MuniFin Group's Half Year Report

1 January–30 June 2023

MuniFin

In brief: MuniFin Group in the first half of 2023

- The Group's net operating profit excluding unrealised fair value changes amounted to EUR 81 million (EUR 74 million) in January–June, growing from the comparison period and exceeding the previous year's figure by 9.3% (in 2022, the net operating profit excluding unrealised fair value changes decreased by 31%). The increase in net operating profit was affected by significant non-recurring item included in the comparison period's costs and increase in net interest income of 2%.

- Costs in the reporting period amounted to EUR 43 million (EUR 48 million) and grew by almost 14%, the comparison period's non-recurring items excluded. The growth in costs was primarily driven by almost quadrupling of the guarantee commission paid to the Municipal Guarantee Board, which is a compensation for the guarantees the Municipal Guarantee Board grants to MuniFin's funding. Increase in guarantee commission paid was due to the change in the calculation methodology informed by Municipal Guarantee Board.

- The Group's net operating profit amounted to EUR 77 million (EUR 91 million). Unrealised fair value changes amounted to EUR -5 million (EUR 16 million) in the reporting period.

- The Group's leverage ratio continued to strengthen, and it was 11.9% (11.6%) at the end of June.

- At the end of June, the Group's CET1 capital ratio was very strong at 101.3% (97.6%). CET1 capital ratio was well over the total requirement of 13.9%, with capital buffers accounted for. Tier 1 and total capital ratios were on a par with the CET1 capital ratio, standing at 101.3% (97.6%).

- Because of the uncertainty arising from the war and inflation outlook, the Group has maintained larger than normal liquidity buffers as a precaution. The accelerating inflation has pushed up market interest rates, which has had a positive effect on the Group's net interest income. The Russia's invasion of Ukraine has not had a significant negative effect on the Group's operations.

- Long-term customer financing (long-term loans and leased assets) excluding unrealised fair value changes totalled EUR 31,530 million (EUR 30,660 million) at the end of June and saw an increase of 2.8% (2.6%). New long-term customer financing decreased in January–June and amounted to EUR 1,931 million (EUR 2,153 million). Short-term customer financing totalled EUR 1,198 million (EUR 1,457 million).

- Of all long-term customer financing, the amount of green finance aimed at environmentally sustainable investments totalled EUR 3,814 million (EUR 3,251 million) and the amount of social finance aimed at investments promoting equality and communality totalled EUR 1,875 million (EUR 1,734 million) at the end of June. Green and social finance have been extremely well received by customers, and the total amount of this financing increased by 14.1% (14.6%) from the comparison period.

- In January–June, new long-term funding reached EUR 7,118 million (EUR 5,962 million). At the end of June, the total funding was EUR 41,018 million (EUR 40,210 million), of which long-term funding made up EUR 37,919 million (EUR 35,560 million). MuniFin decided to repay the debt related to the European Central Bank's targeted longer-term refinancing operations (*TLTRO III*) in the reporting period. The debt totalled EUR 2,000 million.

- The Group's total liquidity is very strong, and it was EUR 11,323 million (EUR 11,506 million) at the end of June. Liquidity Coverage Ratio (*LCR*) stood at 253% (257%) and Net Stable Funding Ratio (*NSFR*) at 127% (120%) at the end of June.

- Revised outlook for the second half of 2023: The Group expects its net operating profit excluding unrealised fair value changes to be at the same level or higher (Financial Statements Bulletin 2022: at the same level) as in 2022. 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 the second half of 2023*.

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

Key figures (Group)

Net operating profit excluding unrealised fair value changes (EUR million)

81

New long-term customer financing (EUR billion)

1.9

Long-term customer financing (EUR billion)

30.1

CET1 capital ratio, %

101.3

Key figures (Group)

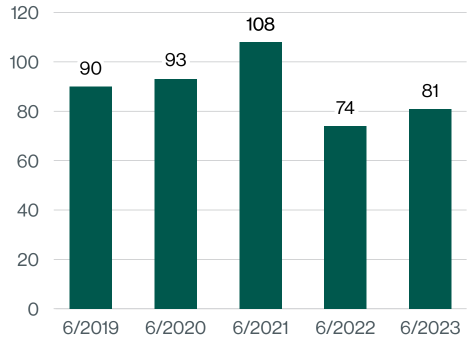
	Jan–Jun 2023	Jan–Jun 2022	Jan–Dec 2022
Net operating profit excluding unrealised fair value changes (EUR million)*	81	74	170
Net operating profit (EUR million)*	77	91	215
Net interest income (EUR million)*	124	122	241
New long-term customer financing (EUR million)*	1,931	2,153	4,375
New long-term funding (EUR million)*	7,118	5,962	8,827
Cost-to-income ratio*	0.3	0.3	0.2
Return on equity *(ROE)*, annualised %*	7.5	8.5	9.9

	30 Jun 2023	30 Jun 2022	31 Dec 2022
Long-term customer financing (EUR million)*	30,129	28,831	29,144
Balance sheet total (EUR million)	48,377	47,491	47,736
CET1 capital (EUR million)	1,500	1,421	1,482
Tier 1 capital (EUR million)	1,500	1,421	1,482
Total own funds (EUR million)	1,500	1,421	1,482
CET1 capital ratio, %	101.3	83.8	97.6
Tier 1 capital ratio, %	101.3	83.8	97.6
Total capital ratio, %	101.3	83.8	97.6
Leverage ratio, %	11.9	10.6	11.6
Personnel	186	180	175

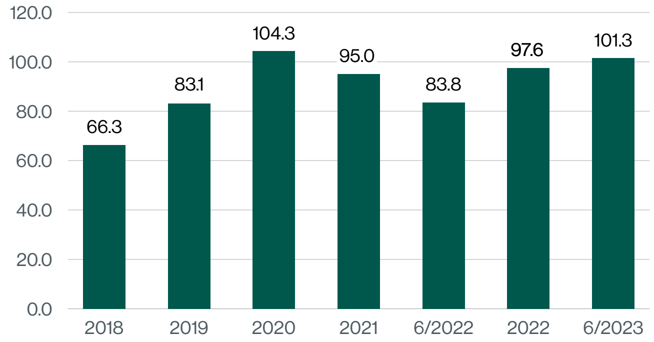
** Alternative performance measure.*

The calculation formulas for all key figures can be found on pages 39–47. All figures presented in this Half Year Report are those of MuniFin Group, unless otherwise stated.

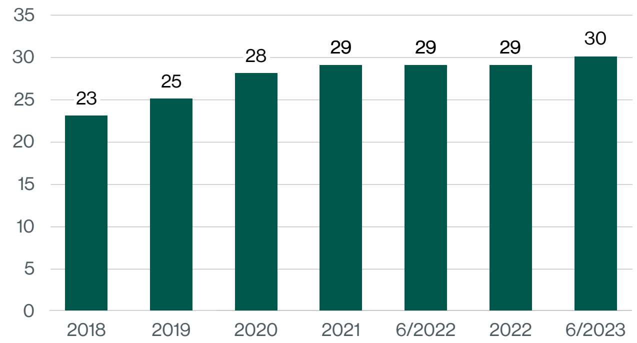
Net operating profit excluding unrealised fair value changes, EUR million*



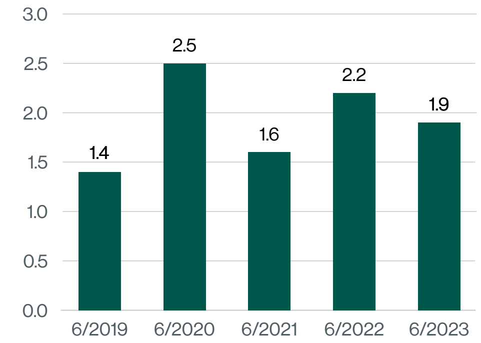
CET1 capital ratio, %



Long-term customer financing, EUR billion*



New long-term customer financing, EUR billion*



** Alternative performance measure.*

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CEO's review

The first half of 2023 was marked by continued economic uncertainty. The Russian invasion of Ukraine gave rise to an energy crisis and caused the cost of living to shoot up, inflicting concern and complicating the economic situation. At MuniFin, our operations remained stable and we were able to successfully carry out our core mandate of ensuring the availability of affordable financing for our customers.

In municipal finances, 2023 is looking to be a relatively good year. Temporary tax benefits have boosted municipal finances, causing municipalities to have lower financing needs in the reporting period than in the previous year as expected. The new wellbeing services counties that started their operations on 1 January 2023 had a low demand for financing, as was to be expected.

The financing needs in the affordable social housing sector were slightly higher in the first half of the year than in the year before. For several years now, our customers have suffered from the rising costs in construction, which has delayed the progress of the building projects.

Market turbulence triggered by high interest expenses and inflation have not had a direct effect on MuniFin's operations. Our funding has remained stable and our access to the capital markets strong throughout the first half of the year. We issued our eighth green bond in February with excellent results. This bond of EUR 1 billion is our largest green bond to date and the largest EUR green bond of all time in the Nordic SSA (*Sovereigns, Supranationals, Agencies*) market. We also made a strong return to the US and Swiss capital markets.

In the first half of the year, the demand for the financial advisory services of our subsidiary company Inspira was robust. We also continued the digitalisation of our services. Early in the year, we introduced a digital loan application service for our customers. We also launched a digital ESG platform for our municipal customers, which enables them to compare municipal ESG indicators and monitor current trends.

In March, we started including municipal finances in our quarterly economic forecast, which now also offers a projection of developments in municipal economy in the coming years.

We have also continued our efforts in improving our leadership. In February, we received recognition for particularly positively developed personnel experience.

I wish to thank our customers once again for their confidence and collaboration and our staff for their wonderful work and commitment to our shared goal. Despite the continued uncertainty, we have again successfully carried out our core mandate and ensured affordable financing for our customers.

Esa Kallio
President and CEO
Municipality Finance Plc

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Operating environment in the first half of 2023

In the first half of the year, the energy crisis and the rapid rise in the cost of living resulting from Russia's invasion of Ukraine slowed down growth in industrial countries, but a broad economic recession was not seen. Sizeable government energy support packages as well as household savings accumulated during the pandemic years helped reduce the negative effects of cost-push inflation. In many service industries, post-pandemic recovery remained strong, which helped boost employment and growth in the domestic markets. The rapid tightening of the monetary policy nevertheless increased uncertainty and reduced activity in the most interest-sensitive sectors, such as the housing and property market and the US banking sector.

Finland's economy slid into a technical recession already in the latter half of 2022, but GDP restored slight growth in the first quarter of 2023 thanks to the positive contribution of public spending and net exports. The trend in domestic demand drivers, especially in construction investments, nevertheless continued to be weak.

Inflation slowed down in the first half of the year, but the persistent upward pressure on wages and consumer prices prompted central banks to continue to raise their interest rates, only now in smaller hikes than in 2022. In the first half of 2023, the European Central Bank (*ECB*) first hiked its key interest rates twice by 50 basis points and then moved to rate increases of 25 basis points. At the end of June, the ECB's deposit facility rate stood at 3.50%.

The tightening monetary policy pushed short-term market interests up considerably in the first half of the year. The 12month Euribor rate rose from the 3.29% at the end of 2022 to 4.13% and the 3month Euribor rate from 2.13% to 3.58%. Long-term interest rates did not develop systematically in the first half of the year: the weakening growth outlook brought temporary downward pressures, but the uncertainty of the central banks' interest rate increase cycle's peak prevented a proper downward trend. Finland's 10-year bond yield stood at 3.05% at the end of June, down from 3.09% at the end of 2022.

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.

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

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

In 2023, the MGB's limit for MuniFin's long-term loans to wellbeing services counties is EUR 400 million. Because the counties' government-authorised borrowing powers in 2023 are higher than this, MuniFin estimates their financing needs to also be higher 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. The limit for the short-term financing for wellbeing services counties was EUR 900 million also in 2022.

In MuniFin's view, legislation and the wellbeing services counties' financing model should be amended so that in the future, the wellbeing services counties could either be the members of MGB or otherwise liable for the guarantees of funding related to the financing targeted at the wellbeing service counties. This is to ensure the financing needs of wellbeing services counties.

Information on the Group results

CONSOLIDATED INCOME STATEMENT (EUR million)	Jan–Jun 2023	Jan–Jun 2022	Change, %	Jan–Dec 2022
Net interest income	124	122	2.2	241
Other income	1	1	-45.0	2
Income excluding unrealised fair value changes	**125**	**123**	**1.7**	**243**
Commission expenses	-8	-3	>100	-6
Personnel expenses	-10	-9	11.7	-19
Other items in administrative expenses	-10	-9	3.8	-19
Depreciation and impairment on tangible and intangible assets	-3	-8	-58.4	-10
Other operating expenses	-13	-19	-33.6	-20
Costs	**-43**	**-48**	**-9.1**	**-73**
Credit loss and impairments on financial assets	0	-1	-70.5	0
Net operating profit excluding unrealised fair value changes	**81**	**74**	**9.3**	**170**
Unrealised fair value changes	-5	16	<-100	45
Net operating profit	**77**	**91**	**-15.4**	**215**
Income tax expense	-16	-19	-18.1	-43
Profit for the period	**61**	**71**	**-14.7**	**172**

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

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

MuniFin Group's core business operations remained strong in the first half of 2023. The Group's net operating profit excluding unrealised fair value changes increased by 9.3% and amounted to EUR 81 million (EUR 74 million). The growth was influenced both by a decrease in costs and an increase in net interest income. Russia's invasion of Ukraine had only a minor effect on the result both in the reporting period and in the comparison period. The Group's net interest income benefited overall from the rising market interest rates resulting from the accelerating inflation.

The Group's income excluding unrealised fair value changes was EUR 125 million (EUR 123 million) and grew by 1.7%.

Net interest income totalled EUR 124 million (EUR 122 million). Net interest income was positively affected by growing business volumes, the continued low cost of funding and the positive effect that rising market interest rates have had on interest income through equity. However, the favourable change for customers in the credit terms related to negative interest rates decided by the Group late 2021 slowed down this growth, narrowing the interest rate gap between customer financing and funding.

Other income totalled EUR 1 million (EUR 1 million). Other income includes commission income, capital gains and losses on net income from financial assets and liabilities through profit or loss, capital gains and losses on net income from FX differences, 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 0.6% (1.1%), 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 43 million (EUR 48 million), down by 9.1% from the year before. In the comparison period, a non-recurring item of EUR 10 million resulting from the discontinuation of a major IT project increased the costs. This non-recurring item excluded, the Group's costs grew by EUR 5 million or by 13.9% in the reporting period. The increase in costs was primarily driven by the Municipal Guarantee Board's decision to change the guarantee commission of MuniFin's funding from a fixed fee to a fee tied to the amount of guaranteed funding, which considerably increased the sum to EUR 7 million (EUR 2 million). In contrast, the lower contribution fee to the Single Resolution Fund, which fell by 20.0% from EUR 9 million to EUR 7 million, helped curb the growth of expenses.

Commission expenses totalled EUR 8 million (EUR 3 million) and consisted primarily of paid guarantee fees, custody fees and funding programme update fees.

HR and administrative expenses reached EUR 20 million (EUR 19 million) and grew by 7.8% (4.4%). Of this, personnel expenses comprised EUR 10 million (EUR 9 million) and other administrative expenses EUR 10 million (EUR 9 million). Employee numbers grew during the reporting period, and the average number of employees in the Group was 180 (171). Other items in administrative expenses grew by 3.8% (7.8%) during the reporting period. The growth is mainly due to the increased costs of maintaining and developing information systems.

During the reporting period, depreciation and impairment of tangible and intangible assets reached EUR 3 million (EUR 8 million). This included the EUR 5 million impairment of the termination of the aforementioned IT project in the comparison period.

Other operating expenses decreased to EUR 13 million (EUR 19 million). The change of other operating expenses excluding the terminated IT project in the comparison period, was -9.7%. The contribution to the Single Resolution Fund had a particular effect on the reduction of expenses. Other operating expenses excluding fees collected by authorities and non-recurring item in 2022 grew by 7.3%, and were EUR 4 million (EUR 4 million).

The amount of expected credit losses (*ECL*), calculated according to IFRS 9, amounted to EUR -0.2 million (EUR -0.7 million). The Group updated the probability of defaults according to the update cycle during the first half of 2023 and made other smaller model changes. Macro scenarios were updated at the end of the reporting period, but the effect of these updates is minor. MuniFin Group is prepared for possible payment difficulties of its customers due to the increase in interest rate levels, and the Group's management decided to record an additional discretionary provision of EUR 0.6 million at the end of June.

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

At the end of June 2023, the Group had no guarantee receivables from public sector entities due to customer insolvency (EUR 4 million). Non-performing exposures totalled EUR 2 million (EUR 7 million). The credit risk of the liquidity portfolio has remained at a low level, and the average credit rating of debt securities in the portfolio is AA+ (AA+). More information on the credit risks of financial assets and other commitments is available in Note *10* to this Half Year Report.

The Group's profit and unrealised fair value changes
The Group's net operating profit for the first half of 2023 was EUR 77 million (EUR 91 million). Unrealised fair value changes decreased the Group's net operating profit by EUR 5 million (EUR 16 million). In January–June 2023, net income from hedge accounting amounted to EUR -5 million (EUR 13 million) and unrealised net income from financial assets and liabilities through profit or loss to EUR 0,6 million (EUR 3 million).

Taxes in the consolidated income statement amounted to EUR 16 million (EUR 19 million). The Group's profit for the period after taxes in January–June was EUR 61 million (EUR 71 million). The Group's return on equity (*ROE*) in the reporting period was 7.5% (8.5%). Excluding unrealised fair value changes, the ROE was 8.0% (7.1%).

The Group's other comprehensive income includes unrealised fair value changes of EUR 20 million (EUR -62 million). During the reporting period, the most significant item affecting the other comprehensive income was net change in fair value due to changes in own credit risk of financial liabilities designated at fair value through profit or loss totalling EUR 31 million (EUR -30 million). The cost-of hedging amounted EUR -10 million (EUR -27 million). Net change in fair value of financial assets at fair value through other comprehensive income was EUR -1 million (EUR 4 million).

On the whole, unrealised fair value changes net of deferred tax affected the Group's equity by EUR 13 million (EUR -36 million) and CET1 capital net of deferred tax in capital adequacy by EUR -11 million (EUR -15 million). The cumulative effect of unrealised fair value changes on the Group's own funds in capital adequacy calculations was EUR 36 million (EUR 47 million).

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

In accordance with its risk management principles, the Group uses derivatives to 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 holds financial instruments and their hedging derivatives almost always until the maturity date. The counterparty credit risk related to derivatives is comprehensively covered by collateral management. Changes in credit risk spreads are not expected to be materialised as credit losses for the Group, because the Group's liquidity reserve has been invested in instruments with low credit risk.

The Parent Company and subsidiary company Inspira's results
In January–June, MuniFin's net interest income amounted to EUR 124 million (EUR 118 million) and net operating profit to EUR 77 million (EUR 86 million). The comparison period included interest expenses of EUR 4 million for an AT1 capital loan redeemed in April 2022.

The turnover of MuniFin's subsidiary company, Financial Advisory Services Inspira Ltd, was EUR 1 million (EUR 1 million) in January–June, and its net operating profit amounted to EUR 0.0 million (EUR 0.1 million).

Information on the consolidated statement of financial position

CONSOLIDATED STATEMENT OF FINANCIAL POSITION (EUR million)	30 Jun 2023	31 Dec 2022	Change, %
Cash and balances with central banks	0	0	8.9
Loans and advances to credit institutions	9,531	9,625	-1.0
Loans and advances to the public and public sector entities	30,129	29,144	3.4
Debt securities	4,619	4,787	-3.5
Derivative contracts	2,306	2,707	-14.8
Other items included in the assets	1,792	1,473	21.7
Total assets	**48,377**	**47,736**	**1.3**
Liabilities to credit institutions	179	2,333	-92.3
Liabilities to the public and public sector entities	2,516	2,530	-0.5
Debt securities issued	38,376	35,592	7.8
Derivative contracts	4,485	4,616	-2.8
Other items included in the liabilities	1,197	1,052	13.7
Total equity	1,623	1,614	0.6
Total liabilities and equity	**48,377**	**47,736**	**1.3**

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

MuniFin Group's consolidated statement of financial position totalled EUR 48,377 million (EUR 47,736 million) at the end of June 2023 and saw 1.3% (2.4%) of growth in the first half of 2023. The growth in assets were mainly due to the increase in the long-term loan portfolio in Loans and advances to the public and public sector entities and given cash collateral to CCPs in Other assets. In liabilities, the largest changes were repayment of TLTRO III debt in Liabilities to credit institutions, and in turn new debt issuances in Debt securities issued.

At the end of the reporting period, the Group's equity stood at EUR 1,623 million (EUR 1,614 million). Profit for the period and change in own credit revaluation reserve increased the Group's equity in total of EUR 86 million, but on the other hand, fair value reserve of investments and cost-of-hedging reserve decreased it by EUR 9 million. In the consolidated accounts, dividends of EUR 68 million (EUR 40 million) for the financial year 2022, paid to MuniFin's shareholders in April 2023, were deducted from the equity.

The Parent Company's balance sheet at the end of the reporting period was EUR 48,376 million (EUR 47,736 million).

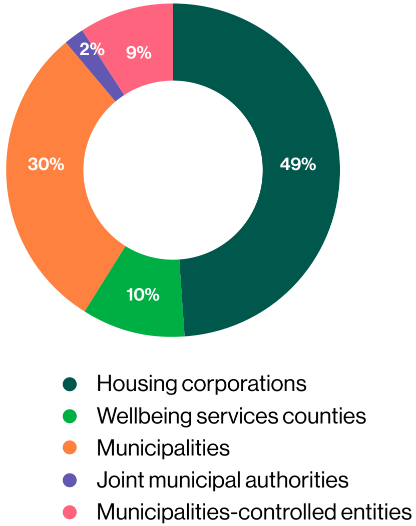
Financing and other services for customers

MuniFin Group'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*). 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. All loans granted by MuniFin have the risk level associated with Finnish public sector entities and a risk weight of 0% in capital adequacy calculations.

In the first half of 2023, the Group's customers continued to face cost pressures amidst the rapidly increasing prices and interest rates and other shifts in the operating environment. The housing sector had higher demand for financing than in the year before, but rising construction costs delayed new project starts.

Finland's new wellbeing services counties initiated their operations on 1 January 2023. In contrast to the housing sector, municipalities and wellbeing services counties experienced less demand for financing. Municipal finances were supported by temporary tax benefits related to the health and social services reform, while the hospital districts that preceded the wellbeing services counties had proactively prepared for their financing needs by withdrawing finance in advance. MuniFin transferred financing contracts and other commitments from hospital districts, special care districts and voluntary joint municipal authorities for health and social services to the wellbeing services counties in early 2023. These commitments totalled about four billion euros.

Long-term loan portfolio by customer type 30 Jun 2023, %



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

In the first half of 2023, MuniFin Group developed its business steadily and was able to further solidify its market position among its customer groups. The amount of finance granted by MuniFin decreased by 10.3% (18.9%) compared to the previous year. New long-term customer financing in January–June totalled EUR 1,931 million (EUR 2,153 million), of which EUR 1,818 million (EUR 2,006 million) consisted of loans and EUR 113 million (EUR 147 million) of leased assets. In total, long-term customer financing amounted to EUR 30,129 million (EUR 29,144 million) at the end of June, of which EUR 28,782 million (EUR 27,841 million) were loans and EUR 1,347 million (EUR 1,303 million) were leased assets. Long-term customer financing (loans and leased assets) excluding unrealised fair value changes amounted to EUR 31,530 million (EUR 30,660 million) at the end of June, growing by 2.8% (2.6%). Short-term customer financing in commercial papers totalled EUR 1,198 million (EUR 1,457 million) at the end of June.

MuniFin Group's sustainable financing products continued to gain more demand in the first half of 2023, especially green finance. At the end of June, the Group's long-term green finance stood at EUR 3,814 million (EUR 3,251 million) and long-term social finance at EUR 1,875 million (EUR 1,734 million). As a public sector lender, MuniFin aims to promote environmentally sustainable goals in its customer finance. The Group's strategic goal is for green and social finance to account for at least 20% of the long-term customer finance portfolio by the end of 2024. Ratio of green finance and social finance to long-term customer financing excluding unrealised fair value changes was 18.0% (16.3%) at the end of June.

MuniFin's subsidiary company Inspira specialises in financial advisory services. During the reporting period, the demand for Inspira's services was robust, but did not contribute to an increase in its turnover. Customers' needs to analyse how they will be affected by the shifting operating environment have increased. Inspira supports its customers in designing sustainable economic and financial solutions. In the early months of 2023, the most popular services were services that help wellbeing services counties plan their finances and their property ownership and management, and services that help housing and municipal sector operators to analyse their economic outlook.

In the first half of 2023, MuniFin Group devoted significant resources to the development of its digital services. Previously available digital services for commercial papers were expanded to cover the application process for long-term finance, which helps streamline and accelerate the process. Moreover, the Group launched a new ESG application, which allows municipal sector customers to monitor their ESG indicators and compare them to those of other municipalities. The company's other applications continued to enjoy popularity. For instance, the widely-used loan portfolio application proved invaluable in planning finances amidst the changing interest rate environment.

Funding and liquidity management

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

The first half of 2023 was marked by challenges stemming from a shifting capital market landscape. The combination of rapidly escalating inflation, soaring interest rates and worldwide issues within the banking sector caused market uncertainty that complicated the acquisition of funding. The timing of issuances took on heightened importance during the reporting period.

Despite the market turbulence, MuniFin Group's funding strategy proved successful, and the Group retained strong access to capital markets, fulfilling its core mandate of securing affordable funding for its customers. MuniFin's funding operations were highly successful, and the average cost of funding remained at a low level. During the reporting period, the Group repaid the debt acquired through the European Central Bank's targeted longer-term refinancing operations (*TLTRO III*), and acquired a corresponding amount of approximately EUR 2 billion through other long-term funding operations.

MuniFin Group plans to acquire EUR 9–10 billion in funding in 2023. In the first half of the year, the Group's new long-term funding totalled EUR 7,118 million (EUR 5,962 million). Funding operations have proceeded right on schedule, and 74.9% of the planned total funding was acquired by the end of June. A total of 54 (116) funding arrangements were made in 10 (12) different currencies. The Group uses derivatives to hedge against market risks in funding.

At the end of June, MuniFin Group's total funding amounted to EUR 41,018 million (EUR 40,210 million), of which MuniFin's short-term debt instruments under the Euro Commercial Paper (*ECP*) programme totalled EUR 3,099 million (EUR 4,650 million). Of total funding, 53.3% (48.5%) were denominated in euros and 46.7% (51.5%) in foreign currencies.

MuniFin successfully issued four benchmark bonds in the first half of the year. The benchmark bond of EUR 1.5 billion issued in January marked the Group's largest issuance in two years, and it was quickly oversubscribed despite the challenging market situation. In February, MuniFin issued a green bond totalling EUR 1 billion, making it the largest green bond in the Group's history and also the largest euro-denominated issuance in the Nordic SSA category. In April, MuniFin issued a bond of EUR 1 billion with maturity of 7 years and in June, MuniFin issued a bond of USD 1 billion, which was more than twice oversubscribed in a short time despite the stiff competition in the SSA market.

The Group's liquidity has remained excellent. Due to uncertainty caused by the Russian invasion of Ukraine and the inflation outlook, the Group has maintained larger than normal liquidity buffers as a precaution. At the end of June 2023, the Group's total liquidity amounted to EUR 11,323 million (EUR 11,506 million). Of this, central bank deposits totalled EUR 7,874 million (EUR 8,144 million) and investments in liquid, low-risk securities totalled EUR 3,420 million (EUR 3,330 million), with the average credit rating of AA+ (AA+) and average maturity of 2.8 years (2.6). In addition to this, money market deposits in credit institutions totalled EUR 29 million (EUR 32 million). The Group's liquidity investments are hedged with interest rate swaps. Changes in interest rates therefore do not have a direct impact on profit and loss.

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

At the end of June 2023, the Group's liquidity investments had an average ESG score of 7.58 (7.65), above the benchmark index of 7.45 (7.43). The Group also held a total of EUR 611 million (EUR 498 million) in direct socially responsible investments *(SRIs)*, which is 17.9% (15.0%) of all the Group's investments in securities. The Group's ratio of sustainable investments is higher than the market benchmark of 9.3% (8.1%). The ratio of socially responsible investments to the Group's own green and social funding was 13.8% (14.5%).

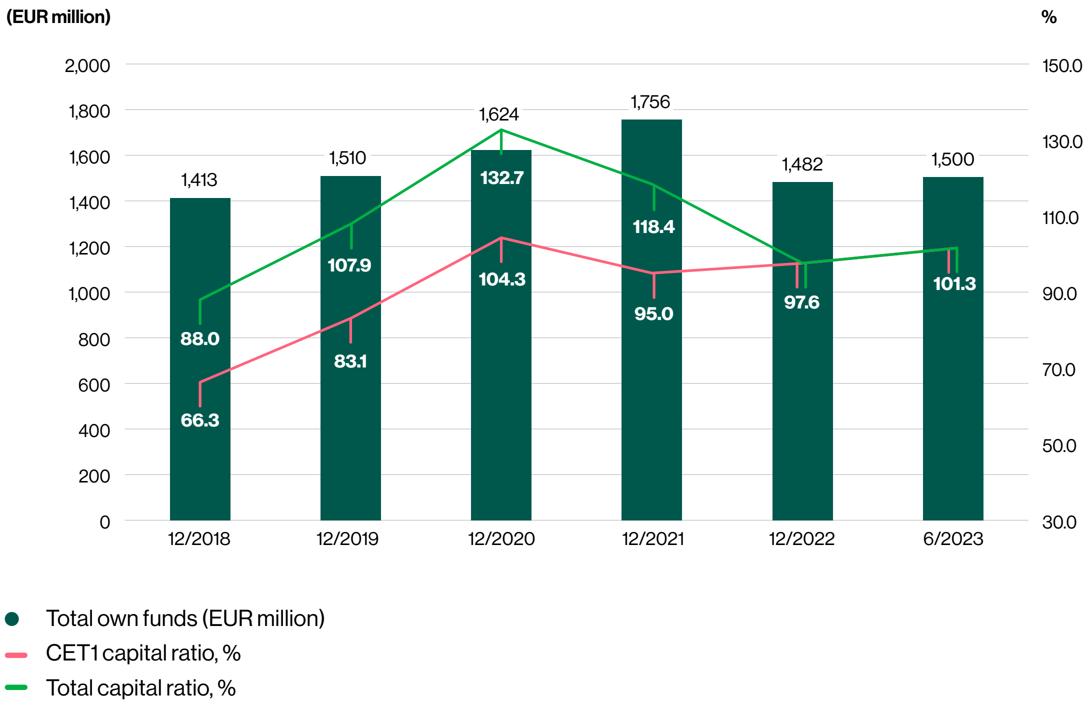
MuniFin's credit ratings

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

MuniFin's credit ratings correspond to those of the Government of Finland. The credit ratings did not change in the reporting period. MuniFin's funding is guaranteed by the Municipal Guarantee Board, which has credit ratings corresponding to MuniFin's credit 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: its CET1 capital ratio was 101.3% (97.6%), which corresponds to its Tier 1 capital ratio and total capital ratio at the end of June (97.6%) because the Group only had CET1 capital at the time. The Group's CET1 capital ratio is more than seven times the required minimum, taking capital buffers into account.

CONSOLIDATED OWN FUNDS (EUR 1,000)	30 Jun 2023	31 Dec 2022
Common Equity Tier 1 before regulatory adjustments	1,587,121	1,546,129
Regulatory adjustments to Common Equity Tier 1	-87,137	-64,519
Common Equity Tier 1 (*CET1*)	**1,499,983**	**1,481,610**
Additional Tier 1 capital before regulatory adjustments	-	-
Regulatory adjustments to Additional Tier 1 capital	-	-
Additional Tier 1 capital (*AT1*)	-	**-**
Tier 1 capital (*T1*)	**1,499,983**	**1,481,610**
Tier 2 capital before regulatory adjustments	-	-
Regulatory adjustments to Tier 2 capital	-	-
Tier 2 capital (*T2*)	**-**	**-**
Total own funds	**1,499,983**	**1,481,610**

At the end of June, the Group's CET1 capital totalled EUR 1,500 million (EUR 1,482 million). The Group had no Additional Tier 1 instruments, and its CET1 capital was therefore equal to its Tier 1 capital, EUR 1,500 million (EUR 1,482 million). The Group had no Tier 2 capital. The Group's own funds totalled EUR 1,500 million (EUR 1,482 million) at the end of June.

The CET1 capital includes profit for the period of 1 January–30 June 2023. This profit has been subject to a 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)*. During the period, MuniFin Group has further developed its AVA (*Additional Valuation Adjustments*) models, but these changes did not have a significant impact on own funds.

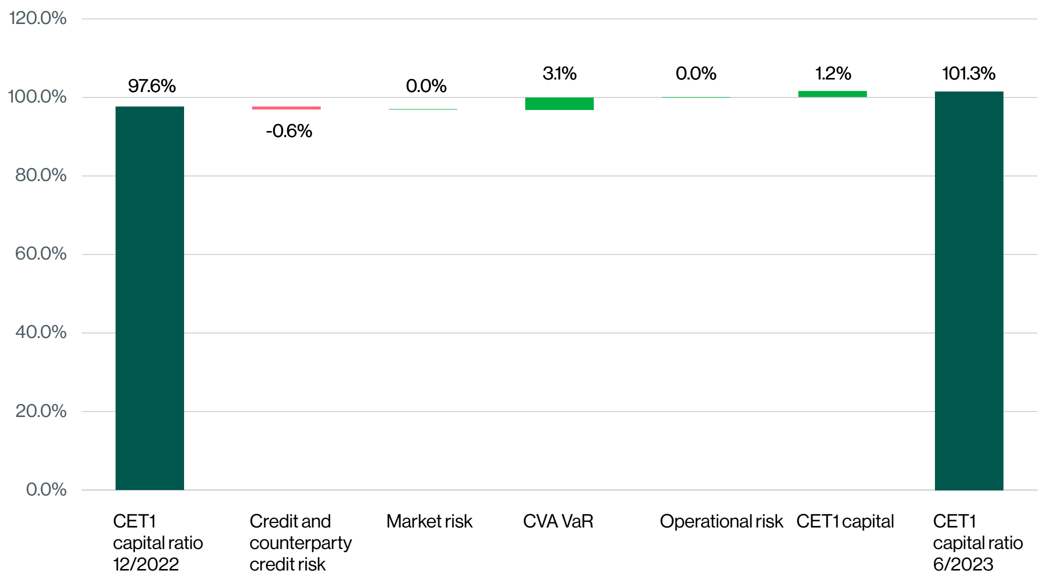
CONSOLIDATED MINIMUM REQUIREMENT FOR OWN FUNDS (EUR 1,000)	30 Jun 2023		31 Dec 2022	
	Capital requirement	Risk exposure amount	Capital requirement	Risk exposure amount
Credit and counterparty credit risk, standardised approach	**42,488**	**531,096**	**41,727**	**521,592**
Exposures to central governments or central banks	-	0	-	0
Exposures to regional governments or local authorities	423	5,283	419	5,240
Exposures to public sector entities	420	5,251	639	7,983
Exposures to multilateral development banks	-	0	-	0
Exposures to institutions	26,480	331,004	26,800	335,004
Exposures to corporates	2,504	31,305	3,297	41,210
Exposures in the form of covered bonds	9,653	120,663	8,723	109,041
Other items	3,007	37,590	1,849	23,113
Market risk	**-**	**-**	**-**	**-**
Credit valuation adjustment risk *(CVA VaR)*, standard method	**33,853**	**423,168**	**37,644**	**470,552**
Operational risk, basic indicator approach	**42,071**	**525,892**	**42,071**	**525,892**
Total	**118,413**	**1,480,157**	**121,443**	**1,518,036**

The capital requirement for counterparty risk is EUR 3,282 thousand (EUR 5,640 thousand).

The Group's total risk exposure amount decreased by 2.5% from the end of 2022, totalling EUR 1,480 million (EUR 1,518 million) at the end of the reporting period.

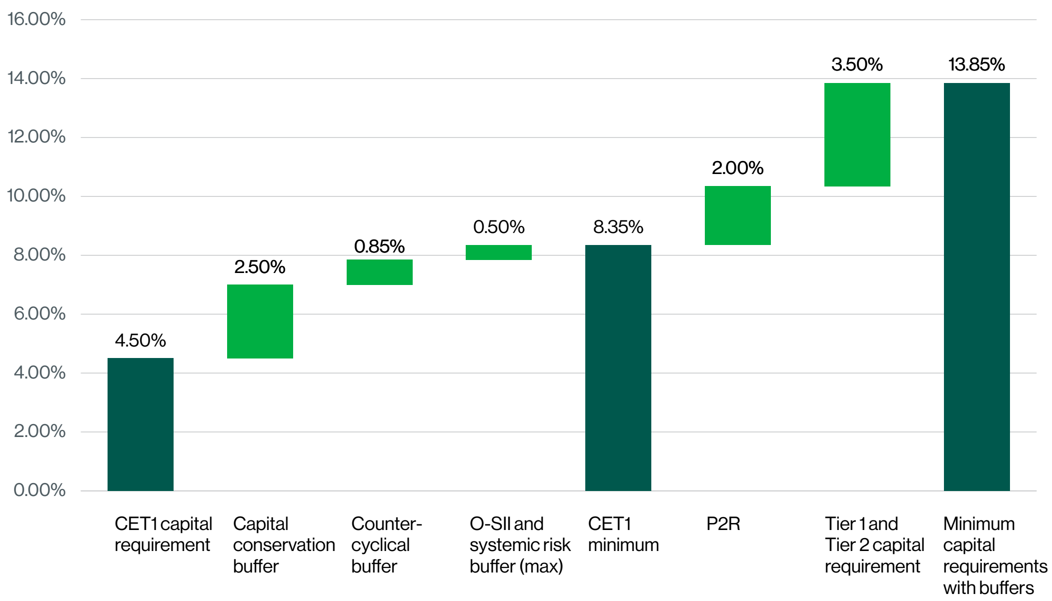
The risk exposure amount for credit and counterparty credit risk increased by EUR 10 million from the end of 2022. There was no capital requirement for market risk at the end of June or in the comparison year, because the currency position was less than 2% of the Group's own funds, and, based on Article 351 of the CRR, the own funds requirement for market risk has therefore not been calculated. The credit valuation adjustment risk (*CVA VaR*) decreased to EUR 423 million (EUR 471 million). The risk exposure amount of operational risk was EUR 526 million (EUR 526 million). The credit valuation adjustment risk's effect that strengthened the capital adequacy was due to the development of counterparty credit risk calculation models, and as a result the prudence included in the calculation could be removed. The change also had a solvency-increasing effect on credit and counterparty risk.

Changes in the Group's CET1 capital ratio, %



The Group will publish a separate Pillar III Disclosure Report on risk management and capital adequacy in week 32. The report will be available in English on MuniFin's website.

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



The Group's minimum capital requirements and capital buffers

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

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

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

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

Leverage ratio, liquidity coverage ratio and net stable funding ratio

At the end of June, MuniFin Group's leverage ratio was 11.9% (11.6%). MuniFin fulfils the CRR II definition of a public development credit institution and may therefore deduct all credit receivables from municipalities, wellbeing services counties and the central government in the calculation of its leverage ratio. The amount of credit receivables from municipalities, wellbeing services counties and the central government was EUR 32,700 million (EUR 31,853 million) at the end of June. After the deduction, the Group's leverage ratio exposures totalled EUR 12,657 million (EUR 12,777 million). The minimum required leverage ratio is 3%.

At the end of June, MuniFin Group's Liquidity Coverage Ratio *(LCR)* was 253.5% (256.7%) and its Net Stable Funding Ratio *(NSFR)* was 127.1% (120.3%). Both have a minimum requirement of 100%.

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

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

The MREL requirement 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 the MREL requirement by multiple times, and there is no present need for MuniFin to issue Tier 3 instruments.

Changes in banking regulation

In 2022, MuniFin Group 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 was published in March 2023 as part of the 2022 Pillar III Disclosure Report. During the reporting period, the Group started preparing for the disclosure of the phase 2 information starting in late 2023.

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 has started assessing these regulatory changes during the period and 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 prepares for CSRD-compliant sustainability reporting, which will be adopted for the financial year 2025.

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

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

At the end of June 2023, the Group's leverage ratio calculated with CET1 capital was 11.9%. 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.

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

- Uncertainties and changes in the operating environment and regulation
- Assessments of the Group's financial situation in the future
- The Group's funding position and liquidity
- Changes to the Group's risk position
- Unrealised fair value changes affecting the Group's own funds
- Assessments of the Group's liquidity development
- Views of supervisory authorities and credit rating agencies
- Accruals of possible AT1 capital instruments not recognised in 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 the Group's operations include credit and counterparty risk, market risk and liquidity risk. All business operations also involve strategic risks, ESG risks and operational risks, including compliance risk.

The Group will publish a separate Pillar III Disclosure Report on risk management and capital adequacy in week 32. The report will be available in English on MuniFin's website.

The Group's risk position

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

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

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

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

In view of its credit risk mitigation techniques (mortgage collateral and guarantees received) and the exemptions set out in CRR Article 400 related to the calculation of large exposures, MuniFin Group is not exposed to the customer risk referred to in the regulation in its customer financing, and thus the customer risk of any individual customer does not exceed 10% of the Group's own funds. The amount of expected credit losses in the first half of the year was EUR -0.2 million (EUR -0.7 million) recognised in the income statement. The amount of forborne loans was EUR 82 million (EUR 80 million), while non-performing exposures amounted to EUR 2 million (EUR 7 million) at the end of June. For these non-performing exposures, MuniFin has absolute guarantees by municipalities or by wellbeing services counties, or real estate collateral and state deficiency guarantee, and these exposures are therefore not expected to carry the risk of a final credit loss. Non-performing exposures represented less than 0.01% (0.02%) of total customer exposures.

MuniFin's credit risk position remained stable and at a low level during the first half of 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. At the end of June, one-year NII risk was EUR -16 million, and the least favourable scenario was a drop of 200 basis points in the whole interest rate curve (at the end of 2022, the least favourable scenario was a drop of 200 basis points in the whole interest curve, EUR -25 million). Several scenarios are also used in the calculation of the economic value of equity (*EVE*), of which the least favourable outcome is considered. At the end of June, the least favourable scenario was a rise of 200 basis points in the whole interest rate curve, resulting in EVE of EUR -79 million (at the end of 2022, the least favourable scenario was a rise of 200 basis points in the whole interest curve, EUR -34 million).

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

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

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

MuniFin Group manages its refinancing risk by limiting the average maturity between financial assets and liabilities. In addition, the Group manages its liquidity risk by setting a limit for the minimum adequacy of the available short-term and long-term liquidity. The Group's survival horizon stood at over 18 months (15 months) at the end of June. The Group's liquidity remained good, with the Liquidity Coverage Ratio *(LCR)* being 253.5% (256.7%) at the end of June. The availability of long-term funding is monitored via the Net Stable Funding Ratio *(NSFR)*, which stood at 127.1% (120.3%). The availability of funding remained good throughout the first half of the year. In January–June 2023, the Group issued EUR 7,118 million (EUR 5,962 million) in new long-term funding.

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

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

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

According to the Group's assessment, environmental and climate risks are unlikely to manifest substantially in the short term, but they may have an adverse economic effect on the Group's customers in the medium and long term.

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

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

Governance

In addition to corporate legislation, MuniFin complies with the governance requirements of the Finnish Act on Credit Institutions. The governance policy is described in more detail on MuniFin's website, where is also available a Corporate Governance Statement 2022, pursuant to chapter 7, section 7 of the Finnish Securities Market Act. The statement includes a description of the main features of the internal audit and risk management systems pertaining to the financial reporting process. The statement also includes the governance descriptions required by the Act on Credit Institutions as well as information on how MuniFin complies with the Finnish Corporate Governance Code for listed companies published by the Finnish Securities Market Association. This code applies to Finnish listed companies, i.e. companies whose shares are listed on Nasdaq Helsinki Ltd (Helsinki Stock Exchange). Since MuniFin is exclusively an issuer of listed bonds, and its shares are not subject to public trading, this code does not apply directly to MuniFin.

Group structure

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

General meeting

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

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

In accordance with the Board's proposal, the AGM elected KPMG Oy Ab as MuniFin's auditor, with APA Tiia Kataja as the principal auditor. Kataja acted as the principal auditor during the previous term as well. The AGM also noted that MuniFin must elect a new auditor for the term beginning in 2024 to comply with the mandatory audit firm rotation requirement. It was recorded that the Board of Directors chose to propose, based on a recommendation of the Audit Committee, that the 2024 AGM appoint PricewaterhouseCoopers Oy as the new auditor.

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

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

Board of Directors

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

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

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

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

Personnel

At the end of June 2023, MuniFin Group had 186 (180) employees, of which 175 (170) worked for the Parent Company. Salaries and remuneration paid across the Group amounted to EUR 8.5 million (EUR 7.7 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.

Internal audit

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

Events after the reporting period

The results of Europe-wide stress tests were published on 28 July 2023. MuniFin Group took part in the European Central Bank's SSM Stress Test covering the years 2023–2025. The Group's capital adequacy and leverage ratio remained very strong also under the adverse scenario. Under the adverse scenario, the Group's CET1 capital ratio would stand at 80.7% and leverage ratio at 10.4% at the end of 2025. Both figures exceed minimum requirements by a wide margin.

Outlook for the second half of 2023

Leading economic indicators suggest that the global economic cycle is taking another turn for the worse. The tightening monetary policy will further suppress demand, curbing cost pressures and slowing down inflation. The ECB's deposit facility rate peak will probably stay around 4%. In 2023, however, risks related to price stability do not yet allow for interest rate decreases that could stimulate economic growth.

Finland's economy is also short for growth factors, although a deep recession is not in sight. Weak consumer purchasing power and rising financing costs are weighing down final domestic demand. The sharp slowdown in housing production will cut down GDP growth considerably both in 2023 and in 2024, and the cooling down of the international cycle will inevitably reflect on the export outlook. Finland's GDP is expected to contract by 0.5% in 2023 and resume moderate growth reaching 0.5% in 2024.

Finland's labour market situation has remained surprisingly strong. Going forward, however, the downturn will slightly lower the overall employment rate and raise the unemployment rate. Unemployment is likely to increase especially in industries connected with the housing market and construction, and to a lesser extent possibly also in manufacturing. The unemployment rate is expected to rise to about 7.1% in 2023 and to 7.4% in 2024. Inflation is expected to reach 6.0% in 2023 but then come down to 2.1% in 2024.

In 2023, the financial position of municipalities will continue to show a modest surplus thanks to the government's COVID-19 recovery measures from the previous years and the temporary tax benefits stemming from the health and social services reform. But the outlook for municipal finances is weakened, and starting next year, the municipal sector's financial position is expected to show a clear deficit. The developments are looking poorer than expected because of general cost pressures, wage settlements, income growth being lower than expected due to the subdued economic outlook, and the high level of investments, especially in the municipal sector.

Considering the above-mentioned circumstances, the Group expects its net operating profit excluding unrealised fair value changes to be at the same level or higher (Financial Statements Bulletin 2022: at the same level) as in 2022. 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.

Helsinki, 7 August 2023
Municipality Finance Plc
Board of Directors

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The Group's development

	Jan–Jun 2023	Jan–Jun 2022	Jan–Dec 2022
Turnover (EUR million)	1,054	258	759
Net interest income (EUR million)*	124	122	241
% of turnover	11.8	47.1	31.8
Net operating profit (EUR million)*	77	91	215
% of turnover	7.3	35.0	28.3
Unrealised fair value changes (EUR million)*	-5	16	45
Net operating profit excluding unrealised fair value changes (EUR million)*	81	74	170
Cost-to-income ratio*	0.3	0.3	0.2
Cost-to-income ratio excluding unrealised fair value changes*	0.3	0.3	0.2
Return on equity *(ROE)*, annualised %*	7.5	8.5	9.9
Return on equity *(ROE)* excluding unrealised fair value changes, annualised %*	8.0	7.1	7.8
Return on assets *(ROA)*, annualised %*	0.3	0.3	0.4
Return on assets *(ROA)* excluding unrealised fair value changes, annualised %*	0.3	0.3	0.3
New long-term customer financing (EUR million)*	1,931	2,153	4,375
New long-term funding (EUR million)*	7,118	5,962	8,827

	30 Jun 2023	30 Jun 2022	31 Dec 2022
Long-term customer financing (EUR million)*	30,129	28,831	29,144
Total funding (EUR million)*	41,018	40,850	40,210
Equity (EUR million)	1,623	1,481	1,614
Total balance sheet (EUR million)	48,377	47,491	47,736
Total liquidity (EUR million)*	11,323	11,798	11,506
Liquidity Coverage Ratio *(LCR)*, %	253.5	292.6	256.7
Net Stable Funding Ratio *(NSFR)*, %	127.1	129.4	120.3
Equity ratio, %*	3.4	3.1	3.4
CET1 capital (EUR million)	1,500	1,421	1,482
Tier 1 capital (EUR million)	1,500	1,421	1,482
Total own funds (EUR million)	1,500	1,421	1,482
CET1 capital ratio, %	101.3	83.8	97.6
Tier 1 capital ratio, %	101.3	83.8	97.6
Total capital ratio, %	101.3	83.8	97.6
Leverage ratio, %**	11.9	10.6	11.6
Personnel	186	180	175

** 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, wellbeing services counties 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 39–47. All figures presented in this Half Year Report are those of MuniFin Group, unless otherwise stated.

Key figures

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

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

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

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	RECONCILIATION	Jan–Jun 2023	Jan–Jun 2022
Net interest income	Interest income and expense from financial assets and liabilities are recognised in net interest income. A significant part of the Group's revenues consists of net interest income.	Interest and similar income (incl. Leasing)	1,058	241
		interest and similar expense	-934	-119
		Net interest income	**124**	**122**
Unrealised fair value changes	According to IFRS 9 standard, part of financial instruments are measured at fair value through profit and loss which increases PnL volatility. To enhance comparability of business performance between periods and companies, it is often necessary to exclude the PnL effect of the unrealised fair value changes. Items in the calculation formula is from consolidated income statement's line item *Net income on financial instruments at fair value through profir or loss*.	Net income from financial assets and liabilities through profit or loss, unrealised fair value changes	1	3
		Net income from hedge accounting	-5	13
		Unrealised fair value changes	**-5**	**16**
Net operating profit	Net operating profit describes the Group's operating profit before taxes.	**Net operating profit**	**77**	**91**
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	77	91
		- Unrealised fair value changes	-5	16
		Net operating profit excluding unrealised fair value changes	**81**	**74**
Income	Income, which describes the Group's total income, is used e.g. as a denominator (excl. Commission expenses) in Cost-to-income ratio.	Net interest income	124	122
		Commission income	1	1
		Net income on financial instruments at fair value through profit or loss	-5	16
		Net income on financial assets at fair value through other comprehensive income	0	-
		Other operating income	0	0
		Income	**120**	**139**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	RECONCILIATION	Jan–Jun 2023	Jan–Jun 2022
Income excluding unrealised fair value changes	Income excluding unrealised fair value changes reflects the Group's operating income, of which the most significant is net interest income.	Income	120	139
		- Unrealised fair value changes	-5	16
		Income excluding unrealised fair value changes	**125**	**123**
Other income	Other income includes all other income of the Group except net interest income and unrealised fair value changes.	Commission income	1	1
		Net income from financial assets and liabilities through profit or loss, realised	0	-
		Net income from FX differences	0	0
		Net income on financial assets at fair value through other comprehensive income	0	-
		Other operating income	0	0
		Other income	**1**	**1**
Costs	Costs, which describe the Group's total costs, is used e.g. as a numerator (excl. Commission expenses) in Cost-to-income ratio.	Commission expenses	8	3
		HR and administrative expenses	20	19
		Depreciation and impairment on tangible and intangible assets and on shares	3	8
		Other operating expenses	13	19
		Costs	**43**	**48**
Costs excluding the non-recurring item	Costs excluding the non-recurring item reflects the amount of costs comparable between financial periods.	Costs	43	48
		Non-recurring item (expenses on terminated IT system implementation)	-	-10
		Costs excluding the non-recurring item	**43**	**38**
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)	36	45
		÷ Income (incl. Net commission income)	112	136
		Cost-to-income ratio	**0.3**	**0.3**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	RECONCILIATION	Jan–Jun 2023	Jan–Jun 2022
Cost-to-income ratio excluding unrealised fair value changes	Cost-to income ratio excluding unrealised fair value changes gives a more precise picture of MuniFin Group's operative effectiveness as it excludes the income volatility of unrealised fair value changes. It improves comparability of operative effectiveness between companies and reporting periods.	Costs (excl. Commission expenses)	36	45
		÷ (Income (incl. Net commission income)	112	136
		- Unrealised fair value changes)	-5	16
		Cost-to-income ratio excluding unrealised fair value changes	**0.3**	**0.4**
The effect of unrealised fair value changes on other comprehensive income and equity net of tax	Key indicator used in management reporting to describe the effect of unrealised fair value changes during the reporting period on the Group's comprehensive income and equity net of tax.	Unrealised fair value changes through PnL	-5	16
		Taxes related to the unrealised fair value changes through PnL	1	-3
		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	25	-24
		Net change in Cost-of-Hedging, net of tax	-8	-22
		Net change in fair value of financial assets at fair value through other comprehensive income, net of tax	-1	-3
		Net amount reclassified to the income statement on the sales of financial assets at fair value through other comprehensive income, net of tax	0	-
		The effect of unrealised fair value changes on other comprehensive income and equity net of tax	**13**	**-36**
New long-term customer financing	Key indicator used in management reporting to describe MuniFin Group's business volume during the reporting period. The indicator includes the amount of new loans excluding unrealised fair value changes and new leased assets excluding unrealised fair value changes.	New lending	1,818	2,006
		New leased assets	113	147
		New long-term customer financing	**1,931**	**2,153**
New long-term funding	Key indicator used in management reporting to describe MuniFin Group's funding activity during the reporting period. The indicator includes the amount of new funding (over 1 year) issued excluding unrealised fair values changes.	**New long-term funding**	**7,118**	**5,962**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	RECONCILIATION	Jan–Jun 2023	Jan–Jun 2022
Return on Equity *(ROE)*, %	ROE measures the efficiency of MuniFin Group's capital usage. It is a commonly used performance measure and as an APM improves comparability between companies. The key figure is reported annualised.	((Net operating profit	77	91
		- Taxes)	-16	-19
		÷ Equity and non-controlling interest (average of values at the beginning and end of the period)) x100	1,619	1,671
		Return on Equity *(ROE)*, %	**7.5%**	**8.5%**
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	81	74
		- Taxes)	-16	-15
		÷ Equity and non-controlling interest (average of values at the beginning and end of the period)) x100	1,619	1,671
		Return on Equity *(ROE)* excluding unrealised fair value changes, %	**8.0%**	**7.1%**
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	77	91
		- Taxes)	-16	-19
		÷ Average balance sheet total (average of values at the beginning and end of the period)) x100	48,057	46,925
		Return on Assets (*ROA*), %	**0.3%**	**0.3%**
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	81	74
		- Taxes)	-16	-15
		÷ Average balance sheet total (average of values at the beginning and end of the period)) x100	48,057	46,925
		Return on Assets (*ROA*) excluding unrealised fair value changes, %	**0.3%**	**0.3%**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	RECONCILIATION	30 Jun 2023	31 Dec 2022
Equity ratio, %	Equity ratio is an investment leverage and solvency ratio that measures the amount of assets that are financed by equity. It is a commonly used performance measure and as an APM improves comparability between companies.	(Equity and non-controlling interest	1,623	1,614
		÷ Balance sheet total) x100	48,377	47,736
		Equity ratio, %	**3.4%**	**3.4%**
Long-term loan portfolio	Key indicator used in management reporting to describe MuniFin Group's business volume.	Loans and advances to the public and public sector entities	30,129	29,144
		- Leasing	1,347	1,303
		Long-term loan portfolio	**28,782**	**27,841**
Long-term customer financing	Key indicator used in management reporting to describe MuniFin Group's business volume.	Loans and advances to the public and public sector entities	30,129	29,144
		Long-term customer financing	**30,129**	**29,144**
Long-term customer financing excluding unrealised fair value changes	Key indicator used in management reporting to describe MuniFin Group's business volume. In this indicator the unrealised fair value changes have been excluded to enhance comparability of business performance between periods.	Loans and advances to the public and public sector entities	30,129	29,144
		- Unrealised fair value changes	1,401	1,516
		Long-term customer financing excluding unrealised fair value changes	**31,530**	**30,660**
Ratio of green finance and social finance to long-term customer financing excluding unrealised fair value changes	Key indicator used in management reporting to describe MuniFin Group's business volume.	Green finance	3,814	3,251
		Social finance	1,875	1,734
		(Total of green and social finance	**5,689**	**4,985**
		÷ Long-term customer financing excluding unrealised fair value changes) x100	31,530	30,660
		Ratio of green finance and social finance to long-term customer financing excluding unrealised fair value changes	**18.0%**	**16.3%**

ALTERNATIVE PERFORMANCE MEASURE EUR million	DEFINITION / EXPLANATION	RECONCILIATION	30 Jun 2023	31 Dec 2022
Short-term customer financing	Key indicator used in management reporting to describe MuniFin Group's business volume.	Debt securities, commercial papers from customers	1,198	1,457
		Short-term customer financing	**1,198**	**1,457**
Total funding	Key indicator used in management reporting to describe MuniFin Group's funding volume.	Liabilities to credit institutions	179	2,333
		Liabilities to the public and public sector entities	2,516	2,530
		Debt securities issued	38,376	35,592
		Total	**41,071**	**40,454**
		- CSA collateral (received)	-54	-244
		Total funding	**41,018**	**40,210**
Long-term funding	Key indicator used in management reporting to describe MuniFin Group's funding volume.	Total funding	41,018	40,210
		- Short-term issued funding *(ECP)*	-3,099	-4,650
		Long-term funding	**37,919**	**35,560**
Total liquidity	Key indicator used in management reporting to describe MuniFin Group's liquidity position.	Debt securities	4,619	4,787
		- Short-term customer financing	-1,198	-1,457
		Investments in securities total	**3,420**	**3,330**
		Cash and balances with central banks	0	-
		Other deposits	7,903	8,176
		Other investments total	**7,903**	**8,176**
		Total liquidity	**11,323**	**11,506**
Ratio of socially responsible investments to MuniFin Group's own green and social funding	Key indicator used in management reporting for social responsibility area.	(Socially responsible investments	611	498
		÷Green and social funding) x100	4,430	3,430
		Ratio of socially responsible investments to MuniFin Group's own green and social funding	**13.8%**	**14.5%**

OTHER MEASURES EUR million	DEFINITION	RECONCILIATION	Jan–Jun 2023	Jan–Jun 2022
Turnover	Defined in IAS 1 standard. 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)	1,058	241
		Commission income	1	1
		Net income on financial instruments at fair value through profit or loss	-5	16
		Net income on financial assets at fair value through other comprehensive income	0	-
		Other operating income	0	0
		Turnover	**1,054**	**258**

			30 Jun 2023	31 Dec 2022
Liquidity Coverage Ratio *(LCR)*, %	Defined in CRR.	(Liquid assets	10,644	10,882
		÷ (Liquidity outflows - liquidity inflows in a stress situation)) x100	4,199	4,240
		Liquidity Coverage Ratio *(LCR)*, %	**253.5%**	**256.7%**
Net Stable Funding Ratio *(NSFR)*, %	Defined in CRR.	(Available Stable Funding (*ASF*)	34,894	31,966
		÷ Required Stable Funding (*RSF*)) x100	27,462	26,583
		Net Stable Funding Ratio *(NSFR)*, %	**127.1%**	**120.3%**
CET1 capital ratio, %	Defined in CRR.	(Common Equity Tier 1 (*CET1*) capital	1,500	1,482
		÷ Risk exposure amount) x100	1,480	1,518
		CET1 capital ratio, %	**101.3%**	**97.6%**

OTHER MEASURES EUR million	DEFINITION	RECONCILIATION	30 Jun 2023	31 Dec 2022
Tier 1 capital ratio, %	Defined in CRR.	(Tier 1 capital	1,500	1,482
		÷ Risk exposure amount) x100	1,480	1,518
		Tier 1 capital ratio, %	**101.3%**	**97.6%**
Total capital ratio, %	Defined in CRR.	(Total own funds	1,500	1,482
		÷ Risk exposure amount) x100	1,480	1,518
		Total capital ratio, %	**101.3%**	**97.6%**
Leverage ratio, %	Defined in CRR.	(Tier 1 capital	1,500	1,482
		÷ Total exposure) x100	12,657	12,777
		Leverage ratio, %	**11.9%**	**11.6%**

MuniFin Group's
Half Year Report
tables

MuniFin

Consolidated income statement

(EUR 1,000)	Note	Jan–Jun 2023	Jan–Jun 2022
Interest and similar income	(2)	1,058,495	240,952
Interest and similar expense	(2)	-934,127	-119,236
Net interest income		**124,368**	**121,716**
Commission income		1,102	1,175
Commission expense		-7,730	-2,761
Net income on financial instruments at fair value through profit and loss	(3)	-5,039	16,145
Net income on financial assets at fair value through other comprehensive income		-257	-
Other operating income		102	66
HR and administrative expenses		-20,046	-18,603
Depreciation and impairment on tangible and intangible assets and on shares	(9)	-3,138	-7,549
Other operating expenses		-12,562	-18,916
Credit loss and impairments on financial assets	(10)	-218	-740
Net operating profit		**76,581**	**90,532**
Income tax expense		-15,665	-19,129
Profit for the period		**60,917**	**71,403**

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

The accompanying notes are an integral part of the Half Year Report.

Consolidated statement of comprehensive income

(EUR 1,000)	Note	Jan–Jun 2023	Jan–Jun 2022
Profit for the period		60,917	71,403
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	(3)	31,333	-30,352
Net change in Cost-of-Hedging	(4)	-10,339	-26,975
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		-771	-4,275
Net amount reclassified to the income statement on the sales of financial assets at fair value through other comprehensive income		287	-
Net change in expected credit loss of financial assets at fair value through other comprehensive income	(10)	-4	0
Taxes related to components of other comprehensive income		-4,101	12,320
Total components of other comprehensive income		16,405	-49,281
Total comprehensive income for the period		**77,321**	**22,121**

The accompanying notes are an integral part of the Half Year Report.

Consolidated statement of financial position

(EUR 1,000)	Note	30 Jun 2023	31 Dec 2022
Assets			
Cash and balances with central banks	(7)	2	2
Loans and advances to credit institutions		9,531,268	9,625,488
Loans and advances to the public and public sector entities		30,129,008	29,144,361
Debt securities		4,618,618	4,786,768
Derivative contracts	(8)	2,305,756	2,707,103
Intangible assets	(9)	7,828	8,831
Tangible assets	(9)	9,946	5,062
Other assets		1,454,404	1,234,810
Accrued income and prepayments		320,097	223,104
Deferred tax assets		12	763
Total assets	**(5, 6)**	**48,376,941**	**47,736,293**

(EUR 1,000)	Note	30 Jun 2023	31 Dec 2022
Liabilities and equity			
Liabilities			
Liabilities to credit institutions	(11)	179,259	2,332,623
Liabilities to the public and public sector entities		2,516,086	2,529,585
Debt securities issued	(12)	38,376,034	35,592,065
Derivative contracts	(8)	4,485,429	4,616,111
Provisions and other liabilities	(13)	573,009	593,848
Accrued expenses and deferred income		328,618	166,635
Deferred tax liabilities		295,056	291,717
Total liabilities	**(5, 6)**	**46,753,491**	**46,122,584**
Equity			
Share capital		42,583	42,583
Reserve fund		277	277
Fair value reserve of investments		-4,848	-4,457
Own credit revaluation reserve		24,983	-83
Cost-of-Hedging reserve	(4)	-6,783	1,488
Reserve for invested non-restricted equity		40,366	40,366
Retained earnings		1,526,871	1,533,535
Total equity attributable to Parent Company equity holders		**1,623,450**	**1,613,709**
Total equity		**1,623,450**	**1,613,709**
Total liabilities and equity		**48,376,941**	**47,736,293**

The accompanying notes are an integral part of the Half Year Report.

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 Dec 2022	**42,583**	**277**	**-4,457**	**-83**	**1,488**	**40,366**	**1,533,535**	**1,613,709**	**-**	**1,613,709**
Redemption of Additional Tier 1 capital instrument	-	-	-	-	-	-	-	-	-	-
Interest paid on Additional Tier 1 capital instrument	-	-	-	-	-	-	-	-	-	-
Dividends paid for 2022	-	-	-	-	-	-	-67,580	-67,580	-	-67,580
Profit for the period	-	-	-	-	-	-	60,917	60,917	-	60,917
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	-	-	-	25,066	-	-	-	25,066	-	25,066
Net change in Cost-of-Hedging	-	-	-	-	-8,271	-	-	-8,271	-	-8,271
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	-	-	-387	-	-	-	-	-387	-	-387
Net change in expected credit loss of financial assets at fair value through other comprehensive income	-	-	-3	-	-	-	-	-3	-	-3
Equity at 30 Jun 2023	**42,583**	**277**	**-4,848**	**24,983**	**-6,783**	**40,366**	**1,526,871**	**1,623,450**	**-**	**1,623,450**

(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
	Total equity attributable to Parent Company equity holders									
Equity at 31 Dec 2021	**42,583**	**277**	**309**	**64**	**13,621**	**40,366**	**1,416,916**	**1,514,136**	**347,454**	**1,861,590**
Redemption of Additional Tier 1 capital instrument	-	-	-	-	-	-	-2,546	-2,546	-347,454	-350,000
Interest paid on Additional Tier 1 capital instrument	-	-	-	-	-	-	-12,600	-12,600	-	-12,600
Dividends paid for 2021	-	-	-	-	-	-	-40,236	-40,236	-	-40,236
Profit for the period	-	-	-	-	-	-	71,403	71,403	-	71,403
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	-	-	-	-24,281	-	-	-	-24,281	-	-24,281
Net change in Cost-of-Hedging	-	-	-	-	-21,580	-	-	-21,580	-	-21,580
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	-	-	-3,420	-	-	-	-	-3,420	-	-3,420
Net change in expected credit loss of financial assets at fair value through other comprehensive income	-	-	0	-	-	-	-	0	-	0
Equity at 30 Jun 2022	**42,583**	**277**	**-3,111**	**-24,217**	**-7,960**	**40,366**	**1,432,937**	**1,480,876**	**-**	**1,480,876**

The accompanying notes are an integral part of the Half Year Report.

Consolidated statement of cash flows

(EUR 1,000)	Jan–Jun 2023	Jan–Jun 2022
Cash flow from operating activities	**67,250**	**454,679**
Net change in long-term funding	2,647,844	2,661,798
Net change in short-term funding	-1,672,863	-243,885
Net change in long-term loans	-900,667	-761,974
Net change in short-term loans	263,280	-458,508
Net change in investments	197,218	312,761
Net change in collaterals	-607,458	-1,069,729
Interest on assets	568,270	-11,516
Interest on liabilities	-401,960	69,701
Other income	33,283	23,934
Payments of operating expenses	-42,348	-32,793
Taxes paid	-17,348	-35,109
Cash flow from investing activities	**-356**	**-2,702**
Acquisition of tangible assets	-7	-5
Proceeds from sale of tangible assets	112	103
Acquisition of intangible assets	-461	-2,800
Cash flow from financing activities	**-68,641**	**-406,918**
Redemption of AT1 capital instrument	-	-350,000
Paid interest on AT1 capital instrument	-	-15,750
Dividend paid	-67,580	-40,236
Total cash flow from leases	-1,060	-932
Change in cash and cash equivalents	**-1,747**	**45,059**
Cash and cash equivalents at 1 Jan	**48,624**	**8,435,504**
Cash and cash equivalents at 30 Jun	**46,877**	**8,480,563**

The accompanying notes are an integral part of the Half Year Report.

Notes to the Half Year Report

Note 1. Basis of preparation of the Half Year Report

The Half Year Report has been prepared in accordance with International Financial Reporting Standards (*IFRS*). The Half Year Report complies with IAS 34 *Interim Financial Reporting* standard and the accounting policies presented in the Consolidated Financial Statements 2022 (Note *1*). This Half Year Report should be read in conjunction with the audited Consolidated Financial Statements for the year ended 31 December 2022.

No significant changes have been made to the accounting principles during the reporting period. In the Half Year Report, where applicable, the Finnish Financial Supervisory Authority's amendments to the *Regulations and Instructions 2/2016* (valid from 1 Jan 2023) have been taken into account for certain items in the income statement. The comparison data has also been updated to reflect the updated guidelines.

LINE ITEM IN THE INCOME STATEMENT UNTIL THE END OF 2022	LINE ITEM IN THE INCOME STATEMENT FROM BEGINNING OF 2023
Net income from securities and foreign exchange transactions	Net income on financial instruments at fair value through profit or loss
Hedge accounting	Net income on financial instruments at fair value through profit or loss
Administrative expenses	HR and administrative expenses
Depreciation and impairment on tangible and intangible assets	Depreciation and impairment on tangible and intangible assets and on shares

The figures in the Notes to the Half Year Report are presented in thousand euro. All figures in the Half Year Report have been rounded, so the total of individual figures may differ from the total figure presented. The Half Year Report has been subject to a review by the auditors.

The Half Year Report is available in Finnish and English. The Finnish version is official and will be used if there is any discrepancy between the language versions.

Management judgement and estimates

Preparation of the Half Year Report in accordance with IFRS requires management judgement and estimates. The key assumptions made by the Group concern significant uncertainty factors pertaining to the future and the estimates at the reporting date.

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 Half Year Report. 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 *6 Fair values of financial assets and liabilities*.

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 *10 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 has updated in the first half of 2023 the probability of defaults according to the update cycle. In addition, macro scenarios were updated to take into account forward-looking information at the end of the period. The Group has assessed the impact of the quickly increased interest rate environment on its receivables from customer financing and credit risk. According to the management judgement, some customers may face challenges in the sufficiency of cash flows during the second half of 2023, which may appear in increased payment delays and forbearances for MuniFin Group. Hence, the Group's management decided to record an additional discretionary provision of EUR 609 thousand based on a group-specific assessment at the end of June 2023. The additional provision relates to the balance sheet line item *Loans and advances to the public and public sector entities*. The additional provision has not been allocated to the contract level.

Note 2. Interest income and expense

(EUR 1,000)	Jan–Jun 2023 Interest and similar income	Jan–Jun 2023 Interest and similar expense	Jan–Jun 2023 Net	Jan–Jun 2022 Interest and similar income	Jan–Jun 2022 Interest and similar expense	Jan–Jun 2022 Net
Assets						
Amortised cost						
Cash and balances with central banks	-	-	-	-	-23,595	-23,595
Loans and advances to credit institutions	133,117	-77	133,040	36	-3,822	-3,786
Loans and advances to the public and public sector entities	320,110	-	320,110	75,800	-	75,800
Debt securities	18,449	-23	18,426	9	-2,485	-2,476
Other assets	19,038	-	19,038	1,186	-	1,186
Fair value through other comprehensive income						
Debt securities	2,102	-	2,102	-	-174	-174
Designated at fair value through profit or loss						
Loans and advances to the public and public sector entities	174	-	174	174	-	174
Debt securities	11,708	-	11,708	3,191	-	3,191
Mandatorily at fair value through profit or loss						
Loans and advances to the public and public sector entities	460	-	460	423	-	423
Debt securities	-	-	-	-	-	-
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	176,031	-133,187	42,844	34,100	-43,382	-9,282
Derivative contracts in hedge accounting	143,751	-	143,751	-47,611	-	-47,611
Leased assets	15,355	-	15,355	4,247	-	4,247
Interest on non-financial other assets	1	-	1	4	-	4
Interest on assets	**840,296**	**-133,287**	**707,009**	**71,559**	**-73,458**	**-1,899**
, of which interest income/expense according to the effective interest method	*490,714*	*-100*		*77,030*	*-30,075*	

(EUR 1,000)	Jan–Jun 2023 Interest and similar income	Jan–Jun 2023 Interest and similar expense	Jan–Jun 2023 Net	Jan–Jun 2022 Interest and similar income	Jan–Jun 2022 Interest and similar expense	Jan–Jun 2022 Net
Liabilities						
Amortised cost						
Liabilities to credit institutions	-	-20,552	-20,552	12,228	-2,347	9,881
Liabilities to the public and public sector entities	-	-19,262	-19,262	-	-20,408	-20,408
Debt securities issued	-	-195,636	-195,636	764	-129,049	-128,286
Provisions and other liabilities	-	-7,309	-7,309	-	-1,852	-1,852
Designated at fair value through profit or loss						
Liabilities to credit institutions	-	-301	-301	-	-27	-27
Liabilities to the public and public sector entities	-	-18,058	-18,058	-	-16,547	-16,547
Debt securities issued	-	-184,510	-184,510	-	-30,710	-30,710
Fair value through profit or loss						
Derivative contracts at fair value through profit or loss	218,200	-163,072	55,128	156,401	-66,833	89,568
Derivative contracts in hedge accounting	-	-192,139	-192,139	-	221,995	221,995
Interest on liabilities	**218,200**	**-800,840**	**-582,641**	**169,393**	**-45,779**	**123,615**
, of which interest income/expense according to the effective interest method	-	*-242,759*		*12,992*	*-153,656*	
Total interest income and expense	**1,058,495**	**-934,127**	**124,368**	**240,952**	**-119,236**	**121,716**

Interest income on stage 3 financial assets in the expected credit loss (*ECL*) calculations totalled EUR 30 thousand (EUR 389 thousand) during the reporting period. 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 26 thousand (EUR 27 thousand) of interest on lease liabilities recognised in accordance with *IFRS 16 Leases* standard.

Interest expenses on financial assets at amortised cost on cash and balances with central banks consisted of interest paid on central bank deposits, and interest on loans and advances to credit institutions of interest on cash collateral receivables in the comparison period. Interest expenses on debt securities consist of interest paid on short-term lending. Negative interest has arisen 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 in the comparison period consisted of interest received on cash collateral liabilities as well as on TLTRO III debt, and interest income on debt securities issued consisted of interest received on ECPs. Interest income on derivative contracts at fair value through profit or loss consists of positive interest expense on derivatives that are not included in hedge accounting. Derivative contracts contained in this line item hedge financial liabilities which are designated at fair value through profit or loss. Derivative contracts in hedge accounting are used as hedges for line items *Liabilities to credit institutions, Liabilities to the public and public sector entities* and *Debt securities issued*.

Note 3. Net income on financial instruments at fair value through profit or loss

Jan–Jun 2023 (EUR 1,000)	Capital gains and losses (net)	Unrealised fair value changes	Total
Financial assets			
Designated at fair value through profit or loss	-	16,619	16,619
Mandatorily at fair value through profit or loss	-	98	98
Financial liabilities			
Designated at fair value through profit or loss	-	-179,577	-179,577
Derivative contracts at fair value through profit or loss	-88	163,435	163,347
Day 1 gain or loss	-	22	22
Net income from financial assets and liabilities through profit or loss	**-88**	**596**	**508**
Net income from FX differences	**9,642**	**-9,785**	**-143**
Net income from hedge accounting	**-260**	**-5,144**	**-5,404**
Total	**9,294**	**-14,333**	**-5,039**

Line item *Net income from financial assets and liabilities through profit or loss* includes fair value changes of financial assets and liabilities measured at fair value through profit or loss, fair value changes of derivative contracts not included in hedge accounting (derivative contracts at fair value through profit or loss) as well as capital gains and losses related to these items. Line item *Net income from FX differences* includes unrealised and realised translation differences for all items denominated in foreign currencies. The breakdown of line item *Net income from hedge accounting* is presented in Note *4 Hedge accounting*. The reconciliation for Day 1 gain or loss is presented in Note *6 Fair values of financial assets and liabilities.*

Jan–Jun 2022 (EUR 1,000)	Capital gains and losses (net)	Unrealised fair value changes	Total
Financial assets			
Designated at fair value through profit or loss	-	-146,401	-146,401
Mandatorily at fair value through profit or loss	-	-2,284	-2,284
Financial liabilities			
Designated at fair value through profit or loss	-	567,062	567,062
Derivative contracts at fair value through profit or loss	-	-415,503	-415,503
Day 1 gain or loss	-	20	20
Net income from financial assets and liabilities through profit or loss	**-**	**2,895**	**2,895**
Net income from FX differences	**4,132**	**-4,071**	**61**
Net income from hedge accounting	**-**	**13,189**	**13,189**
Total	**4,132**	**12,012**	**16,145**

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

FINANCIAL ASSETS AND LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS (EUR 1,000)	Nominal value 30 Jun 2023	Carrying amount 30 Jun 2023	Nominal value 31 Dec 2022	Carrying amount 31 Dec 2022
Financial assets				
Loans and advances to the public and public sector entities	30,000	28,856	30,000	28,432
Debt securities	3,315,674	3,131,813	3,355,906	3,162,034
Total financial assets *	**3,345,674**	**3,160,669**	**3,385,906**	**3,190,465**
Financial liabilities				
Liabilities to credit institutions	44,000	41,566	5,000	3,291
Liabilities to the public and public sector entities	1,470,136	1,290,153	1,495,567	1,318,658
Debt securities issued	9,320,370	8,797,593	11,505,250	10,842,676
Total financial liabilities	**10,834,506**	**10,129,312**	**13,005,818**	**12,164,626**

* Financial assets designated at fair value through profit or loss are exposed to credit risk up to the carrying amounts of those securities at 30 Jun 2023 and 31 Dec 2022.

CHANGE IN FAIR VALUE OF FINANCIAL ASSETS DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS (EUR 1,000)	30 Jun 2023	1 Jan 2023	Fair value change recognised in the income statement Jan–Jun 2023	, of which due to credit risk	, of which due to market risk
Financial assets					
Loans and advances to the public and public sector entities	-9,807	-10,581	774	68	705
Debt securities	-199,652	-215,498	15,846	-1,320	17,166
Total financial assets	**-209,459**	**-226,078**	**16,619**	**-1,252**	**17,872**

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)	30 Jun 2023	1 Jan 2023	Fair value change recognised in the income statement Jan–Jun 2023	Change in own credit risk recognised in the other comprehensive income Jan–Jun 2023	Total fair value change in Jan–Jun 2023
Financial liabilities					
Liabilities to credit institutions	2,333	1,708	626	100	726
Liabilities to the public and public sector entities	223,573	245,483	-21,910	16,664	-5,246
Debt securities issued	574,962	733,254	-158,293	14,568	-143,725
Total financial liabilities	**800,868**	**980,445**	**-179,577**	**31,333**	**-148,245**

NET CHANGE IN FAIR VALUE IN LINE ITEM NET INCOME FROM FINANCIAL ASSETS AND LIABILITIES THROUGH PROFIT OR LOSS (EUR 1,000)	Cumulative change in fair value 30 Jun 2023	Fair value change recognised in the income statement Jan–Jun 2023
Financial liabilities designated at fair value through profit or loss	800,868	-179,577
Derivative contracts at fair value through profit or loss hedging financial liabilities	-802,371	187,400
Net change in fair value	**-1,503**	**7,822**

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 standard fair value hedge accounting. The fair value changes of the financial liabilities impact the income statement, but as they have been hedged, the expected profit or loss is restricted to interest. The table above describes the net impact of these financial liabilities and their hedges on the income statement.

When a financial liability is designated at fair value through profit or loss, the fair value change, with exception to MuniFin's own credit risk that is presented in other comprehensive income as change of the own credit revaluation reserve, is presented in *Net income on financial instruments at fair value through profit or loss*.

MuniFin Group applies the income approach of IFRS 13 standard to the separation of fair value changes related to changes in own credit risk from the fair value changes of the financial liability. For the majority of financial liabilities designated at fair value through profit or loss, no market price is available as there is no active secondary market. The methodology for separation of own credit risk utilises MuniFin's benchmark curves, cross currency basis spreads and credit spreads of MuniFin's issued debt securities on the primary market as input. Based on the aforementioned inputs, valuation curves can be constructed for various reporting periods for valuing financial liabilities designated at fair value through profit or loss. By comparing fair values calculated using the trade date and the reporting date, the impact of change in own credit risk on the fair value of the financial liability can be determined.

Financial liabilities designated at fair value through profit or loss are not traded.

CHANGE IN FAIR VALUE OF FINANCIAL ASSETS DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS (EUR 1,000)	30 Jun 2022	1 Jan 2022	Fair value change recognised in the income statement Jan–Jun 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	-8,396	-769	-7,627	131	-7,757
Debt securities	-118,549	20,226	-138,774	-3,815	-134,960
Total financial assets	**-126,944**	**19,457**	**-146,401**	**-3,684**	**-142,717**

CHANGE IN FAIR VALUE OF FINANCIAL LIABILITIES DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS (EUR 1,000)	30 Jun 2022	1 Jan 2022	Fair value change recognised in the income statement Jan–Jun 2022	Change in own credit risk recognised in the other comprehensive income Jan–Jun 2022	Total fair value change in Jan–Jun 2022
Financial liabilities					
Liabilities to credit institutions	1,331	187	1,144	-47	1,097
Liabilities to the public and public sector entities	125,137	-152,113	277,250	-18,156	259,095
Debt securities issued	861,722	573,054	288,668	-12,149	276,519
Total financial liabilities	**988,189**	**421,127**	**567,062**	**-30,352**	**536,711**

NET CHANGE IN FAIR VALUE IN LINE ITEM NET INCOME FROM FINANCIAL ASSETS AND LIABILITIES THROUGH PROFIT OR LOSS (EUR 1,000)	Cumulative change in fair value 30 Jun 2022	Fair value change recognised in the income statement Jan–Jun 2022
Financial liabilities designated at fair value through profit or loss	988,189	567,062
Derivative contracts at fair value through profit or loss hedging financial liabilities	-1,002,720	-567,161
Net change in fair value	**-14,531**	**-99**

Note 4. 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 rates 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 the Consolidated Financial Statements 2022 in Note *2 Risk Management principles and the Group's risk position.*

The Group applies both fair value hedge accounting according to IFRS 9 and fair value portfolio hedge accounting according to IAS 39. The Group does not apply cash flow hedge accounting. Accounting policies related to hedge accounting are described in the accounting polices of the Consolidated Financial Statements 2022 (Note *1*) in Section *10. Hedge Accounting*. Net income on hedge accounting is recognised in PnL in *Net income on financial instruments at fair value through profit or loss.*

In the following table hedged assets and liabilities are presented according to the 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 30 Jun 2023 (EUR 1,000)	Nominal value	Fair value hedge accounting total	IAS 39 portfolio hedge accounting	IFRS 9 fair value hedge accounting	IFRS 9 fair value hedge accounting incl. Cost-of-Hedging
Assets					
Loans and advances to the public and public sector entities – Loans	12,232,010	10,864,864	10,806,324	58,540	-
Loans and advances to the public and public sector entities – Leased assets	304,504	278,186	-	278,186	-
Total assets	**12,536,514**	**11,143,050**	**10,806,324**	**336,726**	**-**
Liabilities					
Liabilities to credit institutions	95,000	83,893	-	83,893	-
Liabilities to the public and public sector entities	1,302,710	1,225,933	-	1,225,933	-
Debt securities issued	32,217,473	29,343,912	-	16,830,764	12,513,148
Total liabilities	**33,615,183**	**30,653,739**	**-**	**18,140,590**	**12,513,148**

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 following table contain the cumulative fair value change at the beginning and end of the reporting period, in addition to the fair value change of the hedged risk and the hedging instrument during the reporting period. These figures presented in the table do not include the changes in fair value due to foreign exchange differences of hedging instruments and the hedged items. Due to the aforementioned reason, the total amount of hedging instruments does not correspond to the fair value presented in Note *8 Derivatives* on line *Total derivative contracts in hedge accounting*. The fair value changes of the hedged risk of the hedged items and all other fair value changes of the hedging instruments are recognised in the income statement under *Net income on financial instruments at fair value through profit or loss*. The ineffective portion of the hedging relationship is thus shown on this line in the income statement. Net income on financial instruments at fair value through profit or loss is specified in Note *3*.

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)	30 Jun 2023	1 Jan 2023	Recognised in the income statement Jan–Jun 2023
Assets			
IAS 39 portfolio hedge accounting			
Loans and advances to the public and public sector entities	-1,365,106	-1,476,553	111,447
Derivative contracts in hedge accounting	1,431,472	1,549,315	-117,842
Accumulated fair value accrual from the termination of hedge accounting	-1,781	-1,721	-61
IAS 39 portfolio hedge accounting, net	**64,585**	**71,041**	**-6,456**
IFRS 9 fair value hedge accounting			
Loans and advances to the public and public sector entities	-26,790	-29,402	2,613
Derivative contracts in hedge accounting	25,710	28,548	-2,838
IFRS 9 fair value hedge accounting, net	**-1,080**	**-855**	**-225**
Liabilities			
IFRS 9 fair value hedge accounting			
Liabilities to credit institutions	11,107	10,108	999
Liabilities to the public and public sector entities	50,068	54,570	-4,501
Debt securities issued	2,491,885	2,559,950	-68,065
Derivative contracts in hedge accounting	-2,557,985	-2,631,089	73,104
IFRS 9 fair value hedge accounting, net	**-4,925**	**-6,461**	**1,537**
IBOR reform related compensations *	-3,603	-3,343	-260
Total hedge accounting	**54,977**	**60,382**	**-5,404**

* Compensations relate to the IBOR reform of which more information is presented in the accounting policies of the Consolidated Financial Statements 2022 (Note *1*) in Section *23. IBOR reform.*

The following 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 line item *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)	30 Jun 2023	1 Jan 2023	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	-6,783	1,488	-8,271
Total	**-6,783**	**1,488**	**-8,271**

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
30 Jun 2023 (EUR 1,000)

		Gains/losses attributable to the hedged risk		
HEDGED ITEM	**Hedging instruments**	**Hedged items**	**Hedging instruments**	**Hedge ineffectiveness**
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	-1,365,106	1,431,472	66,367
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	-473	741	268
Fixed rate and revisable rate leased assets	Interest rate derivatives	-26,317	24,969	-1,348
Assets total		**-1,391,895**	**1,457,182**	**65,287**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	1,854,770	-1,863,098	-8,328
Financial liabilities denominated in foreign currencies	Currency derivatives (Cross currency interest rate swaps) Interest rate derivatives	698,291	-694,887	3,403
Liabilities total		**2,553,060**	**-2,557,985**	**-4,925**

VALUE OF HEDGED RISK (EUR 1,000)	30 Jun 2022	1 Jan 2022	Recognised in the income statement Jan–Jun 2022
Assets			
IAS 39 portfolio hedge accounting			
Loans and advances to the public and public sector entities	-954,157	122,505	-1,076,662
Derivative contracts in hedge accounting	1,020,079	-78,911	1,098,990
Accumulated fair value accrual from the termination of hedge accounting	227	218	9
IAS 39 portfolio hedge accounting, net	**66,149**	**43,812**	**22,337**
IFRS 9 fair value hedge accounting			
Loans and advances to the public and public sector entities	-12,532	25,414	-37,946
Derivative contracts in hedge accounting	12,365	-25,669	38,034
IFRS 9 Fair value hedge accounting, net	**-168**	**-255**	**88**
Liabilities			
IFRS 9 fair value hedge accounting			
Liabilities to credit institutions	8,395	-5,120	13,515
Liabilities to the public and public sector entities	-60,688	-340,433	279,745
Debt securities issued	1,734,452	-171,028	1,905,480
Derivative contracts in hedge accounting	-1,707,670	500,306	-2,207,975
IFRS 9 fair value hedge accounting, net	**-25,511**	**-16,275**	**-9,236**
IBOR reform related compensations	-3,343	-3,343	0
Total hedge accounting	**37,127**	**23,938**	**13,189**

HEDGING IMPACT ON EQUITY (EUR 1,000)

HEDGING IMPACT ON EQUITY (EUR 1,000)	30 Jun 2022	1 Jan 2022	Impact on Cost-of-Hedging reserve
Cost-of-Hedging			
Derivative contracts in hedge accounting	-7,960	13,621	-21,580
Total	**-7,960**	**13,621**	**-21,580**

EFFECTIVENESS OF HEDGE ACCOUNTING 30 Jun 2022 (EUR 1,000)

		Gains/losses attributable to the hedged risk		
HEDGED ITEM	Hedging instruments	Hedged items	Hedging instruments	Hedge ineffectiveness
Assets				
IAS 39 portfolio hedge accounting				
Fixed rate and revisable rate loans	Interest rate derivatives	-954,157	1,020,079	65,922
IFRS 9 fair value hedge accounting				
Structured lending	Interest rate derivatives	5,540	-4,516	1,024
Fixed rate and revisable rate leased assets	Interest rate derivatives	-18,073	16,881	-1,191
Assets total		**-966,689**	**1,032,444**	**65,754**
Liabilities				
IFRS 9 fair value hedge accounting				
Financial liabilities denominated in EUR	Interest rate derivatives	1,223,135	-1,233,119	-9,984
Financial liabilities denominated in foreign currencies	Currency derivatives (Cross currency interest rate swaps) Interest rate derivatives	459,023	-474,550	-15,527
Liabilities total		**1,682,159**	**-1,707,670**	**-25,511**

Note 5. Financial assets and liabilities

FINANCIAL ASSETS 30 Jun 2023 (EUR 1,000)	Amortised cost	Fair value through other comprehensive income	Designated at fair value through profit or loss	Mandatorily at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Cash and balances with central banks	2	-	-	-	-	2	2
Loans and advances to credit institutions	9,531,268	-	-	-	-	9,531,268	9,531,268
Loans and advances to the public and public sector entities *	29,001,830	-	28,856	29,797	-	29,060,484	30,704,321
Debt securities	1,198,237	288,568	3,131,813	-	-	4,618,618	4,618,470
Derivative contracts at fair value through profit or loss	-	-	-	-	444,419	444,419	444,419
Derivative contracts in hedge accounting	-	-	-	-	1,861,337	1,861,337	1,861,337
Other assets **	1,429,777	-	-	-	-	1,429,777	1,429,777
Total	**41,161,115**	**288,568**	**3,160,669**	**29,797**	**2,305,756**	**46,945,906**	**48,589,595**

* Line item includes EUR 278,186 thousand of leased assets for which the Group applies fair value hedge accounting. Unhedged leased assets are not presented in this Note of financial assets and liabilities as leased assets are not regarded as financial assets for the purpose of IFRS 9 classification.

** Line item includes cash collateral given to central counterparties.

FINANCIAL LIABILITIES 30 Jun 2023 (EUR 1,000)	Amortised cost	Designated at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Liabilities to credit institutions	137,693	41,566	-	179,259	179,233
Liabilities to the public and public sector entities	1,225,933	1,290,153	-	2,516,086	2,529,155
Debt securities issued	29,578,441	8,797,593	-	38,376,034	38,411,605
Derivative contracts at fair value through profit or loss	-	-	1,435,575	1,435,575	1,435,575
Derivative contracts in hedge accounting	-	-	3,049,854	3,049,854	3,049,854
Provisions and other liabilities *	557,162	-	-	557,162	557,162
Total	**31,499,229**	**10,129,312**	**4,485,429**	**46,113,970**	**46,162,585**

* Line item includes EUR 548,502 thousand of cash collateral received from central counterparties and EUR 8,660 thousand of lease liabilities in accordance with IFRS 16 standard.

FINANCIAL ASSETS 31 Dec 2022 (EUR 1,000)	Amortised cost	Fair value through other comprehensive income	Designated at fair value through profit or loss	Mandatorily at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Cash and balances with central banks	2	-	-	-	-	2	2
Loans and advances to credit institutions	9,625,488	-	-	-	-	9,625,488	9,625,488
Loans and advances to the public and public sector entities *	28,055,798	-	28,432	31,090	-	28,115,321	29,739,890
Debt securities	1,457,098	167,636	3,162,034	-	-	4,786,768	4,786,383
Derivative contracts at fair value through profit or loss	-	-	-	-	504,097	504,097	504,097
Derivative contracts in hedge accounting	-	-	-	-	2,203,006	2,203,006	2,203,006
Other assets **	1,219,541	-	-	-	-	1,219,541	1,219,541
Total	**40,357,928**	**167,636**	**3,190,465**	**31,090**	**2,707,103**	**46,454,223**	**48,078,407**

* Line item includes EUR 274,053 thousand of leased assets for which the Group applies fair value hedge accounting. Unhedged leased assets are not presented in this Note of financial assets and liabilities as leased assets are not regarded as financial assets for the purpose of IFRS 9 classification.

** Line item includes cash collateral given to central counterparties.

FINANCIAL LIABILITIES 31 Dec 2022 (EUR 1,000)	Amortised cost	Designated at fair value through profit or loss	Fair value through profit or loss	Total	Fair value
Liabilities to credit institutions	2,329,332	3,291	-	2,332,623	2,332,609
Liabilities to the public and public sector entities	1,210,927	1,318,658	-	2,529,585	2,543,548
Debt securities issued	24,749,389	10,842,676	-	35,592,065	35,650,001
Derivative contracts at fair value through profit or loss	-	-	1,562,525	1,562,525	1,562,525
Derivative contracts in hedge accounting	-	-	3,053,586	3,053,586	3,053,586
Provisions and other liabilities *	574,192	-	-	574,192	574,192
Total	**28,863,840**	**12,164,626**	**4,616,111**	**45,644,576**	**45,716,461**

* Line item includes EUR 570,922 thousand of cash collateral received from central counterparties and EUR 3,269 thousand of lease liabilities in accordance with IFRS 16 standard.

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 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.

RECLASSIFIED FINANCIAL ASSETS (EUR 1,000)	Original measurement category under IAS 39	New measurement category under IFRS 9	Fair value 30 Jun 2023	Fair value gain or loss for the period *	EIR determined as at 1 Jan 2018 **	Interest revenue recognised during Jan–Jun 2023
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	89,325	118	0.14%	1,092

* The fair value gain or loss that would have been recognised in the income statement during the reporting period if the financial assets had not been reclassified.
** Effective interest rate determined on the date of initial application.

RECLASSIFIED FINANCIAL ASSETS (EUR 1,000)	Original measurement category under IAS 39	New measurement category under IFRS 9	Fair value 31 Dec 2022	Fair value gain or loss for the financial year	EIR determined as at 1 Jan 2018	Interest revenue recognised during Jan–Dec 2022
Loans and advances to the public and public sector entities	Fair value option	Amortised cost	91,834	-983	0.14%	478

Note 6. 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. The 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 30 Jun 2023 (EUR 1,000)	Carrying amount	Fair value Level 1	Level 2	Level 3	Total
At fair value					
Fair value through other comprehensive income					
Debt securities	288,568	248,526	40,042	-	288,568
Designated at fair value through profit or loss					
Loans and advances to the public and public sector entities	28,856	-	28,856	-	28,856
Debt securities	3,131,813	3,064,297	67,516	-	3,131,813
Mandatorily at fair value through profit or loss					
Loans and advances to the public and public sector entities	29,797	-	-	29,797	29,797
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	444,419	-	434,913	9,506	444,419
Derivative contracts in hedge accounting	1,861,337	-	1,861,337	-	1,861,337
Total at fair value	**5,784,791**	**3,312,823**	**2,432,664**	**39,303**	**5,784,791**
In fair value hedge accounting					
Amortised cost					
Loans and advances to the public and public sector entities	11,143,659	-	11,696,502	-	11,696,502
Total in fair value hedge accounting	**11,143,659**	**-**	**11,696,502**	**-**	**11,696,502**
At amortised cost					
Cash and balances with central banks	2	2	-	-	2
Loans and advances to credit institutions	9,531,268	7,949,696	1,581,573	-	9,531,268
Loans and advances to the public and public sector entities	17,858,171	-	18,949,164	-	18,949,164
Debt securities	1,198,237	-	1,198,089	-	1,198,089
Other assets	1,429,777	-	1,429,777	-	1,429,777
Total at amortised cost	**30,017,457**	**7,949,698**	**23,158,603**	**-**	**31,108,302**
Total financial assets	**46,945,906**	**11,262,521**	**37,287,770**	**39,303**	**48,589,595**

FINANCIAL LIABILITIES 30 Jun 2023 (EUR 1,000)	Carrying amount	Fair value Level 1	Level 2	Level 3	Total
At fair value					
Designated at fair value through profit or loss					
Liabilities to credit institutions	41,566	-	41,566	-	41,566
Liabilities to the public and public sector entities	1,290,153	-	1,195,075	95,078	1,290,153
Debt securities issued	8,797,593	-	8,343,190	454,403	8,797,593
Fair value through profit or loss					
Derivative contracts at fair value through profit or loss	1,435,575	-	1,240,123	195,452	1,435,575
Derivative contracts in hedge accounting	3,049,854	-	3,042,349	7,505	3,049,854
Total at fair value	**14,614,740**	**-**	**13,862,303**	**752,438**	**14,614,740**
In fair value hedge accounting					
Amortised cost					
Liabilities to credit institutions	83,893	-	83,867	-	83,867
Liabilities to the public and public sector entities	1,225,933	-	1,239,003	-	1,239,003
Debt securities issued *	29,343,912	-	29,303,445	76,039	29,379,484
Total in fair value hedge accounting	**30,653,739**	**-**	**30,626,315**	**76,039**	**30,702,354**
At amortised cost					
Liabilities to credit institutions	53,800	-	53,800	-	53,800
Debt securities issued	234,529	-	234,529	-	234,529
Provisions and other liabilities	557,162	-	557,162	-	557,162
Total at amortised cost	**845,490**	**-**	**845,490**	**-**	**845,490**
Total financial liabilities	**46,113,970**	**-**	**45,334,108**	**828,476**	**46,162,585**

* 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 Half Year Report, the Group's fixed-rate benchmark bonds' fair values are adjusted to reflect fair value based on the quoted prices from Bloomberg. The market price is a level 1 input.

FINANCIAL ASSETS 31 Dec 2022 (EUR 1,000)		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**

All valuation models, both complex and simple models, use market prices and other inputs. These market prices and inputs comprise interest rates, FX rates, volatilities, correlations etc. The Group applies different types of valuation inputs depending on the type and complexity of the instruments and the related risk factors and payoff structures. The Group's defined categorisation to the fair value hierarchy levels is based on the analysis performed with regards to the valuation input, stress testing (reasonable possible alternative assumption) and model complexity. If the inputs used to measure fair value are categorised into different levels on the fair value hierarchy, the fair value measurement is categorised in its entirety on the level of the lowest level input that is significant to the entire measurement.

IFRS 13 classifies valuation models and techniques into three different categories: market approach, income approach and cost approach. The Group applies the market-based approach when the instrument has a functioning market and public price quotations are available. The Group uses the market approach for the valuation of investment bonds of the liquidity portfolio. For all level 1 assets, the Group uses market prices available for identical assets (same ISIN). The Group does not make use of prices for comparable assets.

Income approach is applied when valuation is based, for example, on determining the present value of future cash flows (discounting). Valuation methods take into account an assessment of the credit risk, discount rates used, the possibility of early repayment and other factors that influence the fair value of a financial instrument reliably. The Group uses the income approach for many of its financial instruments, for example derivatives, lending and funding. The Group does not use the cost approach for the valuation of any of its financial instruments.

The Group uses widely recognised valuation models to determine the fair value of common and simple financial instruments, such as interest rate and currency swaps, that use only observable market data and require little management judgement and estimation. Observable prices or model inputs are usually available in the market for listed debt and equity securities and simple OTC derivatives such as interest rate swaps. The availability of observable market prices and model inputs reduces the need for management judgement and estimation and reduces the uncertainty associated with determining fair values. The availability of observable market prices and inputs varies depending on the products and markets and is prone to changes based on specific events and general conditions in the financial markets.

MuniFin Group applies different models in order to derive the fair values of certain types of instruments. The choice of base models and model calibration depends on the complexity of the financial instrument and the observability of the relevant inputs. In line with market practice, the primary choice of base model is contingent on the underlying instrument classes. Additionally, instruments are broken down into different categories granular enough to capture the most important risk drivers and different kinds of calibration techniques. The specific combination of base models and the different assumptions and calibration techniques are documented. The Group's fair value instruments that are subject to mark-to-model valuation techniques consist of four asset classes:

- Interest rate instruments,
- FX instruments,
- Equity-linked instruments and
- Hybrid instruments.

Financial instruments under *FX, equity-linked* and *hybrid* classes are mainly classified as level 3 instruments.

Fair value of financial instruments is generally calculated as the net present value of the individual instruments. This calculation is supplemented by counterparty level adjustments. The Group incorporates credit valuation adjustments (*CVA*) and debit valuation adjustments (*DVA*) into derivative valuations. CVA reflects the impact of the counterparty's credit risk on fair value and DVA MuniFin Group's own credit quality. The Group uses the same methodology to compute CVA and DVA. They are both assessed as the result of three inputs: Loss Given Default (*LGD*), Probability of Default (*PD*, own for DVA and of the counterparty for CVA) and Expected Exposure (*EE*). In addition, the Group calculates Funding Valuation Adjustment for those derivative contracts that do not hold cash collateral arrangements (derivatives made with MuniFin Group's customers).

Valuation framework

MuniFin Group has implemented a framework for the arrangements, activities and procedures with regards to the Group's model risk management. The purpose of the model risk management framework is to ensure the effective management of model risk and mitigation of fair value uncertainty, as well as to ensure compliance with external and internal requirements. The Group ensures that all aspects of the lifecycle of valuation models (i.e. approval, design and development, testing and maintenance, monitoring and execution) are subject to effective governance, clear roles and responsibilities and effective internal control.

The Group manages and maintains a model inventory which provides a holistic view of all valuation models, their business purpose and characteristics as well as their applications and conditions for use. All approved valuation models within the model inventory are subject to annual review and re-approval by the 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 (*CVC*) is performed daily by Risk Management with the purpose to assess any deviations in valuation model output compared to MuniFin Group's own earlier valuations and to counterparty valuations. The results of the assessment are reported monthly to the CFO and quarterly to the Finance Management Team. Fair value explanation process consists of a daily analysis and explanation of the changes in fair values by Risk Management and a monthly fair value explanation report to the CFO and quarterly to the Finance Management Team. The independent price verification is performed monthly as a part of MuniFin Group's IPV process by a third party service provider. The results of the control activities are reported monthly to the CFO and quarterly to the Finance Management Team. The independent model validation is performed annually for a subset of MuniFin Group's valuation models by a third-party service provider. The results of the model validation are reported to the Finance Management Team.

Transfers in the fair value hierarchy

MuniFin Group assesses the appropriateness and correctness of the categorisation with regards to the fair value hierarchy classification at initial recognition and at the end of each reporting period. This is to determine the initial classification of a level 1, 2 and 3 instrument and the subsequent potential transfers between levels within the fair value hierarchy. A transfer between the fair value hierarchies can occur for example when a previously assumed observed input requires an adjustment using an unobservable input. The procedure is the same for transfers into and out of the fair value levels. Transfers between the levels are considered to take place at the end of the quarter during which an event causes such a transfer or when circumstances change.

During the period Jan–Jun 2023 transfers totalling EUR 96,998 thousand have been made between level 1 and level 2. There were no transfers from level 2 to level 3.

LEVEL 3 TRANSFERS (EUR 1,000)	1 Jan 2023	Change in fair value in the income statement	Purchases and new contracts	Sales and matured contracts	Transfers into level 3	Transfers out of level 3	30 Jun 2023
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	31,090	-1,293	-	-	-	-	29,797
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	14,880	-2,990	-	-2,384	-	-	9,506
Derivative contracts in hedge accounting	671	-	-	-	-	-671	-
Financial assets in total	**46,641**	**-4,283**	**-**	**-2,384**	**-**	**-**	**39,303**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	152,227	477	-	-57,626	-	-	95,078
Debt securities issued	976,820	-17,788	-	-504,629	-	-	454,403
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	340,512	8,875	-	-153,935	-	-	195,452
Derivative contracts in hedge accounting	6,001	220	3,402	-	-	-2,118	7,505
In fair value hedge accounting							
Amortised cost							
Debt securities issued	56,749	3,321	40,253	-	-	-24,284	76,039
Financial liabilities in total	**1,532,308**	**-4,895**	**43,655**	**-716,190**	**-**	**-26,402**	**828,476**
Level 3 financial assets and liabilities in total *	**1,578,949**	**-9,179**	**43,655**	**-718,573**	**-**	**-26,402**	**867,780**

* The Group recognises these gains and losses within the line item *Net income on financial instruments at fair value through profit or loss*. The fair value change due to changes in own credit risk of financial liabilities designated at fair value through profit or loss is recognised in the other comprehensive income.

During 2022, transfers totalling EUR 9,270 thousand were made between level 1 and level 2. There were no transfers from level 2 to level 3.

LEVEL 3 TRANSFERS (EUR 1,000)	1 Jan 2022	Change in fair value in the income statement	Purchases and new contracts	Sales and matured contracts	Transfers into level 3	Transfers out of level 3	31 Dec 2022
Financial assets							
At fair value							
Mandatorily at fair value through profit or loss							
Loans and advances to the public and public sector entities	34,861	-3,649	-	-121	-	-	31,090
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	62,829	-42,509	687	-5,415	-	-713	14,880
Derivative contracts in hedge accounting	407	515	66	-	-	-317	671
Financial assets in total	**98,097**	**-45,643**	**753**	**-5,536**	**-**	**-1,030**	**46,641**
Financial liabilities							
At fair value							
Designated at fair value through profit or loss							
Liabilities to the public and public sector entities	263,793	-46,923	-	-	-	-64,643	152,227
Debt securities issued	1,759,569	-122,696	180,471	-796,670	-	-43,855	976,820
Fair value through profit or loss							
Derivative contracts at fair value through profit or loss	744,299	150,724	20,607	-569,309	-	-5,809	340,512
Derivative contracts in hedge accounting	25,690	-1,179	2,884	-133	-	-21,260	6,001
In fair value hedge accounting							
Amortised cost							
Debt securities issued	86,040	1,491	26,047	-3,066	-	-53,764	56,749
Financial liabilities in total	**2,879,390**	**-18,583**	**230,009**	**-1,369,177**	**-**	**-189,331**	**1,532,308**
Level 3 financial assets and liabilities in total	**2,977,487**	**-64,226**	**230,762**	**-1,374,713**	**-**	**-190,361**	**1,578,949**

Sensitivity analysis of unobservable inputs

Sensitivity analysis illustrates the impact of the reasonably possible alternative 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 the extremes of reasonably possible alternative assumptions 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 reporting 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 30 June 2023, these assumptions could have increased fair values by EUR 22.1 million or decreased fair values by EUR 22.2 million. 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.

SENSITIVITY ANALYSIS OF SIGNIFICANT UNOBSERVABLE INPUTS BY INSTRUMENT TYPE (EUR 1,000)

	30 Jun 2023		31 Dec 2022	
	Positive range of fair value	Negative range of fair value	Positive range of fair value	Negative range of fair value
Loans and advances to the public and public sector entities				
Loans	41	-23	249	-273
Derivative contracts				
Equity-linked derivatives	2,248	-1,926	18,117	-22,052
FX-linked cross currency and interest rate derivatives	675	-873	834	-1,318
Other interest rate derivatives	8,547	-8,726	11,726	-11,860
Debt securities issued and Liabilities to the public and public sector entities				
Equity-linked liabilities	1,848	-2,312	16,927	-23,275
FX-linked liabilities	756	-560	834	-990
Other liabilities	7,994	-7,799	11,919	-11,327
Total	**22,108**	**-22,218**	**60,606**	**-71,095**

The behaviour of the fair value of the unobservable inputs on level 3 is not necessarily independent, and dynamic relationships often exist between the unobservable inputs and the observable inputs. Such relationships, where material to the fair value of a given instrument, are controlled via pricing models or valuation techniques. MuniFin Group uses stochastic models to generate a distribution of future cash flows of each financial instrument. The future cash flows are then discounted back to present to get the fair value of each financial instrument. The stochastic models used by the Group are Hull-White model and Dupire volatility model.

The unobservable inputs used by the Group are described next. The unobservable inputs are used only to the extent that no relevant observable inputs are available.

Correlation parameters

If the fair value of a financial instrument is impacted by more than one unobservable input, correlations describe the relationship between these different underlyings. For example for equity-linked instruments, correlation has a significant impact on fair value, if the underlying is dependent on more than one equity. For FX-linked cross currency and interest rate derivatives, correlations exist between FX rates of currencies, which impact the fair value of the financial instrument. If a high correlation exists between the unobservable inputs, it will lead to an increase in fair value. A low correlation between the unobservable inputs will lead to a decrease in fair value. MuniFin Group has financial instruments, in which correlation is a significant unobservable input, mainly in funding products and their hedging instruments.

Volatility (extrapolated or illiquid)

A financial instrument whose value is based on a stochastic model will typically require the volatility of the underlying instrument as an input. The Group uses Dupire local volatility model as its stochastic valuation model. For interest rate volatilities at-the-money implied volatility is used. For FX and equity components (both equity indices and single stock prices), a full volatility surface is used that includes quotes for different strikes and maturities. The Group uses implied volatility for the majority of the equity-linked structures. In some cases no liquid volatility surface exists. In these cases, a proxy volatility is typically used instead. The majority of the financial instruments, which use volatility as a significant unobservable input, are the Group's funding products and their hedging instruments.

Dividend yield

The main drivers influencing the fair value of equity-linked instruments are dividend yield and volatility of the underlying equities. Equity-linked instruments require a dividend parameter as an input to the fair value. The equity component is modelled using the Dupire local volatility model where the underlying equity prices are assumed to follow a random walk. Instruments that have dividend yield as a significant unobservable input are the Group's funding products and their hedging instruments.

Interest rates (extrapolated or illiquid)

The Group uses unobservable inputs in defining the fair value of complex interest rate structures. The future cash flows and their fair valus are determined by using forward rates and volatilities of the underlying interest rates using Hull-White stochastic model. Financial instruments whose payoffs are dependent on the value of complex interest rate structures are categorised on level 3. The majority of these instruments requiring extrapolated or illiquid interest rates as input are the Group's funding products and their hedging instruments.

The following table illustrates the effect that changing one or more of the assumptions in the unobservable input (reasonably possible alternative assumptions) could have on the valuations at the reporting date.

SENSITIVITY ANALYSIS OF UNOBSERVABLE INPUTS 30 Jun 2023 (EUR 1,000)	Fair value	Valuation technique	Unobservable input	Positive range of fair value	Negative range of fair value
Loans and advances to the public and public sector entities					
Loans	29,797	Stochastic model	Volatility – Extrapolated or Illiquid	41	-23
Derivative contracts					
Equity-linked derivatives	-54,254	Stochastic model	Correlation parameters	8	-39
			Volatility – Extrapolated or Illiquid	2,180	-1,785
			Dividend yield	59	-102
FX-linked cross currency and interest rate derivatives	-33,202	Stochastic model	Correlation parameters	61	-79
			Volatility – Extrapolated or Illiquid	614	-794
			Interest rates – Extrapolated or Illiquid	0	0
Other interest rate derivatives	-105,994	Stochastic model	Correlation parameters	1	-3
			Volatility – Extrapolated or Illiquid	8,161	-8,339
			Interest rates – Extrapolated or Illiquid	385	-385
Debt securities issued and Liabilities to the public and public sector entities					
Equity-linked liabilities	219,256	Stochastic model	Correlation parameters	-33	-57
			Volatility – Extrapolated or Illiquid	1,827	-2,149
			Dividend yield	55	-105
FX-linked liabilities	128,882	Stochastic model	Correlation parameters	101	-62
			Volatility – Extrapolated or Illiquid	655	-498
			Interest rates – Extrapolated or Illiquid	0	0
Other liabilities	277,381	Stochastic model	Correlation parameters	2	-2
			Volatility – Extrapolated or Illiquid	7,987	-7,793
			Interest rates – Extrapolated or Illiquid	5	-5
Total				**22,108**	**-22,218**

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–Jun 2023	Jan–Dec 2022
Opening balance in the beginning of the reporting period	-392	-236
Recognised gain in the income statement	-17	498
Recognised loss in the income statement	-452	-470
Deferred gain or loss on new transactions	491	-184
Total at the end of the reporting period	**-371**	**-392**

The definition and amortisation method for the Day 1 gain or loss are presented in the accounting policies of the Consolidated Financial Statements 2022 (Note *1*) in Section *13. Determination of fair value*.

Note 7. Cash and cash equivalents

30 Jun 2023 (EUR 1,000)	Total	Cash and cash equivalents	Expected credit losses
Cash	2	2	-
Central bank deposits payable on demand	0	0	-
Cash and balances with central banks	**2**	**2**	**-**
Loans and advances to credit institutions payable on demand	46,875	46,875	0
Total cash and cash equivalents	**46,877**	**46,877**	**0**

31 Dec 2022 (EUR 1,000)	Total	Cash and cash equivalents	Expected credit losses
Cash	2	2	-
Central bank deposits payable on demand	-	-	-
Cash and balances with central banks	**2**	**2**	**-**
Loans and advances to credit institutions payable on demand	48,622	48,622	0
Total cash and cash equivalents	**48,624**	**48,624**	**0**

Note 8. Derivative contracts

DERIVATIVE CONTRACTS 30 Jun 2023 (EUR 1,000)	Nominal value of underlying instrument	Fair value	
		Positive	Negative
Derivative contracts in hedge accounting			
Interest rate derivatives			
Interest rate swaps	36,386,479	1,486,860	-2,203,640
, of which cleared by the central counterparty	*35,304,832*	*1,432,111*	*-2,170,586*
Currency derivatives			
Cross currency interest rate swaps	13,326,197	374,477	-846,213
Total derivative contracts in hedge accounting	**49,712,677**	**1,861,337**	**-3,049,854**
Derivative contracts at fair value through profit or loss			
Interest rate derivatives			
Interest rate swaps	18,874,781	375,545	-999,230
, of which cleared by the central counterparty	*12,016,252*	*291,364*	*-3,102*
Interest rate options	-	-	-
Currency derivatives			
Cross currency interest rate swaps	3,576,009	57,809	-361,987
Forward exchange contracts	3,109,386	11,065	-20,103
Equity derivatives	230,801	-	-54,254
Total derivative contracts at fair value through profit or loss	**25,790,977**	**444,419**	**-1,435,575**
Total derivative contracts	**75,503,654**	**2,305,756**	**-4,485,429**

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*.

DERIVATIVE CONTRACTS 31 Dec 2022 (EUR 1,000)	Nominal value of underlying instrument	Fair value	
		Positive	Negative
Derivative contracts in hedge accounting			
Interest rate derivatives			
Interest rate swaps	33,687,419	1,608,625	-2,279,032
, of which cleared by the central counterparty	*32,422,737*	*1,546,169*	*-2,240,748*
Currency derivatives			
Cross currency interest rate swaps	12,567,281	594,381	-774,553
Total derivative contracts in hedge accounting	**46,254,701**	**2,203,006**	**-3,053,586**
Derivative contracts at fair value through profit or loss			
Interest rate derivatives			
Interest rate swaps	18,272,893	411,500	-1,084,554
, of which cleared by the central counterparty	*11,417,640*	*320,535*	*-7,895*
Interest rate options	40,000	94	-94
Currency derivatives			
Cross currency interest rate swaps	3,983,481	81,658	-226,389
Forward exchange contracts	4,591,665	10,848	-147,174
Equity derivatives	732,900	-2	-104,314
Total derivative contracts at fair value through profit or loss	**27,620,939**	**504,097**	**-1,562,525**
Total derivative contracts	**73,875,640**	**2,707,103**	**-4,616,111**

Note 9. Changes in intangible and tangible assets

	Intangible assets	Tangible assets			
Jan–Jun 2023 (EUR 1,000)	Total	Other real estate	Other tangible assets	Right-of-use assets	Total
Acquisition cost 1 Jan	28,074	299	7,230	9,818	17,347
+ Additions	607	-	7	6,434	6,441
- Disposals	-	-	-213	-77	-290
Acquisition cost 30 Jun	28,681	299	7,023	16,176	23,498
Accumulated depreciation and impairment charges 1 Jan	19,243	-	5,665	6,620	12,285
- Accumulated depreciation on disposals	-	-	-198	-63	-262
+ Depreciation for the period	1,610	-	508	1,020	1,528
+/- Impairment and reversals	-	-	-	-	-
Accumulated depreciation and impairment charges 30 Jun	20,853	-	5,975	7,576	13,552
Carrying amount 30 Jun	**7,828**	**299**	**1,048**	**8,599**	**9,946**

	Intangible assets	Tangible assets			
Jan–Dec 2022 (EUR 1,000)	Total	Other 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 for the period	2,890	-	1,132	1,839	2,971
+/- Impairment and reversals *	-10,482	-	-	-	-
Accumulated depreciation and impairment charges 31 Dec	19,243	-	5,665	6,620	12,285
Carrying amount 31 Dec	**8,831**	**299**	**1,565**	**3,198**	**5,062**

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

Note 10. Credit risks of financial assets and other commitments

MuniFin Group's credit risks are described in the Consolidated Financial Statements 2022 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 of the Consolidated Financial Statements 2022 (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 *			
30 Jun 2023 (EUR 1,000)	Gross carrying amount	12-month ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Expected credit losses
Cash and balances with central banks at amortised cost	2	-	-	-	-	-	2	-
Loans and advances to credit institutions at amortised cost	9,531,268	-80	-	-	-	-	9,531,268	-80
Loans and advances to the public and public sector entities at amortised cost	27,826,634	-92	894,941	-1,140	2,069	-3	28,723,644	-1,235
Leased assets in Loans and advances to the public and public sector entities at amortised cost	1,325,419	-7	21,291	-6	-	-	1,346,710	-13
Debt securities at amortised cost	1,194,603	-1	3,634	0	-	-	1,198,237	-1
Debt securities at fair value through other comprehensive income	288,568	-40	-	-	-	-	288,568	-40
Cash collateral to CCPs in Other assets at amortised cost	1,429,777	-8	-	-	-	-	1,429,777	-8
Credit commitments (off-balance sheet)	2,519,987	-12	59,566	-1	-	-	2,579,553	-12
Total	**44,116,259**	**-239**	**979,432**	**-1,147**	**2,069**	**-3**	**45,097,760**	**-1,389**

* The Group has collateral and guarantee arrangements that fully cover the stage 3 receivables as described in the Consolidated Financial Statements 2022 in Note *2 Risk management principles and the Group's risk position* in Section *7. Credit risk*. The Group's management expects that all the stage 3 receivables will be recovered and no final credit loss will emerge. Stage 3 receivables include EUR 2,073 thousand (EUR 2,144 thousand) of originated credit impaired receivables (P*urchased or Originated Credit Impaired, POCI*). Expected credit losses for the POCI receivables amount to EUR 3 thousand (EUR 8 thousand).

EXPOSURES BY ASSET GROUPS AND IMPAIRMENT STAGES	Not credit-impaired				Credit-impaired		Total	
	Stage 1		Stage 2		Stage 3			
31 Dec 2022 (EUR 1,000)	Gross carrying amount	12-month ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Lifetime ECL	Gross carrying amount	Expected credit losses
Cash and balances with central banks at amortised cost	2	-	-	-	-	-	2	-
Loans and advances to credit institutions at amortised cost	9,625,488	-109	-	-	-	-	9,625,488	-109
Loans and advances to the public and public sector entities at amortised cost	27,277,326	-89	497,729	-662	6,690	-21	27,781,745	-772
Leased assets in Loans and advances to the public and public sector entities at amortised cost	1,283,297	-6	19,655	-22	142	0	1,303,094	-28
Debt securities at amortised cost	1,457,098	-1	-	-	-	-	1,457,098	-1
Debt securities at fair value through other comprehensive income	167,636	-44	-	-	-	-	167,636	-44
Cash collateral to CCPs in Other assets at amortised cost	1,219,541	-203	-	-	-	-	1,219,541	-203
Credit commitments (off-balance sheet)	2,447,573	-11	16,392	-2	-	-	2,463,964	-14
Total	**43,477,961**	**-464**	**533,776**	**-686**	**6,832**	**-21**	**44,018,569**	**-1,171**

The following table presents a summary of total changes and reconciliation of expected credit losses by impairment stages during the period.

TOTAL EXPECTED CREDIT LOSSES BY IMPAIRMENT STAGES	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-464**	**-686**	**-21**	**-1,171**	**44,018,569**
New assets originated or purchased	-56	-13	0	-70	5,831,271
Assets derecognised or repaid (excluding write-offs)	75	77	12	165	-4,751,765
Transfers to Stage 1	-1	65	-	64	64
Transfers to Stage 2	2	-175	-	-173	-174
Transfers to Stage 3	-	-	-	-	-
Additional provision *(Management overlay)*	-	-609	-	-609	-609
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models * and inputs ** used for ECL calculations	205	195	6	406	403
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 30 Jun 2023	**-239**	**-1,147**	**-3**	**-1,389**	**45,097,760**

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

MuniFin Group has updated in the first half of 2023 the probability of defaults according to the update cycle. In addition, macro scenarios were updated to take into account forward-looking information at the end of the period. Expected losses decreased by EUR 406 thousand due to the changes in models and parameters.

The Group has assessed the impact of the quickly increased interest rate environment on its receivables from customer financing and on credit risk. According to the management judgement, some customers may face challenges in the sufficiency of cash flows during the second half of 2023, which may appear in increased payment delays and forbearances for MuniFin Group. Hence, the Group's management decided to record an additional discretionary provision of EUR 609 thousand based on a group-specific assessment at the end of June 2023. The additional provision relates to the balance sheet line item *Loans and advances to the public and public sector entities*. The additional provision has not been allocated to the contract level.

MuniFin Group's total credit risk has still remained low and the amount of ECL remains low. The rising interest rate levels and inflation have not yet significantly affected MuniFin Group's customers' ability to pay or creditworthiness during the first half of 2023. MuniFin Group's customer exposures have zero risk weight in the capital adequacy calculation as they are from Finnish municipalities, joint municipal authorities or wellbeing services counties, or involve a municipal, joint municipal authority or wellbeing services counties guarantee or a state deficiency guarantee supplementing the real estate collateral. The Group's management estimates that all receivables will be recovered in full and therefore no final credit loss will arise. On 30 June 2023, MuniFin Group did not have any guarantee receivables from the public sector due to the insolvency of customers (EUR 4 million). Credit risk of the liquidity portfolio has remained on a good quality level and the average credit rating of debt securities in the portfolio was AA+ (AA+).

TOTAL EXPECTED CREDIT LOSSES BY IMPAIRMENT STAGES	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-166**	**-578**	**-546**	**-1,289**	**43,092,161**
New assets originated or purchased	-361	357	-1	-5	17,324,241
Assets derecognised or repaid (excluding write-offs)	95	7	77	179	-16,397,777
Transfers to Stage 1	-1	496	-	496	496
Transfers to Stage 2	1	-575	18	-556	-556
Transfers to Stage 3	0	-	0	0	0
Additional provision *(Management overlay)*	-	-	430	430	430
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-32	-394	0	-426	-426
Write-offs	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 31 Dec 2022	**-464**	**-686**	**-21**	**-1,171**	**44,018,568**

The following tables present changes and reconciliation of expected credit losses by impairment stages and asset groups during the period.

EXPECTED CREDIT LOSSES ON CASH AND BALANCES WITH CENTRAL BANKS AT AMORTISED COST BY IMPAIRMENT STAGES	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-**	**-**	**-**	**-**	**2**
New assets originated or purchased	-	-	-	-	0
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Total 30 Jun 2023	**-**	**-**	**-**	**-**	**2**

EXPECTED CREDIT LOSSES ON LOANS AND ADVANCES TO CREDIT INSTITUTIONS AT AMORTISED COST BY IMPAIRMENT STAGES

	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-109**	**-**	**-**	**-109**	**9,625,488**
New assets originated or purchased	-14	-	-	-14	630,331
Assets derecognised or repaid (excluding write-offs)	40	-	-	40	-724,554
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	4	-	-	4	4
Total 30 Jun 2023	**-80**	**-**	**-**	**-80**	**9,531,268**

EXPECTED CREDIT LOSSES ON LOANS AND ADVANCES TO THE PUBLIC AND PUBLIC SECTOR ENTITIES AT AMORTISED COST BY IMPAIRMENT STAGES

	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-89**	**-662**	**-21**	**-772**	**27,781,745**
New assets originated or purchased	-8	-21	-	-29	1,873,816
Assets derecognised or repaid (excluding write-offs)	11	68	12	91	-931,392
Transfers to Stage 1	-1	64	-	63	63
Transfers to Stage 2	2	-166	-	-165	-165
Transfers to Stage 3	-	-	-	-	-
Additional provision *(Management overlay)*	-	-609	-	-609	-609
Changes to contractual cash flows due to modifications not resulting in derecognition	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-7	187	6	186	186
Write-offs	-	-	-	-	-
Total 30 Jun 2023	**-92**	**-1,140**	**-3**	**-1,235**	**28,723,644**

EXPECTED CREDIT LOSSES ON LEASED ASSETS IN LOANS AND ADVANCES TO THE PUBLIC AND PUBLIC SECTOR ENTITIES AT AMORTISED COST BY IMPAIRMENT STAGES

	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-6**	**-22**	**0**	**-28**	**1,303,094**
New assets originated or purchased	-1	8	0	8	88,107
Assets derecognised or repaid (excluding write-offs)	0	7	0	7	-44,492
Transfers to Stage 1	-	1	-	1	1
Transfers to Stage 2	0	-9	-	-9	-9
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	0	8	0	8	8
Total 30 Jun 2023	**-7**	**-6**	**0**	**-13**	**1,346,710**

EXPECTED CREDIT LOSSES ON DEBT SECURITIES AT AMORTISED COST BY IMPAIRMENT STAGES	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-1**	**0**	**-**	**-1**	**1,457,098**
New assets originated or purchased	-1	0	-	-1	1,154,839
Assets derecognised or repaid (excluding write-offs)	1	-	-	1	-1,413,700
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	0	0	-	0	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	0	0	-	0	-
Total 30 Jun 2023	**-1**	**0**	**-**	**-1**	**1,198,237**

EXPECTED CREDIT LOSSES ON DEBT SECURITIES AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME BY IMPAIRMENT STAGES	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-44**	**-**	**-**	**-44**	**167,636**
New assets originated or purchased	-15	-	-	-15	175,950
Assets derecognised or repaid (excluding write-offs)	17	-	-	17	-55,018
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	3	-	-	3	
Total 30 Jun 2023	**-40**	**-**	**-**	**-40**	**288,568**

The loss allowance on debt instruments classified at fair value through comprehensive income is recognised in the fair value reserve. The accumulated loss allowance is recognised to the profit or loss upon derecognition of the assets. More details regarding presentation of allowance for expected credit losses is presented in the accounting policies in Note *1* in Section *9.4 Presentation of allowance for ECL in the statement of financial position* of the Consolidated Financial Statements 2022.

EXPECTED CREDIT LOSSES ON CASH COLLATERAL TO CCPS IN OTHER ASSETS AT AMORTISED COST BY IMPAIRMENT STAGES	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-203**	**-**	**-**	**-203**	**1,219,541**
New assets originated or purchased	-10	-	-	-10	247,912
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-37,881
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	205	-	-	205	205
Total 30 Jun 2023	**-8**	**-**	**-**	**-8**	**1,429,777**

EXPECTED CREDIT LOSSES ON GUARANTEE RECEIVABLES FROM THE PUBLIC AND PUBLIC SECTOR ENTITIES IN OTHER ASSETS BY IMPAIRMENT STAGES

	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2023	**-**	**-**	**-**	**-**	**-**
New assets originated or purchased	-	-	-	-	-
Assets derecognised or repaid (excluding write-offs)	-	-	-	-	-
Transfers to Stage 1	-	-	-	-	-
Transfers to Stage 2	-	-	-	-	-
Transfers to Stage 3	-	-	-	-	-
Changes to models and inputs used for ECL calculations	-	-	-	-	-
Recoveries	-	-	-	-	-
Total 30 Jun 2023	**-**	**-**	**-**	**-**	**-**

EXPECTED CREDIT LOSSES ON CREDIT COMMITMENTS (OFF-BALANCE SHEET) 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 2023	**-11**	**-2**	**-**	**-14**	**2,463,964**
New assets originated or purchased	-7	0	-	-8	1,660,315
Assets derecognised or repaid (excluding write-offs)	7	2	-	9	-1,544,727
Transfers to Stage 1	0	0	-	0	
Transfers to Stage 2	0	0	-	0	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	0	0	-	0	
Total 30 Jun 2023	**-12**	**-1**	**-**	**-12**	**2,579,553**

The loss allowance on binding credit commitments is recognised under *Other liabilities*. More details regarding presentation of allowance for expected credit losses is presented in the accounting policies in Note *1* in Section *9.4 Presentation of allowance for ECL in the statement of financial position* of the Consolidated Financial Statements 2022.

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

(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	**-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

	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 2022	**-41**	**-**	**-**	**-41**	**213,466**
New assets originated or purchased	-28	-	-	-28	52,770
Assets derecognised or repaid (excluding write-offs)	26	-	-	26	-98,599
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	-	-	-	-	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-1	-	-	-1	
Total 31 Dec 2022	**-44**	**-**	**-**	**-44**	**167,636**

EXPECTED CREDIT LOSSES ON CASH COLLATERAL TO CCPS IN OTHER ASSETS AT AMORTISED COST BY IMPAIRMENT STAGES	Not credit-impaired		Credit-impaired	Total	
	Stage 1	Stage 2	Stage 3		
(EUR 1,000)	12-month ECL	Lifetime ECL	Lifetime ECL	ECL	Gross carrying amount
Opening balance 1 Jan 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	1,608,248
Assets derecognised or repaid (excluding write-offs)	3	2	0	5	-1,737,157
Transfers to Stage 1	-	-	-	-	
Transfers to Stage 2	0	-2	-	-2	
Transfers to Stage 3	-	-	-	-	
Changes to models and inputs used for ECL calculations	-1	-2	-	-4	
Total 31 Dec 2022	**-11**	**-2**	**-**	**-14**	**2,463,964**

Forward-looking information

In the assessment of whether the credit risk of an instrument has significantly increased (*SICR*) and in the measurement of expected credit losses, forward-looking information and macroeconomic scenarios are included in the model. These macroeconomic projections cover a period of 3 years and as no reliable macroeconomic projections exceeding a three-year time horizon are available, forward-looking adjustment will be limited to a three-year period. Mainly three scenarios are used; base, optimistic and adverse. Scenarios include probability weights. The scenario probability weightings are as follows:

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

MuniFin Group has identified key drivers of credit losses for each portfolio that share similar kinds of credit risk characteristics and estimated the relationship between macroeconomic variables and credit losses. ECL model consists of the following macroeconomic variables for Finnish counterparties of financial assets: Finnish government long-term interest rates, the development of residential housing prices and unemployment rate. For non-Finnish financial assets, stress test scenarios published by the European Central Bank are employed in the model and scenario parameters. Each variable covers an estimate over a period of three years. The following table presents the macroeconomic variables and their forecasts over the three-year forecast period.

		30 Jun 2023			31 Dec 2022		
MACROECONOMIC VARIABLES	Scenario	2023	2024	2025	2023	2024	2025
10Y Fin Government rate, %	Adverse	2.1	1.8	2.2	4.0	3.6	3.4
	Base	3.0	2.9	2.9	3.2	3.1	3.2
	Optimistic	2.8	2.7	2.7	2.2	1.9	1.8
Residential Real Estate (selling price, YoY change), %	Adverse	-13.0	-2.0	2.0	-13.0	0.0	2.0
	Base	-6.0	1.0	2.5	-2.0	2.0	1.5
	Optimistic	-3.5	1.0	2.5	0.0	3.0	2.5
Unemployment rate, %	Adverse	9.0	9.5	9.0	9.5	9.0	8.5
	Base	7.3	7.3	6.8	7.4	7.3	6.8
	Optimistic	6.7	6.0	5.8	6.5	6.0	5.8

The economic downturn towards a recession has been milder and slower than expected. The savings accumulated by households during the pandemic years, as well as the recovery of the service sector, have supported domestic demand and employment. However, the growth prospects are expected to worsen due to increasing cost of living and the tightening of monetary policy. MuniFin Group anticipates a contraction of 0.5% in output in 2023. Growth is expected to remain subdued at 1.0% in 2024. In the latter years of the forecast period, the economy is projected to return to its long-term growth trajectory, with an annual expansion rate of approximately 1.5%. Unemployment is projected to exceed 7.0% in 2023–2024. The unemployment rate is anticipated to begin declining from 2025 onwards. Annual CPI inflation is projected to persist at 5.0% in 2023 while gradually converging back to an annual pace of around 2.0% in the years 2024 to 2026. In order to ensure that future inflation expectations remain firmly anchored, it is anticipated that the European Central Bank (*ECB*) will persist in raising interest rates until the third quarter of 2023. However, the pace of monetary tightening slows down as cost pressures gradually ease off. At the national level, increased interest rates dampen households' intentions to purchase homes. Home prices are projected to decline by 6.0% in 2023. For the remaining forecast period, the average annual growth in home prices is expected to stabilize at around 2.0%.

Compared to the baseline scenario, MuniFin Group's upside (*optimistic*) scenario considers the economic impact of high inflation and tightening financial conditions to be less severe. The Group anticipates that inflationary pressures will also ease at a somewhat faster rate. In the upside scenario, the Finnish GDP is projected to grow 1.0% in 2023 and 2.0% in 2024. The unemployment rate will continue its gradual decline throughout the forecast period. Consumer price inflation is expected to cool down to 4.5% in 2023. Housing demand is projected to recover in the latter half of 2023, which will limit the downward pressure on home prices. Subsequently, consumer and home prices are anticipated to rise at a rate of about 2.0% in 2024–2026. As inflation decelerates at a faster pace, the ECB will raise interest rates slightly less compared to the baseline scenario. Consequently, market interest rates will peak at a somewhat lower level as well.

MuniFin Group's downside (*adverse*) scenario portrays a "hard landing" outcome characterised by a cost-of-living crisis and rising interest rates, which in turn trigger a synchronised downturn in the global economy. Both the United States and the eurozone experience a relatively deep recession during the second half of 2023, resulting in negative spillover effects worldwide. This economic recession persists well into 2024. Unemployment undergoes a significant increase and remains at high levels throughout the forecast period. The contraction in aggregate demand exacerbates deflationary forces in the economy, leading to a more rapid cooling down of inflation compared to the baseline scenario. Lower inflation, coupled with strong economic headwinds, prompts a shift towards a more accommodative monetary policy stance, known as a "dovish pivot." The ECB responds by implementing multiple interest rate cuts in 2023 and continues to pursue monetary easing throughout 2024. The lack of demand in the housing market results in a sharp decline in home prices. The prolonged global recession generates tensions in financial markets, leading 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 adverse scenario until 2024 (2023).

	30 Jun 2023			31 Dec 2022	
SENSITIVITY ANALYSIS (EUR 1,000)	**Weighted scenario**	**Adverse scenario (100%)**	**Excluding weighted scenario**	**Weighted scenario**	**Adverse scenario (100%)**
ECL	780	845	725	1,171	1,547
Proportion of the exposure in Stage 2 and 3	2.36%	2.59%	2.20%	1.27%	2.57%

The sensitivity analysis does not include the additional discretionary provisions (*management overlay*).

Non-performing and forborne exposures

Non-performing and forborne exposures refer to receivables that are more than 90 days past due, other receivables classified as risky and forborne exposures due to the customer's financial difficulties.

NON-PERFORMING AND FORBORNE EXPOSURES 30 Jun 2023 (EUR 1,000)	Performing exposures (gross)	Non-performing exposures (gross)	Total exposures (gross)	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	-	-	-	-
Unlikely to be paid	-	-	-	-	-
Forborne exposures	79,910	2,073	81,983	-318	81,665
Total	**79,910**	**2,073**	**81,983**	**-318**	**81,665**

NON-PERFORMING AND FORBORNE EXPOSURES 31 Dec 2022 (EUR 1,000)	Performing exposures (gross)	Non-performing exposures (gross)	Total exposures (gross)	Total expected credit losses	Total exposures (net)
Over 90 days past due	-	4,087	4,087	-13	4,074
Unlikely to be paid	-	509	509	0	509
Forborne exposures	77,268	2,513	79,780	-478	79,303
Total	**77,268**	**7,110**	**84,377**	**-491**	**83,886**

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

The COVID-19 pandemic affected the financial situation and liquidity of MuniFin Group's customers. The Group therefore offered concessions to the payment terms of loans to those customers whose finances had been temporarily affected by the pandemic. During the first half of 2023 there were no forbearances due to the COVID-19 pandemic and in 2022 there were only a few individual extensions of repayment holidays. The uncollected installments were mainly transferred to the end of the loan term to be paid in connection with the last installment. No lease concessions were granted to the Group's leasing customers.

Russia's invasion of Ukraine has had no direct impact on MuniFin's customers or receivables. The inflation and rising interest rate levels may appear as increased forbearance measures and payment delays.

Realised credit losses

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

Note 11. Liabilities to credit institutions

(EUR 1,000)	30 Jun 2023	31 Dec 2022
Bilateral loans to credit institutions	125,459	88,183
TLTRO *	-	2,000,000
Received collateral on derivatives	53,800	244,440
Total	**179,259**	**2,332,623**

* MuniFin Group participated in the ECB's third series of targeted longer-term refinancing operations that is, the so-called TLTRO III operation in total of EUR 2,000 million. The interest rate until 23 June 2022 was determined based on the net lending review period expired on 31 December 2021. MuniFin Group met the net lending criteria for this period to the lower interest rate and recognised the interest with the -1% rate until 23 June 2022. After the special interest rate periods, the interest rate was determined as the average of the ECB overnight deposit rates to maturity. Additionally, the interest rate terms changed starting from 23 November 2022. Therefore, a new last interest rate period was determined, the interest rate of which is defined as the average of the ECB rates during that last interest rate period. The final interest rate was determined when the TLTRO III debt matured as a weighted average of the interest rates of all the different interest rate periods. During the period, the Group dediced to use call option and redeemed TLTRO III debt.

Although the interest rate for the TLTRO III debt described above is favorable for MuniFin Group, it was assessed not to differ from the Group's other funding price to the extent that the Group would have received a government grant in accordance with IAS 20. Therefore, the Group has treated TLTRO III debt in its entirety as an IFRS 9 financial liability.

Note 12. Debt securities issued

(EUR 1,000)	30 Jun 2023 Carrying amount	30 Jun 2023 Nominal value	31 Dec 2022 Carrying amount	31 Dec 2022 Nominal value
Bonds	35,277,041	38,641,966	30,942,233	34,330,170
Other *	3,098,993	3,130,876	4,649,832	4,668,524
Total	**38,376,034**	**41,772,842**	**35,592,065**	**38,998,694**

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

All funding issued by MuniFin is guaranteed by the Municipal Guarantee Board.

BENCHMARK ISSUANCES DURING THE REPORTING PERIOD	Value date	Maturity date	Interest-%	Nominal value (1,000)	Currency
Fixed rate benchmark bond, issued under the MTN programme	18 Jan 2023	18 Jan 2028	2.875%	1,500,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	22 Feb 2023	25 Sep 2028	3.000%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	26 Apr 2023	29 Jul 2030	3.125%	1,000,000	EUR
Fixed rate benchmark bond, issued under the MTN programme	13 Jun 2023	15 Dec 2027	4.125%	1,000,000	USD

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 13. Provisions and other liabilities

(EUR 1,000)	30 Jun 2023	31 Dec 2022
Provisions		
Other provisions	-	446
Other liabilities		
Lease liabilities	8,660	3,269
Cash collateral taken from CCPs	548,502	570,922
Other	15,847	19,210
Total	**573,009**	**593,848**

Line item *Other provisions* related to a tax interpretation issue for which the Group requested a preliminary ruling and for which the Group received the decision of the Supreme Administrative Court during the period. The provision has been reversed on the basis of the received decision.

	Other provisions	
(EUR 1,000)	Jan–Jun 2023	Jan–Dec 2022
Carrying amount at the beginning of the period	446	446
Increase in provisions	-	5,100
Unused amounts reversed	-446	-5,100
Carrying amount at the end of the period	**-**	**446**

During the financial year 2022, increase in provisions and unused amounts reversed related to the IT implementation project, which was terminated in 2022. Unused used amounts reversed during the first half of 2023 related to a tax interpretation issue for which the Group requested a preliminary ruling and for which the Group received the decision of the Supreme Administrative Court during the period. The provision has been reversed on the basis of the received decision.

Note 14. Collateral given

GIVEN COLLATERALS ON BEHALF OF OWN LIABILITIES AND COMMITMENTS (EUR 1,000)	30 Jun 2023	31 Dec 2022
Loans and advances to credit institutions to the counterparties of derivative contracts *	1,581,573	1,400,559
Loans and advances to credit institutions to the counterparties of repurchase agreements **	-	514
Loans and advances to credit institutions to the central bank ***	31,990	31,745
Loans and advances to the public and public sector entities to the central bank ***	4,549,095	3,676,627
Loans and advances to the public and public sector entities to the Municipal Guarantee Board ****	11,583,587	12,101,459
Debt securities to the counterparties of repurchase agreements **	-	9,580
Debt securities to the central counterparty	24,775	24,942
Other assets to the counterparties of derivative contracts *	1,429,777	1,219,541
Total	**19,210,322**	**18,464,967**

* MuniFin Group has pledged collateral to the counterparties of derivative contracts based on the CSA agreements of the derivative contracts (*ISDA/Credit Support Annex*).

** MuniFin Group has pledged collateral to the counterparties of repurchase agreements based on the GMRA general agreements of the repurchase agreements (*General Master Repurchase Agreement*).

*** MuniFin is a monetary policy counterparty approved by the central bank (*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 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 reporting date.

Note 15. Contingent assets and liabilities

The Group has no contingent assets or liabilities at 30 June 2023 or at the comparison date 31 December 2022.

Note 16. Off-balance-sheet commitments

(EUR 1,000)	30 Jun 2023	31 Dec 2022
Credit commitments	2,579,565	2,463,978
Total	**2,579,565**	**2,463,978**

Note 17. 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 after 31 December 2022.

Note 18. Events after the reporting period

The results of Europe-wide stress tests were published on 28 July 2023. MuniFin Group took part in the European Central Bank's SSM Stress Test covering the years 2023–2025. The Group's capital adequacy and leverage ratio remained very strong also under the adverse scenario. Under the adverse scenario, the Group's CET1 capital ratio would stand at 80.7% and leverage ratio at 10.4% at the end of 2025. Both figures exceed minimum requirements by a wide margin.

Report on review of the interim financial information of Municipality Finance Plc as of and for the six-month period ending 30 June 2023

To the Board of Directors of Municipality Finance Plc

Introduction

We have reviewed the consolidated balance sheet as of 30 June 2023 and the consolidated income statement, the statement of comprehensive income, the statement of changes in equity and the cash flow statement of Municipality Finance Plc for the six-month period then ended, as well as explanatory notes to the interim financial information. The Board of Directors and the Managing Director are responsible for the preparation of this interim financial information in accordance with the IAS 34 Interim Financial Reporting -standard. We will express our conclusion on the interim financial information based on our review.

Scope of review

We conducted our review in accordance with the International Standard on Review Engagements ISRE 2410, *"Review of Interim Financial Information Performed by the Independent Auditor of the Entity"*. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with the standards on auditing and consequently does not enable us to obtain an assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the interim financial information has not been prepared in accordance with the IAS 34 Interim Financial Reporting -standard.

Helsinki 7 August 2023

KPMG OY AB

Tiia Kataja

Authorised Public Accountant, KH

MuniFin

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