are recognised as part of the Group's operations and processes. This has been implemented with an annual mapping of operational risk, which is carried out by units through a self-assessment. The operational risk management is the responsibility of each division and unit. In addition, the Risk Management and Compliance division supports the other divisions and units and has the responsibility for coordinating the management of operational risks.

MuniFin Group uses various methods for managing operational risks. The Group has internal policies approved by the Board and supplementing internal guidelines approved by the management in order to guide operations. Operational risks are also covered by the RAF approved by the Board of Directors of the Parent Company. Key duties and processes have been charted and described. Internal instructions and processes are updated on a regular basis, and compliance with them is supervised. The tasks related to business activities, risk control and accounting are separated. The Group has adequate substitution systems to ensure the continuity of key functions. The expertise of the personnel is maintained and developed through regular development discussions and training plans. The Group has a contingency plan for situations in which business and IT operations are interrupted. The plan is designed to ensure that the Group is able to continue functioning and to limit its losses in different disruptive scenarios. The annual mapping of operational risks and the operational risk event report process support the Group's continuity planning. In addition, the Group has insurance policies related to its operations and the level of the insurance coverage is assessed on a regular basis.

MuniFin Group's Compliance continuously monitors the development of legislation and regulations issued by authorities relevant to the Group's operations and ensures that any regulatory changes are appropriately responded to. The legislation and regulations concerning the operations of credit institutions have faced significant changes during the past few years and will continue to change in the future, which creates challenges for the Group's compliance. The Group has tried to minimise the risks related to this with an active contact with the authorities and interest groups as well as with the organisation of the Group's internal Compliance (incl. system support, evaluation of effects, reporting and implementation).

The Group has significant information system and business process related projects aimed at improving the quality, efficiency and regulatory compliance of current operations. The extent of these projects creates operational risks that the Group strives to minimise by developing and implementing models related to project management and monitoring (incl. regular reporting) and ensuring sufficient resources. The risks related to development projects are surveyed and monitored regularly.

The Group has an approval process for new products and services. The process aims to ensure that all material risks and operational requirements are taken into account when developing new products and services. The Group has outsourcing arrangements of which the most important are IT and infrastructure services and SaaS services. The realisation of operational risks is monitored with systematic operational risk event reporting, which is used to change operating principles or implement other measures to reduce operational risks where necessary. Operational risk events are reported to the Executive Management Team and the Board of Directors of the Parent Company. Material losses have not been realised from the operational risks during 2023.

10. ESG risks

ESG risks include environmental, social and governance risks. There have been no material changes in ESG risks during the financial year.

According to the Group's assessment, its exposure to climate and environmental risks is low. As per the Group's business model, customer receivables originate from the Finnish municipal and wellbeing services counties sectors or are from the State of Finland after credit mitigation (*state deficiency guarantee*). The Group's customers and, through them, also the Group itself are exposed to both physical and transition risks. Identified risks are related to real estate collateral, but given the existing guarantee arrangements, even the materialisation of a climate or environmental risk is not expected to incur final credit losses. The Group's investment counterparties are governments, central banks, SSA sector entities and credit institutions, and the Group only invests in counterparties whose risks it considers to be low. This also applies to the Group's derivative counterparties.

According to the Group's assessment, environmental and climate risks are unlikely to manifest substantially in the short term, but they may have an adverse economic effect on the Group's customers in the medium and long term. Although the Group considers its environmental and climate risks low, the Group recognises that as the climate change progresses, the risks associated with it increase and the uncertainty rises. The Group assesses its exposure to the environmental and climate risks at least annually.

According to the Group's estimate, it is currently not exposed to any substantial social or governance risks. The perceived low exposure to social risks stems from the lack of identified material risks related to non-compliance with labour laws, human rights or other aspects of social justice. The Group monitors the governance of its customers and investment counterparties through an ESG scoring model, which it uses to evaluate their reported governance and other ESG factors.

During 2023, the Group has continued to build its ESG risk management framework in line with regulatory requirements and feedback received from the European Central Bank. This work will continue in the coming years.

More information related to Group's risks is published in a Pillar III Disclosure Report, which is separate from this Report of the Board of Directors and the Financial Statements. The Report is available in English on MuniFin's website.

Notes to the income statement

Note 3. Interest income and expense

(EUR 1,000)	Jan–Dec 2023 Interest and similar income	Jan–Dec 2023 Interest and similar expense	Jan–Dec 2023 Net	Jan–Dec 2022 Interest and similar income	Jan–Dec 2022 Interest and similar expense	Jan–Dec 2022 Net
Assets						
Amortised cost						
Cash and balances with central banks	-	-	-	30,304	-26,828	3,475
Loans and advances to credit institutions	317,664	-29	317,636	8,290	-8,346	-56
Loans and advances to the public and public sector entities	779,143	-	779,143	220,905	-	220,905
Debt securities	46,110	-23	46,087	5,345	-3,206	2,140
Other assets	45,861	-	45,861	8,019	-	8,019
Fair value through other comprehensive income						
Debt securities	6,982	-	6,982	9	-	9
Designated at fair value through profit or loss						
Loans and advances to the public and public sector entities	348	-	348	348	-	348
Debt securities	27,395	-	27,395	9,436	-	9,436
Mandatorily at fair value through profit or loss						
Loans and advances to the public and public sector entities	1,033	-	1,033	827	-	827
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	441,616	-348,450	93,166	92,225	-87,665	4,560
Derivative contracts in hedge accounting	356,190	-	356,190	-34,804	-	-34,804
Leased assets	38,640	-	38,640	10,177	-	10,177
Interest on non-financial other assets	2	-	2	6	-	6
Interest on assets	**2,060,984**	**-348,502**	**1,712,482**	**351,089**	**-126,045**	**225,044**
, of which interest income/expense according to the effective interest method	*1,195,761*	*-52*		*272,863*	*-38,380*	

(EUR 1,000)	Jan–Dec 2023 Interest and similar income	Jan–Dec 2023 Interest and similar expense	Jan–Dec 2023 Net	Jan–Dec 2022 Interest and similar income	Jan–Dec 2022 Interest and similar expense	Jan–Dec 2022 Net
Liabilities						
Amortised cost						
Liabilities to credit institutions	-	-26,276	-26,276	11,575	-12,570	-995
Liabilities to the public and public sector entities	-	-37,557	-37,557	-	-44,838	-44,838
Debt securities issued	-	-466,008	-466,008	778	-263,148	-262,370
Provisions and other liabilities	-	-17,106	-17,106	-	-4,286	-4,286
Designated at fair value through profit or loss						
Liabilities to credit institutions	-	-1,005	-1,005	-	-54	-54
Liabilities to the public and public sector entities	-	-37,034	-37,034	-	-34,195	-34,195
Debt securities issued	-	-369,060	-369,060	-	-157,748	-157,748
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	656,535	-604,280	52,255	348,298	-139,384	208,915
Derivative contracts in hedge accounting	-	-551,439	-551,439	-	311,682	311,682
Interest on liabilities	**656,535**	**-2,109,764**	**-1,453,229**	**360,651**	**-344,540**	**16,111**
, of which interest income/expense according to the effective interest method	-	*-546,947*		*12,353*	*-324,841*	
Total interest income and expense	**2,717,519**	**-2,458,266**	**259,253**	**711,740**	**-470,585**	**241,155**

Interest income on stage 3 financial assets in the expected credit loss (*ECL*) calculations totalled EUR 1,726 thousand (EUR 743 thousand) during the financial year. These are included in the line items *Loans and advances to the public and public sector entities* and *Leased assets*.

Interest expense on provisions and other liabilities includes EUR 52 thousand (EUR 51 thousand) of interest on lease liabilities recognised in accordance with IFRS 16 *Leases* standard.

Interest expenses on financial assets at amortised cost on cash and balances with central banks consisted of interest paid on central bank deposits, and interest on loans and advances to credit institutions of interest on cash collateral receivables in the comparison period. Interest expenses on debt securities consist of interest paid on short-term lending in money market instruments. Interest expenses on derivative contracts at fair value through profit or loss consist of negative interest income on derivative contracts that are not included in hedge accounting. The derivative contracts contained in this line item hedge financial assets which are designated at fair value through profit or loss, derivative contracts with municipalities and derivative contracts hedging derivatives with municipalities, in addition to derivative contracts used for hedging interest rate risk of the balance sheet, for which no hedged item has been specified. Derivative contracts in hedge accounting hedge line items *Loans and advances to the public and public sector entities* and *Leased assets*.

Interest income on financial liabilities at amortised cost to credit institutions in the comparison period consisted of interest received on cash collateral liabilities as well as on TLTRO III debt, and interest income on debt securities issued consisted of interest received on ECPs. Interest income on derivative contracts at fair value through profit or loss consists of positive interest expense on derivatives that are not included in hedge accounting. Derivative contracts contained in this line item hedge financial liabilities which are designated at fair value through profit or loss. Derivative contracts in hedge accounting are used as hedges for line items *Liabilities to credit institutions, Liabilities to the public and public sector entities* and *Debt securities issued*.

Note 4. Fee and commission income and expense

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Fee and commission income		
Financial advisory services	1,298	1,432
Digital services	971	868
Other operations	6	2
Total	**2,275**	**2,302**
Fee and commission expense		
Commission fees paid	-264	-272
Other	-15,374	-5,245
Total	**-15,638**	**-5,517**
Net fee and commission income	**-13,363**	**-3,215**

Fee and commission income from contracts with customers are divided by service type. EUR 2,168 thousand (EUR 2,234 thousand) out of fee and commission income from the contracts with customers has been received from municipalities, joint municipal authorities, wellbeing services counties and entities controlled by them.

MuniFin Group does not disclose segment information of IFRS 8 *Operating Segments* standard in the Consolidated Financial Statements as the Group operates in a single segment, which also forms the basis of reporting to the Group's chief operating decision-maker. Information regarding segment reporting can be found in the accounting policies (Note *1*) in Section *5. Segment reporting*.

The fee and commission income for advisory services are mainly charged from the customer after the service has been performed in accordance with the terms of the agreement. The fee and commission income for digital services are charged once a year and recognised over time. Other fee and commission income is charged and recognised at the time of the service is provided. The accounting treatment of the fee and commission income from the contracts with customers is presented in the accounting policies (Note *1*) in Section *20.2 Fee and commission income and expense*.

In fee and commission expense, line item *Other* includes i.e. paid guarantee fees, custody fees and funding programme update costs. Increase in fee and commision expense was mainly due to the Municipal Guarantee Board's decision to change the guarantee commission of MuniFin's funding from a fixed fee to fee tied to the amount of guaranteed funding. This change increased the guarantee fee to EUR 13 million (EUR 4 million).

Note 5. Net income on financial instruments at fair value through profit or loss

Jan–Dec 2023 (EUR 1,000)	Capital gains	Capital losses	Unrealised fair value changes	Total
Financial assets				
Designated at fair value through profit or loss				
Loans and advances to the public and public sector entities	-	-	2,592	2,592
Debt securities	-	-	120,709	120,709
Mandatorily at fair value through profit or loss				
Loans and advances to the public and public sector entities	-	-	-827	-827
Financial liabilities				
Designated at fair value through profit or loss				
Liabilities to credit institutions	-	-	-1,212	-1,212
Liabilities to the public and public sector entities	-	-	-76,384	-76,384
Debt securities issued: commercial papers	-	-	1,937	1,937
Debt securities issued: bonds	-	-	-309,603	-309,603
Derivative contracts at fair value through profit or loss	123	-211	252,443	252,354
Day 1 gain or loss	-	-	42	42
Net income from financial assets and liabilities through profit or loss	**123**	**-211**	**-10,303**	**-10,391**
Net income from FX differences	**108,801**	**-102,714**	**-8,009**	**-1,923**
Net income from hedge accounting	**-**	**-**	**-27,147**	**-27,147**
Total	**108,924**	**-102,926**	**-45,460**	**-39,461**

Line item *Net income from financial assets and liabilities through profit or loss* includes fair value changes of financial assets and liabilities measured at fair value through profit or loss, fair value changes of derivative contracts not included in hedge accounting (derivative contracts at fair value through profit or loss) as well as capital gains and losses related to these items. Line item *Net income from FX differences* includes unrealised and realised translation differences for all items denominated in foreign currencies. The breakdown of line item *Net income from hedge accounting* is presented in Note *24 Hedge accounting*. The definition for Day 1 gain or loss is presented in the accounting policies (Note *1*) in Section *13. Determination of fair value*. The reconciliation for Day 1 gain or loss is presented in Note *16 Fair values of financial assets and liabilities.*

Jan–Dec 2022 (EUR 1,000)	Capital gains	Capital losses	Change in fair value	Total
Financial assets				
Designated at fair value through profit or loss				
Loans and advances to the public and public sector entities	-	-	-9,812	-9,812
Debt securities	-	-	-235,724	-235,724
Mandatorily at fair value through profit or loss				
Loans and advances to the public and public sector entities	-	-	-976	-976
Financial liabilities				
Designated at fair value through profit or loss				
Liabilities to credit institutions	-	-	1,521	1,521
Liabilities to the public and public sector entities	-	-	397,597	397,597
Debt securities issued: commercial papers	-	-	-112	-112
Debt securities issued: bonds	-	-	160,312	160,312
Derivative contracts at fair value through profit or loss	378	-172	-304,568	-304,363
Day 1 gain or loss	-	-	-156	-156
Net income from financial assets and liabilities through profit or loss	**378**	**-172**	**8,083**	**8,288**
Net income from FX differences	**125,198**	**-136,321**	**10,976**	**-148**
Net income from hedge accounting	**-**	**-**	**36,444**	**36,444**
Total	**125,575**	**-136,494**	**55,502**	**44,583**

The following tables present carrying amounts of financial assets and liabilities designated at fair value through profit or loss and their fair value changes recognised during the reporting period in the income statement under *Net income on financial instruments at fair value through profit or loss* and in the other comprehensive income under *Net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss*.

Financial assets and liabilities designated at fair value through profit or loss (EUR 1,000)	Nominal value 31 Dec 2023	Carrying amount 31 Dec 2023	Nominal value 31 Dec 2022	Carrying amount 31 Dec 2022
Financial assets				
Loans and advances to the public and public sector entities	30,000	30,326	30,000	28,432
Debt securities	3,284,881	3,200,340	3,355,906	3,162,034
Total financial assets*	**3,314,881**	**3,230,667**	**3,385,906**	**3,190,465**
Financial liabilities				
Liabilities to credit institutions	44,000	42,989	5,000	3,291
Liabilities to the public and public sector entitities	1,449,753	1,311,174	1,495,567	1,318,658
Debt securities issued	9,870,880	9,472,387	11,505,250	10,842,676
Total financial liabilities	**11,364,633**	**10,826,551**	**13,005,818**	**12,164,626**

* Financial assets designated at fair value through profit or loss are exposed to credit risk up to the carrying amounts of those securities at 31 Dec 2023 and 31 Dec 2022.

Change in fair value of financial assets designated at fair value through profit or loss (EUR 1,000)	31 Dec 2023	1 Jan 2023	Fair value change recognised in the income statement Jan–Dec 2023	, of which due to credit risk	, of which due to market risk
Financial assets					
Loans and advances to the public and public sector entities	-7,988	-10,581	2,592	151	2,441
Debt securities	-94,789	-215,498	120,709	-6,493	127,202
Total financial assets	**-102,777**	**-226,078**	**123,301**	**-6,342**	**129,643**

Financial assets that MuniFin Group has designated at fair value through profit or loss include debt securities in the liquidity portfolio and some lending agreements of which the interest rate risk is hedged with interest rate and cross currency interest rate swaps. The designation is made as it significantly reduces accounting mismatch which would otherwise arise from measuring the derivative contract at fair value through profit or loss and the debt security at fair value through other comprehensive income and lending agreements at amortised cost based on the IFRS 9 business model. MuniFin Group does not have credit derivatives hedging these financial assets.

Change in fair value of financial liabilities designated at fair value through profit or loss (EUR 1,000)	31 Dec 2023	1 Jan 2023	Fair value change recognised in the income statement Jan–Dec 2023	Change in own credit risk recognised in the other comprehensive income Jan–Dec 2023	Total fair value change in Jan–Dec 2023
Financial liabilities					
Liabilities to credit institutions	495	1,708	-1,212	514	-698
Liabilities to the public and public sector entitities	169,099	245,483	-76,384	30,218	-46,167
Debt securities issued	425,589	733,254	-307,666	44,669	-262,997
Total financial liabilities	**595,183**	**980,445**	**-385,262**	**75,401**	**-309,862**

Net change in fair value in line item Net income from financial assets and liabilities through profit or loss (EUR 1,000)	Cumulative change in fair value 31 Dec 2023	Fair value change recognised in the income statement Jan–Dec 2023
Financial liabilities designated at fair value through profit or loss	595,183	-385,262
Derivative contracts at fair value through profit or loss hedging financial liabilities	-592,125	397,646
Net change in fair value	**3,058**	**12,384**

MuniFin Group has designated short-term debt instruments denominated in foreign currencies, which have been hedged with FX swaps at fair value through profit or loss. The designation reduces accounting mismatch which would otherwise arise between the measurement of the derivative contract and the financial liability. Financial liabilities designated at fair value through profit or loss consist of financial liabilities, which have been hedged according to the Group's risk management policy, but which are not subject to IFRS 9 standard fair value hedge accounting. The fair value changes of the financial liabilities impact the income statement, but as they have been hedged, the expected profit or loss is restricted to interest. The table above describes the net impact of these financial liabilities and their hedges on the income statement.

When a financial liability is designated at fair value through profit or loss, the fair value change, with exception to MuniFin's own credit risk that is presented in other comprehensive income as change of the own credit revaluation reserve, is presented in *Net income on financial instruments at fair value through profit or loss*.

MuniFin Group applies the income approach of IFRS 13 standard to the separation of fair value changes related to changes in own credit risk from the fair value changes of the financial liability. For the majority of financial liabilities designated at fair value through profit or loss, no market price is available as there is no active secondary market. The methodology for separation of own credit risk utilises MuniFin's benchmark curves, cross currency basis spreads and credit spreads of MuniFin's issued debt securities on the primary market as input. Based on the aforementioned inputs, valuation curves can be constructed for various reporting periods for valuing financial liabilities designated at fair value through profit or loss. By comparing fair values calculated using the trade date and the reporting date, the impact of change in own credit risk on the fair value of the financial liability can be determined.

Financial liabilities designated at fair value through profit or loss are not traded.

Change in fair value of financial assets designated at fair value through profit or loss (EUR 1,000)	31 Dec 2022	1 Jan 2022	Fair value change recognised in the income statement Jan–Dec 2022	, of which due to credit risk	, of which due to market risk
Financial assets					
Loans and advances to the public and public sector entities	-10,581	-769	-9,812	196	-10,008
Debt securities	-215,498	20,226	-235,724	-9,088	-226,635
Total financial assets	**-226,078**	**19,457**	**-245,535**	**-8,892**	**-236,643**

Change in fair value of financial liabilities designated at fair value through profit or loss (EUR 1,000)	31 Dec 2022	1 Jan 2022	Fair value change recognised in the income statement Jan–Dec 2022	Change in own credit risk recognised in the other comprehensive income Jan–Dec 2022	Total fair value change in Jan–Dec 2022
Financial liabilities					
Liabilities to credit institutions	1,708	187	1,521	-25	1,496
Liabilities to the public and public sector entitities	245,483	-152,113	397,597	-12,269	385,327
Debt securities issued	733,254	573,054	160,201	12,111	172,311
Total financial liabilities	**980,445**	**421,127**	**559,318**	**-184**	**559,134**

Net change in fair value in line item Net income from financial assets and liabilities through profit or loss (EUR 1,000)	Cumulative change in fair value 31 Dec 2022	Fair value change recognised in the income statement Jan–Dec 2022
Financial liabilities designated at fair value through profit or loss	980,445	559,318
Derivative contracts at fair value through profit or loss hedging financial liabilities	-989,771	-554,212
Net change in fair value	**-9,325**	**5,106**

Note 6. Net income on financial assets at fair value through other comprehensive income

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Capital gains from financial assets	-	-
Capital losses from financial assets	-257	-149
Unrealised gains transferred from fair value reserve	-	-
Unrealised losses transferred from fair value reserve	-	-
Total	**-257**	**-149**

Note 7. Net income from hedge accounting

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Unrealised gains from hedging instruments	1,188,433	1,682,551
Unrealised losses from hedging instruments	-599,048	-3,131,503
Net income from hedging instruments	**589,385**	**-1,448,952**
Unrealised gains from hedged items	588,283	3,141,349
Unrealised losses from hedged items	-1,204,554	-1,655,954
Net income from hedged items	**-616,271**	**1,485,395**
IBOR reform related compensations*	-260	-
Net income from hedge accounting	**-27,147**	**36,444**

* Compensations relate to the IBOR reform of which more information is presented in the accounting policies (Note 1) in Section *23. IBOR reform.*

Unrealised gains and losses from hedged items include fair value of the risks to which fair value hedge accounting is applied and which are measured at fair value. The foreign exchange difference of both hedging instruments and hedged items is presented on line item *Net income from FX differences* in Note *5 Net income on financial instruments at fair value through profit or loss*. A specification of the net income from hedge accounting is presented in Note *24 Hedge accounting*.

Note 8. Impact of the reclassified financial assets and liabilities

The following table shows the impact of reclassification of financial assets in the implementation of IFRS 9 standard (as of 1 Jan 2018) from at fair value through profit or loss under IAS 39 standard into amortised cost under IFRS 9 standard. MuniFin Group did not reclassify any financial liabilities from fair value through profit or loss into amortised cost.

Reclassification of financial assets (EUR 1,000)	Original measurement category under IAS 39	New measurement category under IFRS 9	Fair value 31 Dec 2023	Fair value gain or loss for the financial year*	EIR determined as at 1 Jan 2018**	Interest revenue recognised Jan–Dec 2023
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	86,977	434	0.14%	2,743

* The fair value gain or loss that would have been recognised in the income statement during the financial year if the financial assets had not been reclassified.
** Effective interest rate determined on the date of initial application.

Reclassification of financial assets (EUR 1,000)	Original measurement category under IAS 39	New measurement category under IFRS 9	Fair value 31 Dec 2022	Fair value gain or loss for the financial year	EIR determined as at 1 Jan 2018	Interest revenue recognised Jan–Dec 2022
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	91,834	-983	0.14%	478

Note 9. Other operating income

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Other income from credit institution operations*	139	90
Total	**139**	**90**

* Line item includes capital gains from sold tangible assets.

Note 10. HR and administrative expenses

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Personnel expenses		
Salaries and remuneration	-16,943	-15,520
Pension costs	-2,916	-2,717
Other social security expenses	-617	-525
Total personnel expenses	**-20,475**	**-18,763**
Other personnel related costs	-1,850	-1,760
Marketing and communication expenses	-1,142	-876
IT and information expenses	-16,788	-15,259
Other administrative expenses	-456	-702
Total	**-40,711**	**-37,361**

	2023		2022	
Personnel	Average	End of year	Average	End of year
Permanent full-time	168	169	157	159
Permanent part-time	3	3	4	4
Fixed term	12	13	12	12
Total	**183**	**185**	**172**	**175**

Note 11. Depreciation and impairment on tangible and intangible assets

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Depreciation		
Depreciation on tangible assets	-3,083	-2,971
Depreciation on intangible assets	-3,460	-2,890
Total depreciation	**-6,543**	**-5,861**
Impairment		
Impairment on intangible assets*	-	-4,562
Total impairment	**-**	**-4,562**
Total depreciation and impairment	**-6,543**	**-10,423**

* In the comparison period, line item includes a non-recurring item of EUR 4,562 thousand, which consists of impairment on significant terminated IT system implementation.

Note 12. Other operating expenses

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Regulatory expenses		
Contributions to the Single Resolution Fund	-7,353	-9,185
Other administrative and supervisory fees	-2,832	-2,324
Rental expenses	-439	-413
External services	-6,723	-5,504
Credit rating fees	-905	-748
Audit fees	-470	-508
Insurances	-850	-902
Other expenses from credit institution operations	300	-190
Total	**-19,271**	**-19,774**

Paid fees to the auditor (KPMG Oy Ab) in 2023 totalled EUR 456 thousand (EUR 492 thousand) for audit, EUR 9 thousand (EUR 28 thousand) for tax services and EUR 211 thousand (EUR 189 thousand) for other services. Assigments as referred to in section 1, subsection 1, paragraph 2 of the Auditing Act in 2023 totalled EUR 14 thousand (EUR 16 thousand).

Note 13. Credit losses and impairments on financial assets

MuniFin Group's credit risks are described in Note *2 Risk management principles and the Group's risk position* in Section *7. Credit Risk*. The accounting policies of the expected credit loss calculations and impairment stages are described in the accounting policies (Note *1*) in Section *9. Impairment of financial assets.*

Credit losses and impairments Jan–Dec 2023 (EUR 1,000)	Expected credit losses			Realised credit losses		
	Additions	Subtractions	Recognised in the income statement	Additions	Subtractions	Recognised in the income statement
Expected credit losses on financial assets at amortised cost						
Cash and balances with central banks	-	-	-	-	-	-
Loans and advances to credit institutions	-10	46	36	-	-	-
Loans and advances to the public and public sector entities	-1,559	123	-1,436	-	-	-
Leased assets in Loans and advances to the public and public sector entities*	-18	17	-1	-	-	-
Debt securities	-1	1	0	-	-	-
Cash collateral to CCPs in Other assets	-	197	197	-	-	-
Credit commitments (off-balance sheet)	-13	11	-2	-	-	-
Total expected credit losses on financial assets at amortised cost	**-1,601**	**396**	**-1,205**	**-**	**-**	**-**
Expected credit losses and impairments on other financial assets						
Debt securities at fair value through other comprehensive income	-25	27	2	-	-	-
Total expected credit losses and impairments on other financial assets	**-25**	**27**	**2**	**-**	**-**	**-**
Total	**-1,627**	**423**	**-1,203**	**-**	**-**	**-**

* Expected credit losses on Leased assets include also the expected credit loss on assets not classified as financial assets according to IFRS 9 standard.

Credit losses and impairments Jan–Dec 2022 (EUR 1,000)	Expected credit losses			Realised credit losses		
	Additions	Subtractions	Recognised in the income statement	Additions	Subtractions	Recognised in the income statement
Expected credit losses on financial assets at amortised cost						
Cash and balances with central banks	-	0	0	-	-	-
Loans and advances to credit institutions	-88	62	-27	-	-	-
Loans and advances to the public and public sector entities	-1,011	1,386	375	-	-	-
Leased assets in Loans and advances to the public and public sector entities	-29	2	-26	-	-	-
Debt securities	-1	0	-1	-	-	-
Cash collateral to CCPs in Other assets	-190	-	-190	-	-	-
Credit commitments (off-balance sheet)	-15	5	-10	-	-	-
Total expected credit losses on financial assets at amortised cost	**-1,335**	**1,455**	**120**	**-**	**-**	**-**
Expected credit losses and impairments on other financial assets						
Debt securities at fair value through other comprehensive income	-29	26	-3	-	-	-
Total expected credit losses and impairments on other financial assets	**-29**	**26**	**-3**	**-**	**-**	**-**
Total	**-1,364**	**1,481**	**118**	**-**	**-**	**-**

Note 14. Income tax expense

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Tax based on the profit for the financial year	-16,877	-34,545
Tax based on the profit for previous financial years	-418	-
Deferred tax	-10,763	-8,478
Total	**-28,058**	**-43,023**

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Profit before tax	138,583	215,024
Taxes at domestic tax rate	-27,717	-43,005
Other deductibles	114	14
Non-deductible expenses	-37	-32
Taxes for previous financial years	-418	-
Total	**-28,058**	**-43,023**
Income tax percentage	20.0%	20.0%
Effective tax base	20.2%	20.0%

Notes to the statement of financial position and other notes

Note 15. Financial assets and liabilities

Financial assets 31 Dec 2023 (EUR 1,000)	Amortised cost	Fair value through other comprehensive income	Designated at fair value through profit or loss	Mandatorily at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Cash and balances with central banks	2	-	-	-	-	2	2
Loans and advances to credit institutions	9,187,071	-	-	-	-	9,187,071	9,187,071
Loans and advances to the public and public sector entities*	30,905,386	-	30,326	27,482	-	30,963,194	32,746,762
Debt securities	1,574,954	369,669	3,200,340	-	-	5,144,963	5,145,075
Derivative contracts at fair value through profit or loss	-	-	-	-	312,957	312,957	312,957
Derivative contracts in hedge accounting	-	-	-	-	1,543,813	1,543,813	1,543,813
Other assets**	1,048,412	-	-	-	-	1,048,412	1,048,412
Total	**42,715,826**	**369,669**	**3,230,667**	**27,482**	**1,856,769**	**48,200,413**	**49,984,092**

* Line item includes EUR 383,163 thousand of leased assets for which the Group applies fair value hedge accounting. Unhedged leased assets are not presented in this note of financial assets and liabilities as leased assets are not regarded as financial assets for the purpose of IFRS 9 classification.

** Line item includes cash collateral given to central counterparties.

Financial liabilities 31 Dec 2023 (EUR 1,000)	Amortised cost	Designated at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Liabilities to credit institutions	170,706	42,989	-	213,695	213,654
Liabilities to the public and public sector entities	1,277,101	1,311,174	-	2,588,275	2,601,224
Debt securities issued	31,129,259	9,472,387	-	40,601,646	40,566,379
Derivative contracts at fair value through profit or loss	-	-	1,157,142	1,157,142	1,157,142
Derivative contracts in hedge accounting	-	-	2,215,373	2,215,373	2,215,373
Provisions and other liabilities*	401,010	-	-	401,010	401,010
Total	**32,978,076**	**10,826,551**	**3,372,514**	**47,177,141**	**47,154,781**

* Line item includes EUR 392,173 thousand of cash collateral received from central counterparties and EUR 8,837 thousand of lease liabilities in accordance with IFRS 16 standard.

Financial assets 31 Dec 2022 (EUR 1,000)	Amortised cost	Fair value through other comprehensive income	Designated at fair value through profit or loss	Mandatorily at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Cash and balances with central banks	2	-	-	-	-	2	2
Loans and advances to credit institutions	9,625,488	-	-	-	-	9,625,488	9,625,488
Loans and advances to the public and public sector entities*	28,055,798	-	28,432	31,090	-	28,115,321	29,739,890
Debt securities	1,457,098	167,636	3,162,034	-	-	4,786,768	4,786,383
Derivative contracts at fair value through profit or loss	-	-	-	-	504,097	504,097	504,097
Derivative contracts in hedge accounting	-	-	-	-	2,203,006	2,203,006	2,203,006
Other assets**	1,219,541	-	-	-	-	1,219,541	1,219,541
Total	**40,357,928**	**167,636**	**3,190,465**	**31,090**	**2,707,103**	**46,454,223**	**48,078,407**

* Line item includes EUR 274,053 thousand of leased assets for which the Group applies fair value hedge accounting. Unhedged leased assets are not presented in this Note of financial assets and liabilities as leased assets are not regarded as financial assets for the purpose of IFRS 9 classification.

** Line item includes cash collateral given to central counterparties.

Financial liabilities 31 Dec 2022 (EUR 1,000)	Amortised cost	Designated at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Liabilities to credit institutions	2,329,332	3,291	-	2,332,623	2,332,609
Liabilities to the public and public sector entities	1,210,927	1,318,658	-	2,529,585	2,543,548
Debt securities issued	24,749,389	10,842,676	-	35,592,065	35,650,001
Derivative contracts at fair value through profit or loss	-	-	1,562,525	1,562,525	1,562,525
Derivative contracts in hedge accounting	-	-	3,053,586	3,053,586	3,053,586
Provisions and other liabilities*	574,192	-	-	574,192	574,192
Total	**28,863,840**	**12,164,626**	**4,616,111**	**45,644,576**	**45,716,461**

* Line item includes EUR 570,922 thousand of cash collateral received from central counterparties and EUR 3,269 thousand of lease liabilities in accordance with IFRS 16 standard.

Note 16. Fair values of financial assets and liabilities

Fair value is the price that would be received to sell the asset or paid to transfer the liability in an orderly transaction between market participants at the measurement date. The Group measures fair values using the following fair value hierarchy, which reflects the significance of the inputs used in making the fair value measurements.

Level 1
Inputs that are quoted market prices (unadjusted) for identical instruments in active markets that the Group can access at the measurement date. The market is considered to be active if trading is frequent and price data is regularly available. These quotes (mid) represent the price for an orderly transaction between parties in the market on the valuation date. Level 1 instruments comprise mainly investments in debt securities.

Level 2
Inputs other than quoted prices included within level 1 that are observable either directly (i.e. as prices) or indirectly (i.e. derived from prices). This level includes instruments valued using quoted prices for identical instruments in markets that are considered less than active or other valuation techniques in which all significant inputs are directly or indirectly observable from market data. Level 2 instruments comprise mainly OTC derivatives, the Group's issued plain-vanilla financial liabilities and the Group's lending agreements.

Level 3
Level 3 includes all instruments for which the valuation technique includes inputs that are not observable and the unobservable inputs have a significant effect on the instrument's valuation. Unobservable inputs are used only to the extent that no relevant observable inputs are available. If the valuation input is illiquid, extrapolated or based on historical prices, the valuation input will be defined as a level 3 valuation input as these types of inputs are per definition unobservable. This level includes financial instruments with equity and FX structures due to the impact of the utilisation of inputs such as dividend yield on the fair value measurement. In addition, level 3 contains some interest rate structures with long maturities (exceeding e.g. 35 years) or in currencies where the interest rate curve is not considered liquid for all maturities.

Due to the nature of MuniFin Group's funding portfolio (i.e. issued bonds are hedged back-to-back), if a swap that is hedging an issued bond is designated as a level 3 instrument, then the issued bond will also be designated as a level 3 instrument. Same principle applies to other portfolios and levels of the hierarchy as well. The Group does not hold other assets or liabilities which are measured at fair value or assets or liabilities which are non-recurringly measured at fair value.

The following table presents financial instruments by the level of the fair value hierarchy into which the fair value measurement is categorised.

Financial assets 31 Dec 2023 (EUR 1,000)	Carrying amount	Fair value Level 1	Level 2	Level 3	Total
At fair value					
Fair value through other comprehensive income					
Debt securities	369,669	369,669	-	-	369,669
Designated at fair value through profit or loss					
Loans and advances to the public and public sector entities	30,326	-	30,326	-	30,326
Debt securities	3,200,340	3,153,086	47,254	-	3,200,340
Mandatorily at fair value through profit or loss					
Loans and advances to the public and public sector entities	27,482	-	-	27,482	27,482
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	312,957	-	304,492	8,464	312,957
Derivative contracts in hedge accounting	1,543,813	-	1,543,813	-	1,543,813
Total at fair value	**5,484,587**	**3,522,755**	**1,925,886**	**35,946**	**5,484,587**
In fair value hedge accounting					
Amortised cost					
Loans and advances to the public and public sector entities	11,320,629	-	11,872,370	-	11,872,370
Total in fair value hedge accounting	**11,320,629**	**-**	**11,872,370**	**-**	**11,872,370**
At amortised cost					
Cash and balances with central banks	2	2	-	-	2
Loans and advances to credit institutions	9,187,071	8,126,158	1,060,913	-	9,187,071
Loans and advances to the public and public sector entities	19,584,757	-	20,816,584	-	20,816,584
Debt securities	1,574,954	-	1,575,066	-	1,575,066
Other assets	1,048,412	-	1,048,412	-	1,048,412
Total at amortised cost	**31,395,197**	**8,126,160**	**24,500,975**	**-**	**32,627,136**
Total financial assets	**48,200,413**	**11,648,915**	**38,299,231**	**35,946**	**49,984,093**

Financial liabilities 31 Dec 2023 (EUR 1,000)	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
At fair value					
Designated at fair value through profit or loss					
Liabilities to credit institutions	42,989	-	42,989	-	42,989
Liabilities to the public and public sector entities	1,311,174	-	1,212,590	98,584	1,311,174
Debt securities issued	9,472,387	-	9,178,791	293,596	9,472,387
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	1,157,142	-	1,039,248	117,893	1,157,142
Derivative contracts in hedge accounting	2,215,373	-	2,201,980	13,393	2,215,373
Total at fair value	**14,199,065**	**-**	**13,675,599**	**523,466**	**14,199,065**
In fair value hedge accounting					
Amortised cost					
Liabilities to credit institutions	86,889	-	86,847	-	86,847
Liabilities to the public and public sector entities	1,277,101	-	1,290,050	-	1,290,050
Debt securities issued*	30,841,465	-	30,621,730	184,468	30,806,198
Total in fair value hedge accounting	**32,205,454**	**-**	**31,998,627**	**184,468**	**32,183,095**
At amortised cost					
Liabilities to credit institutions	83,817	-	83,817	-	83,817
Debt securities issued	287,794	-	287,794	-	287,794
Provisions and other liabilities	401,010	-	401,010	-	401,010
Total at amortised cost	**772,622**	**-**	**772,622**	**-**	**772,622**
Total financial liabilities	**47,177,141**	**-**	**46,446,847**	**707,935**	**47,154,781**

* MuniFin Group's fixed-rate benchmark bond issuances are presented on level 2 as these bonds are in fair value hedge accounting with respect to the hedged risk. Valuation of the hedged risk is based on the level 2 inputs. In the Notes of the Financial Statements, the Group's fixed-rate benchmark bonds' fair values are adjusted to reflect fair value based on the quoted prices from Bloomberg. The market price is a level 1 input.

Financial assets 31 Dec 2022 (EUR 1,000)	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
At fair value					
Fair value through other comprehensive income					
Debt securities	167,636	137,695	29,941	-	167,636
Designated at fair value through profit or loss					
Loans and advances to the public and public sector entities	28,432	-	28,432	-	28,432
Debt securities	3,162,034	3,057,135	104,899	-	3,162,034
Mandatorily at fair value through profit or loss					
Loans and advances to the public and public sector entities	31,090	-	-	31,090	31,090
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	504,097	-	489,218	14,880	504,097
Derivative contracts in hedge accounting	2,203,006	-	2,202,335	671	2,203,006
Total at fair value	**6,096,296**	**3,194,830**	**2,854,824**	**46,641**	**6,096,296**
In fair value hedge accounting					
Amortised cost					
Loans and advances to the public and public sector entities	11,622,665	-	12,214,359	-	12,214,359
Total in fair value hedge accounting	**11,622,665**	**-**	**12,214,359**	**-**	**12,214,359**
At amortised cost					
Cash and balances with central banks	2	2	-	-	2
Loans and advances to credit institutions	9,625,488	8,224,415	1,401,072	-	9,625,488
Loans and advances to the public and public sector entities	16,433,133	-	17,466,009	-	17,466,009
Debt securities	1,457,098	-	1,456,713	-	1,456,713
Other assets	1,219,541	-	1,219,541	-	1,219,541
Total at amortised cost	**28,735,262**	**8,224,417**	**21,543,335**	**-**	**29,767,753**
Total financial assets	**46,454,223**	**11,419,247**	**36,612,519**	**46,641**	**48,078,407**

Financial liabilities 31 Dec 2022 (EUR 1,000)	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
At fair value					
Designated at fair value through profit or loss					
Liabilities to credit institutions	3,291	-	3,291	-	3,291
Liabilities to the public and public sector entities	1,318,658	-	1,166,432	152,227	1,318,658
Debt securities issued	10,842,676	-	9,865,856	976,820	10,842,676
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	1,562,525	-	1,222,013	340,512	1,562,525
Derivative contracts in hedge accounting	3,053,586	-	3,047,585	6,001	3,053,586
Total at fair value	**16,780,736**	**-**	**15,305,177**	**1,475,559**	**16,780,736**
In fair value hedge accounting					
Amortised cost					
Liabilities to credit institutions	84,892	-	84,878	-	84,878
Liabilities to the public and public sector entities	1,210,927	-	1,224,889	-	1,224,889
Debt securities issued	24,419,692	-	24,420,879	56,749	24,477,627
Total in fair value hedge accounting	**25,715,510**	**-**	**25,730,646**	**56,749**	**25,787,395**
At amortised cost					
Liabilities to credit institutions	2,244,440	-	2,244,440	-	2,244,440
Debt securities issued	329,698	-	329,698	-	329,698
Provisions and other liabilities	574,192	-	574,192	-	574,192
Total at amortised cost	**3,148,329**	**-**	**3,148,329**	**-**	**3,148,329**
Total financial liabilities	**45,644,576**	**-**	**44,184,153**	**1,532,308**	**45,716,461**

All valuation models, both complex and simple models, use market prices and other inputs. These market prices and inputs comprise interest rates, FX rates, volatilities, correlations etc. The Group applies different types of valuation inputs depending on the type and complexity of the instruments and the related risk factors and payoff structures. The Group's defined categorisation to the fair value hierarchy levels is based on the analysis performed with regards to the valuation input, stress testing (reasonable possible alternative assumption) and model complexity. If the inputs used to measure fair value are categorised into different levels on the fair value hierarchy, the fair value measurement is categorised in its entirety on the level of the lowest level input that is significant to the entire measurement.

IFRS 13 classifies valuation models and techniques into three different categories: market approach, income approach and cost approach. The Group applies the market-based approach when the instrument has a functioning market and public price quotations are available. The Group uses the market approach for the valuation of investment bonds of the liquidity portfolio. For all level 1 assets, the Group uses market prices available for identical assets (same ISIN). The Group does not make use of prices for comparable assets.

Income approach is applied when valuation is based, for example, on determining the present value of future cash flows (discounting). Valuation methods take into account an assessment of the credit risk, discount rates used, the possibility of early repayment and other factors that influence the fair value of a financial instrument reliably. The Group uses the income approach for many of its financial instruments, for example derivatives, lending and funding. The Group does not use the cost approach for the valuation of any of its financial instruments.

The Group uses widely recognised valuation models to determine the fair value of common and simple financial instruments, such as interest rate and currency swaps, that use only observable market data and require little management judgement and estimation. Observable prices or model inputs are usually available in the market for listed debt and equity securities and simple OTC derivatives such as interest rate swaps. The availability of observable market prices and model inputs reduces the need for management judgement and estimation and reduces the uncertainty associated with determining fair values. The availability of observable market prices and inputs varies depending on the products and markets and is prone to changes based on specific events and general conditions in the financial markets.

MuniFin Group applies different models in order to derive the fair values of certain types of instruments. The choice of base models and model calibration depends on the complexity of the financial instrument and the observability of the relevant inputs. In line with market practice, the primary choice of base model is contingent on the underlying instrument classes. Additionally, instruments are broken down into different categories granular enough to capture the most important risk drivers and different kinds of calibration techniques. The specific combination of base models and the different assumptions and calibration techniques are documented. The Group's fair value instruments that are subject to mark-to-model valuation techniques consist of four asset classes:

- Interest rate instruments,
- FX instruments,
- Equity-linked instruments and
- Hybrid instruments.

Financial instruments under *FX, equity-linked* and *hybrid* classes are mainly classified as level 3 instruments.

Fair value of financial instruments is generally calculated as the net present value of the individual instruments. This calculation is supplemented by counterparty level adjustments. The Group incorporates credit valuation adjustments (*CVA*) and debit valuation adjustments (*DVA*) into derivative valuations. CVA reflects the impact of the counterparty's credit risk on fair value and DVA MuniFin Group's own credit quality. The Group uses the same methodology to compute CVA and DVA. They are both assessed as the result of three inputs: Loss Given Default (*LGD*), Probability of Default (*PD*, own for DVA and of the counterparty for CVA) and Expected Exposure (*EE*). In addition, the Group calculates Funding Valuation Adjustment for those derivative contracts that do not hold cash collateral arrangements (derivatives made with MuniFin Group's customers).

Valuation framework

MuniFin Group has implemented a framework for the arrangements, activities and procedures with regards to the Group's model risk management. The purpose of the model risk management framework is to ensure the effective management of model risk and mitigation of fair value uncertainty, as well as to ensure compliance with external and internal requirements. The Group ensures that all aspects of the lifecycle of valuation models (i.e. approval, design and development, testing and maintenance, monitoring and execution) are subject to effective governance, clear roles and responsibilities and effective internal control.

The Group manages and maintains a model inventory which provides a holistic view of all valuation models, their business purpose and characteristics as well as their applications and conditions for use. All approved valuation models within the model inventory are subject to annual review and re-approval by the Risk Management and Compliance Management Team.

The Finance Management Team acts as a valuation control group for MuniFin Group's fair values and is responsible for the final approval of the Group's fair values for financial reporting. The Finance Management Team monitors and controls MuniFin Group's valuation process and the performance of valuation models, decides on the necessary measures and reports to the Executive Management Team (*EMT*). The Finance Management Team assesses whether the valuation models and valuation process provide sufficiently accurate information to be used in financial reporting and, based on the information received, decides on possible adjustments to the values generated by the valuation process.

The Group has implemented an efficient control and performance monitoring framework with regards to its valuation models, which aims to ensure the accuracy and appropriateness of model output. Model performance monitoring consists of four main controls:

- Counterparty valuation control (*CVC*),
- Fair value explanation,
- Independent price verification (*IPV*) and
- Independent model validation.

Counterparty valuation control (*CVC*) is performed daily by Risk Management with the purpose to assess any deviations in valuation model output compared to MuniFin Group's own earlier valuations and to counterparty valuations. The results of the assessment are reported monthly to the CFO and quarterly to the Finance Management Team. Fair value explanation process consists of a daily analysis and explanation of the changes in fair values by Risk Management and a monthly fair value explanation report to the CFO and quarterly to the Finance Management Team. The independent price verification is performed monthly as a part of MuniFin Group's IPV process by a third party service provider. The results of the control activities are reported monthly to the CFO and quarterly to the Finance Management Team. The independent model validation is performed annually for a subset of MuniFin Group's valuation models by a third-party service provider. The results of the model validation are reported to the Finance Management Team.

Transfers in the fair value hierarchy

MuniFin Group assesses the appropriateness and correctness of the categorisation with regards to the fair value hierarchy classification at initial recognition and at the end of each reporting period. This is to determine the initial classification of a level 1, 2 and 3 instrument and the subsequent potential transfers between levels within the fair value hierarchy. A transfer between the fair value hierarchies can occur for example when a previously assumed observed input requires an adjustment using an unobservable input. The procedure is the same for transfers into and out of the fair value levels. Transfers between the levels are considered to take place at the end of the quarter during which an event causes such a transfer or when circumstances change.

During 2023, transfers totaling EUR 71,534 thousand have been made between level 1 and level 2. During 2023, total of EUR 2,426 thousand were transferred from level 2 to level 3 financial instruments.

Level 3 transfers 2023 (EUR 1,000)	1 Jan 2023	Change in fair value in the income statement	Purchases and new contracts	Sales and matured contracts	Transfers into level 3	Transfers out of level 3	31 Dec 2023
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	31,090	-3,609	-	-	-	-	27,482
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	14,880	-3,418	-	-2,998	-	-	8,464
Derivative contracts in hedge accounting	671	-	-	-	-	-671	-
Financial assets in total	**46,641**	**-7,026**	**-**	**-2,998**	**-**	**-671**	**35,946**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	152,227	3,983	-	-57,626	-	-	98,584
Debt securities issued	976,820	-6,020	-	-677,204	-	-	293,596
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	340,512	-11,412	-	-211,206	-	-	117,893
Derivative contracts in hedge accounting	6,001	808	8,738	-	654	-2,808	13,393
In fair value hedge accounting							
Amortised cost							
Debt securities issued	56,749	2,718	153,022	-	1,772	-29,792	184,468
Financial liabilities in total	**1,532,308**	**-9,923**	**161,760**	**-946,036**	**2,426**	**-32,601**	**707,935**
Level 3 financial assets and liabilities in total*	**1,578,949**	**-16,949**	**161,760**	**-949,034**	**2,426**	**-33,272**	**743,881**

* The Group recognises these gains and losses within the line item *Net income on financial instruments at fair value through profit or loss*. The fair value change due to changes in own credit risk of financial liabilities designated at fair value through profit or loss is recognised in the other comprehensive income.

During 2022, transfers totalling EUR 9,270 thousand were made between level 1 and level 2. There were no transfers from level 2 to level 3.

Level 3 transfers 2022 (EUR 1,000)	1 Jan 2022	Change in fair value in the income statement	Purchases and new contracts	Sales and matured contracts	Transfers into level 3	Transfers out of level 3	31 Dec 2022
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	34,861	-3,649	-	-121	-	-	31,090
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	62,829	-42,509	687	-5,415	-	-713	14,880
Derivative contracts in hedge accounting	407	515	66	-	-	-317	671
Financial assets in total	**98,097**	**-45,643**	**753**	**-5,536**	**-**	**-1,030**	**46,641**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	263,793	-46,923	-	-	-	-64,643	152,227
Debt securities issued	1,759,569	-122,696	180,471	-796,670	-	-43,855	976,820
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	744,299	150,724	20,607	-569,309	-	-5,809	340,512
Derivative contracts in hedge accounting	25,690	-1,179	2,884	-133	-	-21,260	6,001
In fair value hedge accounting							
Amortised cost							
Debt securities issued	86,040	1,491	26,047	-3,066	-	-53,764	56,749
Financial liabilities in total	**2,879,390**	**-18,583**	**230,009**	**-1,369,177**	**-**	**-189,331**	**1,532,308**
Level 3 financial assets and liabilities in total	**2,977,487**	**-64,226**	**230,762**	**-1,374,713**	**-**	**-190,361**	**1,578,949**

Sensitivity analysis of unobservable inputs

Sensitivity analysis illustrates the impact of the reasonably possible assumptions on the fair value of financial instruments for which valuation is dependent on unobservable inputs. However, it is unlikely in practice that all unobservable inputs would simultaneously move to extremes of reasonably possible alternatives used in the sensitivity analysis. Hence, the impact of the sensitivity analysis disclosed in this Note is likely to be greater than the true uncertainty in the fair values at the financial statement date. Furthermore, the disclosure is neither predictive nor indicative of future movements in the fair value of financial instruments.

Although the Group believes that its estimates of fair value are appropriate, the use of different methodologies or assumptions could lead to different measurements of fair value. For fair value measurements on level 3, changing one or more of the assumptions to the reasonably possible alternative assumptions would have the following effects: as of 31 December 2023, these assumptions could have increased fair values by EUR 21.2 million (EUR 60.6 million) or decreased fair values by EUR 21.1 million (EUR 71.1 million).

Sensitivity analysis of significant unobservable inputs by instrument type (EUR 1,000)	Positive range of fair value 2023	Negative range of fair value 2023	Positive range of fair value 2022	Negative range of fair value 2022
Loans and advances to the public and public sector entities				
Loans	-26	-81	249	-273
Derivative contracts				
Equity-linked derivatives	668	-641	18,117	-22,052
FX-linked cross currency and interest rate derivatives	860	-970	834	-1,318
Other interest rate derivatives	9,975	-10,115	11,726	-11,860
Debt securities issued and Liabilities to the public and public sector entities				
Equity-linked liabilities	726	-590	16,927	-23,275
FX-linked liabilities	737	-650	834	-990
Other liabilities	8,310	-8,093	11,919	-11,327
Total	**21,250**	**-21,141**	**60,606**	**-71,095**

The behaviour of the fair value of the unobservable inputs on level 3 is not necessarily independent, and dynamic relationships often exist between the unobservable inputs and the observable inputs. Such relationships, where material to the fair value of a given instrument, are controlled via pricing models or valuation techniques. MuniFin Group uses stochastic models to generate a distribution of future cash flows of each financial instrument. The future cash flows are then discounted back to present to get the fair value of each financial instrument. The stochastic models used by the Group are Hull-White model and Dupire volatility model.

The unobservable inputs used by the Group are described next. The unobservable inputs are used only to the extent that no relevant observable inputs are available.

Correlation parameters

If the fair value of a financial instrument is impacted by more than one unobservable input, correlations describe the relationship between these different underlyings. For example for equity-linked instruments, correlation has a significant impact on fair value, if the underlying is dependent on more than one equity. For FX-linked cross currency and interest rate derivatives, correlations exist between FX rates of currencies, which impact the fair value of the financial instrument. If a high correlation exists between the unobservable inputs, it will lead to an increase in fair value. A low correlation between the unobservable inputs will lead to a decrease in fair value. MuniFin Group has financial instruments, in which correlation is a significant unobservable input, mainly in funding products and their hedging instruments.

Volatility (extrapolated or illiquid)

A financial instrument whose value is based on a stochastic model will typically require the volatility of the underlying instrument as an input. The Group uses Dupire local volatility model as its stochastic valuation model. For interest rate volatilities at-the-money implied volatility is used. For FX and equity components (both equity indices and single stock prices), a full volatility surface is used that includes quotes for different strikes and maturities. The Group uses implied volatility for the majority of the equity-linked structures. In some cases no liquid volatility surface exists. In these cases, a proxy volatility is typically used instead. The majority of the financial instruments, which use volatility as a significant unobservable input, are the Group's funding products and their hedging instruments.

Dividend yield

The main drivers influencing the fair value of equity-linked instruments are dividend yield and volatility of the underlying equities. Equity-linked instruments require a dividend parameter as an input to the fair value. The equity component is modelled using the Dupire local volatility model where the underlying equity prices are assumed to follow a random walk. Instruments that have dividend yield as a significant unobservable input are the Group's funding products and their hedging instruments.

Interest rates (extrapolated or illiquid)

The Group uses unobservable inputs in defining fair value of complex interest rate structures. The future cash flows and their fair value is determined by using forward rates and volatilities of the underlying interest rates using Hull-White stochastic model. Financial instruments whose payoffs are dependent on the value of complex interest rate structures are categorised on level 3. The majority of these instruments requiring extrapolated or illiquid interest rates as input are the Group's funding products and their hedging instruments.

The following table illustrates the effect that changing one or more of the assumptions in the unobservable input (reasonably possible alternative assumptions) could have on the valuations at the financial statement date.

Sensitivity analysis of unobservable inputs 31 Dec 2023 (EUR 1,000)	Fair value	Valuation technique	Unobservable input	Positive range of fair value	Negative range of fair value
Loans and advances to the public and public sector entities					
Loans	27,482	Stochastic model	Volatility – Extrapolated or Illiquid	-26	-81
Derivative contracts					
			Correlation parameters	7	-20
Equity-linked derivatives	-21,211	Stochastic model	Volatility – Extrapolated or Illiquid	627	-607
			Dividend yield	34	-14
			Correlation parameters	125	-111
FX-linked cross currency and interest rate derivatives	-244	Stochastic model	Volatility – Extrapolated or Illiquid	735	-859
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	0	0
Other interest rate derivatives	-101,367	Stochastic model	Volatility – Extrapolated or Illiquid	9,267	-9,408
			Interest rates – Extrapolated or Illiquid	708	-708
Debt securities issued and Liabilities to the public and public sector entities					
			Correlation parameters	24	8
Equity-linked liabilities	79,794	Stochastic model	Volatility – Extrapolated or Illiquid	658	-562
			Dividend yield	44	-36
			Correlation parameters	80	-73
FX-linked liabilities	107,163	Stochastic model	Volatility – Extrapolated or Illiquid	657	-577
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	2	-2
Other liabilities	389,692	Stochastic model	Volatility – Extrapolated or Illiquid	8,277	-8,060
			Interest rates – Extrapolated or Illiquid	31	-31
Total				**21,250**	**-21,141**

Sensitivity analysis of unobservable inputs 31 Dec 2022 (EUR 1,000)	Fair value	Valuation technique	Unobservable input	Positive range of fair value	Negative range of fair value
Loans and advances to the public and public sector entities					
Loans	31,090	Stochastic model	Volatility – Extrapolated or Illiquid	249	-273
Derivative contracts					
			Correlation parameters	-1,743	-1,906
Equity-linked derivatives	-104,317	Stochastic model	Volatility – Extrapolated or Illiquid	21,290	-17,708
			Dividend yield	-1,430	-2,438
			Correlation parameters	-11	-121
FX-linked cross currency and interest rate derivatives	-120,294	Stochastic model	Volatility – Extrapolated or Illiquid	845	-1,197
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	80	14
Other interest rate derivatives	-106,351	Stochastic model	Volatility – Extrapolated or Illiquid	11,510	-11,736
			Interest rates – Extrapolated or Illiquid	136	-138
Debt securities issued and Liabilities to the public and public sector entities					
			Correlation parameters	569	-194
Equity-linked liabilities	676,238	Stochastic model	Volatility – Extrapolated or Illiquid	15,511	-22,611
			Dividend yield	847	-470
			Correlation parameters	-36	-133
FX-linked liabilities	170,030	Stochastic model	Volatility – Extrapolated or Illiquid	870	-857
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	0	0
Other liabilities	339,527	Stochastic model	Volatility – Extrapolated or Illiquid	11,876	-11,285
			Interest rates – Extrapolated or Illiquid	43	-43
Total				**60,606**	**-71,095**

Day 1 gain or loss (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Opening balance in the beginning of the reporting period	-392	-236
Recognised gain in the income statement	-	498
Recognised loss in the income statement	-470	-470
Deferred gain or loss on new transactions	512	-184
Total at the end of the reporting period	**-350**	**-392**

The definition and amortisation method for the Day 1 gain or loss is presented in the accounting policies (Note *1*) in Section *13. Determination of fair value*.

Note 17. Breakdown of financial assets and liabilities at carrying amount by maturity

Financial assets 31 Dec 2023 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Cash and balances with central banks	2	-	-	-	-	2
Loans and advances to credit institutions	9,132,917	25,000	29,155	-	-	9,187,071
Loans and advances to the public and public sector entities	419,905	1,522,408	7,641,310	7,016,007	14,363,565	30,963,194
*, of which leased assets**	*8,056*	*25,793*	*78,191*	*64,743*	*206,381*	*383,163*
Debt securities	1,710,671	521,613	2,418,010	494,669	-	5,144,963
Derivative contracts	-5,159	60,275	591,362	774,062	436,229	1,856,769
Other assets**	1,048,412	-	-	-	-	1,048,412
Total	**12,306,749**	**2,129,297**	**10,679,836**	**8,284,737**	**14,799,794**	**48,200,413**

* Line item includes leased assets for which the Group applies fair value hedge accounting. Unhedged leased assets are not presented in this note of the financial assets and liabilities by maturity, as leased assets are not regarded as financial assets for the purpose of IFRS 9 classification.

** Line item includes cash collateral given to central counterparties.

Financial liabilities 31 Dec 2023 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Liabilities to credit institutions	83,817	-	56,101	55,819	17,959	213,695
Liabilities to the public and public sector entities	84,957	138,723	972,626	549,697	842,273	2,588,275
Debt securities issued	6,167,913	4,401,266	22,518,036	6,056,018	1,458,415	40,601,646
Derivative contracts	205,672	265,043	1,459,565	865,120	577,115	3,372,514
Provisions and other liabilities*	392,619	1,142	5,374	1,876	-	401,010
, of which lease liabilities	*446*	*1,142*	*5,374*	*1,876*	-	*8,837*
Total	**6,934,977**	**4,806,173**	**25,011,701**	**7,528,528**	**2,895,761**	**47,177,141**

* Line item includes cash collateral received from central counterparties and lease liabilities in accordance with IFRS 16 standard.

Liabilities and hedging derivative contracts that may be called before maturity have been classified in the maturity class corresponding to the first possible call date. The Group estimates it will call 10–45% of its callable liabilities in 2024. In 2023, the Group called 32% of its callable liabilities.

Financial assets 31 Dec 2022 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Cash and balances with central banks	2	-	-	-	-	2
Loans and advances to credit institutions	9,593,235	-	32,253	-	-	9,625,488
Loans and advances to the public and public sector entities	398,680	1,473,568	6,922,458	6,460,287	12,860,328	28,115,321
, of which leased assets	*7,465*	*20,979*	*76,516*	*51,821*	*117,272*	*274,053*
Debt securities	1,377,556	858,617	2,407,751	142,843	-	4,786,768
Derivative contracts	181,535	138,338	609,483	1,117,589	660,158	2,707,103
Other assets	1,219,541	-	-	-	-	1,219,541
Total	**12,770,551**	**2,470,523**	**9,971,945**	**7,720,719**	**13,520,486**	**46,454,223**

Financial liabilities 31 Dec 2022 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Liabilities to credit institutions	2,244,440	-	54,986	15,806	17,391	2,332,623
Liabilities to the public and public sector entities	152,794	77,633	862,967	665,161	771,031	2,529,585
Debt securities issued	7,377,026	3,390,051	18,464,896	4,415,718	1,944,375	35,592,065
Derivative contracts	565,161	263,843	1,753,642	1,160,809	872,656	4,616,111
Provisions and other liabilities	571,403	1,415	1,374	-	-	574,192
, of which lease liabilities	*480*	*1,415*	*1,374*	-	-	*3,269*
Total	**10,910,824**	**3,732,942**	**21,137,865**	**6,257,493**	**3,605,452**	**45,644,576**

Liabilities and hedging derivatives that may be called before maturity have been classified in the maturity class corresponding to the first possible call date. In 2022, the Group called 19% of its callable liabilities.

Note 18. Offsetting financial assets and liabilities

The following financial assets and liabilities are subject to enforceable master netting agreements:

Cash given as collateral is included on the statement of financial position on line *Loans and advances to credit institutions*, excluding cash given as collateral to central counterparties, which is presented on line *Other assets*. Cash received as collateral is included on the statement of financial position on line *Liabilities to credit institutions*, excluding cash received from central counterparties, which is presented on line *Provisions and other liabilities.*

				Amounts not offset in the statement of financial position		
31 Dec 2023 (EUR 1,000)	Carrying amount, gross	Offset in the statement of financial position, gross	Carrying amount, net	Received cash collateral*	Given cash collateral**	Net
Financial assets						
Derivative contracts	1,856,769	-	1,856,769	473,813	-	1,382,957
Total	**1,856,769**	**-**	**1,856,769**	**473,813**	**-**	**1,382,957**
Financial liabilities						
Derivative contracts	3,372,514	-	3,372,514	-	2,109,359	1,263,156
Repurchase agreements	-	-	-	-	-	-
Total	**3,372,514**	**-**	**3,372,514**	**-**	**2,109,359**	**1,263,156**

* Includes EUR 392,173 thousand of cash collateral received from central counterparties.

** Includes EUR 1,048,419 thousand of cash collateral given to central counterparties. In addition,The Group has given debt securities as collateral to central counterparty, in total nominal value of EUR 70,000 thousand.

The Group has not offset any financial assets or liabilities in its statement of financial position in 2023.

31 Dec 2022 (EUR 1,000)	Carrying amount, gross	Offset in the statement of financial position, gross	Carrying amount, net	Amounts not offset in the statement of financial position: Received cash collateral*	Given cash collateral**	Net
Financial assets						
Derivative contracts	2,707,103	-	2,707,103	815,362	-	1,891,741
Total	**2,707,103**	**-**	**2,707,103**	**815,362**	**-**	**1,891,741**
Financial liabilities						
Derivative contracts	4,616,111	-	4,616,111	-	2,620,364	1,995,746
Repurchase agreements***	-	-	-	-	514	-514
Total	**4,616,111**	**-**	**4,616,111**	**-**	**2,620,878**	**1,995,232**

* Includes EUR 570,922 thousand of cash collateral received from central counterparties.

** Includes EUR 1,219,744 thousand of cash collateral given to central counterparties. In addition, the Group has given debt securities as collateral to central counterparty, in total nominal value of EUR 25,000 thousand.

*** At the financial statement date 31 Dec 2022,the Group has given cash collateral related to repurchase agreements.

The Group has not offset any financial assets or liabilities in its statement of financial position in 2022.

Note 19. Cash and cash equivalents

31 Dec 2023 (EUR 1,000)	Total	Cash and cash equivalents	Expected credit losses
Cash	2	2	-
Central bank deposits payable on demand	0	0	-
Cash and balances with central banks	**2**	**2**	**-**
Loans and advances to credit institutions payable on demand	63,211	63,212	0
Total cash and cash equivalents	**63,214**	**63,214**	**0**

31 Dec 2022 (EUR 1,000)	Total	Cash and cash equivalents	Expected credit losses
Cash	2	2	-
Central bank deposits payable on demand	-	-	-
Cash and balances with central banks	**2**	**2**	**-**
Loans and advances to credit institutions payable on demand	48,622	48,622	0
Total cash and cash equivalents	**48,624**	**48,624**	**0**

Note 20. Loans and advances to credit institutions

31 Dec 2023 (EUR 1,000)	Payable on demand	Other than payable on demand	Expected credit losses	Total
Receivables from central bank	-	7,988,793	-1	7,988,792
Domestic credit institutions	61,552	224,100	-49	285,603
Foreign credit institutions	1,659	911,040	-23	912,676
Total	**63,212**	**9,123,933**	**-73**	**9,187,071**

31 Dec 2022 (EUR 1,000)	Payable on demand	Other than payable on demand	Expected credit losses	Total
Receivables from central bank	-	8,143,541	0	8,143,541
Domestic credit institutions	30,045	154,000	-47	183,997
Foreign credit institutions	18,578	1,279,434	-61	1,297,950
Total	**48,622**	**9,576,975**	**-109**	**9,625,488**

Note 21. Loans and advances to the public and public sector entities

	31 Dec 2023		31 Dec 2022	
(EUR 1,000)	Total	, of which expected credit losses	Total	, of which expected credit losses
Enterprises and housing corporations	16,355,584	-2,051	14,862,774	-595
Public sector entities	13,880,309	-136	12,635,898	-173
Non-profit organisations	344,137	-20	342,595	-3
Leased assets	1,441,686	-29	1,303,094	-28
Total	**32,021,717**	**-2,237**	**29,144,361**	**-800**

Note 22. Debt securities

Debt securities issued by public sector entities 31 Dec 2023 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses*
Amortised cost	**-**	**1,317,912**	**1,317,912**	**-1**
Commercial papers issued by other public sector entities	-	1,317,912	1,317,912	-1
Fair value through other comprehensive income	**15,164**	**-**	**15,164**	**-**
Bonds issued by other public sector entities	15,164	-	15,164	-
Designated at fair value through profit or loss	**1,445,863**	**-**	**1,445,863**	**-**
Government bonds	157,259	-	157,259	-
Bonds issued by other public sector entities	1,288,604	-	1,288,604	0
Total	**1,461,027**	**1,317,912**	**2,778,939**	**-1**
, of which eligible for central bank refinancing	*1,279,266*	-	*1,279,266*	*-1*

Debt securities issued by other than public sector entities 31 Dec 2023 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses*
Amortised cost	**-**	**257,042**	**257,042**	**0**
Commercial papers	-	257,042	257,042	0
Fair value through other comprehensive income	**354,505**	**-**	**354,505**	**-42**
Bank bonds	354,505	-	354,505	-42
Designated at fair value through profit or loss	**1,754,477**	**-**	**1,754,477**	**-**
Bank bonds	1,754,477	-	1,754,477	-
Total	**2,108,982**	**257,042**	**2,366,024**	**-42**
, of which eligible for central bank refinancing	*1,862,506*	-	*1,862,506*	*-37*

31 Dec 2023 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses*
Debt securities total	**3,570,009**	**1,574,954**	**5,144,963**	**-43**

* The expected credit losses have been recognised on debt securities, which have been classified at fair value through other comprehensive income. Therefore, the expected credit losses are not recognised as a deduction from the gross carrying amount of the debt securities in the statement of financial position, but through other comprehensive income to the fair value reserve as described in the accounting policies (Note *1*) in Section *9.4 Presentation of allowance for ECL in the statement of financial position.*

At the financial statement date 31 Dec 2023, the Group has given debt securities as collateral to the central counterparty, in total nominal value of EUR 70,000 thousand (EUR 25,000 thousand).

At the financial statement date 31 Dec 2023 or at the comparison date, MuniFin Group has no debt securities measured mandatorily at fair value through profit or loss.

Debt securities issued by public sector entities 31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**1,246,325**	**1,246,325**	**-1**
Commercial papers issued by other public sector entities	-	1,246,325	1,246,325	-1
Fair value through other comprehensive income	**58,487**	**-**	**58,487**	**0**
Bonds issued by other public sector entities	58,487	-	58,487	0
Designated at fair value through profit or loss	**1,438,177**	**-**	**1,438,177**	**-**
Government bonds	120,539	-	120,539	-
Bonds issued by other public sector entities	1,317,638	-	1,317,638	-
Total	**1,496,664**	**1,246,325**	**2,742,990**	**-1**
, of which eligible for central bank refinancing	*1,286,322*	-	*1,286,322*	*0*

Debt securities issued by other than public sector entities 31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**210,773**	**210,773**	**0**
Commercial papers	-	210,773	210,773	0
Fair value through other comprehensive income	**109,149**	**-**	**109,149**	**-44**
Bank bonds	109,149	-	109,149	-44
Designated at fair value through profit or loss	**1,723,856**	**-**	**1,723,856**	**-**
Bank bonds	1,723,856	-	1,723,856	-
Total	**1,833,005**	**210,773**	**2,043,778**	**-44**
, of which eligible for central bank refinancing	*1,603,853*	-	*1,603,853*	*-31*

31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Debt securities total	**3,329,670**	**1,457,098**	**4,786,768**	**-45**

Note 23. Derivative contracts

	Nominal value of underlying instrument					
	Remaining maturity				Fair value	
31 Dec 2023 (EUR 1,000)	Less than 1 year	1–5 years	Over 5 years	Total	Positive	Negative
Derivative contracts in hedge accounting						
Interest rate derivatives						
Interest rate swaps	4,082,331	11,468,301	18,991,507	34,542,139	1,148,245	-1,581,581
, of which cleared by the central counterparty	*3,967,376*	*11,288,451*	*18,280,451*	*33,536,278*	*1,114,996*	*-1,563,069*
Currency derivatives						
Cross currency interest rate swaps	1,838,537	10,963,203	479,835	13,281,574	395,568	-633,792
Total derivative contracts in hedge accounting	**5,920,868**	**22,431,503**	**19,471,342**	**47,823,713**	**1,543,813**	**-2,215,373**
Derivative contracts at fair value through profit or loss						
Interest rate derivatives						
Interest rate swaps	4,387,178	11,024,261	4,300,134	19,711,573	257,271	-831,692
, of which cleared by the central counterparty	*3,211,225*	*8,099,203*	*1,540,172*	*12,850,600*	*173,241*	*-32,697*
Interest rate options	-	-	-	-	-	-
Currency derivatives						
Cross currency interest rate swaps	335,671	2,845,363	69,179	3,250,213	52,741	-203,865
Forward exchange contracts	3,890,874	-	-	3,890,874	2,919	-100,348
Equity derivatives	85,340	-	-	85,340	26	-21,237
Total derivative contracts at fair value through profit or loss	**8,699,063**	**13,869,624**	**4,369,313**	**26,938,000**	**312,957**	**-1,157,142**
Total derivative contracts	**14,619,930**	**36,301,128**	**23,840,655**	**74,761,713**	**1,856,769**	**-3,372,514**

Line item *Derivative contracts at fair value through profit or loss* contains all derivatives of the Group which are not included in hedge accounting, even if they are entered into for risk management purposes. The category contains derivative contracts used for hedging financial assets and liabilities designated at fair value through profit or loss, all derivative contracts with municipal sector and all derivative contracts hedging derivatives with municipal sector. In addition to these, the category contains derivative contracts used for hedging interest rate risk of the balance sheet, for which no hedged item has been specified.

Interest accruals from derivative contracts are included in the statement of financial position line items *Accrued income and prepayments* and *Accrued expenses and deferred income*.

31 Dec 2022 (EUR 1,000)	Nominal value of underlying instrument				Fair value	
	Remaining maturity					
	Less than 1 year	1–5 years	Over 5 years	Total	Positive	Negative
Derivative contracts in hedge accounting						
Interest rate derivatives						
Interest rate swaps	3,087,053	10,930,604	19,669,762	33,687,419	1,608,625	-2,279,032
, of which cleared by the central counterparty	*2,897,220*	*10,592,658*	*18,932,859*	*32,422,737*	*1,546,169*	*-2,240,748*
Currency derivatives						
Cross currency interest rate swaps	3,853,324	8,258,495	455,462	12,567,281	594,381	-774,553
Total derivative contracts in hedge accounting	**6,940,378**	**19,189,099**	**20,125,224**	**46,254,701**	**2,203,006**	**-3,053,586**
Derivative contracts at fair value through profit or loss						
Interest rate derivatives						
Interest rate swaps	5,726,233	8,177,909	4,368,751	18,272,893	411,500	-1,084,554
, of which cleared by the central counterparty	*4,157,199*	*5,759,356*	*1,501,085*	*11,417,640*	*320,535*	*-7,895*
Interest rate options	40,000	-	-	40,000	94	-94
Currency derivatives						
Cross currency interest rate swaps	1,200,762	2,704,383	78,336	3,983,481	81,658	-226,389
Forward exchange contracts	4,591,665	-	-	4,591,665	10,848	-147,174
Equity derivatives	732,900	-	-	732,900	-2	-104,314
Total derivative contracts at fair value through profit or loss	**12,291,560**	**10,882,292**	**4,447,087**	**27,620,939**	**504,097**	**-1,562,525**
Total derivative contracts	**19,231,938**	**30,071,391**	**24,572,311**	**73,875,640**	**2,707,103**	**-4,616,111**

Note 24. Hedge accounting

The interest rate and foreign exchange rate risk of the Group are managed by entering into derivative transactions. According to the Market Risk Policy, the Group's hedging strategy is mainly to hedge all material foreign exchange and interest rate risks of financial assets and liabilities with maturities exceeding one year. As a result, foreign currency denominated items are translated into euros, and fixed rate and long-term reference rates are swapped to floating interest rates with shorter terms. The risk management principles related to the Group' s hedging of market risk are described in more detail in Note *2 Risk Management principles and the Group's risk position.*

The Group applies both fair value hedge accounting according to IFRS 9 and fair value portfolio hedge accounting according to IAS 39. The Group does not apply cash flow hedge accounting. Accounting policies related to hedge accounting are described in the accounting polices (Note *1*) in Section *10. Hedge Accounting*.

In the following table, the hedged assets and liabilities are presented according to statement of financial position line items divided into IAS 39 portfolio hedge accounting and IFRS 9 fair value hedge accounting, which is further subdivided into whether hedging is subject to the separation of the Cost-of-Hedging.

Hedge accounting 31 Dec 2023 (EUR 1,000)	Nominal value	Fair value hedge accounting total	IAS 39 portfolio hedge accounting	IFRS 9 fair value hedge accounting	IFRS 9 fair value hedge accounting incl. Cost-of-Hedging
Assets					
Loans and advances to the public and public sector entities – Loans	11,843,871	10,937,466	10,877,199	60,267	-
Loans and advances to the public and public sector entities – Leased assets	395,417	383,163	-	383,163	-
Total assets	**12,239,288**	**11,320,629**	**10,877,199**	**443,430**	**-**
Liabilities					
Liabilities to credit institutions	95,000	86,889	-	86,889	-
Liabilities to the public and public sector entities	1,287,710	1,277,101	-	1,277,101	-
Debt securities issued	32,537,103	30,841,465	-	17,950,427	12,891,038
Total liabilities	**33,919,813**	**32,205,454**	**-**	**19,314,416**	**12,891,038**

Hedge accounting 31 Dec 2022 (EUR 1,000)	Nominal value	Fair value hedge accounting total	IAS 39 portfolio hedge accounting	IFRS 9 fair value hedge accounting	IFRS 9 fair value hedge accounting incl. Cost-of-Hedging
Assets					
Loans and advances to the public and public sector entities – Loans	12,826,877	11,348,612	11,289,353	59,259	-
Loans and advances to the public and public sector entities – Leased assets	302,864	274,053	-	274,053	-
Total assets	**13,129,741**	**11,622,665**	**11,289,353**	**333,313**	**-**
Liabilities					
Liabilities to credit institutions	95,000	84,892	-	84,892	-
Liabilities to the public and public sector entities	1,302,710	1,210,927	-	1,210,927	-
Debt securities issued	27,163,444	24,419,692	-	12,603,372	11,816,320
Total liabilities	**28,561,154**	**25,715,510**	**-**	**13,899,190**	**11,816,320**

The figures presented in the adjacent table contain the cumulative fair value change at the beginning and end of the financial year, in addition to the fair value change of the hedged risk and the hedging instrument during the financial year. These figures presented in the table do not include the changes in fair value due to foreign exchange differences of hedging instruments and the hedged items. Due to the aforementioned reason, the total amount of hedging instruments does not correspond to the fair value presented in Note 23 *Derivatives* on line *Total derivative contracts in hedge accounting*. The fair value changes of the hedged risk of the hedged items and all other fair value changes of the hedging instruments are recognised in the income statement under *Net income on financial instruments at fair value through profit or loss*. The ineffective portion of the hedging relationship is thus shown on this line in the income statement. Net income on financial instruments at fair value through profit or loss is specified in Note *5*.

In accordance with the market practice and IFRS 13 standard, the Group discounts hedged items with the swap curve and the hedging derivatives with the OIS curve, which causes a significant part of the Group's hedge ineffectiveness. In addition, ineffectiveness may also arise to some extent from differences in notional, day count methods or timing of the cash flows.

Value of hedged risk (EUR 1,000)	31 Dec 2023	1 Jan 2023	Recognised in the income statement Jan–Dec 2023	31 Dec 2022	1 Jan 2022	Recognised in the income statement Jan–Dec 2022
Assets						
IAS 39 portfolio hedge accounting						
Loans and advances to the public and public sector entities	-907,319	-1,476,553	569,233	-1,476,553	122,505	-1,599,058
Derivative contracts in hedge accounting	969,754	1,549,315	-579,561	1,549,315	-78,911	1,628,226
Accumulated fair value accrual from the termination of hedge accounting	-1,652	-1,721	69	-1,721	218	-1,939
IAS 39 portfolio hedge accounting, net	**60,783**	**71,041**	**-10,258**	**71,041**	**43,812**	**27,229**
IFRS 9 fair value hedge accounting						
Loans and advances to the public and public sector entities	-10,422	-29,402	18,980	-29,402	25,414	-54,816
Derivative contracts in hedge accounting	9,060	28,548	-19,488	28,548	-25,669	54,217
IFRS 9 fair value hedge accounting, net	**-1,362**	**-855**	**-507**	**-855**	**-255**	**-599**
Liabilities						
IFRS 9 fair value hedge accounting						
Liabilities to credit institutions	8,111	10,108	-1,997	10,108	-5,120	15,228
Liabilities to the public and public sector entities	4,425	54,570	-50,145	54,570	-340,433	395,003
Debt securities issued	1,407,537	2,559,950	-1,152,413	2,559,950	-171,028	2,730,978
Derivative contracts in hedge accounting	-1,442,656	-2,631,089	1,188,433	-2,631,089	500,306	-3,131,395
IFRS 9 fair value hedge accounting, net	**-22,583**	**-6,461**	**-16,122**	**-6,461**	**-16,275**	**9,814**
IBOR reform related compensations*	-3,603	-3,343	-260	-3,343	-3,343	0
Total hedge accounting	**33,235**	**60,382**	**-27,147**	**60,382**	**23,938**	**36,444**

* Compensations relate to the IBOR reform of which more information is presented in the accounting policies (Note *1*) in Section *23. IBOR reform.*

The adjacent table presents the impact of Cost-of-Hedging of cross currency derivatives on equity in the *Cost-of-Hedging reserve*. The figures are presented net of deferred taxes. For all foreign currency hedge relationships the Group has elected to utilise Cost-of-Hedging. For each hedge relationship, when the cross currency swap is designated as a hedging instrument, the cross currency basis spread is separated and excluded from the designation and accounted for as Cost-of-Hedging.

The difference between the changes in fair value of the actual derivative and the designated portion of the derivative are recorded in other comprehensive income as Cost-of-Hedging to the *Cost-of-Hedging reserve*. Thus, changes in cross currency basis spreads will impact other comprehensive income and do not create ineffectiveness in the hedge relationship.

Hedging impact on equity (EUR 1,000)	31 Dec 2023	1 Jan 2023	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	21,821	1,488	20,334
Total	**21,821**	**1,488**	**20,334**

Hedging impact on equity (EUR 1,000)	31 Dec 2022	1 Jan 2022	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	1,488	13,621	-12,133
Total	**1,488**	**13,621**	**-12,133**

The following table presents the cumulative effectiveness of hedge accounting by hedged items. In addition, the table shows the hedging instruments used.

Effectiveness of hedge accounting 31 Dec 2023 (EUR 1,000)

Hedged item	Hedging instruments	Gains/losses attributable to the hedged risk: Hedged items	Gains/losses attributable to the hedged risk: Hedging instruments	Hedge ineffectiveness
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	-907,319	969,754	62,435
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	1,829	-1,608	222
Fixed rate and revisable rate leased assets	Interest rate derivatives	-12,251	10,668	-1,584
Assets total		**-917,742**	**978,814**	**61,072**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	1,105,788	-1,132,380	-26,592
Financial liabilities denominated in foreign currencies	Currency derivatives (Cross currency interest rate swaps) Interest rate derivatives	314,285	-310,277	4,009
Liabilities total		**1,420,073**	**-1,442,656**	**-22,583**

Effectiveness of hedge accounting 31 Dec 2022 (EUR 1,000)

Hedged item	Hedging instruments	Gains/losses attributable to the hedged risk: Hedged items	Gains/losses attributable to the hedged risk: Hedging instruments	Hedge ineffectiveness
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	-1,476,553	1,549,315	72,762
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	-595	1,043	449
Fixed rate and revisable rate leased assets	Interest rate derivatives	-28,808	27,504	-1,304
Assets total		**-1,505,955**	**1,577,862**	**71,907**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	1,967,231	-1,972,437	-5,207
Financial liabilities denominated in foreign currencies	Currency derivatives (Cross currency interest rate swaps) Interest rate derivatives	657,397	-658,652	-1,255
Liabilities total		**2,624,628**	**-2,631,089**	**-6,461**

Note 25. Credit risks of financial assets and other commitments

MuniFin Group's credit risks are described in Note *2 Risk management principles and the Group's risk position* in Section *7. Credit Risk*. The accounting policies of the expected credit loss calculations and impairment stages are described in the accounting policies (Note 1) in Section *9. Impairment of financial assets.*

The following table presents exposures under expected credit loss calculations by asset groups and impairment stages.

Exposures by asset groups and impairment stages	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 3*			
31 Dec 2023 (EUR 1,000)	Gross carrying amount	12-month ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Expected credit losses
Cash and balances with central banks at amortised cost	2	-	-	-	-	-	2	-
Loans and advances to credit institutions at amortised cost	9,187,071	-73	-	-	-	-	9,187,071	-73
Loans and advances to the public and public sector entities at amortised cost	28,859,061	-122	1,523,016	-1,872	140,146	-214	30,522,223	-2,207
Leased assets in Loans and advances to the public and public sector entities at amortised cost	1,420,162	-8	21,524	-21	-	-	1,441,686	-29
Debt securities at amortised cost	1,573,802	-1	1,152	0	-	-	1,574,954	-1
Debt securities at fair value through other comprehensive income	369,669	-42	-	-	-	-	369,669	-42
Cash collateral to CCPs in Other assets at amortised cost	1,048,412	-6	-	-	-	-	1,048,412	-6
Credit commitments (off-balance sheet)	3,017,822	-15	53,406	0	-	-	3,071,212	-15
Total	**45,476,002**	**-267**	**1,599,099**	**-1,894**	**140,146**	**-214**	**47,215,230**	**-2,375**

* The Group has collateral and guarantee arrangements that fully cover the stage 3 receivables as described in Note *2 Risk management principles and the Group's risk position* in Section *7. Credit risk*. The Group's management expects that all the stage 3 receivables will be recovered and no final credit loss will emerge. Stage 3 receivables include EUR 2,031 thousand (EUR 2,144 thousand) of originated credit impaired receivables (*Purchased or Originated Credit Impaired, POCI*). Expected credit losses for the POCI receivables amount to EUR 3 thousand (EUR 8 thousand).

Exposures by asset groups and impairment stages	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 3			
31 Dec 2022 (EUR 1,000)	Gross carrying amount	12-month ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Expected credit losses
Cash and balances with central banks at amortised cost	2	-	-	-	-	-	2	-
Loans and advances to credit institutions at amortised cost	9,625,488	-109	-	-	-	-	9,625,488	-109
Loans and advances to the public and public sector entities at amortised cost	27,277,326	-89	497,729	-662	6,690	-21	27,781,745	-772
Leased assets in Loans and advances to the public and public sector entities at amortised cost	1,283,297	-6	19,655	-22	142	0	1,303,094	-28
Debt securities at amortised cost	1,457,098	-1	-	-	-	-	1,457,098	-1
Debt securities at fair value through other comprehensive income	167,636	-44	-	-	-	-	167,636	-44
Cash collateral to CCPs in Other assets at amortised cost	1,219,541	-203	-	-	-	-	1,219,541	-203
Credit commitments (off-balance sheet)	2,447,573	-11	16,392	-2	-	-	2,463,964	-14
Total	**43,477,961**	**-464**	**533,776**	**-686**	**6,832**	**-21**	**44,018,569**	**-1,171**

The following table presents a summary of total changes and reconciliation of expected credit losses by impairment stages during the financial year.

Total expected credit losses by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-464**	**-686**	**-21**	**-1,171**	**44,018,569**
New assets originated or purchased	-60	-65	0	-126	9,306,770
Assets derecognised or repaid (excluding write-offs)	87	31	18	136	-6,108,899
Transfers to Stage 1	-1	88	-	87	87
Transfers to Stage 2	2	-40	-	-38	-38
Transfers to Stage 3	0	0	-65	-65	-65
Additional provision (*Management overlay*)	-	-625	-	-625	-625
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models* and inputs** used for ECL calculations	168	-596	-145	-573	-569
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2023	**-267**	**-1,894**	**-214**	**-2,375**	**47,215,230**

* Represents changes in the model.
** Represents changes to model parameters (e.g. GDP rates, unemployment rates).

MuniFin Group has updated in the first half of 2023 the probability of defaults according to the update cycle. In addition, macro scenarios were updated to take into account forward-looking information at the end of the financial year. At the same time, the recovery rates used in loss given default calculations as well as loss given default for certain customer segments were updated. The expected lossed increased by EUR 573 thousand due to the changes in models and parameters.

The Group has assessed the impact of rapidly increased interest rate environment on its receivables from customer financing and on credit risk. At the end of June 2023, the Group's management decided to record an additional discretionary provision of EUR 609 thousand based on a group-specific assessment as some customers may face challenges in the sufficiency of cash flows during the second half of 2023. At the end of the financial year 2023, the Group's management assessed again the need of additional discretionary provision and recognised an additional provision of EUR 16 thousand. Based on the Group's assessment some customers may face challenges in the sufficiency of cash flows during the first half of 2024, which may appear in increased payment delays and forbearances for MuniFin Group. The total amount of additional discretionary provision based on a group-specific assessment was EUR 625 thousand at the end of 2023. The additional discretionary provision relates to the balance sheet item *Loans and advances to the public and public sector entities*. The additional discretionary provision has not been allocated to the contract level.

MuniFin Group's total credit risk has still remained low, and the amount of ECL remains low. The rising interest rate levels and inflation weakened the housing sector customers' ability to pay, which showed a slight increase in payment delays, forbearance measures and in the weakening of creditworthiness. MuniFin Group's customer exposures have zero risk weight in the capital adequacy calculation as they are from Finnish municipalities, joint municipal authorities, wellbeing services counties, or involve a municipality, joint municipal authority, wellbeing services county's guarantee or a state deficiency guarantee supplementing the real estate collateral. The Group's management estimates that all receivables will be recovered in full and therefore no final credit loss will arise. On 31 December 2023, MuniFin Group had no guarantee receivables from the public sector (EUR 4 million) due to the insolvency of customers. Credit risk of the liquidity portfolio has remained on a good quality level and the average rating of debt securities in the portfolio was AA+ (AA+).

Total expected credit losses by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-166**	**-578**	**-546**	**-1,289**	**43,092,161**
New assets originated or purchased	-361	357	-1	-5	17,324,241
Assets derecognised or repaid (excluding write-offs)	95	7	77	179	-16,397,777
Transfers to Stage 1	-1	496	-	496	496
Transfers to Stage 2	1	-575	18	-556	-556
Transfers to Stage 3	0	-	0	0	0
Additional provision (*Management overlay*)	-	-	430	430	430
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-32	-394	0	-426	-426
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2022	**-464**	**-686**	**-21**	**-1,171**	**44,018,568**

The following tables present changes and reconciliation of expected credit losses by impairment stages and asset groups during the financial year.

Expected credit losses on Cash and balances with central banks at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-**	**-**	**-**	**-**	**2**
New assets originated or purchased	-	-	-	-	0
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	0
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2023	**-**	**-**	**-**	**-**	**2**

Expected credit losses on Cash and balances with central banks at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**0**	**-**	**-**	**0**	**8,399,045**
New assets originated or purchased	-	-	-	-	-
Assets derecognised or repaid (excluding write-offs)	0	-	-	0	-8,399,043
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2022	**-**	**-**	**-**	**-**	**2**

Expected credit losses on Loans and advances to credit institutions at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-109**	**-**	**-**	**-109**	**9,625,488**
New assets originated or purchased	-4	-	-	-4	380,576
Assets derecognised or repaid (excluding write-offs)	46	-	-	46	-818,987
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-6	-	-	-6	-6
Total 31 Dec 2023	**-73**	**-**	**-**	**-73**	**9,187,071**

Expected credit losses on Loans and advances to credit institutions at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-82**	**-**	**-**	**-82**	**1,417,310**
New assets originated or purchased	-85	-	-	-85	9,112,062
Assets derecognised or repaid (excluding write-offs)	62	-	-	62	-903,880
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-3	-	-	-3	-3
Total 31 Dec 2022	**-109**	**-**	**-**	**-109**	**9,625,488**

Expected credit losses on Loans and advances to the public and public sector entities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-89**	**-662**	**-21**	**-772**	**27,781,745**
New assets originated or purchased	-20	-65	0	-85	4,320,154
Assets derecognised or repaid (excluding write-offs)	3	12	18	34	-1,578,291
Transfers to Stage 1	-1	87	-	86	86
Transfers to Stage 2	2	-38	-	-36	-36
Transfers to Stage 3	0	0	-65	-65	-65
Additional provision (*Management overlay*)	-	-625	-	-625	-625
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-18	-582	-145	-745	-745
Write-offs	-	-	-	-	-
Total 31 Dec 2023	**-122**	**-1,872**	**-214**	**-2,207**	**30,522,223**

Expected credit losses on Loans and advances to the public and public sector entities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-23**	**-578**	**-546**	**-1,147**	**27,805,752**
New assets originated or purchased	-42	357	-1	314	3,871,298
Assets derecognised or repaid (excluding write-offs)	2	4	77	84	-3,895,282
Transfers to Stage 1	-1	496	-	496	496
Transfers to Stage 2	0	-573	18	-554	-554
Transfers to Stage 3	0	-	0	0	0
Additional provision (*Management overlay*)	-	-	430	430	430
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-25	-370	0	-395	-395
Write-offs	-	-	-	-	-
Total 31 Dec 2022	**-89**	**-662**	**-21**	**-772**	**27,781,745**

Expected credit losses on Leased assets in Loans and advances to the public and public sector entities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-6**	**-22**	**0**	**-28**	**1,303,094**
New assets originated or purchased	-1	0	-	-1	212,400
Assets derecognised or repaid (excluding write-offs)	0	16	0	16	-73,791
Transfers to Stage 1	-	1	-	1	1
Transfers to Stage 2	0	-2	-	-2	-2
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-1	-14	0	-15	-15
Total 31 Dec 2023	**-8**	**-21**	**0**	**-29**	**1,441,686**

Expected credit losses on Leased assets in Loans and advances to the public and public sector entities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-2**	**-**	**0**	**-2**	**1,334,146**
New assets originated or purchased	-5	0	0	-5	242,148
Assets derecognised or repaid (excluding write-offs)	2	-	-	2	-273,177
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	0	0	-	0	0
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-2	-22	-	-23	-23
Total 31 Dec 2022	**-6**	**-22**	**0**	**-28**	**1,303,094**

Expected credit losses on Debt securities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-1**	**-**	**-**	**-1**	**1,457,098**
New assets originated or purchased	-1	0	-	-1	1,574,954
Assets derecognised or repaid (excluding write-offs)	1	-	-	1	-1,457,098
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	0	-	-	0	0
Total 31 Dec 2023	**-1**	**0**	**-**	**-1**	**1,574,954**

Expected credit losses on Debt securities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**0**	**0**	**-**	**0**	**1,088,888**
New assets originated or purchased	-1	-	-	-1	1,457,098
Assets derecognised or repaid (excluding write-offs)	0	0	-	0	-1,088,888
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2022	**-1**	**-**	**-**	**-1**	**1,457,098**

Expected credit losses on Debt securities at fair value through other comprehensive income by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-44**	**-**	**-**	**-44**	**167,636**
New assets originated or purchased	-22	-	-	-22	267,084
Assets derecognised or repaid (excluding write-offs)	27	-	-	27	-65,051
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-3	-	-	-3	
Total 31 Dec 2023	**-42**	**-**	**-**	**-42**	**369,669**

The loss allowance on debt instruments classified at fair value through comprehensive income is recognised in the fair value reserve. The accumulated loss allowance is recognised to the profit or loss upon derecognition of the assets. More details regarding presentation of allowance for expected credit losses is presented in the accounting policies in Note *1* in Section *9.4 Presentation of allowance for ECL in the statement of financial position*.

Expected credit losses on Debt securities at fair value through other comprehensive income by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-41**	**-**	**-**	**-41**	**213,466**
New assets originated or purchased	-28	-	-	-28	52,770
Assets derecognised or repaid (excluding write-offs)	26	-	-	26	-98,599
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-1	-	-	-1	
Total 31 Dec 2022	**-44**	**-**	**-**	**-44**	**167,636**

Expected credit losses on Cash collateral to CCPs in Other assets at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-203**	**-**	**-**	**-203**	**1,219,541**
New assets originated or purchased	-	-	-	-	45,000
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-216,326
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	197	-	-	197	197
Total 31 Dec 2023	**-6**	**-**	**-**	**-6**	**1,048,412**

Expected credit losses on Cash collateral to CCPs in Other assets at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-13**	**-**	**-**	**-13**	**238,930**
New assets originated or purchased	-190	-	-	-190	980,611
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2022	**-203**	**-**	**-**	**-203**	**1,219,541**

Expected credit losses on Guarantee receivables from the public and public sector entities in Other assets by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-**	**-**	**-**	**-**	**-**
New assets originated or purchased	-	-	-	-	-
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2023	**-**	**-**	**-**	**-**	**-**

Expected credit losses on Guarantee receivables from the public and public sector entities in Other assets by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-**	**-**	**-**	**-**	**1,752**
New assets originated or purchased	-	-	-	-	-
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-1,752
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2022	**-**	**-**	**-**	**-**	**-**

Expected credit losses on Credit commitments (off-balance sheet) by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-11**	**-2**	**-**	**-14**	**2,463,964**
New assets originated or purchased	-12	0	-	-12	2,506,600
Assets derecognised or repaid (excluding write-offs)	9	2	-	11	-1,899,352
Transfers to Stage 1	0	0	-	0	
Transfers to Stage 2	0	0	-	0	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	0	0	-	0	
Total 31 Dec 2023	**-15**	**0**	**-**	**-15**	**3,071,212**

The loss allowance on binding credit commitments is recognised under *Other liabilities*. More details regarding presentation of allowance for expected credit losses is presented in the accounting policies in Note *1* in Section *9.4 Presentation of allowance for ECL in the statement of financial position*.

Expected credit losses on Credit commitments (off-balance sheet) by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-4**	**0**	**0**	**-4**	**2,592,873**
New assets originated or purchased	-9	0	-	-9	1,608,248
Assets derecognised or repaid (excluding write-offs)	3	2	0	5	-1,737,157
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	0	-2	-	-2	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-1	-2	-	-4	
Total 31 Dec 2022	**-11**	**-2**	**-**	**-14**	**2,463,964**

Forward-looking information

In the assessment of whether the credit risk of an instrument has significantly increased (*SICR*) and in the measurement of expected credit losses, forward-looking information and macroeconomic scenarios are included in the model. These macroeconomic projections cover a period of 3 years and as no reliable macroeconomic projections exceeding a three-year time horizon are available, forward-looking adjustment will be limited to a three-year period. Mainly three scenarios are used; base, optimistic and adverse. Scenarios include probability weights. The scenario probability weightings are described in the adjacent table.

	31 Dec 2023			31 Dec 2022		
Scenario	**2024**	**2025**	**2026**	**2023**	**2024**	**2025**
Adverse	40%	40%	40%	30%	30%	30%
Base	50%	50%	50%	60%	60%	60%
Optimistic	10%	10%	10%	10%	10%	10%

MuniFin Group has identified key drivers of credit losses for each portfolio that share similar kinds of credit risk characteristics and estimated the relationship between macroeconomic variables and credit losses. The ECL model consists of the following macroeconomic variables for Finnish counterparties of financial assets: Finnish government long-term interest rates, the development of residential housing prices and unemployment rate. For non-Finnish financial assets, stress test scenarios published by the European Central Bank are employed in the model and scenario parameters. Each variable covers an estimate over a period of three years. The adjacent table presents the macroeconomic variables and their forecasts over the three-year forecast period.

		31 Dec 2023			31 Dec 2022		
Macroeconomic variables	**Scenario**	**2024**	**2025**	**2026**	**2023**	**2024**	**2025**
10Y Fin Government rate, %	Adverse	3.8	3.7	3.7	4.0	3.6	3.4
	Base	3.5	3.5	3.4	3.2	3.1	3.2
	Optimistic	3.3	3.2	3.2	2.2	1.9	1.8
Residential Real Estate (selling price, YoY change), %	Adverse	-13.0	-2.0	3.0	-13.0	0.0	2.0
	Base	-1.0	4.0	2.5	-2.0	2.0	1.5
	Optimistic	2.5	4.0	2.5	0.0	3.0	2.5
Unemployment rate, %	Adverse	9.9	9.6	8.5	9.5	9.0	8.5
	Base	7.7	7.4	7.0	7.4	7.3	6.8
	Optimistic	7.1	6.1	5.8	6.5	6.0	5.8

The rapid tightening of monetary policy and geopolitical tensions have weakened the global economic outlook. The Eurozone has already slipped into a low-growth phase, and growth is expected to remain very slow through 2024. Inflation is slowing down but is still projected to average above the ECB's 2 % target level next year. There remains a considerable amount of uncertainty related to inflation, including factors such as energy prices and significant wage increases. Monetary policy tightening has been felt more prominently in Finland, and the economic downturn is deeper than in the Eurozone as a whole. The economy is expected to experience a mild recession from H2/2023 to H1/2024. Finland's GDP is expected to contract 0.3% in 2024. Cyclical recovery along with investments in the green transition are seen to accelerate GDP growth to 2% in 2025, after which the economy converges to its long-term growth trajectory. Significant increases in unemployment are not expected, as several sectors continue to face a shortage of labor. Average yearly unemployment rate is expected to peak at 7.7% in 2024 and remain elevated above 7% in 2025–2026. The prices of owner-occupied apartments in major cities, on average, are expected to decrease by 7% in 2023. The recovery of the real estate market begins in 2024, but the annual average prices continue to decline slightly. The cooling economic conditions, a clear deceleration in inflation, and the already significant tightening of financial conditions justify the view that the ECB will not raise policy rates from their current levels. However, due to inflation uncertainty, interest rate cuts are expected to begin only around mid-2024 and continue moderately into 2025.

In comparison to the baseline scenario, the optimistic scenario envisions a less severe economic impact from high inflation and tightening financial conditions. In this scenario, the projected growth of the Finnish GDP is 1.3% in 2024 and 2.7% in 2025. The unemployment rate is expected to continue its gradual decline throughout the forecast period from 2024 to 2027. Consumer price inflation is forecasted to cool down to 2.0% in 2024 and remain just below 2% over the subsequent three years. Housing demand is projected to recover in 2024, with home prices expected to rise by 2.5% from the previous year. Home price inflation is anticipated to accelerate to 4.0% in 2025, followed by a moderation to a 2.5% level in annual price gains. Due to the faster-than-expected recovery in aggregate demand, the ECB is anticipated to lower interest rates more gradually than in the baseline scenario.

The adverse scenario depicts an outcome wherein monetary tightening ultimately instigates a synchronized downturn in the global economy. Both Finland and the entire Eurozone endure a profound recession that commenced in the latter half of 2023, persisting well into 2025. Unemployment experiences a substantial surge and maintains elevated levels throughout the forecast period. The contraction in aggregate demand exacerbates deflationary pressures in the economy, resulting in a more rapid cooling of inflation compared to the baseline scenario. Lower inflation, coupled with formidable economic headwinds, prompts an abrupt shift in monetary policy. The ECB initiates a series of multiple rate cuts in 2024 and continues to pursue monetary easing throughout 2025. The diminished demand in the housing market leads to a sharp decline in home prices. The prolonged global recession induces tensions in financial markets, causing wider risk premia in asset pricing. Poor economic performance and the mounting public debt significantly elevate the Finnish-German interest rate differential.

The following table presents the sensitivity of the expected credit losses to the forward-looking information assuming 100% weight for adverse scenario until 2024 (2023).

	31 Dec 2023			31 Dec 2022	
Sensitivity analysis (EUR 1,000)	**Weighted scenario**	**Adverse scenario (100%)**	**Excluding weighted scenario**	**Weighted scenario**	**Adverse scenario (100%)**
ECL	1,750	2,414	1,618	1,171	1,547
Proportion of the exposure in Stage 2 and 3	3.94%	5.10%	3.78%	1.27%	2.57%

The sensitivity analysis does not include the additional discretionary provisions (*management overlay*).

Non-performing and forborne exposures

Non-performing and forborne exposures refer to receivables that are more than 90 days past due, other receivables classified as risky and forborne exposures due to the customer's financial difficulties.

Non-performing and forborne exposures 31 Dec 2023 (EUR 1,000)	Performing exposures (gross)	Non-performing exposures (gross)	Total exposures (gross)	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	7,491	7,491	-36	7,454
Unlikely to be paid	-	19,037	19,037	-59	18,978
Forborne exposures	377,463	113,832	491,295	-570	490,725
Total	**377,463**	**140,359**	**517,823**	**-666**	**517,157**

Non-performing and forborne exposures 31 Dec 2022 (EUR 1,000)	Performing exposures (gross)	Non-performing exposures (gross)	Total exposures (gross)	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	4,087	4,087	-13	4,074
Unlikely to be paid	-	509	509	0	509
Forborne exposures	77,268	2,513	79,780	-478	79,303
Total	**77,268**	**7,110**	**84,377**	**-491**	**83,886**

Forbearance measures are concessions to original contractual payment terms agreed at the customers' initiative to help the customer through temporary payment difficulties. Performing forborne exposures include forborne exposures reclassified as performing during their probation period or forbearance measures made into a performing loan. Loan modifications due to reasons other than the customer's financial difficulties are not classified as forborne exposures. The Group considers a loan forborne when such concessions or modifications are provided as a result of the borrower's present or expected financial difficulties and the Group would not have agreed to them if the borrower had been financially healthy.

The COVID-19 pandemic affected the financial situation and liquidity of MuniFin Group's customers. The Group therefore offered concessions to the payment terms of loans to those customers whose finances had been temporarily affected by the pandemic. During 2023 there were no forbearances due to the COVID-19 pandemic and in 2022 there were only a few individual extensions of repayment holidays. The uncollected installments were mainly transferred to the end of the loan term to be paid in connection with the last installment. No lease concessions were granted to the Group's leasing customers.

Russia's invasion of Ukraine has had no direct impact on MuniFin Group's customers or receivables. The inflation and rising interest rate levels appeared, and may continue to appear as increased forbearance measures, payment delays and as a deterioration of the customers' creditworthiness.

Realised credit losses

The Group has not had any final realised credit losses during the financial year or the comparison year.

Note 26. Intangible assets

(EUR 1,000)	31 Dec 2023	31 Dec 2022
IT systems	6,311	8,831
, of which assets not yet available for use	*432*	*1,050*
Total	**6,311**	**8,831**

The intangible assets not yet available for use consist of ongoing development projects of IT systems. The principles of MuniFin Group's impairment testing for intangible assets not yet available for use are described in the accounting policies (Note *1*) in Section *15. Intangible assets*.

Note 27. Tangible assets

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Real estate	299	299
Office renovation expenses	2	5
Right-of-use assets	8,792	3,198
Other tangible assets	555	1,559
Total	**9,648**	**5,062**

Increase in right-of-use assets is mainly due to the new lease agreement for MuniFin Group's office space.

Note 28. Changes in intangible and tangible assets during the financial year

	Intangible assets	Tangible assets			
Jan–Dec 2023 (EUR 1,000)	**Total**	**Real estate**	**Other tangible assets**	**Right-of-use assets**	**Total**
Acquisition cost 1 Jan	28,074	299	7,230	9,818	17,347
+ Additions	940	-	7	8,013	8,020
- Disposals	-	-	-759	-2,425	-3,184
Acquisition cost 31 Dec	29,014	299	6,478	15,406	22,183
Accumulated depreciation and impairment charges 1 Jan	19,243	-	5,665	6,620	12,285
- Accumulated depreciation on disposals	-	-	-739	-2,090	-2,829
+ Depreciation according to plan	3,460	-	995	2,084	3,079
+/- Impairment and reversals	-	-	-	-	-
Accumulated depreciation and impairment charges 31 Dec	22,703	-	5,920	6,614	12,535
Carrying amount 31 Dec	**6,311**	**299**	**557**	**8,792**	**9,648**

Jan–Dec 2022 (EUR 1,000)	Intangible assets Total	Tangible assets Real estate	Other tangible assets	Right-of-use assets	Total
Acquisition cost 1 Jan	39,841	299	8,585	9,335	18,219
+ Additions	3,988	-	16	614	630
- Disposals	-15,755	-	-1,371	-131	-1,502
Acquisition cost 31 Dec	28,074	299	7,230	9,818	17,347
Accumulated depreciation and impairment charges 1 Jan	27,545	-	5,835	4,893	10,728
- Accumulated depreciation on disposals	-710	-	-1,302	-112	-1,413
+ Depreciation according to plan	2,890	-	1,132	1,839	2,971
+/- Impairment and reversals*	-10,482	-	-	-	-
Accumulated depreciation and impairment charges 31 Dec	19,243	-	5,665	6,620	12,285
Carrying amount 31 Dec	**8,831**	**299**	**1,565**	**3,198**	**5,062**

* The line item includes a non-recurring item of impairment of EUR -10,482 thousand on MuniFin's significant terminated IT system implementation.

Note 29. Other assets

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Invoiced leasing payments	23,506	11,391
Given cash collateral to CCPs*	1,048,412	1,219,541
Other	1,966	3,878
Total	**1,073,885**	**1,234,810**

* Cash collaterals include expected credit losses amounting to EUR 6 thousand (EUR 203 thousand).

The Group did not have receivables related to payment transfers as at 31 Dec 2023 or at 31 Dec 2022.

Note 30. Accrued income and prepayments

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Accrued interest income	415,388	218,417
Other accrued income	18,095	7
Prepayments	2,499	4,680
Total	**435,982**	**223,104**

Note 31. Deferred tax

Deferred tax assets (EUR 1,000)	1 Jan 2023	Recognised in the income statement	Recognised in the other comprehensive income	Recognised in equity	31 Dec 2023
On fair value reserve	763	-	-763	-	-
On right-of-use assets	-	1,767	-	-	1,767
Netting between deferred tax assets and liabilities	-	-1,758	-	-	-1,758
Total	**763**	**9**	**-763**	**-**	**9**

Deferred tax assets (EUR 1,000)	1 Jan 2022	Recognised in the income statement	Recognised in the other comprehensive income	Recognised in equity	31 Dec 2022
On fair value reserve	-	-	763	-	763
Total	**-**	**-**	**763**	**-**	**763**

Deferred tax liabilities (EUR 1,000)	1 Jan 2023	Recognised in the income statement	Recognised in the other comprehensive income	Recognised in equity	31 Dec 2023
On fair value reserve*	-	-	21,028	-	21,028
On change in cumulative depreciation difference	12,582	5,771	-	-	18,353
On change in voluntary provisions	279,136	5,000	-	-	284,136
On reversing the accrued interest of the AT1 capital loan recorded in the Financial Statements of the Parent Company	-	-	-	-	-
On reversing the amortisation of the AT1 capital loan transaction expenses recorded in the Financial Statements of the Parent Company	-	-	-	-	-
On right-of-use assets	-1	1,759	-	-	1,758
Netting between deferred tax assets and liabilities	-	-1,758	-	-	-1,758
Total	**291,717**	**10,772**	**21,028**	**-**	**323,517**

* Line item *On fair value reserve* consists of deferred tax liabilities related to the fair value reserve of investments, own credit valuation reserve, cost-of-hedging reserve and expected credit losses.

Deferred tax liabilities (EUR 1,000)	1 Jan 2022	Recognised in the income statement	Recognised in the other comprehensive income	Recognised in equity	31 Dec 2022
On fair value reserve	3,499	-	-3,499	-	-
On change in cumulative depreciation difference	5,544	7,038	-	-	12,582
On change in voluntary provisions	278,506	630	-	-	279,136
On reversing the accrued interest of the AT1 capital loan recorded in the Financial Statements of the Parent Company	2,365	785	-	-3,150	-
On reversing the amortisation of the AT1 capital loan transaction expenses recorded in the Financial Statements of the Parent Company	-24	24	-	-	-
On right-of-use assets	-1	0	-	-	-1
Total	**289,887**	**8,478**	**-3,499**	**-3,150**	**291,717**

Note 32. Liabilities to credit institutions

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Bilateral loans to credit institutions	129,878	88,183
Liabilities to credit institutions, payable on demand	2,177	-
TLTRO*	-	2,000,000
Received collateral on derivatives	81,640	244,440
Total	**213,695**	**2,332,623**

Note 33. Liabilities to the public and public sector entities

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Notes to the public and public sector entities	2,588,275	2,529,585
Total	**2,588,275**	**2,529,585**

* MuniFin Group participated in the ECB's third series of targeted longer-term refinancing operations that is, the so-called TLTRO III operation in total of EUR 2,000 million. The interest rate until 23 June 2022 was determined based on the net lending review period expired on 31 December 2021. MuniFin Group met the net lending criteria for this period to the lower interest rate and recognised the interest with the -1% rate until 23 June 2022. After the special interest rate periods, the interest rate was determined as the average of the ECB overnight deposit rates to maturity. Additionally, the interest rate terms changed starting from 23 November 2022. Therefore, a new last interest rate period was determined, the interest rate of which is defined as the average of the ECB rates during that last interest rate period. The final interest rate was determined when the TLTRO III debt matured as a weighted average of the interest rates of all the different interest rate periods. In the first half of 2023, the Group dediced to use call option and redeemed TLTRO III debt.

Although the interest rate for the TLTRO III debt described above has been favorable for MuniFin Group, it was assessed not to differ from the Group's other funding price to the extent that the Group would have received a government grant in accordance with IAS 20. Therefore, the Group has treated TLTRO III debt in its entirety as an IFRS 9 financial liability.

Note 34. Debt securities issued

	31 Dec 2023		31 Dec 2022	
(EUR 1,000)	Carrying amount	Nominal value	Carrying amount	Nominal value
Bonds	36,614,320	38,680,909	30,942,233	34,330,170
Other*	3,987,327	4,017,074	4,649,832	4,668,524
Total	**40,601,646**	**42,697,983**	**35,592,065**	**38,998,694**

* Line item contains short-term funding issued by MuniFin.

All funding issued by MuniFin is guaranteed by the Municipal Guarantee Board.

Benchmark issuances during the year 2023	Value date	Maturity date	Interest-%	Nominal value (1,000)	Currency
Fixed rate benchmark bond, issued under the MTN programme	18 Jan 2023	18 Jan 2028	2.875%	1,500,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	22 Feb 2023	25 Sep 2028	3.000%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	26 Apr 2023	29 Jul 2030	3.125%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	13 Jun 2023	15 Dec 2027	4.125%	1,000,000	USD
Fixed rate benchmark bond, issued under the MTN programme	13 Oct 2023	13 Jan 2027	4.875%	1,250,000	USD

In the above table, the benchmark issuances are included by the settlement date. The offering circular is available in English on the website at www.munifin.fi/investor-relations.

MuniFin Group takes into account the guarantee given by the Municipal Guarantee Board in its issued debt securities in the fair value of those financial liabilities on a net basis.

Note 35. Reconciliation of the carrying amount of the issued debt

	2023			2022		
(EUR 1,000)	Liabilities to credit institutions	Liabilities to the public and public sector entities	Debt securities issued	Liabilities to credit institutions	Liabilities to the public and public sector entities	Debt securities issued
Carrying amount 1 Jan	**2,088,183**	**2,529,585**	**35,592,065**	**2,059,906**	**3,324,685**	**35,327,525**
Cash flow changes from operating activities						
Additions to issued debt "bonds"	39,507	25,675	10,011,767	46,609	147,351	7,680,928
Additions to debt securities issued "other"	-	-	24,054,315	-	-	25,303,337
Additions total	**39,507**	**25,675**	**34,066,082**	**46,609**	**147,351**	**32,984,265**
Deductions to issued debt "bonds"	-2,000,000	-91,758	-5,156,649	-	-267,534	-5,541,011
Deductions to debt securities issued "other"	-	-	-24,716,820	-	-	-24,472,759
Deductions total	**-2,000,000**	**-91,758**	**-29,873,469**	**-**	**-267,534**	**-30,013,769**
Cash flow changes from operating activities in total	**-1,960,493**	**-66,084**	**4,192,613**	**46,609**	**-120,183**	**2,970,495**
Changes in the balance sheet value including valuations and FX revaluations	2,188	124,773	816,968	-18,332	-674,917	-2,705,955
Carrying amount 31 Dec	**129,878**	**2,588,275**	**40,601,646**	**2,088,183**	**2,529,585**	**35,592,065**

Note 36. Provisions and other liabilities

(1 000 €)	31 Dec 2023	31 Dec 2022
Provisions		
Other provisions	-	446
Other liabilities		
Lease liabilities	8,837	3,269
Cash collateral taken from CCPs	392,173	570,922
Other	17,265	19,210
Total	**418,275**	**593,848**

Line item *Other provisions* related to a tax interpretation issue for which the Group requested a preliminary ruling and for which the Group received the decision of the Supreme Administrative Court during the first half of 2023. The provision has been reversed on the basis of the received decision..

	Other provisions	
(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Carrying amount at the beginning of the period	446	446
Increase in provisions	-	5,100
Unused amounts reversed	-446	-5,100
Carrying amount at the end of the period	**-**	**446**

During the financial year 2022, increase in provisions and unused amounts reversed related to the IT implementation project, which was terminated in 2022. Unused amounts reversed during the financial year 2023 related to a tax interpretation issue for which the Group requested a preliminary ruling and for which the Group received the decision of the Supreme Administrative Court during the the first half of 2023. The provision has been reversed on the basis of the received decision.

Note 37. Accrued expenses and deferred income

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Accrued interest expenses	431,492	139,779
Other accrued expenses	11,736	8,304
Deferred income*	31,392	18,552
Total	**474,620**	**166,635**

* Item consists mainly of leasing income.

Note 38. Equity

(1,000 EUR)	31 Dec 2023	31 Dec 2022
Share capital	42,583	42,583
Reserve fund	277	277
Fair value reserve of investments	2,052	-4,457
Own credit revaluation reserve	60,238	-83
Cost-of-Hedging reserve	21,821	1,488
Reserve for invested non-restricted equity	40,366	40,366
Retained earnings	1,576,480	1,533,535
Total equity attributable to parent company equity holders	**1,743,817**	**1,613,709**
Total equity	**1,743,817**	**1,613,709**

Share capital and reserve for invested non-restricted equity

The shares of the Parent Company, Municipality Finance Plc, are divided into A and B shares. The two types are equal in terms of voting rights and the distribution of profit. Each share entitles its holder to one vote. The shares have no nominal value. The acquisition of shares is restricted through the consent and redemption clauses of the Articles of Association. All issued shares have been paid in full. Since September 2009, the amount of shares of the Parent Company has been 39,063,798.

The proportion of payment made for shares, which is not recorded in the share capital, is entered in the reserve for invested non-restricted equity. In accordance with the terms of the Parent Company's 2009 share issue, the funds received from MuniFin's share issue in 2009 have been recorded in the reserve for invested non-restricted equity. The reserve for invested non-restricted equity, recognised based on the share issue, is considered as a return of capital at the time of possible distribution of profits, and therefore MuniFin does not count the reserve for invested non-restricted equity as an item for distributable funds. Based on Article 4 of CRR, the reserve for invested non-restricted equity is also considered a non-distributable item.

The share capital and reserve for invested non-restricted equity are classified as restricted equity.

Other reserves in equity

Reserve fund is restricted equity referred to in Chapter 8, Section 1 of the Limited Liability Companies Act. Fair value reserve of investments contains the fair value changes of financial instruments at fair value through other comprehensive income. Own credit revaluation reserve contains the changes in own credit risk of financial liabilities designated at fair value through profit or loss. Cost-of-Hedging reserve contains the impact of Cost-of-Hedging of derivatives in fair value hedge accounting. Fair value reserve of investments, own credit valuation reserve and cost-of-hedging reserve are classified as restricted equity.

Retained earnings contain the profit of previous periods and profit for the period. Retained earnings are classified as unrestricted equity.

Note 39. Contingent assets and liabilities

The Group has no contingent assets or liabilities at 31 Dec 2023 or at the comparison date 31 December 2022.

Note 40. Collateral given

Given collaterals on behalf of own liabilities and commitments (EUR 1,000)	31 Dec 2023	31 Dec 2022
Loans and advances to credit institutions to the counterparties of derivative contracts*	1,060,913	1,400,559
Loans and advances to credit institutions to the counterparties of repurchase agreements**	-	514
Loans and advances to credit institutions to the central bank***	35,152	31,745
Loans and advances to the public and public sector entities to the central bank***	4,598,718	3,676,627
Loans and advances to the public and public sector entities to the Municipal Guarantee Board****	12,701,070	12,101,459
Debt securities to the counterparties of repurchase agreements**	-	9,580
Debt securities to the central counterparty clearing	70,062	24,942
Other assets to the counterparties of derivative contracts*	1,048,412	1,219,541
Total	**19,514,327**	**18,464,967**

* MuniFin Group has pledged collateral to the counterparties of derivative contracts based on the CSA agreements of the derivative contracts (*ISDA/Credit Support Annex*).

** MuniFin Group has pledged collateral to the counterparties of repurchase agreements based on the General Master Repurchase Agreements (*GMRA*).

*** MuniFin is a monetary policy counterparty approved by the central bank (*the Bank of Finland*) and for this purpose, a sufficient amount of collateral has been pledged to the central bank for possible operations related to this counterparty position.

**** MuniFin Group has pledged loans to the Municipal Guarantee Board. The Municipal Guarantee Board guarantees MuniFin's funding and MuniFin places collateral for the Municipal Guarantee Board's guarantees as defined in the Act on the Municipal Guarantee Board.

Collateral given is presented at the carrying amounts of the financial statement date.

Note 41. Off-balance-sheet commitments

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Credit commitments	3,071,228	2,463,978
Total	**3,071,228**	**2,463,978**

Note 42. Related-party transactions

MuniFin Group's related parties include:
- MuniFin's shareholders whose ownership and corresponding voting rights in the Company exceed 20%.
- The key management personnel including the CEO, the Deputy to the CEO, other members of the Executive Management Team, members of the Board of Directors, the spouses, children and dependents of these persons and the children and dependents of these persons' spouses.
- Entities, which are directly or indirectly controlled or jointly controlled by the above-mentioned persons or where these persons have significant influence.
- MuniFin's related party is also its Subsidiary Financial Advisory Services Inspira Ltd.

The Group's operations are restricted by the Act on the Municipal Guarantee Board and the framework agreement concluded between MuniFin and the Municipal Guarantee Board, pursuant to which MuniFin may only grant loans to parties stipulated by law (municipalities, joint municipal authorities, corporations that are wholly owned by municipalities or under their control, wellbeing services counties and joint county authorities for wellbeing services, other units of wellbeing services counties that are wholly owned or under control of wellbeing services county administration and wellbeing services enterprises, and corporations designated by government authorities and engaged in the renting or production and maintenance of housing on social grounds).

The Group has carried out only employment-based remuneration transactions with the related party persons. The Group does not have loan or financial receivables from these related parties. Related party persons employment-based remuneration is described in Note *43 Salaries and remuneration*.

Transactions with Inspira comprise fees related to administrative services, and advisory services MuniFin has purchased from Inspira.

There have been no material changes in the related party transactions and relationships during the financial year.

Transactions with the Subsidiary (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Sales	33	36
Purchases	-124	-145

Intra-group receivables and liabilities (EUR 1,000)	31 Dec 2023	31 Dec 2022
Receivables	3	3
Liabilities	5	25

Note 43. Salaries and remuneration

Employee benefits for management

Salaries and remuneration paid to MuniFin's CEO, Deputy to the CEO and other members of the Executive Management Team subject to withholding tax are described in the table below.

Salaries and remuneration (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
President and CEO	-451	-435
Deputy to the CEO	-239	-272
Other members of the Executive Management Team in total	-1,424	-1,436
Total	**-2,114**	**-2,142**

MuniFin has paid the following statutory pension contributions related to the CEO, the Deputy to the CEO and other members of the Executive Management Team.

Statutory pension contributions (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
President and CEO	-76	-74
Deputy to the CEO	-40	-46
Other members of the Executive Management Team in total	-239	-244
Total	**-354**	**-364**

The salaries and remuneration shown in the table include both the fixed remuneration and paid variable remuneration. According to regulation on credit institutions, the payment of variable remuneration earned each year is delayed and paid over the following years if a person's remuneration exceeds EUR 50,000. More information on the salary and remuneration principles are available on a separate Pillar III Disclosure Report from this Report of the Board of Directors and Financial Statements. Pillar III Disclosure Report is available in English on MuniFin's website.The salaries and remuneration consist of short-term employee benefits excluding termination benefits. Such termination benefits have not occurred in 2023 or 2022.

The Group has provided to those members of the Executive Management Team (*EMT*) that have been appointed as members (including CEO and the Deputy to the CEO) before 21 Dec 2017 with a contribution-based group pension insurance. Members of the EMT are entitled to pension from the insurance after they have turned 63 years.

In the event of a termination of the employment on MuniFin's initiative, the CEO and Deputy to the CEO are entitled to a severance payment of six times the total monthly salary. The period of notice for termination of employment is six months for the CEO and the Deputy to the CEO. Employee benefits for the CEO and the Deputy to the CEO are terminated at the end of the period of notice.

The CEO of MuniFin is Mr Esa Kallio and Executive Vice President Ms Mari Tyster acts as a Deputy to the CEO. Figures reported in this note include remuneration paid to Esa Kallio under President and CEO and respectively remuneration paid to Mari Tyster under Deputy to the CEO. The retirement age for the CEO and the Deputy to the CEO is stipulated by the Employees Pensions Act.

Remuneration of the Board of Directors

During the term 2023–2024, the members of the Board of Directors of the Parent Company are paid an annual remuneration as well as remuneration for each meeting in accordance with the decision of the Annual General Meeting. The annual remuneration is EUR 42,000 for the Chair of the Board, EUR 27,500 for the Vice Chair, EUR 29,500 for the Chairs of Committees and EUR 24,000 for the other members of the Board. The remuneration paid for Board and Committee meetings is EUR 950 per meeting for the Chair of the Board and the Chairs of Committees and EUR 600 per meeting for the other members. In addition, meeting remuneration is paid for the meetings required by the supervisory authorities.

During the term 2022–2023, the members of the Board of Directors of the Parent Company were paid an annual remuneration as well as remuneration for each meeting in accordance with the decision of the Annual General Meeting. The annual remuneration was EUR 40,000 for the Chair of the Board, EUR 26,000 for the Vice Chair, EUR 28,000 for the Chairs of Committees and EUR 23,000 for the other members of the Board. The remuneration paid for Board and Committee meetings was EUR 800 per meeting for the Chair of the Board and the Chairs of Committees and EUR 500 per meeting for the other members. In addition, meeting remuneration was paid for the meetings required by the supervisory authorities.

Salaries and remuneration

The remuneration paid to the management and employees of MuniFin Group consists of a fixed remuneration (base salary and fringe benefits) and a variable remuneration based on the conditions of the remuneration system. Principles of the remuneration system are confirmed by the Board of Directors on an annual basis. The Remuneration Committee of the Board of Directors is responsible for preparatory work concerning the matters of the remuneration system. More information about salaries and remuneration is available on MuniFin's website www.munifin.fi.

Salaries and remuneration (EUR 1,000) Members of the Board of Directors	Jan–Dec 2023	Jan–Dec 2022
Kari Laukkanen, the Chair	-63	-54
Maaria Eriksson, the Vice Chair	-42	-35
Markku Koponen	-45	-43
Vivi Marttila, member until 28 March 2023	-9	-33
Tuomo Mäkinen	-36	-31
Minna Smedsten	-36	-34
Denis Strandell	-34	-34
Leena Vainiomäki	-46	-40
Kimmo Viertola, member until 24 March 2022	-	-7
Arto Vuojolainen, member since 28 March 2023	-27	-
Total	**-339**	**-310**

Note 44. Events after the reporting period

MuniFin's Board of Directors is not aware of any events having taken place after the end of the financial year that would have a material effect on the Group's financial standing.

Parent Company's Financial Statements

MuniFin

Parent Company's income statement

(EUR 1,000)	Note	Jan–Dec 2023	Jan–Dec 2022
Interest income	(2)	2,678,852	701,563
Net income from leasing operations	(3)	38,640	10,177
Interest expense	(2)	-2,458,262	-474,631
Net interest income		**259,230**	**237,109**
Commission income	(5)	977	870
Commission expense	(5)	-15,634	-5,514
Net income on financial instruments at fair value through profit and loss	(6)	-39,461	44,583
Net income on financial assets at fair value through other comprehensive income	(7)	-257	-149
Other operating income	(9)	171	126
HR and administrative expenses		-39,522	-36,071
Personnel expenses	(45)	-19,381	-17,558
Salaries and fees		-16,037	-14,527
Personnel-related costs		-3,344	-3,031
Pension costs		-2,752	-2,526
Other personnel-related costs		-591	-505
Other administrative expenses		-20,141	-18,512
Depreciation and impairment on tangible and intangible assets and on shares	(10)	-6,398	-10,299
Other operating expenses	(11)	-19,350	-19,833
Credit loss and impairments on financial assets	(12)	-1,203	118
Net operating profit		**138,552**	**210,941**
Appropriations		-53,855	-38,342
Income taxes		-17,281	-34,538
Profit for the financial year		**67,416**	**138,061**

In the income statement, where applicable, the Finnish Financial Supervisory Authority's amendments to the *Regulations and Guidelines 2/2016* (valid from 1 Jan 2023) have been taken into account for certain items in the income statement.

The accompanying notes are an integral part of the Financial Statements.

Parent Company's Balance sheet

(EUR 1,000)	Note	31 Dec 2023	31 Dec 2022
Assets			
Cash and balances with central banks	(15)	2	2
Cash		2	2
Central bank receivables payable on demand		0	-
Debt securities eligible for central bank refinancing	(18)	3,141,772	2,890,174
Other		3,141,772	2,890,174
Loans and advances to credit institutions	(16)	9,185,977	9,624,470
Payable on demand		62,117	47,604
Other		9,123,860	9,576,866
Loans and advances to the public and public sector entities	(17)	30,580,031	27,841,267
Leased assets	(19)	1,441,686	1,303,094
Debt securities	(18)	2,003,191	1,896,594
From public sector entities		1,317,913	1,246,326
From others		685,278	650,267
Shares and participations in Group companies	(21)	656	656
Derivative contracts	(22)	1,856,769	2,707,103
Intangible assets	(24, 26)	6,314	8,837
Tangible assets	(25, 26)	9,354	4,835
Other tangible assets		9,354	4,835
Other assets	(27)	1,073,765	1,234,662
Accrued income and prepayments	(28)	435,966	223,088
Deferred tax assets	(29)	8	763
Total assets	**(14, 34, 35, 37, 38)**	**49,735,492**	**47,735,546**

(EUR 1,000)	Note	31 Dec 2023	31 Dec 2022
Liabilities and equity			
Liabilities			
Liabilities to credit institutions and central banks		213,695	2,332,623
To central banks		-	2,000,000
To credit institutions		213,695	332,623
Payable on demand		2,177	-
Other		211,518	332,623
Liabilities to the public and public sector entities		2,588,275	2,529,585
Other liabilities		2,588,275	2,529,585
Other		2,588,275	2,529,585
Debt securities issued	(30)	40,601,646	35,592,065
Bonds		36,614,320	30,942,233
Other		3,987,327	4,649,832
Derivative contracts	(22)	3,372,514	4,616,111
Other liabilities	(31)	417,883	593,547
Other liabilities		417,883	593,101
Provisions		-	446
Accrued expenses and deferred income	(32)	474,256	166,274
Deferred tax liabilities	(29)	21,028	-
Total liabilities	**(14, 34, 35, 37, 38)**	**47,689,297**	**45,830,205**

(EUR 1,000)	Note	31 Dec 2023	31 Dec 2022
Appropriations			
Depreciation difference		91,765	62,910
Taxation based provisions		1,420,680	1,395,680
Total appropriations		**1,512,445**	**1,458,590**
Equity	**(39, 40, 41)**		
Share capital		43,008	43,008
Other restricted reserves		84,388	-2,775
Reserve fund		277	277
Fair value reserve		84,111	-3,052
Change in fair value		84,111	-3,052
Non-restricted reserves		40,743	40,743
Reserve for invested non-restricted equity		40,743	40,743
Retained earnings		298,194	227,714
Profit for the financial year		67,416	138,061
Total equity		**533,750**	**446,750**
Total liabilities and equity		**49,735,492**	**47,735,546**
Off-balance sheet commitments			
Irrevocable commitments given in favour of customer		3,071,228	2,463,978
Other	(44)	3,071,228	2,463,978

The accompanying notes are an integral part of the Financial Statements.

Parent Company's Statement of Cash Flows

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Cash flow from operating activities	**84,680**	**-7,991,589**
Net change in long-term funding	2,782,391	2,063,033
Net change in short-term funding	-719,460	1,103,027
Net change in long-term loans	-2,305,076	-1,637,350
Net change in short-term loans	-107,788	-368,992
Net change in investments	2,566	-7,919,967
Net change in collaterals	166,962	-1,332,255
Interest on assets	1,517,884	97,307
Interest on liabilities	-1,196,347	78,156
Other income	61,460	52,430
Payments of operating expenses	-82,793	-60,259
Taxes paid	-35,120	-66,720
Cash flow from investing activities	**-545**	**-3,550**
Acquisition of tangible assets	-7	-16
Proceeds from sale of tangible assets	138	149
Acquisition of intangible assets	-676	-3,684
Cash flow from financing activities	**-69,622**	**-392,012**
Change in subordinated liabilities	-	-350,000
Dividends paid	-67,580	-40,236
Total cash flow from leases	-2,042	-1,776
Change in cash and cash equivalents	**14,513**	**-8,387,151**
Cash and cash equivalents at 1 January	**47,606**	**8,434,757**
Cash and cash equivalents at 31 December	**62,119**	**47,606**

The accompanying notes are an integral part of the Financial Statements.

Notes to the Parent Company's Financial Statements

Notes to the Parent Company's accounting policies

Note 1. Significant accounting policies of the Parent Company Financial Statements, FAS

Municipality Finance Plc (MuniFin) prepares its Financial Statements in accordance with the Act on Credit Institutions, the Ministry of Finance Decree on Credit Institutions and the Financial Supervisory Authority Regulations and Guidelines 2/2016. The Company reports regularly on its operations to the European Central Bank, the Finnish Financial Supervisory Authority, the Bank of Finland, the Municipal Guarantee Board and Statistics Finland. Municipality Finance Plc is the Parent Company of Municipality Finance Group (MuniFin Group). The significant accounting policies and the presentation of the Financial Statements of the Parent Company, Municipality Finance Plc, correspond to the accounting policies of the Consolidated Financial Statements (Note *1*) with the exceptions described below.

Debt securities

Debt securities are presented in the Parent Company's Financial Statements under two balance sheet items: *Debt securities eligible for central bank refinancing* and *Debt securities*, so that *Debt securities eligible for central bank refinancing* contains, as the name implies, debt securities eligible for central bank refinancing.

Leases

Leases in which MuniFin acts as the lessee are treated in the Parent Company in accordance with the accounting policies described in the Consolidated Financial Statements. Leases in which MuniFin is a lessor, have been classified as finance leases in the Financial Statements of both the Group and the Parent Company. The accounting treatment of finance leases does not differ from Group to Parent Company, but the leased assets are presented on line *Loans and advances to the public and public sector entities* in the Consolidated Financial Statements. In the Parent Company, they are presented on line *Leased assets*. Income related to leasing operations is presented under the income statement item *Net income from leasing operations*. In the Consolidated Financial Statements, this income is presented under *Interest and similar income*.

Other long-term expenses

Other long-term expenses include expenses intended to generate income in several financial years that are not objects, separately transferable rights or other assets. MuniFin's other long-term expenses consist of renovation expenses for leased premises. These items are presented in the Parent Company's Financial Statements as part of *Intangible assets* under item *Other intangible assets* and in the Consolidated Financial Statements as part of *Tangible assets* under item *Office renovation expenses*. The depreciation period for the renovation expenses of the leased premises is consistent with the lease term.

Appropriations

The difference between the depreciation according to plan and the depreciation of assets in taxation (*Depreciation difference*), and the voluntary credit loss provision (*Taxation based provisions*) are presented under *Total appropriations* in the balance sheet of the Parent Company. In the income statement, the change in depreciation difference and credit loss provision is shown on line *Appropriations*. The voluntary credit loss provision and depreciation difference recognised under the Finnish Accounting Standards do not meet the recognition criteria set out in IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, and the credit loss provision and depreciation difference are thus released in the Consolidated Financial Statements into equity and deferred tax liability in accordance with IAS 12 *Income Tax*. The Parent Company's credit loss provisions are recognised in accordance with tax law (Act on the Taxation of Business Income 46§).

Fair value reserve

According to the Act on Credit Institutions certain fair value changes are required to be recorded in the fair value reserve within equity. The fair value reserve corresponds to term other comprehensive income used in IFRS 9 and in the Note *1 Summary of significant accounting policies* of the Consolidated Financial Statements. The following fair value changes are presented in fair value reserve: fair value changes of financial assets at fair value through other comprehensive income, changes in fair value due to changes in own credit risk of financial liabilities designated at fair value through profit or loss and Cost-of-Hedging from fair value hedge accounting, consisting of cross currency basis spread which has been separated and excluded from the hedge relationship.

Notes to the income statement

The Company has not combined any items in the income statement under Chapter 2, Section 14(4), of the Ministry of Finance Decree.

Note 2. Interest income and expense

	Jan–Dec 2023			Jan–Dec 2022		
(EUR 1,000)	Interest and similar income	Interest and similar expense	Net	Interest and similar income	Interest and similar expense	Net
Assets						
Amortised cost						
Cash and balances with central banks	-	-	-	30,304	-26,828	3,475
Loans and advances to credit institutions	317,637	-29	317,608	8,290	-8,346	-56
Loans and advances to the public and public sector entities	779,143	-	779,143	220,905	-	220,905
Debt securities	46,110	-23	46,087	5,345	-3,206	2,140
Other assets	45,861	-	45,861	8,019	-	8,019
Fair value through fair value reserve						
Debt securities	6,982	-	6,982	9	-	9
Designated at fair value through profit or loss						
Loans and advances to the public and public sector entities	348	-	348	348	-	348
Debt securities	27,395	-	27,395	9,436	-	9,436
Mandatorily at fair value through profit or loss						
Loans and advances to the public and public sector entities	1,033	-	1,033	827	-	827
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	441,616	-348,450	93,166	92,225	-87,665	4,560
Derivative contracts in hedge accounting	356,190	-	356,190	-34,804	-	-34,804
Leased assets	38,640	-	38,640	10,177	-	10,177
Interest on non-financial other assets	2	-	2	6	-	6
Interest on assets	**2,060,956**	**-348,502**	**1,712,454**	**351,089**	**-126,045**	**225,044**
, of which interest income/expense according to the effective interest method	*1,195,733*	*-52*		*272,870*	*-38,380*	

(EUR 1,000)	Jan–Dec 2023 Interest and similar income	Jan–Dec 2023 Interest and similar expense	Jan–Dec 2023 Net	Jan–Dec 2022 Interest and similar income	Jan–Dec 2022 Interest and similar expense	Jan–Dec 2022 Net
Liabilities						
Amortised cost						
Liabilities to credit institutions	-	-26,276	-26,276	11,575	-12,570	-995
Liabilities to the public and public sector entities	-	-37,557	-37,557	-	-44,838	-44,838
Debt securities issued	-	-466,008	-466,008	778	-263,148	-262,370
Subordinated liabilities	-	-	-	-	-4,049	-4,049
Other liabilities	-	-17,102	-17,102	-	-4,282	-4,282
Designated at fair value through profit or loss						
Liabilities to credit institutions	-	-1,005	-1,005	-	-54	-54
Liabilities to the public and public sector entities	-	-37,034	-37,034	-	-34,195	-34,195
Debt securities issued	-	-369,060	-369,060	-	-157,748	-157,748
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	656,535	-604,280	52,255	348,298	-139,384	208,915
Derivative contracts in hedge accounting	-	-551,439	-551,439	-	311,682	311,682
Interest on liabilities	**656,535**	**-2,109,760**	**-1,453,225**	**360,651**	**-348,586**	**12,066**
, of which interest income/expense according to the effective interest method	-	*-546,943*		*12,355*	*-328,887*	
Total interest income and expense	**2,717,492**	**-2,458,262**	**259,230**	**711,740**	**-474,631**	**237,109**
, of which interest income from leasing operations	*38,640*			*10,177*		
Total interest income and expense excluding interest income from leasing operations	**2,678,852**			**701,563**		

Interest income on stage 3 financial assets in the expected credit loss (*ECL*) calculations totalled EUR 1,726 thousand (EUR 743 thousand) during the financial year. These are included in the line items *Loans and advances to the public and public sector entities* and *Leased assets*.

Interest expense on other liabilities includes EUR 48 thousand (EUR 47 thousand) of interest on lease liabilities recognised in accordance with IFRS 16 *Leases* standard.

Interest expenses on financial assets at amortised cost on cash and balances with central banks consisted of interest paid on central bank deposits, and interest on loans and advances to credit institutions of interest on cash collateral receivables in the comparison period. Interest expenses on debt securities consist of interest paid on short-term lending in money market instruments. Interest expenses on derivative contracts at fair value through profit or loss consist of negative interest income on derivative contracts that are not included in hedge accounting. The derivative contracts contained in this line item hedge financial assets which are designated at fair value through profit or loss, derivative contracts with municipalities and derivative contracts hedging derivatives with municipalities, in addition to derivative contracts used for hedging interest rate risk of the balance sheet, for which no hedged item has been specified. Derivative contracts in hedge accounting hedge line items *Loans and advances to the public and public sector entities* and *Leased assets*.

Interest income on financial liabilities at amortised cost to credit institutions in the comparison period consisted of interest received on cash collateral liabilities as well as on TLTRO III debt, and interest income on debt securities issued consisted of interest received on ECPs. Interest income on derivative contracts at fair value through profit or loss consists of positive interest expense on derivatives that are not included in hedge accounting. Derivative contracts contained in this line item hedge financial liabilities which are designated at fair value through profit or loss. Derivative contracts in hedge accounting are used as hedges for line items *Liabilities to credit institutions, Liabilities to the public and public sector entities* and *Debt securities issued*.

Note 3. Net income from leasing operations

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Leasing income	121,158	88,343
Depreciation on leased assets according to plan	-82,518	-78,590
Capital gains on leased assets	0	425
Total	**38,640**	**10,177**

Note 4. Income from equity investments

The Company has not received dividend income from its subsidiary in financial years 2023 and 2022.

Note 5. Commission income and expense

Commission income (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
From other operations	977	870
Total	**977**	**870**
Commission expense		
Commission fees paid	-260	-269
Other	-15,374	-5,245
Total	**-15,634**	**-5,514**
Net commission income	**-14,657**	**-4,644**

In commission expense line item *Other* includes i.e. paid guarantee fees, custody fees and funding programme update costs.

Note 6. Net income on financial instruments at fair value through profit or loss

Jan–Dec 2023 (EUR 1,000)	Capital gains and losses (net)	Changes in fair value	Total
Derivative contracts at fair value through profit or loss	-88	252,443	252,354
Designated at fair value through profit or loss	-	-261,961	-261,961
Mandatorily at fair value through profit or loss	-	-827	-827
Day 1 gain or loss	-	42	42
Net income from financial assets and liabilities through profit or loss	**-88**	**-10,303**	**-10,391**
Net income from FX differences	**6,086**	**-8,009**	**-1,923**
Net income from hedge accounting	**-**	**-27,147**	**-27,147**
Total	**5,998**	**-45,460**	**-39,461**

Jan–Dec 2022 (EUR 1,000)	Capital gains and losses (net)	Changes in fair value	Total
Derivative contracts at fair value through profit or loss	205	-304,568	-304,363
Designated at fair value through profit or loss	-	313,783	313,783
Mandatorily at fair value through profit or loss	-	-976	-976
Day 1 gain or loss	-	-156	-156
Net income from financial assets and liabilities through profit or loss	**205**	**8,083**	**8,288**
Net income from FX differences	**-11,124**	**10,976**	**-148**
Net income from hedge accounting	**-**	**36,444**	**36,444**
Total	**-10,918**	**55,502**	**44,583**

Financial assets and liabilities designated at fair value through profit or loss (EUR 1,000)	Nominal value 31 Dec 2023	Carrying amount 31 Dec 2023	Nominal value 31 Dec 2022	Carrying amount 31 Dec 2022
Financial assets				
Loans and advances to the public and public sector entities	30,000	30,326	30,000	28,432
Debt securities	3,284,881	3,200,340	3,355,906	3,162,034
Total financial assets*	**3,314,881**	**3,230,667**	**3,385,906**	**3,190,465**
Financial liabilities				
Liabilities to credit institutions	44,000	42,989	5,000	3,291
Liabilities to the public and public sector entitities	1,449,753	1,311,174	1,495,567	1,318,658
Debt securities issued	9,870,880	9,472,387	11,505,250	10,842,676
Total financial liabilities	**11,364,633**	**10,826,551**	**13,005,818**	**12,164,626**

* Financial assets designated at fair value through profit or loss are exposed to credit risk up to the carrying amounts of those securities at 31 Dec 2023 and 31 Dec 2022.

Change in fair value of financial assets designated at fair value through profit or loss (EUR 1,000)	31 Dec 2023	1 Jan 2023	Fair value change recognised in the income statement Jan–Dec 2023	, of which due to credit risk	, of which due to market risk
Financial assets					
Loans and advances to the public and public sector entities	-7,988	-10,581	2,592	151	2,441
Debt securities	-94,789	-215,498	120,709	-6,493	127,202
Total financial assets	**-102,777**	**-226,078**	**123,301**	**-6,342**	**129,643**

Financial assets that MuniFin has designated at fair value through profit or loss include debt securities in the liquidity portfolio of which the interest rate risk is hedged with interest rate and cross currency interest rate swaps. The designation is made as it significantly reduces accounting mismatch which would otherwise arise from measuring the derivative contract at fair value through profit or loss and the debt security at fair value through fair value reserve based on the IFRS 9 business model. The Company does not have credit derivatives hedging these financial assets.

Change in fair value of financial liabilities designated at fair value through profit or loss (EUR 1,000)	31 Dec 2023	1 Jan 2023	Fair value change recognised in the income statement Jan–Dec 2023	Change in own credit risk recognised in the own credit revaluation reserve Jan–Dec 2023	Total fair value change in Jan–Dec 2023
Financial liabilities					
Liabilities to credit institutions	495	1,708	-1,212	514	-698
Liabilities to the public and public sector entitities	169,099	245,483	-76,384	30,218	-46,167
Debt securities issued	425,589	733,254	-307,666	44,669	-262,997
Total financial liabilities	**595,183**	**980,445**	**-385,262**	**75,401**	**-309,862**

Net change in fair value in Net income from financial assets and liabilities through profit or loss (EUR 1,000)	Cumulative change in fair value 31 Dec 2023	Fair value change recognised in the income statement Jan–Dec 2023
Financial liabilities designated at fair value through profit or loss	595,183	-385,262
Derivative contracts at fair value through profit or loss hedging financial liabilities	-592,125	397,646
Net change in fair value	**3,058**	**12,384**

MuniFin has designated short-term debt instruments denominated in foreign currencies, which have been hedged with FX swaps at fair value through profit or loss. The designation reduces accounting mismatch which would otherwise arise between the measurement of the derivative contract and financial liability. Financial liabilities designated at fair value through profit or loss consist of financial liabilities, which have been hedged according to the Group's risk management policy, but which are not subject to IFRS 9 fair value hedge accounting. The fair value changes of the financial liabilities impact the income statement, but as they have been hedged, the expected profit or loss is restricted to interest. The table above describes the net impact of these financial liabilities and their hedges on the income statement. When a financial liability is designated at fair value through profit or loss, the fair value change, with exception to MuniFin's own credit risk that is presented as change of the *Own credit revaluation reserve*, is presented in the PnL in *Net income on financial instruments at fair value through profit or loss*.

MuniFin applies the income approach of IFRS 13 standard to the separation of fair value changes related to changes in own credit risk from the fair value changes of the financial liability. For the majority of financial liabilities designated at fair value through profit or loss, no market price is available as there is no active secondary market. The methodology for separation of own credit risk utilises MuniFin's benchmark curves, cross currency basis spreads and credit spreads of MuniFin's issued debt securities on the primary market as input. Based on the aforementioned inputs, valuation curves can be constructed for various reporting periods for valuing financial liabilities designated at fair value through profit or loss. By comparing fair values calculated using the trade date and reporting date, the impact of change in own credit risk on the fair value of the financial liability can be determined.

Financial liabilities designated at fair value through profit or loss are not traded.

Change in fair value of financial assets designated at fair value through profit or loss (EUR 1,000)	31 Dec 2022	1 Jan 2022	Fair value change recognised in the income statement Jan–Dec 2022	, of which due to credit risk	, of which due to market risk
Financial assets					
Loans and advances to the public and public sector entities	-10,581	-769	-9,812	196	-10,008
Debt securities	-215,498	20,226	-235,724	-9,088	-226,635
Total financial assets	**-226,078**	**19,457**	**-245,535**	**-8,892**	**-236,643**

Change in fair value of financial liabilities designated at fair value through profit or loss (EUR 1,000)	31 Dec 2022	1 Jan 2022	Fair value change recognised in the income statement Jan–Dec 2022	Change in own credit risk recognised in the own credit revaluation reserve Jan–Dec 2022	Total fair value change in Jan–Dec 2022
Financial liabilities					
Liabilities to credit institutions	1,708	187	1,521	-25	1,496
Liabilities to the public and public sector entitities	245,483	-152,113	397,597	-12,269	385,327
Debt securities issued	733,254	573,054	160,201	12,111	172,311
Total financial liabilities	**980,445**	**421,127**	**559,318**	**-184**	**559,134**

Net change in fair value in Net income from financial assets and liabilities through profit or loss (EUR 1,000)	Cumulative change in fair value 31 Dec 2022	Fair value change recognised in the income statement Jan–Dec 2022
Financial liabilities designated at fair value through profit or loss	980,445	559,318
Derivative contracts at fair value through profit or loss hedging financial liabilities	-989,771	-554,212
Net change in fair value	**-9,325**	**5,106**

Net income from hedge accounting (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Net income from hedging instruments	589,385	-1,448,952
Net income from hedged items	-616,271	1,485,395
IBOR reform related compensations*	-260	-
Total	**-27,147**	**36,444**

* Compensations relate to the IBOR reform of which more information is presented in the accounting policies of the Consolidated Financial Statements (Note *1*) in Section *23. IBOR reform*.

Unrealised gains and losses from hedged items include fair value of the risks to which fair value hedge accounting is applied and which are measured at fair value. The foreign exchange difference of both hedging instruments and hedged items are presented on line item *Net income from FX differences*. A specification of the net income from hedge accounting is presented in Note *23 Hedge accounting*.

Note 7. Net income on financial assets at fair value through fair value reserve

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Capital gains from financial assets	-	-
Capital losses from financial assets	-257	-149
Unrealised gains transferred from fair value reserve	-	-
Unrealised losses transferred from fair value reserve	-	-
Total	**-257**	**-149**

Note 8. Impact of the reclassified financial assets and liabilities

The following table shows the impact of reclassification of financial assets in the implementation of IFRS 9 standard (as of 1 Jan 2018) from at fair value through profit or loss under IAS 39 standard into amortised cost under IFRS 9 standard. MuniFin did not reclassify any financial liabilities from fair value through profit or loss into amortised cost.

Reclassification of financial assets (EUR 1,000)	Original measurement category under IAS 39	New measurement category under IFRS 9	Fair value 31 Dec 2023	Fair value gain or loss for the financial year*	EIR determined as at 1 Jan 2018**	Interest revenue recognised during Jan–Dec 2023
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	86,977	434	0.14%	2,743

* The fair value gain or loss that would have been recognised in the income statement during the financial year if the financial assets had not been reclassified.
** Effective interest rate determined on the date of initial application.

Reclassification of financial assets (EUR 1,000)	Original measurement category under IAS 39	New measurement category under IFRS 9	Fair value 31 Dec 2022	Fair value gain or loss for the financial year	EIR determined as at 1 Jan 2018	Interest revenue recognised during Jan–Dec 2022
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	91,834	-983	0.14%	478

Note 9. Other operating income

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Other income from credit institution operations	171	126
Total	**171**	**126**

Note 10. Depreciation and impairment on tangible and intangible assets and on shares

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Depreciation		
Depreciation on tangible assets	-2,935	-2,843
Depreciation on intangible assets	-3,463	-2,894
Total depreciation	**-6,398**	**-5,737**
Impairment		
Impairment on intangible assets*	-	-4,562
Total impairment	**-**	**-4,562**
Total depreciation and impairment	**-6,398**	**-10,299**

* In the comparison year the line item included a non-recurring item of EUR 4,562 thousand, which consists of impairment on significant terminated IT system implementation.

MuniFin does not have depreciation or impairments on shares at 31 Dec 2023 or 31 Dec 2022.

Note 11. Other operating expenses

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Regulatory expenses		
Contributions to the Single Resolution Fund	-7,353	-9,185
Other administrative and supervisory fees	-2,832	-2,324
Rental expenses	-442	-414
External services	-6,835	-5,590
Credit rating fees	-905	-748
Audit fees*	-463	-503
Insurances	-834	-897
Other expenses from credit institution operations	315	-172
Total	**-19,350**	**-19,833**

* Paid fees to the auditor (KPMG Oy Ab) in 2023 totalled EUR 450 thousand (EUR 487 thousand) for audit, EUR 9 thousand (EUR 28 thousand) for tax services and EUR 211 thousand (EUR 189 thousand) for other services. Assigments as referred to in section 1, subsection 1, paragraph 2 of the Auditing Act in 2023 totalled EUR 14 thousand (EUR 16 thousand). Audit and other fees paid to the audit firm are specified in Note *48*.

Note 12. Credit losses and impairments on financial assets

MuniFin's credit risks are described in the Consolidated Financial Statements Note 2 *Risk management principles and the Group's risk position* in Section *7. Credit Risk*. The accounting policies of the expected credit loss calculations and impairment stages are described in the accounting policies of the Consolidated Financial Statements (Note *1*) in Section 9. *Impairment of financial assets*.

Credit losses and impairments Jan–Dec 2023 (EUR 1,000)	Expected credit losses			Realised credit losses		
	Additions	Subtractions	Recognised in the income statement	Additions	Subtractions	Recognised in the income statement
Expected credit losses on financial assets at amortised cost						
Cash and balances with central banks	-	-	-	-	-	-
Loans and advances to credit institutions	-10	46	36	-	-	-
Loans and advances to the public and public sector entities	-1,559	123	-1,436	-	-	-
Leased assets*	-18	17	-1	-	-	-
Debt securities	-1	1	0	-	-	-
Cash collateral to CCPs in Other assets	-	197	197	-	-	-
Credit commitments (off-balance sheet)	-13	11	-2	-	-	-
Total expected credit losses on financial assets at amortised cost	**-1,601**	**396**	**-1,205**	**-**	**-**	**-**
Expected credit losses and impairments on other financial assets						
Debt securities at fair value through fair value reserve	-25	27	2	-	-	-
Total expected credit losses and impairments on other financial assets	**-25**	**27**	**2**	**-**	**-**	**-**
Total	**-1,627**	**423**	**-1,203**	**-**	**-**	**-**

* Expected credit losses on Leased assets include also the expected credit losses on assets not classified as financial assets according to IFRS 9 standard.

Credit losses and impairments Jan–Dec 2022 (EUR 1,000)	Expected credit losses			Realised credit losses		
	Additions	Subtractions	Recognised in the income statement	Additions	Subtractions	Recognised in the income statement
Expected credit losses on financial assets at amortised cost						
Cash and balances with central banks	-	0	0	-	-	-
Loans and advances to credit institutions	-88	62	-27	-	-	-
Loans and advances to the public and public sector entities	-1,011	1,386	375	-	-	-
Leased assets	-29	2	-26	-	-	-
Debt securities	-1	0	-1	-	-	-
Cash collateral to CCPs in Other assets	-190	-	-190	-	-	-
Credit commitments (off-balance sheet)	-15	5	-10	-	-	-
Total expected credit losses on financial assets at amortised cost	**-1,335**	**1,455**	**120**	**-**	**-**	**-**
Expected credit losses and impairments on other financial assets						
Debt securities at fair value through fair value reserve	-29	26	-3	-	-	-
Total expected credit losses and impairments on other financial assets	**-29**	**26**	**-3**	**-**	**-**	**-**
Total	**-1,364**	**1,481**	**118**	**-**	**-**	**-**

Note 13. Information on business areas and geographical market

Municipality Finance Plc's operating segment is credit institution operations and the market for lending is Finland.

Notes to the balance sheet

The Company has not combined any items on the balance sheet under Chapter 2, Section 14(4), of the Ministry of Finance Decree.

Note 14. Financial assets and liabilities

Financial assets 31 Dec 2023 (EUR 1,000)	Amortised cost	Fair value through fair value reserve	Designated at fair value through profit or loss	Mandatorily at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Cash and balances with central banks	2	-	-	-	-	2	2
Loans and advances to credit institutions	9,185,977	-	-	-	-	9,185,977	9,185,977
Loans and advances to the public and public sector entities	30,522,223	-	30,326	27,482	-	30,580,031	32,344,271
Leased assets*	383,163	-	-	-	-	383,163	402,491
Debt securities	1,574,954	369,669	3,200,340	-	-	5,144,963	5,145,075
Shares and participations in Group companies	-	-	-	656	-	656	656
Derivative contracts at fair value through profit or loss	-	-	-	-	312,957	312,957	312,957
Derivative contracts in hedge accounting	-	-	-	-	1,543,813	1,543,813	1,543,813
Other assets**	1,048,412	-	-	-	-	1,048,412	1,048,412
Total	**42,714,732**	**369,669**	**3,230,667**	**28,138**	**1,856,769**	**48,199,974**	**49,983,653**

* Line item includes leased assets for which MuniFin applies fair value hedge accounting. Unhedged leased assets are not presented in this table of financial assets and liabilities as leased assets are not regarded as financial assets under IFRS 9 standard (classification).

** Line item includes cash collateral given to central counterparties.

Financial liabilities 31 Dec 2023 (EUR 1,000)	Amortised cost	Designated at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Liabilities to credit institutions	170,706	42,989	-	213,695	213,654
Liabilities to the public and public sector entities	1,277,101	1,311,174	-	2,588,275	2,601,224
Debt securities issued	31,129,259	9,472,387	-	40,601,646	40,566,379
Derivative contracts at fair value through profit or loss	-	-	1,157,142	1,157,142	1,157,142
Derivative contracts in hedge accounting	-	-	2,215,373	2,215,373	2,215,373
Other liabilities*	400,715	-	-	400,715	400,715
Total	**32,977,781**	**10,826,551**	**3,372,514**	**47,176,846**	**47,154,486**

* Line item includes EUR 392,173 thousand of cash collateral received from central counterparties and EUR 8,542 thousand of lease liabilities in accordance with IFRS 16 standard.

Financial assets 31 Dec 2022 (EUR 1,000)	Amortised cost	Fair value through fair value reserve	Designated at fair value through profit or loss	Mandatorily at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Cash and balances with central banks	2	-	-	-	-	2	2
Loans and advances to credit institutions	9,624,470	-	-	-	-	9,624,470	9,624,470
Loans and advances to the public and public sector entities	27,781,745	-	28,432	31,090	-	27,841,267	29,451,798
Leased assets*	274,053	-	-	-	-	274,053	288,092
Debt securities	1,457,098	167,636	3,162,034	-	-	4,786,768	4,786,383
Shares and participations in Group companies	-	-	-	656	-	656	656
Derivative contracts at fair value through profit or loss	-	-	-	-	504,097	504,097	504,097
Derivative contracts in hedge accounting	-	-	-	-	2,203,006	2,203,006	2,203,006
Other assets**	1,219,541	-	-	-	-	1,219,541	1,219,541
Total	**40,356,910**	**167,636**	**3,190,465**	**31,746**	**2,707,103**	**46,453,861**	**48,078,045**

* Line item includes leased assets for which MuniFin applies fair value hedge accounting. Unhedged leased assets are not presented in this table of financial assets and liabilities as leased assets are not regarded as financial assets under IFRS 9 standard (classification).

** Line item includes cash collateral given to central counterparties.

Financial liabilities 31 Dec 2022 (EUR 1,000)	Amortised cost	Designated at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Liabilities to credit institutions	2,329,332	3,291	-	2,332,623	2,332,609
Liabilities to the public and public sector entities	1,210,927	1,318,658	-	2,529,585	2,543,548
Debt securities issued	24,749,389	10,842,676	-	35,592,065	35,650,001
Derivative contracts at fair value through profit or loss	-	-	1,562,525	1,562,525	1,562,525
Derivative contracts in hedge accounting	-	-	3,053,586	3,053,586	3,053,586
Other liabilities*	573,969	-	-	573,969	573,969
Total	**28,863,617**	**12,164,626**	**4,616,111**	**45,644,353**	**45,716,238**

* Line item includes EUR 570,922 thousand of cash collateral received from central counterparties and EUR 3,046 thousand of lease liabilities in accordance with IFRS 16 standard.

Note 15. Cash and cash equivalents

Cash and cash equivalents include the following balance sheet items:
Cash and balances with central banks and *Loans and advances to credit institutions payable on demand.*

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Cash and balances with central banks	2	2
Loans and advances to credit institutions payable on demand	62,117	47,604
Total cash and cash equivalents	**62,119**	**47,606**

Note 16. Loans and advances to credit institutions

31 Dec 2023 (EUR 1,000)	Payable on demand	Other than payable on demand	Expected credit losses	Total
Receivables from central bank	-	7,988,793	-1	7,988,792
Domestic credit institutions	60,458	224,100	-49	284,509
Foreign credit institutions	1,659	911,040	-23	912,676
Total	**62,117**	**9,123,933**	**-73**	**9,185,977**

31 Dec 2022 (EUR 1,000)	Payable on demand	Other than payable on demand	Expected credit losses	Total
Receivables from central bank	-	8,143,541	0	8,143,541
Domestic credit institutions	29,027	154,000	-47	182,979
Foreign credit institutions	18,578	1,279,434	-61	1,297,950
Total	**47,604**	**9,576,975**	**-109**	**9,624,470**

Note 17. Loans and advances to the public and public sector entities

	31 Dec 2023		31 Dec 2022	
(EUR 1,000)	Total	, of which expected credit losses	Total	, of which expected credit losses
Enterprises and housing corporations	16,355,584	-2,051	14,862,774	-595
Public sector entities	13,880,309	-136	12,635,898	-173
Non-profit organisations	344,137	-20	342,595	-3
Total	**30,580,031**	**-2,207**	**27,841,267**	**-772**

Note 18. Debt securities

Debt securities issued by public sector entities 31 Dec 2023 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses*
Amortised cost	**-**	**1,317,912**	**1,317,912**	**-1**
Commercial papers	-	1,317,912	1,317,912	-1
Fair value through fair value reserve	**15,164**	**-**	**15,164**	**0**
Bonds issued by other public sector entities	15,164	-	15,164	0
Designated at fair value through profit or loss	**1,445,863**	**-**	**1,445,863**	**-**
Government bonds	157,259	-	157,259	-
Bonds issued by other public sector entities	1,288,604	-	1,288,604	-
Total	**1,461,027**	**1,317,912**	**2,778,939**	**-1**
, of which eligible for central bank refinancing	*1,279,266*	-	*1,279,266*	*0*

Debt securities issued by other than public sector entities 31 Dec 2023 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses*
Amortised cost	**-**	**257,042**	**257,042**	**0**
Commercial papers	-	257,042	257,042	0
Fair value through fair value reserve	**354,505**	**-**	**354,505**	**-42**
Bank bonds	354,505	-	354,505	-42
Designated at fair value through profit or loss	**1,754,477**	**-**	**1,754,477**	**-**
Bank bonds	1,754,477	-	1,754,477	-
Total	**2,108,982**	**257,042**	**2,366,024**	**-42**
, of which eligible for central bank refinancing	*1,862,506*	-	*1,862,506*	*-37*

31 Dec 2023 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses*
Debt securities total	**3,570,009**	**1,574,954**	**5,144,963**	**-43**

* The expected credit losses have been recognised on debt securities, which have been classified at fair value through fair value reserve. Therefore, the expected credit loss is not recognised as a deduction from the gross carrying amount of the debt securities in the balance sheet, but from fair value reserve as described in the accounting policies of the Consolidated Financial Statements (Note 1) in Section 9.4 *Presentation of allowance for ECL in the statement of financial position.*

At the financial statement date 31 Dec 2023, the Company has given debt securities as collateral to central counterparty, in total nominal value of EUR 70,000 thousand (EUR 25,000 thousand).

At the financial statement date 31 Dec 2023 or at the comparison date, MuniFin has no debt securities measured mandatorily at fair value through profit or loss.

Debt securities issued by public sector entities 31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**1,246,325**	**1,246,325**	**-1**
Commercial papers	-	1,246,325	1,246,325	-1
Fair value through fair value reserve	**58,487**	**-**	**58,487**	**0**
Bonds issued by other public sector entities	58,487	-	58,487	0
Designated at fair value through profit or loss	**1,438,177**	**-**	**1,438,177**	**-**
Government bonds	120,539	-	120,539	-
Bonds issued by other public sector entities	1,317,638	-	1,317,638	-
Total	**1,496,664**	**1,246,325**	**2,742,990**	**-1**
, of which eligible for central bank refinancing	*1,286,322*	-	*1,286,322*	*0*

Debt securities issued by other than public sector entities 31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**210,773**	**210,773**	**0**
Commercial papers	-	210,773	210,773	0
Fair value through fair value reserve	**109,149**	**-**	**109,149**	**-44**
Bank bonds	109,149	-	109,149	-44
Designated at fair value through profit or loss	**1,723,856**	**-**	**1,723,856**	**-**
Bank bonds	1,723,856	-	1,723,856	-
Total	**1,833,005**	**210,773**	**2,043,778**	**-44**
, of which eligible for central bank refinancing	*1,603,853*	-	*1,603,853*	*-31*

31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Debt securities total	**3,329,670**	**1,457,098**	**4,786,768**	**-45**

Note 19. Leased assets

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Prepayments	259,669	317,076
Machinery and equipment	264,546	252,030
Fixed assets and buildings	917,305	733,744
Other assets	196	274
Expected credit losses	-29	-28
Total	**1,441,686**	**1,303,094**

Note 20. Credit risks of financial assets and other commitments

MuniFin's credit risks are described in the Consolidated Financial Statements Note *2 Risk management principles and the Group's risk position* in Section *7. Credit Risk*. The expected credit loss calculation method and impairment stages are described in the accounting policies of the Consolidated Financial Statements (Note *1*) in Section *9. Impairment of financial assets*.

The following table presents exposures under expected credit loss calculations by asset groups and impairment stages.

Exposures by asset groups and impairment stages	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 3*			
31 Dec 2023 (EUR 1,000)	Gross carrying amount	12-month ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Expected credit losses
Cash and balances with central banks at amortised cost	2	-	-	-	-	-	2	-
Loans and advances to credit institutions at amortised cost	9,185,977	-73	-	-	-	-	9,185,977	-73
Loans and advances to the public and public sector entities at amortised cost	28,859,061	-122	1,523,016	-1,872	140,146	-214	30,522,223	-2,207
Leased assets at amortised cost	1,420,162	-8	21,524	-21	-	-	1,441,686	-29
Debt securities at amortised cost	1,573,802	-1	1,152	0	-	-	1,574,954	-1
Debt securities at fair value through fair value reserve	369,669	-42	-	-	-	-	369,669	-42
Cash collateral to CCPs in Other assets at amortised cost	1,048,412	-6	-	-	-	-	1,048,412	-6
Credit commitments (off-balance sheet)	3,017,822	-15	53,406	0	-	-	3,071,212	-15
Total	**45,474,907**	**-267**	**1,599,099**	**-1,894**	**140,146**	**-214**	**47,214,136**	**-2,375**

* MuniFin has collateral and guarantee arrangements that fully cover the stage 3 receivables as described in the Consolidated Financial Statements Note *2 Risk management principles and MuniFin's risk position* in Section *7. Credit risk*. MuniFin's management expects that all the stage 3 receivables will be recovered and no final credit loss will emerge. Stage 3 receivables include EUR 2,031 thousand (EUR 2,144 thousand) of originated credit impaired receivables (*Purchased or Originated Credit Impaired, POCI*). Expected credit losses for the POCI receivables amount to EUR 3 thousand (EUR 8 thousand).

Exposures by asset groups and impairment stages 31 Dec 2022 (EUR 1,000)	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 2			
	Gross carrying amount	12-month ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Expected credit losses
Cash and balances with central banks at amortised cost	2	-	-	-	-	-	2	-
Loans and advances to credit institutions at amortised cost	9,624,470	-109	-	-	-	-	9,624,470	-109
Loans and advances to the public and public sector entities at amortised cost	27,277,326	-89	497,729	-662	6,690	-21	27,781,745	-772
Leased assets at amortised cost	1,283,297	-6	19,655	-22	142	0	1,303,094	-28
Debt securities at amortised cost	1,457,098	-1	-	-	-	-	1,457,098	-1
Debt securities at fair value through fair value reserve	167,636	-44	-	-	-	-	167,636	-44
Cash collateral to CCPs in Other assets at amortised cost	1,219,541	-203	-	-	-	-	1,219,541	-203
Credit commitments (off-balance sheet)	2,447,573	-11	16,392	-2	-	-	2,463,964	-14
Total	**43,476,943**	**-464**	**533,776**	**-686**	**6,832**	**-21**	**44,017,551**	**-1,171**

The following table presents summary of total changes and reconciliation of expected credit losses by impairment stages during the financial year.

Total expected credit losses by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-464**	**-686**	**-21**	**-1,171**	**44,017,551**
New assets originated or purchased	-60	-65	0	-126	9,306,692
Assets derecognised or repaid (excluding write-offs)	87	31	18	136	-6,108,897
Transfers to Stage 1	-1	88	-	87	87
Transfers to Stage 2	2	-40	-	-38	-38
Transfers to Stage 3	-	0	-65	-65	-65
Additional provision (*Management overlay*)	-	-625	-	-625	-625
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models* and inputs** used for ECL calculations	168	-596	-145	-573	-569
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2023	**-267**	**-1,894**	**-214**	**-2,375**	**47,214,136**

* Represents changes in the model.

** Represents changes to model parameters (e.g. GDP rates, unemployment rates).

MuniFin has updated in the first half of 2023 the probability of defaults according to the update cycle. In addition, macro scenarios were updated to take into account forward-looking information at the end of financial year. At the same time, the recovery rates used in loss given default calculations as well as loss given default for certain customer segments were updated. The expected lossed increased by EUR 573 thousand due to the changes in models and parameters.

MuniFin has assessed the impact of rapidly increased interest rate environment on its receivables from customer financing and on credit risk. At the end of June 2023, MuniFin's management decided to record an additional discretionary provision of EUR 609 thousand based on a group-specific assessment as some customers may face challenges in the sufficiency of cash flows during the second half of 2023. At the end of financial year 2023, the Company's management assessed again the need of additional discretionary provision and recognised an additional provision of EUR 16 thousand. Based on the Company's assessment some customer may face challenges in the sufficiency of cash flows during the first half of 2024, which may appear in increased payment delays and forbearances for MuniFin. The total amount of additional discretionary provision based on a group-specific assessment was EUR 625 thousand at the end of 2023. The additional discretionary provision relates to the balance sheet item *Loans and advances to the public and public sector entities*. The additional discretionary provision has not been allocated to the contract level.

MuniFin's total credit risk has still remained low, and the amount of ECL remains low. The rising interest rate levels and inflation weakened the housing sector customers' ability to pay, which showed in slight increase in payment delays, forbearance measures and in weakening of creditworthiness. MuniFin's customer exposures have zero risk weight in the capital adequacy calculation as they are from Finnish municipalities, joint municipal authorities, wellbeing services counties, or involve a municipality, joint municipal authority, wellbeing services county's guarantee or a state deficiency guarantee supplementing the real estate collateral. The Company's management estimates that all receivables will be recovered in full and therefore no final credit loss will arise. On 31 December 2023, MuniFin had no guarantee receivables from the public sector (EUR 4 million) due to the insolvency of customers. Credit risk of the liquidity portfolio has remained on a good quality level and the average rating of debt securities in the portfolio was AA+ (AA+).

Total expected credit losses by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-166**	**-578**	**-546**	**-1,289**	**43,091,415**
New assets originated or purchased	-361	357	-1	-5	17,324,241
Assets derecognised or repaid (excluding write-offs)	95	7	77	179	-16,398,049
Transfers to Stage 1	-1	496	-	496	496
Transfers to Stage 2	1	-575	18	-556	-556
Transfers to Stage 3	0	-	0	0	0
Additional provision (*Management overlay*)	-	-	430	430	430
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-32	-394	0	-426	-425
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2022	**-464**	**-686**	**-21**	**-1,171**	**44,017,551**

The following tables present changes and reconciliation of expected credit losses by impairment stages and asset groups during the financial year.

Expected credit losses on Cash and balances with central banks at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-**	**-**	**-**	**-**	**2**
New assets originated or purchased	-	-	-	-	0
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	0
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2023	**-**	**-**	**-**	**-**	**2**

Expected credit losses on Cash and balances with central banks at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**0**	**-**	**-**	**0**	**8,399,045**
New assets originated or purchased	-	-	-	-	-
Assets derecognised or repaid (excluding write-offs)	0	-	-	0	-8,399,043
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2022	**-**	**-**	**-**	**-**	**2**

Expected credit losses on Loans and advances to credit institutions at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-109**	**-**	**-**	**-109**	**9,624,470**
New assets originated or purchased	-4	-	-	-4	380,498
Assets derecognised or repaid (excluding write-offs)	46	-	-	46	-818,984
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-6	-	-	-6	-6
Total 31 Dec 2023	**-73**	**-**	**-**	**-73**	**9,185,977**

Expected credit losses on Loans and advances to credit institutions at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-82**	**-**	**-**	**-82**	**1,416,564**
New assets originated or purchased	-85	-	-	-85	9,112,062
Assets derecognised or repaid (excluding write-offs)	62	-	-	62	-904,152
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-3	-	-	-3	-3
Total 31 Dec 2022	**-109**	**-**	**-**	**-109**	**9,624,470**

Expected credit losses on Loans and advances to the public and public sector entities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-89**	**-662**	**-21**	**-772**	**27,781,745**
New assets originated or purchased	-20	-65	0	-85	4,320,154
Assets derecognised or repaid (excluding write-offs)	3	12	18	34	-1,578,291
Transfers to Stage 1	-1	87	-	86	86
Transfers to Stage 2	2	-38	-	-36	-36
Transfers to Stage 3	0	0	-65	-65	-65
Additional provision (*Management overlay*)	-	-625	-	-625	-625
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-18	-582	-145	-745	-745
Write-offs	-	-	-	-	-
Total 31 Dec 2023	**-122**	**-1,872**	**-214**	**-2,207**	**30,522,223**

Expected credit losses on Loans and advances to the public and public sector entities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-23**	**-578**	**-546**	**-1,147**	**27,805,752**
New assets originated or purchased	-42	357	-1	314	3,871,298
Assets derecognised or repaid (excluding write-offs)	2	4	77	84	-3,895,282
Transfers to Stage 1	-1	496	-	496	496
Transfers to Stage 2	0	-573	18	-554	-554
Transfers to Stage 3	0	-	0	0	0
Additional provision (*Management overlay*)	-	-	430	430	430
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-25	-370	0	-395	-395
Write-offs	-	-	-	-	-
Total 31 Dec 2022	**-89**	**-662**	**-21**	**-772**	**27,781,745**

Expected credit losses on Leased assets at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-6**	**-22**	**0**	**-28**	**1,303,094**
New assets originated or purchased	-1	0	-	-1	212,400
Assets derecognised or repaid (excluding write-offs)	0	16	0	16	-73,791
Transfers to Stage 1	-	1	-	1	1
Transfers to Stage 2	0	-2	-	-2	-2
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-1	-14	0	-15	-15
Total 31 Dec 2023	**-8**	**-21**	**0**	**-29**	**1,441,686**

Expected credit losses on Leased assets at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-2**	**-**	**0**	**-2**	**1,334,146**
New assets originated or purchased	-5	0	0	-5	242,148
Assets derecognised or repaid (excluding write-offs)	2	-	-	2	-273,177
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	0	0	-	0	0
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-2	-22	-	-23	-23
Total 31 Dec 2022	**-6**	**-22**	**0**	**-28**	**1,303,094**

Expected credit losses on Debt securities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-1**	**-**	**-**	**-1**	**1,457,098**
New assets originated or purchased	-1	0	-	-1	1,574,954
Assets derecognised or repaid (excluding write-offs)	1	-	-	1	-1,457,098
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	0	-	-	0	0
Total 31 Dec 2023	**-1**	**0**	**-**	**-1**	**1,574,954**

Expected credit losses on Debt securities at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**0**	**0**	**-**	**0**	**1,088,888**
New assets originated or purchased	-1	-	-	-1	1,457,098
Assets derecognised or repaid (excluding write-offs)	0	0	-	0	-1,088,888
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2022	**-1**	**-**	**-**	**-1**	**1,457,098**

Expected credit losses on Debt securities at fair value through fair value reserve by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-44**	**-**	**-**	**-44**	**167,636**
New assets originated or purchased	-22	-	-	-22	267,084
Assets derecognised or repaid (excluding write-offs)	27	-	-	27	-65,051
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-3	-	-	-3	
Total 31 Dec 2023	**-42**	**-**	**-**	**-42**	**369,669**

Expected credit losses on Debt securities at fair value through fair value reserve by impairment stages	**Not credit-impaired**		**Credit-impaired**	**Total**	
	Stage 1	**Stage 2**	**Stage 3**		
(EUR 1,000)	**12-month ECL**	**Lifetime ECL**	**Lifetime ECL**	**ECL**	**Gross carrying amount**
Opening balance 1 Jan 2022	**-41**	**-**	**-**	**-41**	**213,466**
New assets originated or purchased	-28	-	-	-28	52,770
Assets derecognised or repaid (excluding write-offs)	26	-	-	26	-98,599
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-1	-	-	-1	
Total 31 Dec 2022	**-44**	**-**	**-**	**-44**	**167,636**

The loss allowance on debt instruments classified at fair value through fair value reserve is recognised in fair value reserve. The accumulated loss allowance is recognised to the profit or loss upon derecognition of the assets. More details regarding presentation of allowance for expected credit losses is presented in the accounting policies of the Consolidated Financial Statements (Note *1*) in Section *9.4 Presentation of allowance for ECL in the statement of financial position*.

Expected credit losses on Cash collateral to CCPs in Other assets at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-203**	**-**	**-**	**-203**	**1,219,541**
New assets originated or purchased	-	-	-	-	45,000
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-216,326
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	197	-	-	197	197
Total 31 Dec 2023	**-6**	**-**	**-**	**-6**	**1,048,412**

Expected credit losses on Cash collateral to CCPs in Other assets at amortised cost by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-13**	**-**	**-**	**-13**	**238,930**
New assets originated or purchased	-190	-	-	-190	980,611
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2022	**-203**	**-**	**-**	**-203**	**1,219,541**

Expected credit losses on Guarantee receivables from the public and public sector entities in Other assets by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-**	**-**	**-**	**-**	**-**
New assets originated or purchased	-	-	-	-	-
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2023	**-**	**-**	**-**	**-**	**-**

Expected credit losses on Guarantee receivables from the public and public sector entities in Other assets by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-**	**-**	**-**	**-**	**1,751,603**
New assets originated or purchased	-	-	-	-	-
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-1,751,603
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2022	**-**	**-**	**-**	**-**	**-**

Expected credit losses on Credit commitments (off-balance sheet) by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-11**	**-2**	**-**	**-14**	**2,463,964**
New assets originated or purchased	-12	0	-	-12	2,506,600
Assets derecognised or repaid (excluding write-offs)	9	2	-	11	-1,899,352
Transfers to Stage 1	0	0	-	0	
Transfers to Stage 2	0	0	-	0	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	0	0	-	0	
Total 31 Dec 2023	**-15**	**0**	**-**	**-15**	**3,071,212**

The loss allowance on credit commitments is recognised under *Other liabilities*. More details regarding presentation of allowance for expected credit losses is presented in the accounting policies of the Consolidated Financial Statements (Note *1*) in Section *9.4 Presentation of allowance for ECL in the statement of financial position.*

Expected credit losses on Credit commitments (off-balance sheet) by impairment stages	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-4**	**0**	**0**	**-4**	**2,592,873**
New assets originated or purchased	-9	0	-	-9	1,608,248
Assets derecognised or repaid (excluding write-offs)	3	2	0	5	-1,737,157
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	0	-2	-	-2	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-1	-2	-	-4	
Total 31 Dec 2022	**-11**	**-2**	**-**	**-14**	**2,463,964**

Forward-looking information

In the assessment of whether the credit risk of an instrument has significantly increased (*SICR*) and in the measurement of expected credit losses, forward-looking information and macroeconomic scenarios are included in the model. These macroeconomic projections cover a period of three years and as no reliable macroeconomic projections exceeding a three-year time horizon are available, forward-looking adjustment will be limited to a three-year period. Mainly three scenarios are used: base, optimistic and adverse. Scenarios include probability weights. The scenario probability weightings are described in the adjacent table.

	31 Dec 2023			31 Dec 2022		
Scenario	**2024**	**2025**	**2026**	**2023**	**2024**	**2025**
Adverse	40%	40%	40%	30%	30%	30%
Base	50%	50%	50%	60%	60%	60%
Optimistic	10%	10%	10%	10%	10%	10%

MuniFin has identified key drivers of credit losses for each portfolio that share similar kind of credit risk characteristics and estimated the relationship between macroeconomic variables and credit losses. ECL model consists of the following macroeconomic variables for Finnish counterparties of financial assets: Finnish government long-term rate, the development of residential housing prices and unemployment rate. For non-Finnish financial assets, stress test scenarios published by the European Central Bank are employed in the model and scenario parameters. Each variable covers an estimate over a period of three years. The adjacent table presents the macroeconomic variables and their forecasts over the three-year forecast period.

		31 Dec 2023			31 Dec 2022		
Macroeconomic variables	**Scenario**	**2024**	**2025**	**2026**	**2023**	**2024**	**2025**
	Adverse	3.8	3.7	3.7	4.0	3.6	3.4
10Y Fin Government rate, %	Base	3.5	3.5	3.4	3.2	3.1	3.2
	Optimistic	3.3	3.2	3.2	2.2	1.9	1.8
	Adverse	-13.0	-2.0	3.0	-13.0	0.0	2.0
Residential Real Estate (selling price, YoY change), %	Base	-1.0	4.0	2.5	-2.0	2.0	1.5
	Optimistic	2.5	4.0	2.5	0.0	3.0	2.5
	Adverse	9.9	9.6	8.5	9.5	9.0	8.5
Unemployment rate, %	Base	7.7	7.4	7.0	7.4	7.3	6.8
	Optimistic	7.1	6.1	5.8	6.5	6.0	5.8

The rapid tightening of monetary policy and geopolitical tensions have weakened the global economic outlook. The Eurozone has already slipped into a low-growth phase, and growth is expected to remain very slow through 2024. Inflation is slowing down but is still projected to average above the ECB's 2% target level next year. There remains a considerable amount of uncertainty related to inflation, including factors such as energy prices and significant wage increases. Monetary policy tightening has been felt more prominently in Finland, and the economic downturn is deeper than in the Eurozone as a whole. The economy is expected to experience a mild recession from H2/2023 to H1/2024. Finland's GDP is expected to contract 0.3% in 2024. Cyclical recovery along with investments in the green transition are seen to accelerate GDP growth to 2% in 2025, after which the economy converges to its long-term growth trajectory. Significant increases in unemployment are not expected, as several sectors continue to face a shortage of labor. Average yearly unemployment rate is expected to peak at 7.7% in 2024 and remain elevated above 7% in 2025–2026. The prices of owner-occupied apartments in major cities, on average, are expected to decrease by 7% in 2023. The recovery of the real estate market begins in 2024, but the annual average prices continue to decline slightly. The cooling economic conditions, a clear deceleration in inflation, and the already significant tightening of financial conditions justify the view that the ECB will not raise policy rates from their current levels. However, due to inflation uncertainty, interest rate cuts are expected to begin only around mid-2024 and continue moderately into 2025.

In comparison to the baseline scenario, the optimistic scenario envisions a less severe economic impact from high inflation and tightening financial conditions. In this scenario, the projected growth of the Finnish GDP is 1.3% in 2024 and 2.7% in 2025. The unemployment rate is expected to continue its gradual decline throughout the forecast period from 2024 to 2027. Consumer price inflation is forecasted to cool down to 2.0% in 2024 and remain just below 2% over the subsequent three years. Housing demand is projected to recover in 2024, with home prices expected to rise by 2.5% from the previous year. Home price inflation is anticipated to accelerate to 4.0% in 2025, followed by a moderation to a 2.5% level in annual price gains. Due to the faster-than-expected recovery in aggregate demand, the ECB is anticipated to lower interest rates more gradually than in the baseline scenario.

The adverse scenario depicts an outcome wherein monetary tightening ultimately instigates a synchronized downturn in the global economy. Both Finland and the entire Eurozone endure a profound recession that commenced in the latter half of 2023, persisting well into 2025. Unemployment experiences a substantial surge and maintains elevated levels throughout the forecast period. The contraction in aggregate demand exacerbates deflationary pressures in the economy, resulting in a more rapid cooling of inflation compared to the baseline scenario. Lower inflation, coupled with formidable economic headwinds, prompts an abrupt shift in monetary policy. The ECB initiates a series of multiple rate cuts in 2024 and continues to pursue monetary easing throughout 2025. The diminished demand in the housing market leads to a sharp decline in home prices. The prolonged global recession induces tensions in financial markets, causing wider risk premia in asset pricing. Poor economic performance and the mounting public debt significantly elevate the Finnish-German interest rate differential.

The following table presents the sensitivity of the expected credit losses to the forward-looking information assuming 100% weight for adverse scenario until 2024 (2023).

Sensitivity analysis (EUR 1,000)	31 Dec 2023 Weighted scenario	31 Dec 2023 Adverse scenario (100%)	31 Dec 2023 Excluding weighted scenario	31 Dec 2022 Weighted scenario	31 Dec 2022 Adverse scenario (100%)
ECL	1,750	2,414	1,618	1,171	1,547
Proportion of the exposure in Stage 2 and 3	3.94%	5.10%	3.78%	1.27%	2.57%

The sensitivity analysis does not include the additional discretionary provisions (*management overlay*).

Non-performing and forborne exposures

Non-performing and forborne exposures refer to receivables that are more than 90 days past due, other receivables classified as risky and forborne exposures due to the customer's financial difficulties.

Non-performing and forborne exposures 31 Dec 2023 (EUR 1,000)	Performing exposures (gross)	Non-performing exposures (gross)	Total exposures (gross)	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	7,491	7,491	-36	7,454
Unlikely to be paid	-	19,037	19,037	-59	18,978
Forborne exposures	377,463	113,832	491,295	-570	490,725
Total	**377,463**	**140,359**	**517,823**	**-666**	**517,157**

Non-performing and forborne exposures 31 Dec 2022 (EUR 1,000)	Performing exposures (gross)	Non-performing exposures (gross)	Total exposures (gross)	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	4,087	4,087	-13	4,074
Unlikely to be paid	-	509	509	0	509
Forborne exposures	77,268	2,513	79,780	-478	79,303
Total	**77,268**	**7,110**	**84,377**	**-491**	**83,886**

Forbearance measures are concessions to original contractual payment terms agreed at the customers' initiative to help the customer through temporary payment difficulties. Performing forborne exposures include forborne exposures reclassified as performing during their probation period or forbearance measures made into a performing loan. Loan modifications due to reasons other than the customer's financial difficulties are not classified as forborne exposures. The Company considers a loan forborne when such concessions or modifications are provided as a result of the borrower's present or expected financial difficulties and the Company would not have agreed to them if the borrower had been financially healthy.

The COVID-19 pandemic affected the financial situation and liquidity of MuniFin's customers. MuniFin therefore offered concessions to the payment terms of loans to those customers whose finances had been temporarily affected by the pandemic. During 2023 there were no forbearances due to the COVID-19 pandemic and in 2022 there were only a few individual extensions of repayment holidays. The uncollected installments were mainly transferred to the end of the loan term to be paid in connection with the last installment. No lease concessions were granted to the MuniFin's leasing customers.

Russia's invasion of Ukraine has had no direct impact on MuniFin Group's customers or receivables. The inflation and rising interest rate levels appeared, and may continue to appear as increased forbearance measures, payment delays and as a deterioration of the customers' creditworthiness.

Realised credit losses

MuniFin has not had any final realised credit losses during the financial year or the comparison year.

Note 21. Shares and participations

31 Dec 2023 (EUR 1,000)	Publicly quoted	Other	Total	, of which in credit institutions
Shares and participations in Group companies	-	656	656	-
Total	**-**	**656**	**656**	**-**
, of which at acquisition cost	*-*	*656*	*656*	*-*

MuniFin does not have equity instruments valued at fair value through fair value reserve. MuniFin does not have shares and participations subject to securities lending.

31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	, of which in credit institutions
Shares and participations in Group companies	-	656	656	-
Total	**-**	**656**	**656**	**-**
, of which at acquisition cost	*-*	*656*	*656*	*-*

Note 22. Derivative contracts

	Nominal value of underlying instrument				Fair value	
	Remaining maturity					
31 Dec 2023 (EUR 1,000)	Less than 1 year	1–5 years	Over 5 years	Total	Positive	Negative
Derivative contracts in hedge accounting						
Interest rate derivatives						
Interest rate swaps	4,082,331	11,468,301	18,991,507	34,542,139	1,148,245	-1,581,581
, of which cleared by the central counterparty	*3,967,376*	*11,288,451*	*18,280,451*	*33,536,278*	*1,114,996*	*-1,563,069*
Currency derivatives						
Cross currency interest rate swaps	1,838,537	10,963,203	479,835	13,281,574	395,568	-633,792
Total derivative contracts in hedge accounting	**5,920,868**	**22,431,503**	**19,471,342**	**47,823,713**	**1,543,813**	**-2,215,373**
Derivative contracts at fair value through profit or loss						
Interest rate derivatives						
Interest rate swaps	4,387,178	11,024,261	4,300,134	19,711,573	257,271	-831,692
, of which cleared by the central counterparty	*3,211,225*	*8,099,203*	*1,540,172*	*12,850,600*	*173,241*	*-32,697*
Interest rate options	-	-	-	-	-	-
Currency derivatives						
Cross currency interest rate swaps	335,671	2,845,363	69,179	3,250,213	52,741	-203,865
Forward exchange contracts	3,890,874	-	-	3,890,874	2,919	-100,348
Equity derivatives	85,340	-	-	85,340	26	-21,237
Total derivative contracts at fair value through profit or loss	**8,699,063**	**13,869,624**	**4,369,313**	**26,938,000**	**312,957**	**-1,157,142**
Total derivative contracts	**14,619,930**	**36,301,128**	**23,840,655**	**74,761,713**	**1,856,769**	**-3,372,514**

Derivative contracts at fair value through profit or loss contain all derivatives of the Company which are not included in hedge accounting, even if they are entered into for risk management purposes. The category contains derivative contracts used for hedging financial assets and liabilities designated at fair value through profit or loss, all derivative contracts with municipalities and all derivative contracts hedging derivatives with municipalities. In addition to these, the category contains derivative contracts used for hedging interest rate risk of the balance sheet, for which no hedged item has been specified.

Interest accruals from derivative contracts are included in the balance sheet line items *Accrued income and prepayments* and *Accrued expenses and deferred income*.

	Nominal value of underlying instrument				Fair value	
	Remaining maturity					
31 Dec 2022 (EUR 1,000)	Less than 1 year	1–5 years	Over 5 years	Total	Positive	Negative
Derivative contracts in hedge accounting						
Interest rate derivatives						
Interest rate swaps	3,087,053	10,930,604	19,669,762	33,687,419	1,608,625	-2,279,032
, of which cleared by the central counterparty	*2,897,220*	*10,592,658*	*18,932,859*	*32,422,737*	*1,546,169*	*-2,240,748*
Currency derivatives						
Cross currency interest rate swaps	3,853,324	8,258,495	455,462	12,567,281	594,381	-774,553
Total derivative contracts in hedge accounting	**6,940,378**	**19,189,099**	**20,125,224**	**46,254,701**	**2,203,006**	**-3,053,586**
Derivative contracts at fair value through profit or loss						
Interest rate derivatives						
Interest rate swaps	5,726,233	8,177,909	4,368,751	18,272,893	411,500	-1,084,554
, of which cleared by the central counterparty	*4,157,199*	*5,759,356*	*1,501,085*	*11,417,640*	*320,535*	*-7,895*
Interest rate options	40,000	-	-	40,000	94	-94
Currency derivatives						
Cross currency interest rate swaps	1,200,762	2,704,383	78,336	3,983,481	81,658	-226,389
Forward exchange contracts	4,591,665	-	-	4,591,665	10,848	-147,174
Equity derivatives	732,900	-	-	732,900	-2	-104,314
Total derivative contracts at fair value through profit or loss	**12,291,560**	**10,882,292**	**4,447,087**	**27,620,939**	**504,097**	**-1,562,525**
Total derivative contracts	**19,231,938**	**30,071,391**	**24,572,311**	**73,875,640**	**2,707,103**	**-4,616,111**

Note 23. Hedge accounting

The interest rate and foreign exchange rate risk of the Company are managed by entering into derivative transactions. According to the Market Risk Policy, the Company's hedging strategy is mainly to hedge all material foreign exchange and interest rate risks of financial assets and liabilities with maturities exceeding one year. As a result, foreign currency denominated items are translated into euros, fixed rate and long-term reference rates are swapped to floating interest rates with shorter terms. The risk management principles related to the Company's hedging of market risk are described in more detail in the Consolidated Financial Statements Note *2 Risk Management principles and the Group's risk position.*

The Company applies both fair value hedge accounting according to IFRS 9 standard and fair value portfolio hedge accounting according to IAS 39 standard. The Company does not apply cash flow hedge accounting. Accounting policies related to hedge accounting are described in the accounting polices of the Consolidated Financial Statements (Note *1*) in Section *10. Hedge accounting*.

In the following table, the hedged assets and liabilities are presented according to balance sheet line items divided into IAS 39 standard portfolio hedge accounting and IFRS 9 standard fair value hedge accounting, which is further subdivided into whether hedging is subject to the separation of the Cost-of-Hedging.

Hedge accounting 31 Dec 2023 (EUR 1,000)	Nominal value	Fair value hedge accounting total	IAS 39 portfolio hedge accounting	IFRS 9 fair value hedge accounting	IFRS 9 fair value hedge accounting incl. Cost-of-Hedging
Assets					
Loans and advances to the public and public sector entities	11,843,871	10,937,466	10,877,199	60,267	-
Leased assets	395,417	383,163	-	383,163	-
Total assets	**12,239,288**	**11,320,629**	**10,877,199**	**443,430**	**-**
Liabilities					
Liabilities to credit institutions	95,000	86,889	-	86,889	-
Liabilities to the public and public sector entities	1,287,710	1,277,101	-	1,277,101	-
Debt securities issued	32,537,103	30,841,465	-	17,950,427	12,891,038
Total liabilities	**33,919,813**	**32,205,454**	**-**	**19,314,416**	**12,891,038**

Hedge accounting 31 Dec 2022 (EUR 1,000)	Nominal value	Fair value hedge accounting total	IAS 39 portfolio hedge accounting	IFRS 9 fair value hedge accounting	IFRS 9 fair value hedge accounting incl. Cost-of-Hedging
Assets					
Loans and advances to the public and public sector entities	12,826,877	11,348,612	11,289,353	59,259	-
Leased assets	302,864	274,053	-	274,053	-
Total assets	**13,129,741**	**11,622,665**	**11,289,353**	**333,313**	**-**
Liabilities					
Liabilities to credit institutions	95,000	84,892	-	84,892	-
Liabilities to the public and public sector entities	1,302,710	1,210,927	-	1,210,927	-
Debt securities issued	27,163,444	24,419,692	-	12,603,372	11,816,320
Total liabilities	**28,561,154**	**25,715,510**	**-**	**13,899,190**	**11,816,320**

The figures presented in the adjacent table contain the cumulative fair value change at the beginning and end of the financial year, in addition to the fair value change of the hedged risk and the hedging instrument during the financial year. The figures presented in the table do not include the change in fair value due to foreign exchange differences of hedging instruments and the hedged items. Due to the above mentioned reason, the total amount of the hedging instruments does not correspond to the fair value presented in Note *22 Derivative contracts* on line *Total derivative contracts in hedge accounting*. The fair value changes of the hedged risk of the hedged items and all other fair value changes of the hedging instruments are recognised in the income statement under *Net income on financial instruments at fair value through profit or loss*. The ineffective portion of the hedging relationship is thus shown on this line in the income statement. Net income on financial instruments at fair value through profit or loss is specified in Note *6*.

In accordance with the market practice and IFRS 13 *Fair value measurement* standard, MuniFin discounts hedged items with the swap curve and the hedging derivatives with the OIS curve, which causes a significant part of the MuniFin's hedge ineffectiveness. In addition, ineffectiveness may also arise to some extent from differences in notional, day count methods or timing of the cash flows.

Value of hedged risk (EUR 1,000)	31 Dec 2023	1 Jan 2023	Recognised in the income statement Jan–Dec 2023	31 Dec 2022	1 Jan 2022	Recognised in the income statement Jan–Dec 2022
Assets						
IAS 39 portfolio hedge accounting						
Loans and advances to the public and public sector entities	-907,319	-1,476,553	569,233	-1,476,553	122,505	-1,599,058
Derivative contracts in hedge accounting	969,754	1,549,315	-579,561	1,549,315	-78,911	1,628,226
Accumulated fair value accrual from the termination of hedge accounting	-1,652	-1,721	69	-1,721	218	-1,939
IAS 39 portfolio hedge accounting, net	**60,783**	**71,041**	**-10,258**	**71,041**	**43,812**	**27,229**
IFRS 9 fair value hedge accounting						
Loans and advances to the public and public sector entities	1,829	-595	2,424	-595	25,908	-26,503
Leased assets	-12,251	-28,808	16,557	-28,808	-495	-28,313
Derivative contracts in hedge accounting	9,060	28,548	-19,488	28,548	-25,669	54,217
IFRS 9 fair value hedge accounting, net	**-1,362**	**-855**	**-507**	**-855**	**-255**	**-599**
Liabilities						
IFRS 9 fair value hedge accounting						
Liabilities to credit institutions	8,111	10,108	-1,997	10,108	-5,120	15,228
Liabilities to the public and public sector entities	4,425	54,570	-50,145	54,570	-340,433	395,003
Debt securities issued	1,407,537	2,559,950	-1,152,413	2,559,950	-171,028	2,730,978
Derivative contracts in hedge accounting	-1,442,656	-2,631,089	1,188,433	-2,631,089	500,306	-3,131,395
IFRS 9 fair value hedge accounting, net	**-22,583**	**-6,461**	**-16,122**	**-6,461**	**-16,275**	**9,814**
IBOR reform related compensations*	-3,603	-3,343	-260	-3,343	-3,343	0
Total hedge accounting	**33,235**	**60,382**	**-27,147**	**60,382**	**23,938**	**36,444**

* Compensations relate to the IBOR reform of which more information is presented in the accounting policies of the Consolidated Financial Statements (Note *1*) in Section *23. IBOR reform.*

The adjacent table presents the impact of Cost-of-Hedging of cross currency derivatives on equity in the Cost-of-Hedging reserve. The figures are presented net of deferred taxes. For all foreign currency hedge relationships MuniFin has elected to utilise Cost-of-Hedging. For each hedge relationship, when the cross currency swap is designated as a hedging instrument, the cross currency basis spread is separated and excluded from the designation and accounted for as Cost-of-Hedging.

The difference between the changes in fair value of the actual derivative and the designated portion of the derivative are recorded to the Cost-of-Hedging reserve. Thus, changes in cross currency basis spreads do not create ineffectiveness in the hedge relationship.

Hedging impact on equity (EUR 1,000)	31 Dec 2023	1 Jan 2023	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	21,821	1,488	20,334
Total	**21,821**	**1,488**	**20,334**

Hedging impact on equity (EUR 1,000)	31 Dec 2022	1 Jan 2022	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	1,488	13,621	-12,133
Total	**1,488**	**13,621**	**-12,133**

The following table presents the cumulative effectiveness of hedge accounting by hedged items. In addition, the table shows the hedging instruments used.

Effectiveness of hedge accounting
31 Dec 2023 (EUR 1,000)

		Gains/losses attributable to the hedged risk		
Hedged item	**Hedging instruments**	**Hedged items**	**Hedging instruments**	**Hedge ineffectiveness**
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	-907,319	969,754	62,435
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	1,829	-1,608	222
Fixed rate and revisable rate leased assets	Interest rate derivatives	-12,251	10,668	-1,584
Assets total		**-917,742**	**978,814**	**61,072**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	1,105,788	-1,132,380	-26,592
Financial liabilities denominated in foreign currencies	Currency derivatives (cross currency interest rate swaps) Interest rate derivatives	314,285	-310,277	4,009
Liabilities total		**1,420,073**	**-1,442,656**	**-22,583**

Effectiveness of hedge accounting 31 Dec 2022 (EUR 1,000)

Hedged item	Hedging instruments	Gains/losses attributable to the hedged risk: Hedged items	Gains/losses attributable to the hedged risk: Hedging instruments	Hedge ineffectiveness
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	-1,476,553	1,549,315	72,762
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	-595	1,043	449
Fixed rate and revisable rate leased assets	Interest rate derivatives	-28,808	27,504	-1,304
Assets total		**-1,505,955**	**1,577,862**	**71,907**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	1,967,231	-1,972,437	-5,207
Financial liabilities denominated in foreign currencies	Currency derivatives (cross currency interest rate swaps) Interest rate derivatives	657,397	-658,652	-1,255
Liabilities total		**2,624,628**	**-2,631,089**	**-6,461**

Note 24. Intangible assets

(EUR 1,000)	31 Dec 2023	31 Dec 2022
IT systems	6,311	8,831
Other intangible assets	2	5
Total	**6,314**	**8,837**

Intangible assets do not include other development costs or goodwill.

Note 25. Tangible assets

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Real estate corporation shares	299	299
Right-of-use assets	8,500	2,980
Other tangible assets	555	1,557
Total	**9,354**	**4,835**

MuniFin does not have investment properties.

Note 26. Changes in intangible and tangible assets during the financial year

	Intangible assets	Tangible assets			
Jan–Dec 2023 (EUR 1,000)	Total	Real estate	Other tangible assets	Right-of-use assets	Total
Acquisition cost 1 Jan	29,634	299	5,644	9,174	15,117
+ Additions	940	-	7	7,785	7,792
- Disposals	-	-	-733	-2,344	-3,076
Acquisition cost 31 Dec	30,574	299	4,918	14,616	19,832
Accumulated depreciation and impairment charges 1 Jan	20,798	-	4,087	6,195	10,282
- Accumulated depreciation on disposals	-	-	-715	-2,021	-2,736
+ Depreciation for the financial year	3,463	-	991	1,942	2,933
+/- Impairment and reversals	-	-	-	-	-
Accumulated depreciation and impairment charges 31 Dec	24,261	-	4,363	6,116	10,479
Carrying amount 31 Dec	**6,314**	**299**	**555**	**8,500**	**9,354**

	Intangible assets	Tangible assets			
Jan–Dec 2022 (EUR 1,000)	**Total**	**Real estate**	**Other tangible assets**	**Right-of-use assets**	**Total**
Acquisition cost 1 Jan	41,401	299	6,999	8,743	16,041
+ Additions	3,988	-	16	564	579
- Disposals	-15,755	-	-1,371	-132	-1,503
Acquisition cost 31 Dec	29,634	299	5,644	9,174	15,117
Accumulated depreciation 1 Jan	29,097	-	4,261	4,592	8,853
- Accumulated depreciation on disposals	-710	-	-1,302	-113	-1,415
+ Depreciation for the financial year	2,894	-	1,128	1,715	2,843
+/- Impairment and reversals*	-10,482	-	-	-	-
Accumulated depreciation and impairment charges 31 Dec	20,798	-	4,087	6,195	10,282
Carrying amount 31 Dec	**8,837**	**299**	**1,557**	**2,980**	**4,835**

* The line item includes a non-recurring item of impairment change of EUR -10,482 thousand on MuniFin's significant terminated IT system implementation during the review period.

Note 27. Other assets

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Invoiced leasing	23,506	11,391
Given cash collateral to CCPs*	1,048,412	1,219,541
Other	1,846	3,730
Total	**1,073,765**	**1,234,662**

* Cash collaterals include expected credit loss amounting to EUR 6 thousand (EUR 203 thousand).

MuniFin did not have receivables related to payment transfers as at 31 Dec 2023 or 31 Dec 2022.

Note 28. Accrued income and prepayments

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Accrued interest income	415,388	218,417
Other accrued income	18,089	0
Prepayments	2,489	4,671
Total	**435,966**	**223,088**

Note 29. Deferred tax assets and liabilities

Deferred tax assets (EUR 1,000)	1 Jan 2023	Recognised in the income statement	Recognised in equity	Paid during the financial year	31 Dec 2023
On fair value reserve	763	-	-763	-	-
On right-of-use assets	-	8	-	-	8
Total	**763**	**8**	**-763**	**-**	**8**

Deferred tax liabilities (EUR 1,000)	1 Jan 2023	Recognised in the income statement	Recognised in equity	Paid during the financial year	31 Dec 2023
On fair value reserve	-	-	21,028	-	21,028
Total	**-**	**-**	**21,028**	**-**	**21,028**

Voluntary credit loss provision and depreciation difference include EUR 302,489 thousand in non-recognised deferred tax liabilities.

Deferred tax assets (EUR 1,000)	1 Jan 2022	Recognised in the income statement	Recognised in equity	Paid during the financial year	31 Dec 2022
On fair value reserve	-	-	763	-	763
Total	**-**	**-**	**763**	**-**	**763**

Deferred tax liabilities (EUR 1,000)	1 Jan 2022	Recognised in the income statement	Recognised in equity	Paid during the financial year	31 Dec 2022
On fair value reserve	3,499	-	-3,499	-	-
Total	**3,499**	**-**	**-3,499**	**-**	**-**

Voluntary credit loss provision and depreciation difference include EUR 291,718 thousand in non-recognised deferred tax liabilities.

Note 30. Debt securities issued

(EUR 1,000)	31 Dec 2023 Carrying amount	31 Dec 2023 Nominal value	31 Dec 2022 Carrying amount	31 Dec 2022 Nominal value
Bonds	36,614,320	38,680,909	30,942,233	34,330,170
Other*	3,987,327	4,017,074	4,649,832	4,668,524
Total	**40,601,646**	**42,697,983**	**35,592,065**	**38,998,694**

* Line item contains short-term funding issued by MuniFin.

MuniFin's funding is guaranteed by the Municipal Guarantee Board.

Benchmark issuances during the year 2023	Value date	Maturity date	Interest-%	Nominal value (1,000)	Currency
Fixed rate benchmark bond, issued under the MTN programme	18 Jan 2023	18 Jan 2028	2.875%	1,500,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	22 Feb 2023	25 Sep 2028	3.000%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	26 Apr 2023	29 Jul 2030	3.125%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	13 Jun 2023	15 Dec 2027	4.125%	1,000,000	USD
Fixed rate benchmark bond, issued under the MTN programme	13 Oct 2023	13 Jan 2027	4.875%	1,250,000	USD

In the above table, the benchmark issuances are included by the settlement date. The offering circular is available in English on the website at www.munifin.fi/investor-relations.

Reconciliation of the carrying amount of issued debt (EUR 1,000)	2023 Liabilities to credit institutions	2023 Liabilities to the public and public sector entities	2023 Debt securities issued	2022 Liabilities to credit institutions	2022 Liabilities to the public and public sector entities	2022 Debt securities issued
Carrying amount 1 Jan	**2,088,183**	**2,529,585**	**35,592,065**	**2,059,906**	**3,324,685**	**35,327,525**
Cash flow changes from operating activities						
Additions to issued debt "bonds"	39,507	25,675	10,011,767	46,609	147,351	7,680,928
Additions to debt securities issued "other"	-	-	24,054,315	-	-	25,303,337
Additions total	**39,507**	**25,675**	**34,066,082**	**46,609**	**147,351**	**32,984,265**
Deductions to issued debt "bonds"	-2,000,000	-91,758	-5,156,649	-	-267,534	-5,541,011
Deductions to debt securities issued "other"	-	-	-24,716,820	-	-	-24,472,759
Deductions total	**-2,000,000**	**-91,758**	**-29,873,469**	**-**	**-267,534**	**-30,013,769**
Cash flow changes from operating activities in total	**-1,960,493**	**-66,084**	**4,192,613**	**46,609**	**-120,183**	**2,970,495**
Changes in the balance sheet value including valuations and FX revaluations	2,188	124,773	816,968	-18,332	-674,917	-2,705,955
Carrying amount 31 Dec	**129,878**	**2,588,275**	**40,601,646**	**2,088,183**	**2,529,585**	**35,592,065**

Note 31. Other liabilities

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Mandatory provisions		
Other provisions	-	446
Other liabilities		
Lease liabilities	8,542	3,046
Cash collateral taken from CCPs	392,173	570,922
Other	17,168	19,132
Total	**417,883**	**593,547**

Line item *Other provisions* related to a tax interpretation issue for which the Group requested a preliminary ruling and for which the Group received the decision of the Supreme Administrative Court during the first half of 2023. The provision has been reversed on the basis of the received decision.

	Other provisions	
(EUR 1,000)	2023	2022
Carrying amount in the beginning of the reporting period	446	446
Increase in provisions	-	5,100
Provisions used	-446	-5,100
Carrying amount at the end of the reporting period	**-**	**446**

During the financial year 2022, increase in provisions and unused amounts reversed related to the IT implementation project, which was terminated in 2022. Unused amounts reversed during financial year 2023 related to a tax interpretation issue for which the Group requested a preliminary ruling and for which the Group received the decision of the Supreme Administrative Court during the the first half of 2023. The provision has been reversed on the basis of the received decision.

Note 32. Accrued expenses and deferred income

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Accrued interest expenses	431,492	139,779
Other accrued expenses	11,372	7,943
Deferred income*	31,392	18,552
Total	**474,256**	**166,274**

* Item consists mainly of leasing prepayments.

Note 33. Act on the Resolution of Credit Institutions (1194/2014)

MuniFin's crisis resolution authority is the EU's Single Resolution Board (*SRB*). The SRB has imposed on MuniFin a binding minimum requirement for own funds and eligible liabilities (*MREL*). The size of the MREL requirement is 10% of the total risk exposure amount and 3% of the leverage ratio exposure. The MREL requirement takes into account SRB's decision on that the simplified resolution strategy is applied to MuniFin.

The MREL requirement took effect on 1 January 2024, but MuniFin has had to fully comply with the final MREL target levels, which equal the capital and leverage ratio requirements, from January 2022 onwards. MuniFin's own funds and eligible liabilities currently exceed the MREL requirement multiple times, and there is no present need for MuniFin to issue Tier 3 instruments.

Note 34. Breakdown of financial assets and liabilities at carrying amount by maturity

Financial assets 31 Dec 2023 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Cash and balances with central banks	2	-	-	-	-	2
Debt securities eligible for central bank refinancing	268,971	296,563	2,114,997	461,241	-	3,141,772
Loans and advances to credit institutions	9,131,822	25,000	29,155	-	-	9,185,977
Loans and advances to the public and public sector entities	411,849	1,496,616	7,563,119	6,951,263	14,157,184	30,580,031
Leased assets*	8,056	25,793	78,191	64,743	206,381	383,163
Debt securities	1,441,700	225,051	303,013	33,427	-	2,003,191
Shares and participations in Group companies	-	-	-	-	656	656
Derivative contracts	-5,159	60,275	591,362	774,062	436,229	1,856,769
Other assets**	1,048,412	-	-	-	-	1,048,412
Total	**12,305,654**	**2,129,297**	**10,679,836**	**8,284,737**	**14,800,449**	**48,199,974**

* Line item includes leased assets for which MuniFin applies fair value hedge accounting. Unhedged leased assets are not presented in this table as leased assets are not regarded as financial assets under IFRS 9 standard (classification).

** Line item includes cash collateral given to central counterparties.

Financial liabilities 31 Dec 2023 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Liabilities to credit institutions	83,817	-	56,101	55,819	17,959	213,695
Liabilities to the public and public sector entities	84,957	138,723	972,626	549,697	842,273	2,588,275
Debt securities issued	6,167,913	4,401,266	22,518,036	6,056,018	1,458,415	40,601,646
Derivative contracts	205,672	265,043	1,459,565	865,120	577,115	3,372,514
Other liabilities*	392,584	1,067	5,227	1,836	-	400,715
, of which lease liabilities	*411*	*1,067*	*5,227*	*1,836*	-	*8,542*
Total	**6,934,943**	**4,806,098**	**25,011,555**	**7,528,489**	**2,895,761**	**47,176,846**

* Line item includes cash collateral received from central counterparties and lease liabilities in accordance with IFRS 16 standard.

Liabilities and hedging derivatives that may be called before maturity have been classified in the maturity class corresponding to the first possible call date. The Company estimates it will call 10–45% of its callable liabilities in 2024. In 2023, the Company called 32% of its callable liabilities.

Financial assets 31 Dec 2022 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Cash and balances with central banks	2	-	-	-	-	2
Debt securities eligible for central bank refinancing	136,726	528,552	2,113,901	110,996	-	2,890,174
Loans and advances to credit institutions	9,592,217	-	32,253	-	-	9,624,470
Loans and advances to the public and public sector entities	391,216	1,452,589	6,845,942	6,406,524	12,744,997	27,841,267
Leased assets	7,465	20,979	76,516	51,821	117,272	274,053
Debt securities	1,240,831	330,065	293,850	31,848	-	1,896,594
Shares and participations in Group companies	-	-	-	-	656	656
Derivative contracts	181,535	138,338	609,483	1,117,589	660,158	2,707,103
Other assets	1,219,541	-	-	-	-	1,219,541
Total	**12,769,533**	**2,470,523**	**9,971,945**	**7,718,778**	**13,523,082**	**46,453,861**

Financial liabilities 31 Dec 2022 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Liabilities to credit institutions	2,244,440	-	54,986	15,806	17,391	2,332,623
Liabilities to the public and public sector entities	152,794	77,633	862,967	665,161	771,031	2,529,585
Debt securities issued	7,377,026	3,390,051	18,464,896	4,415,718	1,944,375	35,592,065
Derivative contracts	565,161	263,843	1,753,642	1,160,809	872,656	4,616,111
Other liabilities	571,370	1,317	1,281	-	-	573,969
, of which lease liabilities	*448*	*1,317*	*1,281*	-	-	*3,046*
Total	**10,910,791**	**3,732,844**	**21,137,772**	**6,257,493**	**3,605,452**	**45,644,353**

Liabilities and hedging derivatives that may be called before maturity have been classified in the maturity class corresponding to the first possible call date. In 2022, the Company called 19% of its callable liabilities.

Note 35. Breakdown of balance sheet items into domestic and foreign currency

Assets 31 Dec 2023 (EUR 1,000)	Domestic currency	Foreign currency	Total	, of which intra-group
Debt securities eligible for central bank refinancing	3,141,772	-	3,141,772	-
Loans and advances to credit institutions	9,124,430	61,547	9,185,977	-
Loans and advances to the public and public sector entities	30,580,031	-	30,580,031	-
Leased assets	1,441,686	-	1,441,686	-
Debt securities	1,993,571	9,620	2,003,191	-
Derivative contracts	1,857,589	-819	1,856,769	-
Other assets including cash and balances in central banks	1,419,090	106,974	1,526,065	658
Total	**49,558,170**	**177,322**	**49,735,492**	**658**

Liabilities and equity 31 Dec 2023 (EUR 1,000)	Domestic currency	Foreign currency	Total	, of which intra-group
Liabilities to credit institutions	213,695	-	213,695	-
Liabilities to the public and public sector entities	2,568,350	19,924	2,588,275	-
Debt securities issued	20,674,897	19,926,749	40,601,646	-
Derivative contracts	3,137,458	235,057	3,372,514	-
Other liabilities including appropriations and equity	2,959,328	33	2,959,361	5
Total	**29,553,729**	**20,181,763**	**49,735,492**	**5**

Assets 31 Dec 2022 (EUR 1,000)	Domestic currency	Foreign currency	Total	, of which intra-group
Debt securities eligible for central bank refinancing	2,890,174	-	2,890,174	-
Loans and advances to credit institutions	9,577,806	46,663	9,624,470	-
Loans and advances to the public and public sector entities	27,841,267	-	27,841,267	-
Leased assets	1,303,094	-	1,303,094	-
Debt securities	1,867,201	29,392	1,896,594	-
Derivative contracts	2,705,581	1,522	2,707,103	-
Other assets including cash and balances in central banks	1,261,533	211,310	1,472,843	659
Total	**47,446,658**	**288,888**	**47,735,546**	**659**

Liabilities and equity 31 Dec 2022 (EUR 1,000)	Domestic currency	Foreign currency	Total	, of which intra-group
Liabilities to credit institutions	2,332,623	-	2,332,623	-
Liabilities to the public and public sector entities	2,509,865	19,720	2,529,585	-
Debt securities issued	14,918,101	20,673,964	35,592,065	-
Derivative contracts	4,224,574	391,537	4,616,111	-
Other liabilities including appropriations and equity	2,665,154	7	2,665,161	25
Total	**26,650,317**	**21,085,228**	**47,735,546**	**25**

Note 36. Repurchase agreements

The Company did not have any receivables or liabilities related to repurchase agreements at 31 Dec 2023.

At the comparison date 31 Dec 2022, the Company had receivables related to repurchase agreements, which contained a repurchase agreement's pledged security that counterparty has not delivered to the Company on the maturity date of the repurchase agreement. The security is presented in it's carrying amount of EUR 9,580 thousand in *Debt securities* that are *Designated at fair value through profit or loss*. In addition, the Company had receivable related to given cash collateral on repurchase agreement.

Note 37. Fair values and carrying amounts of financial assets and liabilities

Financial assets (EUR 1,000)	31 Dec 2023		31 Dec 2022	
	Carrying amount	Fair value	Carrying amount	Fair value
Cash and balances with central banks	2	2	2	2
Debt securities eligible for central bank refinancing	3,141,772	3,141,772	2,890,174	2,890,174
Loans and advances to credit institutions	9,185,977	9,185,977	9,624,470	9,624,470
Loans and advances to the public and public sector entities	30,580,031	32,344,271	27,841,267	29,451,798
Leased assets*	383,163	402,491	274,053	288,092
Debt securities	2,003,191	2,003,303	1,896,594	1,896,208
Shares and participations in Group companies	656	656	656	656
Derivative contracts	1,856,769	1,856,769	2,707,103	2,707,103
Other assets**	1,048,412	1,048,412	1,219,541	1,219,541
Total	**48,199,974**	**49,983,653**	**46,453,861**	**48,078,045**

* Line item includes leased assets for which MuniFin applies fair value hedge accounting. Unhedged leased assets are not presented in this table as leased assets are not regarded as financial assets under IFRS 9 standard (classification).

** Line item includes cash collateral given to central counterparties.

Financial liabilities (EUR 1,000)	31 Dec 2023		31 Dec 2022	
	Carrying amount	Fair value	Carrying amount	Fair value
Liabilities to credit institutions	213,695	213,654	2,332,623	2,332,609
Liabilities to the public and public sector entities	2,588,275	2,601,224	2,529,585	2,543,548
Debt securities issued	40,601,646	40,566,379	35,592,065	35,650,001
Derivative contracts	3,372,514	3,372,514	4,616,111	4,616,111
Other liabilities*	400,715	400,715	573,969	573,969
Total	**47,176,846**	**47,154,486**	**45,644,353**	**45,716,238**

* Line item includes cash collateral received from central counterparties and lease liabilities in accordance with IFRS 16 standard.

Note 38. Fair value hierarchy of financial assets and liabilities

Fair value is the price that would be received to sell the asset or paid to transfer the liability in an orderly transaction between market participants at the measurement date. The Company measures fair values using the following fair value hierarchy, which reflects the significance of the inputs used in making the fair value measurements:

Level 1
Inputs that are quoted market prices (unadjusted) for identical instruments in active markets that the Company can access at the measurement date. The market is considered to be active if trading is frequent and price data is regularly available. These quotes (mid) represent the price for an orderly transaction between parties in the market on the valuation date. Level 1 instruments comprise mainly investments in debt securities.

Level 2
Inputs other than quoted prices included within level 1 that are observable either directly (i.e. as prices) or indirectly (i.e. derived from prices). This level includes instruments valued using quoted prices for identical instruments in markets that are considered less than active or other valuation techniques in which all significant inputs are directly or indirectly observable from market data. Level 2 instruments comprise mainly OTC derivatives, the Company's issued plain-vanilla financial liabilities and lending agreements.

Level 3
This level includes all instruments for which the valuation technique includes inputs that are not observable and the unobservable inputs have a significant effect on the instrument's valuation. Unobservable inputs are used only to the extent that no relevant observable inputs are available. If the valuation input is illiquid, extrapolated or based on historical prices, the valuation input will be defined as a level 3 valuation input as these types of inputs are per definition unobservable. This level includes financial instruments with equity and FX structures due to impact of the utilisation of inputs such as dividend yield on the fair value measurement. In addition, level 3 contains some interest rate structures with long maturities (exceeding e.g. 35 years) or in currencies where the interest rate curve is not considered liquid for all maturities.

Due to the nature of MuniFin's funding portfolio (i.e. issued bonds are hedged back-to-back), if a swap that is hedging an issued bond is designated as a level 3 instrument, then the issued bond will also be designated as a level 3 instrument. Same principle applies to other portfolios and levels of the hierarchy as well. The Company does not hold other assets or liabilities which are measured at fair value or assets or liabilities which are non-recurringly measured at fair value.

The following table presents financial instruments by the level of the fair value hierarchy into which the fair value measurement is categorised.

Financial assets 31 Dec 2023 (EUR 1,000)	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
At fair value					
Fair value through fair value reserve					
Debt securities	369,669	369,669	-	-	369,669
Designated at fair value through profit or loss					
Loans and advances to the public and public sector entities	30,326	-	30,326	-	30,326
Debt securities	3,200,340	3,153,086	47,254	-	3,200,340
Mandatorily at fair value through profit or loss					
Loans and advances to the public and public sector entities	27,482	-	-	27,482	27,482
Shares and participations in Group companies	656	-	-	656	656
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	312,957	-	304,492	8,464	312,957
Derivative contracts in hedge accounting	1,543,813	-	1,543,813	-	1,543,813
Total at fair value	**5,485,243**	**3,522,755**	**1,925,886**	**36,602**	**5,485,243**
In fair value hedge accounting					
Amortised cost					
Loans and advances to the public and public sector entities	10,937,466	-	11,469,879	-	11,469,879
Leased assets	383,163	-	402,491	-	402,491
Total in fair value hedge accounting	**11,320,629**	**-**	**11,872,370**	**-**	**11,872,370**
At amortised cost					
Cash and balances with central banks	2	2	-	-	2
Loans and advances to credit institutions	9,185,977	8,125,064	1,060,913	-	9,185,977
Loans and advances to the public and public sector entities	19,584,757	-	20,816,584	-	20,816,584
Debt securities	1,574,954	-	1,575,066	-	1,575,066
Other assets	1,048,412	-	1,048,412	-	1,048,412
Total at amortised cost	**31,394,102**	**8,125,066**	**24,500,975**	**-**	**32,626,041**
Total financial assets	**48,199,974**	**11,647,821**	**38,299,231**	**36,602**	**49,983,653**

Financial liabilities 31 Dec 2023 (EUR 1,000)	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
At fair value					
Designated at fair value through profit or loss					
Liabilities to credit institutions	42,989	-	42,989	-	42,989
Liabilities to the public and public sector entities	1,311,174	-	1,212,590	98,584	1,311,174
Debt securities issued	9,472,387	-	9,178,791	293,596	9,472,387
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	1,157,142	-	1,039,248	117,893	1,157,142
Derivative contracts in hedge accounting	2,215,373	-	2,201,980	13,393	2,215,373
Total at fair value	**14,199,065**	**-**	**13,675,599**	**523,466**	**14,199,065**
In fair value hedge accounting					
Amortised cost					
Liabilities to credit institutions	86,889	-	86,847	-	86,847
Liabilities to the public and public sector entities	1,277,101	-	1,290,050	-	1,290,050
Debt securities issued*	30,841,465	-	30,621,730	184,468	30,806,198
Total in fair value hedge accounting	**32,205,454**	**-**	**31,998,627**	**184,468**	**32,183,095**
At amortised cost					
Liabilities to credit institutions	83,817	-	83,817	-	83,817
Debt securities issued	287,794	-	287,794	-	287,794
Other liabilities	400,715	-	400,715	-	400,715
Total at amortised cost	**772,326**	**-**	**772,326**	**-**	**772,326**
Total financial liabilities	**47,176,846**	**-**	**46,446,551**	**707,935**	**47,154,486**

* MuniFin's fixed-rate benchmark bond issuances are presented on level 2 due the fact that these bonds are in fair value hedge accounting with respect to the hedged risk. Valuation of the hedged risk is based on the level 2 inputs. In the Notes of the Financial Statements, the Company's fixed-rate benchmark bonds fair value is adjusted to reflect fair value based on the quoted prices from Bloomberg. The market price is a level 1 input.

Financial assets 31 Dec 2022 (EUR 1,000)	Carrying amount	Fair value Level 1	Level 2	Level 3	Total
At fair value					
Fair value through fair value reserve					
Debt securities	167,636	137,695	29,941	-	167,636
Designated at fair value through profit or loss					
Loans and advances to the public and public sector entities	28,432	-	28,432	-	28,432
Debt securities	3,162,034	3,057,135	104,899	-	3,162,034
Mandatorily at fair value through profit or loss					
Loans and advances to the public and public sector entities	31,090	-	-	31,090	31,090
Shares and participations in Group companies	656	-	-	656	656
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	504,097	-	489,218	14,880	504,097
Derivative contracts in hedge accounting	2,203,006	-	2,202,335	671	2,203,006
Total at fair value	**6,096,951**	**3,194,830**	**2,854,824**	**47,297**	**6,096,951**
In fair value hedge accounting					
Amortised cost					
Loans and advances to the public and public sector entities	11,348,612	-	11,926,267	-	11,926,267
Leased assets	274,053	-	288,092	-	288,092
Total in fair value hedge accounting	**11,622,665**	**-**	**12,214,359**	**-**	**12,214,359**
At amortised cost					
Cash and balances with central banks	2	2	-	-	2
Loans and advances to credit institutions	9,624,470	8,223,397	1,401,072	-	9,624,470
Loans and advances to the public and public sector entities	16,433,133	-	17,466,009	-	17,466,009
Debt securities	1,457,098	-	1,456,713	-	1,456,713
Other assets	1,219,541	-	1,219,541	-	1,219,541
Total at amortised cost	**28,734,245**	**8,223,399**	**21,543,335**	**-**	**29,766,735**
Total financial assets	**46,453,861**	**11,418,229**	**36,612,519**	**47,297**	**48,078,045**

Financial liabilities 31 Dec 2022 (EUR 1,000)	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
At fair value					
Designated at fair value through profit or loss					
Liabilities to credit institutions	3,291	-	3,291	-	3,291
Liabilities to the public and public sector entities	1,318,658	-	1,166,432	152,227	1,318,658
Debt securities issued	10,842,676	-	9,865,856	976,820	10,842,676
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	1,562,525	-	1,222,013	340,512	1,562,525
Derivative contracts in hedge accounting	3,053,586	-	3,047,585	6,001	3,053,586
Total at fair value	**16,780,736**	**-**	**15,305,177**	**1,475,559**	**16,780,736**
In fair value hedge accounting					
Amortised cost					
Liabilities to credit institutions	84,892	-	84,878	-	84,878
Liabilities to the public and public sector entities	1,210,927	-	1,224,889	-	1,224,889
Debt securities issued	24,419,692	-	24,420,879	56,749	24,477,627
Total in fair value hedge accounting	**25,715,510**	**-**	**25,730,646**	**56,749**	**25,787,395**
At amortised cost					
Liabilities to credit institutions	2,244,440	-	2,244,440	-	2,244,440
Debt securities issued	329,698	-	329,698	-	329,698
Other liabilities	573,969	-	573,969	-	573,969
Total at amortised cost	**3,148,106**	**-**	**3,148,106**	**-**	**3,148,106**
Total financial liabilities	**45,644,353**	**-**	**44,183,930**	**1,532,308**	**45,716,238**

All valuation models, both complex and simple models, use market prices and other inputs. These market prices and inputs comprise interest rates, FX rates, volatilities, correlations etc. The Company applies different types of valuation inputs depending on the type and complexity of the instruments and the related risk factors and payoff structures. The Company's defined categorisation to the fair value hierarchy levels is based on the analysis performed with regards to the valuation input, stress testing (reasonable possible alternative assumption) and model complexity. If the inputs used to measure fair value are categorised into different levels on the fair value hierarchy, the fair value measurement is categorised in its entirety on the level of the lowest level input that is significant to the entire measurement.

IFRS 13 standard classifies valuation models and techniques into three different categories: market approach, income approach and cost approach. The Company applies the market-based approach when the instrument has a functioning market and public price quotations are available. The Company uses the market approach for the valuation of investment bonds of the liquidity portfolio. For all level 1 assets, the Company uses market prices available for identical assets (same ISIN). The Company does not make use of prices for comparable assets.

Income approach is applied when valuation is based, for example, on determining the present value of future cash flows (discounting). Valuation methods take into account an assessment of the credit risk, discount rates used, the possibility of early repayment and other factors that influence the fair value of a financial instrument reliably. The Company uses the income approach for many of its financial instruments, for example derivatives, lending and funding. The Company does not use the cost approach for the valuation of any of its financial instruments.

The Company uses widely recognised valuation models to determine the fair value of common and simple financial instruments, such as interest rate and currency swaps, that use only observable market data and require little management judgement and estimation. Observable prices or model inputs are usually available in the market for listed debt and equity securities and simple OTC derivatives such as interest rate swaps. The availability of observable market prices and model inputs reduces the need for management judgement and estimation and reduces the uncertainty associated with determining fair values. The availability of observable market prices and inputs varies depending on the products and markets and is prone to changes based on specific events and general conditions in the financial markets.

MuniFin applies different models in order to derive the fair value of a certain type of instrument. The choice of base model and model calibration depends on the complexity of the financial instrument and the observability of the relevant inputs. In line with market practice, the primary choice of base model is contingent on the underlying instrument classes. Additionally, instruments are broken down into different categories granular enough to capture the most important risk drivers and different kinds of calibration techniques. The specific combination of base models and the different assumptions and calibration techniques are documented. The Company's fair value instruments that are subject to mark-to-model valuation techniques consists out of four asset classes:
- Interest rate instruments,
- FX instruments,
- Equity-linked instruments and
- Hybrid instruments.

Financial instruments under *FX, Equity-linked and Hybrid classes* are mainly classified as level 3 instruments.

Fair value of financial instruments is generally calculated as the net present value of the individual instruments. This calculation is supplemented by counterparty level adjustments. The Company incorporates credit valuation adjustments (*CVA*) and debit valuation adjustments (*DVA*) into derivative valuations. CVA reflects the impact of the counterparty's credit risk on fair value and DVA MuniFin's own credit quality. The Company uses the same methodology to compute CVA and DVA. They are both assessed as the result of three inputs: Loss Given Default (*LGD*), Probability of Default (*PD*, own for DVA and of the counterparty for CVA) and Expected Exposure (*EE*). In addition, the Group calculates Funding Valuation Adjustment for those derivative contracts that do not hold cash collateral arrangements (derivatives made with MuniFin Group's customers).

Valuation framework
MuniFin has implemented a framework for the arrangements, activities and procedures with regards to the Company's model risk management. The purpose of the model risk management framework is to ensure the effective management of model risk and mitigation of fair value uncertainty, as well as to ensure compliance with external and internal requirements. The Company ensures that all aspects of the lifecycle of valuation models (i.e. approval, design and development, testing and maintenance, monitoring and execution) are subject to effective governance, clear roles and responsibilities and effective internal control.

The Company manages and maintains a model inventory which provides a holistic view of all valuation models, their business purpose and characteristics as well as their applications and conditions for use. All approved valuation models within the model inventory are subject to annual review and re-approval by the Risk Management and Compliance Management Team.

The Finance Management Team acts as a valuation control group for MuniFin's fair values and is responsible for the final approval of MuniFin's fair values for financial reporting. The Finance Management Team monitors and controls MuniFin's valuation process and the performance of valuation models, decides on the necessary measures and reports to the Executive Management Team (*EMT*). The Finance Management Team assesses whether the valuation models and valuation process provide sufficiently accurate information to be used in financial reporting and, based on the information received, decides on possible adjustments to the values generated by the valuation process.

The Company has implemented an efficient control and performance monitoring framework with regards to its valuation models, which aims to ensure the accuracy and appropriateness of model output. The model performance monitoring consists of four main controls:
- Counterparty valuation control (*CVC*),
- Fair value explanation,
- Independent price verification (*IPV*) and
- Independent model validation.

Counterparty valuation control (*CVC*) is performed daily by Risk Management, which assesses any deviations in valuation model output compared to MuniFin's own earlier valuations and to counterparty valuations. The results of the assessment are reported monthly to the CFO and quarterly to the Finance Management Team. Fair value explanation process consists of a daily analysis and explain of the changes in fair values by Risk Management and a monthly fair value explain report to the CFO and quarterly to the Finance Management Team. The independent price verification is performed monthly as part of MuniFin's IPV process by a third party service provider. The results of the control activities are reported monthly to the CFO and quarterly to the Finance Management Team. The independent model validation is performed annually for a subset of MuniFin's valuation models by a third-party service provider. The results of the model validation are reported to the Finance Management Team.

Transfers in the fair value hierarchy

MuniFin assesses the appropriateness and correctness of the categorisation with regards to the fair value hierarchy classification at initial recognition and at the end of each reporting period. This is to determine the initial classification of a level 1, 2 and 3 instrument and the subsequent potential transfers between levels within the fair value hierarchy. A transfer between the fair value hierarchies can occur for example when a previously assumed observed input requires an adjustment using an unobservable input. The procedure is the same for transfers into and out of the fair value levels. Transfers between the levels are considered to take place at the end of the quarter during which an event causes such a transfer or when circumstances change.

During 2023, transfers totaling EUR 71,534 thousand have been made between level 1 and level 2. During 2023, total of EUR 2,426 thousand were transferred from level 2 to level 3 financial instruments.

Level 3 transfers 2023 (EUR 1,000)	1 Jan 2023	Change in fair value in the income statement	Purchases and new contracts	Sales and matured contracts	Transfers into level 3	Transfers out of level 3	31 Dec 2023
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	31,090	-3,609	-	-	-	-	27,482
Shares and participations in Group companies	656	-	-	-	-	-	656
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	14,880	-3,418	-	-2,998	-	-	8,464
Derivative contracts in hedge accounting	671	-	-	-	-	-671	-
Financial assets in total	**47,297**	**-7,026**	**-**	**-2,998**	**-**	**-671**	**36,602**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	152,227	3,983	-	-57,626	-	-	98,584
Debt securities issued	976,820	-6,020	-	-677,204	-	-	293,596
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	340,512	-11,412	-	-211,206	-	-	117,893
Derivative contracts in hedge accounting	6,001	808	8,738	-	654	-2,808	13,393
In fair value hedge accounting							
Amortised cost							
Debt securities issued	56,749	2,718	153,022	-	1,772	-29,792	184,468
Financial liabilities in total	**1,532,308**	**-9,923**	**161,760**	**-946,036**	**2,426**	**-32,601**	**707,935**
Level 3 financial assets and liabilities in total*	**1,579,605**	**-16,949**	**161,760**	**-949,034**	**2,426**	**-33,272**	**744,537**

* The Company recognises these gains and losses within the line item *Net income on financial instruments at fair value through profit or loss*. The fair value change due to changes in own credit risk of financial liabilities designated at fair value through profit or loss is recognised in the *Own credit revalution reserve*.

During 2022, transfers totalling EUR 9,270 thousand were made between level 1 and level 2. There were no transfers from level 2 to level 3.

Level 3 transfers 2022 (EUR 1,000)	1 Jan 2022	Change in fair value in the income statement	Purchases and new contracts	Sales and matured contracts	Transfers into level 3	Transfers out of level 3	31 Dec 2022
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	34,861	-3,649	-	-121	-	-	31,090
Shares and participations in Group companies	656	-	-	-	-	-	656
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	62,829	-42,509	687	-5,415	-	-713	14,880
Derivative contracts in hedge accounting	407	515	66	-	-	-317	671
Financial assets in total	**98,753**	**-45,643**	**753**	**-5,536**	**-**	**-1,030**	**47,297**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	263,793	-46,923	-	-	-	-64,643	152,227
Debt securities issued	1,759,569	-122,696	180,471	-796,670	-	-43,855	976,820
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	744,299	150,724	20,607	-569,309	-	-5,809	340,512
Derivative contracts in hedge accounting	25,690	-1,179	2,884	-133	-	-21,260	6,001
In fair value hedge accounting							
Amortised cost							
Debt securities issued	86,040	1,491	26,047	-3,066	-	-53,764	56,749
Financial liabilities in total	**2,879,390**	**-18,583**	**230,009**	**-1,369,177**	**-**	**-189,331**	**1,532,308**
Level 3 financial assets and liabilities in total	**2,978,143**	**-64,226**	**230,762**	**-1,374,713**	**-**	**-190,361**	**1,579,605**

Sensitivity analysis of unobservable inputs

Sensitivity analysis illustrates the impact of the reasonably possible assumptions on the fair value of financial instruments for which valuation is dependent on unobservable inputs. However, it is unlikely in practice that all unobservable inputs would simultaneously move to extremes of reasonably possible alternatives used in the sensitivity analysis. Hence, the impact of the sensitivity analysis disclosed in this Note is likely to be greater than the true uncertainty in the fair values at the financial statement date. Furthermore, the disclosure is neither predictive nor indicative of future movements in the fair value of financial instruments.

Although the Company believes that its estimates of fair value are appropriate, the use of different methodologies or assumptions could lead to different measurements of fair value. For fair value measurements on level 3, changing one or more of the assumptions to the reasonably possible alternative assumptions would have the following effects: as of 31 December 2023, these assumptions could have increased fair values by EUR 21.2 milllion (EUR 60.6 million) or decreased fair values by EUR 21.1 million (EUR 71.1 million).

Sensitivity analysis of significant unobservable inputs by instrument type (EUR 1,000)	Positive range of fair value 2023	Negative range of fair value 2023	Positive range of fair value 2022	Negative range of fair value 2022
Loans and advances to the public and public sector entities				
Loans	-26	-81	249	-273
Derivative contracts				
Equity-linked derivatives	668	-641	18,117	-22,052
FX-linked cross currency and interest rate derivatives	860	-970	834	-1,318
Other interest rate derivatives	9,975	-10,115	11,726	-11,860
Debt securities issued and Liabilities to the public and public sector entities				
Equity-linked liabilities	726	-590	16,927	-23,275
FX-linked liabilities	737	-650	834	-990
Other liabilities	8,310	-8,093	11,919	-11,327
Total	**21,250**	**-21,141**	**60,606**	**-71,095**

The behaviour of the fair value of the unobservable inputs on level 3 is not necessarily independent and dynamic relationships often exist between the unobservable inputs and the observable inputs. Such relationships, where material to the fair value of a given instrument, are controlled via pricing models or valuation techniques. MuniFin uses stochastic models to generate a distribution of future cash flows for each financial instrument. The future cash flows are then discounted back to present to get the fair value of each financial instrument. The stochastic models used by the Company are Hull-White model and Dupire volatility model.

The unobservable inputs used by the Company are described next. The unobservable inputs are used only to the extent that no relevant observable inputs are available.

Correlation parameters

If the fair value of a financial instrument is impacted by more than one unobservable input, correlations describe the relationship between these different underlyings. For example for equity-linked instruments, correlation has a significant impact on fair value if the underlying is dependant on more than one equity. For FX-linked cross currency and interest rate derivatives, correlations exist between FX rates of currencies, which impact the fair value of the financial instrument. If a high correlation exists between the unobservable inputs, it will lead to an increase in fair value. A low correlation between the unobservable inputs will lead to a decrease in fair value.

MuniFin Group has financial instruments, in which correlation is a significant unobservable input, mainly in funding products and their hedging instruments.

Volatility (extrapolated or illiquid)

A financial instrument whose value is based on a stochastic model will typically require the volatility of the underlying instrument as an input. The Company uses Dupire local volatility model as its stochastic valuation model. For interest rate volatilities at-the-money implied volatility is used. For FX and equity components (both equity indices and single stock prices), a full volatility surface is used that includes quotes for different strikes and maturities. The Company uses implied volatility for the majority of the equity-linked structures. In some cases no liquid volatility surface exists. In these cases, a proxy volatility is typically used instead. The majority of the financial instruments, which use volatility as a significant unobservable input, are the Company's funding products and their hedging instruments.

Dividend yield

The main drivers influencing the fair value of equity-linked instruments are the dividend yield and volatility of the underlying equities. Equity-linked instruments require a dividend parameter as an input to the fair value. The equity component is modelled using the Dupire local volatility model where the underlying equity prices are assumed to follow a random walk. Instruments that have divident yield as a significant unobservable input, are the Company's funding products and their hedging instruments.

Interest rates (extrapolated or illiquid)

The Company uses unobservable inputs in defining the fair value of complex interest rate structures. The future cash flows and their fair value is determined by using forward rates and volatilities of the underlying interest rates using the Hull-White stochastic model. Financial instruments whose payoffs are dependent on the value of complex interest rate structures are categorised on level 3. The majority of these instruments requiring extrapolated or illiquid interest rates as input are the Company's funding products and their hedging instruments.

The following table illustrates the effect that changing one or more of the assumptions in the unobservable input (reasonably possible alternative assumptions) could have on the valuations at the financial statement date:

Sensitivity analysis of unobservable inputs 31 Dec 2023 (EUR 1,000)	Fair value	Valuation technique	Unobservable input	Positive range of fair value	Negative range of fair value
Loans and advances to the public and public sector entities					
Loans	27,482	Stochastic model	Volatility – Extrapolated or Illiquid	-26	-81
Derivative contracts					
			Correlation parameters	7	-20
Equity-linked derivatives	-21,211	Stochastic model	Volatility – Extrapolated or Illiquid	627	-607
			Dividend yield	34	-14
			Correlation parameters	125	-111
FX-linked cross currency and interest rate derivatives	-244	Stochastic model	Volatility – Extrapolated or Illiquid	735	-859
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	0	0
Other interest rate derivatives	-101,367	Stochastic model	Volatility – Extrapolated or Illiquid	9,267	-9,408
			Interest rates – Extrapolated or Illiquid	708	-708
Debt securities issued and Liabilities to the public and public sector entities					
			Correlation parameters	24	8
Equity-linked liabilities	79,794	Stochastic model	Volatility – Extrapolated or Illiquid	658	-562
			Dividend yield	44	-36
			Correlation parameters	80	-73
FX-linked liabilities	107,163	Stochastic model	Volatility – Extrapolated or Illiquid	657	-577
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	2	-2
Other liabilities	389,692	Stochastic model	Volatility – Extrapolated or Illiquid	8,277	-8,060
			Interest rates – Extrapolated or Illiquid	31	-31
Total				**21,250**	**-21,141**

Sensitivity analysis of unobservable inputs 31 Dec 2022 (EUR 1,000)	Fair value	Valuation technique	Unobservable input	Positive range of fair value	Negative range of fair value
Loans and advances to the public and public sector entities					
Loans	31,090	Stochastic model	Volatility – Extrapolated or Illiquid	249	-273
Derivative contracts					
			Correlation parameters	-1,743	-1,906
Equity-linked derivatives	-104,317	Stochastic model	Volatility – Extrapolated or Illiquid	21,290	-17,708
			Dividend yield	-1,430	-2,438
			Correlation parameters	-11	-121
FX-linked cross currency and interest rate derivatives	-120,294	Stochastic model	Volatility – Extrapolated or Illiquid	845	-1,197
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	80	14
Other interest rate derivatives	-106,351	Stochastic model	Volatility – Extrapolated or Illiquid	11,510	-11,736
			Interest rates – Extrapolated or Illiquid	136	-138
Debt securities issued and Liabilities to the public and public sector entities					
			Correlation parameters	569	-194
Equity-linked liabilities	676,238	Stochastic model	Volatility – Extrapolated or Illiquid	15,511	-22,611
			Dividend yield	847	-470
			Correlation parameters	-36	-133
FX-linked liabilities	170,030	Stochastic model	Volatility – Extrapolated or Illiquid	870	-857
			Interest rates – Extrapolated or Illiquid	0	0
			Correlation parameters	0	0
Other liabilities	339,527	Stochastic model	Volatility – Extrapolated or Illiquid	11,876	-11,285
			Interest rates – Extrapolated or Illiquid	43	-43
Total				**60,606**	**-71,095**

Day 1 gain or loss (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Opening balance 1 Jan	-392	-236
Recognised gain in the income statement	-	498
Recognised loss in the income statement	-470	-470
Deferred gain or loss on new transactions	512	-184
Total 31 Dec	**-350**	**-392**

The definition and amortisation method for the Day 1 gain or loss is presented in the accounting policies of the Consolidated Financial Statements (Note *1*) in Section *13. Determination of fair value*.

Note 39. Equity

2023 (EUR 1,000)	Share capital	Reserve fund	Fair value reserve of investments	Own credit revaluation reserve	Cost-of-Hedging reserve	Reserve for invested non-restricted equity	Retained earnings	Total
Carrying amount 1 Jan	43,008	277	-4,457	-83	1,488	40,743	365,775	446,750
+ Increase	-	-	6,511	60,320	20,334	-	67,416	154,581
- Decrease	-	-	-2	-	-	-	-67,580	-67,582
Carrying amount 31 Dec	**43,008**	**277**	**2,052**	**60,238**	**21,821**	**40,743**	**365,611**	**533,750**

2022 (EUR 1,000)	Share capital	Reserve fund	Fair value reserve of investments	Own credit revaluation reserve	Cost-of-Hedging reserve	Reserve for invested non-restricted equity	Retained earnings	Total
Carrying amount 1 Jan	43,008	277	309	64	13,621	40,743	267,950	365,972
+ Increase	-	-	2	-	-	-	138,061	138,063
- Decrease	-	-	-4,769	-147	-12,133	-	-40,236	-57,284
Carrying amount 31 Dec	**43,008**	**277**	**-4,457**	**-83**	**1,488**	**40,743**	**365,775**	**446,750**

Distributable funds (EUR 1,000)	31 Dec 2023	31 Dec 2022
Retained earnings	298,194	227,714
Net profit for the financial year	67,416	138,061
Total	**365,611**	**365,775**

At 31 December 2023, the distributable funds totalled EUR 365,610,693.66 (EUR 365,774,616.34). The funds received from MuniFin's share issue in 2009 have been recorded in the reserve for invested non-restricted equity. The reserve for invested non-restricted equity, recognised based on the share issue, is considered as a return of capital at the time of possible distribution of profits, and therefore MuniFin does not count the reserve for invested non-restricted equity as an item for distributable funds. Based on Article 4 of CRR, the reserve for invested non-restricted equity is also considered a non-distributable item.

Note 40. Share capital

The shares of Municipality Finance Plc are divided into A and B shares. The two types are equal in terms of voting rights and the distribution of profit. Each share entitles its holder to one vote. The shares have no nominal value. The acquisition of shares is restricted through the consent and redemption clauses of the Articles of Association. At the end of 2023, the Company's share capital, paid up and recorded in the Trade Register, amounted to EUR 43,008 thousand (EUR 43,008 thousand). The total number of shares is 39,063,798 (39,063,798) which is divided to A shares 26,331,646 (26,331,646) and B shares 12,732,152 (12,732,152).

Note 41. Largest shareholders

The ten largest shareholders in terms of voting rights and the number of shares held by them, their portion of all shares in the credit institution and of all votes carried by the shares as well as the total number of shareholders:

31 Dec 2023	No. of shares	Per cent
1. Keva	11,975,550	30.66%
2. Republic of Finland	6,250,000	16.00%
3. City of Helsinki	4,066,525	10.41%
4. City of Espoo	1,547,884	3.96%
5. VAV Asunnot Oy*	963,048	2.47%
6. City of Tampere	919,027	2.35%
7. City of Oulu	903,125	2.31%
8. City of Turku	763,829	1.96%
9. City of Kuopio	592,028	1.52%
10. City of Lahti	537,926	1.38%

* VAV Asunnot Oy is fully owned by City of Vantaa

The total number of shareholders is 276 (276).
The number of shares in this table does not include possible shares held by the shareholders' group companies.

Notes on collateral and contingent liabilities

Note 42. Collateral given

Given collaterals on behalf of own liabilities and commitments (EUR 1,000)	31 Dec 2023	31 Dec 2022
Loans and advances to credit institutions to the counterparties of derivative contracts*	1,060,913	1,400,559
Loans and advances to credit institutions to the counterparties of repurchase agreements**	-	514
Loans and advances to credit institutions to the central bank***	35,152	31,745
Loans and advances to the public and public sector entities to the central bank***	4,598,718	3,676,627
Loans and advances to the public and public sector entities to the Municipal Guarantee Board****	12,701,070	12,101,459
Debt securities to the counterparties of repurchase agreements**	-	9,580
Debt securities to the central counterparty	70,062	24,942
Other assets to the counterparties of derivative contracts*	1,048,412	1,219,541
Total	**19,514,327**	**18,464,967**

* MuniFin has pledged collateral to the counterparties of derivative contracts based on the CSA agreements of the derivative contracts (*ISDA/Credit Support Annex*).

** MuniFin has pledged collateral to the counterparties of repurchase agreements based on the GMRA (*General Master Repurchase Agreement*).

*** MuniFin is a monetary policy counterparty approved by the central bank and for this purpose collateral has been pledged to the central bank for possible operations related to this counterparty position.

**** MuniFin has pledged loans shown in the table to the Municipal Guarantee Board. The Municipal Guarantee Board guarantees MunFin's funding and MuniFin places collateral for the Municipal Guarantee Board's guarantees as defined in the Act on the Municipal Guarantee Board.

Collateral given is presented at the carrying amounts of the financial statement date.

Note 43. Pension liabilities

Pension coverage has been arranged via an external pension insurance company. Pension plans are classified as defined contribution plans.

Note 44. Off-balance sheet commitments

(EUR 1,000)	31 Dec 2023	31 Dec 2022
Credit commitments	3,071,228	2,463,978
Total	**3,071,228**	**2,463,978**

Notes on personnel and management

Note 45. Personnel

	2023		2022	
	Average	End of year	Average	End of year
Permanent full-time	158	158	147	149
Permanent part-time	3	3	3	4
Fixed term	11	13	12	12
Total	**172**	**174**	**162**	**165**

Employee benefits for management

Salaries and remuneration paid to the CEO, Deputy to the CEO and other members of the Executive Management Team (*EMT*) subject to withholding tax:

Salaries and remuneration (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
President and CEO	-451	-435
Deputy to the CEO	-239	-272
Other members of the Executive Management Team in total	-1,424	-1,436
Total	**-2,114**	**-2,142**

MuniFin has provided to those members of the EMT that have been appointed as members (including CEO and the Deputy to the CEO) before 21 Dec 2017 with a contribution-based group pension insurance. Those members are entitled to pension from the insurance after they have turned 63 years.

The Company has paid the following statutory pension contributions related to the CEO, the Deputy to the CEO and other members of the EMT:

Statutory pension contributions (EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
President and CEO	-76	-74
Deputy to the CEO	-40	-46
Other members of the Executive Management Team in total	-239	-244
Total	**-354**	**-364**

Remuneration of the Board of Directors

During the term 2023–2024, the members of the Board of Directors of the Parent Company are paid an annual remuneration as well as remuneration for each meeting in accordance with the decision of the Annual General Meeting. The annual remuneration is EUR 42,000 for the Chair of the Board, EUR 27,500 for the Vice Chair, EUR 29,500 for the Chairs of Committees and EUR 24,000 for the other members of the Board. The remuneration paid for Board and Committee meetings is EUR 950 per meeting for the Chair of the Board and the Chairs of Committees. and EUR 600 per meeting for the other members. In addition, meeting remuneration is paid for the meetings required by the supervisory authorities.

During the term 2022–2023, the members of the Board of Directors of the Parent Company were paid an annual remuneration as well as remuneration for each meeting in accordance with the decision of the Annual General Meeting. The annual remuneration was EUR 40,000 for the Chair of the Board, EUR 26,000 for the Vice Chair, EUR 28,000 for the Chairs of Committees and EUR 23,000 for the other members of the Board. The remuneration paid for Board and Committee meetings was EUR 800 per meeting for the Chair of the Board and the Chairs of Committees, and EUR 500 per meeting for the other members. In addition, meeting remuneration was paid for the meetings required by the supervisory authorities.

Salaries and remuneration (EUR 1,000)

Members of the Board of Directors	Jan–Dec 2023	Jan–Dec 2022
Kari Laukkanen, the Chair	-63	-54
Maaria Eriksson, the Vice Chair	-42	-35
Markku Koponen	-45	-43
Vivi Marttila, member until 28 March 2023	-9	-33
Tuomo Mäkinen	-36	-31
Minna Smedsten	-36	-34
Denis Strandell	-34	-34
Leena Vainiomäki	-46	-40
Kimmo Viertola, member until 24 March 2022	-	-7
Arto Vuojolainen, member since 28 March 2023	-27	-
Total	**-339**	**-310**

Related party transactions

Note 46. Loans and other financial receivables from the related parties

MuniFin does not have any loan or financial receivables, or other receivables referred to in Chapter 15 Section 13 (2) of the Act on Credit Institutions from related parties.

Holdings in other companies

Note 47. Holdings in other companies

(EUR 1,000)	2023 Proportion of all shares, %	2023 Carrying amount	2022 Proportion of all shares, %	2022 Carrying amount
Subsidiaries				
Financial Advisory Services Inspira Ltd	100.0	656	100.0	656
Total	**100.0**	**656**	**100.0**	**656**

Other notes

Note 48. Audit and other fees paid to the audit firm

(EUR 1,000)	Jan–Dec 2023	Jan–Dec 2022
Audit	-363	-393
Assignments as referred to in Subparagraph 2, Paragraph 1 Section 1 of the Auditing Act	-11	-13
Tax advisory services	-7	-23
Other services	-170	-153
Total	**-551**	**-581**

Amounts do not include VAT.

Signatures to the Report of the Board of Directors and the Financial Statements

Helsinki, 9 February 2024

Municipality Finance Plc

Kari Laukkanen Chair of the Board	Maaria Eriksson Vice Chair of the Board
Markku Koponen Member of the Board	Tuomo Mäkinen Member of the Board
Minna Smedsten Member of the Board	Denis Strandell Member of the Board
Leena Vainiomäki Member of the Board	Arto Vuojolainen Member of the Board

Esa Kallio
President and CEO

Auditor's Note

A report of the audit performed has been issued today.

Helsinki, 9 February 2024

KPMG Oy Ab

Tiia Kataja
Authorized Public Accountant

Auditor's Report

Municipality Finance Plc
Auditor's Report
for the year ended 31 December 2023

To the Annual General Meeting of Municipality Finance Plc

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Municipality Finance Plc (business identity code 1701683-4) for the year ended 31 December 2023. The financial statements comprise the consolidated statement of financial position, income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including material accounting policy information, as well as the parent company's balance sheet, income statement, statement of cash flows and notes.

In our opinion

— the consolidated financial statements give a true and fair view of the group's financial position, financial performance and cash flows in accordance with IFRS Accounting Standards as adopted by the EU

— the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Audit Committee.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report.

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To our best knowledge and understanding, the non-audit services that we have provided to the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 12 to the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

The scope of our audit was influenced by our application of materiality. The materiality is determined based on our professional judgement and is used to determine the nature, timing and extent of our audit procedures and to evaluate the effect of identified misstatements on the financial statements as a whole. The level of materiality we set is based on our assessment of the magnitude of misstatements that, individually or in aggregate, could reasonably be expected to have influence on the economic decisions of the users of the financial statements. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for qualitative reasons for the users of the financial statements.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters. The significant risks of material misstatement referred to in the EU Regulation No 537/2014 point (c) of Article 10(2) are included in the description of key audit matters below.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

THE KEY AUDIT MATTER	HOW THE MATTER WAS ADDRESSED IN THE AUDIT
Financial assets and financial liabilities measured at fair value (notes to group financial statements 1, 2, 3, 5, 6, 15, 18, 23 and 24)	
— The carrying amount of financial assets measured at fair value totaled EUR 5.5 billion and that of financial liabilities measured at fair value EUR 14.2 billion. — Fair values of financial instruments carried at fair value are determined using either prices quoted in an active market, or Municipality Finance Plc's own valuation techniques where no active market exists. Determining fair values involves management judgements, especially in respect of those instruments for which market-based data is not available. — Financial assets and financial liabilities measured at fair value account for a substantial part of the assets and liabilities in the consolidated statement of financial position. Changes in market interest rates and foreign exchange rates may have a significant impact on the profit or loss for the financial year and on equity. Consequently, the accounting for fair-valued financial assets and liabilities was considered a key audit matter.	— We analysed the appropriateness of the accounting principles and the valuation methodologies applied by Municipality Finance Plc, as well as tested key controls over the valuation process. — In respect of derivative instruments we considered the appropriateness of the accounting treatment by reference to the IFRS requirements. — As part of our year-end audit procedures we compared the fair values used in the measurement of fair-valued financial assets and liabilities with market quotations and other external price references, and assessed the accuracy of the valuation inputs and the reasonableness of the assumptions and estimates used. — Furthermore, we considered the appropriateness of the notes provided on financial assets and financial liabilities measured at fair value. — We involved our own IFRS and financial instruments specialists.

Hedge accounting (notes to group financial statements 1, 2, 7, 23 and 24)

- Municipality Finance Plc applies hedge accounting to hedge against interest rate and currency risks related to financial assets and financial liabilities, and to reduce the accounting mismatch.
- Municipality Finance Plc applies fair value hedge accounting under IFRS 9 and fair value portfolio hedge accounting under IAS 39.
- Due to the application of hedge accounting, the carrying amounts of those financial assets and financial liabilities to which hedge accounting is applied, include unrealised fair value change related to hedged risks.
- The hedge accounting process includes various accounting phases and hedge accounting may have a significant impact on the consolidated financial statements. Accordingly, hedge accounting was considered as key audit matter.

- We evaluated the hedge accounting practices applied for compliance with the relevant financial reporting standards.
- We assessed the effectiveness of the hedge effectiveness testing and the appropriateness of the related documentation prepared by Municipality Finance Plc.
- Furthermore, we considered the appropriateness of the notes provided on hedge accounting.
- We involved our own IFRS and financial instrument specialists.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with IFRS Accounting Standards as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

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 good auditing practice 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 the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, 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 parent company's or the group'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 Board of Directors' and the Managing Director's 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 the parent company's or the group'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. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.

— 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 so that the financial statements give a true and fair view.

— Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, 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.

Other Reporting Requirements

Information on our audit engagement

KPMG Oy Ab was first appointed as the audit firm by the Annual General Meeting in 2001, and our appointment represents a total period of uninterrupted engagement of 23 years.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements or our auditor's report thereon. We have obtained the report of the Board of Directors prior to the date of this auditor's report, and the Annual Report is expected to be made available to us after that date. Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to the report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Other Opinion

We support that the financial statements should be adopted. The proposal by the Board of Directors regarding the use of the profit shown in the balance sheet and the profit distribution is in compliance with the Limited Liability Companies Act. We support that the Members of the Board of Directors and the Managing Director should be discharged from liability for the financial period audited by us.

Helsinki 9th February 2024

KPMG OY AB

Tiia Kataja
Authorised Public Accountant, KHT

Municipality Finance Plc
Jaakonkatu 3 A, P.O. Box 744
00101 Helsinki
Tel. +358 9 6803 5666
www.munifin.fi
info@munifin.fi

MuniFin