



MuniFin investor presentation

June 2023



MuniFin



Agenda

- » **MuniFin and the set-up of the Finnish public sector**
- » **The Finnish economy and economic outlook**
- » **Funding operations**
- » **Green and social bonds**
- » **Appendices**

MuniFin and the set-up of the Finnish public sector

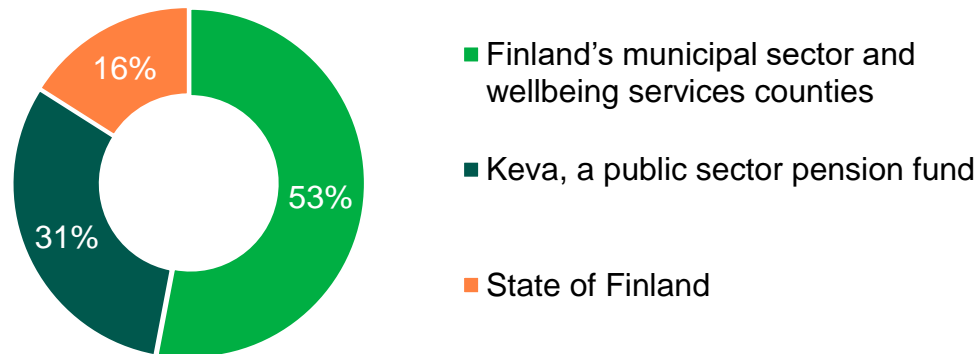


MuniFin in brief

The leading provider of financial services to Finland's municipal sector, wellbeing services counties sector and affordable social housing

- Bloomberg ticker: KUNTA
- Funding explicitly guaranteed by the Municipal Guarantee Board (MGB)
- Ratings are in line with those of the Finnish sovereign
- Credit institution supervised by the ECB
- Credit institution of systemic importance to the Finnish financial system (O-SII)

100% Finnish public sector-owned credit institution



Credit ratings*

Moody's
Aa1 (Stable)

S&P
AA+ (Stable)

ESG ratings*

ISS ESG

C Prime
Ranking

Top 20% of 136 companies

Sustainalytics

9.4 Negligible Risk
Ranking

Banks 39/989

S&P Global

ESG score: 37/100
Ranking

Percentile 85

MSCI

AA
Ranking

Top 36% of 62 companies

*Please find more information about our credit and ESG ratings on our webpage here: <https://www.munifin.fi/investor-relations>

MuniFin is committed to building a better and more sustainable future with its customers



Public sector and affordable social housing sector



Central
government

Comprises the ministries and the national agencies operating in their administrative branches

Services provided:

- Police
- Defence
- Highways
- Universities
- Judicial system
- Statistics and research



Wellbeing
services counties
sector

Currently 21 wellbeing services counties* and additionally joint county authorities for wellbeing services and corporate entities under their control

Services provided:

- Health and social services
- Fire and rescue services



Municipal sector

Currently 309 municipalities and additionally joint municipal authorities and corporate entities under their control**

Services provided:

- Education and day care services
- Cultural, youth and library services
- Urban planning and land use & environmental services
- Water and energy supply & waste management

*In addition Helsinki will organise its own health, social, fire and rescue services

**293 mainland municipalities



Affordable social housing sector

Social housing policy is implemented by a national agency and housing is produced by approved non-profit housing corporations

The housing finance and development centre of Finland (ARA) implements social housing policy. It is a governmental agency operating under the supervision of the Ministry of the Environment.

ARA provides finance in the form of e.g. interest subsidy loans or renovation subsidies.

Interest subsidy loan is granted by a bank or other financial institution. ARA accepts the loan, gives the loan a state guarantee and pays the interest subsidy.

Tenant selection criteria is specified annually by the government. Selection is based on the social appropriateness and financial need.

Finnish municipalities: Strong revenue base and close link to Central Government



By law, a Finnish municipality cannot be declared bankrupt

- Bankruptcy Act (120/2004)



Close link to the central government

- Highly independent and have a parallel status with the Central government confirmed in the constitution dating from 1917



Strong revenue base

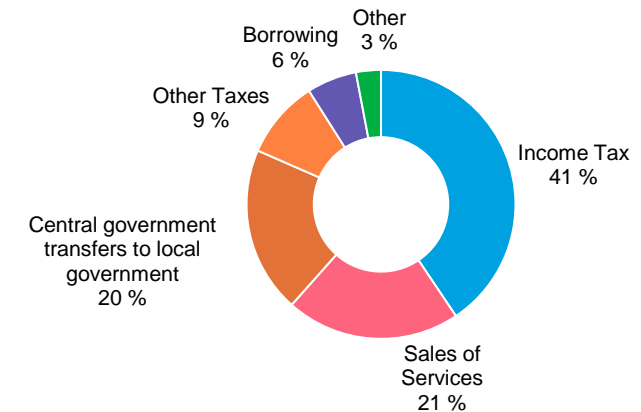
- Municipalities have an unlimited right to levy taxes on their inhabitants (municipal tax rate)
- Other revenues taxation related charges from service production



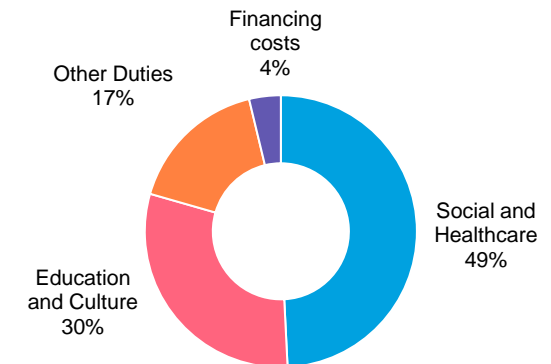
Budget Control

- Ministry of Finance is responsible for monitoring the municipal sector
- By law municipalities have an obligation to balance their finances over a four-year time frame

Revenues (~EUR 50.7 billion)



Expenditures (~EUR 50.6 billion)



Source: Association of Finnish Local and Regional Authorities, 2021

Municipal Guarantee Board (MGB) provides the explicit guarantee for MuniFin's senior debt



Stable

- Aa1 (Stable)/AA+(Stable) rated
- MGB was established by an act passed by Finland's parliament in 1996 for the purposes of safeguarding and developing the joint funding of municipalities



Strong

- All Finnish mainland municipalities* are members, representing 100% of the taxation power in mainland Finland. Membership is permanent
- Members of the MGB are jointly liable in proportion to their population figures for the explicit guarantee provided by MGB for MuniFin's funding



Immediately enforceable

- MGB can collect from members without a court order
- All debt guaranteed by MGB is BIS 0% risk-weighted in the EU area

*Due to the autonomy of the Province of Åland, its municipalities are not members of MGB and are not clients of MuniFin.
More information about the Municipal Guarantee Board (MGB): kuntientakauskeskus.fi/en/joint-funding-system-of-municipalities/

Long-term customer financing

MuniFin has a dominant role as a provider of financing and services for its customers

Customers

- Municipalities
- Joint municipal authorities
- Wellbeing services counties and joint county authorities for wellbeing services
- Corporate entities under the control of the above-mentioned organisations
- Non-profit organisations and projects nominated by the Housing Finance and Development Centre of Finland (ARA)

Long-term customer financing

29.1

EUR, billion

Services

- Loans
- Property leases
- Green and social finance
- Risk management
- Analysis and reporting solutions
- Financial advisory services

Long-term loan portfolio

- Non-profit organisations and projects nominated by the Housing Finance and Development Centre of Finland (ARA) 48%
- Municipalities 31%
- Corporate entities under the control of municipalities 11%
- Joint municipal authorities 10%

Guarantee

All customer financing is direct municipal or wellbeing services counties risk or is guaranteed by a municipality, a wellbeing services county, a joint municipal authority, a joint county authority for wellbeing services or central government (deficiency guarantee).

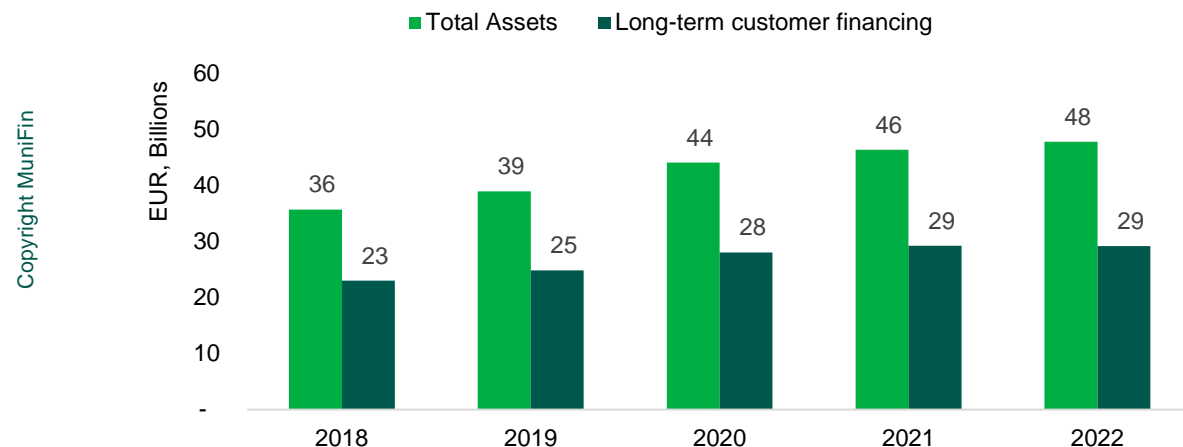
All customer financing carries **0%** risk weighting
a BIS

Goal

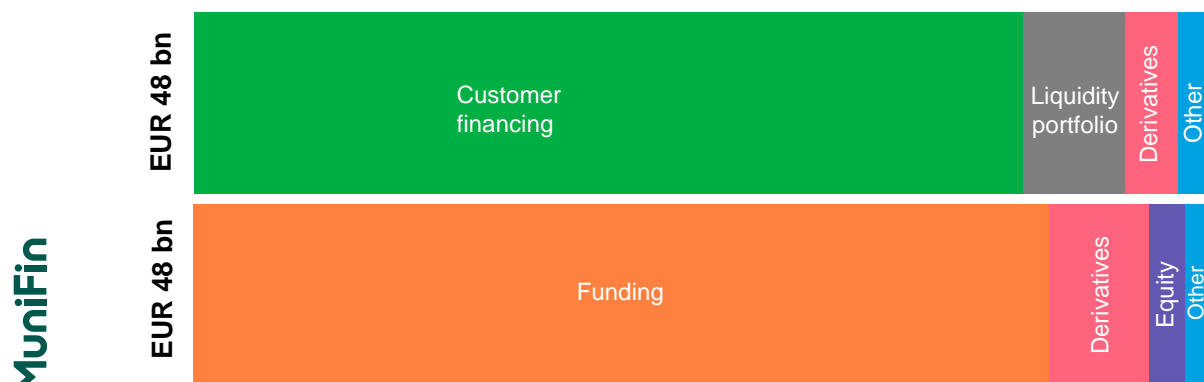
Green and social finance account for 20% of the long-term customer financing portfolio by 2024

Financial performance 2022

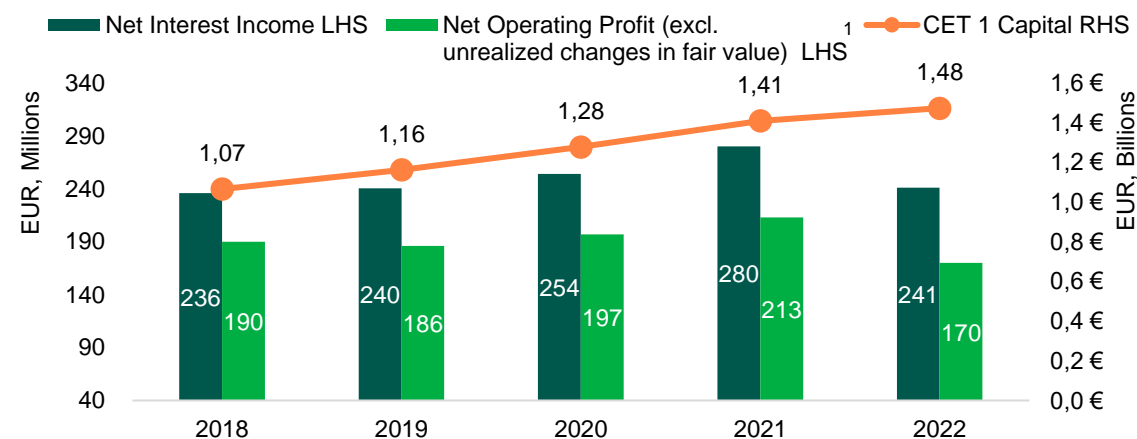
Business remained stable despite turbulent operating environment



Balance sheet totaled EUR 48 billion



Solid capital adequacy and leverage ratio



Cost-to-Income Ratio ¹	0.2	0.3	0.2	0.2	0.2
Return on Equity ¹	10.8%	6.8%	9.4%	10.7%	9.9%
Leverage Ratio ²	4.1%	4.0%	3.9%	12.8%	11.6%
CET1 Ratio ²	66.3%	83.1%	104.3%	95.0%	97.6%






¹ Alternative performance measure. More information on alternative performance measures can be found in the Annual Report/Board of Directors Report.

² Figures for the financial year 2021 and 2022 are calculated in accordance with CRR II. Comparison periods have not been restated to reflect the updated capital requirements regulation.

Operations rely on low risk appetite

MuniFin's risk pillars

Objectives and related measures

 Profitability & Capital	A sufficient level of earnings, profitability and capital
 Liquidity & Funding risks	An adequate liquidity buffer and a sustainable funding position and profile <ul style="list-style-type: none"> • Well diversified short- and long-term funding sources • Well-balanced, low risk liquidity portfolio with a high ratio of HQLA • Sufficient liquidity to cover continued undisturbed operations without new long-term funding for at least 12 months. Liquidity metrics, LCR and NSFR, to be kept well above regulatory requirements • Secondary source of funding: Monetary policy counterparty of the Bank of Finland
 Credit risks	Sound credit risk profile appropriate for MuniFin's business model <ul style="list-style-type: none"> • All customer financing is direct municipal or wellbeing services counties risk or is guaranteed by a municipality, a wellbeing services county, a joint municipal authority, a joint county authority for wellbeing services or central government (deficiency guarantee) • All customer financing carries a 0% risk weighting in capital adequacy calculations • Liquidity portfolio rating target AA (single issuer minimum rating requirement A-) • Derivative counterparty minimum rating requirement A- (with minor exceptions) • 0/0 threshold two-way CSAs with daily collateral management
 Market risks	Sound market risk profile appropriate for MuniFin's business model <ul style="list-style-type: none"> • Funding and liquidity portfolio investments are as a norm back-to-back hedged to floating rate EUR • Customer financing is all in EUR and as a norm hedged to floating rate
 Operational risks	Effective operational control and compliance to support functional and responsible operations <ul style="list-style-type: none"> • Objective is to minimize operational risks related to business and operations by carefully identifying and analyzing the impact and probability of the risks

Strong liquidity position

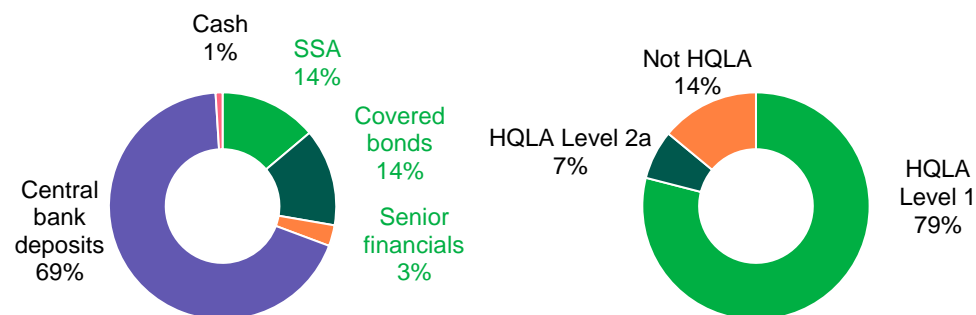
Liquidity Portfolio

11.5

EUR, billion

Sufficient liquidity to cover continued undisturbed operations for at least 12 months

Secondary source of funding: Monetary policy counterparty of the Bank of Finland



Security investments in the liquidity portfolio (3.3 bn EUR)

Guided by MuniFin's Sustainable Investment Framework

- 1 Investment/Issuer selection, exclusion and controversy monitoring
- 2 Applying issuer-level ESG management to the portfolio management process covering the entire portfolio
- 3 Separate thematic investment portfolio within the security investments portfolio

Only issuers from OECD countries

Average rating

AA+

Average maturity

2.6 years

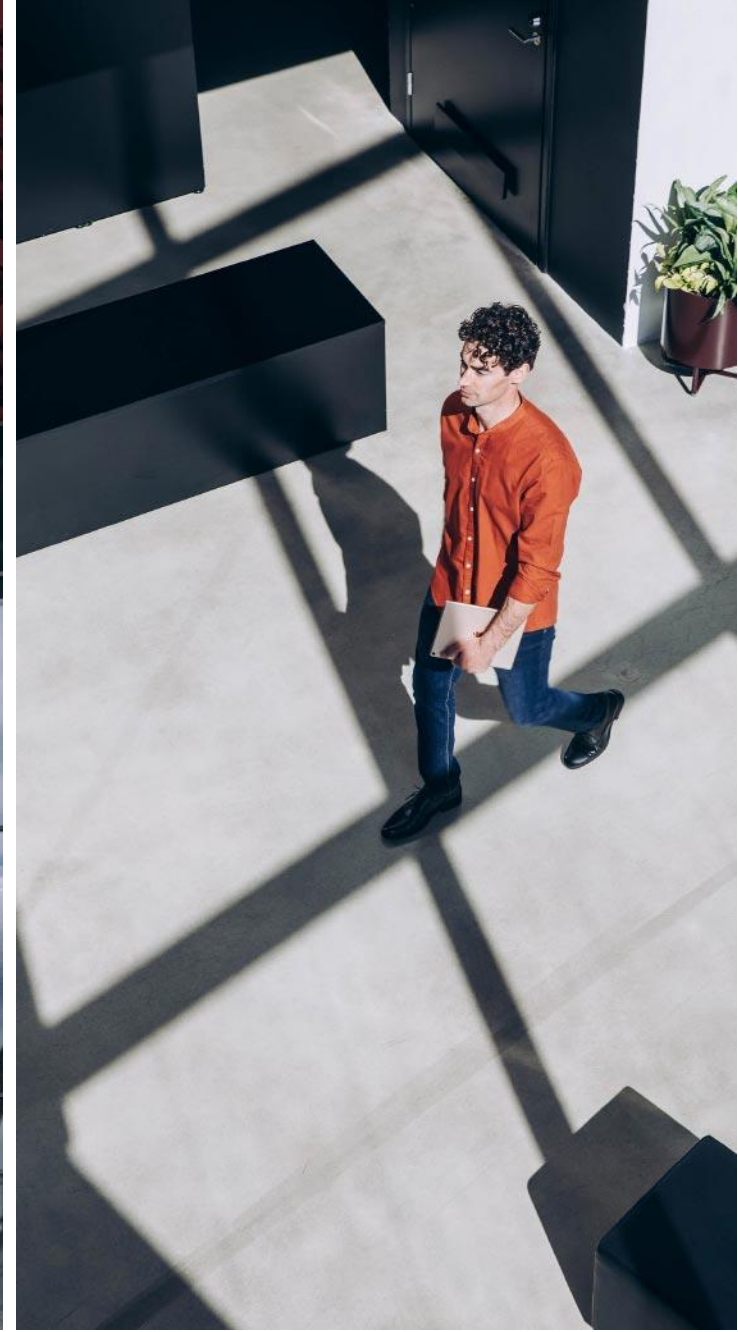
ESG score

3.0% over benchmark index

Size of thematic investment portfolio

498 EUR, million

The Finnish economy and economic outlook



Highlights of the Finnish economy



5.5 million
People



54 890 US\$
GDP per capita



2.9 % of GDP
Above average gross
domestic spending on R&D



By 2035
Aims to be carbon neutral

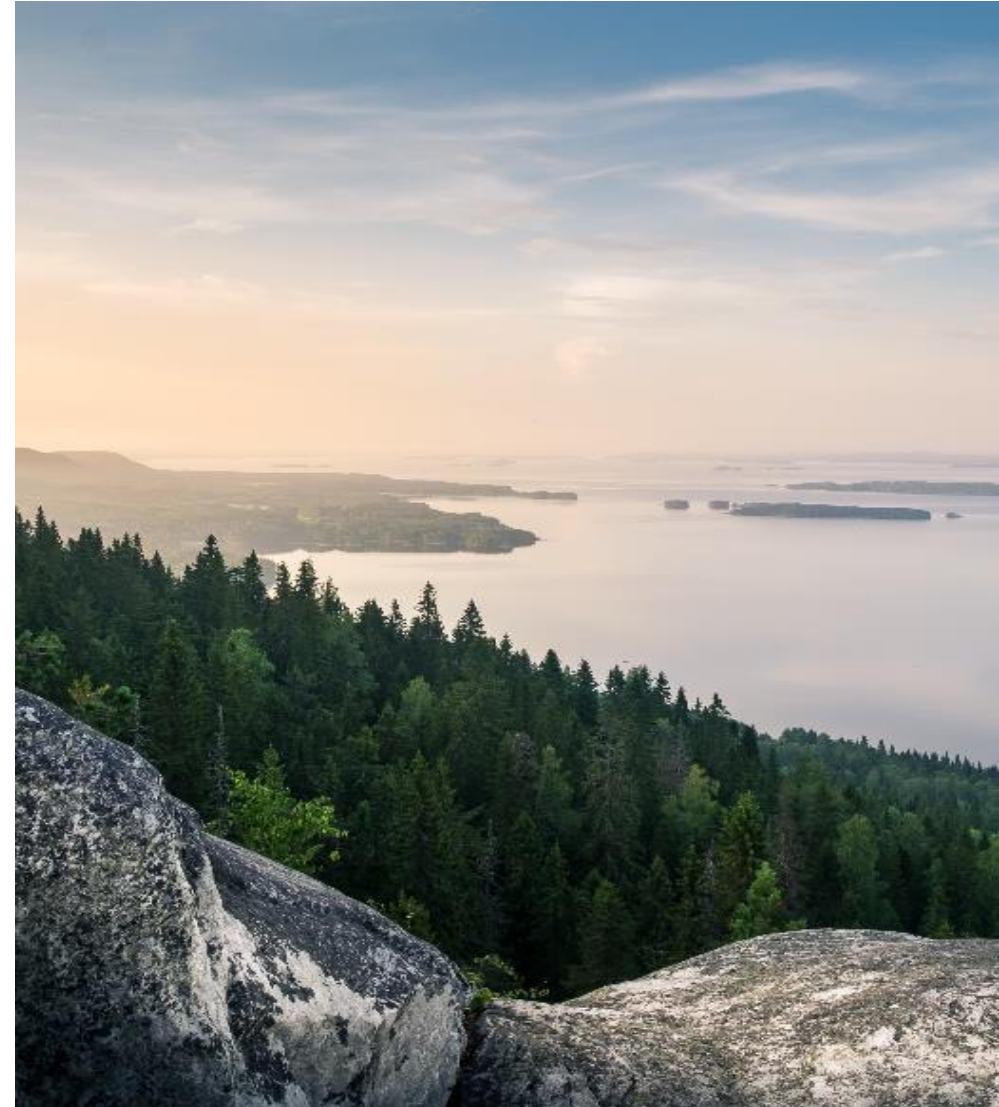


Machinery, Electrical equipment, Paper and Metal products
Largest manufacturing sectors

#1

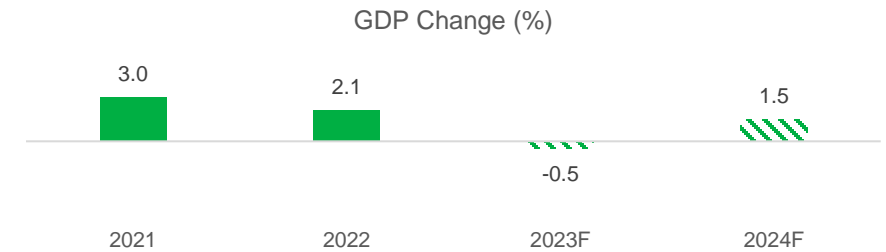


- **Happiest** country in the world six years in a row
- The most **stable** country in the world
- One of the top OECD countries in **education**
- The best **governance** in the world
- The **water** richest country in the world
- The most **forests** in Europe
- Finns drink most **coffee** per person in the world

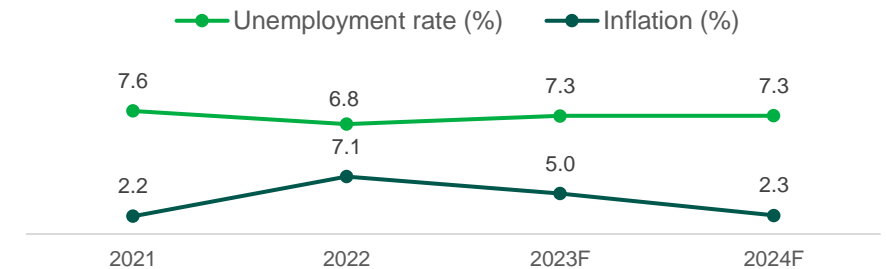


Economic outlook of Finland

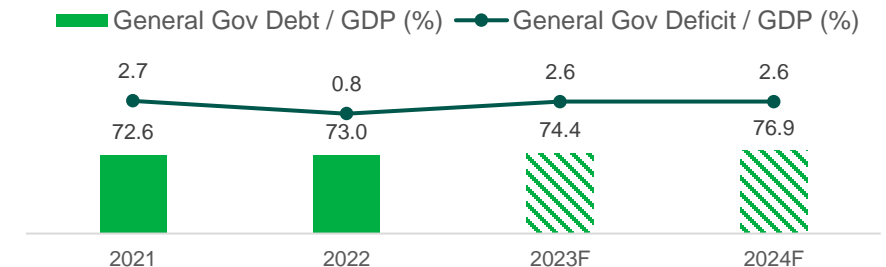
- Finland's economy is projected to be facing a mild recession, but downside risks are growing.
- Thanks to Finland's robust industry and high employment, the period of economic recession is estimated to be relatively mild and short-lived. However, consumers' savings will shrink and the negative effects of the rising cost of living may begin to accumulate during 2023. Sharply rising interest rates also pose a significant risk to future economic development.
- The high employment rate steadies the weakening economic outlook.
- Finland's debt/GDP level is comparably low – even after the unavoidable rise in debt due to the pandemic as well as the uncertain geopolitical landscape.



Source: Statistics Finland and MuniFin



Source: Statistics Finland and MuniFin



Source: Statistics Finland and Ministry of Finance

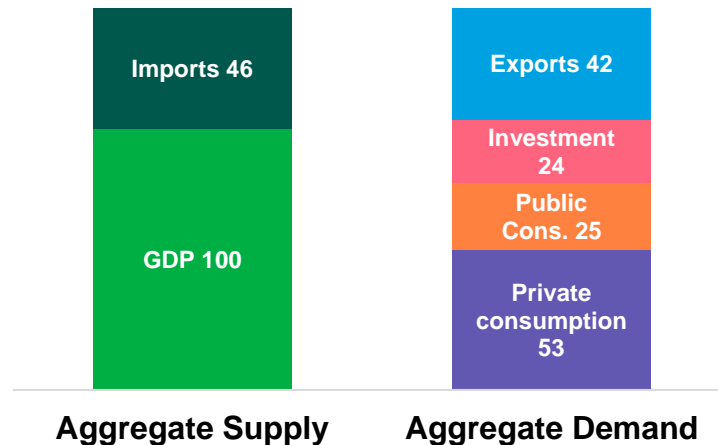
The Finnish Economy

Know-how intensive production base

- Services account for ca. 70 % of GDP

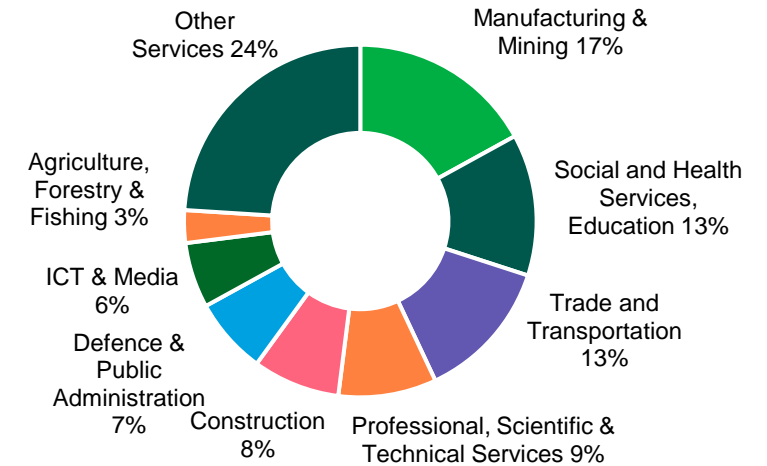
Trade oriented open economy - export-to-GDP ca. 42 %

- Exports largely made up of investment goods and intermediate products
- Services' share of total exports doubled since 2007-2008
- Roughly 56% of exports inside the EU. Largest trading partners (export and import) being Germany, Sweden, China, Netherlands and USA



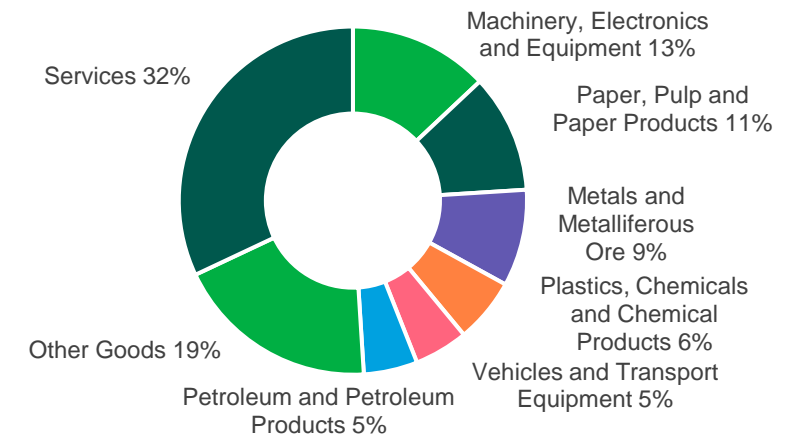
Source: Statistics Finland, MuniFin
Finland Supply and Demand 2022 GDP=100

Finnish GDP by Sector 2021



Source: Statistics Finland, Macrobond, MuniFin

Finnish Exports 2022



Source: Statistics Finland, Finnish Customs, Macrobond, MuniFin

Funding operations



Green bond of the Year - Sub-sovereign, supranational and agency (SSA) and Biggest issuer - Local authority



WINNER
SSA Structured Notes Issuer of the Year



WINNER
Issuer of the Year

Funding strategy

Strategic funding markets

EUR and USD
benchmarks

Tactical funding markets

Other public
markets

Private
placements

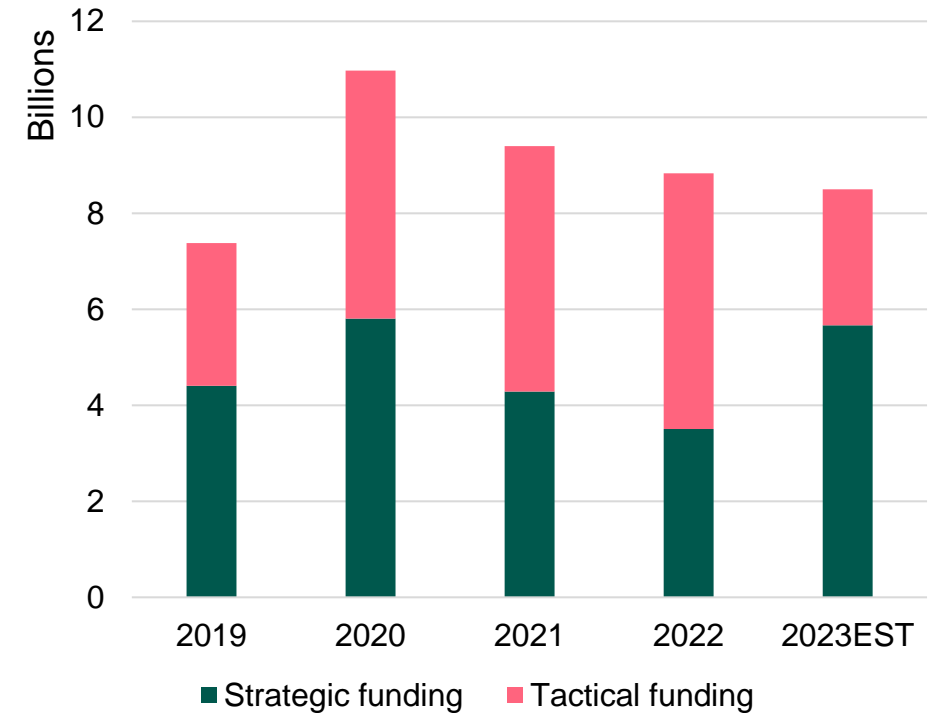
Retail

Euro commercial paper

ECP
(short-term)

Green bonds and social bonds can be issued in strategic or tactical funding markets

Long-term funding program

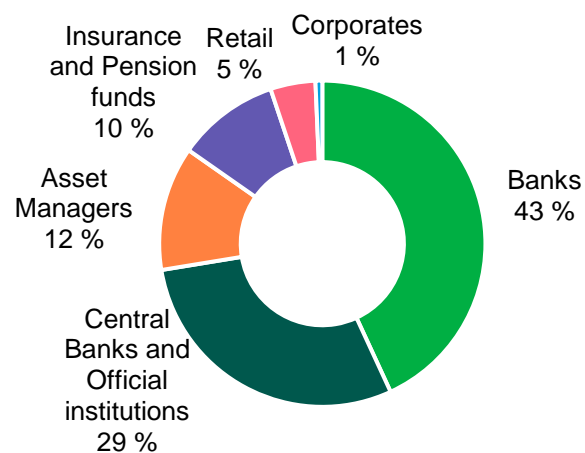


BIS 0% risk-weighted

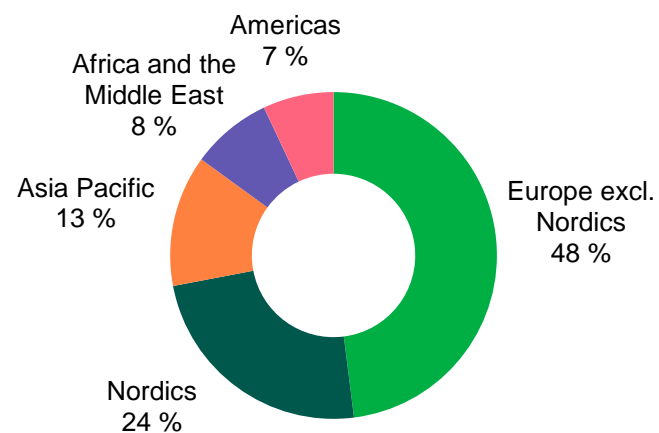
LCR HQLA Level 1 asset in the EU area
and Switzerland

Funding breakdown 2022

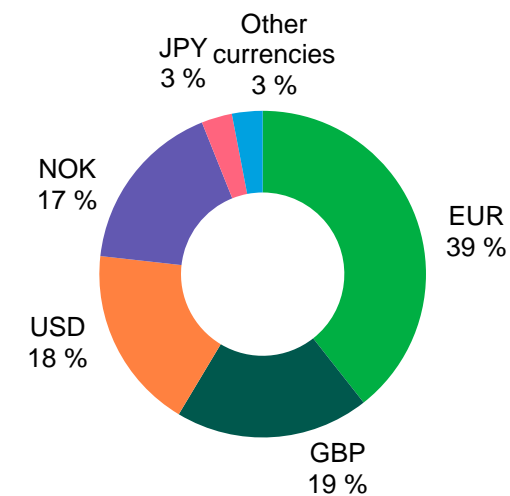
Funding by investor type



Funding by region



Funding by currency



Successful public market strategy

Strategic funding markets



EUR FIXED BENCHMARKS 18.1 bn

Mar 2024, Nov 2024, April 2025, Nov 2026, [Sep 2027¹](#), Jan 2028, April 2028, [Sept 2028¹](#), [May 2029¹](#), [Sep 2029¹](#), July 2030, [Oct 2030¹](#), March 2031, Feb 2032, Feb 2033, [Sep 2035²](#)



USD FIXED BENCHMARKS 5.5 bn

Sep 2023, Nov 2023, Mar 2026, Sep 2026, Aug 2027

Tactical other public markets



AUD 900 m

Mar 2024, Feb 2026, Jul 2027, Aug 2029



CHF 900 m

Sept 2024, March 2026, June 2027, June 2028, March 2030, Aug 2038



GBP 2.8 bn

[Dec 2024¹](#), June 2025, Dec 2025



NOK 33.8 bn

July 2023, Sept 2023, Sept 2024, Jan 2025, Jan 2026, March 2026, Sep 2026, Jan 2027, April 2027, Aug 2027, May 2036, April 2037



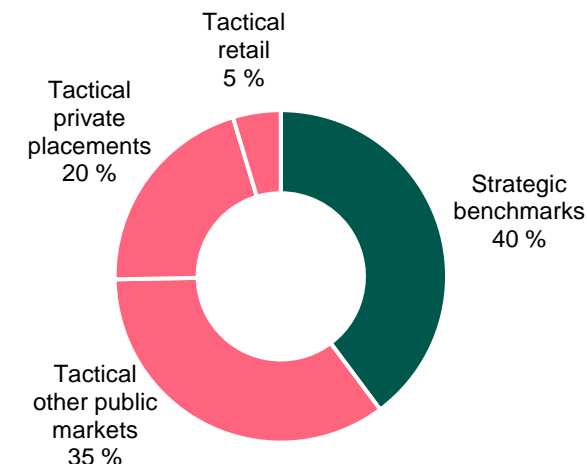
NZD
150 m

May 2026

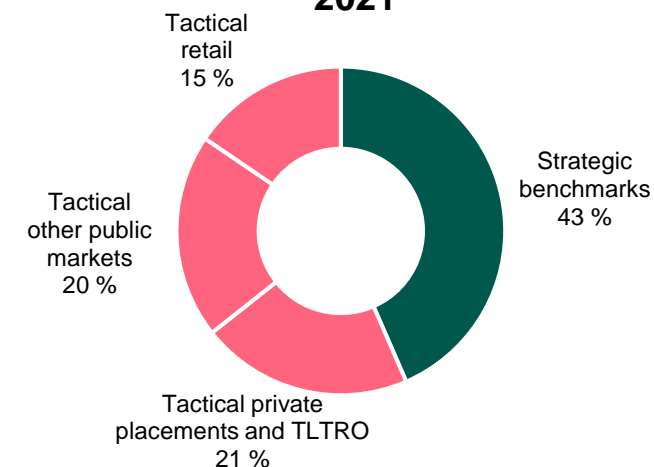
¹ Green bond

² Social bond

2022

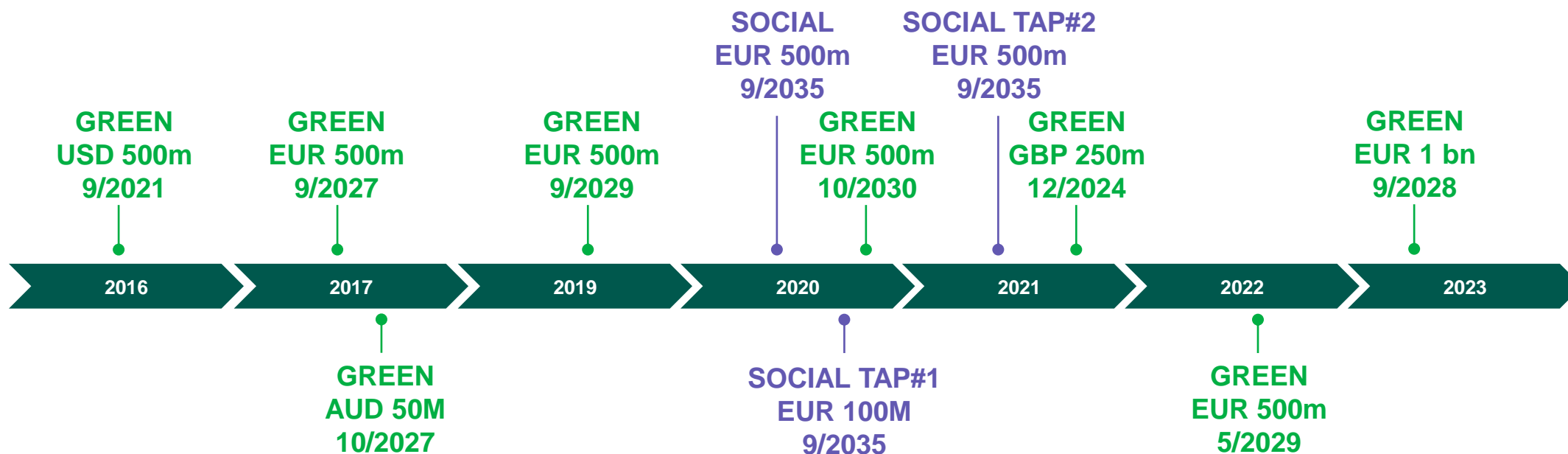


2021



Green and social bonds

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Outstanding
green bonds

7

3.3
EUR, billion



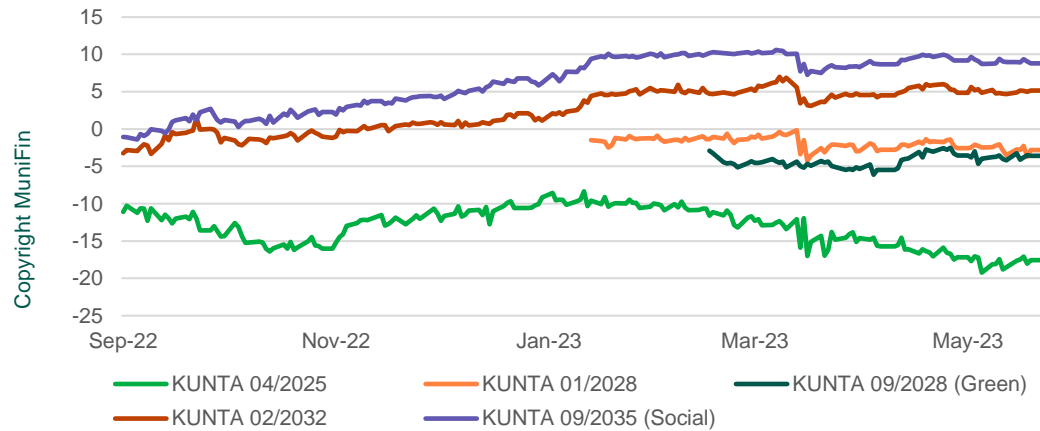
Outstanding
social bonds

1

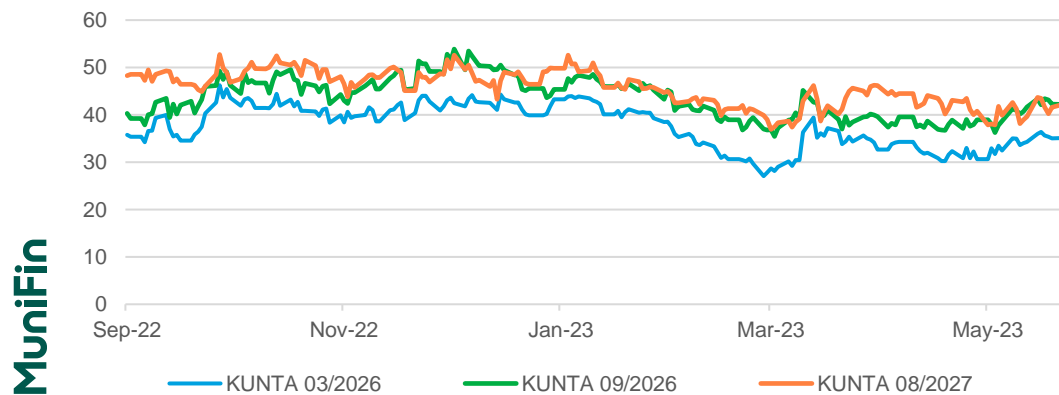
1.1
EUR, billion

Secondary market of strategic benchmarks

Mid ASW spreads of selected MuniFin EUR Benchmarks



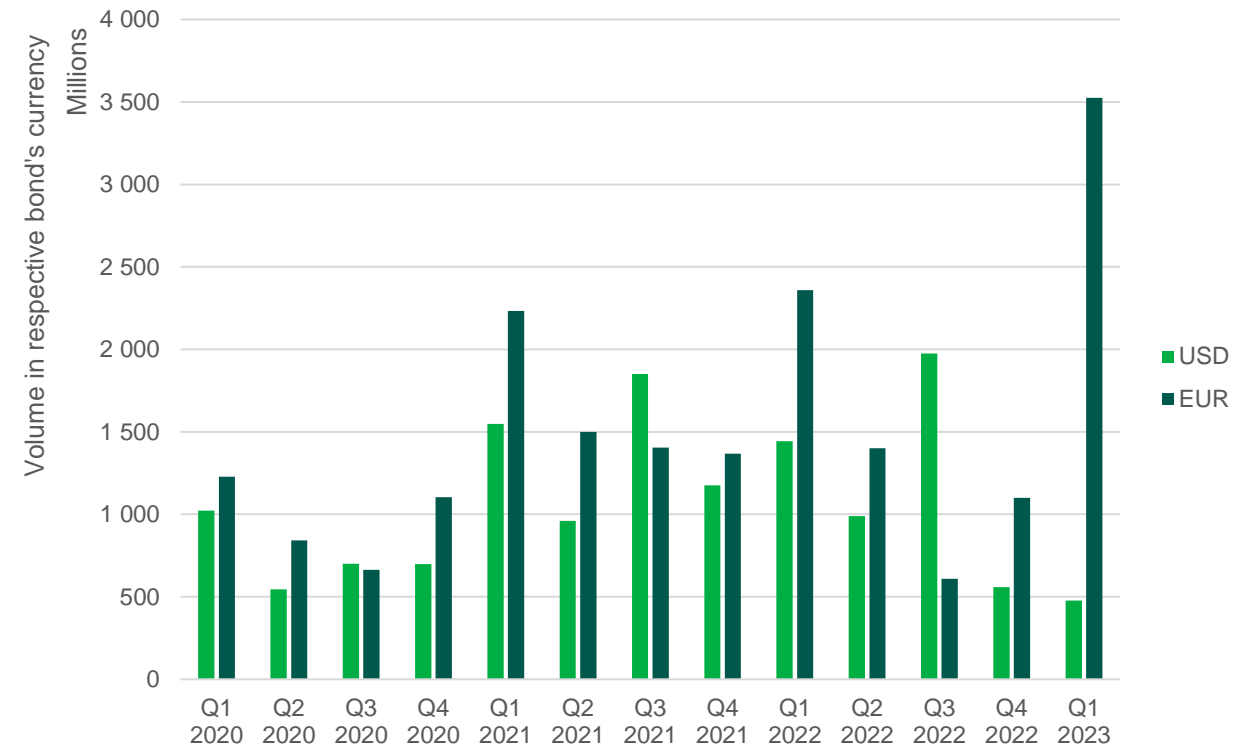
Mid ASW spreads of selected MuniFin USD Benchmarks



Source: Bloomberg 22 May 2023

MuniFin incentivizes dealer banks to maintain good liquidity in its benchmarks in the secondary market

- Secondary market data is collected every quarter from the dealer bank group
- The data is also used to assess each dealer bank's performance



Source: MuniFin 2023. This data is based on quarterly secondary turnover data received from the dealer banks.

Green and social bonds



MuniFin's finance addresses SDG-related challenges in Finland

“Inclusive and competent Finland – a socially, economically and ecologically sustainable society”¹



Key challenges

- Per capita energy consumption
- GHG emissions
- Ageing water and sewage networks
- Eutrophication of bodies of water
- Biodiversity
- Recycling of waste
- Regional differences in access to services and transportation
- Increasing inequalities and social exclusion
- Outcomes between socio-economic groups



Finland's goal is
to be carbon
neutral by 2035

https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162268/VNK_2020_8_Voluntary_National_Review_Finland.pdf?sequence=4&isAllowed=y

¹ Title of the Finnish Government programme: <https://valtioneuvosto.fi/en/marin/government-programme>

MuniFin's green and social bonds



- First pure Finnish Green Bond issuer in 2016
- Outstanding amount of green bonds 3.3 billion € equivalent*
- Outstanding amount of green finance 3.3 billion €**
- Green Bond Framework (updated in August 2022) 
 - Prepared in accordance with ICMA GBP
 - Internal Green Finance Team
 - Customer margin discount 
- Second opinion
 - Cicero Shades of Green: Medium Green & Excellent Governance score
- Annual allocation and impact reporting



- First Nordic SSA Social Bond issuer in 2020
- Outstanding amount of social bonds 1.1 billion €*
- Outstanding amount of social finance 1.7 billion €**
- Social Bonds Framework 
 - Prepared in accordance with ICMA SBP
 - Social Evaluation Team
 - Customer margin discount 
- Second opinion
 - ISS ESG
- Annual allocation and impact reporting 

*As of June 2023

**As of 31 December 2022

The updated Green Bond Framework 2022



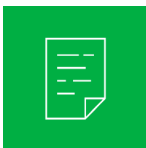
Transparency on criteria

- More transparency provided on the eligibility criteria of projects
 - The EU Taxonomy has been considered as a guiding tool in defining the eligibility criteria
- Introduction of non-compulsory criteria to facilitate further integration of the EU Taxonomy



Structure

- Project categories have been preliminarily mapped to the EU Taxonomy climate change mitigation activities
- The amount of project categories streamlined
- Biodiversity and climate change adaptation measures are introduced as sub-categories
- Project approval is now made by MuniFin's internal sustainability experts
- Introduction of annual post-issuance review



Second opinion

- Cicero Shades of Green has provided a second opinion
 - Medium Green shading and Excellent Governance score
 - EU Taxonomy assessment

EU Taxonomy preliminary mapping of economic activities for climate change mitigation (EU environmental objective 1)

1. Buildings

- 7.1 Construction of new buildings
- 7.2 Renovation of existing buildings
- 7.3 Installation, maintenance, and repair of energy efficiency equipment
- 7.5 Installation, maintenance, and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings
- 7.6 Installation, maintenance, and repair of renewable energy technologies
- 7.7 Acquisition and ownership of buildings

2. Transportation

- 6.1 Passenger interurban rail transport
- 6.3 Urban and suburban transport, road passenger
- 6.5 Transport by motorbikes, passenger cars and light commercial vehicle
- 6.7 Inland passenger water transport
- 6.8 Inland freight water transport
- 6.10 Sea and coastal freight water transport, vessels for port operations and auxiliary activities
- 6.11 Sea and coastal passenger water transport
- 6.13 Infrastructure for personal mobility, cycle logistics
- 6.14 Infrastructure for rail transport
- 6.15 Infrastructure enabling low-carbon road transport and public transport

3. Renewable energy

- 4.1 Electricity generation using solar photovoltaic
- 4.3 Electricity generation from wind power
- 4.6 Electricity generation from geothermal energy
- 4.22 Production of heat/cool from geothermal energy
- 4.24 Production of heat/cool from bioenergy
- 4.25 Production of heat/cool using waste heat

4. Water and waste water management

- 5.1 Construction, extension and operation of water collection, treatment and supply systems
- 5.2 Renewal of water collection, treatment and supply systems
- 5.3 Construction, extension and operation of waste water collection and treatment
- 5.4 Renewal of waste water collection and treatment

Green finance in figures



Total committed green finance



Green portfolio duration

13 years

Number of green projects

263

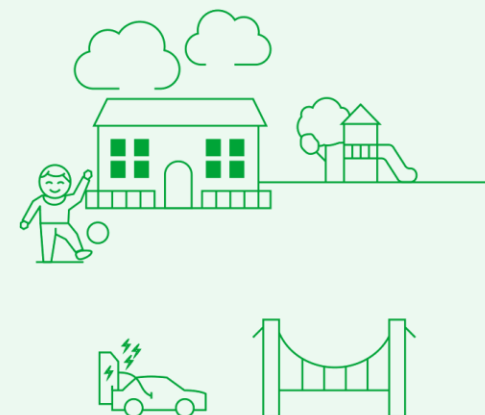


Annual energy savings (avoided/reduced)

39,215¹ MWh

Annual CO₂ emissions avoided/reduced

104,739² tCO₂



Annual production of renewable energy

191,695 MWh



Renewable energy production capacity

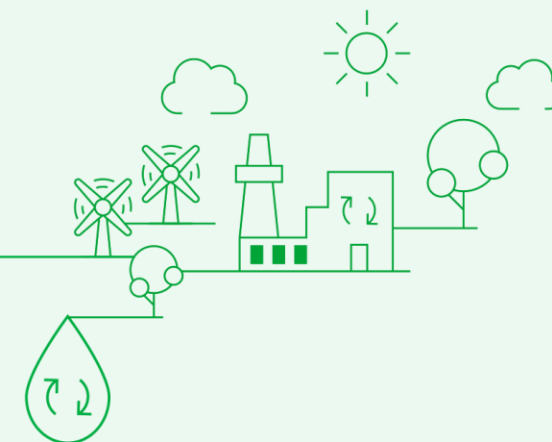
78 MW

Annual amount of treated waste water in existing plants immediately after project completion

27,896,515 m³

Annual amount of treated waste water with increased capacity in the future

30,407,158 m³



Figures based on the outstanding amount of green finance on 31 December 2022

[Read more:](#)
[MuniFin Green Impact Report 2022](#)

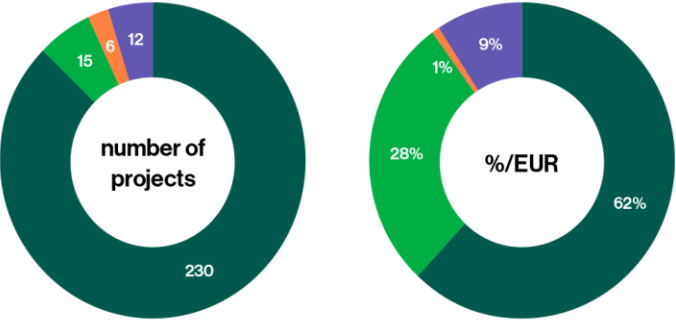
¹ 39,215 MWh: Equals the annual consumption of about 2,252 electrically heated single-family houses (Source: Motiva)

² 104,739 tCO₂: Equals the average annual carbon footprint of about 10,169 Finns (Source: Sitra)

Executive summary of Green finance

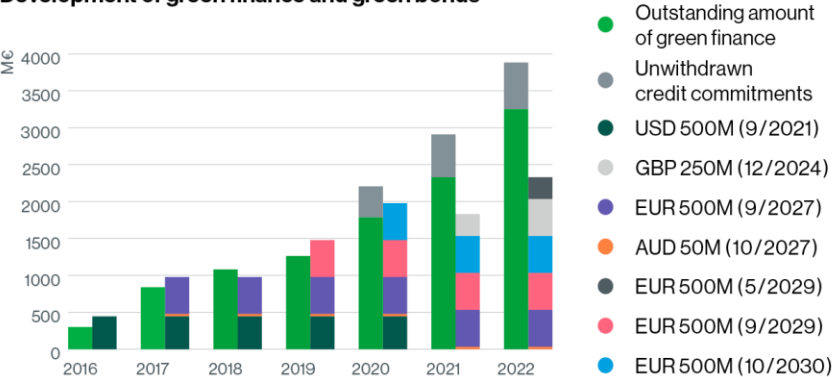
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Green finance project breakdown



- Buildings
- Transportation
- Renewable energy
- Water and waste water management

Development of green finance and green bonds



MuniFin

Project category	Outstanding amount, EUR million	Annual CO ₂ emissions avoided/reduced, tCO ₂	Impact, tCO ₂ per EUR million
Buildings	2,009	3,597	2
Transportation	901	8,813	10
Renewable energy	51	92,329	1,799
Water and waste water management	290	0	-
Total	3,251	104,739	N/A

Other impact indicators

Annual energy savings (avoided / reduced MWh)	39,215
Annual production of renewable energy (MWh)	191,695
Renewable energy production capacity (MW)	78
Annual amount of treated waste water in existing plants immediately after project completion (m ³)	27,896,515
Annual amount of treated waste water with increased capacity in the future (m ³)	30,407,158

Impact attributable to green bond investors

71.7%

Outstanding amount of green bonds divided by outstanding amount of green finance (in EUR) as of 31 Dec 2022. Capped at 100%.

Amount	ISIN	Issue date	Maturity date	
500m EUR	XS2242924491	14 Oct 2020	14 Oct 2030	15.4%
500m EUR	XS2023679843	10 July 2019	6 Sept 2029	15.4%
500m EUR	XS2480922389	17 May 2022	17 May 2029	15.4%
50m AUD	XS1706174015	25 Oct 2017	25 Oct 2027	1.0%
500m EUR	XS1692485912	3 Oct 2017	7 Sept 2027	15.4%
250 m GBP	XS2404205119	2 Nov 2021	16 Dec 2024	9.1%

Basic information

Green bonds frameworks applied to the green finance portfolio	MuniFin Green Bonds Framework August 2022, May 2019, November 2018, August 2017 and February 2016
Reporting period	The reporting is based on the green finance portfolio as at 31 Dec 2022
Report publication date	7 March 2022
Reporting frequency	Annual
Next report planned for	March/April 2024
Reporting approach	Portfolio-based and project-by-project reporting
Reporting framework	Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting (February 2020)

Social finance in figures

Outstanding amount
of social finance

1,734

EUR million



Total committed
social finance

2,000

EUR million

Social portfolio duration

11 years



Welfare

Number of user and patient visits

2,894,411

Number of welfare service
users reached

6,100,625



Number of
social projects

86



Social housing

Number of apartments

3,293

of which housing for the most
vulnerable population: **3 070**

Number of residents

3,468



Education

Number of students, pupils
and children reached

1,029

Average class size

18

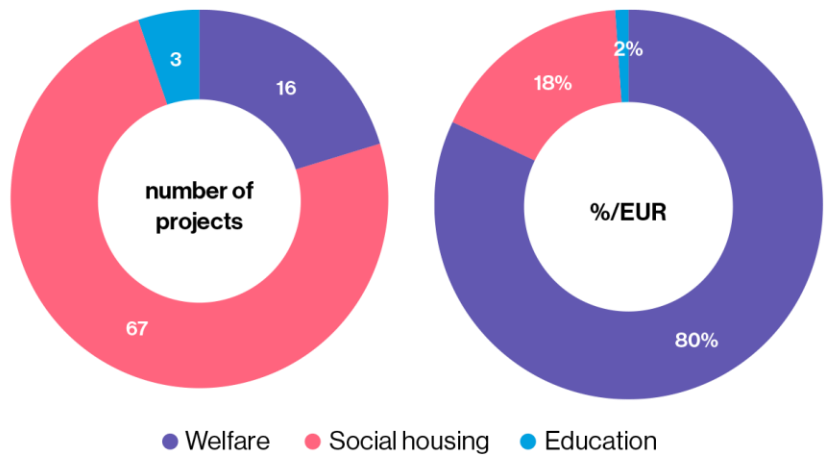
 pupils

[Read more:](#)
[MuniFin Social Impact Report 2022](#)

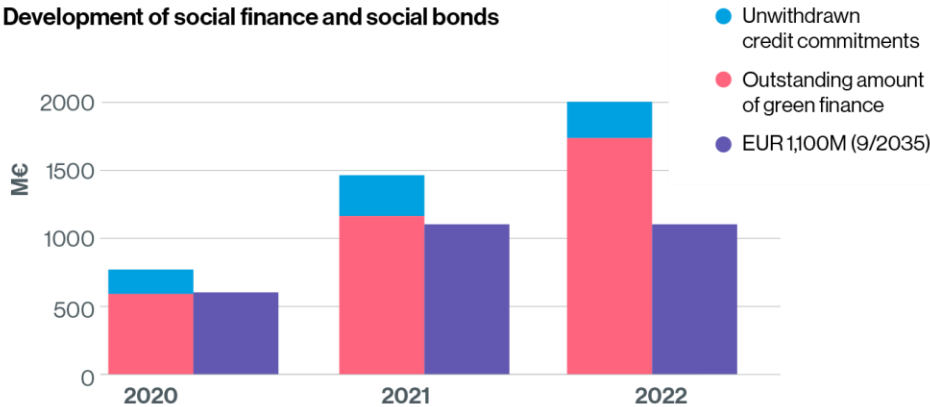
Figures based on the outstanding amount of social finance on 31 December 2022

Executive summary of Social finance

Social finance project breakdown



Development of social finance and social bonds



Project category	Outstanding amount, EUR million
Welfare	1,386
Social housing	317
Education	31
Total	1,734

Other impact indicators	
Number of user and patient visits	2,894,411
Number of welfare service users reached	6,100,625
Number of residents	3,468
Number of apartments	3,293
Of which housing for the most vulnerable population	3,070
Number of students, pupils and children reached	1,029
Average class size, pupils	18

Impact attributable to social bond investors				63.5%
Outstanding amount of social bonds divided by outstanding amount of social finance (in EUR) as of 31 Dec 2022. Capped at 100%				
Amount	ISIN	Issue date	Maturity date	
1,100m EUR	XS2227906034	10 Sept 2020/12 Oct 2021	10 Sept 2035	63.5%

Basic information:	
Social bonds frameworks applied to the social finance portfolio	MuniFin Social Bonds Framework as of February 2021
Reporting period	The reporting is based on the social finance portfolio as at 31 Dec 2022
Report publication date	7 March 2023
Reporting frequency	Annual
Next report planned for	March/April 2024
Reporting approach	Portfolio-based and project-by-project reporting
Reporting framework	ICMA Social Bond Principles (June 2022) and ICMA Handbook – Harmonised Framework for Impact Reporting (June 2022, when applicable)

Thank you



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Appendices



The Finnish healthcare and social services reform

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 authorization to acquire long-term funding for their investments. The counties can also seek short-term funding independently without government authorization.

In terms of financing, the legislation adopted in the summer of 2021 allows MuniFin to continue to act as a lender and counterparty to the loans and other liabilities that were transferred to the counties at the start of 2023. New legislation also allows MuniFin to finance new investments and other new financing needs by the wellbeing services counties. The FIN-FSA decided in January 2022 that wellbeing services counties, similar to the central government and municipalities, will also fall in the zero-risk category in the capital adequacy regulation of credit institutions. This decision simplifies the financing arrangements because it means that separate government guarantees are not required and that MuniFin can finance wellbeing services counties in the same way it finances municipalities. The MGB has decided to set an annual limit to MuniFin in respect of wellbeing services counties' new financing. For 2023, the MGB's limit is EUR 400 million in respect of MuniFin's long-term loans and EUR 900 million in respect of MuniFin's new short-term financing. This is because, at this stage, the wellbeing services counties will not be members in the MGB and accordingly, will not be liable for the guarantee provided for MuniFin's funding.

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

More information concerning the status of the reform can be found at: <https://soteuudistus.fi/en/frontpage>.

More information:

https://www.kuntarahoitus.fi/app/uploads/sites/2/2023/03/MuniFin_Annual_Report_2022.pdf

<https://www.kuntarahoitus.fi/app/uploads/sites/2/2022/09/Supplemental-Offering-Circular-September-2022.pdf>

MuniFin's credit assessment and credit granting process

Annual credit assessment

- MuniFin conducts an annual assessment of the ability of its customers to meet their future obligations.
- The assessment covers both economic and qualitative factors, including indicators of solvency, debt-servicing capacity, profitability and ESG. For municipality customers, the municipal evaluation criteria of the Ministry of Finance is taken into account.
- As a result of the annual assessment, MuniFin will have a view of a customer's current risk position.

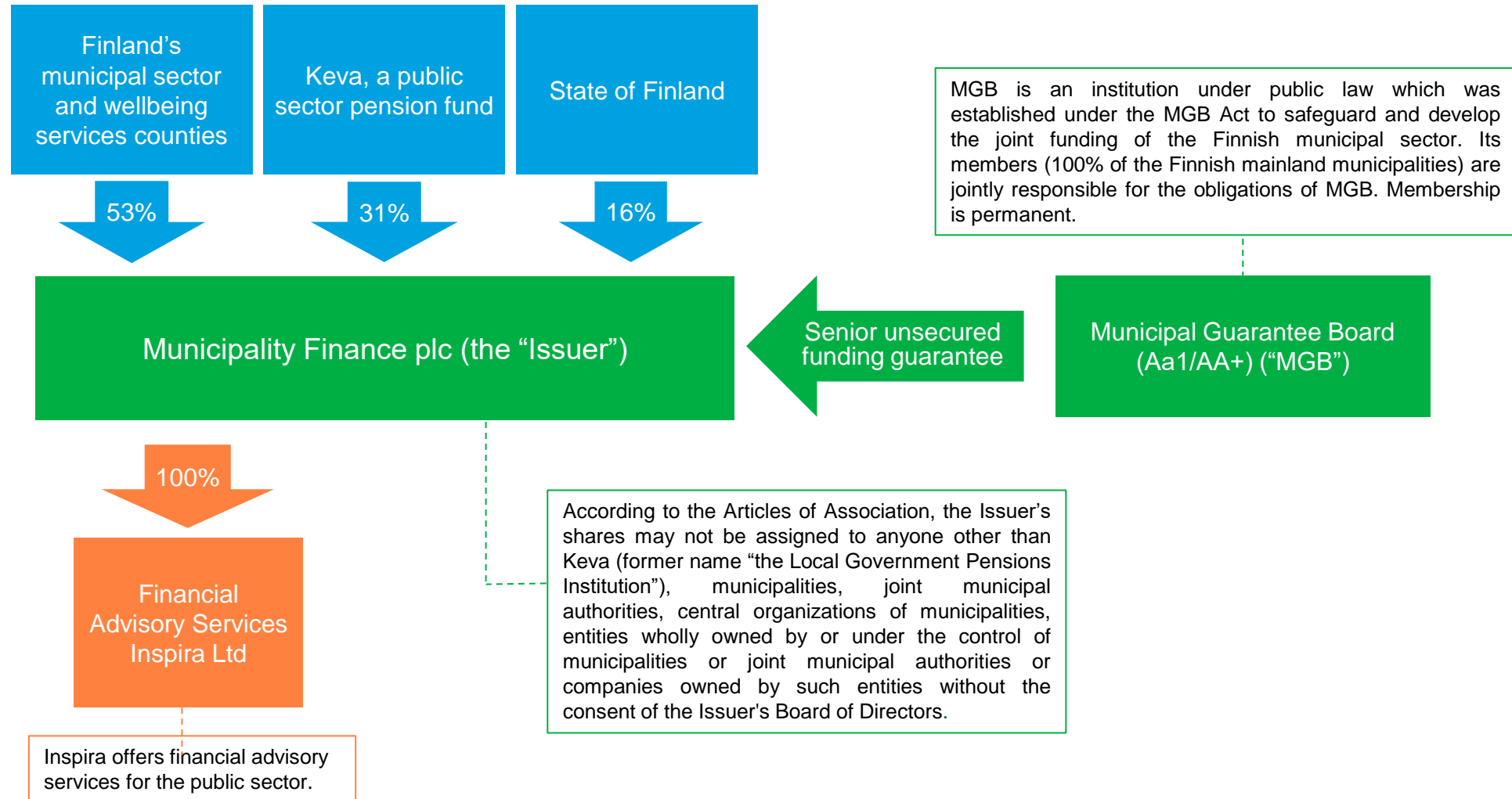
Credit granting process

- MuniFin's credit granting process is carried out by the account manager, who will estimate whether a customer and a financing request will fulfill requirements of the Act on the Municipal Guarantee Board and MuniFin's credit risk strategy.
- As a part of the credit granting process MuniFin will conduct a credit analysis covering both financial and qualitative factors of the borrower. Factors include for example current, historical and future repayment capacity, purpose of the credit, borrower's funding structure, borrower's position within the sector, the outlook of borrower's industry and risks posed by macro-economic development and ESG.
→ The final risk assessment and scoring of a customer is the weighted sum of financial and qualitative factors

Decision making

- The results of both the annual credit assessment and the credit granting process indicate the risk profile of a customer and will influence the final credit decision.

Municipality Finance – Legal structure



Finnish economy: Ministry of Finance's GDP growth forecasts

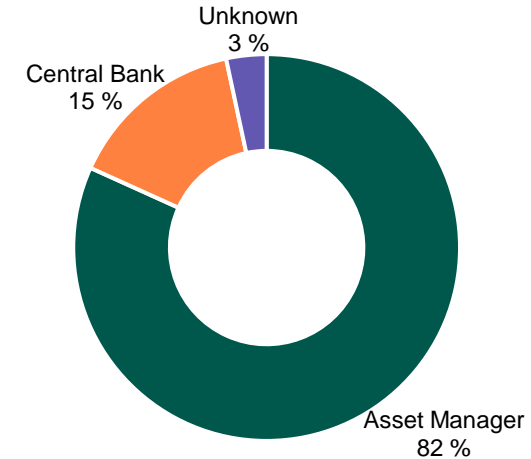
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	2021	2022	2023*	2024*
GDP at market prices, change in volume, %	3.0	2.1	-0.2	1.3

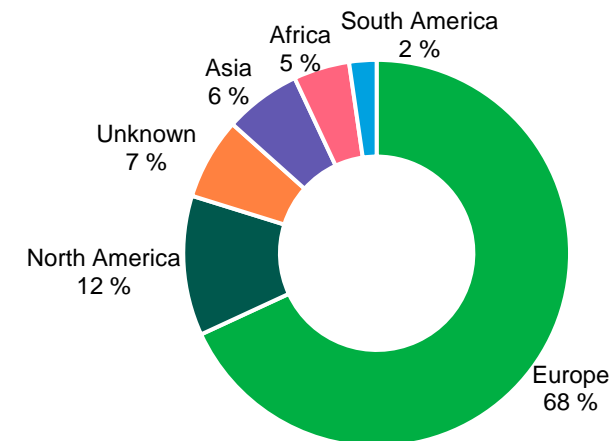
MuniFin Euro-Commercial Paper (ECP) programme

- The size of the programme (under English law) is EUR 10 billion
- STEP-compliant since 2020
- Outstandings at the end of 2022 EUR 4.8 billion
- Main currencies: EUR and USD
 - Also available: CHF, GBP, SEK, AUD, NZD, CAD
- Dealers: Citibank, BAML, Barclays, BMO, Bred, UBS and Rabobank

Investor by type 2022



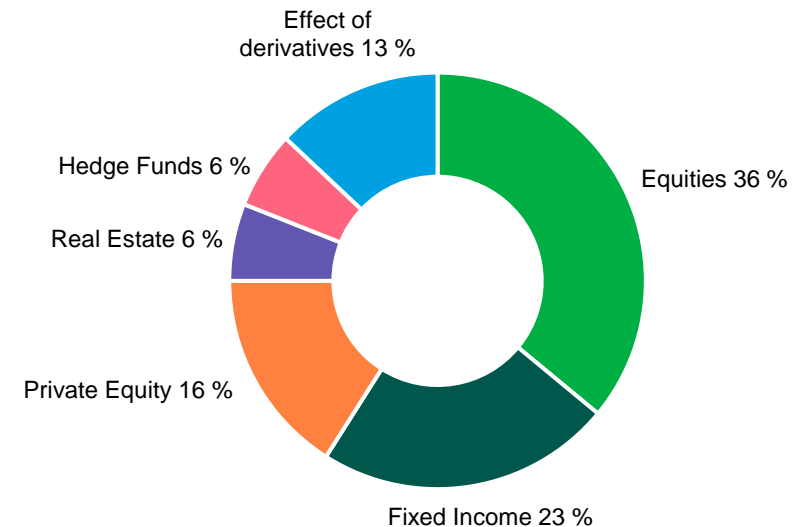
Investor by region 2022



Keva – A public sector pension fund

- Mandatory pension fund for people working in the local government sector.
- Responsible for funding the pensions of local government employees and for investing their pension funds (1.3 million insured persons and pension recipients).
- Independent body governed by public law and operating in accordance with the Public Sector Pensions Act and the Keva Act.
- Supervised by the Ministry of Finance, the Financial Supervisory Authority and the National Audit Office of Finland.
- Fund assets totalling EUR 66.8 billion. Largest pension fund in Finland.

Breakdown of investments



Green bond eligible project categories

Buildings



- 1.1a Buildings: EPC A
- 1.1b Other buildings
- 1.2 Renovations: Overall reduction in primary energy demand by at least 30%
- 1.3 Individual energy efficiency measures
- 1.4 Renewable energy in buildings
- 1.5 Energy saving project (ESCO)
- 1.6 Biodiversity and adaptation measures

Cicero Shading: Light to Medium Green



Transportation



- 2.1 Public transportation: zero direct (tailpipe) CO2 emissions
- 2.2 Supporting infrastructure for public transportation
- 2.3 Passenger cars and light commercial vehicles: zero direct (tailpipe) CO2 emissions and related charging infrastructure
- 2.4 Infrastructure for personal mobility
- 2.5 Biodiversity and adaptation measures

Cicero Shading: Dark Green



Renewable energy



- 3.1 Solar energy
- 3.2 Wind energy
- 3.3 Bioenergy
- 3.4 Geothermal energy
- 3.5 Waste heat

Cicero Shading: Medium to Dark Green



Water and waste water management



- 4.1 New waste water facilities
- 4.2 Existing waste water facilities
- 4.3 New water facilities
- 4.4 Existing water facilities

Cicero Shading: Medium to Dark Green





1. Buildings¹⁰

UN Sustainable Development Goals: 7.3, 9.1, 9.4, 11.1, 11.3, 11.7, 12.2, 13.1, 15.5

EU environmental objectives: Climate change mitigation (CCM)

Preliminary mapping of economic activities under the EU Taxonomy: CCM 7.1, 7.2, 7.3, 7.5, 7.6, 7.7



PROJECT CATEGORY AND ELIGIBILITY CRITERIA

1.1a Buildings

Buildings that have an Energy Performance Certificate (EPC) class A. The corresponding E-value requirements for EPC class A¹¹ are presented below.

Building type	E-value limit EPC A	Corresponding energy performance requirements ¹² -x%
Small residential buildings	80	-24%
Apartment buildings, minimum 3 storeys	75	-17%
Office buildings, health care centres	80	-20%
Commercial buildings	90	-33%
Hospitality buildings, including sheltered housing	90	-44%
Schools and day-care centres	90	-10%
Hospitals	150	-53%

In addition to the energy requirements stated above, the following non-compulsory criteria (i–iii) will be considered and promoted in order to make environmentally friendly investments more attractive to MuniFin's customers and facilitate the implementation of the EU Taxonomy.

- For buildings larger than 5000 m², the building undergoes testing for air-tightness and thermal integrity, upon completion.
- For buildings larger than 5000 m², the life-cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed
- Buildings that self-supply renewable energy, have undergone an environmental impact analysis, make use of recyclable and low carbon materials, or have obtained a certification according to Nordic Swan Ecolabel, LEED Gold, BREEAM Very Good, The Building Information Foundation RTS 3 stars or better, or other equivalent certification with high ratings.

EU TAXONOMY ELIGIBLE ACTIVITIES

7.1 Construction of new buildings

7.7 Acquisition and ownership of buildings

¹⁰ Any buildings directly heated by fossil fuels, including hybrid solutions and peak load and backup systems powered by fossil fuels, will be excluded from the Green Bond Framework.

¹¹ The relevant E-value for energy class A that is specified in applicable regulation during design phase. In the event that the national building code is revised, the changes will supersede the values described in the table.

¹² We expect the Finnish nearly zero-energy buildings requirement, once established, to be equivalent to the National Building Code of Finland, Decree of the Ministry of the Environment on the Energy Performance of New Buildings (1010/2017).



1. Buildings¹⁰

UN Sustainable Development Goals: 7.3, 9.1, 9.4, 11.1, 11.3, 11.7, 12.2, 13.1, 15.5
EU environmental objectives: Climate change mitigation (CCM)
Preliminary mapping of economic activities under the EU Taxonomy: CCM 7.1, 7.2, 7.3, 7.5, 7.6, 7.7



PROJECT CATEGORY AND ELIGIBILITY CRITERIA

EU TAXONOMY ELIGIBLE ACTIVITIES

1.1b Other buildings

Other buildings, such as transport and communications buildings, indoor swimming pools, indoor ice rinks, and portable buildings, where
a) the building supplies at least 75% of its own energy from renewable sources, or
b) there are other environmental benefits proven by a specialist study.

1.2 Renovations

Renovations that lead to an overall reduction in primary energy demand by at least 30% compared to the pre-investment situation.

7.2 Renovation of existing buildings

1.3 Individual energy efficiency measures

Installation of energy-efficient equipment such as energy efficient windows and doors, energy efficient light sources, ventilation and measures to ensure air-tightness, leading to a 30% improvement in energy efficiency compared to the pre-investment situation. This list is not exhaustive.

7.3 Installation, maintenance, and repair of energy efficiency equipment
7.5 Installation, maintenance, and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings

1.4 Renewable energy in buildings

Installation of renewable energy technologies such as solar power, heat pumps or heat recovery systems.

7.6 Installation, maintenance, and repair of renewable energy technologies

1.5 Energy saving project (ESCO)

Energy saving projects including ESCO, leading to a 30% improvement of energy efficiency compared to the pre-investment situation.

1.6 Biodiversity and adaptation measures

Measures that aim to promote and/or sustain biodiversity and ecosystem services, such as roof-top beehives, green roofs and walls, and adaptation measures such as flood barriers, reinforcement of the building structure and rainwater harvesting. This list is not exhaustive.

¹⁰ Any buildings directly heated by fossil fuels, including hybrid solutions and peak load and backup systems powered by fossil fuels, will be excluded from the Green Bond Framework.



2. Transportation¹³

UN Sustainable Development Goals: 9.1, 9.4, 11.2, 11.6, 13.1, 15.5

EU environmental objectives: Climate change mitigation (CCM)

Preliminary mapping of economic activities under the EU Taxonomy: CCM 6.1, 6.3, 6.5, 6.7, 6.8, 6.10, 6.11, 6.13, 6.14, 6.15



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PROJECT CATEGORY AND ELIGIBILITY CRITERIA

2.1 Public transportation

Public transport systems such as trains, metro, buses, trams, vessels, coaches and light rail systems with zero direct (tailpipe) CO₂ emissions

2.2 Supporting infrastructure for public transportation

Supporting infrastructure that is dedicated for zero direct emissions transport and promotes an improvement in the fleet efficiency, or an improved efficiency of the overall transport system.

2.3 Passenger cars and light commercial vehicles

Passenger cars and light commercial vehicles with zero direct (tailpipe) CO₂ emissions and related charging infrastructure.

2.4 Infrastructure for personal mobility¹⁴

Infrastructure dedicated to personal mobility such as pavements, bike lanes, pedestrian zones, street lighting and electrical charging installations for personal mobility devices. This list is not exhaustive.

2.5 Biodiversity and adaptation measures

Measures that aim to promote and/or sustain biodiversity and ecosystem services such as wildlife crossings, noise barriers, and climate change adaptation measures such as flood barriers, reinforcement of the infrastructure.

EU TAXONOMY ELIGIBLE ACTIVITIES

- 6.1 Passenger interurban rail transport
- 6.3 Urban and suburban transport, road passenger
- 6.7 Inland passenger water transport
- 6.8 Inland freight water transport
- 6.10 Sea and coastal freight water transport, vessels for port operations and auxiliary activities
- 6.11 Sea and coastal passenger water transport
- 6.14 Infrastructure for rail transport
- 6.15 Infrastructure enabling low-carbon road transport and public transport
- 6.5 Transport by motorbikes, passenger cars and light commercial vehicle
- 6.13 Infrastructure for personal mobility, cycle logistics

¹³ Not dedicated to the transport of fossil fuels.
¹⁴ Including the construction of roads, motorway bridges and tunnels and other infrastructure that are dedicated to pedestrians and bicycles, with or without electric assist.



3. Renewable energy

UN Sustainable Development Goals: 7.2
EU environmental objectives: Climate change mitigation (CCM)
Preliminary mapping of economic activities under the EU Taxonomy: CCM 4.1, 4.3, 4.6, 4.22, 4.24, 4.25



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PROJECT CATEGORY AND ELIGIBILITY CRITERIA

3.1 Solar energy

Energy generation using solar power

3.2 Wind energy

Energy generation using wind power

3.3 Bioenergy

Facilities producing heat from biomass¹⁵ as well as supporting infrastructure, such as mobile fuel storage and unloading systems.

3.4 Geothermal energy

Geothermal energy-generation facilities and geothermal heating systems that operate at lifecycle emissions lower than 100g CO₂e/kWh.

3.5 Waste heat

Facilities that produce heat/cool using waste heat, such as excess heat from data centres.

EU TAXONOMY ELIGIBLE ACTIVITIES

4.1 Electricity generation using solar photovoltaic

4.3 Electricity generation from wind power

4.24 Production of heat/cool from bioenergy

4.6 Electricity generation from geothermal energy

4.22 Production of heat/cool from geothermal energy

4.25 Production of heat/cool using waste heat

¹⁵ Excluding use of food and feed crops. Use of fossil fuel is excluded, with the exemption of start-up, peak load or backup in case of breakdown.



4. Water and waste water management¹⁶

UN Sustainable Development Goals: 6.3, 6.4, 6.6, 9.1, 9.4, 14.1

EU environmental objectives: Climate change mitigation (CCM), Sustainable use and protection of water and marine resources

Preliminary mapping of economic activities under the EU Taxonomy: CCM 5.1, 5.2, 5.3, 5.4



PROJECT CATEGORY AND ELIGIBILITY CRITERIA

4.1 New waste water facilities

New treatment plants, systems and technologies designed for waste water collection (sewer network) and treatment where it is proven that substances (BOD7, phosphorus, nitrogen) have loading values better than required by the applicable environmental permit.

4.2 Existing waste water facilities

Measures at existing waste water facilities, including capacity expansion and upgrades, that achieve one of the following:
a) improved treatment quality, b) at least 20% increase in energy efficiency, c) reduced use of chemicals or leakages, or
d) recovering heat from waste water.

4.3 New water facilities

New water collection, treatment and supply systems enabling water purification, improved drinking water quality, improved reliable fresh water supply and/or increased water use efficiency.

4.4 Existing water facilities

Measures at existing water facilities, including capacity expansion and upgrades, that achieve one of the following:
a) at least 20% increase in energy efficiency or b) reduced use of chemicals or leakages, or c) improved water quality.

EU TAXONOMY ELIGIBLE ACTIVITIES

5.3 Construction, extension and operation of waste water collection and treatment

5.4 Renewal of waste water collection and treatment

5.1 Construction, extension and operation of water collection, treatment and supply systems

5.2 Renewal of water collection, treatment and supply systems

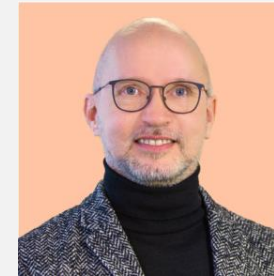
¹⁶ Any facility directly heated by fossil fuels will be excluded under the Green Bond Framework.

The Green Finance Team (GFT) approves projects

- 1 MuniFin's customer submits an application for finance
- 2 The account manager handles the general finance application process, and in parallel the GFT collects information and supporting documentation from the customer to evaluate the eligibility for green finance, as well as the project's environmental and social impacts
- 3 A member of the GFT prepares a project presentation, which is supported with relevant documentation
- 4 The process applies the four-eyes principle, which requires another member of the GFT to assess the project presentation and determine the approval of the project and its status as an eligible green finance project
- 5 After approval, green finance is granted to the customer, and the approved green finance project is added to MuniFin's green project portfolio
- 6 An annual external review is conducted to assess compliance with MuniFin's Green Bond Framework and to assess the allocation of green bond proceeds (post-issuance review)

MuniFin gives a margin discount of 0–10 basis points to approved green finance projects. The discount is based on the project's characteristics, which are assessed and scored by the Green Finance Team

The Green Finance Team consists of selected sustainability experts from the Customer Solutions division and the Capital Markets and Sustainability division at MuniFin



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Social bond eligible project categories

Social housing



Social housing sub-categories

- i. Social housing for the most vulnerable population
- ii. Social housing that supports communality among the residents

Target populations

- i. Elderly, homeless, students, disabled people, people with mental health or substance abuse problems, people suffering from memory illness, youth, refugees, rehabilitees, severely marginalised people
- ii. Low income population



Welfare



Sub-categories

- i. Healthcare facilities (public hospitals, health centres/ properties, clinics, care homes) and health service hardware
- ii. Sport facilities and public open spaces
- iii. Culture facilities

Target populations

- i. General public (healthcare)
- ii. Population living in areas where social investments are needed (sports and culture)



Education



Sub-categories

Education facilities (daycare centres, pre-primary education, primary and secondary schools, upper secondary schools, higher education campuses and education centres) and education hardware

Target populations

- i. Population living in areas where social investments are needed
- ii. General public (higher education campuses)



The Social Evaluation Team approves projects



MuniFin's customer solutions division screens projects, which it believes to be aligned with eligible project categories in the Social Bonds Framework.

- For sports, culture and education projects internal evaluation model is applied for screening. The model analyses post code areas and municipalities across socioeconomic factors to identify areas where investments would have the greatest impact on the vitality of the area.



After the initial screening, a project report is written based on an interview with the client. The report includes the following information:

1. project description
2. rationale of the investment
3. solved problems
4. desired social impacts
5. target population
6. SDGs addressed



The Social Evaluation Team reviews the project report and makes the final decision based on the overall impact. Projects need to promote some of the wider social goals such as equality, communality, safety, welfare and regional vitality.

For loans/leases, which are up for pricing will receive a 2 basis point margin discount.

The Social Evaluation Team consists of two independent experts and one MuniFin representative



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University Lecturer in Local and Regional Governance
Tampere University



Jouni Parkkonen
CEO
Association for Advocating Affordable Rental Housing (KOVA)



Rami Erkkilä
Senior Specialist
MuniFin

Long 7y EUR 1 bn benchmark

- On 19 April 2023, MuniFin priced its third euro transaction of 2023: a EUR 1 billion benchmark due 29 July 2030.
- The orderbook closed in excess of 1.8 billion. The new bond carries a coupon of 3.125%, and was priced at mid-swaps+5bps, equivalent to a spread of +71.8bps over the DBR 0% due 15th February 2030.
- The joint lead managers were Citi, Deutsche Bank, Goldman Sachs and JP Morgan.
- The final orderbook was of very high quality as banks took the bulk (56%), followed by central banks and official institutions (36%), Asset Managers (7%) and pension funds and insurers (1%).
- Geographically, the transaction attracted a diverse group of investors: Germany, Austria and Switzerland took the largest share (28%), followed by Asia (20%) and UK (19%), Benelux (12%), the Nordics (9%), France (7%) and the rest of the world (5%).



Benchmark

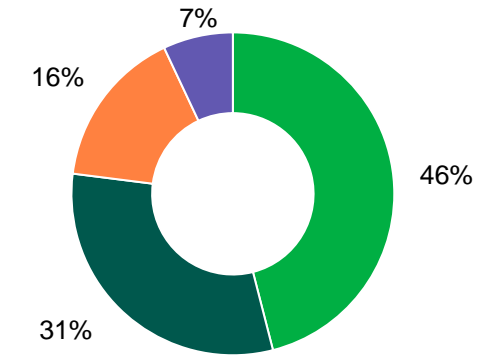
EUR

1 billion

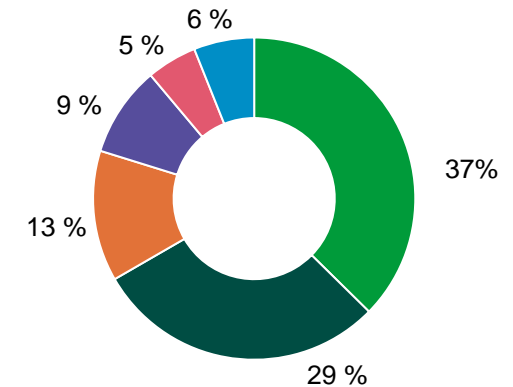
Long 5y EUR 1 billion green bond



- On 15 February 2023, MuniFin priced a fixed-rate EUR 1 billion green bond due 25 September 2028.
- The more than twice oversubscribed transaction is the largest EUR green bond to date for MuniFin as well as the largest EUR green bond of all time in the Nordic SSA market.
- The transaction carries an annual coupon of 3% and was priced at mid-swaps -3bps, equivalent to a spread of 52.6bps over the OBL 2.220% due April 2028 at the time of pricing.
- The mandate was announced on Tuesday 14 February 2023 and the books were opened the following morning at mid-swaps -1bps area.
- Demand was strong from the outset and the books were finally closed just 2.5 hours later in excess of EUR 2.2 billion. The transaction pays an annual coupon of 3.00% and was priced at mid-swaps -3bps.
- Nearly 80% of the high-quality orderbook was allocated to ESG investors. Otherwise, the allocation was well diversified as 46% went to banks and 31% to Asset Managers. Geographically, Nordics took 37% followed by DACH at 29% and Benelux at 13%.
- The joint lead managers were CACIB, Danske Bank, HSBC and NatWest Markets



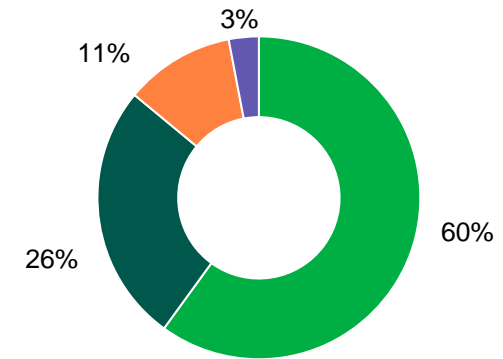
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 ■ Asset Managers
 ■ Central Banks / Official Institutions
 ■ Insurance / Pension Funds



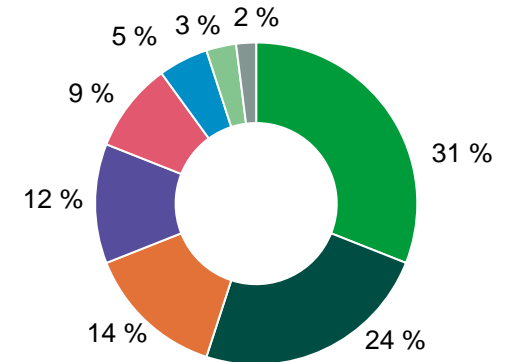
■ Nordics ■ DACH ■ Benelux
 ■ Southern Europe ■ France ■ Other

5y EUR 1.5 billion benchmark

- On 11 January 2023, MuniFin kick-started the funding year by pricing a 5-year EUR 1.5 billion benchmark.
- The mandate for the new benchmark was announced on Tuesday 10 January. MuniFin received encouraging feedback from the market and decided to open books on Wednesday morning at mid-swaps+2bps area. The demand was strong from the outset and MuniFin was able to tighten the spread by 2bps. In just two hours, the books were closed in excess of EUR 3.6 billion.
- The joint lead managers were Bank of America, JP Morgan, Morgan Stanley and Nordea.
- The transaction carries an annual coupon of 2.875% and was priced at mid-swaps +0bps, equivalent to a spread of 61.9bps over the OBL 1.3% due October 2027 at the time of pricing.
- The orderbook was of very high quality as nearly 60% of allocations went to banks, followed by central banks and official institutions (26%), Asset Managers (11%) and insurance and pension funds (3%).
- The allocations were also geographically diverse: Germany, Austria and Switzerland took 31% of the orderbook, followed by Nordics (24%), Benelux (14%), France (12%), UK (9%), rest of the world (5%), Other Europe (3%) and Asia (2%).



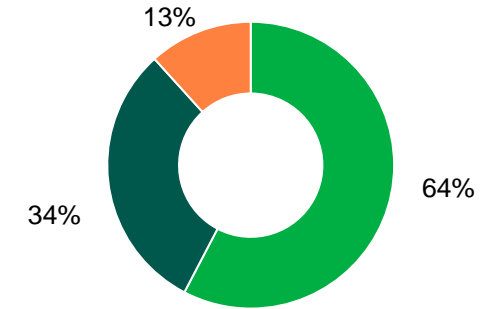
■ Banks
 ■ Central Banks / Official Institutions
 ■ Asset Managers
 ■ Insurance / Pension Funds



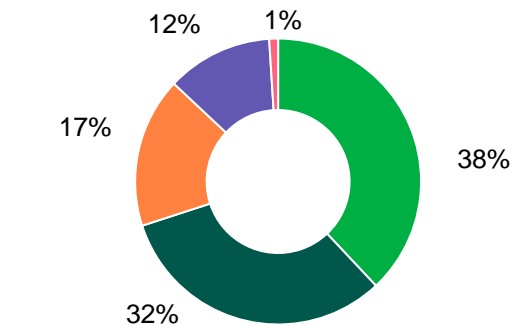
■ Germany/Austria/Switzerland ■ Nordics
 ■ Benelux ■ France
 ■ UK ■ Rest of the world
 ■ Other Europe ■ Asia

USD 1 billion 5-year benchmark

- MuniFin's first USD denominated benchmark of 2022 was priced on 17 August 2022 and the transaction extends MuniFin's USD curve to a new August 2027 maturity.
- The bond is a bullet 5-year USD 1 bn note due 24 August 2027.
- The joint lead managers were Barclays, BMO, Citi and Daiwa.
- Taking advantage of the first viable transaction window after the summer holidays, MuniFin opened the books at 8:15 GMT. Investor engagement was strong from the outset and the books were finally closed at 15:15, in excess of USD 1.15 billion.
- The transaction pays a fixed coupon of 3.25% and a spread of SOFR MS +52bps.
- The final high-quality orderbook had nearly 90% participation from banks, central banks and official institutions.



■ Banks ■ Central Banks / Official Institutions ■ Asset managers



■ Europe excl. Nordics ■ Americas
 ■ Nordics ■ Asia Pacific
 ■ Africa and the Middle East

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