Annual Report
2022

MuniFin

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CEO's review

As the world shook, MuniFin's role grew even more important

Finland's geopolitical and geoeconomical position upended in early 2022. Russia's war of aggression against Ukraine intensified the economic and social uncertainties of the COVID pandemic fallout, pushed inflation into a gallop and quickly escalated interest hikes. In this turmoil, MuniFin's role in securing Finland's security of supply grew even stronger.

Russia's invasion of Ukraine exacerbated inflation and hampered the availability of raw materials. Russian gas cut-offs plunged Europe into an energy crisis and sent energy prices soaring. This made collateral requirements in the electricity markets spiral, causing energy companies to face a liquidity crunch.

In October, the European Commission approved an aid scheme that allows MuniFin to finance Finnish municipality-owned energy companies under the EU State Aid Temporary Crisis Framework. This subsidised loan and guarantee scheme was designed to help cover the liquidity needs arising from the increased collateral requirements in the electricity derivatives market and was effective until 31 December 2022. Together with the Municipal Guarantee Board, we submitted a notification to continue this arrangement in 2023 and provide municipal energy companies financing not just for their collateral requirements, but also for other financing needs arising from potential crisis situations, such as financing for balancing energy requirements and working capital. The Commission approved this extension and the amendments in December. Offering financing for the energy sector is our contribution to safeguarding the energy sector's performance and Finland's security of supply.

The health and social services reform will transform financing

In 2022, the demand for our financing was slightly lower than expected. In the municipal sector, customers had less demand for finance because their income was higher than expected due to various non-recurring items, such as the central government's pandemic recovery measures and funds they acquired from the sale of their health and social services properties before the reform took effect. Tax cuts related to the reform will not be fully implemented until 2024, which also affected the demand for financing. In the housing sector, the materials shortage and the rising cost of raw materials slowed down construction projects. The volatile market situation also resulted in longer processing times for interest subsidy loan decisions.

The transfer of healthcare, social welfare and rescue services from municipalities to wellbeing services counties will change the financing base in municipalities. When a municipality's balance sheet shrinks but debts remain unchanged, its investment capacity decreases. In 2022, we continued supporting both municipalities and wellbeing services counties in their financial forecasting and investment capacity assessments.

In 2022, hospital districts and joint municipal authorities sought funding more actively than we had expected, wanting to dispel uncertainty around the financing of their long-term investments and secure necessary funding on time before the health and social services reform entered into force. The Act on the Municipal Guarantee Board was amended in the spring of 2022, allowing MuniFin to finance also new investments by the wellbeing services counties. However, the Municipal Guarantee Board set a limit to the amount of finance MuniFin can grant to wellbeing services counties: in 2023, we can finance the long-term investments of wellbeing services counties by EUR 400 million and grant them up to EUR 900 million in short-term financing. Our estimate is that wellbeing services counties will have considerably larger financing needs than the limit allocated to us. The limit set by the Municipal Guarantee Board only applies to new financing granted by MuniFin.

Operations continued steadily and services development is on track

The economic and geopolitical upheaval of 2022 has not affected MuniFin's profitability. As expected, our result was lower in 2022 than in 2021 mostly due to planned changes in pricing, but also due to some unexpected expenses. For example, our contribution to the Single Resolution Fund shot up by almost 40% from the previous year even though our risk position remained unchanged. On the other hand, rising interest rates boosted our profitability towards the end of the year.

Our funding remained stable even under the exceptional circumstances of 2022, and we continued to enjoy strong investor demand. We kept our liquidity at a high level throughout the year to ensure the availability of financing for our customers in all conditions.

The situation in global politics has increased the risk of cyber threats. In response, we have raised our preparedness against such threats to an even better level. We have also continued the digitalisation of our services. In 2022, we launched digital services for applying for short-term finance and piloted it in long-term finance. Digital services free our experts' time for offering value-added services to our customers, make our customers' work easier and increase the transparency of our pricing.

The past year was again marked by general economic uncertainty, even after the exceptional uncertainty of the COVID years. In these uncertain times, our role in ensuring our customers' operations and acting as our customers' trusted partner has grown even more important. I wish to thank our customers for their confidence and forward-facing collaboration and our staff for their wonderful work and commitment to our shared goal.

Esa Kallio
President and CEO
Municipality Finance Plc

MuniFin in brief

Strengthening the development and operational reliability of society

MuniFin's core mandate is to ensure that our customers stay viable and can secure affordable funding regardless of the market and social situation. The effects of our work can be seen in the everyday lives of Finns, obliging us to take sustainability into account in all our operations. The projects that we finance include schools, hospitals, libraries, municipal infrastructure, rental apartments and housing for people with special needs.

We are committed to building a better and more sustainable future with our customers. Our customers include municipalities, joint municipal authorities, wellbeing services counties, joint county authorities and corporate entities under their control, and non-profit organisations nominated by the Housing Finance and Development Centre of Finland (ARA). We are the largest single provider of financing for our customer segments.

We offer our customers diverse financing services. Our experts help our customers make investment decisions that are sustainable for the economy, environment and society. We constantly improve and digitalise our services to meet the needs of our customers and help them 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, whose members are all the Finnish mainland municipalities.

The shareholders of MuniFin are Finnish municipalities, public-sector pension provider Keva and the State of Finland. We do not seek to maximise profit, which is why we support sustainable investments by granting a margin discount for green and social projects. We wish to serve efficiently and profitably as the best financing expert in the field, providing our customers with solutions that are the best fit for their needs.

MuniFin employs about 170 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. K

Year 2022 in figures

Shareholders %

53/31/16

Municipalities Keva State of Finland

Credit rating

AA+
Aa1

Standard & Poor's: AA+, Moody's: Aa1

Long-term customer financing, EUR billion

29.1

New long-term funding, EUR billion

8.8

Social finance, EUR billion

1.7

Green finance, EUR billion

3.3

ESG ratings

9.4 Sustainalytics ESG risk rating

AA MSCI

C Prime ISS ESG

Willingness to recommend (scale 1–7)

6.1

Key Figures (Group)	2022	2021	Change, %
Net interest income (EUR million)	**241**	280	-13.9%
Net operating profit excluding unrealised fair value changes (EUR million)	**170**	213	-20.0%
Long-term customer financing (EUR million)	**29,144**	29,214	-0.2%
Total funding (EUR million)	**40,210**	40,712	-1.2%
Balance sheet total (EUR million)	**47,736**	46,360	3.0%
Total own funds (EUR million)	**1,482**	1,756	-15.6%
CET1 capital ratio (%)	**97.6%**	95.0%	2.7%
Leverage ratio (%)	**11.6%**	12.8%	-9.5%

Highlights of 2022

30 March: We won Environmental Finance's 'Green Bond of the Year' award in the highly competitive local authority or municipality category for the second year running. Environmental Finance is an online news and financial analysis service reporting on sustainable finance topics.

29 April: The Finnish Parliament passed the amendments to the Act on the Municipal Guarantee Board, allowing MuniFin to start financing new investments and other new financing needs by the wellbeing services counties.

10 May: We issued a green bond which was hugely successful despite the challenging market backdrop and was many times oversubscribed. As much as 80% of the participation was from dedicated ESG investors.

31 May: We kicked off our event series entitled 'Climate & municipalities' with the purpose of sharing best practices and practical examples of climate work in municipalities. The themes of the online events were biodiversity, sustainable construction, Finland's new Climate Act and practical implementation of municipal climate strategies.

6 June: We started the digital trade of municipal commercial papers, a financial instrument municipalities use for their short-term finance. The new online service allows customers to see the available limit, current issuances and pricing for all maturities.

03 04 05 06 09 10 11

8 September: We published our updated Green Bond Framework, which sets the criteria for green finance, project assessment and reporting. The eligibility criteria defined in the updated framework are even more transparent and ambitious than before, and the assessment process is more streamlined.

13 September: We published a discussion paper on sustainable living, presenting recommended changes that should be made to ensure the continued success of the Finnish system for affordable social housing.

7 October: The European Commission approved the Finnish aid scheme that allows MuniFin to finance municipal energy companies. The arrangement ensures the continuity of municipal energy companies' operations and strengthens Finland's security of supply. This type of financing can only be used towards the collateral requirements in the electricity market.

26 October: Our bold stakeholder communications, carried out in cooperation with creative agency SEK, took the first place in the B2B education category in the Finnish Comms Awards, a prestigious communications event in Finland. We were also shortlisted for the categories of sustainability communications (CSR, ESG, Sustainability) and corporate and organisational communications.

10 November: We continued expanding our digital services by piloting the digital application process in long-term finance. Digital services make the loan application process faster and easier and increase the transparency of our pricing.

25 November: We joined Partnership for Carbon Accounting Financials (PCAF). This industry led initiative aims to develop and implement a standardised method for greenhouse gas emissions accounting for the financial industry.

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. In line with our strategy, we are committed to building a better and more sustainable future with our customers. Our work is guided by our values of customer centricity, responsibility and transparency.

Our core mandate is to offer our customers affordable financing under all market conditions. In the last years, the operating environment was characterised by the COVID crisis. In 2022, Finland's geopolitical position changed as Russia launched a war of aggression against Ukraine. Economic uncertainty, rising inflation and the energy crisis further highlighted our role in society. In October, the European Commission granted MuniFin license to finance Finnish energy companies owned by municipalities. This type of financing can only be used towards the collateral requirements in the electricity market. The decision was made to ensure the continuity of municipal energy companies' operations and strengthen Finland's security of supply.

Our vision is to be the best financing partner for our customers. In 2022, our focus was particularly on improving our service processes, offering an even more extensive palette of sustainable solutions and enhancing our employee experience by streamlining our operations and improving our systems and leadership.

Our current strategy is in line with the demands of the present operating environment, and we made no changes to it during the year.

Digitalisation brings value to customers
During the year, we improved our customer experience, especially as our digitalisation efforts proceeded. We first started the digital trade of municipal commercial papers in short-term finance. In late 2022, we began a pilot project in submitting loan applications for long-term finance online.

Sustainability keeps increasing in importance
Regulation on and expectations of sustainable business activities have increased rapidly over the past few years. Especially the European Central Bank's banking supervision and regulatory authorities are placing great emphasis on climate and environmental risks. In 2022, we prepared to report even more extensively on the climate risks related to our operations.

At MuniFin, sustainability involves offering financing solutions and services that create long-term positive benefits to our customers and Finnish society: they help maintain the welfare society, all the way from housing solutions and public infrastructure to curbing climate change. In 2022, we updated our Green Bond Framework to make the eligibility criteria for green finance projects even more transparent and ambitious and to make the assessment process more streamlined.

Sustainability is the cornerstone of all our work, and we aim to be a forerunner in sustainability in the financial sector. In 2022, we strengthened our internal sustainability team by bringing in several new experts.

Case

MuniFin's sustainability efforts are paying off

External expert assessments are an important tool for MuniFin when we are assessing the progress of our sustainability work. In 2022 Sustainalytics, one of the world's leading sustainability analytics and ratings firms, gave MuniFin an ESG risk rating of 9.4. A rating of 0 to 10 falls in the lowest of the five levels and signifies a negligible risk. A rating of below 10 was MuniFin's goal for 2024, meaning that we achieved our goal two years early. Sustainalytics gave us top scores especially on our corporate governance and business ethics.

MuniFin also participates annually in the Swedish market research company Prospera's survey investigating international dealer banks' opinions of North European issuers in the SSA (Sovereigns, Supranationals, Agencies) category. MuniFin performed excellently in the 2022 survey, also scoring the survey's highest marks on a credible sustainability strategy.

"MuniFin is the best in its category in sustainability: it offers green and social bonds, updates the bond frameworks to meet the needs of the changing regulation and applies sustainability criteria and indicators in its own investment operations", commented one of the survey respondents.

Responsibly towards a better future

Our core mission and values

MISSIO – Building a better and more sustainable future with our customers

VISIO – Main financing partner for our customers

ARVOT – Customer centricity
Responsibility
Transparency

Our strategy

Our work is always responsible, and we offer financing solutions that support and promote sustainable development.

1. We ensure the availability of financing for our customers in all market conditions.
2. We create customer benefits through competitively priced long-term financing, a smooth service model and customer-centric services that bring additional value to our customers' financing and financial management.
3. We secure our strong position in the capital markets with good risk management, a low risk profile and a joint municipal funding system.
4. We constantly improve our operations through further development and digitalisation.
5. We are an attractive and adaptable working community with values-based leadership.
6. We aim to secure our profitability and operations in the long term, but do not aim to maximise our profit.

Key principles for sustainability and the UN Sustainable Development Goals

1 Responsible products and services

Goal 2024:
Customer satisfaction is at a very good level

2 Forerunner in sustainability

Goal 2024:
Green and social finance accounts for 20% of the long-term customer finance portfolio

3 Developing wellbeing at work

Goal 2024:
Personnel satisfaction is at a good level

4 Strong corporate governance

Goal 2024:
All ESG risks associated with customers are assessed with a uniform methodology

Key principles for responsibility and the UN Sustainable Development Goals
We assess the focus areas and goals of responsibility in line with the framework of the United Nations Sustainable Development Goals (SDGs). Through our work, we strive to promote the achievement of as many of the SDGs as possible.

We have linked each key principle with the relevant UN Sustainable Development Goals that we can substantially influence. In addition, we have set one long-term company-level goal for each key principle.

How we create value

MuniFin's operations create value for our customers, our employees, and the society at large. Our value creation model illustrates the resources we use in this mission, the underlying choices that support our value creation, and the impacts of our operations.

Resources

Skilled and motivated employees

Strong financial status

Committed customers and stakeholders

Global investor base

Common funding system

Strong credit rating

Partnerships

MuniFin

Responsibility

Transparency

Customer centricity

Efficiency

High-quality risk management

Specialisation in own customer segment

Investing in employee know-how and wellbeing

We aim to secure an adequate level of profitability to secure our operations in the long term, but do not aim to maximise our profit

Impacts

Happy customers

We ensure the availability of financing for our customers and create customer benefits through competitively priced long-term financing

Solvency

Growth of wellbeing in the society

Equal opportunities for good life

Supporting the sustainability of municipalities' investments

Healthy, motivated and skilled personnel

Financing and other services

Steady financing created stability in an unstable environment

When Russia attacked Ukraine in February 2022, MuniFin's customers faced an operating environment that was turbulent in a whole new way, even compared to the exceptional circumstances of the pandemic years. Characteristic of this upended operating environment in terms of the economy were accelerating inflation, rising interest rates and preparation for the growing energy crisis.

Despite the general uncertainty, our business developed steadily. Even though the unstable situation made our customers more cautious in acquiring finance, we were able to further solidify our market position among our customer groups.

After a long period of negative interest rates, the interest rate environment finally returned to a more normal level in 2022. The rising interest rates increased the importance of the choices our customers make in relation to interest rates and hedging.

MuniFin's customers include municipalities, joint municipal authorities, wellbeing services counties, corporate entities under their control, and non-profit housing organisations and non-profit housing 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 diverse financing services and extensive support in investment planning and financial management.

Lending portfolio 2018–2022, EUR billion	2018	2019	2020	2021	2022
	22.4	24.0	26.9	27.9	27.8

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Key sustainability indicators in customer services

1 Sustainable products and services

GOAL 2024:
Customer satisfaction is at a very good level

- Training sessions, seminars and events for customers
- Number of users of digital MuniFin services
- Proportion of state-subsidised housing finance for special groups in new lending

2 Forerunner in sustainability

GOAL 2024:
Green and social finance accounts for 20% of the long-term customer finance portfolio

- Amount of green and social finance (EUR)
- Number of green and social finance projects

In 2022, the demand for our services was affected by Finland's health and social services reform, which was to be fully implemented in the beginning of 2023 and required our customers to make preparations. Joint municipal authorities and hospital districts prepared for future investments by acquiring finance especially in early 2022. Our own operations were also marked by preparations for the transfer of financing contracts and other commitments from hospital districts, special care districts, municipalities and voluntary joint municipal authorities for health and social services to the wellbeing services counties. At the beginning of 2023, approximately four bilion euros' worth of MuniFin's loans and other commitments were transferred to the wellbeing services counties.

Europe's energy crisis threatened the financing of the Finnish energy sector in the autumn of 2022. Due to EU rules on state aid, MuniFin cannot usually finance the investments of energy companies. However, to ensure the continuity of municipal energy companies' operations and strengthen Finland's security of supply, the Municipal Guarantee Board in cooperation with MuniFin and the Ministry of Economic Affairs and Employment submitted a notification to the European Commission proposing a subsidised loan and guarantee scheme to support municipal energy companies. The Commission approved the notification in October, allowing MuniFin to grant financing towards collateral requirements in the energy market until the end of 2022. In December, MuniFin and the Municipal Guarantee Board together applied to continue this scheme in 2023 and also sought to extend the scope of financing to cover other financing needs arising from possible crisis situations in energy companies, such as balancing energy requirements and working capital financing. The Commission approved this arrangement on 21 December.

In 2022, the amount of finance we granted grew by 19.2% compared to 2021 (-28.8%). Our new long-term financing totalled EUR 4.4 billion (EUR 3.7 billion in 2021), of which

Case

Determination, courage, extensive collaboration and concrete action speed up climate work in municipalities

In May, MuniFin kicked off an event series entitled 'Ilmasto & kunnat' ('Climate & municipalities'), which attracted hundreds of attendees to online events discussing the ambitious work municipalities and affordable social housing organisations are doing for the environment and climate.

The themes of the four events were biodiversity, low-carbon construction, Finland's new Climate Act and the practical implementation of municipal climate goals. The purpose of the events was to share best practices and practical examples of the inspiring climate work of municipalities.

In addition to MuniFin's own experts, participating in the discussions were **Pekka Timonen**, mayor of Lahti; **Riku Lumiaro**, biodiversity expert at the at Finnish Environment Institute; **Tytti Bruce-Hyrkäs**, business development director at Granlund; **Jani Kervinen**, CEO of Mestaritoiminta; **Kaisa-Reeta Koskinen**, head of the climate unit at the City of Helsinki; **Maria Ohisalo**, Minister of the Environment and Climate Change; **Jari Leinonen**, head of environmental affairs at the City of Joensuu; and **Anna Sahiluoma**, energy efficiency expert at Motiva.

Case

The Finnish system for affordable social housing is in need of change – migration and energy saving needs press for action

The Finnish model for affordable social housing has been a success story, even by international standards. The system is built to support the housing needs of special and low-income groups, and it has served this purpose well. But to ensure its continued success, the system is now in dire need of change.

In the spring of 2022, MuniFin conducted a survey for its housing sector customers, charting their views on the current state and future of the Finnish system for affordable social housing. The responses showed a concern for the future of affordable social housing: in its current state, the Finnish system does not sufficiently account for climate change mitigation, demographic changes, changing housing needs and regional segregation.

Based on the survey results and expert interviews, MuniFin produced a discussion paper offering recommendations on how to develop the Finnish system for affordable social housing. The discussion paper was published in Finnish on the MuniFin website in September and its conclusions were discussed in a webinar held on 2 December.

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EUR 4.1 billion (EUR 3.3 billion) consisted of loans and EUR 0.3 billion (EUR 0.4 million) of lease financing. Long-term customer financing at year-end amounted to EUR 29.1 billion (EUR 29.2 billion), of which loans totalled EUR 27.8 billion (EUR 27.9 billion) and leasing EUR 1.3 billion (EUR 1.3 billion). Short-term customer financing (commercial papers to municipalities and municipally controlled companies) totalled EUR 1.5 billion (EUR 1.1 billion) at the end of 2022.

MuniFin's subsidiary company Inspira specialises in financial advisory services for the municipal sector. Inspira's turnover for 2022 was EUR 1.6 million (EUR 1.7 million). The most popular services were services that help analyse the financial effects of the health and social services reform as well as services for planning the finances and investments of the new wellbeing services counties. In 2022, Inspira also launched a new service concept for sustainable investments.

Partner in building sustainable finance solutions

MuniFin's vision is to be the best financing partner for its customers. In 2022, we continued to invest in developing our service processes and offering even more extensive sustainable solutions for our customers. In the spring, we started to provide short-term customer financing in the form of commercial papers to municipalities and municipal companies on a real-time digital service platform, and in the second half of the year, we piloted the platform in long-term financing as well. The digital service makes the process easier for customers and increases the transparency of our pricing.

We support and encourage our customers to manage their finances in a sustainable way and to make sustainable investment decisions. We also offer training for our digital services and economic reports to support decision-making. Our training sessions, seminars and events are very popular and have gained a firm foothold among our customers and other stakeholders.

We offer our customers green and social finance to finance their sustainable investments. Our green finance is aimed at environmentally friendly investments that produce clear and measurable environmental benefits, whereas our social finance is aimed at investments that produce widespread social benefits.

The demand for our sustainable finance products was strong in 2022, especially so for green finance. During the year, we updated our Green Bond Framework, which sets the criteria for finance granting, project evaluation and reporting. Thanks to the updates, our evaluation criteria are now more transparent and ambitious and our evaluation process is more straightforward.

At the and of 2022, there were 246 green projects and 76 social projects with outstanding financing. Our green finance totalled EUR 3.3 billion (EUR 2.3 billion) and our social finance EUR 1.7 billion (EUR 1.2 billion) at the end of the year. The impacts of our sustainable finance are discussed in more detail in our Green and Social Impact Reports.

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 more sustainable for the environment and society.

We work actively to promote the sustainability competence and commitment of our customers and other stakeholders. In 2022, we participated in the working group on financing the green transition, appointed by the Ministry of Finance, the Ministry of the Environment and the Ministry of Economic Affairs and Employment. We also published a discussion paper on sustainable living and organised an event series entitled 'Climate & municipalities' in which we shared practical experiences and examples of climate investments by municipalities and housing sector organisations. We also started developing an ESG application, which will enable our municipal sector customers to monitor and compare their ESG indicators.

In 2022, we continued our work to measure the emissions of both our own operations and the projects that we finance. Our goal is to systematically reduce our own carbon footprint, offer our customers more support with emission reductions and better manage the climate and environmental risks related to our operations. We also invested in improving the assessment of the ESG risks related to our operations and our customers.

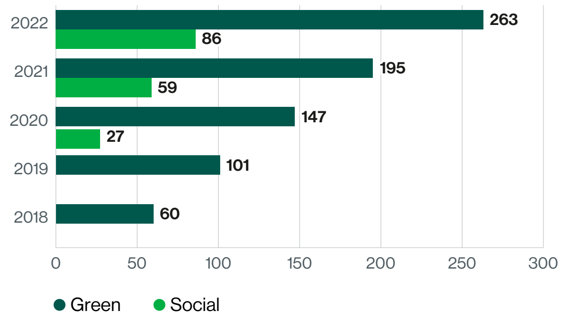
Annual CO_2 emissions avoided/reduced in green finance projects

tCO_2 **104,739**

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

MWh **39,215**

Number of green and social finance projects in 2018–2022



Case

To sell or to corporatise real estate? Inspira investigated options for joint municipal authorities organising health and social services

Finland's health and social services reform is transforming municipalities' real estate asset structure. The joint municipal authorities for health and social services in Forssa and Raahe tasked Inspira with investigating what they should do with their healthcare, social welfare and rescue services premises.

In general, the premises that are transferred from municipalities to wellbeing services counties have to be corporatised, which will incur transfer tax to the receiving company. In Forssa, one viable alternative would be to convert the joint municipal authority for health and welfare services into a joint municipal authority for real estate. This would enable continued operation without much disruption during the transition period of the reform. The conversion into a joint municipality authority for real estate would also allow more time to monitor the changing decision-making process and the tax-related solutions that are yet to be introduced. The joint municipal authority for health and social services in the Raahe region also investigated the changeover to a joint municipal authority for real estate.

Both Forssa and Raahe felt that they benefited from Inspira's work, especially in questions related to schedule. After the investigation, decision-making was on a more solid foundation as the decision-makers knew how much time things would take and at what pace they could be moved forward. The end result was an operating model that will serve both joint municipal authorities and their member municipalities.

Funding

MuniFin's funding strategy proved its strength in a challenging market situation

In terms of funding operations, the year 2022 turned out very different than we had expected.

The war in Europe was an unforeseen factor that made markets much more volatile and affected our funding as well. The timing of funding transactions became even more critical because of the surprisingly rapid growth of inflation, the associated rise in interest rates and the reduction of quantitative easing by central banks. Despite these factors, we were able to continue our funding operations normally.

MuniFin acquires its funding from the international capital markets as standardised issuances under debt programmes. Our funding strategy relies on diversification of funding sources to secure access to funding in all market conditions. This long-standing strategy has proved highly successful during the upheaval of monetary and security policies: we had strong access to capital markets throughout the year, and the average cost of our funding remained at a low level.

Total number of funding transactions 2018–2022

2018	2019	2020	2021	2022
260	198	218	208	180

Key sustainability indicators in funding

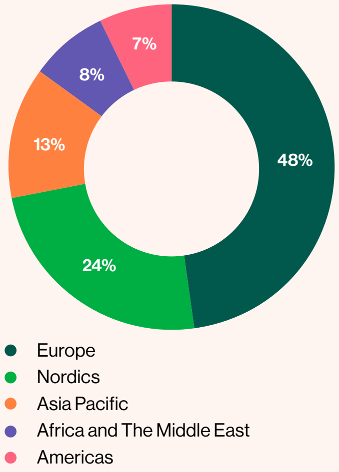
1 **Sustainable products and services**

- Survey of North European issuers

2 **Forerunner in sustainability**

- Green bond issued
- Social bond issued

Geographical distribution of funding



We issued three benchmark bonds in 2022: two denominated in euros and one in US dollars. All three were met with strong demand. 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 on account of the increased market volatility. We were particularly active in the markets for pounds sterling and Norwegian krone, but volumes were reduced in the Japanese Uridashi market.

We made a total of 180 (208) long-term funding arrangements in 13 (13) different currencies. We use derivatives to hedge against market risks.

Our new long-term funding in 2022 totalled EUR 8.8 billion (EUR 9.4 billion).

At the end of 2022, our total funding amounted to EUR 40.2 billion (EUR 40.7 billion), of which the Euro Commercial Paper (ECP) programme totalled EUR 4.6 billion (EUR 3.8 billion). Of our total funding, 48.5% (49.0%) were denominated in euros and 51.5% (51.0%) in foreign currencies.

Investor interest in sustainable finance products continues to increase, and regulation is also steering markets towards a more sustainable direction. MuniFin is committed to issue new green and social bonds regularly. In 2022, we issued a highly successful green bond that was many times oversubscribed despite the challenging market backdrop. As many as 80% of the participating investors were dedicated ESG investors. For the second time in a row, Environmental Finance chose MuniFin as the winner of the 'Green Bond of the Year' award in the local authority or municipality category. We did not issue a social bond in 2022.

Main funding operations

January:
5-year bond,
NOK 2.5 billion

January:
3.5-year bond,
GBP 300 million

January:
10-year benchmark bond,
EUR 1.0 billion

May:
7-year green benchmark
bond, EUR 500 million

August:
5-year benchmark bond,
USD 1.0 billion

Liquidity management

Liquidity increased to secure customer financing

In 2022, we continued to increase our liquidity to respond to the unstable market situation.

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 15 months (15 months).

Our main reason for increasing our liquidity is to safeguard the availability of financing for our customers in all situations.

Due to the general market uncertainty, we allocated more of our investments in central bank deposits. At the end of 2022, our total liquidity stood at EUR 11.5 billion (EUR 12.2 billion). Of this, central bank deposits totalled EUR 8.1 billion (EUR 8.4 billion) and investments in liquid, low-risk securities EUR 3.3 billion (EUR 3.8 billion), with the average credit rating of AA+ (AA+) and average maturity of 2.6 years (2.6 years). In addition to this, money market deposits in credit institutions totalled EUR 32 million (EUR 34 million).

Total liquidity, EUR billion	8.7	9.9	10.1	12.2	11.5
	2018	2019	2020	2021	2022

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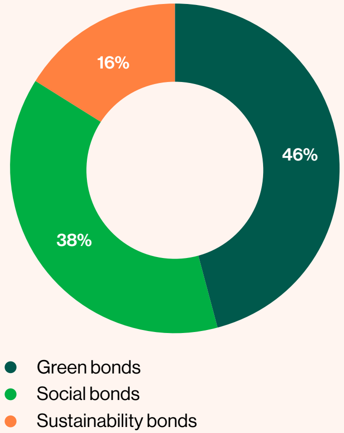
Key sustainability indicators in liquidity management

2 Forerunner in sustainability

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

MuniFin's socially responsible investments (SRIs)



Total amount of MuniFin's SRIs, EUR 498 million.

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 2022, our LCR stood at 256.7% (334.9%) and NSFR at 120.3% (123.6%).

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 2022, our liquidity investments had an average ESG score of 7.65 on a scale of 1 to 10, above the benchmark index of 7.43. We held a total of EUR 498 million (EUR 456 million) in direct socially responsible investments (SRIs), which is 15.0% (12.1%) of all our investments in securities. Our ratio of sustainable investments was higher than the market benchmark of 8.1% (5.0%). The ratio of socially responsible investments to our own green and social funding was 14.5% (15.6%). K

Case

European Commission approved an aid scheme that allows MuniFin to finance municipal energy companies

On 7 October 2022, the European Commission approved the notification submitted by the Municipal Guarantee Board in cooperation with MuniFin and the Ministry of Economic Affairs and Employment, allowing MuniFin to finance Finnish municipality-owned energy companies under the EU State Aid Temporary Crisis Framework. The arrangement ensures the continuity of municipal energy companies' operations and strengthens Finland's security of supply. This type of financing can only be used towards the collateral requirements in the electricity market.

According to the scheme approved by the European Commission, the maximum loan amount per beneficiary cannot exceed either a) the liquidity needs derived from the additional collateral requirements for the coming 12 months or b) 15% of the beneficiary's average total annual turnover over the last three closed accounting periods. The loans have a maximum maturity of three years, and they require a 100% municipal guarantee.

MuniFin has encouraged municipalities and their energy companies to prepare for potential financing needs in advance because MuniFin can only process the financing application after the loan has been guaranteed by the municipal council. In December the Commission approved an extension to the arrangement, valid until the end of 2023. The arrangement was also extended to cover other financing needs arising from potential crisis situations.

Personnel

Cultural work bears fruit

In 2022, we focused on improving our employee experience by streamlining our operations and improving our leadership.

At the end of 2022, MuniFin had 175 employees (164) working in various specialist positions. The world of finance and its regulatory environment are changing constantly, and our work tasks are versatile and broad, which requires continuous professional development from our employees. We therefore offer our employees plenty of opportunities to participate in training, support their ability to manage their tasks and promote a good work-life balance.

Improving employee experience is an important goal for us. We measure personnel 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.

In 2022, our development plan focused on improving our leadership and streamlining our operations through increased automation. We also updated some of our operating practices and tools to better accommodate modern work. During the COVID period, we became accustomed to working remotely, and even though restrictions on office work have since been lifted, we still want to offer our experts flexible, location-independent working options. Developing hybrid work practices and offering supervisors coaching in hybrid work management and leadership in this new situation were key development areas in 2022. We will continue this work in 2023.

Key sustainability indicators in the organisation

3 Developing wellbeing at work

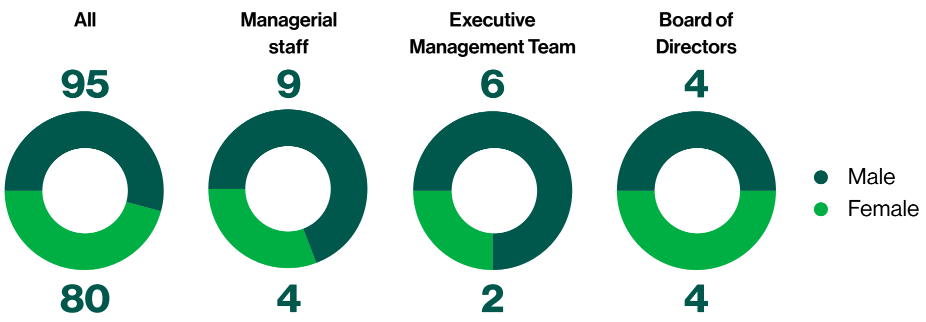
GOAL 2024:
Personnel satisfaction is at a good level

- Gender distribution of employees
- Gender distribution of managerial staff
- Gender distribution of the Executive Management Team
- Gender distribution of the Board of Directors
- Age distribution of employees
- Employer's pension insurance (TyEL) category
- Training days per employee
- Gender pay gap
- Employee turnover

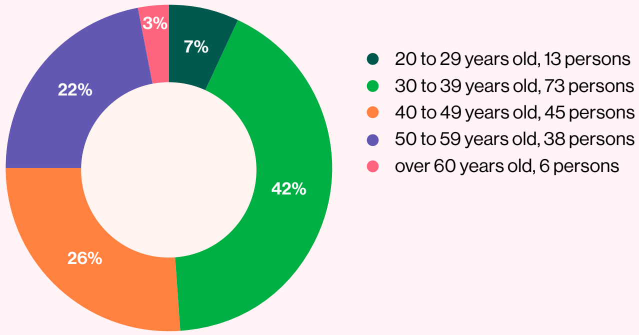
We continued the work to strengthen our organisational culture. The cornerstones of our corporate culture are community and team spirit, transparency and trust, and sustainability and social significance.

Our extensive investments in employee experience yielded improved results in our personnel survey. Our employee experience is better than in Finnish expert organisations on average, and as recognition of our impressive results, we were ranked as one of Finland's most inspiring workplaces.

Gender distribution of employees



Employees by age



Gender pay gap in similar positions

3%

Men have higher pay than women.

Diversity and inclusion

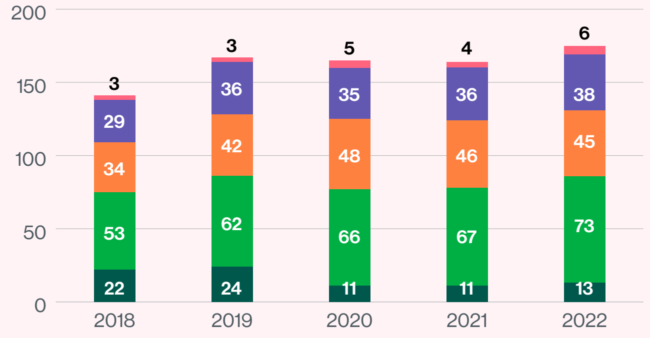
Diversity and inclusion are vital to our corporate culture. What this means to us is that we treat everyone as equal, appreciate the value of diversity and individual differences and believe in everyone's right to be included. We promote equal opportunities and are strongly opposed to discrimination. 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 to integrate diversity and inclusion into all our operations as a natural part of our daily work and culture.

By diversity, we mean the individual differences between employees in terms of their age, gender, ethnic background, sexual orientation, family situation, disability, language, religion, beliefs and educational background, for example. In the workplace, every employee is treated as an individual, not as a representative of any group.

Our goal is for 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.

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.

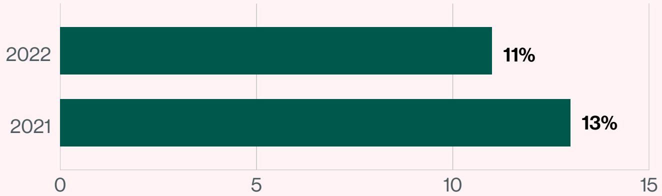
Age distribution and number of employees



- 20–29 yr
- 30–39 yr
- 40–49 yr
- 50–59 yr
- over 60 yr

The MuniFin Group employed 175 people at the end of 2022.

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.

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). K

Case

MuniFin's company culture now in one book

In late 2021, MuniFin published its first company culture book, which puts together the cornerstones and operational practices of our culture in one volume.

All MuniFin employees were invited to participate in the work. Through a collaborative process, we distilled the company's cultural cornerstones into three values: community and team spirit, transparency and trust, and sustainability and social significance. The culture book also describes MuniFin's values and lays down the ground rules for leadership and working at MuniFin.

Strengthening the company's culture was a written-down objective for 2022 across different levels of the organisation, and we continued the work to preserve and bolster the company culture in a determined fashion throughout the year.

Organisation

Corporate governance

MuniFin promotes a level of responsibility in all its 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.

As a credit institution, our operations are governed by laws and related supervisory guidelines, which contain a considerable amount of requirements on governance. In addition to these minimum legal requirements, we deem it important that our corporate governance is professional and efficient and creates a solid basis for healthy business principles.

Our decision-making and responsibilities are set out in the Corporate Governance Policy approved by the Board of Directors and in in the Corporate Governance Statement published annually. Our operations are also guided by the Sustainability Policy, which is approved by the Board.

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.

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.

During all our years of operation, there have been no material regulatory violations that would have led to official sanctions.

In addition to internal control mechanisms, we have a compliance function that oversees MuniFin's compliance with regulation based on an annual monitoring plan and provides internal guidance and support in compliance-related matters. The MuniFin 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 as part of our risk position reporting. This reporting practice is part of our risk appetite framework.

Key sustainability indicators in governance

Strong corporate governance

GOAL 2024: All ESG risks associated with customers are assessed with a uniform methodology

- 100% of employees have completed Sustainability Policy training
- Violations of regulations
- Memberships of associations and national interest organisations
- International and Finnish commitments
- Sustainalytics ESG risk rating

Commitment to continuous improvement
We take environmental responsibility into consideration in our work by being committed to continuously reducing the negative environmental impacts of our operations. The majority of our environmental impacts are indirect as they are created through the activities of our customers.

MuniFin Group 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 environmental impact of our operations on an annual basis. Understanding the impact of our own operations and liquidity investments and the projects we have financed is an important part of our environmental responsibility. In 2022, we prepared a goal of reducing both our direct and indirect emissions.

We compensate for the emissions generated by our employees' air travel and for the CO_2 emissions caused by large customer and stakeholder events that we organise. In 2022, we compensated for a total of 169,5 CO_2 tonnes of our emissions. We have been able to substantially reduce our travel and event emissions thanks to remote working technology becoming more popular. K

Memberships of associations, networks, projects and national interest organisations

- Climate Bonds Initiative
- 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 scorecard

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

KEY PRINCIPLE	Performance and trends	2022	Limit values
Sustainable products and services	**GOAL 2024:** Customer satisfaction is at a very good level	6.11	**Green:** ≥ 5.5 **Orange:** 4–5.4 **Red:** < 4
	Training sessions, seminars and events for customers	27	**Green:** ≥ 16 per year **Orange:** 11–15 per year **Red:** ≤ 11 per year
	Cooperation and partnerships with educational institutions	3	**Green:** ≥ 4 cooperation agreements **Orange:** 1–3 cooperation agreements **Red:** No cooperation agreements
	Number of users of digital MuniFin services	+310	**Green:** Number of users has increased **Red:** Number of users has decreased
	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
	Proportion of state-subsidised housing finance for special groups in new lending	15.1%	**Green:** More than 15% **Orange:** 10–15% **Red:** Less than 10%
Forerunner in sustainability	**GOAL 2024:** Green and social finance account for 20% of the long-term customer finance portfolio	16%	**Green:** The proportion is growing in line with the growth path **Orange:** The proportion is growing, but at a rate 1–2 percentage points below the growth path **Red:** The proportion is growing, but at a rate more than 2 percentage points below the growth path
	Amount of green and social finance (EUR)	+ EUR 1.5 bn	**Green:** Amount on balance sheet has grown > EUR 1 billion **Orange:** Amount on balance sheet has grown EUR 500 million – 1 billion **Red:** Amount on balance sheet has grown < EUR 500 million
	Number of green and social finance projects	+95	**Green:** More than 60 new projects approved in the past year **Orange:** 30–60 projects approved in the past year **Red:** Fewer than 30 new projects approved in the past year
	Green bond issued	Yes	**Green:** Yes **Red:** No
	Social bond issued	No	**Green:** Yes **Red:** No
	Total amount of socially responsible investments	14.5%	**Green:** ≥ 10% of issued responsible funding **Orange:** 8–10% of issued responsible funding **Red:** ≤ 8% of issued responsible funding
	ESG score of the investment portfolio compared to the benchmark	Above	**Green:** Above the benchmark index **Red:** Below the benchmark index

KEY PRINCIPLE	Performance and trends	2022	Limit values
Developing wellbeing at work	**GOAL 2024:** Personnel satisfaction is at a good level	AA	**Green:** AA Good, AA+ Good+, AAA Excellent **Orange:** A Satisfactory, A+ Satisfactory + **Red:** C Poor, B Passable
	Gender distribution of employees	54/46	**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 managerial staff	71/29	**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	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)
	Gender distribution of the Executive Management Team	50/50	**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)
	Age distribution of employees	All represented	**Green:** All age groups are represented **Orange:** One age group is not represented **Red:** Two age groups are not represented
	Employer's pension insurance (TyEL) category	1	**Green:** 1–3 **Orange:** 4–6 **Red:** 7 or higher
	Training days per employee	2.7	**Green:** ≥ 4 **Orange:** 2–3.9 **Red:** < 2
	Gender pay gap	3%	**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%
	Employee turnover	11%	**Green:** ≤ 10% **Orange:** 10.1–13% **Red:** > 13%
Strong corporate governance	**GOAL 2024:** All ESG risks associated with customers are assessed with a comparable methodology		**Green:** ESG risks associated with all customers have been assessed using comparable methods **Orange:** ESG risks associated with the most significant (top 20) customers have been assessed using comparable methods **Red:** ESG risks have not been assessed
	100% of employees have completed Sustainability Policy training	100%	**Green:** 95% **Orange:** 90–95% **Red:** < 90%
	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)
	Memberships of associations and national interest organisations	13	**Green :** ≥ 4 **Orange:** 1–3 **Red:** 0
	National and international commitments	3	**Green:** Number of commitments has remained the same or increased **Orange:** Number of commitments has decreased **Red:** No commitments
	ESG rating	9.4	**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

Principles of sustainability reporting

Although neither the EU Non-financial Reporting Directive nor the Finnish Accounting Act obliges MuniFin to disclose non-financial information, sustainability is a matter of such great importance to us that we have decided to include sustainability reporting as part of our Annual Report. In our reporting, we have taken into consideration GRI Standards contents and themes that are relevant for our operations.

In our work, sustainability is realised particularly through our business operations, organisation and governance. Our reporting indicators are based on the key principles of sustainability approved by the MuniFin Board of Directors. The key principles of sustainability are in turn based on a materiality analysis conducted in 2016. As part of the materiality analysis, we determined our key principles of sustainability and the related goals in workshops that involved our entire staff. The materiality of the key principles from the stakeholder perspective was verified through interviews with customers, investors and key players in society. 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.

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

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 2022 Annual General Meeting elected eight members to the Board of Directors for the 2022–2023 term (from the end of the AGM to the end of the next AGM).

Kari Laukkanen, b. 1964
Chair
Board member since 2018
Education: M.Sc. (Econ.)
Primary occupation: Board professional and financial consultant (Lauvest Oy)
Other material positions of trust: Chair of the Board of Directors at Emittor Oy
Independence: Independent of the company and its 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
Board member 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 at the University of Oulu
Independence: Independent of the company, not independent of its significant shareholders (employed by 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
Board member since 2018
Education: Master of Laws (LL.M.), trained on the bench, EMBA
Primary occupation: Board professional
Other material positions of trust: -
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). More than 20 years of experience in executive positions.

Vivi Marttila, b. 1966
Board member since 2016
Education: M.Sc. (Econ.)
Primary occupation: Mayor of the municipality of Simo
Other material positions of trust: Member of the Board of Directors at LocalTapiola Lappi; Oulunkaaren Työterveys Oy, member of the Board of Directors
Independence: Independent of the company and its significant shareholders
Previous key work history and positions of trust: Long and diverse experience of auditing in the public sector and at listed companies (1990–2001 and 2011–2015) as well as a city finance director (2001–2011).

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Tuomo Mäkinen, b. 1972
Board member 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 (employed by 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
Board Member since 2021
Education: M.Sc. (Econ.)
Primary occupation: CFO at Taaleri Group
Other material positions of trust:
Board member at the following companies in the Taaleri Group: Taaleri Energia, Taaleri Real Estate, Taaleri Private Equity Funds, Taaleri Energia Operations, Taaleri Energia Funds Management Oy
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 at the financial sector since 2000 (Taaleri, GreenStream, Kaupthing Bank, Norvestia).

Denis Strandell, b. 1958
Board member since 2020
Education: M.Sc. (Econ.)
Primary occupation:
Mayor of the City of Hanko
Other material positions of trust:
Member of the Board of Directors at C-Fiber Hanko Oy; deputy member of the Board of Directors at Novago Business Development Ltd
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
Board member since 2021
Education: M.Soc.Sc (Political sciences)
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 Suomi-rata Oy (non-commercial entity)
Independence: Independent of the company and its significant shareholders
Previous key work history and positions of trust: Long and diverse experience in executive-level positions at 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.

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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 MuniFin since 2005
Education: M.Sc. (Econ)

Mari Tyster, b. 1975
Executive Vice President, Legal and Communications, Deputy to the CEO
Employed by MuniFin since 2009
Education: Master of Laws

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

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

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

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

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

Juha Volotinen, b. 1975
CIO, Technology Services
Employed by MuniFin since 2021
Education: M.Sc. (Econ.)

Tax Footprint

The Strategy and Operating Principles of MuniFin in Taxation
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 2022, the MuniFin Group employed 175 people, of whom 165 worked for the parent company. The Group's turnover was EUR 759 million and the profit before tax EUR 215 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 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)	2022	2021
Income tax	34,545	34,386
Employer's social security contributions	3,121	2,976
Stability fee to the EU crisis resolution fund	9,185	6,737
Total	**46,851**	**44,099**

TAXES TO BE REMITTED (EUR 1,000)	2022	2021
Withholding taxes	4,799	5,276
Employee's social security contributions	1,413	1,348
Total	**6,211**	**6,624**

Report of the Board of Directors and Financial Statements 2022

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

In brief:

MuniFin Group in 2022

- The Group's net operating profit excluding unrealised fair value changes amounted to EUR 170 million (EUR 213 million). As expected, it decreased from the comparison year's exceptionally good result and was 20.0% lower than in the year before (8.0% growth in 2021). This drop was influenced by the change in credit terms applied in late 2021 for the benefit of the Group's customers. The Group's net interest income totalled EUR 241 million (EUR 280 million) in January–December. Costs in the financial year amounted to EUR 73 million (EUR 72 million). Costs excluding non-recurring items totalled EUR 69 million (EUR 61 million) making the figure 12.2% greater than in the previous year. The costs increased the most in fees collected by authorities.

- The net operating profit amounted to EUR 215 million (EUR 240 million). Unrealised fair value changes amounted to EUR 45 million (EUR 27 million) in the financial year.

- The Group's leverage ratio was 11.6% (12.8%) at the end of December. The reduction in the leverage ratio is mostly explained by the Group redeeming its only AT1 capital loan in April, which decreased Tier 1 capital by EUR 347 million.

- At the end of December, the Group's CET1 capital ratio was very strong at 97.6% (95.0%). CET1 capital ratio exceeded the total requirement of 13.8% by over seven times, with capital buffers accounted for. The repayment of the AT1 capital loan decreased Tier 1 and total capital ratio to 97.6% (118.4%), bringing them currently on a par with the CET1 capital ratio.

- Russia's invasion of Ukraine has not had a significant negative effect on the Group's operations. Despite the market turbulence, the Group continued to acquire funding without interruption during the year. Because of the uncertainty arising from the war and the inflation outlook, the Group has nevertheless maintained larger than normal liquidity buffers as a precaution. The market interest rates that have risen due to the accelerating inflation have had a positive effect on the Group's net interest income.

- Long-term customer financing (long-term loans and leased assets) excluding fair value changes totalled EUR 30,660 million (EUR 29,063 million) at the end of December and saw an increase of 5.5% (5.6%). Long-term customer financing decreased by 0.2% (4.3%) due to the unrealised fair value changes. New long-term customer financing in January–December amounted to EUR 4,375 million (EUR 3,671 million). Short-term customer financing increased by 33.8% (previous year's drop was 16.9%) and reached EUR 1,457 million (EUR 1,089 million).

- Of all long-term customer financing, the amount of green finance aimed at environmentally sustainable investments totalled EUR 3,251 million (EUR 2,328 million) and the amount of social finance aimed at investments promoting equality and communality EUR 1,734 million (EUR 1,161 million) at the end of December. Green and social finance have been extremely well received by customers, and the total amount of this financing increased by 42.9% (46.9%) from the previous year.

- In 2022, new long-term funding reached EUR 8,827 million (EUR 9,395 million). At the end of December, the total funding was EUR 40,210 million (EUR 40,712 million), of which long-term funding made up EUR 35,560 million (EUR 36,893 million). The amount of total funding decreased due to the growth in unrealised fair value changes which was caused by the increase on the market rates.

- The Group's total liquidity is very strong, and it was EUR 11,506 million (EUR 12,222 million) at the end of the financial year. The Liquidity Coverage Ratio (*LCR*) stood at 257% (335%) and the Net Stable Funding Ratio (*NSFR*) at 120% (124%) at the end of the year.

- The Board of Directors proposes to the Annual General Meeting to be held in spring 2023 a dividend of EUR 1.73 per share for 2022, totalling EUR 67,580,370.54. The total dividend payment in 2022 was EUR 40,235,711.94.

- Outlook for 2023: The Group expects its net operating profit excluding unrealised fair value changes to remain at the same level as in the previous year. 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 2023*.

Comparison figures deriving from the income statement and figures describing the change during the financial year are based on figures reported for the corresponding period in 2021. Comparison figures deriving from the balance sheet and other cross-sectional items are based on the figures of 31 December 2021 unless otherwise stated.

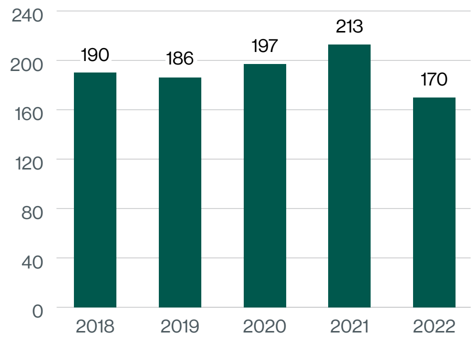
Key figures (Group)

	Jan–Dec 2022	Jan–Dec 2021	Change, %
Net operating profit excluding unrealised fair value changes (EUR million)*	170	213	-20.0
Net operating profit (EUR million)*	215	240	-10.3
Net interest income (EUR million)*	241	280	-13.9
New long-term customer financing (EUR million)*	4,375	3,671	19.2
New long-term funding (EUR million)*	8,827	9,395	-6.0
	31 Dec 2022	**31 Dec 2021**	**Change, %**
Long-term customer financing (EUR million)*	29,144	29,214	-0.2
Balance sheet total (EUR million)	47,736	46,360	3.0
CET1 capital (EUR million)	1,482	1,408	5.2
Tier 1 capital (EUR million)	1,482	1,756	-15.6
Total own funds (EUR million)	1,482	1,756	-15.6
CET1 capital ratio, %	97.6	95.0	2.7
Tier 1 capital ratio, %	97.6	118.4	-17.6
Total capital ratio, %	97.6	118.4	-17.6
Leverage ratio, %	11.6	12.8	-9.5
Return on equity (*ROE*), %*	9.9	10.7	-7.9
Cost-to-income ratio*	0.2	0.2	10.1
Personnel	175	164	6.7

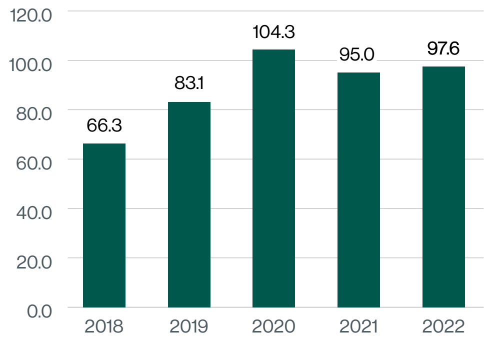
** Alternative performance measure.*

The calculation formulas for all key figures can be found on pages 72–79. All figures presented in the Report of the Board of Directors are those of MuniFin Group, unless otherwise stated.

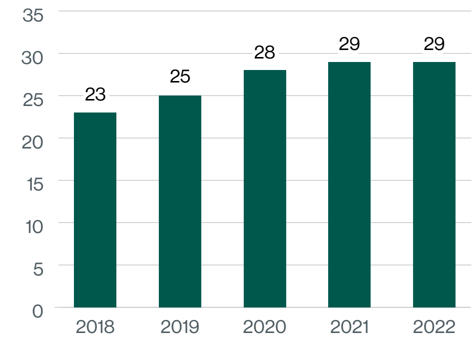
Net operating profit excluding unrealised fair value changes, EUR million*



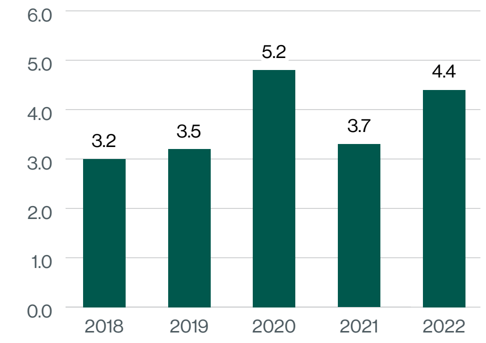
CET1 capital ratio, %



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 72–79. All figures presented in the Report of the Board of Directors are those of MuniFin Group, unless otherwise stated.

Report of the Board of Directors
1 January–31 December 2022

MuniFin

Operating environment in 2022

The outlook in world economy changed dramatically when Russia invaded Ukraine in February 2022. The economic sanctions imposed by Western countries and Russia's reaction to them reflected heavily on trade with Russia and the price of both energy and raw materials. During the year, cost pressures spread to consumer prices across the board and further accelerated inflation, which had already started picking up speed in the previous year. In many countries, inflation reached its highest level in almost 40 years. Confidence in the economy dimmed especially in Europe, where countries had to rapidly reduce their dependence on Russian fossil fuels. In addition to concerns related to the availability of energy, the outlook in Europe was also shadowed by security policy risks and the refugee crisis brought on by the war.

Despite the rapidly rising cost of living, Finland's economic growth remained stronger than expected, especially in the first half of the year. Lifted COVID restrictions, the release of pent-up household demand and the gradual clearing of supply chain bottlenecks all boosted GDP growth. Towards the end of the year, however, diminishing consumer buying power and rapid interest rate hikes began to cool off the economy significantly.

Before the Russian invasion, central banks had been underestimating the risks associated with persistent inflation, so they did not start tightening their monetary policy properly until in the spring and summer of 2022. Because the monetary policy was tightened belatedly, it had to be done in quick and long strides. The US Federal Reserve has raised its key interest rate by more than four percentage points since March 2022, taking it to a targeted range between 4.25% and 4.5%. The European Central Bank (*ECB*) waited until July to start its interest rate hikes, but then raised its deposit facility rate by 2.5 percentage points in the second half of 2022, taking it from -0.5% to 2.0%. The ECB also tightened the conditions of its targeted longer-term refinancing operations (*TLTRO*) that provide financing to credit institutions.

The effects of Russia's war against Ukraine hit the Finnish economy slower than feared. Although Finland's trade balance sunk into deficit in the spring when Russian trade dried up and the terms of trade weakened, domestic demand still sustained positive growth. The employment situation remained surprisingly strong throughout the year. In the second half of the year, however, the surging cost of food, energy and housing started to significantly erode consumers' confidence and purchasing power. In the housing market, prices and the number of sales both took a downward turn.

The persistent inflation and the sharp U-turn in monetary policy set the tone in the interest rate markets in 2022. The 12-month Euribor rate rose from the -0.5% of the beginning of the year by almost 3.8 percentage points to 3.3%. Long-term interest rates also saw a rapid rise. Germany's 10-year bond yield went up from -0.2% to 2.6%, while Finland's corresponding rate went from 0.1% to 3.1%.

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 being largely funded by the central government, but the counties have government authorisation to acquire long-term funding for their investments. 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. These totalled about four billion euros. MuniFin's financing contracts and other commitments were transferred automatically from hospital districts and special care districts to the wellbeing services counties on 1 January 2023, whereas the transfer of financing contracts and other commitments from joint municipal authorities and voluntary joint municipal authorities for health and social services to the wellbeing services counties required a separate decision whereby the counties accepted these commitments.

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, because unlike municipalities, wellbeing services counties are not members of the Municipal Guarantee Board (*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.

In 2023, the MGB's limit for MuniFin's long-term loans to wellbeing services counties is EUR 400 million. MuniFin estimates the wellbeing services counties' financing needs and government-authorised borrowing powers in 2023 to be considerably larger than the limit.

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

The long-term financial effects of the health and social services reform remain difficult to estimate. MuniFin's financing volumes will be affected by the wellbeing services counties' future level of investment, the limits set by the MGB and the fact that the operating expenses of the wellbeing services counties are covered from the central government's budget. In MuniFin's current financing operations, lending related to health and social services does not play such a role that changes in it would have a material impact on the Group's financial position in the near future.

Information on the Group results

CONSOLIDATED INCOME STATEMENT (EUR million)	1–12/2022	1–12/2021	Change, %
Net interest income	241	280	-13.9
Other income	2	4	-48.8
Income excluding unrealised fair value changes	**243**	**285**	**-14.5**
Commission expenses	-6	-5	9.1
Personnel expenses	-19	-18	6.4
Other items in administrative expenses	-19	-17	8.9
Depreciation and impairment on tangible and intangible assets	-10	-16	-35.7
Other operating expenses	-20	-16	27.0
Costs	**-73**	**-72**	**2.1**
Credit loss and impairments on financial assets	0	0	<-100
Net operating profit excluding unrealised fair value changes	**170**	**213**	**-20.0**
Unrealised fair value changes	45	27	67.1
Net operating profit	**215**	**240**	**-10.3**
Income tax expense	-43	-48	-10.5
Profit for the financial year	**172**	**192**	**-10.2**

The sum of individual results may differ from the displayed total due 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 2022. The Group's net operating profit excluding unrealised fair value changes shrank by 20.0% and totalled EUR 170 million (EUR 213 million). Income excluding unrealised fair value changes was EUR 243 million (EUR 285 million) and shrank by 14.5%.

In 2021, MuniFin decided to change the credit terms of negative interest rates in its long-term customer loans, enabled by the change in the banking regulation. This change began to gradually lower customers' loan expenses as of October 2021. Non-recurring expenses from an IT project terminated in 2022 have been recorded in the results of 2021 and 2022. The result for 2022 was weakened by the growth in fees collected by authorities. The COVID pandemic and Russia's invasion of Ukraine only had a minor effect on the results both in the reporting period and in the comparison period. The increased market rate levels, as a result of accelerated inflation, has a positive overall impact on the Group's net interest income.

Net interest income totalled EUR 241 million (EUR 280 million) in January–December 2022. Net interest income was positively affected by growing business volumes and the continued low cost of funding, as well as the positive effect that rising market interest rates have had on interest income through equity.

On 1 April, the Group redeemed its only AT1 capital loan (EUR 350 million), included in its Tier 1 capital. The Group's net interest income does not recognise the interest expenses of EUR 4 million (EUR 16 million) of the AT1 capital instrument for the financial year 2022, as the capital loan is treated as an equity instrument in the consolidated accounts. The interest expenses of the capital loan are treated similarly to dividend distribution; that is, as a decrease in retained earnings under equity upon realisation of interest payment on an annual basis.

Other income fell from the previous year to EUR 2 million (EUR 4 million). Other income includes commission income, net income from foreign exchange transactions, net income on financial assets at fair value through other comprehensive income, and other operating income. In addition, the turnover of MuniFin's subsidiary company, Financial Advisory Services Inspira, is included in other income. At 0.9% (1.6%), 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 73 million (EUR 72 million), rising by 2.1% from the year before. Costs were negatively affected by the discontinuation of a major IT project for a loan lifecycle management system, which the Group launched in late 2019. The project was terminated in spring 2022, and a total of EUR 5 million (EUR 10.5 million) of non-recurring expenses were recorded in depreciation and impairment on tangible and intangible assets. The termination did not have an effect on customer business. Expenses were also increased by higher fees collected by authorities; especially the higher contribution to the Single Resolution Fund, which grew by 36.3% to EUR 9 million (EUR 7 million).

Commission expenses totalled EUR 6 million (EUR 5 million) and consisted primarily of paid guarantee fees, custody fees and funding programme update fees.

Administrative expenses reached EUR 37 million (EUR 35 million) and grew by 7.6% (5.2%). Of this, personnel expenses comprised EUR 19 million (EUR 18 million) and other administrative expenses EUR 19 million (EUR 17 million). Employee numbers grew during the financial year, and the average number of employees in the Group was 172 (162).

Other items in administrative expenses grew by 8.9% (11.6%) during the financial year. The growth is mainly due to the increased costs of maintaining and developing information systems. The improved COVID situation has also slightly increased travelling expenses and other types of running costs.

During the financial year, depreciation and impairment of tangible and intangible assets reached EUR 10 million (EUR 16 million). The termination of aforementioned IT project was reflected in the amount of depreciation and impairment, both in 2022 and 2021.

Other operating expenses increased by 27.0% (6.6%) to EUR 20 million (EUR 16 million). Of these, fees collected by authorities comprised EUR 12 million (EUR 9 million), increasing by 26.6% (23.0%) from the comparison period. The growth in fees was mainly due to the higher contribution to the Single Resolution Fund as described above. These fees excluded, other operating expenses totalled EUR 8 million (EUR 6 million), growing by 27.6% (-10.3%).

The amount of expected credit losses (*ECL*), calculated according to IFRS 9, amounted to EUR 0.1 million (EUR -0.1 million). MuniFin Group continued in 2022 its IT and model development for the calculation of expected credit losses and finished it during the second half of the year. With the development, changes have been made to the assessment criteria for significant increase in credit risk (*SICR*), probability of default (*PD*) and loss given default (*LGD*). Hence, there was no need for the additional discretionary provision of EUR 0.9 million recognised at the end of 2021 and increased in June 2022, and the Group's management decided to remove the provision at the end of 2022. In addition, macro scenarios were updated at the end of financial year to take into account forward-looking information.

The Group's overall credit risk position has remained low. According to the management's assessment, all receivables from customers will be fully recovered. The receivables are from Finnish municipalities, joint municipal authorities or wellbeing services counties, or accompanied by a securing municipal, joint municipal authority or wellbeing services counties guarantee or a state deficiency guarantee supplementing real estate collateral, and therefore no final credit losses will arise. During the Group's history of more than 30 years, it has never recognised any final credit losses in its customer financing.

At the end 2022, the Group had a total of EUR 4 million (EUR 19 million) of guarantee receivables from public sector entities due to customer insolvency, which is less than 0.01% (0.06%) of total customer exposure. Non-performing exposures were EUR 7 million (EUR 128 million). The credit risk of the liquidity portfolio has remained at a low level, its average credit rating being AA+ (AA+). More information on the credit risks of financial assets and other commitments is available in Note *26* to the Consolidated Financial Statements.

The Group's profit and unrealised fair value changes

The Group's net operating profit was EUR 215 million (EUR 240 million). Unrealised fair value changes improved the Group's net operating profit by EUR 45 million (EUR 27 million). In January–December, net income from hedge accounting amounted to EUR 36 million (EUR 5 million) and unrealised net income from securities transactions to EUR 8 million (EUR 22 million).

The Group's effective tax rate during the financial year was 20.0% (20.1%). Taxes in the consolidated income statement amounted to EUR 43 million (EUR 48 million). After taxes, the Group's profit for the financial year was EUR 172 million (EUR 192 million). The Group's full-year return on equity (*ROE*) was 9.9% (10.7%). Excluding unrealised fair value changes, the ROE was 7.8% (9.6%).

The Group's other comprehensive income includes unrealised fair value changes of EUR -21 million (EUR -3 million). During the financial year, the most significant item affecting the other comprehensive income was the cost-of-hedging, totalling EUR -15 million (EUR -3 million). The net change in fair value due to changes in own credit risk on financial liabilities designated at fair value through profit or loss amounted EUR -0.2 million (EUR 0.4 million).

On the whole, unrealised fair value changes net of deferred tax affected the Group's equity by EUR 19 million (EUR 19 million) and CET1 capital net of deferred tax in capital adequacy by EUR 16 million (EUR 19 million). The cumulative effect of unrealised fair value changes on the Group's own funds in capital adequacy calculations was EUR 47 million (EUR 31 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, MuniFin Group uses derivatives to financially 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. 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's result

MuniFin's net interest income at year-end was EUR 237 million (EUR 264 million), and its net operating profit stood at EUR 211 million (EUR 223 million). The profit after appropriations and taxes was EUR 138 million (EUR 137 million). In April 2022, MuniFin redeemed its AT1 capital loan of face value at EUR 350 million included in Additional Tier 1 capital in capital adequacy calculation. The interest expenses of this loan for 2022 totalled EUR 4 million (EUR 16 million). In the Parent Company, the AT1 capital loan had been recorded under the balance sheet item *Subordinated liabilities*.

Subsidiary Inspira

In 2022, the turnover of MuniFin's subsidiary company, Financial Advisory Services Inspira Ltd, was EUR 1.6 million (EUR 1.7 million), and its net operating profit amounted to EUR 0.0 million (EUR 0.1 million). K

Information on the Consolidated Statement of Financial Position

CONSOLIDATED STATEMENT OF FINANCIAL POSITION (EUR million)	31 Dec 2022	31 Dec 2021	Change, %
Cash and balances with central banks	0	8,399	-100.0
Loans and advances to credit institutions	9,625	1,417	>100
Loans and advances to the public and public sector entities	29,144	29,214	-0.2
Debt securities	4,787	4,841	-1.1
Derivative contracts	2,707	2,000	35.4
Other items included in the assets	1,473	489	>100
Total assets	**47,736**	**46,360**	**3.0**
Liabilities to credit institutions	2,333	2,801	-16.7
Liabilities to the public and public sector entities	2,530	3,325	-23.9
Debt securities issued	35,592	35,328	0.7
Derivative contracts	4,616	2,224	>100
Other items included in the liabilities	1,052	821	28.2
Total equity	1,614	1,862	-13.3
Total liabilities and equity	**47,736**	**46,360**	**3.0**

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

MuniFin Group's consolidated statement of financial position totalled EUR 47,736 million (EUR 46,360 million) and saw a growth of 3.0% (5.3%). Loans and advances to credit institutions increased substantially in 2022 because the central bank deposits previously recorded under *Cash and balances with central banks* have been made as overnight deposits since September 2022 and are now recorded under *Loans and advances to credit institutions*. Loans and advances to the public and public sector entities increased during the year, but their amount in the consolidated statement of financial position decreased due to unrealised changes in fair value caused by the rising interest rates. The increase in total assets was mainly due to fair value changes in derivative contracts and cash collateral to central counterparties included in other items. In liabilities, the largest change is due to fair value changes in derivative contracts.

At the end of 2022, the Group's equity stood at EUR 1,614 million (EUR 1,862 million). The comparison figure includes the AT1 capital loan of EUR 347 million, redeemed in April 2022. With the AT1 capital loan redemption considered, the Group's equity grew by 6.6%. The profit of the financial year increased the Group's equity, but on the other hand, fair value reserve of investments, own credit revaluation reserve and cost-of-hedging reserve decreased it by EUR 17 million. In the consolidated accounts, interest expenses amounting to EUR 13 million (EUR 13 million) net of deferred tax on the AT1 capital instrument were deducted from the equity upon the realisation of the interest payment in April, as were the dividends of EUR 40 million (EUR 20 million) for the 2021 financial year, paid to MuniFin's shareholders in April 2022.

The Parent Company's balance sheet at the end of the year was EUR 47,736 million (EUR 46,359 million).

Financing and other services for customers

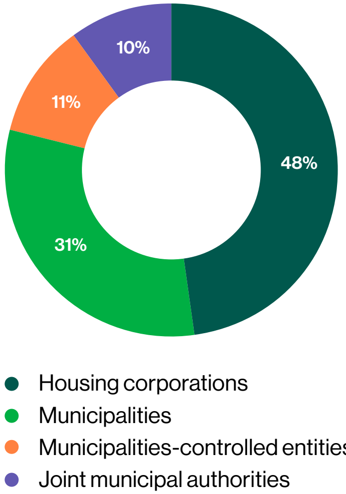
MuniFin Group's customers include municipalities, joint municipal authorities, wellbeing services counties, joint county authorities for wellbeing services, corporate entities under their control, and non-profit housing organisations and non-profit housing projects nominated by the Housing Finance and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

When Russia attacked Ukraine in February 2022, the Group's customers faced an operating environment that was turbulent in a whole new way, even compared to the exceptional circumstances of the pandemic years. Characteristic of this upended operating environment in terms of the economy were accelerating inflation, rising interest rates and preparation for the growing energy crisis.

Despite the general uncertainty, the Group's business developed steadily. Even though the unstable situation made customers more cautious in acquiring finance, the Group was able to further solidify its market position among its customer groups. In 2022, the demand for the Group's services was affected by Finland's health and social services reform, which was to be fully implemented in the beginning of 2023 and required the Group's customers to make preparations. Joint municipal authorities and hospital districts prepared for future investments by acquiring finance especially in early 2022. The Group's own operations were also marked by preparations for the transfer of 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. At the beginning of 2023, about four billion euros' worth of MuniFin's loans and other commitments were transferred to the wellbeing services counties.

In October, the European Commission approved a subsidised loan and guarantee scheme that allows MuniFin to finance Finnish municipal energy companies under the EU State Aid Temporary Crisis Framework. This arrangement ensures the continuity of municipal energy companies' operations and strengthens Finland's security of supply, and financing under the scheme can only be used towards collateral requirements in the electricity derivatives market. MuniFin's customers had little demand for this type of financing during 2022. In December, the Commission authorised the continuation of this aid scheme until the end of 2023, extending its scope to also cover other financing needs arising from possible energy crisis situations in energy companies, such as higher liquidity requirements related to working capital financing and investments.

Long-term loan portfolio by customer type 31 Dec 2022, %



The amount of finance granted grew by 19.2% (-28.8%) compared to the previous year. New long-term customer financing totalled EUR 4,375 million (EUR 3,671 million), of which EUR 4,074 million (EUR 3,275 million) consisted of loans and EUR 301 million (EUR 395 million) of leased assets. Long-term customer financing at year-end amounted to EUR 29,144 million (EUR 29,214 million), of which long-term loan portfolio totalled EUR 27,841 million (EUR 27,880 million) and leased assets EUR 1,303 million (EUR 1,334 million). Long-term customer financing (loans and leased assets) excluding unrealised fair value changes was at the end of December EUR 30,660 million (EUR 29,063 million), and it grew by 5.5% (5.6%). Short-term customer financing (commercial papers to municipalities and municipal companies) totalled EUR 1,457 million (EUR 1,089 million) at the end of 2022.

MuniFin's subsidiary company Inspira specialises in financial advisory services for the municipal sector. In 2022, Inspira's turnover was EUR 1.6 million (EUR 1.7 million). The most popular services were services that help analyse the financial effects of the health and social services reform as well as services for planning the finances and investments of the new wellbeing services counties.

Partner in building sustainable finance solutions

MuniFin Group's vision is to be the best financing partner for its customers. In 2022, the Group continued to invest in developing its service processes and offering even more extensive sustainable solutions for its customers. The Group started to provide short-term customer financing in the form of commercial papers to municipalities and municipal companies on a real-time digital service platform in the spring and piloted the platform to also include long-term financing in the second half of the year. The digital service makes the process easier for customers and increases the transparency of pricing.

MuniFin Group supports and encourages its customers to manage their finances in a sustainable way and to make sustainable investment decisions. Through its advisory services, MuniFin's subsidiary company Inspira assists municipalities and wellbeing services counties in analysing their finances, planning their investments and reorganising their holdings or service production, for example. The Group also offers training for its digital services and economic reports to support decision-making.

The Group offers its customers green and social finance for their sustainable investments. Green finance is aimed at environmentally friendly investments that produce clear and measurable environmental benefits, whereas social finance is aimed at investments that produce widespread social benefits.

The demand for the Group's sustainable finance products was strong in 2022, especially for green finance. The Group updated its Green Bond Framework, which sets the criteria for finance granting, project evaluation and reporting. Thanks to the updates, the evaluation criteria are now more transparent and ambitious, and the evaluation process is more straightforward.

At the end of 2022, the Group's long-term customer financing portfolio included 246 green and 76 social projects. The amount of green finance aimed at environmentally sustainable investments totalled EUR 3,251 million (EUR 2,328 million) and the amount of social finance aimed at investments promoting equality and communality EUR 1,734 million (EUR 1,161 million) at the end of December.. The impacts of sustainable finance are discussed in more detail in the Green and Social Impact Reports separate from this Report of the Board of Directors and Financial Statements.

The Group uses green and social finance to encourage its customers to make environmentally and socially sustainable investments. A margin discount is granted for eligible projects, which encourages customers to assess the impacts of their investments more extensively and make choices that are more sustainable for the environment and society.

In 2022, the Group organised an event series entitled '*Climate & municipalities*', sharing practical experiences and examples of climate investments by municipalities and housing sector organisations. The Group was also preparing for an ESG application, which enables municipal sector customers to monitor and compare their ESG indicators.

The Group continued the work to measure the emissions of both its own operations and the projects that it finances in 2022. The goal of this work is to systematically reduce the Group's own carbon footprint, offer customers more support with emission reductions and better manage the climate and environmental risks related to the Group's operations. The Group also invested in improving the assessment of the ESG risks related to its operations and customers. K

Funding and liquidity management

MuniFin Group's funding strategy is to diversify its funding sources to ensure access to funding under all market conditions. This long-standing strategy has proved highly successful during the upheaval of monetary and security policies: the Group had strong access to capital markets throughout the year, and the average cost of funding remained at a low level.

MuniFin Group acquires its funding primarily from the international capital markets as standardised issuances under debt programmes. The Group issued three benchmark bonds in 2022: two denominated in euros and one in US dollars. All three were met with strong demand. The Group also made several increases 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 pounds sterling and Norwegian krone but reduced its funding volume in the Japanese Uridashi market.

In 2022, new long-term funding was EUR 8,827 million (EUR 9,395 million). A total of 180 (208) funding arrangements were made in 13 (13) different currencies. The Group uses derivatives to hedge against market risks related to its funding issuances.

At the end of 2022, the Group's total funding amounted to EUR 40,210 million (EUR 40,712 million), of which the ECP programme totalled EUR 4,650 million (EUR 3,819 million). Of total funding, 48.5% (49.0%) were denominated in euros and 51.5% (51.0%) 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 consists 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 2022, the Group issued a highly successful green bond that was many times oversubscribed despite the challenging market backdrop. As many as 80% of the participating investors were dedicated ESG investors. For the second time in a row, Environmental Finance chose MuniFin as the winner of the highly competitive '*Green Bond of the Year*' award in the local authority or municipality category. The Group did not issue a social bond in 2022.

Russia's invasion of Ukraine has made it necessary to revise MuniFin Group's liquidity planning in order to ensure financing for its customers. The Group's long-term risk appetite framework specifies that total liquidity must be enough to cover uninterrupted business with no additional funding for a survival horizon of at least 12 months, but the Group has increased its liquidity substantially above this limit because of the unusual political and market situation. With the amount held at the end of the year, the Group could uphold all its commitments with no additional funding for 15 months (15 months).

Due to the general market uncertainty, the Group increased during 2022 its average allocation in investments in central bank deposits. At the end of 2022, the Group's total liquidity stood at EUR 11,506 million (EUR 12,222 million). Of this, central bank deposits totalled EUR 8,144 million (EUR 8,435 million) and investments in liquid, low-risk securities EUR 3,330 million (EUR 3,753 million), with the average credit rating of AA+ (AA+) and average maturity of 2.6 years (2.6 years). In addition to this, money market deposits in credit institutions totalled EUR 32 million (EUR 34 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 service provider changed in 2022. 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 does it compare to its global peer group. These are evaluated using ten different ESG themes and the end result is ESG score in scale 0–10, in which 10 is the best score.

At the end of 2022, the Group's liquidity investments had an average ESG score of 7.65 on a scale of 0 to 10, above the benchmark index of 7.43. The Group held a total of EUR 498 million (EUR 456 million) in direct socially responsible investments (*SRIs*), which is 15.0% (12.1%) of all the Group's investments in securities. The ratio of sustainable investments was higher than the market benchmark of 8.1% (5.0%). The ratio of socially responsible investments to the Group's own green and social funding was 14.5% (15.6%). K

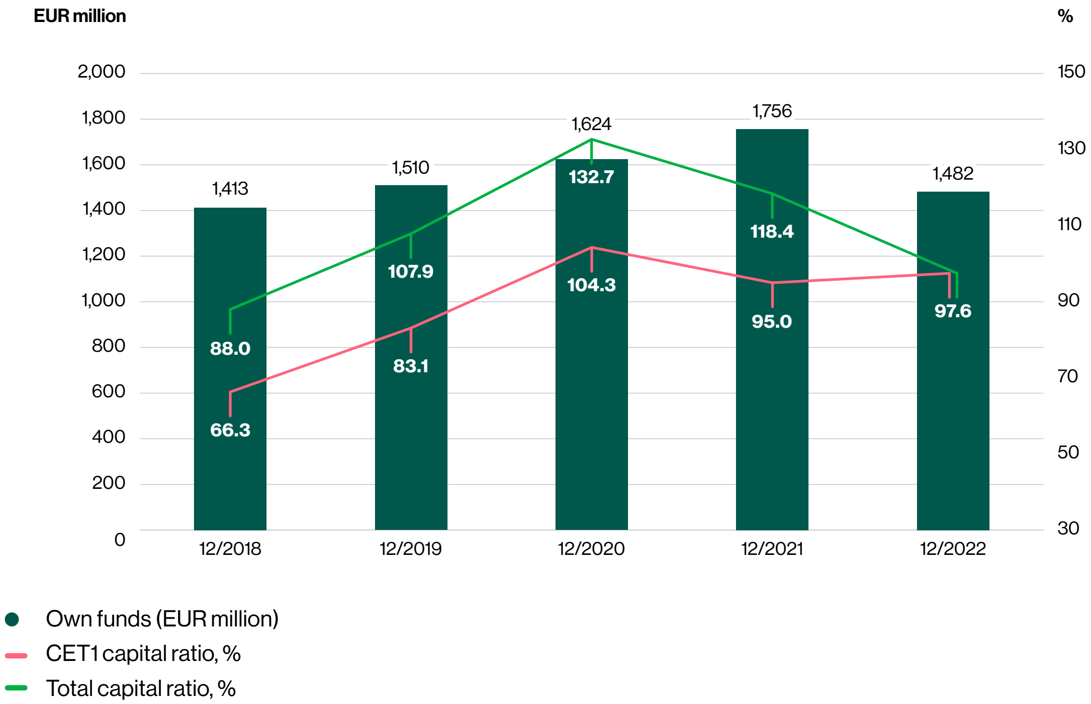
MuniFin's credit ratings

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 CET1 capital ratio was 97.6% (95.0%), which corresponds to its Tier 1 capital ratio and total capital ratio at the end of December 2022 (118.4%) because the Group only had CET1 capital at the time. The total capital ratio fell due to the redemption of the AT1 capital loan in April 2022, which reduced the total capital ratio at the end of the year by 23.0 percentage points. The Group's CET1 capital ratio is over seven times the required minimum, taking capital buffers into account.

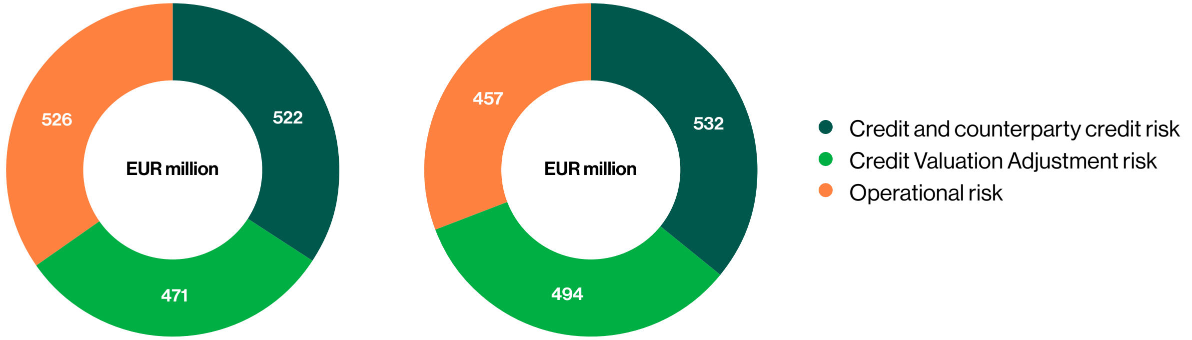
CONSOLIDATED OWN FUNDS (EUR 1,000)	31 Dec 2022	31 Dec 2021
Common Equity Tier 1 before regulatory adjustments	1,546,129	1,464,442
Regulatory adjustments to Common Equity Tier 1	-64,519	-56,172
Common Equity Tier 1 (*CET1*)	**1,481,610**	**1,408,270**
Additional Tier 1 capital before regulatory adjustments	-	347,454
Regulatory adjustments to Additional Tier 1 capital	-	-
Additional Tier 1 capital (*AT1*)	**-**	**347,454**
Tier 1 capital (*T1*)	**1,481,610**	**1,755,723**
Tier 2 capital before regulatory adjustments	-	-
Regulatory adjustments to Tier 2 capital	-	-
Tier 2 capital (*T2*)	**-**	**-**
Total own funds	**1,481,610**	**1,755,723**

At the end of the year, the Group's CET1 capital totalled EUR 1 482 million (EUR 1,408 million). The Group no longer had any Additional Tier 1 instruments at the end of financial year, and its CET1 capital was therefore equal to its Tier 1 capital, EUR 1,482 million (EUR 1,756 million). The redemption of the AT1 capital loan diminished the Group's Tier 1 capital by EUR 347 million. The Group had no Tier 2 capital. The Group's own funds totalled EUR 1,482 million (EUR 1,756 million).

The CET1 capital includes profit for the financial year. The 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*).

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

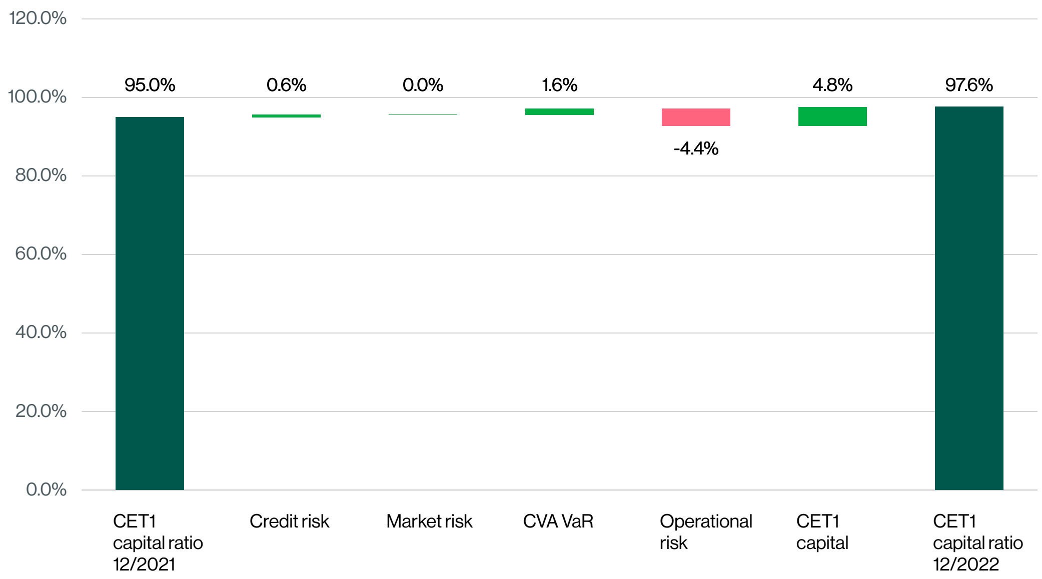
Total risk exposure amount 12/2021
EUR 1,482 million



The Group's total risk exposure amount increased by 2.4% from the end of 2021, totalling EUR 1,518 million (EUR 1,482 million) at the end of the financial year.

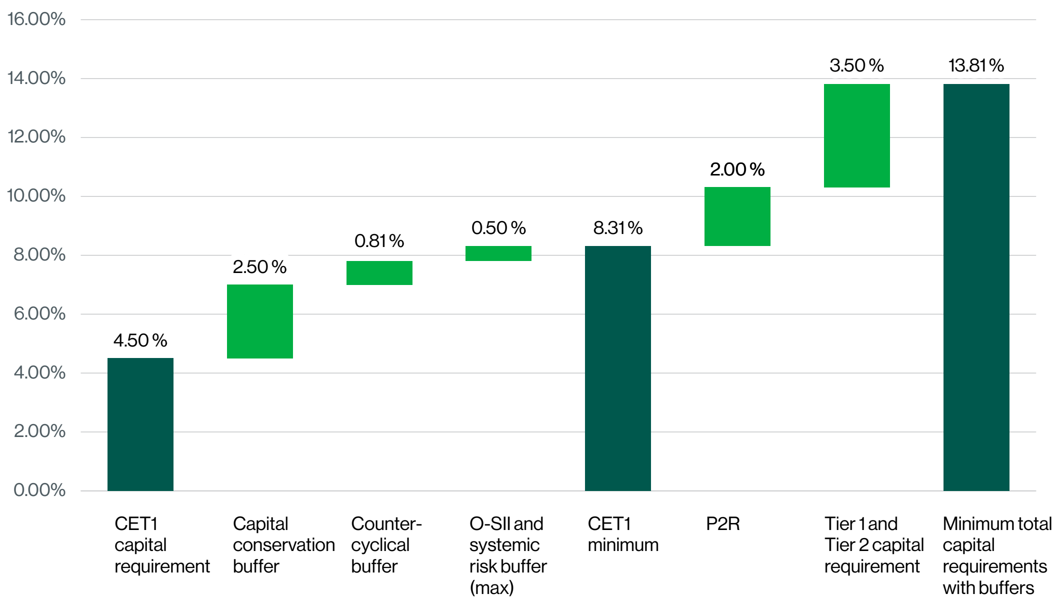
The risk exposure amount for credit and counterparty credit risk decreased by EUR 10 million from the end of 2021. There was no capital requirement for market risk at the end of the financial year or in the comparison year, because the currency position was less than 2% of the Group's own funds, and, 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 471 million (EUR 494 million). The risk exposure amount of operational risk was EUR 526 million (EUR 457 million), and the growth was due to the increase in profit indicators at the end of 2022.

The Group's 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* to the Consolidated Financial Statements, *Risk management principles and the Group's risk position*. 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 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% and, for MuniFin Group, the additional capital requirement for other systemically important credit institutions *(O-SII)* is 0.5%. At the end of June 2022, the Finnish Financial Supervisory Authority (*FIN-FSA*) gave its annual decision on the O-SII buffers and kept MuniFin Group's buffer unchanged at 0.5%. The FIN-FSA has not imposed a systemic risk buffer for MuniFin Group. The systemic risk buffer and the O-SII buffer are parallel buffers, of which only the greater is applied.

In December 2022, the FIN-FSA decided not to impose a countercyclical capital buffer requirement, which is decided on a quarterly basis. For MuniFin Group, the credit institution-specific countercyclical capital buffer requirement that is imposed based on the geographical distribution of exposures is 0.8% (0.1%). The Group therefore has a minimum requirement of 8.3% (7.6%) for its CET1 capital ratio and 11.8% (11.1%) 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 decreased by 0.25 percentage points during the financial year. Including this P2R requirement, the total SREP capital requirement ratio *(TSCR)* was 10% (10.25%) at the end of the year.

The minimum level of total capital ratio was 13.8% (13.4%) 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 11.6% (12.8%). Muniin fulfils the CRR II definition of a public development credit institution and may therefore deduct all credit receivables from municipalities and the central government in the calculation of its leverage ratio. The amount of credit receivables from municipalities and the central government was EUR 31 853 million (EUR 31,568 million) at the end of the year. The reduced leverage ratio is explained by the redemption of the AT1 loan, which reduced the amount of the Group's own funds. The minimum required leverage ratio is 3%.

At the end of the year, MuniFin Group's liquidity coverage ratio (*LCR*) was 256.7% (334.9%) and its net stable funding ratio (*NSFR*) was 120.3% (123.6%). 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 will take 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 multiple times the MREL requirement, and there is no present need for MuniFin to issue Tier 3 instruments.

Changes in banking regulation

During the financial year, MuniFin Group prepared for the implementation of the European Commission's delegated regulation (2016/2251) regarding the use of securities as initial margin in over-the-counter derivatives, which will enter into force in phases. The initial margin requirement became binding for MuniFin in September 2022, and MuniFin reached the readiness to use securities for this purpose by the end of the month.

In 2022, the Group also developed its disclosure of ESG risks and prepared to disclose them in accordance with CRR Article 449a, while taking into account the requirements of the technical standard EBA/ITS/2022/01 of the European Banking Authority. This information is available in a separate Pillar III Disclosure Report, published in English concurrently with this Report of the Board of Directors and the Financial Statements on MuniFin's website.

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. The Group will specify its impact assessments later as it prepares for the CRR III's entry into force.

In November 2022, the European Parliament approved the Corporate Sustainability Reporting Directive (*CSRD*) proposed by the Commission in April 2021. MuniFin Group will prepare over the next few years for CSRD-compliant sustainability reporting, which will be adopted for the financial year 2025. K

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 MuniFin to keep both its capital quantity and quality as well as its 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 exceptional 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 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 its 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 2022, the Group's CET1 leverage ratio was 11.6%. 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 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.

The MuniFin Board of Directors has made a dividend policy proposal to the Annual General Meeting (*AGM*). The policy proposal is published in full as an appendix to the notice of the AGM. The proposed dividend policy is for MuniFin to pay 30–60% of the Group's financial year's profit in dividends. Dividend distribution must not jeopardize MuniFin's solvency, liquidity or its ability to meet the commitments.

When drafting the dividend proposal and deciding on the distribution of profits one should take into account factors that affect the Group's capital position on a broad spectrum, including the following:

- 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 instrument not recognised in PnL.

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 MuniFin 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 in Note *2* to the Consolidated Financial Statements, *Risk management principles and the Group's risk position*. 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 2022, and risks remained within the risk appetite limits set by the Board of Directors. Russia's invasion of Ukraine has had little effect on the Group's financial position and results. Despite the market turbulence, the Group's funding continued in the usual manner during the year. Because of the uncertainty arising from the war and the inflation outlook, the Group has nevertheless maintained larger than normal 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.

Despite the changes in the operational environment, the Group's risk position remained stable and at a low level during the reporting period. Unrealised fair value changes of financial instruments caused typical earnings volatility during the year. 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 is exposed to credit risks as part of its business. Due to the nature of its customer base, credit risks are low. The Group's credit risks emerge almost exclusively from the customer financing, the 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 (real estate collateral and guarantees received) and the exemptions set out in CRR II Article 400 related to the calculation of large exposures, MuniFin Group is not exposed to customer risk in its customer financing referred in the regulation, 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 0.1 million (EUR -0.1 million) recognised in the income statement for the financial year. The amount of forborne loans was EUR 80 million (EUR 88 million), while non-performing exposures amounted to EUR 7 million (EUR 128 million) at the end of the year. For these non-performing exposures, MuniFin has absolute guarantees by municipalities 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 0.02% (0.4%) 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. Eight 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 -25 million with least favourable scenario being a decrease of 200 basis points in the whole interest curve (at the end of 2021, the least favourable scenario was a rise of 50 basis points in the whole interest curve, EUR 0 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 rise of 200 basis points in the whole interest curve, when EVE was EUR -34 million (at the end of 2021, the least favourable scenario was a rise of 50 basis points in the whole interest curve, EUR -13 million).

MuniFin Group's foreign exchange *(FX)* risk is hedged 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. 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. 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 reporting period, unrealised fair value changes of financial instruments caused typical 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. 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 turbulent markets.

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 revised its calculation method for the survival horizon in 2022, and the figure stood at 15 months (15 months) at the end of the year, calculated with the new method. The Group's liquidity remained good, with the liquidity coverage ratio (*LCR*) being 256,7% (334.9%) at the end of the year. The availability of long-term funding is monitored via the net stable funding ratio (*NSFR*), which stood at 120.3% (123.6%) at the end of the year. The availability of funding remained good throughout the year, and the Group issued EUR 8,827 million (EUR 9,395 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 during 2022. The Group's operating practices have changed with remote work arrangements, but the Group's business operations have continued normally.

ESG risks include environmental, social and governance risks. There have been no material changes in ESG risks during the year. According to the Group's estimate, it is currently not exposed to any substantial social or governance risks, and environmental and climate risks are also unlikely to manifest substantially in the short term. In the medium and long term, climate risks may nevertheless have an adverse economic effect on the Group's customers. In 2022, the Group made substantial investments into building its environmental and climate risk framework in line with regulatory requirements and feedback received from the ECB. This work will continue in 2023 and 2024.

MuniFin Group took part in the ECB's climate stress test in the first half of 2022. The results were published in July. The stress test concluded that the Group's potential exposure to transition risks caused by climate change is lower than the average of all participating banks. During the financial year 2022, the Group continued to further develop its ESG risk management. More information related to the Group's ESG 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. K

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.

Upon the publication of the Annual Report, MuniFin Group also publishes a Corporate Governance Statement on its website, pursuant to chapter 7, section 7 of the Finnish Securities Market Act. The statement is separate from the Annual Report and 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 during the reporting period.

General meeting

The Annual General Meeting (*AGM*) of MuniFin was held on 24 March 2022. The AGM confirmed the Financial Statements for 2021 and discharged the members of the Board of Directors, the CEO and the Deputy to the CEO from liability for the financial year 2021. In addition, in accordance with the proposal of the Board of Directors, the AGM decided on a dividend payment of EUR 1.03 per share, totalling EUR 40,235,711.94. The amount of distributable funds on the Group's balance sheet on 31 December 2021 was EUR 267,949,619.07.

Based on the proposal of the Shareholders' Nomination Committee, the AGM decided to appoint eight Board members for the 2022–2023 term, lasting from the 2022 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 addition, the meeting re-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 decided, based on the proposal of the Shareholders' Nomination Committee, that the Committee will be supplemented by a fifth member representing the municipal sector. MuniFin's three largest shareholders – public sector pension provider Keva, State of Finland and the City of Helsinki – as well as the Association of Finnish Local and Regional Authorities have each nominated one member to the Committee. The fifth member will be appointed by a joint decision between the next five largest shareholders.

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 24 March 2022 regarding the members to be elected for the term that began at the end of the 2022 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, Vivi Marttila, Tuomo Mäkinen, Minna Smedsten, Denis Strandell and Leena Vainiomäki. 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), Vivi Marttila, 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 Tuomo Mäkinen. In the Remuneration Committee, the Board selected Kari Laukkanen (Chair), Leena Vainiomäki and Maaria Eriksson.

From the 2021 AGM to the 2022 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, Leena Vainiomäki and Kimmo Viertola. Viertola was not available for the Board's 2022–2023 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 2022, MuniFin Group had 175 (164) employees, of which 165 (153) worked for the Parent Company. Salaries and remuneration paid across the Group amounted to EUR 15.5 million (EUR 14.6 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 44 Salaries and remuneration* in the Consolidated Financial Statements. Concurrently with this Report of the Board of Directors and the Financial Statements, MuniFin Group is publishing 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 operations, way of working and IT systems and that the risks associated with the operations are adequately managed. K

Share capital and shareholders

At the end of the 2022 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 2022, MuniFin had 276 (276) shareholders.

10 LARGEST SHAREHOLDERS 31 Dec 2022		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	592,028	1.5%
10.	City of Lahti	537,926	1.4%

The number of shares presented in the above table do 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 2023

The economic outlook has deteriorated markedly in all MuniFin's main economic areas. In the United States, the main reason for the slowdown in growth is the rapidly tightening monetary policy, and in the euro area, the energy crisis and the surge in the cost of living. In China, the growth outlook is weighed down by the country's COVID-19 situation and property sector crisis. The euro area is expected to slide into a recession in early 2023, but the downturn in economy is projected to be relatively short-lived and shallow because businesses have adjusted to the energy crisis faster than expected, and many households still have some extra savings accumulated during the pandemic.

Inflation continues to pose the biggest challenge in global macroeconomy. The fastest rise in consumer prices is likely to calm down during the coming winter months, but it may take a few years for inflation to return to the central banks' target level. Interest rate hikes will probably continue throughout the first half of 2023, other contractive monetary policy measures for much longer. Central bank key interest rates are predicted to rise to about 5% in the United States and over 3% in the euro area.

The Finnish economy is also sinking into a mild recession as real incomes are being eroded and businesses are more cautious in their investment decisions. The outlook has deteriorated especially in retail business and construction. General economic uncertainty and rising interest rates are a difficult combination for the housing market. Trends in building permits indeed suggest that the number of residential building projects will fall clearly in 2023.

It is to be expected that the cooling economic cycle will eventually also affect the labour market: employment growth will halt, and the unemployment rate will turn to a moderate rise. However, many sectors are currently facing such extensive labour shortages that strong growth in unemployment seems unlikely.

Finland's public finances will continue to show a significant deficit in the coming years. Due to new cost pressures, especially the central government will run into much more debt than was previously estimated. Municipal finances, however, are looking exceptionally strong in 2023. Municipalities will not bear the full burden of the tax cuts introduced by the health and social services reform until in 2024, but they will experience the relief of their health and social services spending being eliminated immediately at the start of 2023. Thanks to the temporary tax benefit, the financial position of Finnish municipalities is expected to show a surplus of more than EUR 1 billion. The main uncertainties in municipal finances stem from the general economic development, the energy crisis and the yet unknown true cost of municipalities' new responsibilities, such as the local government pilots on employment and the extension of compulsory education.

Considering the above-mentioned circumstances, the Group expects its net operating profit excluding unrealised fair value changes to be at the same level as in the previous year. 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 profit shown in balance sheet and deciding on the distribution of dividends

Municipality Finance Plc has distributable funds of EUR 365,774,616.34, of which the profit for the financial year totalled EUR 138,060,709.21.

The Board of Directors proposes to the Annual General Meeting that based on the confirmed balance sheet EUR 1.73 per share to be paid in dividend, totalling EUR 67,580,370.54.

MuniFin's profit for the financial year was very good. The Board of Directors considers the payment of this dividend to be well justified. MuniFin clearly fulfils 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. In the Board's opinion, the proposed distribution of profits does not place the fulfilment of the capital requirements or the Company's liquidity in jeopardy or the proposal do not conflict with the binding legislation.

Dividends will be paid to shareholders who are recorded in the Company's list of shareholders on 4 April 2023. The Board of Directors proposes that the dividends be paid on 13 April 2023.

The Group's development

	Jan–Dec 2022	Jan–Dec 2021	Jan–Dec 2020	Jan–Dec 2019	Jan–Dec 2018
Turnover (EUR million)	759	535	532	718	714
Net interest income (EUR million)*	241	280	254	240	236
% of turnover	31.8	52.4	47.7	33.5	33.1
Net operating profit (EUR million)*	215	240	194	131	190
% of turnover	28.3	44.8	36.5	18.3	26.6
Unrealised fair value changes (EUR million)*	45	27	-3	-54	0
Net operating profit excluding unrealised fair value changes (EUR million)*	170	213	197	186	190
Cost-to-income ratio*	0.2	0.2	0.2	0.3	0.2
Cost-to-income ratio excluding unrealised fair value changes*	0.3	0.2	0.2	0.2	0.2
New long-term customer financing (EUR million)*	4,375	3,671	5,157	3,486	3,226
New long-term funding (EUR million)*	8,827	9,395	10,966	7,385	7,436

	31 Dec 2022	31 Dec 2021	31 Dec 2020	31 Dec 2019	31 Dec 2018
Return on equity *(ROE)*, %*	9.9	10.7	9.4	6.8	10.8
Return on equity *(ROE)* excluding unrealised fair value changes, %*	7.8	9.6	9.6	9.6	10.7
Return on assets *(ROA)*, %*	0.4	0.4	0.4	0.3	0.4
Return on assets *(ROA)* excluding unrealised fair value changes, %*	0.3	0.4	0.4	0.4	0.4
Long-term customer financing (EUR million)*	29,144	29,214	28,022	24,798	22,968
Total funding (EUR million)*	40,210	40,712	38,139	33,929	30,856
Equity (EUR million)	1,614	1,862	1,705	1,594	1,486
Total balance sheet (EUR million)	47,736	46,360	44,042	38,934	35,677
Total liquidity (EUR million)*	11,506	12,222	10,089	9,882	8,722
Liquidity Coverage Ratio *(LCR)*, %	256.7	334.9	264.4	430.2	176.7
Net Stable Funding Ratio *(NSFR)*, %	120.3	123.6	116.4	116.3	-
Equity ratio, %*	3.4	4.0	3.9	4.1	4.2
CET1 capital (EUR million)	1,482	1,408	1,277	1,162	1,065
Tier 1 capital (EUR million)	1,482	1,756	1,624	1,510	1,413
Total own funds (EUR million)	1,482	1,756	1,624	1,510	1,413
CET1 capital ratio, %	97.6	95.0	104.3	83.1	66.3
Tier 1 capital ratio, %	97.6	118.4	132.7	107.9	88.0
Total capital ratio, %	97.6	118.4	132.7	107.9	88.0
Leverage ratio, %**	11.6	12.8	3.9	4.0	4.1
Personnel	175	164	165	167	151

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

The calculation formulas for all key figures can be found on pages 72–79. 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*).

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	CALCULATION FORMULA / RECONCILIATION	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
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)	712	504
		interest and similar expense	-471	-223
		Net interest income	**241**	**280**
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.	Net income from securities transactions, unrealised fair value changes	8	22
		Net income from hedge accounting	36	5
		Unrealised fair value changes	**45**	**27**
Net operating profit	Net operating profit describes the Group's operating profit before taxes.	**Net operating profit**	**215**	**240**
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	215	240
		- Unrealised fair value changes	45	27
		Net operating profit excluding unrealised fair value changes	**170**	**213**
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	241	280
		Commission income	2	2
		Net income from securities and foreign exchange transactions	8	24
		Net income on financial assets at fair value through other comprehensive income	0	-
		Net income from hedge accounting	36	5
		Other operating income	0	0
		Income	**288**	**311**

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ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	CALCULATION FORMULA / RECONCILIATION	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
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	288	311
		- Unrealised fair value changes	45	27
		Income excluding unrealised fair value changes	**243**	**285**
Other income	Other income includes all other income of the Group except net interest income and unrealised fair value changes of net income from securities transactions and hedge accounting.	Commission income	2	2
		Net income from securities transactions, realised	0	1
		Net income from foreign exchange transactions	0	1
		Net income on financial assets at fair value through other comprehensive income	0	-
		Other operating income	0	0
		Other income	**2**	**4**
Costs	Costs, which describes the Group's total costs, is used e.g. as a numerator (excl. Commission expenses) in Cost-to-income ratio.	Commission expenses	6	5
		Administrative expenses	37	35
		Depreciation and impairment on tangible and intangible assets	10	16
		Other operating expenses	20	16
		Costs	**73**	**72**
Costs excluding the non-recurring item	Costs excluding the non-recurring item reflects the amount of costs comparable between financial periods.	Costs	73	72
		Non-recurring item (expenses on terminated IT system implementation)	-5	-10
		Costs excluding the non-recurring item	**69**	**61**
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)	68	66
		÷ Income (incl. Net commission income)	283	306
		Cost-to-income ratio	**0.2**	**0.2**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	CALCULATION FORMULA / RECONCILIATION	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
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)	68	66
		÷ (Income (incl. Net commission income)	283	306
		- Unrealised fair value changes)	45	27
		Cost-to-income ratio excluding unrealised fair value changes	**0.3**	**0.2**
The effect of unrealised fair value changes on other comprehensive income and equity net of tax	Key performance 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	45	27
		Taxes related to the unrealised fair value changes through PnL	-9	-5
		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	0	0
		Net change in Cost-of-Hedging, net of tax	-12	-2
		Net change in fair value of financial assets at fair value through other comprehensive income, net of tax	-5	-1
		The effect of unrealised fair value changes on other comprehensive income and equity net of tax	**19**	**19**
New long-term customer financing	Key performance 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	4,074	3,275
		New leased assets	301	396
		New long-term customer financing	**4,375**	**3,671**
New long-term funding	Key performance 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**	**8,827**	**9,395**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	CALCULATION FORMULA / RECONCILIATION	31 Dec 2022	31 Dec 2021
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. The key figure is reported annualised.	((Net operating profit	215	240
		- Taxes)	-43	-48
		÷ Equity and non-controlling interest (average of values at the beginning and end of the period)) x100	1,738	1,783
		Return on Equity *(ROE)*, %	**9.9%**	**10.7%**
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. The key figure is reported annualised.	((Net operating profit excluding unrealised fair value changes	170	213
		- Taxes)	-34	-43
		÷ Equity and non-controlling interest (average of values at the beginning and end of the period)) x100	1,738	1,783
		Return on Equity *(ROE)* excluding unrealised fair value changes, %	**7.8%**	**9.6%**
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. The key figure is reported annualised.	((Net operating profit	215	240
		- Taxes)	-43	-48
		÷ Average balance sheet total (average of values at the beginning and end of the period)) x100	47,048	45,201
		Return on Assets *(ROA)*, %	**0.4%**	**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. The key figure is reported annualised.	((Net operating profit excluding unrealised fair value changes	170	213
		- Taxes)	-34	-43
		÷ Average balance sheet total (average of values at the beginning and end of the period)) x100	47,048	45,201
		Return on Assets *(ROA)* excluding unrealised fair value changes, %	**0.3%**	**0.4%**
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	1,614	1,862
		÷ Balance sheet total) x100	47,736	46,360
		Equity ratio, %	**3.4%**	**4.0%**
Long-term loan portfolio	Key performance indicator used in management reporting to describe MuniFin Group's business volume.	Loans and advances to the public and public sector entities	29,144	29,214
		- Leasing	1,303	1,334
		Long-term loan portfolio	**27,841**	**27,880**
Long-term customer financing	Key performance indicator used in management reporting to describe MuniFin Group's business volume.	Loans and advances to the public and public sector entities	29,144	29,214
		Long-term customer financing	**29,144**	**29,214**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	CALCULATION FORMULA / RECONCILIATION	31 Dec 2022	31 Dec 2021
Long-term customer financing excluding unrealised fair value changes	Key performance 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	29,144	29,214
		- Unrealised fair value changes	1,516	-151
		Long-term customer financing excluding unrealised fair value changes	**30,660**	**29,063**
Short-term customer financing	Key performance indicator used in management reporting to describe MuniFin Group's business volume.	Debt securities, commercial papers (municipalities and municipal companies)	1,457	1,089
		Short-term customer financing	**1,457**	**1,089**
Total funding	Key performance indicator used in management reporting to describe MuniFin Group's funding volume.	Liabilities to credit institutions	2,333	2,801
		Liabilities to the public and public sector entities	2,530	3,325
		Debt securities issued	35,592	35,328
		Total	**40,454**	**41,453**
		- CSA collateral (received)	-244	-741
		Total funding	**40,210**	**40,712**
Long-term funding	Key performance indicator used in management reporting to describe MuniFin Group's funding volume.	Total funding	40,210	40,712
		- Short-term issued funding (*ECP*)	-4,650	-3,819
		Long-term funding	**35,560**	**36,893**
Total liquidity	Key performance indicator used in management reporting to describe MuniFin Group's liquidity position.	Debt securities	4,787	4,841
		- Short-term customer financing	-1,457	-1,089
		Shares and participations	-	-
		Investments in securities total	**3,330**	**3,753**
		Cash and balances with central banks	-	8,399
		Other deposits	8,176	70
		Other investments total	**8,176**	**8,469**
		Total liquidity	**11,506**	**12,222**
Ratio of socially responsible investments to MuniFin Group's own green and social funding	Key performance indicator used in management reporting for social responsibility area.	(Socially responsible investments	498	456
		÷ Green and social funding) x100	3,430	2,930
		Ratio of socially responsible investments to MuniFin Group's own green and social funding	**14.5%**	**15.6%**

OTHER MEASURES EUR million	DEFINITION	CALCULATION FORMULA / RECONCILIATION	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
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)	712	504
		Commission income	2	2
		Net income from securities and foreign exchange transactions	8	24
		Net income on financial assets at fair value through other comprehensive income	0	-
		Net income from hedge accounting	36	5
		Other operating income	0	0
		Turnover	**759**	**535**

			31 Dec 2022	31 Dec 2021
Liquidity Coverage Ratio *(LCR)*, %	Defined in CRR.	(Liquid assets	10,882	11,564
		÷ (Liquidity outflows - liquidity inflows in a stress situation)) x100	4,240	3,453
		Liquidity Coverage Ratio *(LCR)*, %	**256.7%**	**334.9%**
Net Stable Funding Ratio *(NSFR)*, %	Defined in CRR.	(Available Stable Funding (*ASF*)	31,966	33,638
		÷ Required Stable Funding (*RSF*)) x100	26,583	27,221
		Net Stable Funding Ratio *(NSFR)*, %	**120.3%**	**123.6%**
CET1 capital ratio, %	Defined in CRR.	(Common Equity Tier 1 (*CET1*) capital	1,482	1,408
		÷ Risk exposure amount) x100	1,518	1,482
		CET1 capital ratio, %	**97.6%**	**95.0%**

OTHER MEASURES EUR million	DEFINITION	CALCULATION FORMULA / RECONCILIATION	1 Jan–31 Dec 2022	1 Jan–31 Dec 2021
Tier 1 capital ratio, %	Defined in CRR.	(Tier 1 capital	1,482	1,756
		÷ Risk exposure amount) x100	1,518	1,482
		Tier 1 capital ratio, %	**97.6%**	**118.4%**
Total capital ratio, %	Defined in CRR.	(Total own funds	1,482	1,756
		÷ Risk exposure amount) x100	1,518	1,482
		Total capital ratio, %	**97.6%**	**118.4%**
Leverage ratio, %	Defined in CRR.	(Tier 1 capital	1,482	1,756
		÷ Total exposure) x100	12,779	13,716
		Leverage ratio, %	**11.6%**	**12.8%**

Note 2. Group's capital adequacy position

Table 1. Minimum capital requirements and capital buffers

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 [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

MINIMUM CAPITAL REQUIREMENTS AND CAPITAL BUFFERS, % 31 Dec 2021	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%	0.15%	0.50%	0.00%	3.15%	7.65%
Tier 1 (*T1*) Capital	6.00%	2.50%	0.15%	0.50%	0.00%	3.15%	9.15%
Total own funds	8.00%	2.50%	0.15%	0.50%	0.00%	3.15%	11.15%

MINIMUM CAPITAL REQUIREMENTS AND CAPITAL BUFFERS (EUR 1,000) 31 Dec 2021	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	66,712	37,062	2,217	7,412	0	46,692	113,404
Tier 1 (*T1*) Capital	88,950	37,062	2,217	7,412	0	46,692	135,642
Total own funds	118,600	37,062	2,217	7,412	0	46,692	165,292

[1] Act on Credit Institutions (610/2014), Sect 10:3 §, 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 16 December 2022 (16 December 2021), 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 0.81% (0.15%).

[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 27 June 2022, 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). On 6 April 2020, the FIN-FSA made a decision to remove the additional capital requirement determined on the basis of the structural characteristics of the financial system (systemic risk buffer) from Finnish credit institutions. The aim of the decision was to mitigate the negative effects of the COVID-19 pandemic on the stability of the financial markets and to promote the ability of credit institutions to finance the economy. The decision entered into force immediately. By the end of the financial year, the FIN-FSA had not imposed a new systemic risk buffer for the MuniFin Group. The systemic risk buffer and the O-SII additional capital requirement are parallel buffers, of which the greater is applied.

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% (10.25%) at the end of December 2022. The minimum level of total capital ratio was 13.81% (13.40%) including P2R and other additional capital buffers.

Table 2. Own Funds

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Share capital	42,583	42,583
Reserve for invested non-restricted equity	40,366	40,366
Retained earnings	1,533,535	1,416,916
Fair value reserve	-3,052	13,994
Other reserves	277	277
Foreseeable dividend	-67,580	-40,236
Accrued interest net of deferred taxes of AT1 capital loan treated as equity	-	-9,459
Common Equity Tier 1 *(CET1)* capital before regulatory adjustments	**1,546,129**	**1,464,442**
Intangible assets	-8,831	-12,296
Deferred tax assets that rely on future profitability and do not arise from temporary differences	-763	-
Deductions due to prudential filters on Common Equity Tier 1 capital	-54,925	-43,876
Common Equity Tier 1 *(CET1)* capital	**1,481,610**	**1,408,270**
Instruments included in Additional Tier 1 capital	-	347,454
Additional Tier 1 *(AT1)* capital	**-**	**347,454**
Tier 1 *(T1)* capital	**1,481,610**	**1,755,723**
Tier 2 *(T2)* capital	**-**	**-**
Total own funds	**1,481,610**	**1,755,723**

Table 3. Consolidated key figures for capital adequacy

	31 Dec 2022	31 Dec 2021
CET1 capital ratio, %	97.60	94.99
Tier 1 capital ratio, %	97.60	118.43
Total capital ratio, %	97.60	118.43

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).

MuniFin Group redeemed its Additional Tier 1 capital instrument in April 2022. The repayment decreased Tier 1 capital by EUR 347 million. A more detailed description of AT1 capital instrument is included in the Parent Company's Financial Statements in Note *35 Subordinated liabilities*.

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 2022, the FX net position was EUR 4.8 million (EUR 1.4 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 2022		31 Dec 2021	
(EUR 1,000)	Capital requirement	Risk exposure amount	Capital requirement	Risk exposure amount
Credit and counterparty risk, standardised approach	**41,727**	**521,592**	**42,524**	**531,547**
Exposures to central governments or central banks	-	0	-	0
Exposures to regional governments or local authorities	419	5,240	451	5,634
Exposures to public sector entities	639	7,983	705	8,807
Exposures to multilateral development banks	-	0	-	0
Exposures to institutions	26,800	335,004	23,422	292,771
Exposures to corporates	3,297	41,210	6,038	75,471
Exposures in the form of covered bonds	8,723	109,041	9,734	121,670
Other items	1,849	23,113	2,176	27,194
Market risk	**-**	**-**	**-**	**-**
Credit valuation adjustment risk (*CVA VaR*), standard method	**37,644**	**470,552**	**39,549**	**494,362**
Operational risk, basic indicator approach	**42,071**	**525,892**	**36,527**	**456,587**
Total	**121,443**	**1,518,036**	**118,600**	**1,482,496**

The capital requirement for counterparty risk is EUR 5,640 thousand (EUR 4,727 thousand).

Table 5. Consolidated exposure by class

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**

31 Dec 2021 (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	8,636,433	-	-	8,636,433	8,503,878	0
Exposures to regional governments or local authorities	14,297,717	906,117	323,486	15,527,320	15,431,645	5,634
Exposures to public sector entities	342,672	-	-	342,672	390,671	8,807
Exposures to multilateral development banks	152,387	-	-	152,387	153,403	0
Exposures to international organisations	143,579	-	-	143,579	147,620	0
Exposures to institutions	1,285,401	-	547,272	1,832,673	1,821,127	292,771
Exposures to corporates	6,457,680	1,682,251	279,398	8,419,329	8,544,959	75,471
Exposures secured by mortgages on immovable property	10,208,300	-	-	10,208,300	9,837,166	0
Exposures in default	130,053	4,506	-	134,559	142,628	0
Exposures in the form of covered bonds	1,216,705	-	-	1,216,705	1,305,877	121,670
Other items	27,232	-	-	27,232	26,675	27,194
Total	**42,898,158**	**2,592,873**	**1,150,157**	**46,641,188**	**46,305,650**	**531,547**

Table 6. Leverage ratio

CONSOLIDATED LEVERAGE RATIO (EUR 1,000)	31 Dec 2022	31 Dec 2021
Tier 1 (*T1*) capital	1,481,610	1,755,723
Total exposure	12,777,216	13,715,604
Leverage ratio, %	11.60	12.80

CONSOLIDATED EXPOSURES (EUR 1,000)	31 Dec 2022	31 Dec 2021
On-balance sheet exposures (excl. derivatives and intangible assets)	42,601,459	42,875,215
Derivatives exposure	864,243	1,181,445
Off-balance sheet exposure	1,164,571	1,227,349
Excluded exposures of public development credit institutions (promotional loans)	-31,853,057	-31,568,405
Total	**12,777,216**	**13,715,604**

BREAKDOWN OF CONSOLIDATED ON-BALANCE SHEET EXPOSURE (EXCLUDING DERIVATIVES AND EXEMPTED EXPOSURES) (EUR 1,000)	31 Dec 2022 Leverage ratio exposure value	31 Dec 2021 Leverage ratio exposure value
Covered bonds	1,090,411	1,216,705
Exposures treated as sovereigns	9,116,446	9,618,861
Exposures to regional governments, multilateral development banks, international organisations and public sector entities not treated as sovereigns	66,117	72,202
Institutions	1,278,256	1,285,401
Secured by mortgages of immovable properties	-	-
Corporate	335,439	336,701
Exposures in default	-	-
Other exposures	35,135	16,585
Total	**11,921,804**	**12,546,455**

Note 3. Parent Company's capital adequacy position

Table 1. Own funds

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Share capital	43,008	43,008
Reserve for invested non-restricted equity	40,743	40,743
Retained earnings	1,532,647	1,404,148
Fair value reserve	-3,052	13,994
Other reserves	277	277
Foreseeable dividend	-67,580	-40,236
Common Equity Tier 1 *(CET1)* capital before regulatory adjustments	**1,546,042**	**1,461,934**
Intangible assets	-8,837	-12,305
Deferred tax assets that rely on future profitability and do not arise from temporary differences	-763	-
Deductions due to prudential filters on Common Equity Tier 1 capital	-54,925	-43,876
Common Equity Tier 1 *(CET1)* capital	**1,481,518**	**1,405,753**
Instruments included in Additional Tier 1 capital	-	349,878
Additional Tier 1 *(AT1)* capital	**-**	**349,878**
Tier 1 *(T1)* capital	**1,481,518**	**1,755,631**
Tier 2 *(T2)* capital	**-**	**-**
Total own funds	**1,481,518**	**1,755,631**

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).

MuniFin Group redeemed its Additional Tier 1 capital instrument in April 2022. The repayment decreased Tier 1 capital by EUR 350 million. A more detailed description of AT1 capital instrument is included in the Parent Company's Financial Statements in Note *35 Subordinated liabilities*.

Table 2. Key figures for capital adequacy

	31 Dec 2022	31 Dec 2021
CET1 capital ratio, %	99.21	97.00
Tier 1 capital ratio, %	99.21	121.14
Total capital ratio, %	99.21	121.14

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 2022, the FX net position was EUR 4.8 million (EUR 1.4 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 2022		31 Dec 2021	
(EUR 1,000)	Capital requirement	Risk exposure amount	Capital requirement	Risk exposure amount
Credit and counterparty risk, standardised approach	**41,811**	**522,644**	**42,604**	**532,547**
Exposures to central governments or central banks	-	0	-	0
Exposures to regional governments or local authorities	419	5,240	451	5,634
Exposures to public sector entities	639	7,983	705	8,807
Exposures to multilateral development banks	-	0	-	0
Exposures to institutions	26,784	334,800	23,410	292,622
Exposures to corporates	3,297	41,210	6,038	75,471
Exposures in the form of covered bonds	8,723	109,041	9,734	121,670
Equity exposure	131	1,639	131	1,639
Other items	1,818	22,729	2,136	26,704
Market risk	**-**	**-**	**-**	**-**
Credit valuation adjustment risk (*CVA VaR*), standardised method	**37,644**	**470,552**	**39,549**	**494,362**
Operational risk, basic indicator approach	**40,014**	**500,171**	**33,788**	**422,344**
Total	**119,469**	**1,493,367**	**115,940**	**1,449,252**

The capital requirement for counterparty risk is EUR 5,640 thousand (EUR 4,727 thousand).

Table 4. Exposure by class

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**

31 Dec 2021 (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	8,636,433	-	-	8,636,433	0
Exposures to regional governments or local authorities	14,297,717	906,117	323,486	15,527,320	5,634
Exposures to public sector entities	342,672	-	-	342,672	8,807
Exposures to multilateral development banks	152,387	-	-	152,387	0
Exposures to international organisations	143,579	-	-	143,579	0
Exposures to institutions	1,284,655	-	547,272	1,831,927	292,622
Exposures to corporates	6,457,680	1,682,251	279,398	8,419,329	75,471
Exposures secured by mortgages on immovable property	10,208,300	-	-	10,208,300	0
Exposures in default	130,053	4,506	-	134,559	0
Exposures in the form of covered bonds	1,216,705	-	-	1,216,705	121,670
Equity exposures	656	-	-	656	1,639
Other items	26,706	-	-	26,706	26,704
Total	**42,897,542**	**2,592,873**	**1,150,157**	**46,640,572**	**532,547**

Municipality Finance Group Consolidated Financial Statements
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MuniFin

Consolidated Financial Statements

MuniFin

Consolidated Income Statement

(EUR 1,000)	Note	Jan–Dec 2022	Jan–Dec 2021
Interest and similar income	(3)	711,740	503,536
Interest and similar expense	(3)	-470,585	-223,339
Net interest income		**241,155**	**280,197**
Commission income	(4)	2,302	2,126
Commission expense	(4)	-5,517	-5,056
Net income from securities and foreign exchange transactions	(5)	8,140	24,095
Net income on financial assets at fair value through other comprehensive income	(7)	-149	-
Net income from hedge accounting	(8, 25)	36,444	4,823
Other operating income	(10)	90	95
Administrative expenses	(11)	-37,361	-34,722
Depreciation and impairment on tangible and intangible assets	(12)	-10,423	-16,208
Other operating expenses	(13)	-19,774	-15,568
Credit loss and impairments on financial assets	(14)	118	-104
Net operating profit		**215,024**	**239,678**
Income tax expense	(15)	-43,023	-48,073
Profit for the financial year		**172,001**	**191,605**

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

Consolidated Statement of Comprehensive Income

(EUR 1,000)	Note	Jan–Dec 2022	Jan–Dec 2021
Profit for the financial year		172,001	191,605
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	(6)	-184	400
Net change in Cost-of-Hedging	(25)	-15,166	-2,504
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	(7)	-5,961	-672
Net change in expected credit loss of financial assets at fair value through other comprehensive income	(26)	3	0
Taxes related to components of other comprehensive income		4,262	555
Total components of other comprehensive income		-17,046	-2,222
Total comprehensive income for the financial year		**154,955**	**189,383**

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

Consolidated Statement of Financial Position

(EUR 1,000)	Note	31 Dec 2022	31 Dec 2021
Assets			
Cash and balances with central banks	(20)	2	8,399,045
Loans and advances to credit institutions	(21)	9,625,488	1,417,310
Loans and advances to the public and public sector entities	(22)	29,144,361	29,214,043
Debt securities	(23)	4,786,768	4,841,428
Shares and participations		-	-
Derivative contracts	(19, 24)	2,707,103	1,999,676
Intangible assets	(27, 29)	8,831	12,296
Tangible assets	(28, 29)	5,062	7,491
Other assets	(30)	1,234,810	256,117
Accrued income and prepayments	(31)	223,104	212,655
Deferred tax assets	(32)	763	-
Total assets	**(16, 17, 18)**	**47,736,293**	**46,360,060**

(EUR 1,000)	Note	31 Dec 2022	31 Dec 2021
Liabilities and equity			
Liabilities			
Liabilities to credit institutions	(33, 36)	2,332,623	2,801,016
Liabilities to the public and public sector entities	(34, 36)	2,529,585	3,324,685
Debt securities issued	(35, 36)	35,592,065	35,327,525
Derivative contracts	(19, 24)	4,616,111	2,224,294
Provisions and other liabilities	(37)	593,848	349,331
Accrued expenses and deferred income	(38)	166,635	181,732
Deferred tax liabilities	(32)	291,717	289,887
Total liabilities	**(16, 17, 18)**	**46,122,584**	**44,498,470**
Equity			
Share capital	(39)	42,583	42,583
Reserve fund	(39)	277	277
Fair value reserve of investments	(39)	-4,457	309
Own credit revaluation reserve	(39)	-83	64
Cost-of-Hedging reserve	(39)	1,488	13,621
Reserve for invested non-restricted equity	(39)	40,366	40,366
Retained earnings	(39)	1,533,535	1,416,916
Total equity attributable to Parent Company equity holders		**1,613,709**	**1,514,136**
Other equity instruments issued	**(39)**	**-**	**347,454**
Total equity		**1,613,709**	**1,861,590**
Total liabilities and equity		**47,736,293**	**46,360,060**

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

Consolidated Statement of Changes in Equity

(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		
Equity at 31 December 2020	**42,583**	**277**	**847**	**-255**	**15,624**	**40,366**	**1,258,224**	**1,357,666**	**347,454**	**1,705,120**
Interest paid on Additional Tier 1 capital instrument	-	-	-	-	-	-	-12,600	-12,600	-	-12,600
Dividends paid for 2020	-	-	-	-	-	-	-20,313	-20,313	-	-20,313
Profit for the financial year	-	-	-	-	-	-	191,605	191,605	-	191,605
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	-	-	-	320	-	-	-	320	-	320
Net change in Cost-of-Hedging	-	-	-	-	-2,004	-	-	-2,004	-	-2,004
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	-	-	-538	-	-	-	-	-538	-	-538
Net change in expected credit loss of financial assets at fair value through other comprehensive income	-	-	0	-	-	-	-	0	-	0
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**

	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
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 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**

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

Consolidated Statement of Cash Flows

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Cash flow from operating activities	**-7,975,442**	**2,750,437**
Net change in long-term funding	2,063,033	3,085,073
Net change in short-term funding	1,103,027	-354,008
Net change in long-term loans	-1,637,350	-1,580,112
Net change in short-term loans	-368,992	224,130
Net change in investments	-7,919,967	667,724
Net change in collaterals	-1,332,255	480,083
Interest on assets	97,307	16,875
Interest on liabilities	93,906	221,595
Other income	54,080	74,355
Payments of operating expenses	-61,490	-88,798
Taxes paid	-66,742	3,518
Cash flow from investing activities	**-3,550**	**-7,747**
Acquisition of tangible assets	-16	-3
Proceeds from sale of tangible assets	149	226
Acquisition of intangible assets	-3,684	-7,970
Cash flow from financing activities	**-407,887**	**-37,866**
Redemption of AT1 capital instrument	-350,000	-
Paid interest on AT1 capital instrument	-15,750	-15,750
Dividend paid	-40,236	-20,313
Total cash flow from leases	-1,902	-1,803
Change in cash and cash equivalents	**-8,386,879**	**2,704,824**
Cash and cash equivalents at 1 Jan	**8,435,504**	**5,730,680**
Cash and cash equivalents at 31 Dec	**48,624**	**8,435,504**

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

Notes to the Consolidated Financial Statements

MuniFin

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 10 February 2023. 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.

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 2022. 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 2021, with the exception of the following new standards, interpretations and amendments to existing standards that the Group has applied starting from 1 January 2022.

Onerous Contracts – Costs of Fulfilling a Contract – Amendments to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* (effective for financial years beginning on or after 1 January 2022). When an onerous contract is accounted for based on the costs of fulfilling the contract, the amendments clarify that these costs comprise both the incremental costs and an allocation of other direct costs. The amendment did not have a significant impact on the Consolidated Financial Statements of MuniFin Group.

Property, Plant and Equipment – Proceeds before Intended Use – Amendments to IAS 16 *Property, Plant and Equipment* (effective for financial years beginning on or after 1 January 2022). Under the amendments, proceeds from selling items before the related item of PPE is available for use should be recognised in profit or loss, together with the costs of producing those items. The amendment did not have a direct impact on the Consolidated Financial Statements of MuniFin Group.

Reference to the Conceptual Framework – Amendments to IFRS 3 *Business Combinations* (effective for financial years beginning on or after 1 January 2022). The amendments update a reference in IFRS 3 and makes further reference related amendments. The amendment did not have a direct impact on the Consolidated Financial Statements of MuniFin Group.

Annual Improvements to IFRS Standards 2018–2020 (effective for financial years beginning on or after 1 January 2022). The annual improvements process provides a mechanism for minor and non-urgent amendments to IFRSs to be grouped together and issued in one package annually. The amendments clarify the following standards:

- IFRS 9 *Financial Instruments* – Fees in the '10 per cent' test for derecognition of financial liabilities: This amendment clarifies that – for the purpose of performing the ''10 per cent test' for derecognition of financial liabilities – in determining those fees paid net of fees received, a borrower includes only fees paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf.
- IFRS 16 *Leases* – Lease incentives – Example 13. The amendment removes the illustration of payments from the lessor relating to leasehold improvements. The example was not clear as to why such payments are not a lease incentive.

The amendments did not have a significant impact on the Consolidated Financial Statements of MuniFin Group.

Other new or amended standards and interpretations that entered into effect in 2022 did not have a material impact on the Consolidated Financial Statements.

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 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 and 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 *17 Fair values of financial assets and liabilities*. The changes in the fair values of financial instruments impact the income statement line items *Net income from securities and foreign exchange transactions* and *Net income from hedge accounting* 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 *26 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 grading 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 finished ECL IT and model development during the second half of the year 2022. With the development, changes have been made to the assessment criteria for significant increase in credit risk (*SICR*), and to the models of probability of default (*PD*) and loss given default

(*LGD*). In addition, macro scenarios were updated to take into account forward-looking information. Because of this, the Group recorded an additional discretionary provision (*management overlay*) at the end of 2021 to take into account IT and model changes that will take place in 2022. The amount of additional discretionary provision was increased at the end of June 2022. The additional discretionary provision based on a group-specific assessment and decided by the Group's management, was EUR 916 thousand. Since the IT and model development were finished in the second half of 2022, the additional discretionary provision based on the group-specific assessment was removed. The additional provision was recognised under the balance sheet item *Loans and advances to the public and public sector entities*. The additional provision was not allocated to contract level.

3.3 Management judgement related to Russia's invasion of Ukraine

MuniFin Group has used management judgement in the preparation of these Consolidated Financial Statements regarding the possible impacts of Russia's invasion of Ukraine on the Group's business and risks. Russia's invasion of Ukraine has had little effect on the Group's financial position and results, as MuniFin Group has no exposures to Russia or Ukraine. In the first half of 2022, the interest rate and inflation environment turned to a sharp increase and economic growth declined due to Russia's invasion of Ukraine. Despite the market turbulence, the Group's funding continued in the usual manner during the year and the Group had strong access to capital markets throughout the year. Because of the uncertainty arising from the war and the inflation outlook, the Group has nevertheless maintained larger than normal 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.

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 are presented in Note *3 Interest income and expense* and *4 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 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 from securities and foreign exchange transactions*. 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
- 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 *25 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 the 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 under *Net income from securities and foreign exchange transactions*. 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 the 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 at fair value through other comprehensive income. In MuniFin Group, this category comprises 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 from securities and foreign exchange transactions*. 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 (*Fair Value Option, FVO*). This irrevocable designation is made if doing so eliminates or significantly reduces measurement or recognition inconsistencies (i.e., eliminates 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 standard to financial liabilities at amortised cost which have been hedged. Hedge accounting principles are described in Section *10. Hedge accounting* of this note. Note *25 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 from securities and foreign exchange transactions.* 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 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 the 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 standard 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 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 from securities and foreign exchange transactions*, 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. 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 at 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 their 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 that required by 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 results 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 the 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.

Transition 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 interest 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 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.

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 their 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 a 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 or 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 fair value reserve. The accumulated loss recognised in 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 risk 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 loss, 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 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 *16 Financial assets and liabilities*. The fair values of derivatives included in hedge accounting are presented in Note *24 Derivative contracts*. The notionals of hedged items, the fair value of the hedged items and the impact of hedge accounting on profit or loss and on equity are shown in Note *25 Hedge accounting*. The impact of hedge accounting on profit or loss is also shown in Note *8 Net income from hedge accounting*.

The changes in fair value due to foreign exchange differences of derivatives in hedge accounting and the hedged items are recognised in the income statement under *Net income from securities and foreign exchange transactions*. Other changes in fair value of the hedged items and derivatives hedging them are recognised in the income statement under *Net income from hedge accounting*. The ineffective portion of the hedging relationship is also shown on this line in the income statement. 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 standard and portfolio hedge accounting according to IAS 39 standard.

10.1 IFRS 9 hedge accounting

Fair value hedge accounting according to IFRS 9 standard 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 from hedge accounting*. Ineffectiveness between the hedged item and the designated portion of the hedge are 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 standard 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 standard 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 contract. The terms of the derivative contract 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 from hedge accounting*.

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, and 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 those of the lending agreements. 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 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 from hedge accounting*.

11. Offsetting financial instruments

Financial assets and liabilities are offset, and the net amount is reported in 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 *19 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 standard valuation techniques 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 uses as much observable input data as possible and as little non-observable input data as possible.

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 neither evidenced 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. For callable instruments, the amortisation period is considered to be until the first call date.

The fair value hierarchy levels, the Group's valuation methods and the valuation framework is described in more detail in Note *17 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 on a straight-line basis over the asset's useful life or the lease term, depending on which one is shorter.

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.

The Group has elected to use the practical expedient as allowed by IFRS 16.C10(a) by applying a single discount rate to all lease liabilities. The majority of the Group's lease liabilities relate to office premises for which the interest rate implicit in the lease is not readily determined. Consequently, an incremental borrowing rate (*IBR*) is used. Maturity has been defined based on the lease terms of office premises and parking space. The same maturity for the discount rate is used for all leases since the impact of leases other 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, MuniFin Group performs an impairment test 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 and 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, companies owned and controlled by municipalities, 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 which includes 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 acquisition cost 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 a 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 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 based on an obligation resulting from a past event when 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 a 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 *37 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 an 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 *40 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 *39 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. AT1 capital instrument is described in more detail in the summary of significant accounting policies in the Consolidated Financial Statements 2021 and in Note *39 Equity* to these Consolidated Financial Statements.

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 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 on 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 to 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 and commissions 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 from securities and foreign exchange transactions

Item *Net income from securities* 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 from foreign exchange transactions* includes 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 are also included in this item.

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 Net income from hedge accounting

Item *Net income from hedge accounting* includes the net result from recognising financial assets and liabilities and derivative contracts hedging them at fair value for the hedged risk. Foreign exchange gains and losses on hedged items and hedging instruments are recognised in *Net income from securities and foreign exchange transactions*.

20.6 Other operating income

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

20.7 Administrative expenses

Item *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 administrative expenses.

20.8 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.

20.9 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 contributions 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 Single 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 the 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 contribution. 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. Administrative contributions and 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 amount of total assets. The supervisory fee payable to the ECB is determined on the basis of the significance of the supervised entity and the risk profile. 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 at amortised cost and at 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 *Salaries and remuneration* consist 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 the 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 company. 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. In addition, deferred taxes arise from differences in the treatment of the AT1 capital loan and issuance expenses and interest expenses related to the AT1 capital loan in the Parent Company's statutory Financial Statements and the Consolidated Financial Statements. Deferred taxes are presented in Note *32 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

The 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, the IBOR reform affects the London

Interbank Offered Rate (*LIBOR*), a panel-based benchmark rate 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 will expire 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 a 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 the IBOR reform have been implemented.

The implications of the IBOR reform to the Group's hedge accounting are discussed in more detail in the summary of significant accounting policies in the Consolidated Financial Statements 2021.

In the beginning of 2022, MuniFin Group had some liabilities designated at fair value through profit or loss, which had IBOR rate ceased at the end of 2021. These liabilities have been restructured in the first half of 2022. The restructurings did not result in derecognition.

At the end of 2022, MuniFin Group has some liabilities linked to the USD LIBOR reference rate. These liabilities are intended to be restructured or repurchased before the USD LIBOR reference rate will cease at the end of June 2023. In addition, the Group has derivative contracts referencing to ceasing USD LIBOR reference rates and with maturity beyond June 2023. These derivative contracts include both derivative contracts in hedge accounting and other hedging derivative contracts. The changes required by the IBOR reform may be conducted, inter alia, through restructuring, activation of fallback conditions or termination of the contract, depending on the manner in which the changes required by the IBOR reform are implemented in the financial instrument hedged by that derivative in question.

The following tables show a summary of financial instruments linked to the USD LIBOR reference rate and which mature beyond June 2023.

31 Dec 2022 (EUR 1,000)	Nominal value
Derivative contracts in hedge accounting	6,562,910
Derivative contracts at fair value through profit or loss	549,809
Total derivative contracts	**7,112,719**

31 Dec 2022 (EUR 1,000)	Carrying amount
Financial liabilities (other than derivatives)	**41,002**

24. New and amended standards and interpretations not yet adopted

* = Not yet endorsed for use by the European Union as of 31 December 2022.

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 2022:

Classification of Liabilities as Current or Non-current - Amendments to IAS 1 *Presentation of Financial Statements* * (effective for financial years beginning on or after 1 January 2023, early application is permitted). The amendments are to promote consistency in application and clarify the requirements on determining if a liability is current or non-current. Management estimates that the change will not have a material impact on the Consolidated Financial Statements of MuniFin Group.

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, early application is permitted). The amendments clarify the application of materiality to disclosure of accounting policies. Management estimates that the change will not have a material 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, early application is permitted). 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. Management estimates that the change will not have a material 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, early application is permitted). 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. Management estimates that the change will not have a material impact on the Consolidated Financial Statements of MuniFin Group.

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 2019. Management estimates that the change will not have a material impact on the Consolidated Financial Statements of MuniFin Group.

Other standards and interpretations to be applied in future financial periods are assessed not to have a material impact on the Consolidated Financial Statements.

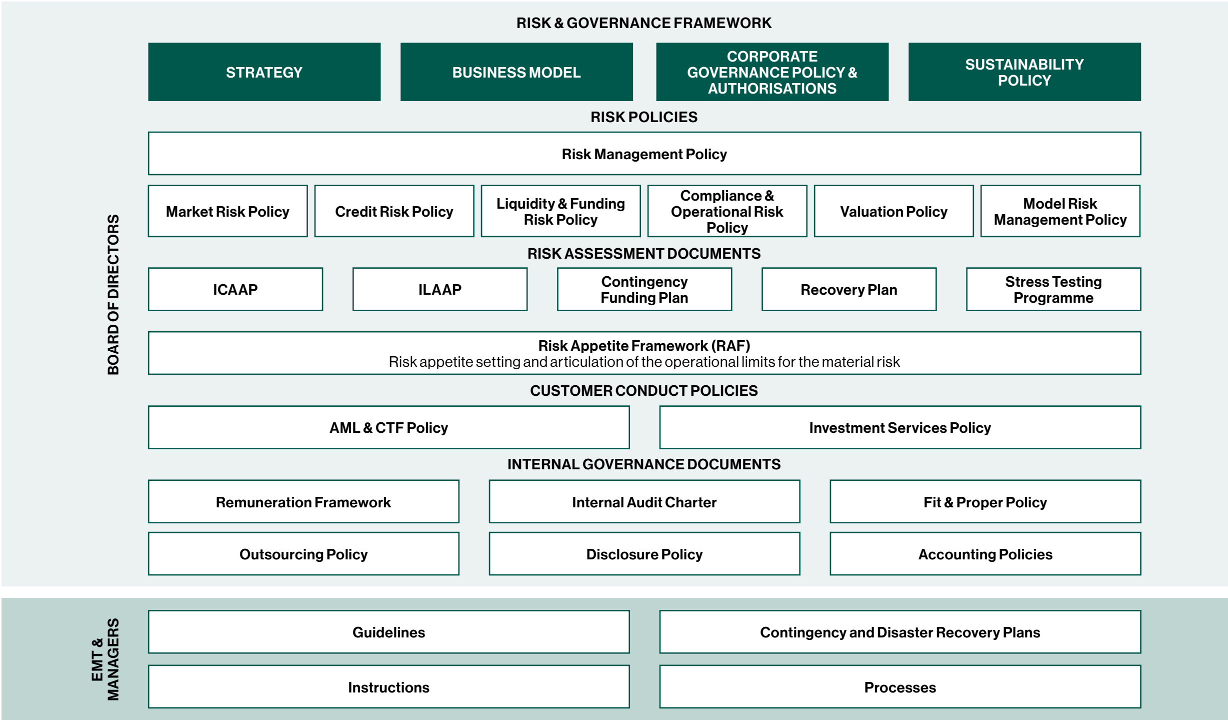
Note 2. Risk management principles and the Group's risk position

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 the Parent Company's strong credit rating (Aa1 /AA+) 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 the 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.



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

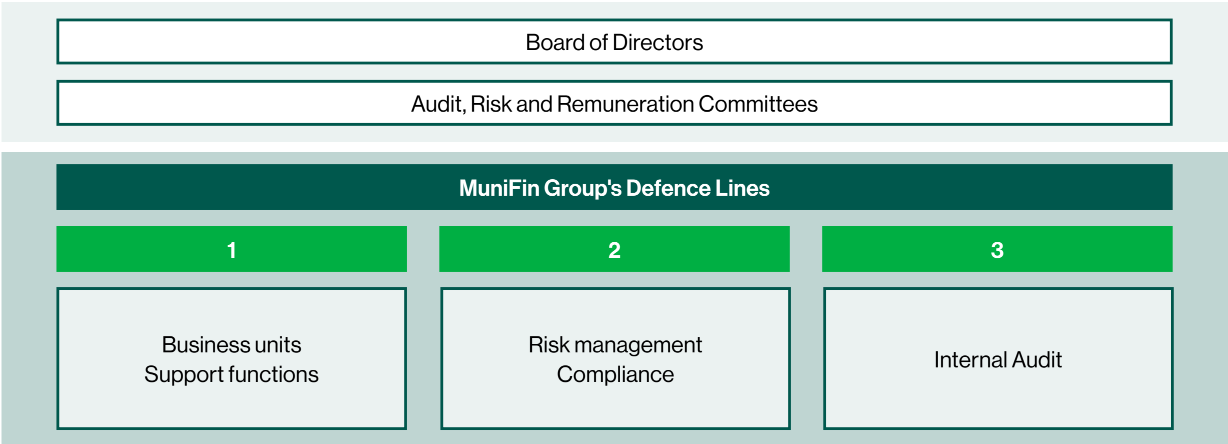
Summary of the Risk Appetite Framework indicators

Risk pillars	Risk indicators	Objectives
Profitability & Capital	Credit rating Leverage ratio Net interest income ratio 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 Average credit rating (customer financing) Single-name concentration (customer financing) Energy efficiency of real estate new-production Climate-related & environmental risk score (municipality 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 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 appetite in 2022. The Group's risk position has remained stable and at a moderate level in terms of risk 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 2022, the ESG (*Environmental, Social, Governance*) risk capabilities have been developed in particular, and the Group has been preparing for the new disclosure requirements that came into force at the end of 2022. In addition, the Group developed the validation framework for calculation models. 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.

Russia's invasion of Ukraine has had little effect on the Group's financial position and results. Despite the market turbulence, the Group's funding continued in the usual manner during the year. Because of the uncertainty arising from the war and the inflation outlook, the Group has nevertheless maintained larger than normal 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.

The IBOR reform is a global change aimed at replacing Interbank Offered Rates (*IBORs*) with alternative nearly risk-free rates (*RFR*). Most prominently, the IBOR reform affects the London Interbank Offered Rate (*LIBOR*), a panel-based benchmark rate 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 after 2021. For longer maturities (1-, 3-, 6- and 12-month) of the USD LIBOR reference rate, the quotation expiring date has been postponed to June 2023. The IBOR reform has not had significant impacts on the Group's risk management principles. The impact of the USD LIBOR reform on MuniFin Group's financial liabilities and derivatives is discussed in more detail in the accounting policies (Note *1*) in Section *23. IBOR reform*.



2. Organisation of risk management and capital adequacy management

For the implementation of the 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 units 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 requested 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 work of the 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, if this is not a case, prepare a plan for the Board's approval to remedy the matter. Furthermore, the Risk Committee shall assist the Remuneration Committee in the establishment of sound remuneration policies, and to assess 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 Executive Mangement Team (*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, assessing 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 of Directors. 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 2022 was to analyse the development of MuniFin Group's solvency and profitability in 2022–2025. 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 CRR II requirement, which entered into force in June 2021. 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 a 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 climate stress test in the first half of 2022. The results were published in July. The stress test concluded that the Group's potential exposure to transition risks caused by climate change is lower than the average of all participating banks.

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 the 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 continuity of the 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 of Directors. 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 of Directors. 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 and risk management, 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 existing strategy extends to 2024, and its need for updating is evaluated at least annually.

6. Liquidity risks

6.1 Refinancing and liquidity risk

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

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 adjacent table.

LIQUID ASSETS, HQLA (EUR 1,000)	31 Dec 2022	%	31 Dec 2021	%
Level 1	10,169,999	79%	10,899,629	82%
Level 2a	967,241	7%	910,009	7%
Level 2b	24,814	0%	-	-
Level N	1,781,017	14%	1,479,616	11%
Total	**12,943,074**	**100%**	**13,289,256**	**100%**

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

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The liquidity portfolio is divided into liquidity quality levels so that level 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. 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 *41 Collateral given*). In addition, the Group is able to increase the facility through pledging additional municipal 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 of Directors. 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 of Directors. 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-effective 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 by not placing too much reliance 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 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**

BREAKDOWN OF FINANCIAL LIABILITIES BY MATURITY 31 Dec 2021 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	over 10 years	Total
Liabilities to credit institutions	741,520	583	14,530	22,256	32,368	811,257
Liabilities to the public and public sector entities	97,142	146,115	1,235,342	1,014,067	1,370,356	3,863,022
Debt securities issued	5,104,498	5,407,504	18,745,582	4,318,196	2,802,048	36,377,828
Provisions and other liabilities	337,823	-	-	-	-	337,823
Total	**6,280,983**	**5,554,202**	**19,995,454**	**5,354,519**	**4,204,772**	**41,389,929**

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 2023. In 2022, 19% of callable liabilities were called at the next call date. Line item *Liabilities to credit institutions* contains CSA collateral totalling EUR 244,440 thousand (EUR 741,110 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 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

BREAKDOWN OF FUNDING DERIVATIVES BY MATURITY 31 Dec 2021 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	over 10 years	Total
Derivative assets	89,668	158,549	567,851	368,541	815,067	1,999,676
Derivative liabilities	-169,425	-1,032,622	-405,040	-110,008	-507,199	-2,224,294
Interest flows related to derivative assets and liabilities	155,169	236,860	617,799	155,307	56,189	1,221,324

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 *18 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 *17 Fair values of financial assets and liabilities*.

Despite the market turbulence, the Group continued to acquire funding without interruption during the year. MuniFin Group's long-standing funding strategy is to diversify its funding sources across multiple currencies, maturities, geographical areas and investor groups. This strategy, combined with MuniFin's good reputation among investors as well as the safety of investments in the Finnish municipal sector has proved highly successful during the upheaval of monetary and security policies: the Group had 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 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.

MAXIMUM EXPOSURE TO CREDIT RISK (EUR 1,000)	31 Dec 2022 Amortised cost and Fair value through other comprehensive income	, of which expected credit losses	Fair value through profit or loss *	31 Dec 2021 Amortised cost and Fair value through other comprehensive income	, of which expected credit losses	Fair value through profit or loss *
Cash and balances with central banks	2	-	-	8,399,045	0	-
Loans and advances to credit institutions	9,625,488	-109	-	1,417,310	-82	-
Loans and advances to the public and public sector entities	29,084,839	-800	59,522	29,139,898	-1,148	74,145
Debt securities	1,624,734	-45	3,162,034	1,302,354	-41	3,539,074
Derivative contracts	-	-	2,707,103	-	-	1,999,676
Other assets	1,219,541	-203	-	240,682	-13	-
Credit commitments (off-balance sheet item)	2,463,964	-14	-	2,592,873	-4	-
Total	**44,018,569**	**-1,171**	**5,928,659**	**43,092,161**	**-1,289**	**5,612,895**

* 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*) sets limits on the operations of MuniFin Group, which can also be considered as an important credit risk management tool. The Municipal Guarantee Board (*MGB*) is an institution governed by the public law, whose purpose under the MGB Act is to secure and develop the joint municipal funding. To accomplish this purpose 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 the financing of municipalities, joint municipal authorities, wellbeing services counties, joint county authorities for wellbeing services and for those wholly owned by the aforementioned parties as well as non-profit corporations and other non-profit entities nominated by the Housing Finance and Development Centre of Finland (*ARA*). Financing, derivatives and other services can only be offered to customers and objects in accordance with the MGB Act. 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 to those of 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 and 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 county or joint county authority 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 the 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 being largely funded by the central government, but the counties have government authorisation to acquire long-term funding for their investments. 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, because unlike municipalities, wellbeing services counties are not members of the Municipal Guarantee Board (*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 new short-term financing to wellbeing services counties, i.e. commercial papers to wellbeing services counties, is EUR 900 million in 2023.

The housing customer group consists of different types of housing institutions: institutions owned or controlled by municipalities (or joint municipal authorities) and state-subsidised housing institutions and also in the future the 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 creditworthiness) distribution of the Group's customer financing in relation to total capital, which includes lending, leased assets, municipal certificates and off-balance sheet credit commitments.

RISK RATING	31 Dec 2022	31 Dec 2021
5	22.8%	22.9%
4	30.6%	28.7%
3	38.9%	38.6%
2	6.6%	8.4%
1	1.2%	1.4%
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 (*KYC*), careful selection of counterparties, credit rating and volume limits for counterparties, trustworthy and professional staff, decision-making powers, comprehensive documentation and on-going internal monitoring and reporting.

The Group defines the non-performing exposures (*NPE*) as receivables that fulfil at least one of the criteria's 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 realisation of the 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 *26 Credit risk of financial assets and other commitments* in the table *Non-performing and forborne exposures*.

Impairments for loans and other financial assets, which are classified according to IFRS 9 standard at amortised cost (*AC*) or at 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 *14 Credit losses and impairments on financial assets* and *26 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, 0.002% (0.003%). Expected credit losses in relation to the total assets and commitments included in the calculations are 0.003% (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 finished ECL IT and model development during the second half of the year 2022. With the development, changes have been made to the assessment criteria for significant increase in credit risk (*SICR*), and to the models of probability of default (*PD*) and loss given default (*LGD*). Expected credit losses increased by EUR 0.4 million due to the changes in models and parameters. The Group recorded an additional discretionary provision (*management overlay*) of EUR 0.4 million at the end of 2021 to take into account these IT and model changes. The amount of additional discretionary provision was increased at the end of June 2022 by EUR 0.5 million. The additional discretionary provision based on a group-specific assessment was removed during the end of 2022. In addition, macro scenarios were updated to take into account forward-looking information at the end of financial year.

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 2022	31 Dec 2021
AAA	60.0%	59.2%
AA+	7.6%	8.8%
AA	12.9%	11.5%
AA-	13.5%	15.7%
A+	3.4%	1.4%
A	2.5%	3.3%
A-	0.1%	0.0%
Total	**100.0%**	**100.0%**

In addition, MuniFin Group has central bank deposits in total EUR 8,112 million (EUR 8,435 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 2022	31 Dec 2021
Finnish municipalities	1,597,248	1,743,647
Central counterparty	43,840,377	40,828,879
AA	14,855,710	15,426,607
A	13,570,171	12,357,720
BBB	12,133	70,699
Total	**73,875,640**	**70,427,552**

GIVEN AND RECEIVED CASH COLLATERAL BASED ON CSA AGREEMENTS (EUR 1,000)

	31 Dec 2022	31 Dec 2021
Given collateral	-1,400,620	-1,310,650
Given collateral to central counterparty	-1,219,744	-238,943
Received collateral	244,440	741,110
Received collateral from central counterparty	570,922	333,295
Net collateral	**-1,805,002**	**-475,188**

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.

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*).

During the financial year, MuniFin Group prepared for the implementation of the European Commission's delegated regulation (2016/2251) regarding the use of securities as initial margin in over-the-counter derivatives, which will enter into force in phases. The initial margin requirement became binding for MuniFin in September 2022, and MuniFin reached the readiness to use securities for this purpose by the end of the month.

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 the 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 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 2022	31 Dec 2021
Canada	14.9%	11.8%
Finland	14.5%	16.0%
France	12.1%	12.1%
Norway	11.2%	10.5%
Sweden	9.1%	10.5%
Denmark	7.4%	7.3%
Germany	6.0%	6.3%
Supranational	5.5%	6.4%
The Netherlands	3.8%	3.8%
South Korea	3.3%	3.0%
Australia	2.8%	2.1%
Belgium	2.7%	2.8%
New Zealand	2.1%	2.6%
Luxembourg	1.7%	1.6%
Japan	1.5%	0.8%
Austria	0.8%	0.8%
Great Britain	0.5%	1.1%
Switzerland	0.1%	0.4%
Total	**100.0%**	**100.0%**

In addition, MuniFin Group has central bank deposits in total EUR 8,112 million (EUR 8,435 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 *25 Hedge accounting* and *8 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 relationship 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 Sections *7.1.6 and 7.2.3 Designated at fair value through profit or loss.* Quantitative information of the use of fair value option is presented in Note *6 Financial assets and liabilities designated at fair value through profit or loss* and in Note *16 Financial assets and liabilities*.

8.1 Interest rate risk

MuniFin Group manages the interest rate risk arising from the 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 (*Net Interest Income*)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 being the one 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 net interest income
31 Dec 2022	-25,160	9.0%
31 Dec 2021	0	0.0%

The following scenarios are used in calculating the NII risk:

1. Parallel shock up (+50 bp)
2. Parallel shock up (+200 bp)
3. Parallel shock down (-50 bp)
4. Parallel shock down (-200 bp)
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.

At the end of 2022, the least favourable scenario was based on the assumption of the parallel shock down of 200 basis points, which had an impact of EUR -25.2 million and 9.0% in relation to NII. All scenarios in NII risk calculations had a positive impact at the end of comparison period.

8.1.2 Economic Value of Equity

Economic Value of Equity 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 being the one considered. The impact is 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 2022	-33,530	2.26%
31 Dec 2021	-13,180	0.75%

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 2022	-8,980	3.21%
31 Dec 2021	-450	0.19%

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 the 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 the 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 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	1,867,201	29,392	1,896,594
Shares and participations	-	-	-
Other assets	1,008,232	211,310	1,219,541
Total	**40,569,580**	**287,366**	**40,856,945**

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**

FINANCIAL ASSETS IN DOMESTIC AND FOREIGN CURRENCIES
31 Dec 2021

(EUR 1,000)	Domestic currency	Foreign currency	Total
Cash and balances with central banks	8,399,045	-	8,399,045
Loans and advances to credit institutions	1,388,667	28,643	1,417,310
Loans and advances to the public and public sector entities	28,122,834	-	28,122,834
Debt securities	4,811,225	30,202	4,841,428
Shares and participations	-	-	-
Other assets	238,930	-	238,930
Total	**42,960,701**	**58,845**	**43,019,546**

FINANCIAL LIABILITIES IN DOMESTIC AND FOREIGN CURRENCIES
31 Dec 2021

(EUR 1,000)	Domestic currency	Foreign currency	Total
Liabilities to credit institutions	2,801,016	-	2,801,016
Liabilities to the public and public sector entities	3,262,800	61,885	3,324,685
Debt securities issued	14,636,794	20,690,731	35,327,525
Provisions and other liabilities	310,555	27,267	337,823
Total	**21,011,165**	**20,779,883**	**41,791,049**

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 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**

DISTRIBUTION OF FINANCIAL ASSETS BY CURRENCY BASED ON CARRYING AMOUNTS AND HEDGES

31 Dec 2021 (EUR 1,000)	USD	NOK	GBP	JPY	Other currencies	Total
Loans and advances to credit institutions	27,726	3	411	3	499	28,643
Debt securities	30,202	-	-	-	-	30,202
Other assets	-	-	-	-	-	-
Currency risk total	**57,928**	**3**	**411**	**3**	**499**	**58,845**
Hedging derivatives	-30,202	-	-	-	-	-30,202
Total	**27,726**	**3**	**411**	**3**	**499**	**28,643**

DISTRIBUTION OF FINANCIAL LIABILITIES BY CURRENCY BASED ON CARRYING AMOUNTS AND HEDGES

31 Dec 2021 (EUR 1,000)	USD	NOK	GBP	JPY	Other currencies	Total
Long-term funding	-8,070,182	-2,608,081	-2,031,462	-1,551,376	-3,138,643	-17,399,744
Short-term funding	-3,115,038	-	-237,835	-	-	-3,352,872
Provisions and other liabilities	-27,267	-	-	-	-	-27,267
Currency risk total	**-11,212,487**	**-2,608,081**	**-2,269,297**	**-1,551,376**	**-3,138,643**	**-20,779,883**
Hedging derivatives	11,185,219	2,608,081	2,269,297	1,551,376	3,138,643	20,752,616
Total	**-27,267**	**0**	**0**	**0**	**0**	**-27,267**
Net currency position	**459**	**3**	**411**	**3**	**499**	**1,376**

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 2022	4,833
31 Dec 2021	1,376

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 2022	-37,200	2.5%
31 Dec 2021	-22,700	1.3%

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 in hedge accounting 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 from securities and foreign exchange transactions* 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 from hedge accounting* and specified in Note *8*. 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 *17 Fair values of financial assets and liabilities*.

During the reporting period, unrealised fair value changes of financial instruments caused typical 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. 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 for example 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 of Directors 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 unit 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 on-going 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. Only small losses from operational risks have been realised during 2022.

10.ESG risks

ESG risks include environmental, social and governance risks. There have been no material changes in ESG risks during the year. According to the Group's estimate, it is currently not exposed to any substantial social or governance risks. Also, the Group's current estimate is that environmental and climate risks are unlikely to manifest substantially in the short-term. In the medium and long-term, climate risks may nevertheless have an adverse economic effect on the Group's customers. In 2022, the Group made substantial investments into building its environmental and climate risk framework in line with regulatory requirements and feedback received from the ECB. This work will continue in 2023 and 2024.

MuniFin Group took part in the ECB's climate stress test in the first half of 2022. The results were published in July. The stress test concluded that the Group's potential exposure to transition risks caused by climate change is lower than the average of all participating banks.

More information related to the 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 2022 Interest and similar income	Jan–Dec 2022 Interest and similar expense	Jan–Dec 2022 Net	Jan–Dec 2021 Interest and similar income	Jan–Dec 2021 Interest and similar expense	Jan–Dec 2021 Net
Assets						
Amortised cost						
Cash and balances with central banks	30,304	-26,828	3,475	-	-38,619	-38,619
Loans and advances to credit institutions	8,290	-8,346	-56	46	-7,845	-7,800
Loans and advances to the public and public sector entities	220,905	-	220,905	188,484	-	188,484
Debt securities	5,345	-3,206	2,140	9	-5,335	-5,326
Other assets	8,019	-	8,019	1,121	-	1,121
Fair value through other comprehensive income						
Debt securities	9	-	9	-	-589	-589
Designated at fair value through profit or loss						
Loans and advances to the public and public sector entities	348	-	348	236	-	236
Debt securities	9,436	-	9,436	8,422	-	8,422
Mandatorily at fair value through profit or loss						
Loans and advances to the public and public sector entities	827	-	827	933	-	933
Debt securities	-	-	-	-	-	-
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	92,225	-87,665	4,560	76,104	-99,734	-23,630
Derivative contracts in hedge accounting	-34,804	-	-34,804	-93,724	-	-93,724
Leased assets	10,177	-	10,177	6,366	-	6,366
Interest on non-financial other assets	6	-	6	8	-	8
Interest on assets	**351,089**	**-126,045**	**225,044**	**188,005**	**-152,123**	**35,883**
, of which interest income/expense according to the effective interest method	*272,863*	*-38,380*		*189,660*	*-52,389*	

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(EUR 1,000)	Jan–Dec 2022 Interest and similar income	Interest and similar expense	Net	Jan–Dec 2021 Interest and similar income	Interest and similar expense	Net
Liabilities						
Amortised cost						
Liabilities to credit institutions	11,575	-12,570	-995	20,118	-949	19,169
Liabilities to the public and public sector entities	-	-44,838	-44,838	-	-51,503	-51,503
Debt securities issued	778	-263,148	-262,370	1,711	-219,984	-218,273
Provisions and other liabilities	-	-4,286	-4,286	-	-2,181	-2,181
Designated at fair value through profit or loss						
Liabilities to credit institutions	-	-54	-54	-	-30	-30
Liabilities to the public and public sector entities	-	-34,195	-34,195	-	-32,726	-32,726
Debt securities issued	-	-157,748	-157,748	14	-78,466	-78,452
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	348,298	-139,384	208,915	293,688	-96,628	197,061
Derivative contracts in hedge accounting	-	311,682	311,682	-	411,252	411,252
Interest on liabilities	**360,651**	**-344,540**	**16,111**	**315,531**	**-71,216**	**244,315**
, of which interest income/expense according to the effective interest method	*12,353*	*-324,841*		*21,829*	*-274,618*	
Total interest income and expense	**711,740**	**-470,585**	**241,155**	**503,536**	**-223,339**	**280,197**

Interest income on stage 3 financial assets in the expected credit loss (*ECL*) calculations totalled EUR 743 thousand (EUR 951 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 51 thousand (EUR 70 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 consists of interest paid on central bank deposits and interest on loans and advances to credit institutions of interest on cash collateral receivables. Interest expenses on debt securities consists of interest paid on short-term lending. Negative interest arises on debt securities at fair value through other comprehensive income due to the premium / discount amortisation of debt securities and commercial papers. 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 consists of interest received on cash collateral liabilities as well as on TLTRO III debt and interest income on debt securities issued consists 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 2022	Jan–Dec 2021
Fee and commission income		
Financial advisory services	1,432	1,149
Digital services	868	747
Other operations	2	229
Total	**2,302**	**2,126**
Fee and commission expense		
Commission fees paid	-272	-251
Other	-5,245	-4,805
Total	**-5,517**	**-5,056**
Net fee and commission income	**-3,215**	**-2,930**

Fee and commission income from contracts with customers are divided by service type. EUR 2,234 thousand (EUR 1,871 thousand) out of fee and commission income from the contracts with customers has been received from municipalities, joint municipal authorities and municipality-controlled entities.

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 when 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 commission expense, line item *Other* includes i.e. paid guarantee fees, custody fees and funding programme update costs.

Note 5. Net income from securities and foreign exchange transactions

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
Debt securities	-	-	-	-
Shares and participations	-	-	-	-
Financial liabilities				
Designated at fair value through profit or loss				
Issued commercial papers	-	-	-112	-112
Liabilities to credit institutions	-	-	1,521	1,521
Liabilities to the public and public sector entities	-	-	397,597	397,597
Debt securities issued	-	-	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
Total net income from securities transactions	**378**	**-172**	**8,083**	**8,288**
Net income from foreign exchange transactions	**125,198**	**-136,321**	**10,976**	**-148**
Total	**125,575**	**-136,494**	**19,058**	**8,140**

Net income from securities transactions 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. Net income from foreign exchange transactions includes unrealised and realised translation differences for all items denominated in foreign currencies. 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 *17 Fair values of financial assets and liabilities.*

Jan–Dec 2021 (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	-	-	-769	-769
Debt securities	-	-	-49,633	-49,633
Mandatorily at fair value through profit or loss				
Loans and advances to the public and public sector entities	-	-	-2,532	-2,532
Debt securities	-	-	-	-
Shares and participations	-	-23	-	-23
Financial liabilities				
Designated at fair value through profit or loss				
Issued commercial papers	-	-	1,245	1,245
Liabilities to credit institutions	-	-	-231	-231
Liabilities to the public and public sector entities	-	-	92,032	92,032
Debt securities issued	-	-	186,385	186,385
Derivative contracts at fair value through profit or loss	1,419	-508	-204,471	-203,560
Day 1 gain or loss	-	-	-208	-208
Total net income from securities transactions	**1,419**	**-531**	**21,819**	**22,707**
Net income from foreign exchange transactions	**22,648**	**-22,596**	**1,336**	**1,388**
Total	**24,067**	**-23,127**	**23,155**	**24,095**

Note 6. Financial assets and 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 2022	Carrying amount 31 Dec 2022	Nominal value 31 Dec 2021	Carrying amount 31 Dec 2021
Financial assets				
Loans and advances to the public and public sector entities	30,000	28,432	30,000	38,941
Debt securities	3,355,906	3,162,034	3,484,223	3,539,074
Total financial assets *	**3,385,906**	**3,190,465**	**3,514,223**	**3,578,015**
Financial liabilities				
Liabilities to credit institutions	5,000	3,291	5,000	4,787
Liabilities to the public and public sector entitities	1,495,567	1,318,658	1,445,202	1,548,394
Debt securities issued	11,505,250	10,842,676	10,680,831	10,008,299
Total financial liabilities	**13,005,818**	**12,164,626**	**12,131,032**	**11,561,479**

* 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 2022 and 31 Dec 2021.

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**

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 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 NET INCOME FROM SECURITIES TRANSACTIONS (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**

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 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 in other comprehensive income as change of the own credit revaluation reserve, is presented in *Net income from securities transactions*.

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 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 2021	1 Jan 2021	Fair value change recognised in the income statement Jan–Dec 2021	, of which due to credit risk	, of which due to market risk
Financial assets					
Loans and advances to the public and public sector entities	-769	-	-769	13	-782
Debt securities	20,226	69,859	-49,633	4,434	-54,067
Total financial assets	**19,457**	**69,859**	**-50,402**	**4,446**	**-54,849**

CHANGE IN FAIR VALUE OF FINANCIAL LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS (EUR 1,000)	31 Dec 2021	1 Jan 2021	Fair value change recognised in the income statement Jan–Dec 2021	Change in own credit risk recognised in the other comprehensive income Jan–Dec 2021	Total fair value change in Jan–Dec 2021
Financial liabilities					
Liabilities to credit institutions	187	418	-231	26	-205
Liabilities to the public and public sector entitities	-152,113	-244,146	92,032	1,729	93,761
Debt securities issued	573,054	385,424	187,630	-1,356	186,274
Total financial liabilities	**421,127**	**141,696**	**279,431**	**400**	**279,831**

NET CHANGE IN FAIR VALUE IN NET INCOME FROM SECURITIES TRANSACTIONS (EUR 1,000)	Cumulative change in fair value 31 Dec 2021	Fair value change recognised in the income statement Jan–Dec 2021
Financial liabilities designated at fair value through profit or loss	421,127	279,431
Derivative contracts at fair value through profit or loss hedging financial liabilities	-435,559	-267,712
Net change in fair value	**-14,432**	**11,719**

Note 7. Net income on financial assets at fair value through other comprehensive income

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Capital gains from financial assets	-	-
Capital losses from financial assets	-149	-
Unrealised gains transferred from fair value reserve	-	-
Unrealised losses transferred from fair value reserve	-	-
Total	**-149**	**-**

Note 8. Net income from hedge accounting

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Unrealised gains from hedging instruments	1,682,551	365,546
Unrealised losses from hedging instruments	-3,131,503	-840,150
Net income from hedging instruments	**-1,448,952**	**-474,604**
Unrealised gains from hedged items	3,141,349	838,751
Unrealised losses from hedged items	-1,655,954	-358,022
Net income from hedged items	**1,485,395**	**480,729**
IBOR reform related compensations *	-	-1,302
Net income from hedge accounting	**36,444**	**4,823**

* 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 are presented on line item *Net income from foreign exchange transactions* in Note *5*. A specification of the net income from hedge accounting is presented in Note *25 Hedge accounting*.

Note 9. 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 in the implementation of IFRS 9 standard.

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

* 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 2021	Fair value gain or loss for the financial year	EIR determined as at 1 Jan 2018	Interest revenue recognised Jan–Dec 2021
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	99,253	-1,589	0.14%	422

Note 10. Other operating income

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Other income from credit institution operations *	90	95
Total	**90**	**95**

* Line item includes capital gains from sold tangible assets.

Note 11. Administrative expenses

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Personnel expenses		
Salaries and remuneration	-15,520	-14,618
Pension costs	-2,717	-2,375
Other social security expenses	-525	-650
Total personnel expenses	**-18,763**	**-17,643**
Other personnel related costs	-1,760	-1,303
Marketing and communication expenses	-876	-624
IT and information expenses	-15,259	-14,211
Other administrative expenses	-702	-943
Total	**-37,361**	**-34,722**

	2022		2021	
PERSONNEL	Average	End of year	Average	End of year
Permanent full-time	157	159	154	155
Permanent part-time	4	4	1	1
Fixed term	12	12	7	8
Total	**172**	**175**	**162**	**164**

Note 12. Depreciation and impairment on tangible and intangible assets

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Depreciation		
Depreciation on tangible assets	-2,971	-2,946
Depreciation on intangible assets	-2,890	-2,780
Total depreciation	**-5,861**	**-5,726**
Impairment		
Impairment on intangible assets *	-4,562	-10,482
Total impairment	**-4,562**	**-10,482**
Total depreciation and impairment	**-10,423**	**-16,208**

* Line item includes a non-recurring item of EUR 4,562 thousand (EUR 10,482 thousand), which consists of impairment on a significant terminated IT system implementation.

Note 13. Other operating expenses

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Regulatory expenses		
Contributions to the Single Resolution Fund	-9,185	-6,737
Other administrative and supervisory fees	-2,324	-2,352
Rental expenses	-413	-127
External services	-5,504	-4,031
Credit rating fees	-748	-753
Audit fees	-508	-426
Insurances	-902	-592
Other expenses from credit institution operations	-190	-550
Total	**-19,774**	**-15,568**

Paid fees to the auditor (KPMG Oy Ab) in 2022 totalled EUR 492 thousand (EUR 426 thousand) for audit, EUR 28 thousand (EUR 21 thousand) for tax services and EUR 189 thousand (EUR 181 thousand) for other services. Assigments as referred to in section 1, subsection 1, paragraph 2 of the Auditing Act in 2022 totalled EUR 16 (EUR 0 thousand).

Note 14. 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 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	-	-	-
Guarantee receivables from the public and public sector entities in Other assets	-	-	-	-	-	-
Total expected credit losses and impairments on other financial assets	**-29**	**26**	**-3**	**-**	**-**	**-**
Total	**-1,364**	**1,481**	**118**	**-**	**-**	**-**

* 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 2021 (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	0	-	-	-
Loans and advances to credit institutions	-53	14	-39	-	-	-
Loans and advances to the public and public sector entities	-713	655	-58	-	-	-
Leased assets in Loans and advances to the public and public sector entities	0	1	0	-	-	-
Debt securities	0	0	0	-	-	-
Cash collateral to CCPs in Other assets	-9	0	-9	-	-	-
Credit commitments (off-balance sheet)	-2	3	1	-	-	-
Total expected credit losses on financial assets at amortised cost	**-778**	**674**	**-105**	**-**	**-**	**-**
Expected credit losses and impairments on other financial assets						
Debt securities at fair value through other comprehensive income	-18	19	0	-	-	-
Guarantee receivables from the public and public sector entities in Other assets	-	-	-	-	-	-
Total expected credit losses and impairments on other financial assets	**-18**	**19**	**0**	**-**	**-**	**-**
Total	**-797**	**692**	**-104**	**-**	**-**	**-**

Note 15. Income tax expense

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Tax based on the profit for the financial year	-34,545	-34,386
Tax based on the profit for previous financial years	-	-
Deferred tax	-8,478	-13,687
Total	**-43,023**	**-48,073**

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Profit before tax	215,024	239,678
Taxes at domestic tax rate	-43,005	-47,936
Other deductibles	14	10
Non-deductible expenses	-32	-145
Taxes for previous financial years	-	-2
Total	**-43,023**	**-48,073**
Income tax percentage	20.0%	20.0%
Effective tax base	20.0%	20.1%

Notes to the statement of financial position

Note 16. Financial assets and liabilities

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
Shares and participations	-	-	-	-	-	-	-
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 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
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.

FINANCIAL ASSETS 31 Dec 2021 (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	8,399,045	-	-	-	-	8,399,045	8,399,045
Loans and advances to credit institutions	1,417,310	-	-	-	-	1,417,310	1,417,310
Loans and advances to the public and public sector entities *	28,048,688	-	38,941	35,204	-	28,122,834	30,301,783
Debt securities	1,088,888	213,466	3,539,074	-	-	4,841,428	4,841,792
Shares and participations	-	-	-	-	-	-	-
Derivative contracts at fair value through profit or loss	-	-	-	-	761,023	761,023	761,023
Derivative contracts in hedge accounting	-	-	-	-	1,238,653	1,238,653	1,238,653
Other assets **	238,930	-	-	-	-	238,930	238,930
Total	**39,192,861**	**213,466**	**3,578,015**	**35,204**	**1,999,676**	**45,019,222**	**47,198,536**

* Line item includes EUR 242,936 thousand of leased assets for which the Group 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 2021 (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	2,796,230	4,787	-	2,801,016	2,800,913
Liabilities to the public and public sector entities	1,776,291	1,548,394	-	3,324,685	3,344,334
Debt securities issued	25,319,226	10,008,299	-	35,327,525	35,434,600
Derivative contracts at fair value through profit or loss	-	-	1,114,003	1,114,003	1,114,003
Derivative contracts in hedge accounting	-	-	1,110,291	1,110,291	1,110,291
Provisions and other liabilities *	337,823	-	-	337,823	337,823
Total	**30,229,570**	**11,561,479**	**2,224,294**	**44,015,343**	**44,141,965**

* Line item includes EUR 333,295 thousand of cash collateral received from central counterparties and EUR 4,528 thousand of lease liabilities in accordance with IFRS 16 standard.

Note 17. 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
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 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 2022 (EUR 1,000)		Fair value			
	Carrying amount	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**

* MuniFin Group'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 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 2021 (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	213,466	172,717	40,748	-	213,466
Designated at fair value through profit or loss					
Loans and advances to the public and public sector entities	38,941	-	38,941	-	38,941
Debt securities	3,539,074	3,451,809	87,265	-	3,539,074
Mandatorily at fair value through profit or loss					
Loans and advances to the public and public sector entities	35,204	-	344	34,861	35,204
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	761,023	-	698,194	62,829	761,023
Derivative contracts in hedge accounting	1,238,653	-	1,238,246	407	1,238,653
Total at fair value	**5,826,360**	**3,624,526**	**2,103,737**	**98,097**	**5,826,360**
In fair value hedge accounting					
Amortised cost					
Loans and advances to the public and public sector entities	12,968,390	-	13,749,511	-	13,749,511
Total in fair value hedge accounting	**12,968,390**	**-**	**13,749,511**	**-**	**13,749,511**
At amortised cost					
Cash and balances with central banks	8,399,045	8,399,045	-	-	8,399,045
Loans and advances to credit institutions	1,417,310	106,734	1,310,576	-	1,417,310
Loans and advances to the public and public sector entities	15,080,299	-	16,478,128	-	16,478,128
Debt securities	1,088,888	-	1,089,253	-	1,089,253
Other assets	238,930	-	238,930	-	238,930
Total at amortised cost	**26,224,472**	**8,505,779**	**19,116,886**	**-**	**27,622,665**
Total financial assets	**45,019,222**	**12,130,305**	**34,970,134**	**98,097**	**47,198,536**

FINANCIAL LIABILITIES 31 Dec 2021 (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	4,787	-	4,787	-	4,787
Liabilities to the public and public sector entities	1,548,394	-	1,284,601	263,793	1,548,394
Debt securities issued	10,008,299	-	8,248,729	1,759,569	10,008,299
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	1,114,003	-	369,705	744,299	1,114,003
Derivative contracts in hedge accounting	1,110,291	-	1,084,602	25,690	1,110,291
Total at fair value	**13,785,774**	**-**	**10,992,423**	**2,793,350**	**13,785,774**
In fair value hedge accounting					
Amortised cost					
Liabilities to credit institutions	55,120	-	55,016	-	55,016
Liabilities to the public and public sector entities	1,776,291	-	1,795,941	-	1,795,941
Debt securities issued	24,852,845	-	24,873,880	86,040	24,959,920
Total in fair value hedge accounting	**26,684,256**	**-**	**26,724,837**	**86,040**	**26,810,877**
At amortised cost					
Liabilities to credit institutions	2,741,110	-	2,741,110	-	2,741,110
Debt securities issued	466,381	-	466,381	-	466,381
Provisions and other liabilities	337,823	-	337,823	-	337,823
Total at amortised cost	**3,545,314**	**-**	**3,545,314**	**-**	**3,545,314**
Total financial liabilities	**44,015,343**	**-**	**41,262,574**	**2,879,390**	**44,141,965**

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 standard 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 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 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.

The 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*).

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 Executive Management Team (*EMT*).

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 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 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 2022, transfers totalling EUR 9,270 thousand have been made between level 1 and level 2. During 2022, 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**

* The Group recognises these gains and losses within the line items *Net income from securities and foreign exchange transactions* and *Net income from hedge accounting*.
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.

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 2022, these assumptions could have increased fair values by EUR 60.6 million or decreased fair values by EUR 71.1 million. As of 31 December 2021, these assumptions could have increased fair values by EUR 60.3 million or decreased fair values by EUR 59.6 million.

SENSITIVITY ANALYSIS OF SIGNIFICANT UNOBSERVABLE INPUTS BY INSTRUMENT TYPE (EUR 1,000)	Positive range of fair value 2022	Negative range of fair value 2022	Positive range of fair value 2021	Negative range of fair value 2021
Loans and advances to the public and public sector entities				
Loans	249	-273	133	-84
Derivative contracts				
Equity-linked derivatives	18,117	-22,052	18,864	-11,446
FX-linked cross currency and interest rate derivatives	834	-1,318	2,644	-1,537
Other interest rate derivatives	11,726	-11,860	13,173	-13,344
Debt securities issued and Liabilities to the public and public sector entities				
Equity-linked liabilities	16,927	-23,275	12,350	-18,115
FX-linked liabilities	834	-990	704	-2,233
Other liabilities	11,919	-11,327	12,412	-12,810
Total	**60,606**	**-71,095**	**60,279**	**-59,570**

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 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 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 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 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 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 2022	Jan–Dec 2021
Opening balance in the beginning of the reporting period	-236	-29
Recognised gain in the income statement	498	412
Recognised loss in the income statement	-470	-711
Deferred gain or loss on new transactions	-184	91
Total at the end of the reporting period	**-392**	**-236**

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*.

Transfers in the fair value hierarchy and sensitivity analysis 2021

During 2021, transfers totalling EUR 50,127 thousand have been made between level 1 and level 2. During 2021, there were no transfers from level 2 to level 3.

LEVEL 3 TRANSFERS 2021 (EUR 1,000)	1 Jan 2021	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 2021
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	43,735	-4,878	-	-3,997	-	-	34,861
Shares and participations	27	-	-	-27	-	-	-
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	79,452	-14,590	604	-2,636	-	-	62,829
Derivative contracts in hedge accounting	572	-366	317	-	-	-117	407
Financial assets in total	**123,787**	**-19,834**	**921**	**-6,660**	**-**	**-117**	**98,097**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	224,413	-8,408	47,787	-	-	-	263,793
Debt securities issued	2,125,714	-144,658	762,861	-975,731	-	-8,617	1,759,569
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	646,293	136,055	38,581	-76,252	-	-378	744,299
Derivative contracts in hedge accounting	24,391	6,797	450	-	-	-5,948	25,690
In fair value hedge accounting							
Amortised cost							
Debt securities issued	94,048	-1,802	27,162	-	-	-33,368	86,040
Financial liabilities in total	**3,114,859**	**-12,015**	**876,840**	**-1,051,984**	**-**	**-48,310**	**2,879,390**
Level 3 financial assets and liabilities in total	**3,238,646**	**-31,849**	**877,761**	**-1,058,644**	**-**	**-48,427**	**2,977,487**

SENSITIVITY ANALYSIS OF UNOBSERVABLE INPUTS 2021 (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	34,861	Stochastic model	Volatility – Extrapolated or Illiquid	133	-84
Derivative contracts					
			Correlation parameters	759	653
Equity-linked derivatives	-37,319	Stochastic model	Volatility – Extrapolated or Illiquid	17,551	-11,504
			Dividend yield	554	-595
			Correlation parameters	498	-353
FX-linked cross currency and interest rate derivatives	-647,461	Stochastic model	Volatility – Extrapolated or Illiquid	2,145	-1,183
			Interest rates – Extrapolated or Illiquid	1	-1
			Correlation parameters	7	0
Other interest rate derivatives	-21,972	Stochastic model	Volatility – Extrapolated or Illiquid	12,870	-13,048
			Interest rates – Extrapolated or Illiquid	296	-296
Debt securities issued and Liabilities to the public and public sector entities					
			Correlation parameters	229	-149
Equity-linked liabilities	741,554	Stochastic model	Volatility – Extrapolated or Illiquid	11,455	-16,829
			Dividend yield	666	-1,137
			Correlation parameters	17	-123
FX-linked liabilities	785,053	Stochastic model	Volatility – Extrapolated or Illiquid	677	-2,099
			Interest rates – Extrapolated or Illiquid	11	-11
			Correlation parameters	1	0
Other liabilities	582,795	Stochastic model	Volatility – Extrapolated or Illiquid	12,313	-12,711
			Interest rates – Extrapolated or Illiquid	98	-98
Total				**60,279**	**-59,570**

Note 18. Breakdown of financial assets and liabilities at carrying amount by maturity

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
Shares and participations	-	-	-	-	-	-
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**

* Line item includes leased assets for which the Group applies fair value hedge accounting. Unhedged leased assets are not presented in this table of the financial assets and liabilities by maturity, 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)	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**

* 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 2023. In 2022, the Group called 19% of its callable liabilities.

FINANCIAL ASSETS 31 Dec 2021 (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	8,399,045	-	-	-	-	8,399,045
Loans and advances to credit institutions	1,383,018	-	34,292	-	-	1,417,310
Loans and advances to the public and public sector entities	411,001	1,534,589	6,632,277	6,396,852	13,148,116	28,122,834
, of which leased assets	*7,025*	*18,391*	*72,819*	*43,699*	*101,002*	*242,936*
Debt securities	1,194,336	644,292	2,489,779	513,020	-	4,841,428
Shares and participations	-	-	-	-	-	-
Derivative contracts	176,162	85,276	652,855	444,830	640,553	1,999,676
Other assets	238,930	-	-	-	-	238,930
Total	**11,802,492**	**2,264,157**	**9,809,202**	**7,354,702**	**13,788,669**	**45,019,222**

FINANCIAL LIABILITIES 31 Dec 2021 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Liabilities to credit institutions	1,991,110	750,000	10,613	19,599	29,695	2,801,016
Liabilities to the public and public sector entities	75,992	112,562	1,031,895	856,943	1,247,293	3,324,685
Debt securities issued	4,991,578	5,235,547	18,221,438	4,174,502	2,704,459	35,327,525
Derivative contracts	788,530	584,682	287,038	143,757	420,287	2,224,294
Provisions and other liabilities	333,732	1,308	2,782	-	-	337,823
, of which lease liabilities	*437*	*1,308*	*2,782*	-	-	*4,528*
Total	**8,180,943**	**6,684,099**	**19,553,767**	**5,194,802**	**4,401,733**	**44,015,343**

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 2021, the Group called 47% of its callable liabilities.

Note 19. 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 2022 (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	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. More information is presented in the Parent Company's Financial Statements *Note 39. Repurchase agreements.*

The Group has not offset any financial assets or liabilities in its statement of financial position in 2022.

31 Dec 2021 (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	1,999,676	-	1,999,676	1,074,405	-	925,271
Total	**1,999,676**	**-**	**1,999,676**	**1,074,405**	**-**	**925,271**
Financial liabilities						
Derivative contracts	2,224,294	-	2,224,294	-	1,549,593	674,702
Total	**2,224,294**	**-**	**2,224,294**	**-**	**1,549,593**	**674,702**

* Includes EUR 333,295 thousand of cash collateral received from central counterparties.
** Includes EUR 238,943 thousand of cash collateral given to central counterparties.

The Group has not offset any financial assets or liabilities in its statement of financial position in 2021.

Note 20. Cash and cash equivalents

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**	**0**
Loans and advances to credit institutions payable on demand	48,622	48,622	0
Total cash and cash equivalents	**48,624**	**48,624**	**0**

31 Dec 2021 (EUR 1,000)	Total	Cash and cash equivalents	Expected credit losses
Cash	2	2	-
Central bank deposits payable on demand	8,399,043	8,399,043	0
Cash and balances with central banks	**8,399,045**	**8,399,045**	**0**
Loans and advances to credit institutions payable on demand	36,458	36,459	0
Total cash and cash equivalents	**8,435,503**	**8,435,504**	**0**

Note 21. Loans and advances to credit institutions

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	**8,192,163**	**1,433,434**	**-109**	**9,625,488**

31 Dec 2021 (EUR 1,000)	Payable on demand	Other than payable on demand	Expected credit losses	Total
Receivables from central bank	35,984	-	0	35,984
Domestic credit institutions	13,128	34,300	-8	47,420
Foreign credit institutions	23,330	1,310,650	-74	1,333,906
Total	**72,442**	**1,344,950**	**-82**	**1,417,310**

Note 22. Loans and advances to the public and public sector entities

	31 Dec 2022		31 Dec 2021	
(EUR 1,000)	Total	, of which expected credit losses	Total	, of which expected credit losses
Enterprises and housing corporations	14,862,774	-595	14,675,547	-1,002
Public sector entities	12,635,898	-173	12,847,172	-88
Non-profit organisations	342,595	-3	357,179	-57
Leased assets	1,303,094	-28	1,334,146	-2
Total	**29,144,361**	**-800**	**29,214,041**	**-1,148**

Note 23. Debt securities

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**

* 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 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 2022, debt securities contain a security, notional value of EUR 10,000 thousand, that is given as collateral for reverse repo agreements. 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, MuniFin Group has no debt securities measured mandatorily at fair value through profit or loss.

DEBT SECURITIES ISSUED BY PUBLIC SECTOR ENTITIES 31 Dec 2021 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**930,252**	**930,252**	**0**
Commercial paper issued by other public sector entities	-	930,252	930,252	0
Fair value through other comprehensive income	**74,959**	**-**	**74,959**	**-1**
Bonds issued by other public sector entities	74,959	-	74,959	-1
Designated at fair value through profit or loss	**1,703,953**	**-**	**1,703,953**	**-**
Government bonds	180,437	-	180,437	-
Bonds issued by other public sector entities	1,523,516	-	1,523,516	-
Total	**1,778,912**	**930,252**	**2,709,164**	**-1**
, of which eligible for central bank refinancing	*1,572,169*	-	*1,572,169*	*0*

DEBT SECURITIES ISSUED BY OTHER THAN PUBLIC SECTOR ENTITIES 31 Dec 2021 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**158,636**	**158,636**	**0**
Commercial papers	-	158,636	158,636	0
Fair value through other comprehensive income	**138,506**	**-**	**138,506**	**-41**
Bank bonds	138,506	-	138,506	-41
Designated at fair value through profit or loss	**1,835,121**	**-**	**1,835,121**	**-**
Bank bonds	1,835,121	-	1,835,121	-
Total	**1,973,627**	**158,636**	**2,132,263**	**-41**
, of which eligible for central bank refinancing	*1,739,885*	-	*1,739,885*	*-30*

31 Dec 2021 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Debt securities total	**3,752,539**	**1,088,888**	**4,841,428**	**-41**

Note 24. Derivative contracts

	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**

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 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 received or paid from derivative contracts is included in the statement of financial position line items *Accrued income and prepayments* and *Accrued expenses and deferred income*.

	Nominal value of underlying instrument				Fair value	
	Remaining maturity					
31 Dec 2021 (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	2,409,728	12,470,328	17,727,331	32,607,387	756,203	-384,289
, of which cleared by the central counterparty	*2,233,780*	*11,834,195*	*16,946,320*	*31,014,295*	*682,416*	*-308,205*
Currency derivatives						
Cross currency interest rate swaps	3,437,953	8,396,354	782,448	12,616,756	482,450	-726,003
Total derivative contracts in hedge accounting	**5,847,682**	**20,866,681**	**18,509,780**	**45,224,143**	**1,238,653**	**-1,110,291**
Derivative contracts at fair value through profit or loss						
Interest rate derivatives						
Interest rate swaps	3,940,682	8,043,879	4,491,216	16,475,777	475,940	-357,092
, of which cleared by the central counterparty	*2,864,097*	*5,372,343*	*1,578,144*	*9,814,584*	*46,821*	*-163,327*
Interest rate options	-	40,000	-	40,000	101	-101
Currency derivatives						
Cross currency interest rate swaps	2,467,039	1,940,380	109,367	4,516,786	133,656	-718,888
Forward exchange contracts	3,354,738	-	-	3,354,738	150,723	-
Equity derivatives	816,109	-	-	816,109	604	-37,922
Total derivative contracts at fair value through profit or loss	**10,578,567**	**10,024,259**	**4,600,583**	**25,203,409**	**761,023**	**-1,114,003**
Total derivative contracts	**16,426,249**	**30,890,940**	**23,110,363**	**70,427,552**	**1,999,676**	**-2,224,294**

Note 25. Hedge accounting

The interest rate and foreign exchange rate risks 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 standard and fair value portfolio hedge accounting according to IAS 39 standard. 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 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. 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, which are recognised in the income statement under *Net income from securities and foreign exchange transactions*. Due to the above mentioned reason, the total amount of the hedging instruments does not correspond to the fair value presented in Note *24 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 from hedge accounting*. The ineffective portion of the hedging relationship is thus shown on this line in the income statement. Net income from securities and foreign exchange transactions is specified in Note *5* and net income from hedge accounting in Note *8*.

In accordance with the market practice and IFRS 13 *Fair value measurement* 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 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	-1,476,553	122,505	-1,599,058
Derivative contracts in hedge accounting	1,549,315	-78,911	1,628,226
Accumulated fair value accrual from the termination of hedge accounting	-1,721	218	-1,939
IAS 39 portfolio hedge accounting, net	**71,041**	**43,812**	**27,229**
IFRS 9 fair value hedge accounting			
Loans and advances to the public and public sector entities	-29,402	25,414	-54,816
Derivative contracts in hedge accounting	28,548	-25,669	54,217
IFRS 9 fair value hedge accounting, net	**-855**	**-255**	**-599**
Liabilities			
IFRS 9 fair value hedge accounting			
Liabilities to credit institutions	10,108	-5,120	15,228
Liabilities to the public and public sector entities	54,570	-340,433	395,003
Debt securities issued	2,559,950	-171,028	2,730,978
Derivative contracts in hedge accounting	-2,631,089	500,306	-3,131,395
IFRS 9 fair value hedge accounting, net	**-6,461**	**-16,275**	**9,814**
IBOR reform related compensations *	-3,343	-3,343	0
Total hedge accounting	**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 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 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**

HEDGE ACCOUNTING 31 Dec 2021 (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	12,577,902	12,725,453	12,598,775	126,678	-
Loans and advances to the public and public sector entities – Leased assets	243,432	242,936	-	242,936	-
Total assets	**12,869,504**	**12,968,390**	**12,598,775**	**369,615**	**-**
Liabilities					
Liabilities to credit institutions	50,000	55,120	-	55,120	-
Liabilities to the public and public sector entities	1,504,060	1,776,291	-	1,737,750	38,541
Debt securities issued	24,714,983	24,852,845	-	12,207,796	12,645,049
Total liabilities	**26,269,043**	**26,684,256**	**-**	**14,000,666**	**12,683,589**

VALUE OF HEDGED RISK (EUR 1,000)	31 Dec 2021	1 Jan 2021	Recognised in the income statement Jan–Dec 2021
Assets			
IAS 39 portfolio hedge accounting			
Loans and advances to the public and public sector entities	122,505	464,688	-342,182
Derivative contracts in hedge accounting	-78,911	-428,083	349,171
Accumulated fair value accrual from the termination of hedge accounting	218	47	170
IAS 39 portfolio hedge accounting, net	**43,812**	**36,653**	**7,159**
IFRS 9 fair value hedge accounting			
Loans and advances to the public and public sector entities	25,414	41,424	-16,010
Derivative contracts in hedge accounting	-25,669	-42,044	16,375
IFRS 9 fair value hedge accounting, net	**-255**	**-620**	**365**
Liabilities			
IFRS 9 fair value hedge accounting			
Liabilities to credit institutions	-5,120	-13,800	8,681
Liabilities to the public and public sector entities	-340,433	-481,546	141,113
Debt securities issued	-171,028	-859,986	688,958
Derivative contracts in hedge accounting	500,306	1,340,456	-840,150
IFRS 9 fair value hedge accounting, net	**-16,275**	**-14,876**	**-1,399**
IBOR reform related compensations	-3,343	-2,041	-1,302
Total hedge accounting	**23,938**	**19,116**	**4,822**

HEDGING IMPACT ON EQUITY (EUR 1,000)	31 Dec 2021	1 Jan 2021	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	13,621	15,624	-2,004
Total	**13,621**	**15,624**	**-2,004**

EFFECTIVENESS OF HEDGE ACCOUNTING
31 Dec 2021 (EUR 1,000)

Hedged item	Hedging instruments	Gains/losses attributable to the hedged risk		Hedge ineffectiveness
		Hedged items	Hedging instruments	
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	122,505	-78,911	43,594
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	25,908	-25,880	28
Fixed rate and revisable rate leased assets	Interest rate derivatives	-495	211	-283
Assets total		**147,919**	**-104,580**	**43,339**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	-435,365	426,733	-8,633
Financial liabilities denominated in foreign currencies	Currency derivatives (Cross currency interest rate swaps) Interest rate derivatives	-81,215	73,573	-7,642
Liabilities total		**-516,581**	**500,306**	**-16,275**

Note 26. 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 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
Guarantee receivables from the public and public sector entities in Other assets	-	-	-	-	-	-	-	-
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 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 reveivables will be recovered and no final credit loss will emerge. Stage 3 receivables include EUR 2,144 thousand (EUR 2,345 thousand) of originated credit impaired receivables (*Purchased or Originated Credit Impaired, POCI*). Expected credit losses for the POCI receivables amount to EUR 8 thousand (EUR 7 thousand).

EXPOSURES BY ASSET GROUPS AND IMPAIRMENT STAGES	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 3			
31 Dec 2021 (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	8,399,045	0	-	-	-	-	8,399,045	0
Loans and advances to credit institutions at amortised cost	1,417,310	-82	-	-	-	-	1,417,310	-82
Loans and advances to the public and public sector entities at amortised cost	27,457,506	-23	220,730	-578	127,517	-546	27,805,752	-1,147
Leased assets in Loans and advances to the public and public sector entities at amortised cost	1,333,987	-2	-	-	159	-	1,334,146	-2
Debt securities at amortised cost	1,079,338	0	9,550	0	-	-	1,088,888	0
Debt securities at fair value through other comprehensive income	213,466	-41	-	-	-	-	213,466	-41
Cash collateral to CCPs in Other assets at amortised cost	238,930	-13	-	-	-	-	238,930	-13
Guarantee receivables from the public and public sector entities in Other assets	1,752	-	-	-	-	-	1,752	-
Credit commitments (off-balance sheet)	2,585,201	-4	3,167	0	4,506	0	2,592,873	-4
Total	**42,726,533**	**-166**	**233,447**	**-578**	**132,182**	**-546**	**43,092,161**	**-1,289**

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 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**

* Represents changes in the model.
** Represents changes to model parameters (e.g. GDP rates, unemployment rates)

MuniFin Group finished ECL IT and model development during the second half of the year 2022. With the development, changes have been made to the assessment criteria for significant increase in credit risk (*SICR*), and to the models of probability of default (*PD*) and loss given default (*LGD*). In addition, macro scenarios were updated to take into account forward-looking information at the end of financial year. Expected credit losses increased by EUR 426 thousand due to the changes in models and parameters.

The Group recorded an additional discretionary provision (*management overlay*) at the end of 2021 to take into account IT and model changes that will take place in 2022. The amount of additional discretionary provision was increased at the end of June 2022. The additional discretionary provision based on a group-specific assessment and decided by the Group's management was EUR 916 thousand. Since the IT and model development were finished in the second half of the 2022, the additional discretionary provision based on the group-specific assessment was removed. The addiotional provision was recognised under the balance sheet item *Loans and advances to the public and public sector entities*. The additional provision was not allocated to contract level.

MuniFin Group's total credit risk has still remained low and the amount of ECL remains low. Municipalities' tax development was positive during 2022. The year 2023 is estimated to be remarkably strong for the local government finances, despite the weakened economic outlook, as the tax revenue-cutting effect of the health and social services reform will only be seen in full impact on 2024. During 2022, the ongoing energy crisis, rising interest rates and inflation have not yet had a significant effect on MuniFin Group's customers' ability to pay or creditworthiness. MuniFin Group's customer exposures have zero risk weight in the capital adequacy calculation because they are from Finnish municipalities, joint municipality authorities or wellbeing services counties or involve a municipal, joint municipality authority or wellbeing services county guarantee or a state deficiency guarantee supplementing the real estate collateral as described in the Note *2 Risk management principles and the Group's risk position* under Section *7. Credit risk*. The Group's management estimates that all receivables will be recovered in full and therefore no final credit loss will arise. On 31 December 2022, MuniFin Group has total of EUR 4 million (EUR 19 million) in guarantee receivables from the public sector due to the insolvency of customers. Credit risk of the liquidity portfolio has remained on a good quality level with the average rating of 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 2021	**-126**	**-835**	**-224**	**-1,184**	**39,717,750**
New assets originated or purchased	-41	56	-13	3	9,637,333
Assets derecognised or repaid (excluding write-offs)	46	101	55	203	-6,262,613
Transfers to Stage 1	0	18	-	18	18
Transfers to Stage 2	0	-203	60	-143	-143
Transfers to Stage 3	-	1	-1	1	1
Additional provision *(Management overlay)*	-	340	-430	-90	-90
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-46	-56	6	-96	-94
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2021	**-166**	**-578**	**-546**	**-1,289**	**43,092,161**

In 2021, MuniFin Group made changes to macro scenarios and loss given default parameters in expected credit loss calculations, which increased ECL by EUR 96 thousand. There were no changes in the ECL model.

At the end of 2021, MuniFin Group recorded an additional discretionary provision (*management overlay*) of EUR 430 thousand to take into account ECL model changes that will take place in 2022. The assessment of the need for additional provision was based on the fact that MuniFin Group's management estimated that due to the model changes, part of the exposures would transfer to stage 2 in the expected credit loss calculations when ECL is calculated for the lifetime of the contract instead of a 12-month ECL, or in some cases LGD would increase.

In addition, model changes were expected to have an effect on the amount of ECL in stage 3. Since the IT and model development were finished in the second half of the 2022, the additional dicreationary provision based on the group-specific assessment was removed in the financial year 2022. The additional provision related to the balance sheet line item *Loans and advances to the public and public sector entities*. The additional provision was not allocated to contract level.

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 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 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 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 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 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

(EUR 1,000)	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
	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 other 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 the 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 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 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 2022	**-4**	**0**	**0**	**-4**	**2,592,873**
New assets originated or purchased	-9	0	-	-9	1,608,254
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**

The loss allowance on binding credit commitments is recognised under *Other liabilities*. More details regarding the 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 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 2021	**0**	**-**	**-**	**0**	**5,565,801**
New assets originated or purchased	0	-	-	0	2,833,244
Assets derecognised or repaid (excluding write-offs)	0	-	-	0	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 2021	**0**	**-**	**-**	**0**	**8,399,045**

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 2021	**-43**	**-**	**-**	**-43**	**1,841,853**
New assets originated or purchased	-10	-	-	-10	353,939
Assets derecognised or repaid (excluding write-offs)	14	-	-	14	-778,439
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-43	-	-	-43	-43
Total 31 Dec 2021	**-82**	**-**	**-**	**-82**	**1,417,310**

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 2021	**-30**	**-835**	**-224**	**-1,089**	**26,886,947**
New assets originated or purchased	-11	56	-13	33	3,238,833
Assets derecognised or repaid (excluding write-offs)	10	101	55	167	-2,319,771
Transfers to Stage 1	0	18	-	18	18
Transfers to Stage 2	0	-203	60	-143	-143
Transfers to Stage 3	-	1	-1	1	1
Additional provision *(Management overlay)*	-	340	-430	-90	-90
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	7	-56	6	-44	-44
Write-offs	-	-	-	-	-
Total 31 Dec 2021	**-23**	**-578**	**-546**	**-1,147**	**27,805,752**

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 2021	**-2**	**0**	**0**	**-2**	**1,090,940**
New assets originated or purchased	0	-	-	0	310,062
Assets derecognised or repaid (excluding write-offs)	0	-	0	0	-66,857
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	1	-	0	1	1
Total 31 Dec 2021	**-2**	**0**	**0**	**-2**	**1,334,146**

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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 2021	**0**	**0**	**-**	**0**	**1,310,305**
New assets originated or purchased	0	0	-	0	1,088,888
Assets derecognised or repaid (excluding write-offs)	0	0	-	0	-1,310,305
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2021	**0**	**0**	**-**	**0**	**1,088,888**

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 2021	**-42**	**-**	**-**	**-42**	**423,050**
New assets originated or purchased	-16	-	-	-16	28,176
Assets derecognised or repaid (excluding write-offs)	19	-	-	19	-237,760
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-2	-	-	-2	
Total 31 Dec 2021	**-41**	**-**	**-**	**-41**	**213,466**

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 2021	**-4**	**-**	**-**	**-4**	**243,269**
New assets originated or purchased	-1	-	-	-1	22,942
Assets derecognised or repaid (excluding write-offs)	0	-	-	0	-27,272
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-8	-	-	-8	-8
Total 31 Dec 2021	**-13**	**-**	**-**	**-13**	**238,930**

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 2021	**-**	**-**	**-**	**-**	**1,606**
New assets originated or purchased	-	-	-	-	145
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 2021	**-**	**-**	**-**	**-**	**1,752**

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 2021	**-4**	**0**	**0**	**-4**	**2,353,978**
New assets originated or purchased	-2	0	-	-2	1,761,104
Assets derecognised or repaid (excluding write-offs)	3	-	0	3	-1,522,209
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	0	0	0	
Changes to models and inputs used for ECL calculations	0	-	0	0	
Total 31 Dec 2021	**-4**	**0**	**0**	**-4**	**2,592,873**

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 2022			31 Dec 2021		
SCENARIO	**2023**	**2024**	**2025**	**2022**	**2023**	**2024**
Adverse	30%	30%	30%	40%	40%	40%
Base	60%	60%	60%	50%	50%	40%
Optimistic	10%	10%	10%	10%	10%	20%

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 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 2022			31 Dec 2021		
MACROECONOMIC VARIABLES	**Scenario**	**2023**	**2024**	**2025**	**2022**	**2023**	**2024**
10Y Fin Government rate, %	Adverse	4.0	3.6	3.4	1.2	0.5	0.3
	Base	3.2	3.1	3.2	0.3	0.6	0.8
	Optimistic	2.2	1.9	1.8	0.8	1.1	1.2
Residential Real Estate (selling price, YoY change), %	Adverse	-13.0	0.0	2.0	-8.0	-7.0	-2.0
	Base	-2.0	2.0	1.5	-2.0	-3.0	-1.4
	Optimistic	0.0	3.0	2.5	3.5	3.0	1.5
Unemployment rate, %	Adverse	9.5	9.0	8.5	8.7	9.2	8.5
	Base	7.4	7.3	6.8	6.9	6.5	6.3
	Optimistic	6.5	6.0	5.8	6.5	6.0	5.8

The Russian invasion of Ukraine has fundamentally changed the outlook of the Finnish economy. Not only has consumer confidence weakened, but business expectations have also taken a clear downward turn. Despite the challenging outlook, however, the Finnish economy is facing the future from a better position than it did when the COVID-19 pandemic hit. The service sector has revitalised after COVID restrictions were lifted, and employment rate is still at its highest level since early 1990's. The growth outlook is nevertheless bound to deteriorate because of rising living costs and rapidly tightening monetary policy. MuniFin Group expects output to contract 0.5% in 2023. From 2024 onwards, the economy will gradually converge back to its long-term growth path and the annual pace of expansion is around 1.5%. Unemployment is expected to rise above 7% in 2023–2024. Unemployment rate returns to a moderately declining trend from 2025 onwards. In the near term, high energy and food prices continue to contribute to inflationary pressures. In the base scenario, Finnish consumer prices rise 6.7% in 2022. Annual CPI inflation is expected to decline to 4.0% in 2023 and stabilise around 2% in 2024–2026. To make sure that future inflation expectations remain well anchored, the European Central Bank (*ECB*) is expected to continue raising interest rates in the first half of 2023. The pace of monetary tightening slows down, however, as cost pressures gradually ease off. On the national level, higher interest rates mitigate households' home buying intentions. Home prices cease to rise in 2022 and they are expected to contract 2.0% in 2023. For the rest of the projection period, the annual increase in home prices is expected to settle around 1.5–2.0%.

Compared to the base scenario, MuniFin Group's upside (optimistic) scenario factors in the economic impact of the war in Ukraine to be less severe and inflationary pressures to ease somewhat quicker. As a result, the Finnish GDP would grow faster in the subsequent two years (1.0% in 2023 and 2.5% in 2024). In the upside scenario, unemployment rate continues its slow decline during the whole projection period. Consumer price inflation accelerates to 6.0% in 2022 but cools down back to 2.5% already in 2023. Despite rising interest rates, relatively steady housing demand prevents home prices from contracting in 2023. Thereafter, consumer and home prices rise at about 2.0–3.0% pace in 2024–2026. As inflation starts declining sooner, in the optimistic scenario the ECB raises interest rates less in 2023 than in the base scenario. As a result, market interest rates also rise more slowly.

MuniFin Group's downside (adverse) scenario represents a deeply stagflationary outcome where the war in Ukraine leads to more persistent inflation and a contracting real economy. Economic recession continues well into 2024. Unemployment rises more and remains high much longer than in the base scenario. Rising energy and food prices trigger a wage inflation spiral, making it harder for the the ECB to get future inflation expectations under control. The ECB is forced to raise interest rates much higher than in the base case, deepening the contraction in GDP. CPI inflation remains well above the ECB's target through 2024. Lack of demand in the housing market leads to a sharp decline in home prices. Prolonged global recession creates tensions in financial markets, giving rise to wider risk premia in asset pricing.

The following table presents the sensitivity of the expected credit losses to the forward-looking information assuming 100% weight for the adverse scenario until 2024 (2023).

	31 Dec 2022		31 Dec 2021	
SENSITIVITY ANALYSIS (EUR 1,000)	**Weighted scenario**	**Adverse scenario (100%)**	**Weighted scenario**	**Adverse scenario (100%)**
ECL	1,171	1,547	859	1,150
Proportion of the exposure in Stage 2 and 3	1.27%	2.57%	0.86%	1.15%

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 2022 (EUR 1,000)	Performing exposures	Non-performing exposures	Total exposures	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**

NON-PERFORMING AND FORBORNE EXPOSURES 31 Dec 2021 (EUR 1,000)	Performing exposures	Non-performing exposures	Total exposures	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	16,813	16,813	-82	16,731
Unlikely to be paid	-	85,559	85,559	-8	85,551
Forborne exposures	61,862	25,849	87,711	-238	87,473
Total	**61,862**	**128,221**	**190,083**	**-328**	**189,755**

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. Only a few individual repayment holidays have been extended during 2022 and 2021. 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.

Realised credit losses

The Group has not had any final realised credit losses during the financial year or the comparison year.

Note 27. Intangible assets

(EUR 1,000)	31 Dec 2022	31 Dec 2021
IT systems	8,831	12,296
, of which assets not yet available for use	*1,050*	*3,752*
Total	**8,831**	**12,296**

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 28. Tangible assets

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Real estate	299	299
Office renovation expenses	5	9
Right-of-use assets	3,198	4,442
Other tangible assets	1,559	2,742
Total	**5,062**	**7,491**

Note 29. Changes in intangible and tangible assets during the financial year

2022 (EUR 1,000)	Intangible assets	Tangible assets			
	Total	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 change of EUR -10,482 thousand on MuniFin Group's significant terminated IT system implementation.

2021 (EUR 1,000)	Intangible assets	Tangible assets			
	Total	Real estate	Other tangible assets	Right-of-use assets	Total
Acquisition cost 1 Jan	31,630	299	8,950	9,152	18,401
+ Additions	8,660	-	3	212	215
- Disposals	-449	-	-367	-29	-396
Acquisition cost 31 Dec	39,841	299	8,585	9,335	18,219
Accumulated depreciation 1 Jan	14,283	-	4,840	3,197	8,037
- Accumulated depreciation on disposals	-	-	-226	-29	-255
+ Depreciation according to plan	2,780	-	1,221	1,725	2,946
+ Impairment *	10,482	-	-	-	-
Accumulated depreciation and impairment charges 31 Dec	27,545	-	5,835	4,893	10,728
Carrying amount 31 Dec	**12,296**	**299**	**2,751**	**4,442**	**7,491**

* The line item includes a non-recurring item of impairment of EUR 10,482 thousand on MuniFin Group's significant ongoing IT system implementation.

Note 30. Other assets

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Invoiced leasing payments	11,391	15,084
Given cash collateral to CCPs *	1,219,541	238,930
Other	3,878	2,103
Total	**1,234,810**	**256,117**

* Cash collaterals include expected credit losses amounting to EUR 203 thousand (EUR 13 thousand).

The Group did not have receivables related to payment transfers as at 31 Dec 2022 or at 31 Dec 2021.

Note 31. Accrued income and prepayments

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Accrued interest income	218,417	211,067
Other accrued income	7	231
Prepayments	4,680	1,356
Total	**223,104**	**212,655**

Note 32. Deferred tax

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 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**

DEFERRED TAX LIABILITIES (EUR 1,000)	1 Jan 2021	Recognised in the income statement	Recognised in the other comprehensive income	Recognised in equity	31 Dec 2021
On fair value reserve	4,054	-	-555	-	3,499
On change in cumulative depreciation difference	4,105	1,439	-	-	5,544
On change in voluntary provisions	269,506	9,000	-	-	278,506
On reversing the accrued interest of the AT1 capital loan recorded in the financial statements of the Parent Company	2,365	3,150	-	-3,150	2,365
On reversing the amortisation of the AT1 capital loan transaction expenses recorded in the financial statements of the Parent Company	-122	98	-	-	-24
On right-of-use assets	-1	0	-	-	-1
Total	**279,906**	**13,687**	**-555**	**-3,150**	**289,887**

Note 33. Liabilities to credit institutions

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Bilateral loans to credit institutions	88,183	59,906
TLTRO *	2,000,000	2,000,000
Received collateral on derivatives	244,440	741,110
Total	**2,332,623**	**2,801,016**

* In September 2020, MuniFin participated in the third series of targeted longer-term refinancing operations that is, the so-called TLTRO III operation (No. 5) with EUR 1.25 billion. In June 2021, MuniFin participated in TLTRO III operation (No. 8) with EUR 750 million. According to the terms of the TLTRO III operation, if eligible net lending is positive during the reference period (1 March 2020–31 March 2021) the interest rate for TLTRO III debt is 0.5% lower than the average deposit facility rate for borrowings between 24 June 2020 and 23 June 2021. This would equate to an all-in rate of -1%. On 10 December 2020, the ECB issued an update to the terms and conditions so that the low-interest period was extended from 24 June 2021 to 23 June 2022, if the conditions for net lending were met in the reference period from 1 October 2020 to 31 December 2021.

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 will be determined when the TLTRO III debt matures as a weighted average of the interest rates of all the different interest rate periods.

Although the interest rate for the TLTRO III debt described above is favorable for MuniFin Group, it is 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 treats TLTRO III debt in its entirety as an IFRS 9 financial liability.

Note 34. Liabilities to the public and public sector entities

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Notes to the public and public sector entities	2,529,585	3,324,685
Total	**2,529,585**	**3,324,685**

Note 35. Debt securities issued

(EUR 1,000)	31 Dec 2022 Carrying amount	31 Dec 2022 Nominal value	31 Dec 2021 Carrying amount	31 Dec 2021 Nominal value
Bonds	30,942,233	34,330,170	31,508,271	32,041,076
Other *	4,649,832	4,668,524	3,819,254	3,820,738
Total	**35,592,065**	**38,998,694**	**35,327,525**	**35,861,814**

* 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 2022	Value date	Maturity date	Interest-%	Nominal value (1,000)	Currency
Fixed rate benchmark bond, issued under the MTN programme	25 Jan 2022	25 Feb 2032	0.250%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	17 May 2022	17 May 2029	1.500%	500,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	24 Aug 2022	24 Aug 2027	3.250%	1,000,000	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.

Note 36. Reconciliation of the carrying amount of the issued debt

(EUR 1,000)	2022			2021		
	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	**2,059,906**	**3,324,685**	**35,327,525**	**1,343,358**	**3,884,026**	**32,911,906**
Cash flow changes from operating activities						
Additions to issued debt "bonds"	46,609	147,351	7,680,928	761,335	197,473	7,894,520
Additions to debt securities issued "other"	-	-	25,303,337	-	-	13,219,018
Additions total	**46,609**	**147,351**	**32,984,265**	**761,335**	**197,473**	**21,113,537**
Deductions to issued debt "bonds"	-	-267,534	-5,541,011	-38,567	-587,713	-5,119,486
Deductions to debt securities issued "other"	-	-	-24,472,759	-	-	-13,295,584
Deductions total	**-**	**-267,534**	**-30,013,769**	**-38,567**	**-587,713**	**-18,415,070**
Cash flow changes from operating activities in total	**46,609**	**-120,183**	**2,970,495**	**722,767**	**-390,240**	**2,698,468**
Changes in the balance sheet value including valuations and FX revaluations	-18,332	-674,917	-2,705,955	-6,219	-169,101	-282,849
Carrying amount 31 Dec	**2,088,183**	**2,529,585**	**35,592,065**	**2,059,906**	**3,324,685**	**35,327,525**

Note 37. Provisions and other liabilities

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Provisions		
Restructuring provision	-	-
Other provisions	446	446
Other liabilities		
Lease liabilities	3,269	4,528
Cash collateral taken from CCPs	570,922	333,295
Other	19,210	11,062
Total	**593,848**	**349,331**

Line item *Other provisions* relates to a tax interpretation issue for which the Group requested a preliminary ruling and for which the Group is waiting for the final decision of the Supreme Administrative Court.

	Restructuring provision		Other provisions	
(EUR 1,000)	2022	2021	2022	2021
Carrying amount 1 Jan	-	562	446	-
Increase in provisions	-	-	5,100	446
Provisions used	-	-562	-5,100	-
Carrying amount 31 Dec	**-**	**-**	**446**	**446**

During the financial year 2021, the restructuring provision related to the reorganisation of the Group's operations in financial year 2020 was fully used. Increase in provisions and provision used in 2022 relate to the IT implementation project, which was terminated in 2022.

Note 38. Accrued expenses and deferred income

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Accrued interest expenses	139,779	123,056
Other accrued expenses	8,304	41,812
Deferred income *	18,552	16,864
Total	**166,635**	**181,732**

* Item consists mainly of leasing income.

Note 39. Equity

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Share capital	42,583	42,583
Reserve fund	277	277
Fair value reserve of investments	-4,457	309
Own credit revaluation reserve	-83	64
Cost-of-Hedging reserve	1,488	13,621
Reserve for invested non-restricted equity	40,366	40,366
Retained earnings	1,533,535	1,416,916
Total equity attributable to Parent Company equity holders	**1,613,709**	**1,514,136**
Other equity instruments issued	-	350,000
Transaction costs deducted from other equity instruments issued	-	-2,546
Total other equity instruments issued	**-**	**347,454**
Total equity	**1,613,709**	**1,861,590**

Share capital
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.

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. The proportion of payment made for shares that is not recorded in share capital is recognised in the *Reserve for invested non-restricted equity*. Under the terms of the Parent Company's 2009 share issue, the funds collected through the share issue are recorded in the Reserve for invested non-restricted equity. *Retained earnings* contains the profit of previous periods.

Other issued equity instruments
MuniFin redeemed its EUR 350 million Perpetual Fixed rate Resettable Additional Tier 1 Securities originally issued on 1 October 2015. The redemption date was 1 April 2022, which is 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.

Instrument's terms and conditions:
The capital instrument issued by the Parent Company is an unsecured debenture loan included under Additional Tier 1 capital, with special terms designed to fulfil the requirements set for so-called AT1 capital loans in the Capital Requirements Regulation (EU 575/2013). The loan does not have a maturity date. Interest on the loan may only be paid out of distributable funds in accordance with the terms set in the Capital Requirements Regulation, and MuniFin will decide whether interest will be paid on the interest payment date. The cancellation of interest payments is final, and unpaid interest will not be added to the loan capital. MuniFin has the right but not the obligation to repay the loan on 1 April 2022 or, after that, annually on the interest payment date, as long as the buy-back is approved in advance by the regulatory authority. Due to terms stated above, the AT1 capital loan is recognised as equity in the Consolidated Financial Statements.

The main features of capital instruments are described in further detail in the Pillar III Disclosure Report, which is available on MuniFin's website in English. The Pillar III Disclosure Report is separate from this Report of the Board of Directors and the Financial Statements.

Note 40. Contingent assets and liabilities

The Group has no contingent assets or liabilities at 31 Dec 2022. Previously, the accrued interest on AT1 capital instrument, issued by the Parent Company, comprised contingent liability at the reporting date. The contingent liability was realised as a deduction of equity once the Parent Company decided on the payment of interest. AT1 capital instrument was redeemed at 1 April 2022. At 31 December 2021, MuniFin had a contingent liability of EUR 9,459 thousand.

Note 41. Collateral given

GIVEN COLLATERALS ON BEHALF OF OWN LIABILITIES AND COMMITMENTS (EUR 1,000)	31 Dec 2022	31 Dec 2021
Loans and advances to credit institutions to the counterparties of derivative contracts *	1,400,559	1,310,576
Loans and advances to credit institutions to the counterparties of repurchase agreements **	514	-
Loans and advances to credit institutions to the central bank ***	31,745	35,984
Loans and advances to the public and public sector entities to the central bank ***	3,676,627	4,716,147
Loans and advances to the public and public sector entities to the Municipal Guarantee Board ****	12,101,459	11,474,101
Debt securities to the counterparties of repurchase agreements **	9,580	-
Debt securities to the central counterparty	24,942	-
Other assets to the counterparties of derivative contracts *	1,219,541	238,930
Total	**18,464,967**	**17,775,738**

* 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 GMRA (*General Master Repurchase Agreement*).

*** MuniFin is a monetary policy counterparty approved by the central bank (the Bank of Finland) and for this purpose, collateral has been pledged to the central bank for possible operations related to this counterparty position.

**** MuniFin Group 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 42. Off-balance-sheet commitments

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Credit commitments	2,463,978	2,592,877
Total	**2,463,978**	**2,592,877**

Note 43. 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. 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)	2022	2021
Sales	36	37
Purchases	-145	-548

INTRA-GROUP RECEIVABLES AND LIABILITIES (EUR 1,000)	31 Dec 2022	31 Dec 2021
Receivables	3	6
Liabilities	25	78

Note 44. 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)	2022	2021
President and CEO	-435	-430
Deputy to the CEO	-272	-224
Other members of the Executive Management Team in total	-1,436	-1,307
Total	**-2,142**	**-1,961**

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)	2022	2021
President and CEO	-74	-71
Deputy to the CEO	-46	-37
Other members of the Executive Management Team in total	-244	-216
Total	**-364**	**-324**

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 Pillar III Disclosure Report separate from this Report of Board of Directors and the 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 2022 or 2021.

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 remuneration paid to Mari Tyster under Deputy to the CEO respectively.

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 2022–2023, 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 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 is 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 is paid for the meetings required by the supervisory authorities.

During the term 2021–2022, the annual remuneration was EUR 35,000 for the Chair of the Board, EUR 23,000 for the Vice Chair, EUR 25,000 for the Chairs of Committees and EUR 20,000 for the other members of the Board. The meeting remuneration has remained at the same level. These remunerations are valid also in term 2020–2021.

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	2022	2021
Helena Walldén, Chair until 25 March 2021	-	-14
Kari Laukkanen, Chair 25 March 2021 onwards	-54	-52
Tuula Saxholm, Vice Chair until 25 March 2021	-	-9
Maaria Eriksson, Vice Chair 25 March 2021 onwards	-35	-32
Markku Koponen	-43	-42
Vivi Marttila	-33	-31
Tuomo Mäkinen, elected 25 March 2021	-31	-22
Minna Smedsten, elected 25 March 2021	-34	-22
Denis Strandell	-34	-31
Leena Vainiomäki, elected 25 March 2021	-40	-30
Kimmo Viertola, member until 25 March 2021	-7	-28
Total	**-310**	**-313**

Note 45. 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

Parent Company's Income Statement

(EUR 1,000)	Note	Jan–Dec 2022	Jan–Dec 2021
Interest income	(2)	701,563	497,170
Net income from leasing operations	(3)	10,177	6,366
Interest expense	(2)	-474,631	-239,571
Net interest income		**237,109**	**263,965**
Commission income	(5)	870	978
Commission expense	(5)	-5,514	-5,053
Net income from securities and foreign exchange transactions	(6)	8,140	24,095
Net income from securities		8,288	22,707
Net income from foreign exchange transactions		-148	1,388
Net income on financial assets at fair value through fair value reserve	(8)	-149	-
Net income from hedge accounting	(9, 25)	36,444	4,823
Other operating income	(11)	126	132
Administrative expenses		-36,071	-33,493
Personnel expenses	(48)	-17,558	-16,490
Salaries and fees		-14,527	-13,671
Personnel-related costs		-3,031	-2,820
Pension costs		-2,526	-2,208
Other personnel-related costs		-505	-612
Other administrative expenses		-18,512	-17,003
Depreciation and impairment on tangible and intangible assets	(12)	-10,299	-16,091
Other operating expenses	(13)	-19,833	-15,876
Expected credit losses on financial assets at amortised cost	(14)	120	-105
Expected credit losses and impairments on other financial assets	(14)	-3	0
Net operating profit		**210,941**	**223,376**
Appropriations		-38,342	-52,193
Income taxes		-34,538	-34,374
Profit for the financial year		**138,061**	**136,809**

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

Parent Company's Balance Sheet

(EUR 1,000)	Note	31 Dec 2022	31 Dec 2021
Assets			
Cash and balances with central banks	(17)	2	8,399,045
Cash		2	2
Central bank receivables payable on demand		-	8,399,043
Debt securities eligible for central bank refinancing	(20)	2,890,174	3,312,054
Other		2,890,174	3,312,054
Loans and advances to credit institutions	(18)	9,624,470	1,416,564
Payable on demand		47,604	35,712
Other		9,576,866	1,380,851
Loans and advances to the public and public sector entities	(19)	27,841,267	27,879,897
Leased assets	(21)	1,303,094	1,334,146
Debt securities	(20)	1,896,594	1,529,374
From public sector entities		1,246,326	930,252
From others		650,267	599,122
Shares and participations	(23)	-	-
Shares and participations in Group companies	(23)	656	656
Derivative contracts	(24)	2,707,103	1,999,676
Intangible assets	(26, 28)	8,837	12,305
Tangible assets	(27, 28)	4,835	7,188
Other tangible assets		4,835	7,188
Other assets	(29)	1,234,662	255,938
Accrued income and prepayments	(30)	223,088	212,612
Deferred tax assets	(31)	763	-
Total assets	**(16, 37, 38, 40)**	**47,735,546**	**46,359,453**

(EUR 1,000)	Note	31 Dec 2022	31 Dec 2021
Liabilities and equity			
Liabilities			
Liabilities to credit institutions and central banks		2,332,623	2,801,016
To central banks		2,000,000	2,000,000
To credit institutions		332,623	801,016
Other		332,623	801,016
Liabilities to the public and public sector entities		2,529,585	3,324,685
Other liabilities		2,529,585	3,324,685
Debt securities issued	(32)	35,592,065	35,327,525
Bonds		30,942,233	31,508,271
Other		4,649,832	3,819,254
Derivative contracts	(24)	4,616,111	2,224,294
Other liabilities	(33)	593,547	349,014
Other liabilities		593,101	348,568
Provisions		446	446
Accrued expenses and deferred income	(34)	166,274	193,323
Subordinated liabilities	(35)	-	349,878
Deferred tax liabilities	(31)	-	3,499
Total liabilities	**(16, 37, 38, 40)**	**45,830,205**	**44,573,233**

(EUR 1,000)	Note	31 Dec 2022	31 Dec 2021
Appropriations			
Depreciation difference		62,910	27,718
Taxation based provisions		1,395,680	1,392,530
Total appropriations		**1,458,590**	**1,420,248**
Equity	**(42, 43, 44)**		
Share capital		43,008	43,008
Other restricted reserves		-2,775	14,271
Reserve fund		277	277
Fair value reserve		-3,052	13,994
Change in fair value		-3,052	13,994
Non-restricted reserves		40,743	40,743
Reserve for invested non-restricted equity		40,743	40,743
Retained earnings		227,714	131,141
Profit for the financial year		138,061	136,809
Total equity		**446,750**	**365,972**
Total liabilities and equity		**47,735,546**	**46,359,453**
Off-balance sheet commitments	**(47)**		
Irrevocable commitments given in favour of customer		2,463,978	2,592,877

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

Parent Company's Statement of Cash Flows

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Cash flow from operating activities	**-7,991,589**	**2,734,814**
Net change in long-term funding	2,063,033	3,085,073
Net change in short-term funding	1,103,027	-354,008
Net change in long-term loans	-1,637,350	-1,580,112
Net change in short-term loans	-368,992	224,130
Net change in investments	-7,919,967	667,724
Net change in collaterals	-1,332,255	480,083
Interest on assets	97,307	16,879
Interest on liabilities	78,156	205,845
Other income	52,430	72,778
Payments of operating expenses	-60,259	-87,158
Taxes paid	-66,720	3,579
Cash flow from investing activities	**-3,550**	**-7,747**
Acquisition of tangible assets	-16	-3
Proceeds from sale of tangible assets	149	226
Acquisition of intangible assets	-3,684	-7,970
Cash flow from financing activities	**-392,012**	**-22,116**
Change in subordinated liabilities	-350,000	-
Dividends paid	-40,236	-20,313
Total cash flow from leases	-1,776	-1,803
Change in cash and cash equivalents	**-8,387,151**	**2,704,951**
Cash and cash equivalents at 1 January	**8,434,757**	**5,729,806**
Cash and cash equivalents at 31 December	**47,606**	**8,434,757**

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

Notes to the Parent Company's Financial Statements

MuniFin

Notes to the Parent Company's accounting policies

Note 1. Significant accounting policies of the Parent Company's 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 *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.

AT1 capital loan

MuniFin redeemed its EUR 350 million Perpetual Fixed rate Resettable Additional Tier 1 Securities originally issued on 1 October 2015. The redemption date was 1 April 2022, which 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. The loan terms and conditions are disclosed in Note *35 Subordinated liabilities*. In the Parent Company's Financial Statements the AT1 capital loan is recognised as debt under the balance sheet item *Subordinated liabilities*. Interest paid on the AT1 capital loan is recognised in the income statement under *Interest expense*. AT1 capital loan is recognised as equity in the Consolidated Financial Statements. Interest payments are recognised in the Consolidated Financial Statements as a deduction from equity in accordance with the issuer's interest payment decisions.

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 2022			Jan–Dec 2021		
(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	-	-38,619	-38,619
Loans and advances to credit institutions	8,290	-8,346	-56	46	-7,841	-7,796
Loans and advances to the public and public sector entities	220,905	-	220,905	188,484	-	188,484
Debt securities	5,345	-3,206	2,140	9	-5,335	-5,326
Other assets	8,019	-	8,019	1,121	-	1,121
Fair value through fair value reserve						
Debt securities	9	-	9	-	-589	-589
Designated at fair value through profit or loss						
Loans and advances to the public and public sector entities	348	-	348	236	-	236
Debt securities	9,436	-	9,436	8,422	-	8,422
Mandatorily at fair value through profit or loss						
Loans and advances to the public and public sector entities	827	-	827	933	-	933
Debt securities	-	-	-	-	-	-
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	92,225	-87,665	4,560	76,104	-99,734	-23,630
Derivative contracts in hedge accounting	-34,804	-	-34,804	-93,724	-	-93,724
Leased assets	10,177	-	10,177	6,366	-	6,366
Interest on non-financial other assets	6	-	6	8	-	8
Interest on assets	**351,089**	**-126,045**	**225,044**	**188,005**	**-152,119**	**35,886**
, of which interest income/expense according to the effective interest method	*272,870*	*-38,380*		*189,660*	*-52,385*	

	Jan–Dec 2022			Jan–Dec 2021		
(EUR 1,000)	Interest and similar income	Interest and similar expense	Net	Interest and similar income	Interest and similar expense	Net
Liabilities						
Amortised cost						
Liabilities to credit institutions	11,575	-12,570	-995	20,118	-949	19,169
Liabilities to the public and public sector entities	-	-44,838	-44,838	-	-51,503	-51,503
Debt securities issued	778	-263,148	-262,370	1,711	-219,984	-218,273
Subordinated liabilities	-	-4,049	-4,049	-	-16,240	-16,240
Other liabilities	-	-4,282	-4,282	-	-2,177	-2,177
Designated at fair value through profit or loss						
Liabilities to credit institutions	-	-54	-54	-	-30	-30
Liabilities to the public and public sector entities	-	-34,195	-34,195	-	-32,726	-32,726
Debt securities issued	-	-157,748	-157,748	14	-78,466	-78,452
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	348,298	-139,384	208,915	293,688	-96,628	197,061
Derivative contracts in hedge accounting	-	311,682	311,682	-	411,252	411,252
Interest on liabilities	**360,651**	**-348,586**	**12,066**	**315,531**	**-87,452**	**228,079**
, of which interest income/expense according to the effective interest method	*12,355*	*-328,887*		*21,829*	*-290,854*	
Total interest income and expense	**711,740**	**-474,631**	**237,109**	**503,536**	**-239,571**	**263,965**
, of which interest income from leasing operations	*10,177*			*6,366*		
Total interest income and expense excluding interest income from leasing operations	**701,563**			**497,170**		

MuniFin

Interest income on stage 3 financial assets in the expected credit loss (*ECL*) calculations totalled EUR 743 thousand (EUR 951 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 47 thousand (EUR 66 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 consists of interest paid on central bank deposits and interest on loans and advances to credit institutions of interest on cash collateral receivables. Interest expenses on debt securities consists of interest paid on short-term lending. Negative interest arises on debt securities at fair value through fair value reserve due to the premium / discount amortisation of debt securities and commercial papers. 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 consists of interest received on cash collateral liabilities as well as on TLTRO III debt and interest income on debt securities issued consists 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. The derivatives 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 2022	Jan–Dec 2021
Leasing income	88,343	71,463
Depreciation on leased assets according to plan	-78,590	-65,111
Capital gains on leased assets	425	15
Total	**10,177**	**6,366**

Note 4. Income from equity investments

The Company has not received dividend income from its subsidiary in financial years 2022 and 2021.

Note 5. Commission income and expense

(EUR 1,000) COMMISSION INCOME	Jan–Dec 2022	Jan–Dec 2021
From other operations	870	978
Total	**870**	**978**
COMMISSION EXPENSE		
Commission fees paid	-269	-248
Other	-5,245	-4,805
Total	**-5,514**	**-5,053**
Net commission income	**-4,644**	**-4,075**

In commission expense line item *Other* includes i.e. paid guarantee fees, custody fees and funding programme update costs.

Note 6. Net income from securities and foreign exchange transactions

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
Total net income from securities transactions	**205**	**8,083**	**8,288**
Net income from foreign exchange transactions	**-11,124**	**10,976**	**-148**
Total	**-10,918**	**19,058**	**8,140**

Jan–Dec 2021 (EUR 1,000)	Capital gains and losses (net)	Changes in fair value	Total
Derivative contracts at fair value through profit or loss	910	-204,471	-203,560
Designated at fair value through profit or loss	-	229,029	229,029
Mandatorily at fair value through profit or loss	-23	-2,532	-2,554
Day 1 gain or loss	-	-208	-208
Total net income from securities transactions	**888**	**21,819**	**22,707**
Net income from foreign exchange transactions	**53**	**1,336**	**1,388**
Total	**940**	**23,155**	**24,095**

Note 7. Financial assets and 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 2022	Carrying amount 31 Dec 2022	Nominal value 31 Dec 2021	Carrying amount 31 Dec 2021
Financial assets				
Loans and advances to the public and public sector entities	30,000	28,432	30,000	38,941
Debt securities	3,355,906	3,162,034	3,484,223	3,539,074
Total financial assets *	**3,385,906**	**3,190,465**	**3,514,223**	**3,578,015**
Financial liabilities				
Liabilities to credit institutions	5,000	3,291	5,000	4,787
Liabilities to the public and public sector entitities	1,495,567	1,318,658	1,445,202	1,548,394
Debt securities issued	11,505,250	10,842,676	10,680,831	10,008,299
Total financial liabilities	**13,005,818**	**12,164,626**	**12,131,032**	**11,561,479**

* 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 2022 and 31 Dec 2021.

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**

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 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 SECURITIES TRANSACTIONS (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**

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 and financial liability. The financial liabilities designated at fair value through profit or loss consist of financial liabilities, which have been hedged according to the Company'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 as change of the Own credit revaluation reserve, is presented in *Net income from securities transactions*.

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 2021	1 Jan 2021	Fair value change recognised in the income statement Jan–Dec 2021	, of which due to credit risk	, of which due to market risk
Financial assets					
Loans and advances to the public and public sector entities	-769	-	-769	13	-782
Debt securities	20,226	69,859	-49,633	4,434	-54,067
Total financial assets	**19,457**	**69,859**	**-50,402**	**4,446**	**-54,849**

CHANGE IN FAIR VALUE OF FINANCIAL LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS (EUR 1,000)	31 Dec 2021	1 Jan 2021	Fair value change recognised in the income statement Jan–Dec 2021	Change in own credit risk recognised in the own credit revaluation reserve Jan–Dec 2021	Total fair value change in Jan–Dec 2021
Financial liabilities					
Liabilities to credit institutions	187	418	-231	26	-205
Liabilities to the public and public sector entitities	-152,113	-244,146	92,032	1,729	93,761
Debt securities issued	573,054	385,424	187,630	-1,356	186,274
Total financial liabilities	**421,127**	**141,696**	**279,431**	**400**	**279,831**

NET CHANGE IN FAIR VALUE IN NET INCOME FROM SECURITIES TRANSACTIONS (EUR 1,000)	Cumulative change in fair value 31 Dec 2021	Fair value change recognised in the income statement Jan–Dec 2021
Financial liabilities designated at fair value through profit or loss	421,127	279,431
Derivative contracts at fair value through profit or loss hedging financial liabilities	-435,559	-267,712
Net change in fair value	**-14,432**	**11,719**

Note 8. Net income on financial assets at fair value through fair value reserve

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Capital gains from financial assets	-	-
Capital losses from financial assets	-149	-
Unrealised gains transferred from fair value reserve	-	-
Unrealised losses transferred from fair value reserve	-	-
Total	**-149**	**-**

Note 9. Net income from hedge accounting

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Net income from hedging instruments	-1,448,952	-474,604
Net income from hedged items	1,485,395	480,729
IBOR reform related compensations *	-	-1,302
Total	**36,444**	**4,823**

* 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 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 under item *Net income from foreign exchange transactions* in Note *6*. A specification of the net income from hedge accounting is presented in Note *25*.

Note 10. 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 in the implementation of IFRS 9 standard.

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

* 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 2021	Fair value gain or loss for the financial year	EIR determined as at 1 Jan 2018	Interest revenue recognised during Jan–Dec 2021
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	99,253	-1,589	0.14%	422

Note 11. Other operating income

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Other income from credit institution operations	126	132
Total	**126**	**132**

Note 12. Depreciation and impairment on tangible and intangible assets

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Depreciation		
Depreciation on tangible assets	-2,843	-2,826
Depreciation on intangible assets	-2,894	-2,783
Total depreciation	**-5,737**	**-5,609**
Impairment		
Impairment on intangible assets *	-4,562	-10,482
Total impairment	**-4,562**	**-10,482**
Total depreciation and impairment	**-10,299**	**-16,091**

* Line item includes a non-recurring item of EUR 4,562 thousand (EUR 10,482 thousand), which consists of impairment on a significant terminated IT system implementation.

Note 13. Other operating expenses

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Regulatory expenses		
Contributions to the Single Resolution Fund	-9,185	-6,737
Other administrative and supervisory fees	-2,324	-2,352
Rental expenses	-414	-133
External services	-5,590	-4,368
Credit rating fees	-748	-753
Audit fees *	-503	-422
Insurances	-897	-575
Other expenses from credit institution operations	-172	-535
Total	**-19,833**	**-15,876**

* Paid fees to the auditor (KPMG Oy Ab) in 2022 totalled EUR 503 thousand (EUR 422 thousand) for audit, EUR 28 thousand (EUR 21 thousand) for tax services and EUR 189 thousand (EUR 181 thousand) for other services. Assigments as referred to in section 1, subsection 1, paragraph 2 of the Auditing Act in 2022 totalled EUR 16 thousand (EUR 0 thousand).
Audit and other fees paid to the audit firm are specified in Note *51*.

Note 14. 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 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	-	-	-
Guarantee receivables from the public and public sector entities in Other assets	-	-	-	-	-	-
Total expected credit losses and impairments on other financial assets	**-29**	**26**	**-3**	**-**	**-**	**-**
Total	**-1,364**	**1,481**	**118**	**-**	**-**	**-**

* 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 2021 (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	0	-	-	-
Loans and advances to credit institutions	-53	14	-39	-	-	-
Loans and advances to the public and public sector entities	-713	655	-58	-	-	-
Leased assets	0	1	0	-	-	-
Debt securities	0	0	0	-	-	-
Cash collateral to CCPs in Other assets	-9	0	-9	-	-	-
Credit commitments (off-balance sheet)	-2	3	1	-	-	-
Total expected credit losses on financial assets at amortised cost	**-778**	**674**	**-105**	**-**	**-**	**-**
Expected credit losses and impairments on other financial assets						
Debt securities at fair value through fair value reserve	-18	19	0	-	-	-
Guarantee receivables from the public and public sector entities in Other assets	-	-	-	-	-	-
Total expected credit losses and impairments on other financial assets	**-18**	**19**	**0**	**-**	**-**	**-**
Total	**-797**	**692**	**-104**	**-**	**-**	**-**

Note 15. 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 16. Financial assets and liabilities

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	-	-	-	-	-	-	-
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
Subordinated liabilities	-	-	-	-	-
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.

FINANCIAL ASSETS 31 Dec 2021 (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	8,399,045	-	-	-	-	8,399,045	8,399,045
Loans and advances to credit institutions	1,416,564	-	-	-	-	1,416,564	1,416,564
Loans and advances to the public and public sector entities	27,805,752	-	38,941	35,204	-	27,879,897	30,045,876
Leased assets	242,936	-	-	-	-	242,936	255,907
Debt securities	1,088,888	213,466	3,539,074	-	-	4,841,428	4,841,792
Shares and participations	-	-	-	-	-	-	-
Shares and participations in Group companies	-	-	-	656	-	656	656
Derivative contracts at fair value through profit or loss	-	-	-	-	761,023	761,023	761,023
Derivative contracts in hedge accounting	-	-	-	-	1,238,653	1,238,653	1,238,653
Other assets *	238,930	-	-	-	-	238,930	238,930
Total	**39,192,115**	**213,466**	**3,578,015**	**35,860**	**1,999,676**	**45,019,131**	**47,198,446**

* Line item includes cash collateral given to central counterparties.

FINANCIAL LIABILITIES 31 Dec 2021 (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	2,796,230	4,787	-	2,801,016	2,800,913
Liabilities to the public and public sector entities	1,776,291	1,548,394	-	3,324,685	3,344,334
Debt securities issued	25,319,226	10,008,299	-	35,327,525	35,434,600
Derivative contracts at fair value through profit or loss	-	-	1,114,003	1,114,003	1,114,003
Derivative contracts in hedge accounting	-	-	1,110,291	1,110,291	1,110,291
Other liabilities *	337,526	-	-	337,526	337,526
Subordinated liabilities	349,878	-	-	349,878	354,683
Total	**30,579,151**	**11,561,479**	**2,224,294**	**44,364,925**	**44,496,351**

* Line item includes EUR 333,295 thousand of cash collateral received from central counterparties and EUR 4,231 thousand of lease liabilities in accordance with IFRS 16 standard.

Note 17. 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 2022	31 Dec 2021
Cash and balances with central banks	2	8,399,045
Loans and advances to credit institutions payable on demand	47,604	35,712
Total cash and cash equivalents	**47,606**	**8,434,757**

Note 18. Loans and advances to credit institutions

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**

31 Dec 2021 (EUR 1,000)	Payable on demand	Other than payable on demand	Expected credit losses	Total
Receivables from central bank	-	35,984	0	35,984
Domestic credit institutions	12,382	34,300	-8	46,674
Foreign credit institutions	23,330	1,310,650	-74	1,333,906
Total	**35,712**	**1,380,934**	**-82**	**1,416,564**

Note 19. Loans and advances to the public and public sector entities

(EUR 1,000)	31 Dec 2022 Total	31 Dec 2022 , of which expected credit losses	31 Dec 2021 Total	31 Dec 2021 , of which expected credit losses
Enterprises and housing corporations	14,862,774	-595	14,675,547	-1,002
Public sector entities	12,635,898	-173	12,847,172	-88
Non-profit organisations	342,595	-3	357,179	-57
Total	**27,841,267**	**-772**	**27,879,897**	**-1,147**

Note 20. Debt securities

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**
Municipal 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**

* 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 2022, debt securities contain a security, notional value of EUR 10,000 thousand, that is given as collateral for reverse repo agreement. In addition, the Company 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, MuniFin has no debt securities measured mandatorily at fair value through profit or loss.

DEBT SECURITIES ISSUED BY PUBLIC SECTOR ENTITIES 31 Dec 2021 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**930,252**	**930,252**	**0**
Municipal commercial papers	-	930,252	930,252	0
Fair value through fair value reserve	**74,959**	**-**	**74,959**	**-1**
Bonds issued by other public sector entities	74,959	-	74,959	-1
Designated at fair value through profit or loss	**1,703,953**	**-**	**1,703,953**	**-**
Government bonds	180,437	-	180,437	-
Bonds issued by other public sector entities	1,523,516	-	1,523,516	-
Total	**1,778,912**	**930,252**	**2,709,164**	**-1**
, of which eligible for central bank refinancing	*1,572,169*	-	*1,572,169*	*0*

DEBT SECURITIES ISSUED BY OTHER THAN PUBLIC SECTOR ENTITIES 31 Dec 2021 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Amortised cost	**-**	**158,636**	**158,636**	**0**
Commercial papers	-	158,636	158,636	0
Fair value through fair value reserve	**138,506**	**-**	**138,506**	**-41**
Bank bonds	138,506	-	138,506	-41
Designated at fair value through profit or loss	**1,835,121**	**-**	**1,835,121**	**-**
Bank bonds	1,835,121	-	1,835,121	-
Total	**1,973,627**	**158,636**	**2,132,263**	**-41**
, of which eligible for central bank refinancing	*1,739,885*	-	*1,739,885*	*-30*

31 Dec 2021 (EUR 1,000)	Publicly quoted	Other	Total	Expected credit losses
Debt securities total	**3,752,539**	**1,088,888**	**4,841,428**	**-41**

Note 21. Leased assets

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Prepayments	317,076	500,763
Machinery and equipment	252,030	267,337
Fixed assets and buildings	733,744	565,732
Other assets	274	315
Expected credit losses	-28	-2
Total	**1,303,094**	**1,334,146**

Note 22. Credit risks of financial assets and other commitments

MuniFin's credit risks are described in the Consolidated Financial Statements's 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

31 Dec 2022 (EUR 1,000)	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 3 *			
	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
Guarantee receivables from the public and public sector entities in Other assets	-	-	-	-	-	-	-	-
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**

* 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 the Group'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 2,144 thousand (EUR 2,345 thousand) of originated credit impaired receivables (*purchased or originated credit impaired, POCI*). Expected credit losses for the POCI receivables amount to EUR 8 thousand (EUR 7 thousand).

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EXPOSURES BY ASSET GROUPS AND IMPAIRMENT STAGES

31 Dec 2021 (EUR 1,000)	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 3			
	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	8,399,045	0	-	-	-	-	8,399,045	0
Loans and advances to credit institutions at amortised cost	1,416,564	-82	-	-	-	-	1,416,564	-82
Loans and advances to the public and public sector entities at amortised cost	27,457,506	-23	220,730	-578	127,517	-546	27,805,752	-1,147
Leased assets at amortised cost	1,333,987	-2	-	-	159	-	1,334,146	-2
Debt securities at amortised cost	1,079,338	0	9,550	0	-	-	1,088,888	0
Debt securities at fair value through fair value reserve	213,466	-41	-	-	-	-	213,466	-41
Cash collateral to CCPs in Other assets at amortised cost	238,930	-13	-	-	-	-	238,930	-13
Guarantee receivables from the public and public sector entities in Other assets	1,752	-	-	-	-	-	1,752	-
Credit commitments (off-balance sheet)	2,585,201	-4	3,167	0	4,506	0	2,592,873	-4
Total	**42,725,787**	**-166**	**233,447**	**-578**	**132,182**	**-546**	**43,091,415**	**-1,289**

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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 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**

* Represents changes in the model.
** Represents changes to model parameters (e.g. GDP rates, unemployment rates)

MuniFin finished ECL IT and model development during the second half of the year 2022. With the development, changes have been made to the assessment criteria for significant increase in credit risk (*SICR*), and to the models of probability of default (*PD*) and loss given default (*LGD*). In addition, macro scenarios were updated to take into account forward-looking information at the end of financial year. Expected credit losses increased by EUR 426 thousand due to the changes in models and parameters.

MuniFin recorded an additional discretionary provision (*management overlay*) at the end of 2021 to take into account IT and model changes that will take place in 2022. The amount of additional discretionary provision was increased at the end of June 2022. The additional discretionary provision based on a group-specific assessment and decided by MuniFin's management was EUR 916 thousand. Since the IT and model development were finished in the second half of the 2022, the additional discretionary provision based on the group-specific assessment was removed. The addiotional provision was recognised under the balance sheet item *Loans and advances to the public and public sector entities*. The additional provision was not allocated to contract level.

MuniFin total credit risk has still remained low and the amount of ECL remains low. Municipalities' tax development was positive during 2022. The year 2023 is estimated to be remarkably strong for the local government finances, despite the weakened economic outlook, as the tax revenue-cutting effect of the health and social services reform will only be seen in full impact on 2024. During 2022, the ongoing energy crisis, rising interest rates and inflation have not yet had a significant effect on MuniFin's customers' ability to pay or creditworthiness. MuniFin's customer exposures have zero risk weight in the capital adequacy calculation because they are from Finnish municipalities, joint municipal authorities or wellbeing services counties, or involve a municipal, joint municipal authority or wellbeing services county guarantee or a state deficiency guarantee supplementing the real estate collateral as described in the Consolidated Financial Statements in Note *2 Risk management principles and the Group's risk position* under Section *7. Credit risk*. The management estimates that all receivables will be recovered in full and therefore no final credit loss will arise. On 31 December 2022, MuniFin had total of EUR 4 million (EUR 19 million) in guarantee receivables from the public sector due to the insolvency of customers. Credit risk of the liquidity portfolio has remained on a good quality level with the average rating of 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 2021	**-126**	**-835**	**-224**	**-1,184**	**39,716,876**
New assets originated or purchased	-41	56	-13	3	9,637,333
Assets derecognised or repaid (excluding write-offs)	46	101	55	203	-6,262,486
Transfers to Stage 1	0	18	-	18	18
Transfers to Stage 2	0	-203	60	-143	-143
Transfers to Stage 3	0	1	-1	1	1
Additional provision *(Management overlay)*	-	340	-430	-90	-90
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-46	-56	6	-96	-94
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2021	**-166**	**-578**	**-546**	**-1,289**	**43,091,415**

In 2021, MuniFin made changes to macro scenarios and loss given default parameters in expected credit loss calculations, which increased ECL by EUR 96 thousand. There were no changes in the ECL model.

At the end of 2021, MuniFin recorded an additional discretionary provision (*management overlay*) of EUR 430 thousand to take into account ECL model changes that will take place in 2022. The assessment of the need for additional provision was based on the fact that MuniFin's management estimated that due to the model changes, part of the exposures would transfer to stage 2 in the expected credit loss calculations when ECL is calculated for the lifetime of the contract instead of a 12-month ECL, or in some cases LGD would increase. In addition, model changes were expected to have an effect on the amount of ECL in stage 3. Since the IT and model development were finished in the second half of the 2022, the additional dicreationary provision based on the group-specific assessment was removed in the financial year 2022. The additional provision related to the balance sheet line item *Loans and advances to the public and public sector entities*. The additional provision was not allocated to contract level.

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 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 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 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 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 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 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 the 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

(EUR 1,000)	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
	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 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 2022	**-4**	**0**	**0**	**-4**	**2,592,873**
New assets originated or purchased	-9	0	-	-9	1,608,254
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**

The loss allowance on binding credit commitments is recognised under *Other liabilities*. More details regarding the 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 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 2021	**0**	**-**	**-**	**0**	**5,565,801**
New assets originated or purchased	0	-	-	0	2,833,244
Assets derecognised or repaid (excluding write-offs)	0	-	-	0	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 2021	**0**	**-**	**-**	**0**	**8,399,045**

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 2021	**-43**	**-**	**-**	**-43**	**1,840,980**
New assets originated or purchased	-10	-	-	-10	353,939
Assets derecognised or repaid (excluding write-offs)	14	-	-	14	-778,312
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-43	-	-	-43	-43
Total 31 Dec 2021	**-82**	**-**	**-**	**-82**	**1,416,564**

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 2021	**-30**	**-835**	**-224**	**-1,089**	**26,886,947**
New assets originated or purchased	-11	56	-13	33	3,238,833
Assets derecognised or repaid (excluding write-offs)	10	101	55	167	-2,319,771
Transfers to Stage 1	0	18	-	18	18
Transfers to Stage 2	0	-203	60	-143	-143
Transfers to Stage 3	-	1	-1	1	1
Additional provision *(Management overlay)*	-	340	-430	-90	-90
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	7	-56	6	-44	-44
Write-offs	-	-	-	-	-
Total 31 Dec 2021	**-23**	**-578**	**-546**	**-1,147**	**27,805,752**

EXPECTED CREDIT LOSSES ON LEASED ASSETS AT AMORTISED COSTBY 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 2021	**-2**	**0**	**0**	**-2**	**1,090,940**
New assets originated or purchased	0	-	-	0	310,062
Assets derecognised or repaid (excluding write-offs)	0	-	0	0	-66,857
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	1	-	0	1	1
Total 31 Dec 2021	**-2**	**0**	**0**	**-2**	**1,334,146**

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 2021	**0**	**0**	**-**	**0**	**1,310,305**
New assets originated or purchased	0	0	-	0	1,088,888
Assets derecognised or repaid (excluding write-offs)	0	0	-	0	-1,310,305
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 31 Dec 2021	**0**	**0**	**-**	**0**	**1,088,888**

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 2021	**-42**	**-**	**-**	**-42**	**423,050**
New assets originated or purchased	-16	-	-	-16	28,176
Assets derecognised or repaid (excluding write-offs)	19	-	-	19	-237,760
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-2	-	-	-2	
Total 31 Dec 2021	**-41**	**-**	**-**	**-41**	**213,466**

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 2021	**-4**	**-**	**-**	**-4**	**243,269**
New assets originated or purchased	-1	-	-	-1	22,942
Assets derecognised or repaid (excluding write-offs)	0	-	-	0	-27,272
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-8	-	-	-8	-8
Total 31 Dec 2021	**-13**	**-**	**-**	**-13**	**238,930**

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 2021	**-**	**-**	**-**	**-**	**1,606**
New assets originated or purchased	-	-	-	-	145
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 2021	**-**	**-**	**-**	**-**	**1,752**

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 2021	**-4**	**0**	**0**	**-4**	**2,353,978**
New assets originated or purchased	-2	0	-	-2	1,761,104
Assets derecognised or repaid (excluding write-offs)	3	-	0	3	-1,522,209
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	0	0	0	
Changes to models and inputs used for ECL calculations	0	-	0	0	
Total 31 Dec 2021	**-4**	**0**	**0**	**-4**	**2,592,873**

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 2022			31 Dec 2021		
SCENARIO	**2023**	**2024**	**2025**	**2022**	**2023**	**2024**
Adverse	30%	30%	30%	40%	40%	40%
Base	60%	60%	60%	50%	50%	40%
Optimistic	10%	10%	10%	10%	10%	20%

MuniFin 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 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 2022			31 Dec 2021		
MACROECONOMIC VARIABLES	**Scenario**	**2023**	**2024**	**2025**	**2022**	**2023**	**2024**
10Y Fin Government rate, %	Adverse	4.0	3.6	3.4	1.2	0.5	0.3
	Base	3.2	3.1	3.2	0.3	0.6	0.8
	Optimistic	2.2	1.9	1.8	0.8	1.1	1.2
Residential Real Estate (selling price, YoY change), %	Adverse	-13.0	0.0	2.0	-8.0	-7.0	-2.0
	Base	-2.0	2.0	1.5	-2.0	-3.0	-1.4
	Optimistic	0.0	3.0	2.5	3.5	3.0	1.5
Unemployment rate, %	Adverse	9.5	9.0	8.5	8.7	9.2	8.5
	Base	7.4	7.3	6.8	6.9	6.5	6.3
	Optimistic	6.5	6.0	5.8	6.5	6.0	5.8

The Russian invasion of Ukraine has fundamentally changed the outlook of the Finnish economy. Not only has consumer confidence weakened, but business expectations have also taken a clear downward turn. Despite the challenging outlook, however, the Finnish economy is facing the future from a better position than it did when the COVID-19 pandemic hit. The service sector has revitalised after COVID restrictions were lifted, and employment rate is still at its highest level since early 1990's. The growth outlook is nevertheless bound to deteriorate because of rising living costs and rapidly tightening monetary policy. MuniFin Group expects output to contract 0.5% in 2023. From 2024 onwards, the economy will gradually converge back to its long-term growth path and the annual pace of expansion is around 1.5%. Unemployment is expected to rise above 7% in 2023–2024. Unemployment rate returns to a moderately declining trend from 2025 onwards. In the near term, high energy and food prices continue to contribute to inflationary pressures. In the base scenario, Finnish consumer prices rise 6.7% in 2022. Annual CPI inflation is expected to decline to 4.0% in 2023 and stabilise around 2% in 2024–2026. To make sure that future inflation expectations remain well anchored, the European Central Bank (*ECB*) is expected to continue raising interest rates in the first half of 2023. The pace of monetary tightening slows down, however, as cost pressures gradually ease off. On the national level, higher interest rates mitigate households' home buying intentions. Home prices cease to rise in 2022 and they are expected to contract 2.0% in 2023. For the rest of the projection period, the annual increase in home prices is expected to settle around 1.5–2.0%.

Compared to the base scenario, MuniFin Group's upside (optimistic) scenario factors in the economic impact of the war in Ukraine to be less severe and inflationary pressures to ease somewhat quicker. As a result, the Finnish GDP would grow faster in the subsequent two years (1.0% in 2023 and 2.5% in 2024). In the upside scenario, unemployment rate continues its slow decline during the whole projection period. Consumer price inflation accelerates to 6.0% in 2022 but cools down back to 2.5% already in 2023. Despite rising interest rates, relatively steady housing demand prevents home prices from contracting in 2023. Thereafter, consumer and home prices rise at about 2.0–3.0% pace in 2024–2026. As inflation starts declining sooner, in the optimistic scenario the ECB raises interest rates less in 2023 than in the base scenario. As a result, market interest rates also rise more slowly.

MuniFin Group's downside (adverse) scenario represents a deeply stagflationary outcome where the war in Ukraine leads to more persistent inflation and a contracting real economy. Economic recession continues well into 2024. Unemployment rises more and remains high much longer than in the base scenario. Rising energy and food prices trigger a wage inflation spiral, making it harder for the the ECB to get future inflation expectations under control. The ECB is forced to raise interest rates much higher than in the base case, deepening the contraction in GDP. CPI inflation remains well above ECB's target through 2024. Lack of demand in the housing market leads to a sharp decline in home prices. Prolonged global recession creates tensions in financial markets, giving rise to wider risk premia in asset pricing.

The following table presents the sensitivity of the expected credit losses to the forward-looking information assuming 100% weight for the adverse scenario until 2024 (2023).

SENSITIVITY ANALYSIS (EUR 1,000)	**31 Dec 2022** Weighted scenario	**31 Dec 2022** Adverse scenario (100%)	**31 Dec 2021** Weighted scenario	**31 Dec 2021** Adverse scenario (100%)
ECL	1,171	1,547	859	1,150
Proportion of the exposure in Stage 2 and 3	1.27%	2.57%	0.86%	1.15%

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 2022 (EUR 1,000)	Performing exposures	Non-performing exposures	Total exposures	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**

NON-PERFORMING AND FORBORNE EXPOSURES 31 Dec 2021 (EUR 1,000)	Performing exposures	Non-performing exposures	Total exposures	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	16,813	16,813	-82	16,731
Unlikely to be paid	-	85,559	85,559	-8	85,551
Forborne exposures	61,862	25,849	87,711	-238	87,473
Total	**61,862**	**128,221**	**190,083**	**-328**	**189,755**

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. MuniFin considers a loan forborne when such concessions or modifications are provided as a result of the borrower's present or expected financial difficulties and MuniFin 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. The Company therefore offered concessions to the payment terms of loans to those customers whose finances had been temporarily affected by the pandemic. Only a few individual repayment holidays have been extended during 2022 and 2021. 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 MuniFin's leasing customers.

Realised credit losses

MuniFin has not had any final realised credit losses during the financial year or the comparison year.

Note 23. Shares and participations

31 Dec 2022 (EUR 1,000)	Publicly quoted	Other	Total	, of which in credit institutions
Mandatorily at fair value through profit or loss	-	-	-	-
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 2021 (EUR 1,000)	Publicly quoted	Other	Total	, of which in credit institutions
Mandatorily at fair value through profit or loss	-	-	-	-
Shares and participations in Group companies	-	656	656	-
Total	**-**	**656**	**656**	**-**
, of which at acquisition cost	-	*656*	*656*	-

Note 24. Derivative contracts

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**

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 received or paid from derivative contracts is included in the balance sheet line items *Accrued income and prepayments* and *Accrued expenses and deferred income*.

31 Dec 2021 (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	2,409,728	12,470,328	17,727,331	32,607,387	756,203	-384,289
, of which cleared by the central counterparty	*2,233,780*	*11,834,195*	*16,946,320*	*31,014,295*	*682,416*	*-308,205*
Currency derivatives						
Cross currency interest rate swaps	3,437,953	8,396,354	782,448	12,616,756	482,450	-726,003
Total derivative contracts in hedge accounting	**5,847,682**	**20,866,681**	**18,509,780**	**45,224,143**	**1,238,653**	**-1,110,291**
Derivative contracts at fair value through profit or loss						
Interest rate derivatives						
Interest rate swaps	3,940,682	8,043,879	4,491,216	16,475,777	475,940	-357,092
, of which cleared by the central counterparty	*2,864,097*	*5,372,343*	*1,578,144*	*9,814,584*	*46,821*	*-163,327*
Interest rate options	-	40,000	-	40,000	101	-101
Currency derivatives						
Cross currency interest rate swaps	2,467,039	1,940,380	109,367	4,516,786	133,656	-718,888
Forward exchange contracts	3,354,738	-	-	3,354,738	150,723	-
Equity derivatives	816,109	-	-	816,109	604	-37,922
Total derivative contracts at fair value through profit or loss	**10,578,567**	**10,024,259**	**4,600,583**	**25,203,409**	**761,023**	**-1,114,003**
Total derivative contracts	**16,426,249**	**30,890,940**	**23,110,363**	**70,427,552**	**1,999,676**	**-2,224,294**

Note 25. 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's 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 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, which are recognised in the income statement under *Net income from securities and foreign exchange transactions*. Due to the above mentioned reason, the total amount of the hedging instruments does not correspond to the fair value presented in Note *24 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 from hedge accounting*. The ineffective portion of the hedging relationship is thus shown on this line in the income statement. Net income from securities and foreign exchange transactions is specified in Note *6* and net income from hedge accounting in Note *9*.

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 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	-1,476,553	122,505	-1,599,058
Derivative contracts in hedge accounting	1,549,315	-78,911	1,628,226
Accumulated fair value accrual from the termination of hedge accounting	-1,721	218	-1,939
IAS 39 portfolio hedge accounting, net	**71,041**	**43,812**	**27,229**
IFRS 9 fair value hedge accounting			
Loans and advances to the public and public sector entities	-595	25,908	-26,503
Leased assets	-28,808	-495	-28,313
Derivative contracts in hedge accounting	28,548	-25,669	54,217
IFRS 9 fair value hedge accounting, net	**-855**	**-255**	**-599**
Liabilities			
IFRS 9 fair value hedge accounting			
Liabilities to credit institutions	10,108	-5,120	15,228
Liabilities to the public and public sector entities	54,570	-340,433	395,003
Debt securities issued	2,559,950	-171,028	2,730,978
Derivative contracts in hedge accounting	-2,631,089	500,306	-3,131,395
IFRS 9 fair value hedge accounting, net	**-6,461**	**-16,275**	**9,814**
IBOR reform related compensations *	-3,343	-3,343	0
Total hedge accounting	**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 as Cost-of-Hedging 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 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 2022 (EUR 1,000)

Hedged item	Hedging instruments	Gains/losses attributable to the hedged risk		Hedge ineffectiveness
		Hedged items	Hedging instruments	
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**

HEDGE ACCOUNTING 31 Dec 2021 (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	12,577,902	12,725,453	12,598,775	126,678	-
Leased assets	243,432	242,936	-	242,936	-
Total assets	**12,821,333**	**12,968,390**	**12,598,775**	**369,615**	**-**
Liabilities					
Liabilities to credit institutions	50,000	55,120	-	55,120	-
Liabilities to the public and public sector entities	1,504,060	1,776,291	-	1,737,750	38,541
Debt securities issued	24,714,983	24,852,845	-	12,207,796	12,645,049
Total liabilities	**26,269,043**	**26,684,256**	**-**	**14,000,666**	**12,683,589**

VALUE OF HEDGED RISK (EUR 1,000)	31 Dec 2021	1 Jan 2021	Recognised in the income statement Jan–Dec 2021
Assets			
IAS 39 portfolio hedge accounting			
Loans and advances to the public and public sector entities	122,505	464,688	-342,182
Derivative contracts in hedge accounting	-78,911	-428,083	349,171
Accumulated fair value accrual from the termination of hedge accounting	218	47	170
IAS 39 portfolio hedge accounting, net	**43,812**	**36,653**	**7,159**
IFRS 9 fair value hedge accounting			
Loans and advances to the public and public sector entities	25,908	37,203	-11,294
Leased assets	-495	4,221	-4,716
Derivative contracts in hedge accounting	-25,669	-42,044	16,375
IFRS 9 fair value hedge accounting, net	**-255**	**-620**	**365**
Liabilities			
IFRS 9 fair value hedge accounting			
Liabilities to credit institutions	-5,120	-13,800	8,681
Liabilities to the public and public sector entities	-340,433	-481,546	141,113
Debt securities issued	-171,028	-859,986	688,958
Derivative contracts in hedge accounting	500,306	1,340,456	-840,150
IFRS 9 fair value hedge accounting, net	**-16,275**	**-14,876**	**-1,399**
IBOR reform related compensations	-3,343	-2,041	-1,302
Total hedge accounting	**23,938**	**19,115**	**4,823**

HEDGING IMPACT ON EQUITY (EUR 1,000)	31 Dec 2021	1 Jan 2021	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	13,621	15,624	-2,004
Total	**13,621**	**15,624**	**-2,004**

EFFECTIVENESS OF HEDGE ACCOUNTING
31 Dec 2021 (EUR 1,000)

Hedged item	Hedging instruments	Gains/losses attributable to the hedged risk		Hedge ineffectiveness
		Hedged items	Hedging instruments	
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	122,505	-78,911	43,594
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	25,908	-25,880	28
Fixed rate and revisable rate leased assets	Interest rate derivatives	-495	211	-283
Assets total		**147,919**	**-104,580**	**43,339**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	-435,365	426,733	-8,633
Financial liabilities denominated in foreign currencies	Currency derivatives (cross currency interest rate swaps) Interest rate derivatives	-81,215	73,573	-7,642
Liabilities total		**-516,581**	**500,306**	**-16,275**

Note 26. Intangible assets

(EUR 1,000)	31 Dec 2022	31 Dec 2021
IT systems	8,831	12,296
Other intangible assets	5	9
Total	**8,837**	**12,305**

Intangible assets do not include other development costs or goodwill.

Note 27. Tangible assets

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Real estate corporation shares	299	299
Right-of-use assets	2,980	4,151
Other tangible assets	1,557	2,738
Total	**4,835**	**7,188**

MuniFin does not have investment properties.

Note 28. Changes in intangible and tangible assets during the financial year

2022 (EUR 1,000)	Intangible assets	Tangible assets			
	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 and impairment charges 1 Jan	29,097	-	4,261	4,592	8,853
- Accumulated depreciation on disposals	-710	-	-1,302	-113	-1,415
+ Depreciation according to plan	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.

2021 (EUR 1,000)	Intangible assets	Tangible assets			
	Total	Real estate	Other tangible assets	Right-of-use assets	Total
Acquisition cost 1 Jan	33,190	299	7,363	8,570	16,233
+ Additions	8,660	-	3	173	175
- Disposals	-449	-	-367	-	-367
Acquisition cost 31 Dec	41,401	299	6,999	8,743	16,041
Accumulated depreciation 1 Jan	15,831	-	3,271	2,982	6,253
- Accumulated depreciation on disposals	-	-	-226	-	-226
+ Depreciation according to plan	2,783	-	1,216	1,610	2,826
+ Impairment *	10,482	-	-	-	-
Accumulated depreciation and impairment charges 31 Dec	29,097	-	4,261	4,592	8,853
Carrying amount 31 Dec	**12,305**	**299**	**2,738**	**4,151**	**7,188**

* The line item includes a non-recurring item of impairment of EUR 10,482 thousand on MuniFin Group's significant on-going IT system implementation.

Note 29. Other assets

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Invoiced leasing	11,391	15,084
Given cash collateral to CCPs*	1,219,541	238,930
Other	3,730	1,924
Total	**1,234,662**	**255,938**

* Cash collaterals include expected credit loss amounting to EUR 203 thousand (EUR 13 thousand).

MuniFin did not have receivables related to payment transfers as at 31 Dec 2022 or 31 Dec 2021.

Note 30. Accrued income and prepayments

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Accrued interest income	218,417	211,067
Other accrued income	0	196
Prepayments	4,671	1,349
Total	**223,088**	**212,612**

Note 31. Deferred tax assets and 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.

DEFERRED TAX LIABILITIES (EUR 1,000)	1 Jan 2021	Recognised in the income statement	Recognised in equity	Paid during the financial year	31 Dec 2021
On fair value reserve	4,054	-	-555	-	3,499
Total	**4,054**	**-**	**-555**	**-**	**3,499**

Voluntary credit loss provision and depreciation difference include EUR 284,050 thousand in non-recognised deferred tax liabilities.
The Company did not have deferred tax assets as at 31 December 2021.

Note 32. Debt securities issued

	31 Dec 2022		31 Dec 2021	
(EUR 1,000)	Carrying amount	Nominal value	Carrying amount	Nominal value
Bonds	30,942,233	34,330,170	31,508,271	32,041,076
Other*	4,649,832	4,668,524	3,819,254	3,820,738
Total	**35,592,065**	**38,998,694**	**35,327,525**	**35,861,814**

*Line item contains short-term funding issued by MuniFin.

MuniFin's funding is guaranteed by the Municipal Guarantee Board.

BENCHMARK ISSUANCES DURING THE YEAR 2022	Value date	Maturity date	Interest-%	Nominal value (1,000)	Currency
Fixed rate benchmark bond, issued under the MTN programme	25 Jan 2022	25 Feb 2032	0.250%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	17 May 2022	17 May 2029	1.500%	500,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	24 Aug 2022	24 Aug 2027	3.250%	1,000,000	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)	2022			2021		
	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	**2,059,906**	**3,324,685**	**35,327,525**	**1,343,358**	**3,884,026**	**32,911,906**
Cash flow changes from operating activities						
Additions to issued debt "bonds"	46,609	147,351	7,680,928	761,335	197,473	7,894,520
Additions to debt securities issued "other"	-	-	25,303,337	-	-	13,219,018
Additions total	**46,609**	**147,351**	**32,984,265**	**761,335**	**197,473**	**21,113,537**
Deductions to issued debt "bonds"	-	-267,534	-5,541,011	-38,567	-587,713	-5,119,486
Deductions to debt securities issued "other"	-	-	-24,472,759	-	-	-13,295,584
Deductions total	**-**	**-267,534**	**-30,013,769**	**-38,567**	**-587,713**	**-18,415,070**
Cash flow changes from operating activities in total	**46,609**	**-120,183**	**2,970,495**	**722,767**	**-390,240**	**2,698,468**
Changes in the balance sheet value including valuations and FX revaluations	-18,332	-674,917	-2,705,955	-6,219	-169,101	-282,849
Carrying amount 31 Dec	**2,088,183**	**2,529,585**	**35,592,065**	**2,059,906**	**3,324,685**	**35,327,525**

Note 33. Other liabilities

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Mandatory provisions		
Restructuring provision	-	-
Other provisions	446	446
Other liabilities		
Lease liabilities	3,046	4,231
Cash collateral taken from CCPs	570,922	333,295
Other	19,132	11,042
Total	**593,547**	**349,014**

Line item *Other provisions* relates to a tax interpretation issue for which the Company requested a preliminary ruling and for which the Company is waiting for the financial decision of the Supreme Administrative Court.

	Restructuring provision		Other provisions	
(EUR 1,000)	2022	2021	2022	2021
Carrying amount in the beginning of the reporting period	-	504	446	-
Increase in provisions	-	-	5,100	446
Provisions used	-	-504	-5,100	-
Carrying amount at the end of the reporting period	**-**	**-**	**446**	**446**

During the financial year 2021, the restructuring provision related to the reorganisation of the Group's operations in financial year 2020 was fully used. Increase in provisions and provision used in 2022 relate to the IT implementation project, which was terminated in 2022.

Note 34. Accrued expenses and deferred income

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Accrued interest expenses	139,779	134,880
Other accrued expenses	7,943	41,579
Deferred income *	18,552	16,864
Total	**166,274**	**193,323**

* Item consists mainly of leasing prepayments.

Note 35. Subordinated liabilities

31 Dec 2022 (EUR 1,000)	Currency	Nominal value	Book value	Interest rate	Earliest repayment
AT1 capital loan	-	-	-	-	-
Total		**-**	**-**		

31 Dec 2021 (EUR 1,000)	Currency	Nominal value	Book value	Interest rate	Earliest repayment
AT1 capital loan	EUR	350,000	349,388	Fixed	1 April 2022
Total		**350,000**	**349,388**		

MuniFin redeemed its EUR 350 million Perpetual Fixed rate Resettable Additional Tier 1 Securities originally issued on 1 October 2015. The redemption date was 1 April 2022, which 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.

Loan terms and conditions:
The loan is an unsecured debenture loan included under Additional Tier 1 capital, with special terms designed to fulfil the requirements set for so-called AT1 capital loans in the Capital Requirements Regulation (EU 575/2013). The loan does not have a maturity date. Interest on the loan may only be paid out of distributable funds in accordance with the terms set in the Capital Requirements Regulation, and the Company will decide whether interest will be paid on the interest payment date. The cancellation of interest payments is final and unpaid interest will not be added to the loan capital. The loan capital will be written off if the proportion of the Company's Common Equity Tier 1 (*CET1*) capital to risk-weighted assets falls below 5.125%. The Company may decide to re-book the loan capital partially or entirely if the Capital Requirements Regulation permits this based on an improvement in the Company's finances. The Company has the right but not the obligation to repay the loan on 1 April 2022 or, after that, annually on the interest payment date, as long as the buy-back is approved in advance by the regulatory authority. The regulatory authority may authorise the repayment of the loan also for particular reasons, for example if legislation or regulatory practice should change in such a way that the Company loses the right to deduct the interest in full, or if the Company should be forced to make the additional payments mentioned in the loan terms. The authorities may also permit repayment of the loan if the loan's official classification changes in such a way that the loan would be likely to be excluded from the Company's own funds, or if it is reclassified as lower-value funds. The loan capital, interest payments and other repayments shall take lower priority than all other higher-level debts in case of the Company's dissolution or bankruptcy. AT1 capital loan is recognised as equity in the Consolidated Financial Statements. In the Parent Company's Financial Statements AT1 capital loan is recognised under balance sheet item *Subordinated liabilities*.

Note 36. 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 10.00% of the total risk exposure amount and 3.00% 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 will take effect on 1 January 2024, but MuniFin must fully comply with the final MREL target levels from 1 January 2022 onwards. MuniFin's own funds and eligible liabilities currently fulfil the MREL requirement with multiple times.

Note 37. Breakdown of financial assets and liabilities at carrying amount by maturity

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	-	-	-	-	-	-
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**

* 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 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*
Subordinated liabilities	-	-	-	-	-	-
Total	**10,910,791**	**3,732,844**	**21,137,772**	**6,257,493**	**3,605,452**	**45,644,353**

* 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 2023. In 2022, the Company called 19% of its callable liabilities.

FINANCIAL ASSETS 31 Dec 2021 (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	8,399,045	-	-	-	-	8,399,045
Debt securities eligible for central bank refinancing	247,349	444,766	2,173,184	446,755	-	3,312,054
Loans and advances to credit institutions	1,382,272	-	34,292	-	-	1,416,564
Loans and advances to the public and public sector entities	403,975	1,516,197	6,559,458	6,353,153	13,047,114	27,879,897
Leased assets	7,025	18,391	72,819	43,699	101,002	242,936
Debt securities	946,987	199,527	316,595	66,265	-	1,529,374
Shares and participations	-	-	-	-	-	-
Shares and participations in Group companies	-	-	-	-	656	656
Derivative contracts	176,162	85,276	652,855	444,830	640,553	1,999,676
Other assets	238,930	-	-	-	-	238,930
Total	**11,801,746**	**2,264,157**	**9,809,202**	**7,354,702**	**13,789,324**	**45,019,131**

FINANCIAL LIABILITIES 31 Dec 2021 (EUR 1,000)	0–3 months	3–12 months	1–5 years	5–10 years	Over 10 years	Total
Liabilities to credit institutions	1,991,110	750,000	10,613	19,599	29,695	2,801,016
Liabilities to the public and public sector entities	75,992	112,562	1,031,895	856,943	1,247,293	3,324,685
Debt securities issued	4,991,578	5,235,547	18,221,438	4,174,502	2,704,459	35,327,525
Derivative contracts	788,530	584,682	287,038	143,757	420,287	2,224,294
Other liabilities	333,703	1,221	2,602	-	-	337,526
, of which lease liabilities	*408*	*1,221*	*2,602*	-	-	*4,231*
Subordinated liabilities	-	349,878	-	-	-	349,878
Total	**8,180,913**	**7,033,890**	**19,553,587**	**5,194,802**	**4,401,733**	**44,364,925**

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 2021, the Company called 47% of its callable liabilities.

Note 38. Breakdown of balance sheet items into domestic and foreign currency

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
Subordinated liabilities	-	-	-	-
Total	**26,650,317**	**21,085,228**	**47,735,546**	**25**

ASSETS 31 Dec 2021 (EUR 1,000)	Domestic currency	Foreign currency	Total	, of which intra-group
Debt securities eligible for central bank refinancing	3,312,054	-	3,312,054	-
Loans and advances to credit institutions	1,387,920	28,643	1,416,564	-
Loans and advances to the public and public sector entities	27,879,897	-	27,879,897	-
Leased assets	1,334,146	-	1,334,146	-
Debt securities	1,499,172	30,202	1,529,374	-
Derivative contracts	1,781,439	218,237	1,999,676	-
Other assets including cash and balances in central banks	8,887,743	-	8,887,743	656
Total	**46,082,371**	**277,082**	**46,359,453**	**656**

LIABILITIES AND EQUITY 31 Dec 2021 (EUR 1,000)	Domestic currency	Foreign currency	Total	, of which intra-group
Liabilities to credit institutions	2,801,016	-	2,801,016	-
Liabilities to the public and public sector entities	3,262,800	61,885	3,324,685	-
Debt securities issued	14,636,794	20,690,731	35,327,525	-
Derivative contracts	2,172,656	51,639	2,224,294	-
Other liabilities including appropriations and equity	2,304,767	27,287	2,332,054	78
Subordinated liabilities	349,878	-	349,878	-
Total	**25,527,910**	**20,831,542**	**46,359,453**	**78**

Note 39. Repurchase agreements

The Company did have receivables related to repurchase agreements as at 31 Dec 2022. The receivable contain 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.

The Company did not have any receivables or liabilities related to repurchase agreements as 31 Dec 2021.

Note 40. Fair values and carrying amounts of financial assets and liabilities

FINANCIAL ASSETS (EUR 1,000)	31 Dec 2022		31 Dec 2021	
	Carrying amount	Fair value	Carrying amount	Fair value
Cash and balances with central banks	2	2	8,399,045	8,399,045
Debt securities eligible for central bank refinancing	2,890,174	2,890,174	3,312,054	3,312,054
Loans and advances to credit institutions	9,624,470	9,624,470	1,416,564	1,416,564
Loans and advances to the public and public sector entities	27,841,267	29,451,798	27,879,897	30,045,876
Leased assets *	274,053	288,092	242,936	255,907
Debt securities	1,896,594	1,896,208	1,529,374	1,529,739
Shares and participations	-	-	-	-
Shares and participations in Group companies	656	656	656	656
Derivative contracts	2,707,103	2,707,103	1,999,676	1,999,676
Other assets **	1,219,541	1,219,541	238,930	238,930
Total	**46,453,861**	**48,078,045**	**45,019,131**	**47,198,446**

* 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 2022		31 Dec 2021	
	Carrying amount	Fair value	Carrying amount	Fair value
Liabilities to credit institutions	2,332,623	2,332,609	2,801,016	2,800,913
Liabilities to the public and public sector entities	2,529,585	2,543,548	3,324,685	3,344,334
Debt securities issued	35,592,065	35,650,001	35,327,525	35,434,600
Derivative contracts	4,616,111	4,616,111	2,224,294	2,224,294
Other liabilities *	573,969	573,969	337,526	337,526
Subordinated liabilities	-	-	349,878	354,683
Total	**45,644,353**	**45,716,238**	**44,364,925**	**44,496,351**

* Line item includes cash collateral received from central counterparties and lease liabilities in accordance with IFRS 16 standard.

Note 41. 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 2022 (EUR 1,000)		Fair value			
	Carrying amount	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
Subordinated liabilities	-	-	-	-	-
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**

* 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 2021 (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	213,466	172,717	40,748	-	213,466
Designated at fair value through profit or loss					
Loans and advances to the public and public sector entities	38,941	-	38,941	-	38,941
Debt securities	3,539,074	3,451,809	87,265	-	3,539,074
Mandatorily at fair value through profit or loss					
Loans and advances to the public and public sector entities	35,204	-	344	34,861	35,204
Shares and participations in Group companies	656	-	-	656	656
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	761,023	-	698,194	62,829	761,023
Derivative contracts in hedge accounting	1,238,653	-	1,238,246	407	1,238,653
Total at fair value	**5,827,016**	**3,624,526**	**2,103,737**	**98,752**	**5,827,016**
In fair value hedge accounting					
Amortised cost					
Loans and advances to the public and public sector entities	12,725,453	-	13,493,603	-	13,493,603
Leased assets	242,936	-	255,907	-	255,907
Total in fair value hedge accounting	**12,968,390**	**-**	**13,749,511**	**-**	**13,749,511**
At amortised cost					
Cash and balances with central banks	8,399,045	8,399,045	-	-	8,399,045
Loans and advances to credit institutions	1,416,564	105,988	1,310,576	-	1,416,564
Loans and advances to the public and public sector entities	15,080,299	-	16,478,128	-	16,478,128
Debt securities	1,088,888	-	1,089,253	-	1,089,253
Other assets	238,930	-	238,930	-	238,930
Total at amortised cost	**26,223,725**	**8,505,033**	**19,116,886**	**-**	**27,621,919**
Total financial assets	**45,019,131**	**12,129,559**	**34,970,134**	**98,752**	**47,198,446**

FINANCIAL LIABILITIES 31 Dec 2021 (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	4,787	-	4,787	-	4,787
Liabilities to the public and public sector entities	1,548,394	-	1,284,601	263,793	1,548,394
Debt securities issued	10,008,299	-	8,248,729	1,759,569	10,008,299
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	1,114,003	-	369,705	744,299	1,114,003
Derivative contracts in hedge accounting	1,110,291	-	1,084,602	25,690	1,110,291
Total at fair value	**13,785,774**	**-**	**10,992,423**	**2,793,350**	**13,785,774**
In fair value hedge accounting					
Amortised cost					
Liabilities to credit institutions	55,120	-	55,016	-	55,016
Liabilities to the public and public sector entities	1,776,291	-	1,795,941	-	1,795,941
Debt securities issued	24,852,845	-	24,873,880	86,040	24,959,920
Total in fair value hedge accounting	**26,684,256**	**-**	**26,724,837**	**86,040**	**26,810,877**
At amortised cost					
Liabilities to credit institutions	2,741,110	-	2,741,110	-	2,741,110
Debt securities issued	466,381	-	466,381	-	466,381
Other liabilities	337,526	-	337,526	-	337,526
Subordinated liabilities	349,878	-	354,683	-	354,683
Total at amortised cost	**3,894,895**	**-**	**3,899,701**	**-**	**3,899,701**
Total financial liabilities	**44,364,925**	**-**	**41,616,961**	**2,879,390**	**44,496,351**

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.

The 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*).

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 Executive Management Team (*EMT*).

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 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 2022, transfers totaling EUR 9,270 thousand have been made between level 1 and level 2. During 2022, 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**

* The Company recognises these gains and losses within the line items *Net income from securities and foreign exchange transactions* and *Net income from hedge accounting*. 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.*

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 2022, these assumptions could have increased fair values by EUR 60.6 million or decreased fair values by EUR 71.1 million.As of 31 December 2021, these assumptions could have increased fair values by EUR 60.3 million or decreased fair values by EUR 59.6 million.

SENSITIVITY ANALYSIS OF SIGNIFICANT UNOBSERVABLE INPUTS BY INSTRUMENT TYPE (EUR 1,000)	Positive range of fair value 2022	Negative range of fair value 2022	Positive range of fair value 2021	Negative range of fair value 2021
Loans and advances to the public and public sector entities				
Loans	249	-273	133	-84
Derivative contracts				
Equity-linked derivatives	18,117	-22,052	18,864	-11,446
FX-linked cross currency and interest rate derivatives	834	-1,318	2,644	-1,537
Other interest rate derivatives	11,726	-11,860	13,173	-13,344
Debt securities issued and Liabilities to the public and public sector entities				
Equity-linked liabilities	16,927	-23,275	12,350	-18,115
FX-linked liabilities	834	-990	704	-2,233
Other liabilities	11,919	-11,327	12,412	-12,810
Total	**60,606**	**-71,095**	**60,279**	**-59,570**

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 of each financial instrument. The future cash flows are then discounted back to present to get the fair value for 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, will it 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 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					
Equity-linked derivatives	-104,317	Stochastic model	Correlation parameters	-1,743	-1,906
			Volatility – Extrapolated or Illiquid	21,290	-17,708
			Dividend yield	-1,430	-2,438
FX-linked cross currency and interest rate derivatives	-120,294	Stochastic model	Correlation parameters	-11	-121
			Volatility – Extrapolated or Illiquid	845	-1,197
			Interest rates – Extrapolated or Illiquid	0	0
Other interest rate derivatives	-106,351	Stochastic model	Correlation parameters	80	14
			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					
Equity-linked liabilities	676,238	Stochastic model	Correlation parameters	569	-194
			Volatility – Extrapolated or Illiquid	15,511	-22,611
			Dividend yield	847	-470
FX-linked liabilities	170,030	Stochastic model	Correlation parameters	-36	-133
			Volatility – Extrapolated or Illiquid	870	-857
			Interest rates – Extrapolated or Illiquid	0	0
Other liabilities	339,527	Stochastic model	Correlation parameters	0	0
			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 2022	Jan–Dec 2021
Opening balance 1 Jan	-236	-29
Recognised gain in the income statement	498	412
Recognised loss in the income statement	-470	-711
Deferred gain or loss on new transactions	-184	91
Total 31 Dec	**-392**	**-236**

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*.

Transfers in the fair value hierarchy and sensitivity analysis 2021

During 2021, transfers totaling EUR 50,127 thousand have been made between level 1 and level. During 2021, there were no transfers from level 2 to level 3.

LEVEL 3 TRANSFERS 2021 (EUR 1,000)	1 Jan 2021	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 2021
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	43,735	-4,878	-	-3,997	-	-	34,861
Shares and participations	27	-	-	-27	-	-	-
Shares and participations in Group companies	656	-	-	-	-	-	656
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	79,452	-14,590	604	-2,636	-	-	62,829
Derivative contracts in hedge accounting	572	-366	317	-	-	-117	407
Financial assets in total	**124,443**	**-19,834**	**921**	**-6,660**	**-**	**-117**	**98,753**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	224,413	-8,408	47,787	-	-	-	263,793
Debt securities issued	2,125,714	-144,658	762,861	-975,731	-	-8,617	1,759,569
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	646,293	136,055	38,581	-76,252	-	-378	744,299
Derivative contracts in hedge accounting	24,391	6,797	450	-	-	-5,948	25,690
In fair value hedge accounting							
Amortised cost							
Debt securities issued	94,048	-1,802	27,162	-	-	-33,368	86,040
Financial liabilities in total	**3,114,859**	**-12,015**	**876,840**	**-1,051,984**	**-**	**-48,310**	**2,879,390**
Level 3 financial assets and liabilities in total	**3,239,302**	**-31,849**	**877,761**	**-1,058,644**	**-**	**-48,427**	**2,978,143**

SENSITIVITY ANALYSIS OF UNOBSERVABLE INPUTS 2021 (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	34,861	Stochastic model	Volatility – Extrapolated or Illiquid	133	-84
Derivative contracts					
			Correlation parameters	759	653
Equity-linked derivatives	-37,319	Stochastic model	Volatility - Extrapolated or Illiquid	17,551	-11,504
			Dividend yield	554	-595
			Correlation parameters	498	-353
FX-linked cross currency and interest rate derivatives	-647,461	Stochastic model	Volatility – Extrapolated or Illiquid	2,145	-1,183
			Interest rates – Extrapolated or Illiquid	1	-1
			Correlation parameters	7	0
Other interest rate derivatives	-21,972	Stochastic model	Volatility - Extrapolated or Illiquid	12,870	-13,048
			Interest rates – Extrapolated or Illiquid	296	-296
Debt securities issued and Liabilities to the public and public sector entities					
			Correlation parameters	229	-149
Equity-linked liabilities	741,554	Stochastic model	Volatility – Extrapolated or Illiquid	11,455	-16,829
			Dividend yield	666	-1,137
			Correlation parameters	17	-123
FX-linked liabilities	785,053	Stochastic model	Volatility – Extrapolated or Illiquid	677	-2,099
			Interest rates – Extrapolated or Illiquid	11	-11
			Correlation parameters	1	0
Other liabilities	582,795	Stochastic model	Volatility – Extrapolated or Illiquid	12,313	-12,711
			Interest rates – Extrapolated or Illiquid	98	-98
Total				**60,279**	**-59,570**

Note 42. Equity

(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 2022	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 2022	**43,008**	**277**	**-4,457**	**-83**	**1,488**	**40,743**	**365,775**	**446,750**

(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 2021	43,008	277	847	-255	15,624	40,743	151,454	251,698
+ Increase	-	-	-	320	-	-	136,809	137,129
- Decrease	-	-	-538	-	-2,004	-	-20,313	-22,855
Carrying amount 31 Dec 2021	**43,008**	**277**	**309**	**64**	**13,621**	**40,743**	**267,950**	**365,972**

DISTRIBUTABLE FUNDS	31 Dec 2022	31 Dec 2021
Retained earnings	227,714	131,141
Net profit for the financial year	138,061	136,809
Total	**365,775**	**267,950**

31 December 2022, the distributable funds totalled EUR 365,774,616.34 (EUR 267,949,619.07).

Note 43. 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 2022, 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 44. 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 2022	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 45. Collateral given

GIVEN COLLATERALS ON BEHALF OF OWN LIABILITIES AND COMMITMENTS (EUR 1,000)	31 Dec 2022	31 Dec 2021
Loans and advances to credit institutions to the counterparties of derivative contracts *	1,400,559	1,310,576
Loans and advances to credit institutions to the counterparties of repurchase agreements **	514	-
Loans and advances to credit institutions to the central bank ***	31,745	35,984
Loans and advances to the public and public sector entities to the central bank ***	3,676,627	4,716,147
Loans and advances to the public and public sector entities to the Municipal Guarantee Board ****	12,101,459	11,474,101
Debt securities to the counterparties of repurchase agreements**	9,580	-
Debt securities to the central counterparty	24,942	-
Other assets to the counterparties of derivative contracts *	1,219,541	238,930
Total	**18,464,967**	**17,775,738**

* 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 (the Bank of Finland) 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 46. Pension liabilities

Pension coverage has been arranged via an external pension insurance company. Pension plans are classified as defined contribution plans.

Note 47. Off-balance sheet commitments

(EUR 1,000)	31 Dec 2022	31 Dec 2021
Credit commitments	2,463,978	2,592,877
Total	**2,463,978**	**2,592,877**

Notes on personnel and management

Note 48. Personnel

	2022		2021	
	Average	End of year	Average	End of year
Permanent full-time	147	149	143	144
Permanent part-time	3	4	1	1
Fixed term	12	12	7	8
Total	**162**	**165**	**151**	**153**

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 are described in the adjacent table.

SALARIES AND REMUNERATION (EUR 1,000)	2022	2021
President and CEO	-435	-430
Deputy to the CEO	-272	-224
Other members of the Executive Management Team in total	-1,436	-1,307
Total	**-2,142**	**-1,961**

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, which are described in the adjacent table.

STATUTORY PENSION CONTRIBUTIONS (EUR 1,000)	2022	2021
President and CEO	-74	-71
Deputy to the CEO	-46	-37
Other members of the Executive Management Team in total	-244	-216
Total	**-364**	**-324**

Remuneration of the Board of Directors

During the term 2022–2023, 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 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 is 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 is paid for the meetings required by the supervisory authorities.

During the term 2021–2022, the annual remuneration was EUR 35,000 for the Chair of the Board, EUR 23,000 for the Vice Chair, EUR 25,000 for the Chairs of Committees and EUR 20,000 for the other members of the Board. The meeting remuneration has remained at the same level. These remunerations are valid also in term 2020–2021.

SALARIES AND REMUNERATION (EUR 1,000)

Members of the Board of Directors	2022	2021
Helena Walldén, Chair until 25 March 2021	-	-14
Kari Laukkanen, Chair 25 March 2021 onwards	-54	-52
Tuula Saxholm, Vice Chair until 25 March 2021	-	-9
Maaria Eriksson, Vice Chair 25 March 2021 onwards	-35	-32
Markku Koponen	-43	-42
Vivi Marttila	-33	-31
Tuomo Mäkinen, elected 25 March 2021	-31	-22
Minna Smedsten, elected 25 March 2021	-34	-22
Denis Strandell	-34	-31
Leena Vainiomäki, elected 25 March 2021	-40	-30
Kimmo Viertola, Member until 24 March 2022	-7	-28
Total	**-310**	**-313**

Related party transactions

Note 49. 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 50. Holdings in other companies

(EUR 1,000)	2022 Proportion of all shares, %	2022 Carrying amount	2021 Proportion of all shares, %	2021 Carrying amount
Subsidiaries				
Financial Advisory Services Inspira Ltd	100.0	656	100.0	656
Total	**100.0**	**656**	**100.0**	**656**

Other notes

Note 51. Audit and other fees paid to the audit firm

(EUR 1,000)	Jan–Dec 2022	Jan–Dec 2021
Audit	-393	-340
Assignments as referred to in Subparagraph 2, Paragraph 1 Section 1 of the Auditing Act	-13	-
Tax advisory services	-23	-17
Other services	-153	-146
Total	**-581**	**-504**

Amounts do not include VAT.

Signatures to the Report of the Board of Directors and the Financial Statements

Helsinki, 10 February 2023

MUNICIPALITY FINANCE PLC

Kari Laukkanen
Chair of the Board

Maaria Eriksson
Vice Chair of the Board

Markku Koponen
Member of the Board

Vivi Marttila
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

Esa Kallio
President and CEO

Auditor's Note

A report of the audit performed has been issued today.

Helsinki, 10 February 2023

KPMG Oy Ab

Tiia Kataja
Authorized Public Accountant

Auditor's Report

Municipality Finance Plc
Auditor's Report
for the year ended 31 December 2022

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 2022. 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 a summary of significant accounting policies, 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 International Financial Reporting Standards (IFRS) 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 51 to the parent company's 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, 7, 16, 17, 24 and 25)	
— The carrying amount of financial assets measured at fair value totaled EUR 6.1 billion and that of financial liabilities measured at fair value EUR 16.8 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, 8, 24 and 25)

- 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 International Financial Reporting Standards (IFRS) 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 scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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 22 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 and our auditor's report therein. 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 10th February 2023

KPMG OY AB

TIIA KATAJA
Authorised Public Accountant, KHT

MuniFin

Municipality Finance Plc
Jaakonkatu 3 A, P.O. Box 744
00101 Helsinki
Tel. +358 9 6803 5666
www.munifin.fi
info@munifin.fi