

Overview of central government risks and liabilities

Autumn 2023

Financial Markets

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Author(s)	Sami Napari, Sakari Lehtiö, Helka Kärkkäinen, Elli Virtanen, Eemeli Paksuniemi, Markku Puumalainen		
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Abstract

Central government liabilities have been increasing for many years, not only in terms of their nominal value but also in relation to the size of the economy. Just before the start of the financial crisis in 2008, central government debt totalled EUR 54 billion, representing 28 per cent of GDP. At the end of 2022, central government debt amounted to nearly EUR 142 billion, which is over 53 per cent of GDP.

Central government contingent liabilities have similarly shown strong growth over a long period. At the beginning of the last decade, the government's guarantee and collateral liabilities totalled about EUR 23 billion, or about 12 per cent of GDP. At the end of 2022, liabilities amounted around EUR 68 billion, which is nearly 26 per cent of GDP.

Increased liabilities, moderate economic growth and weak economic growth prospects have weakened the central government's risk-bearing capacity. At the same time, there are many instabilities and risks in the overall economic environment. It would be important to be able to improve the sustainability of general government finances so that Finland would be prepared to face new negative economic shocks in the future.

Keywords financial markets, economic policy, general government finances, balance sheets (accounting), central government finances, off-budget liabilities, guarantee liabilities, central government's balance sheet

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Katsaus valtion taloudellisiin vastuisiin ja riskeihin Syksy 2023

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Tekijä/t	Sami Napari, Sakari Lehtiö, Helka Kärkkäinen, Elli Virtanen, Eemeli Paksuniemi, Markku Puumalainen		
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Tiivistelmä

Valtion vastuut ovat olleet pitkään kasvussa paitsi nimellisarvoisesti niin myös suhteessa talouden kokoon. Valtionvelka oli finanssikriisin kynnyksellä vuonna 2008 54 miljardia euroa, mikä oli 28 prosenttia suhteessa kokonaistuotantoon. Vuoden 2022 lopussa velan määrä oli jo lähes 142 miljardia euroa ja yli 53 prosenttia suhteessa bruttokansantuotteeseen.

Valtion ehdolliset vastuut ovat niin ikään olleet pitkään voimakkaassa kasvussa. Viime vuosikymmenen alussa valtion voimassa olevat takaus- ja takuuvastuut olivat noin 23 miljardia euroa eli noin 12 prosenttia suhteessa bruttokansantuotteeseen. Vuoden 2022 lopussa vastuut olivat jo noin 68 miljardia euroa, mikä oli lähes 26 prosenttia suhteessa kokonaistuotantoon.

Kasvaneet vastuut, maltillinen talouskasvu ja heikot talouden kasvunäkymät ovat heikentäneet valtion riskinkantokykyä. Samaan aikaan talouden yleinen toimintaympäristö on monin tavoin epävakaa ja riskinen. Olisikin tärkeää pystyä vahvistamaan julkisen talouden kestävyyttä, jotta Suomella olisi valmiudet kohdata uusia negatiivisia talouden sokkeja myös tulevaisuudessa.

Asiasanat rahoitusmarkkinat, talouspolitiikka, julkinen talous, taseet (kirjanpito), valtiontalous, talousarvion ulkopuoliset vastuut, takausvastuut, valtion tase

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Översikt över statens finansiella åtaganden och risker Hösten 2023

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Referat

Statens ansvar har redan en längre tid ökat förutom nominellt också i förhållande till ekonomins storlek. Statsskulden var 54 miljarder euro före finanskrisen 2008, vilket var cirka 28 procent i förhållande till totalproduktionen. I slutet av 2022 uppgick skulden redan till nästan 142 miljarder euro och över 53 procent i förhållande till bruttonationalprodukten.

Statens eventalförpliktelser har också ökat kraftigt under en längre tid. I början av förra årtiondet uppgick statens borgensförbindelser och garantiansvar till cirka 23 miljarder euro, dvs. cirka 12 procent i förhållande till bruttonationalprodukten. I slutet av 2022 uppgick åtagandena redan till 68 miljarder euro, vilket är cirka 26 procent i förhållande till bruttonationalprodukten.

Statens riskhanteringsförmåga har försämrats till följd av ökade ansvar, långsam ekonomisk till-växt och svaga tillväxtutsikter för ekonomin. Samtidigt är den allmänna finansiella verksamhets-miljön på många sätt instabil och riskfylld. Därför är det viktigt att kunna stärka hållbarheten i de offentliga finanserna för att Finland ska ha beredskap att möta nya negativa ekonomiska stötar även i framtiden.

Nyckelord finansmarknaden, ekonomisk politik, den offentliga ekonomin, balansräkningar (bokföring), statsfinanserna, ansvar utanför budgeten, borgensansvar, statens balansräkning

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SUMMARY

The operating environment for risk management regarding central government liabilities has become more challenging over the past ten years. Direct central government liabilities have increased as a trend since the financial crisis of 2008. At that time, central government debt amounted to approximately EUR 54 billion, compared with EUR 106 billion at the end of 2019. Crises in recent years have further accelerated the development of indebtedness. At the end of 2022, the amount of debt exceeded EUR 141 billion, and at the end of 2023 the amount of debt is estimated to be approximately EUR 152 billion.

Central government indebtedness has accrued at the same time as economic development has been weaker than what was the norm in the years of rich economic growth in the early 2000s. As a result, indebtedness relative to the size of the national economy has also significantly increased. In 2008, the central government's debt-to-GDP ratio was 28%. The figure at the end of 2023 is estimated to be around 54%, higher than ever in the 21st century.

The state's risk position is also affected by contingent liabilities and their development. Similarly to direct liabilities, the central government's guarantee liabilities have been growing for a long time. As recently as the beginning of the 2010s, the central government's effective guarantee liabilities amounted to approximately EUR 23 billion, or 12% relative to the size of the national economy. At the end of 2022, the guarantee liabilities were already about EUR 68 billion, which was almost 26% of GDP.

The most significant liabilities and the strongest increase in liabilities are related to Finnvera's operations and housing financing. Central government guarantee liabilities in effect related to Finnvera totalled more than EUR 33 billion at the end of June 2023¹, whereas the corresponding figure for the Housing Fund of Finland was more than EUR 19 billion. In total, Finnvera and housing financing liabilities have increased by about EUR 32 billion over the past ten years.

1 This figure also includes central government guarantees for export credit funding. The credit risk arising from export credits is covered by an export credit guarantee, which means central government liability in this respect is not doubled but could be realised as a result of various factors and at different times.

The risks associated with central government guarantee liabilities are increased by the concentration risks associated with the largest liability exposures. For example, in export financing, the maritime vessel sector accounts for about 50% of the total liabilities. The activities of the Housing Fund of Finland also involve customer concentration risks. The development of the housing fund risks is particularly strongly influenced by regional concentration risks, such as population concentration trends and changes in them.

When assessing the state's risk position, so-called hidden liabilities also play a role. These are not legally binding on central government but, due to political and societal factors, central government is nevertheless expected to bear ultimate responsibility for them. One of the key implicit liabilities pertains to the banking sector. The history of banking crises has shown that the social costs of large-scale banking crises are, or are estimated to be, so significant that states have had to ensure the continuity of financial services through their support measures.

The strong increase in interest rates since 2022 has generally improved the profitability of banks. In Europe and Finland, banks have produced strong results, especially during the first half of 2023. The increased profitability has strengthened the banks' own funds, and thus capital ratios. Finnish banks have capital ratios above the requirements set by the authorities, and they are stronger than the European average.

Another key implicit liability is related to local government. In Finland, municipalities have extensive autonomy, and the municipalities themselves are responsible for their financial responsibilities. Municipalities are, however, part of general government finances. This is why any extensive problems in local government finances might be reflected in central government finances, too.

Municipalities have become considerably indebted over the past twenty years. Municipalities owed nearly EUR 19 billion at the end of 2022, five times more than in the early 2000s, when the amount of the municipal loan pool was less than EUR 4 billion. The wellbeing services counties also have a significant loan pool. Its size at the end of 2022 was EUR 4.9 billion, consisting of liabilities transferred from the hospital and special care districts. The loan pool of the wellbeing services counties is expected to grow to EUR 6.4 billion in 2023.

A significant increase in central government liabilities has an impact on the central government's ability to face a negative shock to the economy. The matter can be examined by means of a central government stress test. The stress test prepared in the report uses the forecast model for the central government finances of the

economics department of the Ministry of Finance and the scenario prepared with it. The scenario, reflecting the stress test carried out by the European Banking Authority in 2023, illustrates the situation in which the Russian war against Ukraine leads to a more extensive geopolitical escalation. As a result, international production chains will be disrupted and existing bottlenecks in production will worsen even further. Logistics problems will cause an increase in prices and production costs, and the global economy will deteriorate in general. In the scenario, the Finnish economy will decrease by a total of eight percent between 2024 and 2026 compared to the baseline trend.

The central government finances, which are already in a challenging situation as a premise, continue to deteriorate significantly in the stress scenario. Compared to the baseline, the general government budgetary position in relation to GDP will be more than four percentage points weaker at the end of 2026. Correspondingly, general government debt will grow strongly, reaching 93% at the end of 2026, which is 12 percentage points higher than in the baseline.

The scenario excludes the realisation of tail risk such as the banking crisis or the euro area debt crisis. The negative impacts of a more extensive banking and/or central government debt crisis on general government finances would be many orders of magnitude greater than in the stress test scenario used in this overview.

With the strong increase in central government liabilities and weaker economic growth prospects, it can be estimated that the central government's ability to bear economic risks has deteriorated. At the same time, the operating environment is uncertain in many ways, for example due to increased geopolitical risks. This underlines the importance of strengthening the sustainability of general government finances, so that Finland will also have good capabilities to face new negative economic shocks in the future.

1 Introduction

The central government's financial liabilities have been growing for a long time. The development has been influenced not only by an increase in direct central government liabilities but also by an increase in the state's guarantee and guarantee liabilities. At the same time, Finland's economic development has been weaker than before. It can be estimated that the central government's ability to bear risks and face a negative macroeconomic shock have weakened.

At the end of 2022, central government debt amounted to approximately EUR 142 billion, or more than 53% of GDP. Since then, indebtedness has continued to be strong. The change in indebtedness in just over ten years has been significant. Just before the financial crisis in 2008, central government debt amounted to EUR 54 billion, or 28% of GDP.

In addition to the increase in direct liabilities, the state's guarantee portfolio has also increased considerably. From 2010 to the end of 2022, the government's outstanding guarantee liabilities have increased by more than EUR 45 billion, while the guarantee portfolio totalled EUR 68.5 billion at the end of the year.

When assessing the central government's overall risk position, hidden contingent liabilities must also be taken into account. These are not legally binding on the state, but the state may nevertheless have to assume ultimate responsibility for them due to social or political factors. In addition to the implicit liabilities of the banking sector, a key set of implicit liabilities pertains to local government. Although responsible for their own financial liabilities, municipalities are part of general government finances. This is why any extensive problems in local government finances might be reflected in one way or another in central government finances, too.

As is the case with central government, municipal indebtedness has also increased considerably. Municipalities owed nearly EUR 19 billion at the end of 2022, and the amount of loans has increased almost fivefold over the last two decades.

The report is structured as follows. Chapter 2 describes the general economic operating environment and its risks. Chapter 3 focuses on central government financial assets. Chapter 4 deals with the state's direct liabilities, while chapter 5 focuses on the state's contingent liabilities. The first focus is on explicit and legally binding contingent liabilities. The state's hidden contingent liabilities are examined after this. Chapter 6 provides a summary of the state's EU-related liabilities. The last chapter of the overview gives the results of the stress test of general government finances.

2 Operating environment

- While global economic growth slowed down in 2022 due to the acceleration of inflation and the rapid rise in interest rates, it has remained stronger than expected in the United States and Europe, driven by good employment conditions, private consumption and services sectors. As a result of the Russian invasion and restrictions on gas exports, prices in the European electricity market increased sharply in autumn 2022. However, mild winters in Europe and Finland helped avoid shortages of electricity and push down electricity prices after the worst price peak. Strong employment and the dismantling of buffered savings from the pandemic have maintained consumption and growth in the context of accelerated inflation and rising interest rates in Finland, but housing construction in particular has slowed down rapidly.
- According to forecasts, growth in the global economy will slow down to an estimated three percent between 2023 and 2024. However, there is still plenty of uncertainty about the forecast, especially in relation to interest rate developments. Oil prices have risen as a result of the announced production restrictions, and the threat of a large regional conflict caused by Hamas's terrorist attack increases price uncertainty. While inflation is slowing down in key economic areas, central banks have been reluctant to stop tightening monetary policy, reflecting uncertainty about the nature of inflation and future developments.
- The development of global financial markets has perhaps been unexpectedly stable over the past year, despite the banking turbulence in the spring, the continuation of the war in Ukraine, the crisis in the Middle East and the tightening of financing conditions. In spring 2023, there were problems in the US and Swiss banking sectors that raised concerns about a wider banking crisis. For the time being, however, it seems that the problems have been with the business models and risk management of individual banks. The rise in interest rates has also significantly improved the profitability of banks in Finland, and the banking sector's ability to finance the economy is also good in conditions of weaker economic growth.

- The main risk is that inflation above central banks' targets would prove to be more persistent than expected or that central banks would interpret the downward trend as temporary, thus keeping interest rates higher on a longer-term basis. This would weaken economic growth and employment and increase pressure on public finances, especially for countries with high debt ratios. The potential instability of the financial system would also increase as the profitability of banks declines and debt management problems increase. The continuation of the war in Ukraine and other geopolitical risks increase the uncertainty and difficulty of predicting the operating environment.

2.1 Economic development

In 2022, global economic growth slowed down after a strong recovery from the COVID-19 crisis during the preceding year. According to international estimates (IMF, OECD)², the global economy grew by over three percent, which was about half of the rate in 2021 and close to the average in the 21st century. Europe did not experience the energy crisis that was feared in winter 2022–2023, largely due to mild weather. In early 2023, electricity and natural gas prices declined from the top levels of late autumn, also due to austerity measures. This year, global economic growth is expected to slow down somewhat, but the feared recession is not to be expected. In the forecasts for 2024, economic growth is expected to be slightly higher than this year, but the forecasts are stated to involve a significant downward risk due to uncertainty in the inflation outlook.

The second half of 2022 saw the slowdown of inflation due to the decline in energy and other raw material prices and the recovery of supply chains. The peak figure in the euro area was recorded in October 2022 at 10.6%, after which price increases have slowed down and reached 2.9% in October 2023. However, the baseline inflation observed in particular by the European Central Bank (ECB) has declined relatively slowly: so far, the peak level has been seen in March 2023 (5.7%), and the last observation in October 2023 was 4.2%. In the United States, the broad inflation indicator (including food and energy) has also fallen rapidly, going below 3% in June 2023, but since then it has gradually accelerated with the rise in oil prices, reaching 3.2% in October. Scrubbed of energy and food prices, the baseline inflation was 4.0% in October.

2 <https://www.imf.org/en/Publications/WEO/Issues/2023/10/10/world-economic-outlook-october-2023>, <https://www.oecd.org/economic-outlook/september-2023/>

While the Finnish economy grew by more than two percent in 2022, in 2023 it is expected³ that the economy will be in recession or very close to it, as interest rates and inflation will curb consumer and business expenditures. The economic downturn, especially as a result of the sharp rise in interest rates, has been particularly visible in residential construction, where production has begun declining sharply in 2023. There is no specific recovery in the forecasts for 2024, and only in 2025 is it estimated that the GDP will increase by 1–2 percent. A prolonged recession is also reflected in the credit demand and debt management capacity of consumers and businesses, especially if it is accompanied by a persistently elevated level of market interest rates.

The ECB and other central banks have worked hard to counter inflation with a very determined monetary policy. As of the end of October 2023, the ECB has increased the deposit rate since July 2022 by 450 basis points. In Britain, inflation has been even higher than in the euro area (6.7% in August), and the Bank of England (BoE) started to tighten monetary policy already in December 2021, and as of October 2023 has since increased its key interest rate by a total of 515 basis points. The Federal Reserve (Fed) joined BoE in March 2022, and has since increased the key interest rate by 525 basis points. Central banks have also reduced their balance sheets to contain inflationary pressures. Similar sharp increases in central bank interest rates have been observed most recently before the global financial crisis in 2004–2006.

Central banks are concerned about the wide-ranging shift from prices to wage developments, which would also have an impact on inflation expectations and could get inflation stuck well above the targets set by the central bank. In financial markets, economists have recently expressed the view that the key ECB interest rate would already be at or very close to its so-called terminal level. Now the question is mainly one of when the central bank would take its first interest rate reduction decision.

The ECB has clearly stated that it weighs monetary policy and interest rates one meeting at a time on the basis of economic data. According to forecasts published by the ECB in September 2023, inflation would fall on average to around 3.2% in 2024 and slightly above 2% in 2025, reaching a target of 2% in the third quarter of the year. The fall in key interest rates may occur before this if inflation slows down

3 Forecasts: Ministry of Finance (<https://vm.fi/-/suomen-talous-on-taantumassa-loppuvuoden-ja-koettelee-erityisesti-rakentamista-kasvua-odotetaan-kuitenkin-taas-ensi-vuonna>) and Bank of Finland (<https://www.suomenpankki.fi/fi/media-ja-julkaisut/tiedotteet/2023/suomen-pankin-valiennuste-talouden-toipuminen-viivastyy/>).

more rapidly than forecast and if the ECB estimates that medium-term inflationary pressure has decreased substantially. The risk for economic growth and financial stability is that neither of the above will be realised.

In its September 2023 update forecast, the Federal Reserve estimates that the key interest rates will remain elevated longer than previously expected. According to the new forecasts, the target interest rate for monetary policy (middle of the range) would still be 5.1% at the end of 2024 and 3.9% at the end of 2025. In other words, the interest burden on households and companies will last for at least two years if the forecasts are realised.

2.2 Financial markets

Short-term market interest rates have anticipated the development of central bank key interest rates. The one-year Euribor interest rate, which is the most common reference rate used in Finland for mortgage loans, started to rise and got disconnected from the ECB's deposit rate already in January–February 2022, as the market anticipated future monetary policy measures. In October 2023, the average Euribor rate was 4.05%, which means that compared to the baseline -0.45% (average for January 2022), the rate has increased by 450 basis points. In recent months, however, the interest rate has remained stable. The way in which Euribor rates are determined⁴ also means that the general liquidity situation in the market affects them, in addition to the key ECB interest rates (and interest expectations).

Long-term interest rates on government loans have also increased, but their trends have developed significantly more moderately than short-term interest rates. In the euro area, Germany's 10-year interest rate was at 2.7% in mid-November 2023, approximately 40 basis points higher than the January 2023 average. The spreads between Germany and other euro area countries have remained stable or even narrowed in 2023. The interest rate difference between 10-year loans for Italy and Germany was 185 basis points in January and 190 in October. The interest rate difference between Greece and Germany was 203 basis points in January, but only 136 basis points in October. During 2023, the difference in interest rates between Finnish and German ten-year loans was on average 59 basis points.

4 <https://www.emmi-benchmarks.eu/globalassets/documents/pdf/euribor/d0016b-2019-benchmark-determination-methodology-for-euribor--2022.pdf>

Interest rates on corporate bonds rose sharply in the euro area in 2022, but have since remained relatively stable. At the end of October 2023, the average interest rate on AAA-classified corporate loans was around 3.3% and 4.6% for BBB-classified corporate loans. Compared to the beginning of 2023, the change was 27 (AAA) and 11 (BBB) basis points as of 26 September 2023. However, it is clear that compared to 2021, the financing costs of businesses have notably increased. Of course, interest rates on bank loans have developed in the same direction.

In the stock market in the United States, the large S&P 500 index has risen by about 10% as of the end of October, led by large technology companies. In Europe, stock exchange developments have been supported the most by bank shares, whose value has increased by about 14% since the beginning of 2023. Indices on the Helsinki stock exchange have developed poorly both in absolute terms (the OMX25 index has decreased by 12%) and in comparison with other markets.

The increase in interest rates has significantly improved the profitability of banks. In early 2023, banks recorded strong results in both Europe and the United States, but at the same time, the rise in interest rates has also revealed weaknesses in the business models and risk management of some banks. However, for the time being, the problem cases have remained individual and have not caused wider infections.

On average, the situation in the European banking sector is good: profitability has continued to improve during the first half of 2023, and the volume of problem loans has remained low, although weak signals of a deterioration in the quality of receivables have been observed⁵. The Finnish banking sector's ability to absorb losses against potential credit losses is strong. However, early signs of an increase in credit risks can be observed, especially in housing company and corporate loans by Finnish banks⁶. More on the situation and risks in the banking sector can be found in chapter 5.4.

As a result of the strong tightening of financing conditions, non-bank financial intermediation (NBFi) has recently emerged in addition to the funding provided by banks⁷. Investment, pension and money market funds, venture capitalists

5 <https://www.eba.europa.eu/eueea-banking-sector-shows-rising-profitability-asset-quality-and-profitability-related-risks-are>

6 <https://www.finanssivalvonta.fi/tiedotteet-ja-julkaisut/lehdistotiedotteet/2023/varhaisia-merkkeja-suomalaispankkien-luottoriskien-kasvusta--asianmukaisten-luottoriskiluokitusten-merkitys-korostuu-kohonneiden-riskien-ymparistossa/>

7 <https://www.imf.org/en/Blogs/Articles/2023/04/04/nonbank-financial-sector-vulnerabilities-surface-as-financial-conditions-tighten>

and insurance companies are important players in a highly complex and linked global financial system. Several NBFIs are also characterised by the use of leverage and complex derivatives, operated largely outside the scope of bank-type regulation and supervision. For example, the authorities have been concerned about the maturity and liquidity risks of certain types of funds. The pension fund crisis in Britain in September 2022, which required the assistance of the Bank of England, is an example of the risks associated with the use of derivatives in sudden interest rate changes.

2.3 Risks in the operating environment

Too high inflation and, consequently, high interest rates remain the main risk to economic growth, employment, stability of the financial system, and public finances. If everything goes according to the optimistic baseline scenario, inflation will slow down in 2024 to levels acceptable for central banks in Europe and the United States, which would allow for starting to undo the tightening of monetary policy, market interest rates to decrease and growth optimism to strengthen. If this were not to happen, but the interest rates remained at their elevated levels for longer, the probability of a more severe recession would increase substantially and the situation of indebted households, businesses and countries would become significantly more difficult.

It is expected that increased financial costs and subdued economic growth will deteriorate the situation of bank clients in the second half of 2023 and in 2024. Banks have capital buffers to cover any impairment or loss provisions made for them in the short term, but profitability will deteriorate. If problems are prolonged, the situation of banks will also become more difficult. However, banks have accumulated stress tolerance for more difficult periods, although problems with individual weaker banks cannot be excluded.

In the coming winter 2023–2024, energy markets may again put pressure on price developments. Russia, as a major producer and exporter of crude oil and petroleum products, is able to influence the oil market and continues to supply some gas to Europe⁸. In terms of gas, however, preparedness in Europe is at a better level this autumn than it was a year ago, but occasional price spikes can still occur. At worst, the violent conflict with Israel triggered by the terrorist attack by the Palestinian

8 In January–March 2023, Russia accounted for about 15% of total EU imports of natural gas.

extremist organisation Hamas on 7 October 2023 may expand in the region, so that it also affects the energy market. So far, the impact on the world market price of oil has been minor, but the situation is volatile.

The continuation of the Russian invasive war in 2024 is likely to maintain a politically tense situation in Europe. Russia is also likely to strive to support those critical of the war in Ukraine in EU Member States by spreading disinformation. Activities of influence can be expected to accelerate in the spring before the European elections in June 2024.

Possible geopolitical risks are also on the horizon, and China in particular plays a key role. Related open questions in the near future are how China operates in its neighbourhood (Taiwan, South China Sea) and whether support to Russia will increase directly or through a suitable partner (North Korea, Iran). However, China has major economic problems of its own to tackle and economic dependence on the United States and on Europe, which it presumably does not want to jeopardise in this situation.

According to forecasts, the Finnish economy is undergoing a moderate recession. In the construction business, the situation and near-future prospects are grim, and export demand is deteriorating, but private consumption and services continue to grow. The risk is that the construction sector's problems will spread rapidly to the rest of the economy and increase unemployment at a rapid pace while inflation and interest rates remain high. This would put increasing pressure on the implementation of the selected economic policy. Even in the light of stress tests (see chapter 5.4.), the Finnish banking sector is in good condition and likely to be able to continue financing households and companies even in a weaker economic cycle.

3 Central government financial assets

- The central government financing funds listed in financial accounts totalled about EUR 93.1 billion at the end of 2022⁹. This is almost EUR 9.5 billion lower than in the previous year. The decrease in the value of the state's equity assets has contributed to this.
- At the end of 2022, the market value of the State Pension Fund's investments totalled about EUR 21.6 billion. The value of the investment portfolio decreased by approximately EUR 2 billion in 2022, but the trend has been more favourable in 2023. However, there are still significant fluctuations in investment returns due to various market uncertainties.
- At the end of 2022, the value of central government stock exchange holdings (including direct state and Solidium holdings) was EUR 30.3 billion, compared with EUR 36.7 billion a year earlier. In 2022, the return on Solidium's holdings was -9.0%, and the return on listed companies directly owned by the state was -16.2%. This decrease is explained in particular by the impact of the Russian invasive war on general market developments and the decline in Fortum shares' market value.

In this analysis, financial assets cover central government cash assets, the most significant loan receivables, fixed-income investments, equity assets and other investments. The scope of the review is determined by the liquidity perspective and on the basis of the amount of the assets.

Central government financial assets grew continuously from 2011 to 2020. At the end of 2020, financial assets amounted to almost EUR 107 billion, after which they decreased for two consecutive years to slightly over EUR 93 billion at the end of 2022. Equity and investment fund assets are the item in the central government's

⁹ In June 2022, Statistics Finland made an adjustment to the financial accounts statistics, due to which ARA interest subsidy loans will be presented under general government financial assets and debt. Figures have been updated in the financial accounts statistics starting from Q1/2000.

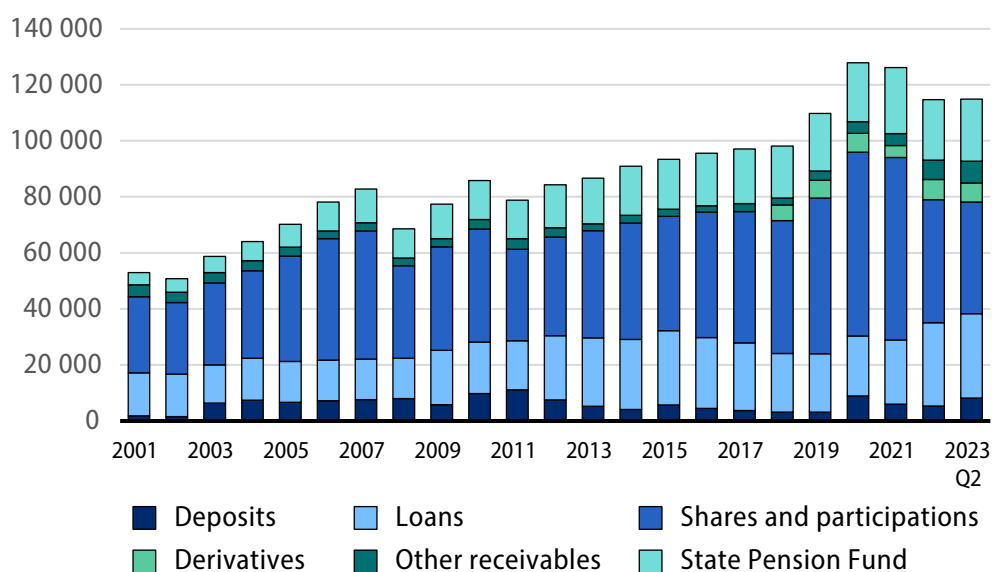
assets that have decreased the most, by almost EUR 22 billion between 2020 and 2022. The value of listed shares decreased by EUR 7 billion, while for unlisted shares, the decrease has been larger, nearly EUR 16 billion. The value of investment fund shares/units increased slightly over the corresponding period.

The decline in the value of equity assets has been driven by the weak general market trend in recent years, where the acceleration of inflation and the consequent tightening of monetary policy, the Russian invasive war and the increase in geopolitical tensions have contributed to the atmosphere. For more information on the development of financial markets and their risks, see chapter 2.

In total, according to Statistics Finland's financial accounts, central government financial assets totalled EUR 92.7 billion in the second quarter of 2023, and EUR 114.9 billion when also taking into account the assets of the State Pension Fund. The changes compared to the situation a year ago are minor.

Of the central government financial assets shown in figure 1, deposits and at least a part of central government share assets could be realised relatively quickly to finance central government liabilities and activities. However, the realisation of share assets entails a price risk, which is probably considerable in crises.

Figure 1. Central government financial assets, EUR million



Sources: Financial accounts; State Pension Fund

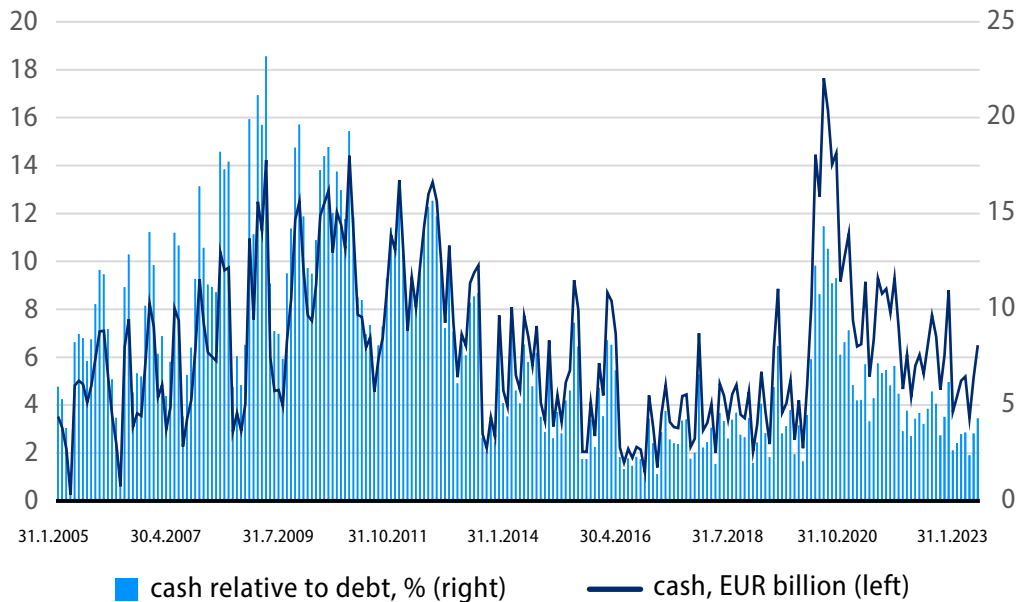
3.1 Central government cash funds

There has been considerable variation in the amount of central government cash funds from year to year (figure 2).¹⁰ The uncertainty caused by the COVID-19 pandemic led to a strong increase in central government cash funds in 2020. Once the pandemic calmed down, the state's cash funds gradually decreased until the military measures initiated by Russia and the general uncertainty it created again brought about the need to increase cash funds to support the state's liquidity. For 2023, the average month-end cash has been around EUR 4.9 billion, which is lower than in the previous two years, but somewhat higher than in the years preceding the COVID-19 pandemic.

Cash investments cause credit risk to the central government. The objective of credit risk management is to minimise credit risk. The aim is, among other things, to diversify credit risk between different contracting counterparties and to require good creditworthiness from the counterparties. The credit risk is also limited by setting a credit limit based on the counterparty's credit rating.

The credit risk included in central government cash reserves can be estimated to be moderate at the moment. In addition to the aforementioned factors, it is limited by the short maturity of the investments and the collateral-backing of the investments.

10 Figure 2 focuses on cash assets administered by the State Treasury, which are relevant from the perspective of central government liquidity. Ensuring central government liquidity is the most important task of cash asset management.

Figure 2. Development of central government cash funds

Sources: General government financial accounts; State Treasury

3.2 State Pension Fund

The State Pension Fund (VER) is a fund outside the state budget by which the state prepares for equalisation over time of future pensions, survivors' pensions and other similar benefits based on government service covered by the Public Sector Pensions Act (81/2016) and other government service covered by state pension cover. VER assets are state assets entrusted to the management of the fund. The costs arising from these operations are paid out of VER assets. The fund receives its income from pension contributions and investment income. The pension contributions of employers and employees within the scope of the central government pension scheme are remitted in full to a fund, from which a sum amounting to 40% of the annual central government pension expenditure is then transferred to the Budget every year. Between 2024 and 2028, the budget transfer will be increased by 1 percentage point per year to 45%.

The size of the fund has grown significantly compared with the start of the last decade, even though since 2013 the transfer from the fund to the budget has exceeded the income from pension contributions received by the fund. This has been owing to the high returns on investments made by VER. During 2013–2022, the average annual return on the fund's investments was 5.3%, while the inflation-adjusted real return was 3.4%. However, investment income has varied considerably between years (figure 4).

VER investments have a strong equity weighting, which represents the greatest risk to the portfolio's returns. In accordance with the directive issued by the ministry of finance updated in 2022, the allocation limits for investment activities were adjusted so that the maximum permitted amount of equity investments from the portfolio was increased to 60%. At the same time, fixed-income investments must account for at least 30%, of which liquid fixed-income investments and low-risk fixed-income investments must account for at least 20%. At the end of 2022, the market value of VER's investments was approximately EUR 21.6 billion (figure 3). Of the portfolio, 40.7% (37.9% in the previous year) consisted of fixed-income investments and 47.6% (49.5%) consisted of equity investments.

The aim is to manage sectoral risks by diversification of the investment portfolio both geographically and by type of instrument. Despite diversification, however, sector biases are generated indirectly through index investments. In the United States, for example, the largest technology companies' proportion of S&P 500 revenue has been significant in recent years. Compared to the global market-value-weighted portfolio, VER's equity portfolio focuses on European valuation shares. For listed shares, the weight of Europe is close to 50% and the weight of the United States is less than 30%. In September 2023, the Nordic countries accounted for about 18% of the fund's investments, the majority of which are in Finland or Sweden. Due to the strong local area weight of the investment portfolio, geopolitical risks in the neighbouring area could be reflected in the value of the fund, for example, as a result of Russia's actions, also in the near future.

Equity investments have developed more favourably in the first half of 2023 after the challenging investment year 2022. The value of VER's investment portfolio decreased by approximately EUR 2 billion in 2022. In 2023, by the end of September, the value increased by approximately EUR 400 million. However, there have been significant fluctuations in the return on equity investments due to various market uncertainties. The biggest market downturn occurred in March 2023 as a result of the banking crisis that started in the United States, the effects of which also spread to Europe. With the exception of bank shares, the stock exchange rates mainly returned to their pre-crisis levels in the second quarter of 2023.

The risks associated with the investment activities of the State Pension Fund are mainly global market risks. Significant uncertainties for the development of the global market include the continued invasive war in Ukraine initiated by Russia in 2022, the escalation and possible spread of the Israeli– Hamas conflict in the Middle East, tensions between China and Taiwan, and the tightening of the political and economic relations between the United States and China, as well as the high level of inflation and the tightening of monetary policy.

Due to the geographical and sectoral diversification of the investment portfolio, the actualisation of risks in a single continent or sector would not jeopardise the fund's investment activities as a whole, but as the bank crisis in spring 2023 showed, market risks can quickly spill across continents and sectoral boundaries. Although the spring banking crisis originated from US regional banks, and euro area banks are generally well-capitalised, the impact of the crisis also spread to Europe and crashed one globally important bank in Switzerland. Thus, the volatility of the banking sector continues to be a significant risk to the development of investment markets, and although so far many economic sectors have tolerated the tightening of financing conditions and the rise in key interest rates, the tightening of central banks' monetary policy may reveal serious distortions in the resilience and risk-bearing capacity of some sectors.

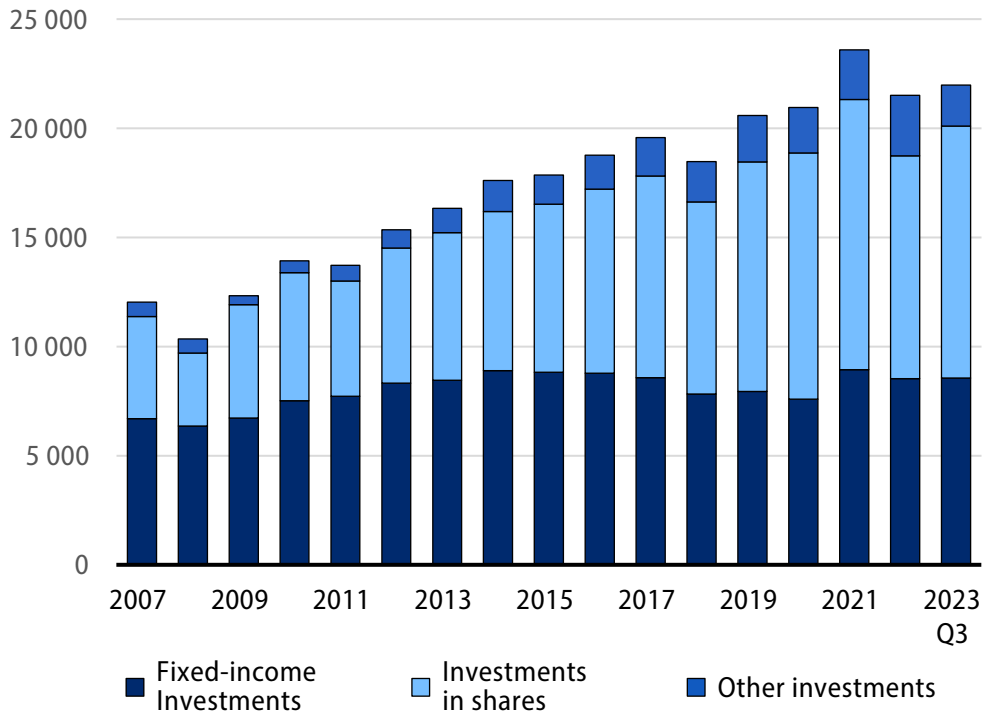
The effects of more persistent and longer-term inflation on VER's operations would most likely be reflected as the uncertain development of investment assets. Maintaining or exceeding the current level of interest rates may expose the latent risks associated with excessive indebtedness in the market, for example in the real estate sector or in private venture capital, where the indebtedness has occurred at zero rates and an expectation that the debt can be affordably refinanced far into the future. As interest rates remain above expected levels, some players may face asset impairment and insolvency situations. For VER, real estate and private equity investments do not constitute a significant risk in themselves, as they form only a small part of the fund's investment portfolio. However, risks may materialise indirectly if debt problems spread in the market, for example through the banking sector, to other asset classes. The problems in the real estate sector have already partly actualised in China and have also emerged in Finland and in the neighbouring areas. However, so far, no significant spillovers have occurred, but risks of problems in the real estate sector in China and the Nordic countries spreading may lead to weakening economic growth prospects.

Continuing inflation may also have a negative impact on the fund's net transfer if budgetary transfers increase more than the pension contribution income paid to the fund. VER's net transfer is already substantially negative and may further deteriorate as a result of an increase in future budgetary transfers. Over the past ten years, it has been possible to compensate for negative net transfer with high returns from the fund's investment activities. In the future, the uncertain development of equity investments in a new environment of high inflation and interest rates can therefore be considered a significant threat.

On the other hand, it is challenging to assess the overall impacts of inflation on the fund's operations, as the employment situation remains good and the economic downturn does not materialise, the general wage level may also increase and thus the fund's pension contribution income could increase. In addition, the high interest rate level increases the nominal returns on the fund's fixed-income investments. VER's interest rate risk has been mitigated by a below-average duration of the interest portfolio, which has resulted in a relatively good return on the fund's fixed-income investments in the first half of 2023 (+3.11% at the end of August).

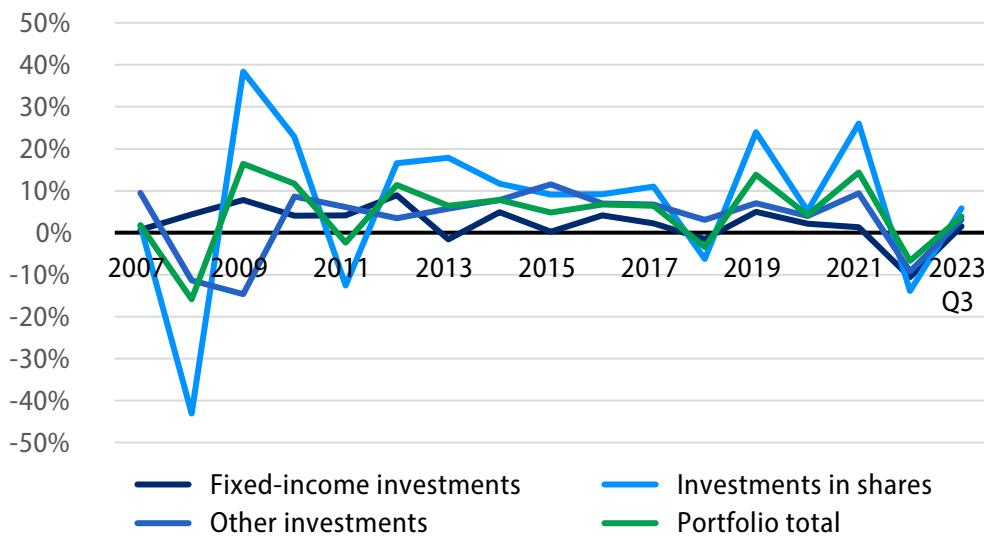
Other uncertainties also include the potential risk of an international recession if the tightening of monetary policy does not lead to the so-called soft landing of the economy, the unemployment rate starts to rise and the banks significantly tighten their lending. A short-term downturn would not be a significant threat to the fund's operations, but a longer-term downturn would make the investment environment very challenging. The recurrence of the energy crisis of autumn 2022 cannot also be ruled out if the winter turns out to be colder than before and energy prices start to rise sharply again. During the coming decade, other important uncertainties will include fragmentation of the global economy, geopolitical tensions and climate change.

Figure 3. VER investment assets, EUR million



Source: State Pension Fund

Figure 4. Annual returns on State Investment Fund's investment activity



Source: State Pension Fund

3.3 Other state holdings in listed companies

The market value of state holdings (including direct state holdings and those of Solidium Oy) was EUR 30.3 (36.7) billion at the end of 2022. The decrease in the value of ownership in 2022 was particularly affected by the effects of the Russian invasive war on general market developments and the decrease in the market value of Fortum's shares by EUR 5 billion. In October 2023, the value of stock exchange holdings was EUR 22.6 billion. The state had direct holdings in four listed companies (SSAB, Finnair, Fortum and Neste), which in October 2023 amounted to approximately EUR 15.8 billion. In addition, the state also owns listed companies indirectly through Solidium, whose holdings in October 2023 had a value of approximately EUR 6.8 billion.

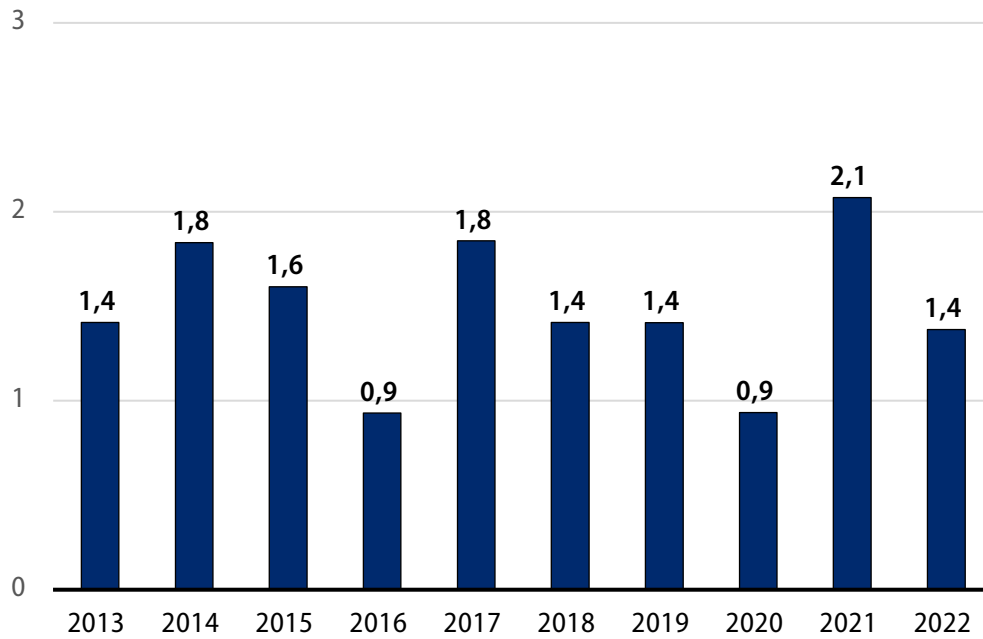
In 2022, the return on Solidium's holdings was -9.0%, and the return on listed companies directly owned by the state was -16.2%. The yield on Solidium's holdings from the beginning of 2023 until 10 October 2023 was -8.3%, and the return on listed companies directly owned by the state was -22.6% at the same time.

As a strategic owner, the state focuses on ownership-strategic risks, while business risk management is the responsibility of companies. Ownership-strategic risks include at least reputational risks arising from ownership, market risks and capital risks. Reputational risks are related to the sustainability of the companies' business operations, such as emissions caused by them. State holdings in listed companies also involve market and price risks. Market risks may become actualised in the form of value reduction or lower-than-expected dividend flows. The overall development of stock markets has a significant impact on the market value of central government stock exchange holdings and, consequently, on central government assets. Capital risks may become payable in situations where companies should be capitalised by the state (see chapter 5.6).

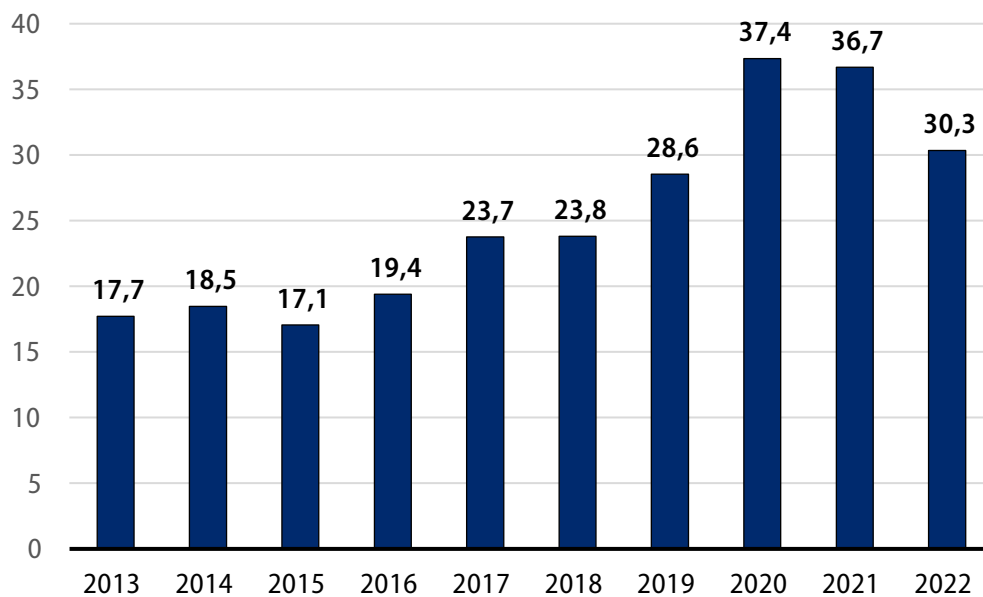
Dividend income received by the state plays an important role in the state budget, and these also include a great deal of annual variation and uncertainty due to the cyclical nature of companies and operational risks. The state has received EUR 0.8–2.0 billion in dividend income from its holdings each year between 2010 and 2022. In 2022, the dividend income received by the state was approximately EUR 1.36 billion (figure 5). The value of the equity portfolio has also fluctuated considerably from year to year (figure 6).

Figure 5. Cash-based dividends and capital returns received by the state annually.

EUR billion



Source: Prime Minister's Office

Figure 6. The market values of the state's stock exchange holdings (direct and Solidium) at the end of the year, EUR billion

Source: Prime Minister's Office

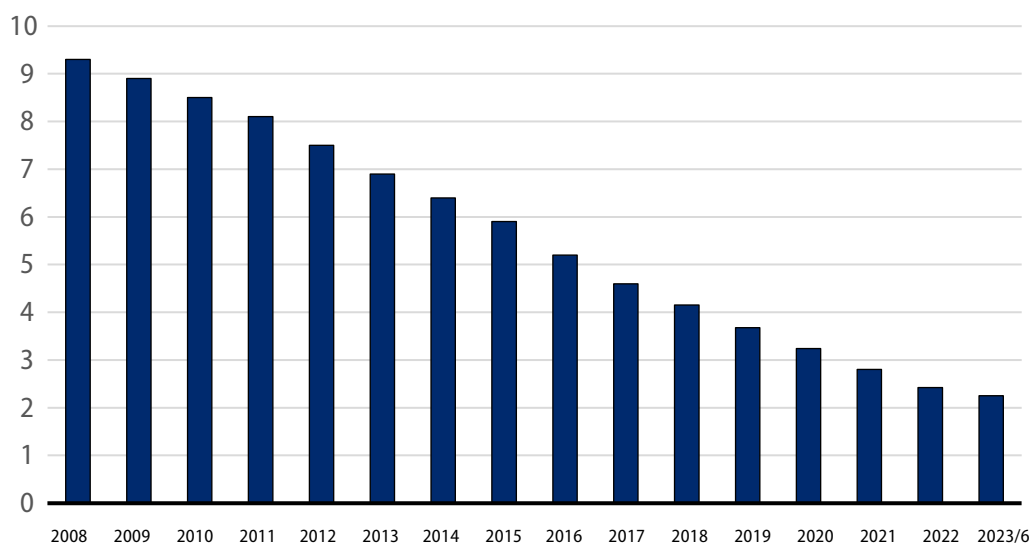
Central government ownership includes a significant concentration risk at geographical and sectoral level. The energy sector covers more than half of the central government's direct company holdings with Fortum and Neste. The state of Finland is the largest single owner on the Helsinki Stock Exchange and the largest owner in 13 medium-sized and large companies. Central government holdings are concentrated in Finland in the national interest, and the investment horizon is long and the portfolio has not been built using diversification as in the traditional portfolio theory, which is why comparing the returns from the investment portfolio with the more diversified portfolios is not meaningful.

In addition to Russia-related risks, attention has recently also been paid to geopolitical risks related to China, such as the growing tensions in the Chinese–US relationship with respect to Taiwan. However, it is challenging to assess the impact channels and size of these risks on Finnish companies, as the impacts would most likely be reflected in Finland indirectly through complex global value chains. However, ties to China have already been mapped in state-owned companies, and dependencies have been observed in several different intermediate products and raw materials.

3.4 Loan receivables from the National Housing Fund

The loan receivables of the Housing Fund of Finland comprise Arava loans granted for state-subsidised housing financing, the beneficiaries of which have mostly been rental and right-of-occupancy housing communities. The maximum loan periods for Arava loans are 45 years, and no new loans have been granted since 2007. As a result, the Housing Fund's loan portfolio has decreased significantly, as shown in figure 7. Currently, state subsidies for housing construction are in the form of interest subsidies and of guarantees for loans granted by credit institutions¹¹.

11 For a more detailed discussion of central government guarantee liabilities in housing financing, see section 5.1.2.

Figure 7. Development in loan receivables of the Housing Fund of Finland, EUR billion

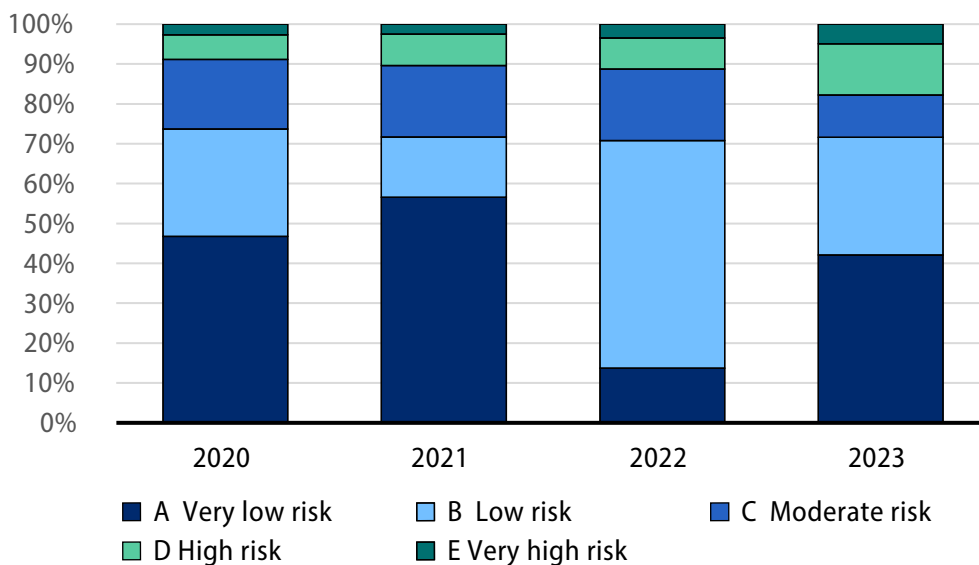
Source: State Treasury

At the end of 2022, the loan receivables of the National Housing Fund totalled EUR 2.4 billion and the guarantee portfolio amounted to EUR 18.4 billion, at which time the housing funding liabilities totalled EUR 20.8 billion. Similarly, the figures for the end of June 2023 were EUR 2.25 billion and EUR 19.1 billion, with a total exposure of around EUR 21.4 billion. From the perspective of credit risk, both direct and indirect financing liabilities leave the central government in the same position. In both cases, the insolvency of the client entails a cost for the state if the payments made for the liquidation of the collateral are not sufficient to cover outstanding loans. Risk management of direct and indirect lending is often also interlinked, because a significant share of social housing stock operators have both direct and indirect state-subsidised financing.

There are several reasons for the credit risk associated with Arava loan receivables. Long loan periods and tail-end repayment programmes mean more risks as the loans are not repaid at the same rate with the wear and tear of the properties. The need for renovation financing will arise before an adequate proportion of the construction loans has been repaid. The highest external risk arising from the loan receivables is associated with areas suffering from depopulation, where declining occupancy rates cause payment problems for rental housing corporations.

Almost 29% of the loan receivables, or approximately EUR 756 million, are located in the areas of high-risk municipalities, which is shown in figure 8¹². The risk content of the loan portfolio increases further as the population concentrates in a small number of growth centres.

Figure 8. Distribution of loan receivables of the Housing Fund of Finland by municipality risk class (%)



Source: State Treasury

The high loan-to-value ratio¹³ also increases the risk content of the Arava loan portfolio, because there is no secure collateral margin in the funding relationship. There has been a decline in property values in areas affected by depopulation, which means that the properties held as collateral do not fully cover the state's receivables in insolvencies.

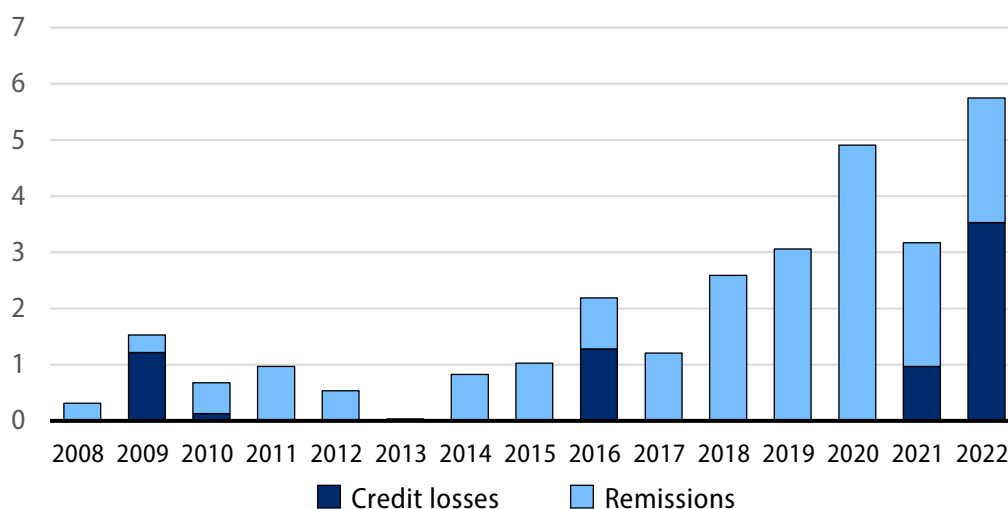
12 The State Treasury's risk classification model for municipalities takes into account the municipality's population projection, unemployment rate and tax revenue, vacancy rates of rental housing corporations, and late payments. Municipal mergers have resulted in municipalities that extend over increasingly large geographical areas, and a municipality in a good risk class can also contain areas with a high risk level.

13 The loan-to-value ratio of construction loans is 90–95% of the approved building and site costs in rental housing and 85% in right-of-occupancy housing.

The risks associated with the loan portfolio are managed through state-supported restructuring measures and funding arrangements, in which the aim is to minimise losses by taking managed and systematic measures instead of initiating bankruptcy proceedings and forced sales of properties held as collateral. Legislative amendments in force since 2019 have enabled more effective measures for reducing the financial problems and loan portfolio risks of rental housing corporations in areas affected by depopulation. In addition to EUR and percentage increases of support authorisations, the legislative amendments have made it possible to start restructuring measures more proactively, which has improved risk management related to the loan and property portfolio.

So far, the Arava loan portfolio has generated a relatively low amount of credit losses from bankruptcies and forced realisation of securities. The losses from restriction and demolition remissions of debt associated with restructuring have been on average less than EUR 1.2 million a year in the 2010s. Since 2018, the number of remissions has been higher than before. In 2019, the remissions amounted to EUR 3.1 million, in 2020 to EUR 4.9 million, and in both 2021 and 2022 to approximately EUR 2.2 million. In 2022, in addition to remissions, other credit losses amounted to EUR 3.5 million. The reason for the increase in the number of remissions and credit losses in recent years is increased problems in areas with decreasing population and the possibility provided by legislative amendments in 2019 to implement proactive risk management measures. Figure 9 shows an increase in credit losses and remissions.

Figure 9. Credit losses and remissions related to Arava loan receivables in 2008–2022, EUR million



Source: Financial statements of the Housing Fund of Finland 2022

3.5 Business Finland loan receivables

The central government's loan receivables associated with product development loans granted by Business Finland totalled EUR 1,115 million at the end of 2022 (EUR 1,136 million at the end of 2021). When looking at loans in effect, it can be noted that the long period of loan portfolio growth ended in 2020. For ten years, until 2020, the annual increase averaged just under 8%. During the first half of 2023, Business Finland's loan portfolio decreased by EUR 2 million to EUR 1,113 million at the end of June. In the loan portfolio figures for the period 2021–2023, one must take into account, as partly lowering factors, larger credit loss entries, whereby the loan receivables are written down from the loan receivables portfolio.

Most of the product development loans are provided as debt instruments. At times, Business Finland has also granted equity loans, which have accounted for about 11% of the loan portfolio in recent years, but which have started declining to about 8% at the end of June 2023.

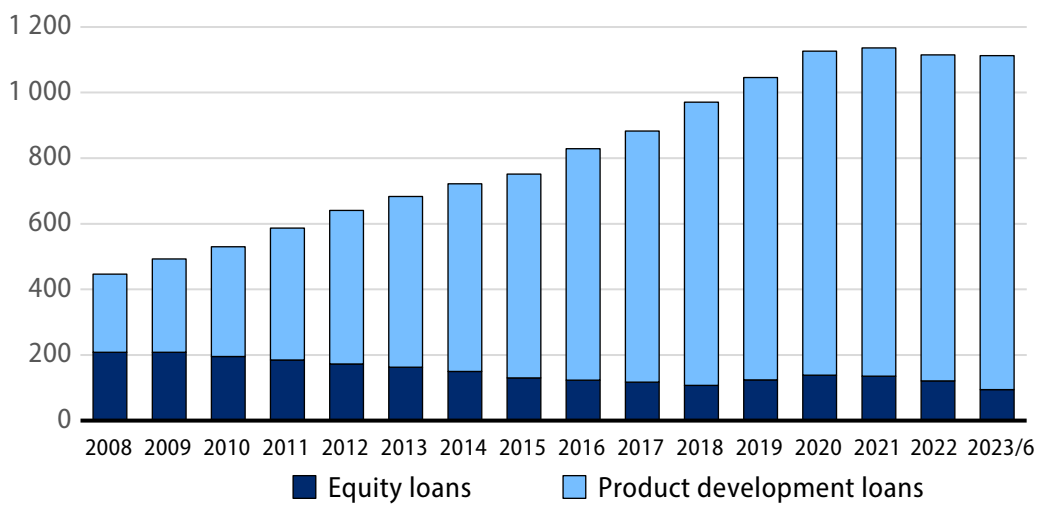
Product development loans are risk loans, most of which are granted without collateral. Most of the financing goes to young growth-oriented companies that are only launching their product development activities and have little or no revenue to cover their expenditure. General changes in economic trends are reflected rapidly in product development lending risks. Non-performing loans and bankruptcies increase rapidly during downturns and economic crises. The economic impact of the COVID-19 crisis and the rising prices of raw materials and energy caused by the Russian invasive war, as well as the impact of increased interest rates, have also caused problems for companies, which have also had an impact on the ability to manage product development loans.

The number of new bankruptcies of companies that received a product development loan in the first half of the years 2020–2023 has increased annually and has been clearly higher than in the 2010s on average during the corresponding period. In 2010–2019, January–June saw an average of 26 new bankruptcies. In 2020, the number was 42 bankruptcies in the corresponding period, 52 bankruptcies in 2021, 61 bankruptcies in 2022 and 69 new bankruptcies already in 2023. In addition to the increased difficulties faced by companies, the higher figures of initiated bankruptcies for 2021–2023 are also influenced by a slightly intensified debt recovery policy.

In 2012–2020, an average of just under EUR 40 million of credit losses per year was recorded for product development loans granted by Business Finland. Credit losses arise from decisions not to collect loans and from business insolvency. In 2022,

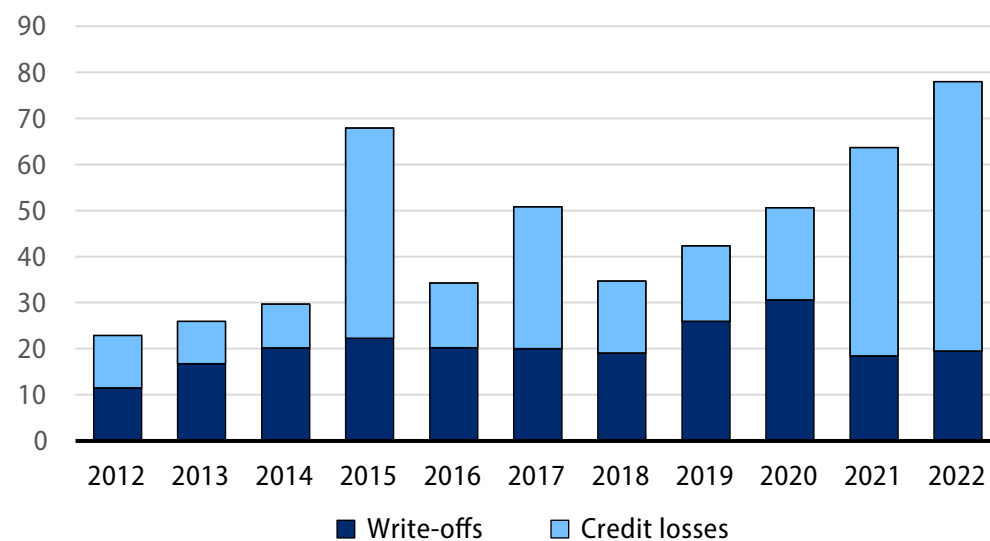
credit losses and debt write-offs totalled EUR 78 million, representing an increase of approximately EUR 13 million year on year. During the first half of 2023, debt write-offs totalled EUR 63.1 million, whereas the figure for the corresponding period in 2022 was EUR 41.6 million.

Figure 10. Business Finland’s product development loan portfolio, EUR million



Source: State Treasury

Figure 11. Business Finland’s credit losses on product development loans and debt write-offs, EUR million



Source: Business Finland

4 Direct financial liabilities of central government

- Central government debt has been growing for a long time, a trend that has been intensified by crises in recent years. The debt has increased not only as an absolute amount of money but also relative to the size of the economy.
- At the end of 2022, central government debt was almost EUR 142 billion and approximately EUR 13 billion higher than in the previous year. The debt-to-GDP ratio also increased by nearly two percentage points during the corresponding period, reaching around 53% at the end of 2022. Indebtedness has continued in 2023 and the debt is estimated to be approximately EUR 152 billion at the end of 2023, which is nearly 54% of GDP.
- In the context of decreasing interest rates in recent years, debt interest expenditure remained on the decline for a long time despite the increase in central government debt. The situation has since changed, as the European Central Bank started raising key interest rates in mid-2022. Since then, the ECB has increased the deposit rate by 450 basis points. With the rise in interest rates, central government interest expenditure has increased strongly in 2023. In 2022, the interest expenses on central government debt amounted to approximately EUR 840 million, whereas this year they amount to an estimated EUR 2.3 billion.

4.1 Central government debt

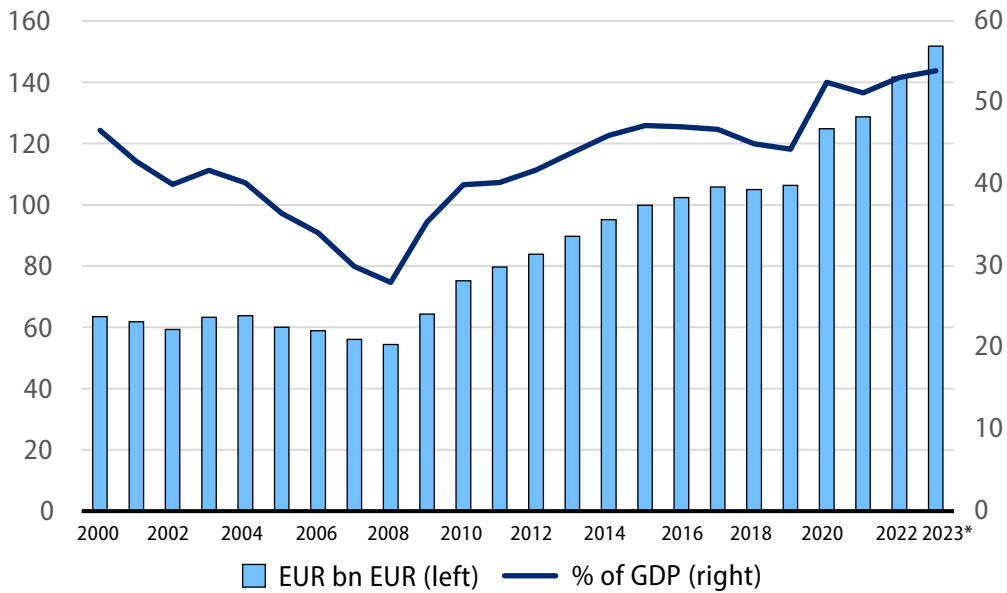
4.1.1 Changes in central government debt

Central government debt in euros remained close to EUR 60 billion in the early 2000s and fell sharply relative to GDP due to strong economic growth (figure 12).¹⁴ However, in connection with the financial crisis, there was a turning point in the development of indebtedness in 2008, after which the indebtedness has been rapid and continuous. At the end of 2022, the debt amounted to almost EUR 142 billion, which is approximately EUR 66 billion more than in the early 2010s. Indebtedness also continued to be strong in 2023. The debt is estimated at around 152 billion at the end of 2023.

When assessing the risks of indebtedness, a useful approach is to examine debt relative to GDP. Even a large amount of debt is not a problem if economic growth is strong and relative indebtedness is not on a growing path. However, Finland's debt-to-GDP ratio has also increased significantly since 2008. The central government debt-to-GDP ratio declined to under 30% at the end of 2008, but grew rapidly in the years following the financial crisis, reaching around 52% at the end of 2020. The economic recovery following the COVID-19 crisis temporarily affected the decline in the debt-to-GDP ratio in 2021, but the ratio started to grow again in the following year, reaching 53% at the end of 2022. The growth in the debt ratio has continued in 2023, and the ratio is estimated to be nearly 54% at the end of 2023.

14 In this context, central government debt means on-budget and off-budget debt administered by the State Treasury. Indicators describing the debt structure are comprehensively available on such debt.

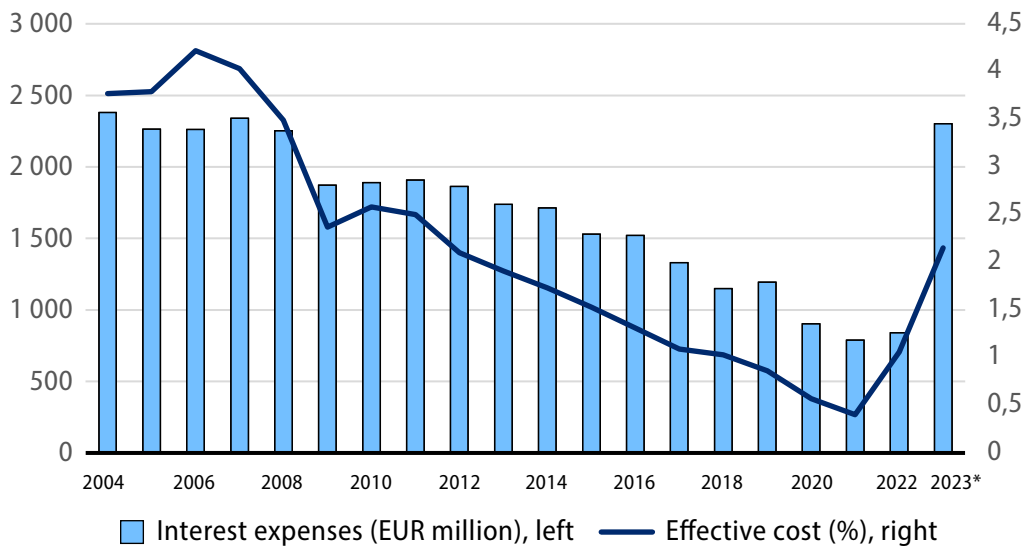
Figure 12. Changes in central government debt



Source: State Treasury; Ministry of Finance
* forecast

Despite the strong increase in debt, interest expenditure on central government debt was on the decline for a long time. This was due to a stimulating monetary policy, which lowered market interest rates and kept them at a low level for several years (figure 13). However, the direction of monetary policy has now changed and the European Central Bank has increased its deposit rate by as much as 450 basis points since mid-2022. Interest expenses on debt will thus increase considerably. While interest expenditure in 2022 was approximately EUR 840 million, it is estimated that it will rise to approximately EUR 2.3 billion in 2023.

Figure 13. On-budget interest expenses and effective interest costs of central government debt¹⁵



Source: State Treasury
* forecast

4.1.2 Risks arising from central government debt

Central government debt involves many types of risks¹⁶, of which refinancing risks and market risks are discussed in detail in this section. Financing risks include risks associated with the availability or terms of financing and the resulting risk of insolvency or an increase in borrowing costs. This may be due to reasons including exceptional market conditions or the downgrading of the central government's credit rating.

The financing risk can be divided into liquidity and refinancing risks. The review period for liquidity risk management is 12 months into the future, while refinancing risk will be examined over a longer period.

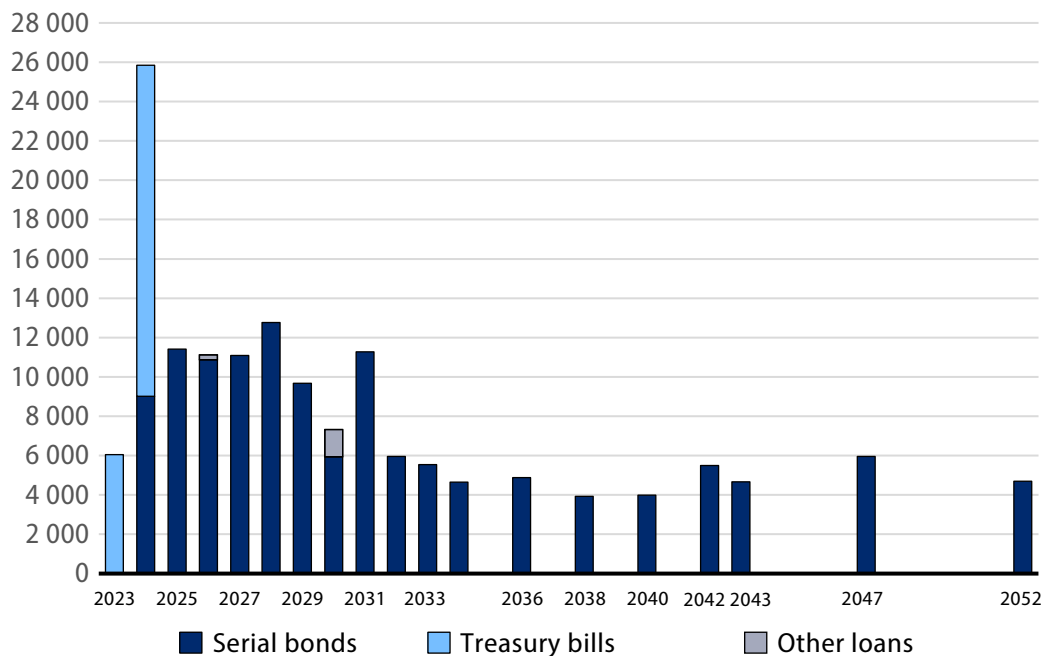
¹⁵ Effective costs refer to the average of the debt servicing costs weighted by the nominal value of the debt.

¹⁶ For more information about risks arising from central government debt and their management, visit <https://www.treasuryfinland.fi/>

The starting point for the management of refinancing risk is an attempt to distribute debt amortisation as evenly as possible over time and to use diverse borrowing channels. Due to the high level of indebtedness, large amounts of loan will fall due for payment by central government in the next few years (figure 14). The increase in borrowing needs has also led to a higher amount of short-term borrowing, which, in the figure, is reflected in the large amortisations of central government debt in 2023 and 2024. Otherwise, the average annual amortisation in 2025–2033 will be approximately EUR 9.6 billion.

Refinancing risk can be examined by means of one- or five-year rollover indicators that show the ratio of debt to be refinanced within one year/five years. With respect to these, Finland does not stand out clearly from the key reference countries or the euro area on average, especially for the five-year roll-over indicator (figures 15 and 16). Within one year, the share of debt to be refinanced in Finland will be slightly less than five percentage points higher than the average in the euro area.

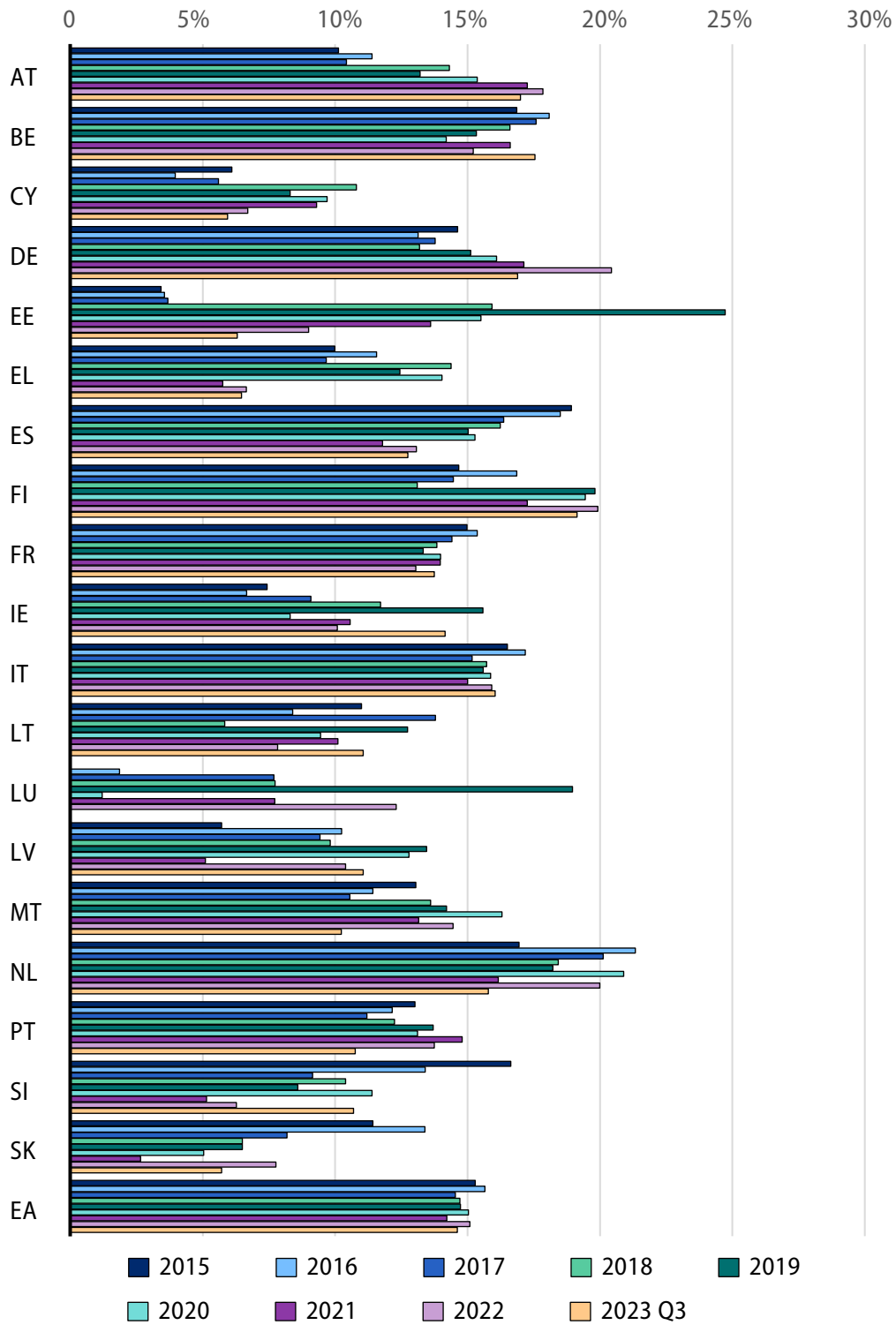
Figure 14. Amortisations of central government debt, EUR million¹⁷



Source: State Treasury

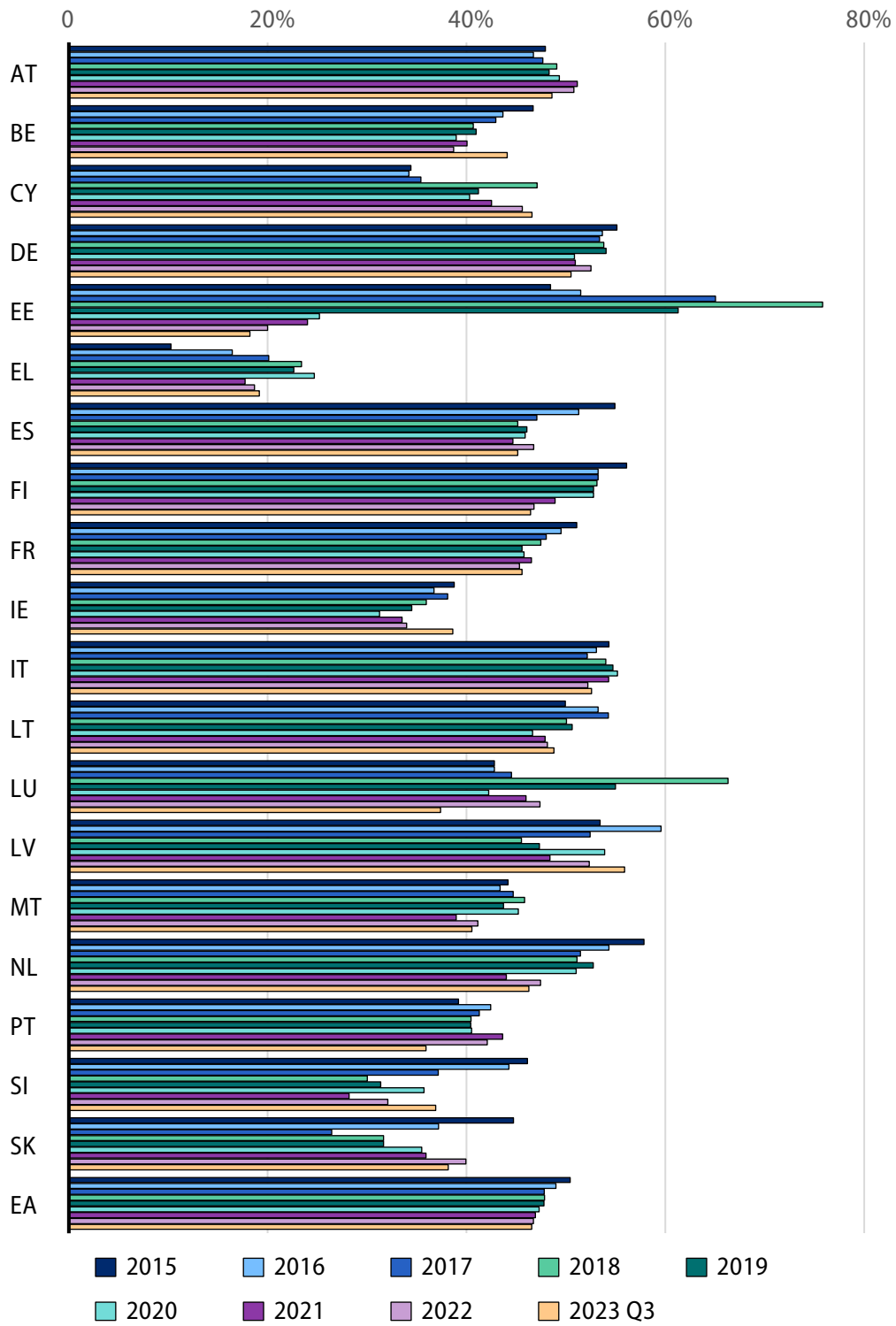
17 Serial bonds are fixed-rate bullet loans on which the coupon interest is paid once a year. Treasury bills are discount-based debt instruments with maturity of a maximum of one year. Other loans include, among other things, bonds issued under the EMTN programme.

Figure 15. One-year rollover indicator in euro area countries, % of debt stock



Source: ESDM

Figure 16. Five-year rollover indicator in euro area countries, % of debt stock



Source: ESDM

The refinancing risk can also be examined with the help of the average maturity of the debt. It indicates the time in which the loans should be refinanced on average. In the context of the financial crisis, debt maturity extended from around four years to more than five years (figure 17). After 2012, the average maturity continued to increase as the government started issuing 30-year benchmark bonds. Due to the increased borrowing needs and the very uncertain operating environment in recent years, the maturity of the debt has continued to increase, which is currently slightly less than eight years.

The average maturity of debt in Finland has developed in the same way as in other euro area countries (Figure 18). Overall, there are relatively small differences in the maturity of debt between countries (excluding Greece), reflecting a certain similarity in their funding. At the end of 2015, the average maturity of Finnish central government debt was about one and a half years shorter than the euro area average. The difference had narrowed to half a year by the end of the third quarter of 2023.

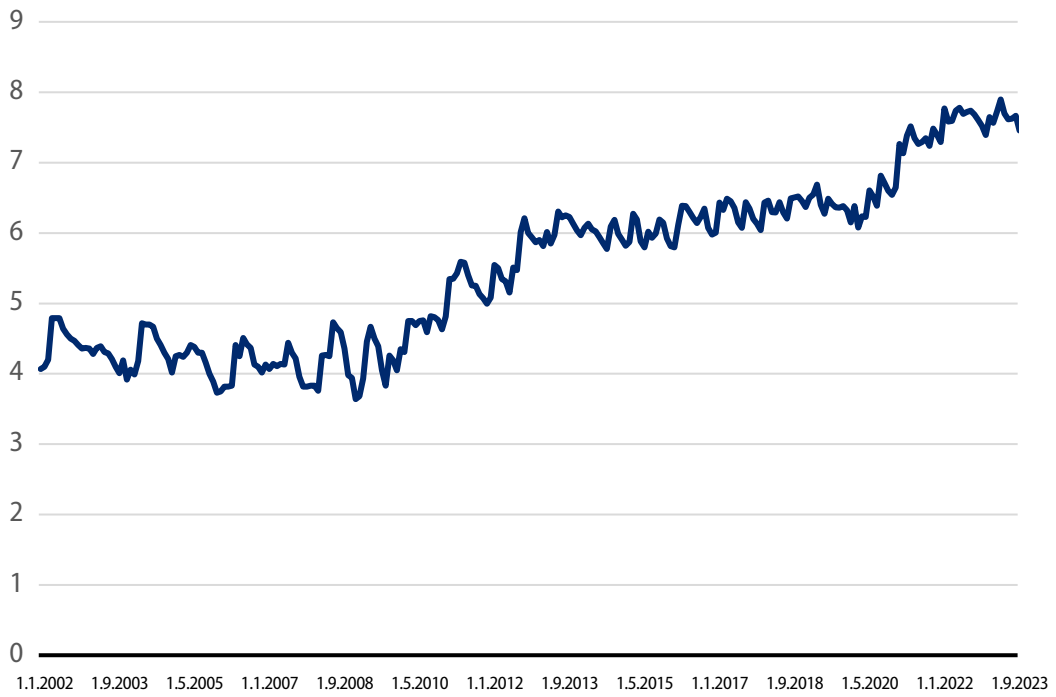
Market risk refers to the interest and exchange rate risk arising from a debt. Interest rate risk can be defined as a negative deviation from the expected long-term costs arising from a debt as a result of interest rate changes. Exchange rate risk refers to the risk of a loss arising from a change in the exchange rate between the euro and a foreign currency. The central government also issues debt in foreign currencies, but exchange rate risks are hedged through derivatives, i.e., the state does not assume an exchange rate risk in debt management.

The interest rate sensitivity of the debt can be described with an average repricing period. The indicator gives the average time (year) during which the debt is repriced.¹⁸ The shorter the repricing period, the faster the interest rate changes are reflected in the interest costs of the debt. The repricing period of the Finnish central government debt until 2012 was close to three years, but with the change in the interest rate risk position target, the interest rate risk position increased gradually from three years to four and five years after 2012 (figure 19). Currently, the debt repricing period is approximately 4.5 years.

For Finland, the repricing period of the debt is shorter than the average maturity of the debt, which is due to the policy choices made to shorten the interest rate risk position of the debt by means of interest rate derivatives.

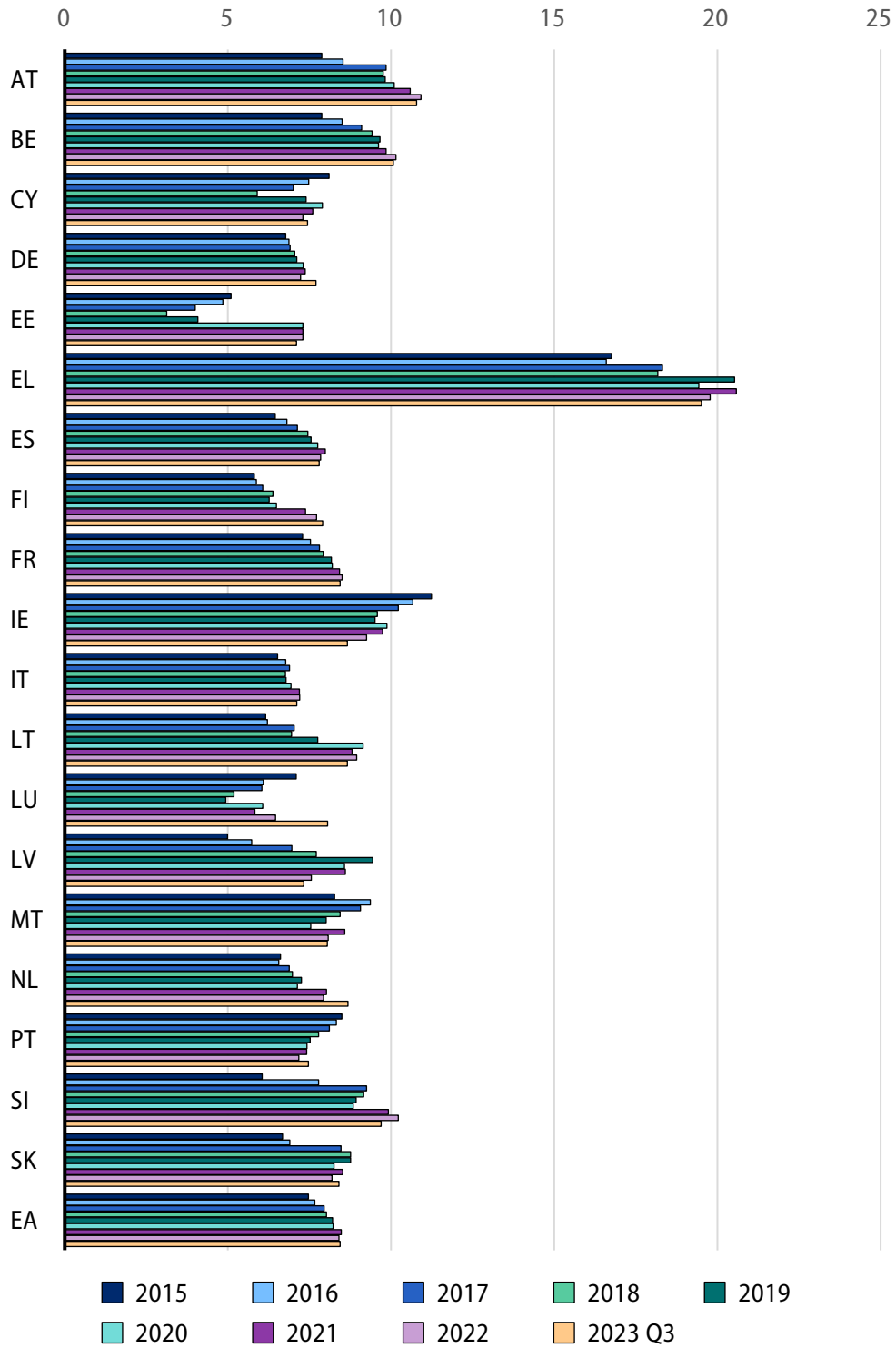
18 The average time to repricing is determined by the next interest rate review date for variable rate loans, whereas for fixed rate loans it is determined by the maturity.

Figure 17. Average maturity of debt, year

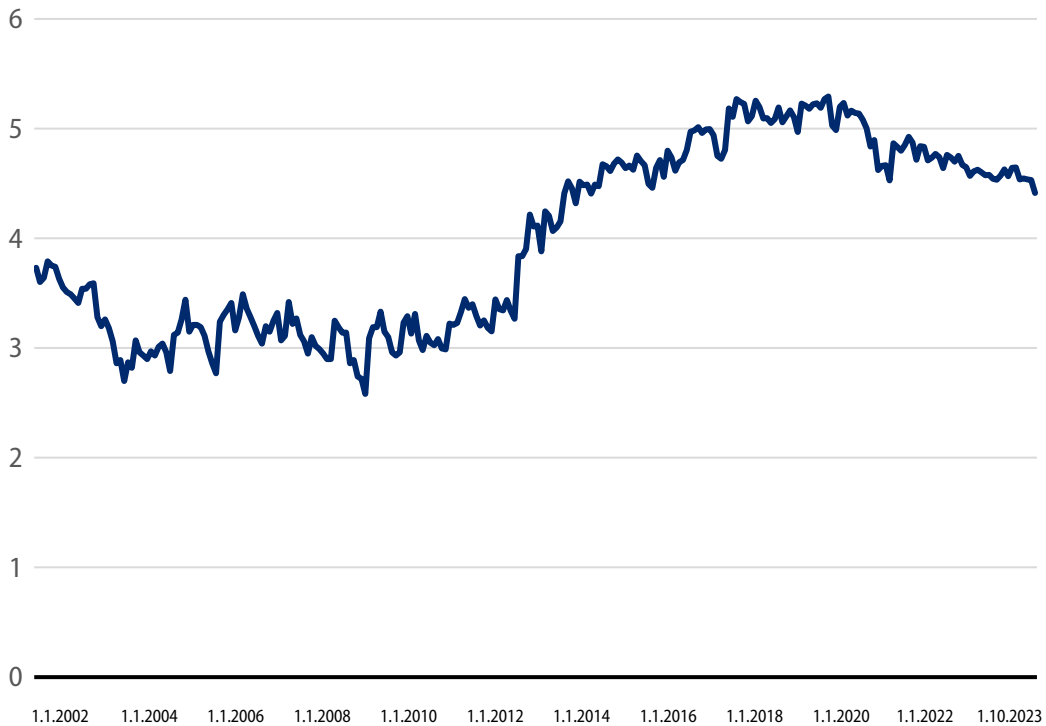


Source: State Treasury

Figure 18. Average debt maturity in euro area countries, year



Source: ESDM

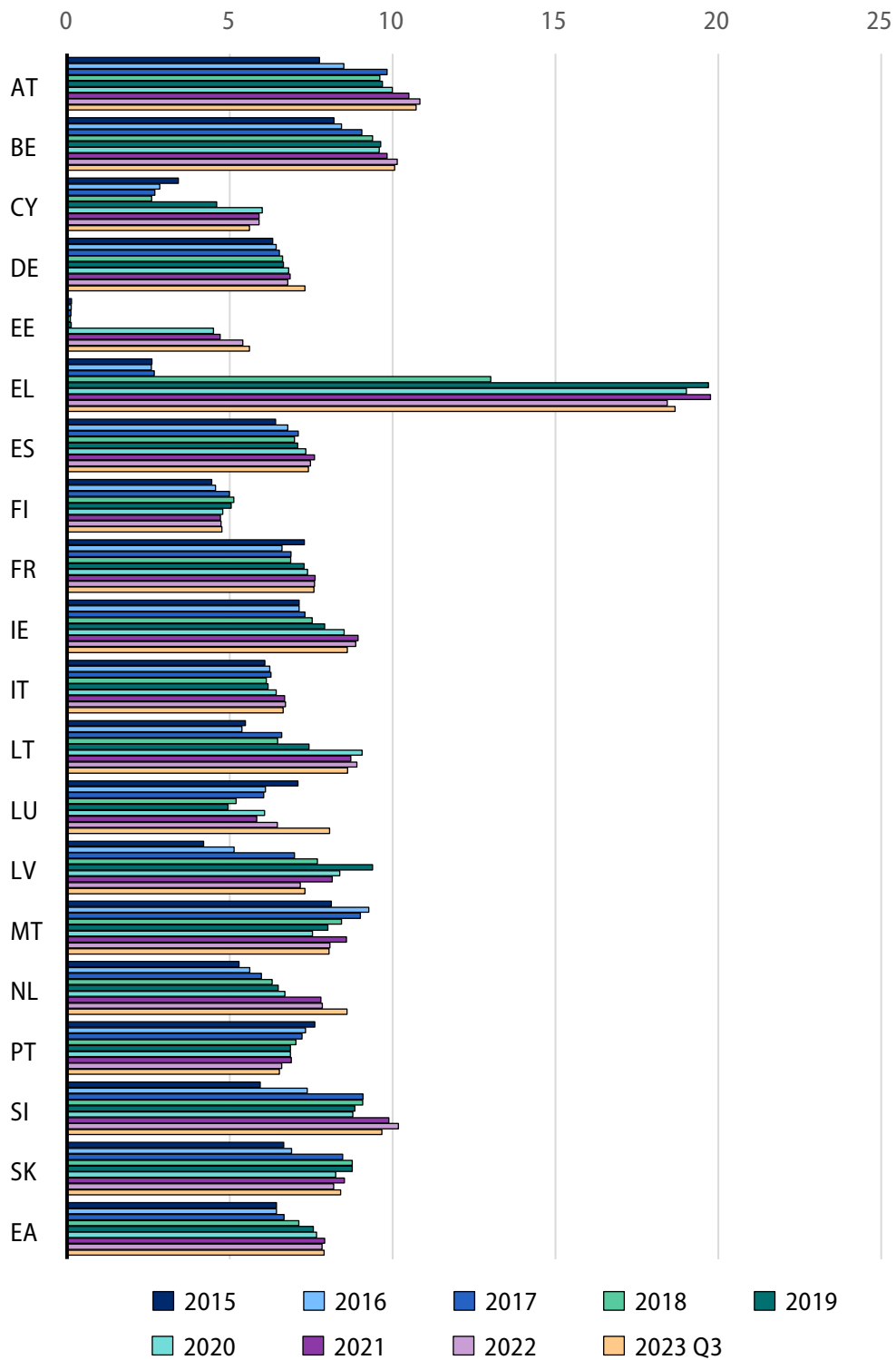
Figure 19. Average time to repricing of the debt portfolio, year

Source: State Treasury

The choice is based on the typical time structure of interest rates. The yield curve is usually rising, i.e., short-term interest rates are lower than long-term interest rates. For this reason, it can be considered that the relatively short-term interest rate risk position of the debt produces lower interest costs for the debt in the long term than a long-term interest rate risk position. On the other hand, short-term interest rate risk positions involve higher variation in interest expenditure than long-term interest rate risk positions.

Finland's debt repricing period is shorter than in most other euro area countries (figure 20). At the beginning of the period under review in 2015, the repricing period of Finland's debt was approximately two years shorter than the euro area average. At the end of the third quarter of 2023, the corresponding difference was slightly over three years.

Figure 20. Average debt repricing period in euro area countries, year¹⁹



Source: ESDM

¹⁹ The impact of derivatives is taken into account.

4.2 Contractual liabilities associated with the public-private partnership (PPP) model

In the public-private partnership (PPP) model, a service provider (project company) funds, plans, carries out and maintains a project under a contract for 15 to 25 years, while the public sector actor has the role of a customer and project supervisor.

The PPP model has been applied to road projects, for example (table 1). In these cases, the parliament grants the Finnish Transport Infrastructure Agency a budget authority to carry out a PPP project. The authority includes the costs of the road construction and the service fee for road maintenance payable to the road infrastructure company. For this purpose, the parliament decides annually on the agreed appropriations.

Risks included in the PPP model include, in particular, financial risk and counterparty risk related to the project company. In addition, there are similar risks associated with the PPP model as in other buildings, such as increased construction costs, construction delays and quality, maintenance quality and cost risks, which are managed by a PPP model agreement. Contracts based on the PPP model often involve economically significant interests, especially through the start of the service and the payment mechanism linked to the quality of the service. All the projects in the table are in the maintenance phase. Any termination of the contract may also involve substantial termination costs.

The PPP model ties up central government funds for decades, making it more difficult for future parliaments to launch new projects. Due to the partial payments involved in the PPP model, there also is a risk that investments exceed the level that would be appropriate in terms of sustainable general government finances.

Table 1. PPP projects in the central government budget, EUR million

31.10.79 PPP PROJECTS	Authorisation	2008–2023	2024–2027	2028–2031	2032–2035	2008–2040
E18 Muurla–Lohja*	700.0	551.9	110.9	57.5	0.0	720.3
E 18 Muurla–Lohja, service level increase	30.0	7.0	8.0	15.0	0.0	30.0
E18 Koskenkylä–Kotka	650.0	504.8	140.0	0.0	0.0	644.8
E18 Hamina–Vaalimaa	550.0	185.0	100.0	112.0	153.0	550.0
TOTAL	1,930.0	1,248.7	358.9	184.5	153.0	1945.1

Source: Ministry of Finance

*11/2023 estimate of the total need for the E18 Muurla–Lohja project. According to the current estimate, the authorisation for the project will be exceeded by EUR 700 million in 2025 due to an increase in indices. The estimate of the project's total budget is currently approximately EUR 720 million. The estimate is that the appropriation of EUR 700 million for the project will be exceeded at the beginning of 2029. Cost forecasts are uncertain due to index developments.

4.3 Other multi-annual central government liabilities

Central government also has other multi-annual contractual liabilities under which it has a direct statutory payment obligation. By far the largest of these multi-annual liabilities in on-budget finances are central government pension liabilities.

Pension liabilities refer to the amount required to cover the future costs of pension benefits accumulated to date. Central government pension liabilities indicate the current value of central government pension commitment to former and present employees covered by the central government pension system. They totalled EUR 97 billion at the end of 2022. The increase in pension liability by EUR 3.7 billion compared to the previous year is mainly explained by index increases made.

Through the State Pension Fund (VER) described in section 3.2, central government has made arrangements to prepare for pension payments in the coming years and to even out annual pension expenditure. At the end of 2022, the ratio between the market value of VER's investment portfolio and the imputed central government pension liabilities was about 22.4%.

The funding base of central government pension expenditure involves risks, which are associated with the prospect that the wage bill on the one hand and the investments assets and the returns on investment on the other do not grow at the expected rate. The development of pension expenditure also involves uncertainties. While a decrease in the wage bill would weaken VER's income base and reduce the assets available for investment, from the central government perspective it would cut direct labour costs and curb the growth of pension liabilities. Realisation of the risks associated with the wage bill and the returns on VER's investments would increase the need for direct on-budget financing in the payment of central government pensions.

Other multi-annual liabilities include the need for budgetary appropriations required under authorisations, which was EUR 20.5 billion in 2022, leases concluded by central government agencies, accident and motor liability insurance compensations paid by the state, basic transport infrastructure maintenance contracts and purchasing contracts. The increase in the need for appropriations in the budget compared to the previous year is primarily explained by the EUR 10 billion loan and guarantee programme approved in 2022 for energy companies. The loan and guarantee programme for energy companies will be valid until the end of 2023, and no loans or guarantees have been granted by the end of November. Agreements and commitments related to basic transport infrastructure management totalled about EUR 2.1 billion in 2022. At the end of 2022, the other multi-annual liabilities of state enterprises totalled EUR 1.7 billion.

5 Contingent financial liabilities of central government

- Government guarantees in effect totalled EUR 68.5 billion at the end of 2022. The growth from previous years was EUR 4.2 billion. In 2010, the guarantee portfolio was EUR 23.1 billion. The largest liabilities in effect are associated with Finnvera's operations, housing financing and the management of international financial crises.
- Over the past decade, the guarantee portfolio has grown significantly not only in euros but also relative to the size of the economy. The guarantee liabilities in force in 2010 amounted to 12.3% of GDP, compared to 25.5% at the end of 2022.
- The risks associated with guarantee liabilities are increased by the concentration risks associated with the largest liability exposures. For example, in export financing, the maritime vessel sector accounts for about 50% of the total liabilities. The activities of the Housing Fund of Finland also involve customer concentration risks. The development of the housing fund risks is particularly strongly influenced by regional concentration risks, such as population concentration trends and changes in them.
- The banks have a sufficient amount of capital and liquid assets, and their business operations have been profitable. The key risks and uncertainties are related to future macroeconomic development and the effects of Russia's war of aggression.
- Municipal loans totalled EUR 18.7 billion at the end of 2022, compared with EUR 3.9 billion in 2000. Like the state, the amount of loans borrowed by municipalities has increased strongly over the past twenty years.
- The wellbeing services counties started operating at the beginning of 2023, and at the same time at the end of 2022, EUR 4.9 billion of the loan portfolio of the hospital and special care districts was transferred to the wellbeing services counties. The loan portfolio is expected to grow to EUR 6.4 billion in 2023.

Chapter 5 focuses on open contingent liabilities, which involve a legal obligation on the state. They include government guarantees, callable capital in international financial institutions, climate responsibilities and nuclear liability. Sub-chapter 5.1 is further divided into its own sub-chapters, which contain more detailed descriptions of the most economically significant state guarantees granted and their risks. Liabilities related to Finland's EU membership, including guarantee liabilities, are discussed separately in chapter 6.

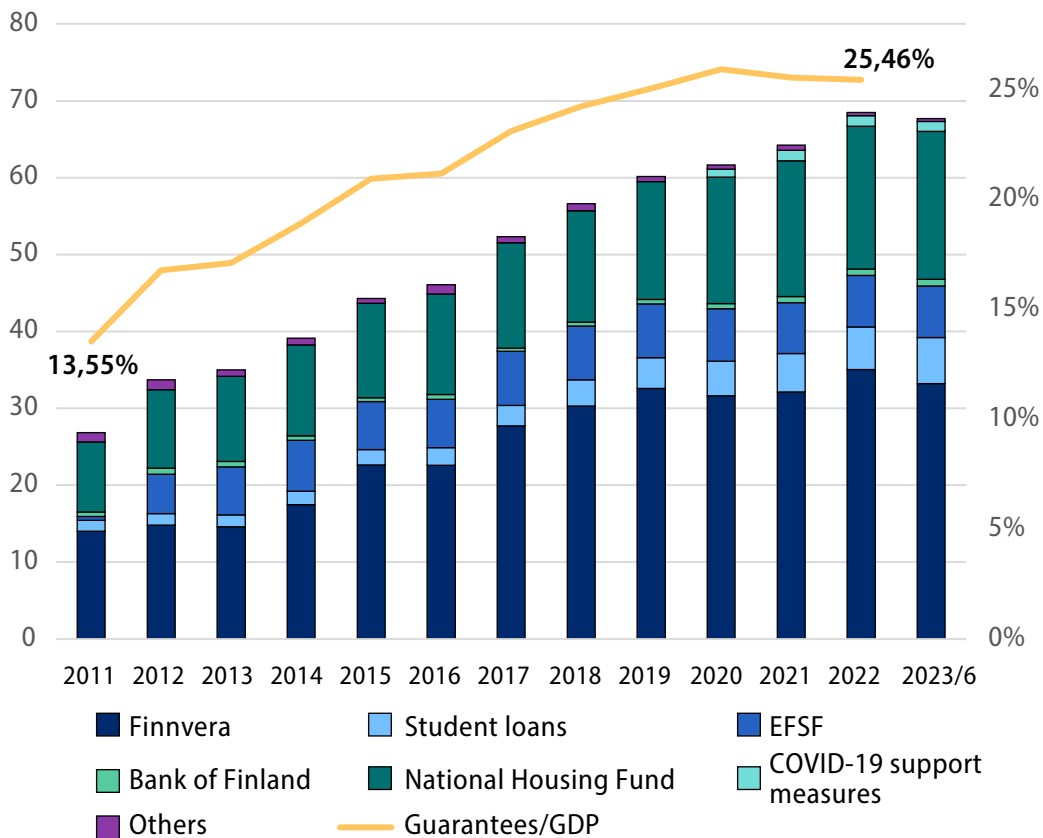
In the later sections, the chapter discusses implicit contingent liabilities, which may put the central government under an obligation because of societal or political factors. They include the implicit liabilities of the banking sector and local government as well as those associated with state enterprises and environmental and chemical safety. Implicit liabilities are not automatically binding on central government; instead, it would be considered separately if central government assumes responsibility for them, taking into account aspects related to the functioning of society, among other things.

5.1 Central government guarantees

Central government guarantees have grown strongly in recent years and throughout the 2010s. This is illustrated by figure 21, which shows the development of state guarantees in force. Central government guarantees in effect totalled EUR 68.5 billion at the end of 2022, representing a growth of EUR 4.2 billion year on year. The amount of government guarantees in force at the end of June 2023 had decreased to EUR 67.7 billion. The decrease was due to a EUR 1.9 billion decrease in Finnvera's liabilities, of which the exposure of export credit guarantee and hedging arrangements had decreased by EUR 1.3 billion. The decrease in the export credit guarantee portfolio resulted from normal instalments and repayments.

Guarantee liabilities have also increased significantly relative to the size of the economy. The guarantee liabilities in force in 2010 amounted to 12.3% of GDP, compared to 25.5% at the end of 2022.

Figure 21. Development in the amount of central government guarantees in effect, EUR billion



Source: State Treasury

The guarantees associated with Finnvera consist of 1) liabilities associated with export guarantee and special guarantee operations, 2) the domestic liability portfolio, and 3) guarantees for funding. The liabilities in effect (used and unused) have been included in the guarantee amounts related to export guarantee and special guarantee operations. The statutory liability amount includes liabilities in effect and one half of the guarantees offered, using the exchange rate of the date on which the decision was made. The risk arising from repayments of export credits granted by Finnish Export Credit Ltd is covered by an export credit guarantee granted by the parent company, Finnvera. Funding acquired by Finnvera within the framework of the EMTN and ECP loan programmes has a central government guarantee. To the extent that the loan guaranteed by the government has been used to finance export credits, the government's liabilities for export guarantees and government guarantees for funding are not doubled, but as a result of various factors, they could be realised at different times. The contingent liabilities reported in this review are consistent with the figures in the central government's final accounts.

COVID-19 interventions include state guarantees granted in response to the pandemic for the European Commission's funding (so-called SURE Facility), the European Investment Bank (so-called EU COVID-19 Guarantee Fund) and domestic shipping and aviation companies and the COVID-19 vaccine guarantee insurance company.

The largest outstanding liabilities relate to Finnvera's operations (EUR 33.2 billion), housing funding (EUR 19.2 billion) and the management of international financial crises (EUR 6.7 billion).

In 2022, the largest increases in guarantee portfolios were recorded by Finnvera (3 billion), housing funding (0.9 billion) and student loans (0.5 billion).

The maximum amount of central government guarantees available was EUR 147.3 billion at the end of 2022. The maximum is the maximum amount set out in the law or authorised by the parliament. For the guarantee authorities given in the budget annually, the maximum is the amount of guarantees in effect plus the amount of guarantees granted but not yet used. The maximum amount of government guarantees available increased by EUR 11.9 billion in 2022. The most significant increase was due to the 10 billion loan and guarantee programme of electricity companies, which prepared for securing the liquidity of electricity companies when the collateral requirements of the derivatives exchange were exceptionally high. No loans or state guarantees have been granted in the programme by the end of November 2023. The programme will expire on 31 December 2023.

5.1.1 Finnvera plc

Background

Finnvera is a state-owned specialised financing company and Finland's official export credit agency. The liabilities associated with the company form a significant part of central government guarantees, which emphasises the importance of risk management in the company's operations. Finnvera finances Finnish SMEs in the early stages of their investments and promotes their internationalisation and exports.

Finnvera grants loans and guarantees to companies in Finland. In 2020, the authorisations for domestic financing were increased from EUR 4.2 billion to EUR 12 billion due to the pandemic. However, the domestic financing liabilities in force in accordance with the final central government accounts have not increased significantly: in 2019, the figure was 1.9 billion, at its highest it was 2.6 billion in 2021 and in 2022 it had decreased to 2.3 billion. The increase in authorisations is to be valid until 2025. However, Finnvera's largest euro-denominated liabilities are in export financing, which is also focused on in the risk review.

There are three types of public export financing instruments in Finland: government export guarantees, interest equalisation, and export and ship credit. With export credit guarantees, Finnvera supports companies in international exports by granting guarantees for credit losses and export financing. An interest equalisation agreement, on the other hand, provides the foreign buyer with an export credit based on a fixed CIRR interest rate through the bank, and Finnvera's subsidiary Finnish Export Credit Ltd pays a variable interest rate to the bank. Finnish Export Credit Ltd's export and ship credits guaranteed by Finnvera provide financing to foreign buyers to promote exports, as the realisation of export trade may require the provision of financing to foreign buyers. Export financing is provided through Finnvera plc, a special financing company fully owned by the state, and Finnish Export Credit Ltd, which is a subsidiary fully owned by Finnvera and through which Finnvera grants the export guarantee.

Central government regulates the scope of public export financing activities by granting authorisations concerning the maximum liabilities specified in law. The authorisations overlap, as interest equalisation, for example, is related to export credits granted. The increases in the authorisations for the maximum export financing liability in 2020 are valid for authorisations other than special risk-taking:

- i. Export guarantees granted by Finnvera and hedging arrangements: EUR 38 billion;
- ii. Export and ship credits of Finnish Export Credit: EUR 33 billion;
- iii. Interest equalisation authorisation: EUR 33 billion;
- iv. Authorisation for special risk-taking: EUR 8 billion;
- v. Maximum authorisation for the government guarantee of Finnvera's funding programme: EUR 20 billion; and
- vi. Maximum authorisation for a potential government credit facility for Finnvera: EUR 3 billion.

Total central government liabilities for export financing have grown substantially over the past few years, as shown in figure 21 above and appendix 2.

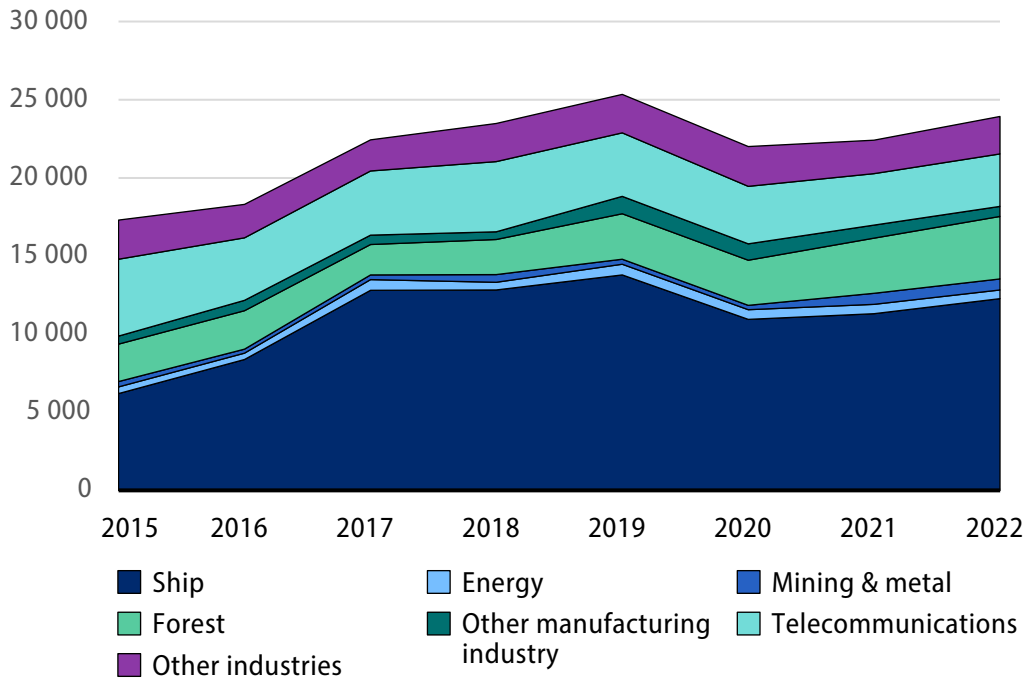
In particular, financing agreements have been concluded on ships ordered by shipping companies to be completed in the future, the guarantees and offers for which will only be drawn down over several years. Consequently, the amount of credit drawn down, which could result in credit losses, is less than the gross amount of the liabilities. At the end of 2022, the liabilities in accordance with the final central government accounts of export guarantees and special guarantees are 22.0 billion euros (2021: 19.5 billion euros), of which the amount of liabilities drawn according to Finnvera's financial statements was 14.1 billion euros (2021: 12.1 billion euros).

Risks

Finnvera complements the financial markets and takes larger credit risks than commercially operating providers of financing. The key export financing risk concerns credit risk, for which diversification of liabilities is relevant, i.e., the extent to which risks are concentrated in certain sectors, geographical areas and customers. The risks may also overlap, but more detailed information on their overlaps is not generally available.

Figures 22–24 show the concentration of export financing operations. Figure 22 shows an increase in the concentration of sectors in recent years. The maritime vessel and shipyard sector has grown considerably, which is illustrated by the increase in its proportion of total liabilities. In 2015, the maritime vessel sector still accounted for less than 36%, compared to around 51% at the end of 2022, taking reinsurance into account.

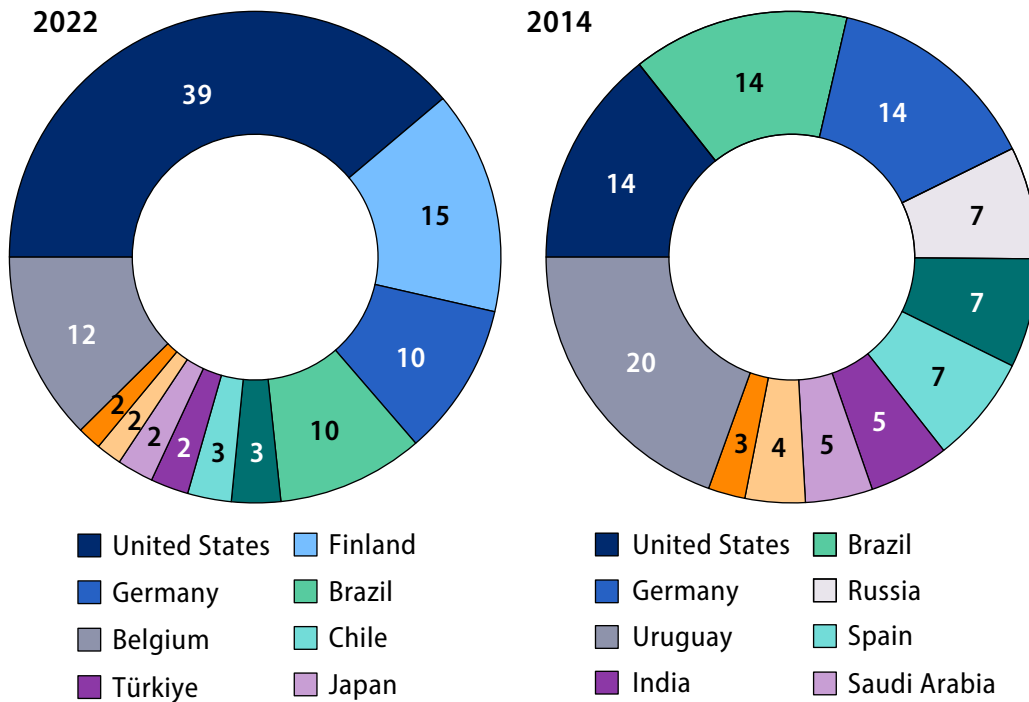
Figure 22. Sectoral distribution of export guarantees, EUR million



Source: Finnvera

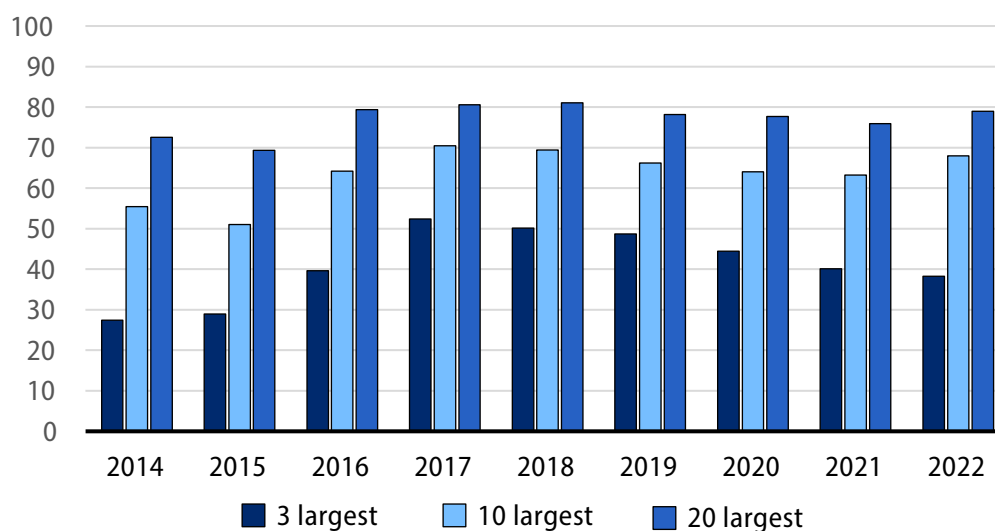
Figure 23 illustrates the regional distribution of exposures. In 2022, clearly the largest share of the export guarantee liability portfolio for export credit guarantees was allocated to the United States, which has increased from 14% in 2014 to 39% in 2022. During the corresponding period, the share of Russian liabilities has decreased from 7% to 2% at the end of 2022. In 2021 and 2022, the share of Russian liabilities decreased from 4% in 2021 to 2% in 2022. As a result of deliveries in the forest sector, Brazilian liabilities increased significantly from 4% to 10% between 2021 and 2022 (14% in 2014).

Figure 23. Export credit guarantees by country, %



Source: Finnvera

In addition, export credit guarantee exposures involve significant customer concentration risks, which is shown in figure 24. At the end of 2022, the three largest recipients of buyer financing accounted for 38% of the total export guarantee liabilities, the 10 largest ones accounted for 68%, while the top 20 accounted for 79%. The customer concentration risks have increased clearly compared to 2014, although since 2018 the trend has been decreasing and the proportion of the largest customers in the total liabilities of export credit guarantees has decreased until 2021. Compared to the previous year, an increase of a few percent in the liabilities for the 10 and 20 largest customers can be seen in 2022.

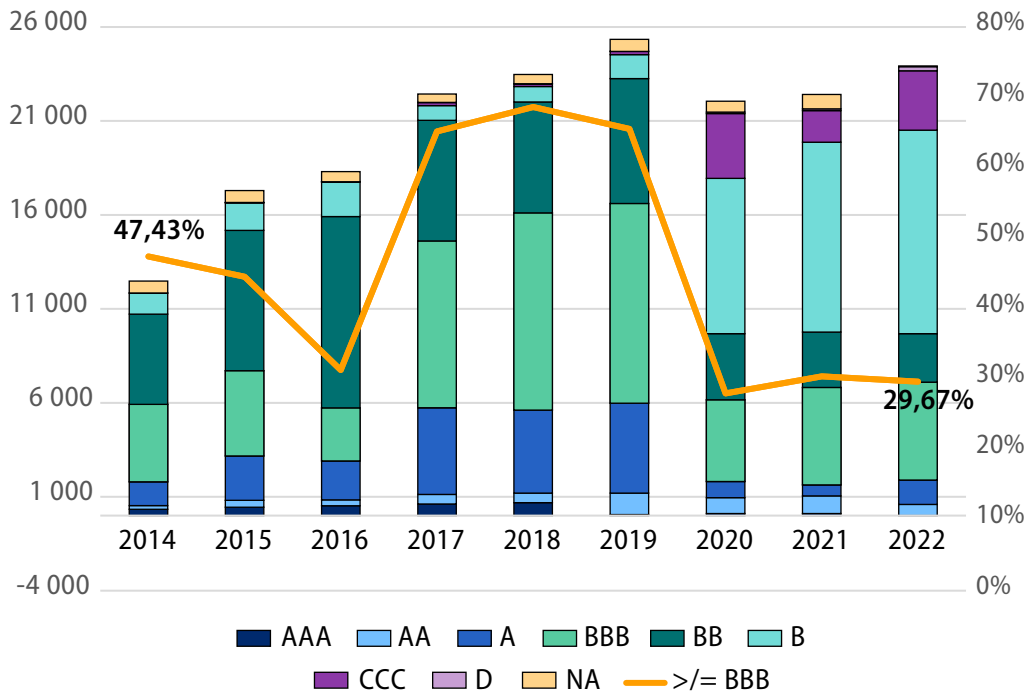
Figure 24. Customer concentrations of export credit guarantees, %

Source: Finnvera

Concentration risks expose export financing and risk management to non-systematic shocks. For example, over-capacity or a significant drop in demand in the shipping market may result in the realisation of large credit losses.

The risk exposure of the export credit guarantee liability portfolio is described with Finnvera's own risk categories, which consist of classes AAA–D, of which the AAA class describes the lowest risk and the D class the highest risk, in practice an insolvent customer. N/A includes liabilities without risk classification. Based on the distribution of risk classifications, the risk level of export credit guarantees has remained close to that of last year's in 2022, but the risk has increased from previous years. In 2018 and 2019, nearly 70% of the liability portfolio was included in the BBB category or above the so-called investment grade, but the figures for the early 2020s have decreased significantly, i.e., to around 30%. The change was mainly due to the weakened economic cycle of the shipping industry as a result of the COVID-19 pandemic. Figure 25 shows the change in the risk classification distribution of export credit guarantees between 2014 and 2022.

Figure 25. Risk classification distribution of export guarantees, EUR million



Source: Finnvera

In addition to credit risk, export financing is also associated with liquidity and market risks. In order to safeguard the competitiveness of Finnish export financing, Finnish Export Credit Ltd commits to the pre-agreed credit terms (including a fixed CIRR rate) as the financier of export over a long period of time, for which the necessary margin is added to cover risks and costs. The competitive situation may make it necessary to offer the customer options with respect to loan withdrawal, terms of interest or currency.

Fixed-rate export credits carry an interest rate risk, which is transferred to the central government by means of interest equalisation agreements. If the interest rate is set at a very low level in accordance with the OECD export credit agreement for competitiveness-related reasons, it may be impossible for central government to fully hedge against the interest rate risk without incurring losses, depending on the terms and conditions of the agreement and the market conditions. The current interest equalisation portfolio is mainly protected against changes in interest rates, but the exceptionally strong increase in market interest rates that began in 2022 has naturally weakened the result of the interest equalisation to some extent.

Sudden large claims for compensation related to export credit guarantee operations for liabilities not financed by the Finnvera group itself may lead to a large liquidity need. Simultaneously, market uncertainty may impair the availability of financing. With respect to these, Finnvera is prepared for liquidity risk primarily with sufficient liquidity position and terms and conditions of financing agreements and, secondarily, with contractual arrangements with the State Guarantee Fund and the Finnish state.

The COVID-19 pandemic has highlighted in concrete terms the risks associated with the centralised structure of Finnish export financing. The pandemic had a major impact on the cruise industry, in practice fully suspending cruise operations for a while and significantly weakening the sector's outlook for the near future. In accordance with the pandemic and the IFRS 9 standard, Finnvera recorded EUR 1.2 billion in credit loss provisions in export credit guarantee and special guarantee operations as a result of weakening risk ratings and macroeconomic forecasts in 2020.

The EUR 55 million result for 2022 and EUR 149 million result for January–June 2023 were particularly affected by changes in the provisions for credit and guarantee losses. EUR 150 million of COVID-19 loss provisions were cancelled in 2022 and another EUR 150 million in the second quarter of 2023, as the shipping companies' business outlook is expected to improve and, at the same time, reduce the credit risk of the liabilities. However, provisions for losses are still significant, and the recovery of the shipping industry and shipyard sector may slow down in the current cyclical environment, which may mean the final recognition of losses or an increase in provisions.

Russia's ongoing attack on Ukraine has also had a significant impact on the group's financial performance. Since the beginning of 2022 up to the end of June 2023, the total Russian liabilities have decreased from EUR 977 million to EUR 320 million as a result of early repayments and arrangements. Finnvera does not estimate that the credit risk and need for loss provision for Russian liabilities have decreased, and the loss provisions made in early 2022 have been kept at EUR 210 million.

Preparedness measures

Finnvera prepares for potential losses with the buffer funds for domestic financing and export credit guarantee and special guarantee operations, which totalled EUR 1.26 billion at the end of 2022. Of this, the share of free capital in domestic financing was EUR 374 million, and the share of non-restricted equity in export credit guarantee and special guarantee operations and the State Guarantee Fund was EUR 886 million. The corresponding buffers for June 2023 totalled EUR 1.40 billion, consisting of EUR 387 million of free equity in domestic financing and EUR 1.01 billion of free equity in export credit guarantee and special guarantee operations and the State Guarantee Fund.

Losses from export credit guarantee operations are primarily covered out of the reserve for export credit guarantee and special guarantee operations in Finnvera's balance sheet, which amounted to EUR 135 million at the end of 2022. Secondly, the losses are covered by the off-budget State Guarantee Fund, which was worth EUR 751 million at the end of 2022. If the two reserve funds turn out to be insufficient, Finnvera's export financing and domestic financing losses are covered from the state budget.

Risks associated with individual counterparties and concentrations are partially hedged against through reinsurance. At the end of 2022, the maximum amount of Finnvera's refinancing compensations in effect totalled about EUR 1.4 billion or on average 10% of the liabilities taken out.

The intention was to transfer Finnvera's supervision from the Ministry of Economic Affairs and Employment to the Financial Supervisory Authority as part of Finnvera's development project to support risk management. In autumn 2022, a government proposal was submitted to the parliament, the aim of which was to organise external supervision and increase the transparency of Finnvera-related liabilities and risks as part of the risk management of the entire state. The government proposal progressed to the Finance Committee, but the discussion remained unfinished as the government changed. However, it is planned that the supervisory task be transferred to the Financial Supervisory Authority.

Finnvera's goal is to be self-sustainable, which means that the company's operating income must over the long term cover its operating costs and its share of the credit and guarantee losses. The review period for the company's self-sustainability target is 10 years for domestic financing and 20 years for export financing. The self-sustainability targets have been achieved until 2019, but after the loss provision entries in 2020, the self-sustainability target for export financing has not been met. Self-sustainability of export credit guarantee and special guarantee operations was, however, reached cumulatively when taking into account funds in the State Guarantee Fund accumulated in the activities of Finnvera's predecessor organisations.

Unlike for domestic financing, there is no solvency requirement for Finnvera's export financing. Ultimately, the state of Finland is liable for the losses of export credit guarantee and special guarantee operations that cannot be covered by accumulated reserves. However, the Ministry of Economic Affairs and Employment monitors the development of the liability and risk position and buffer funds as well as the capital and solvency requirement. The credit risk is monitored using the expected shortfall method, which calculates the probability of loss at a confidence interval of 99.5%. The capital adequacy ratio of export financing (tier 1) has strengthened slightly since the credit loss provisions made in 2020 and, taking into account the assets of the fund for export credit guarantees and special guarantees and the State Guarantee Fund, was 3.2% at the end of 2022 (in 2020, the corresponding figure was 1.3%). At the end of 2022, the corresponding solvency of domestic operations was 25.7%.

5.1.2 National Housing Fund

Background

The central government currently has eleven off-budget funds, of which the State Housing Fund under the Ministry of the Environment accounts for the majority of the guarantee portfolio of the funds. The risks management and development of state-subsidised rental and right-of-occupancy housing financing are handled by the Housing Finance and Development Centre of Finland (ARA) and the State Treasury.

The guarantees held by the National Housing Fund comprise the state guarantees for loans granted to housing construction, renovation and housing purchases. Most of the loans granted to construction and renovation go to rental housing and right-of-occupancy corporations. The guarantee portfolio for private individuals comprises limited central government guarantees for housing loans granted by financial institutions. Contingent liabilities related to the operation of the

National Housing Fund include not only guarantees but also interest subsidies for subsidised loans for housing financing, in which the state pays the interest cost for a part exceeding a certain interest level. Most of the loans granted to corporations for housing construction and renovation and provided with a state deficiency guarantee are interest subsidy loans. The interest-subsidised loan for private individuals now mainly consists of ASP loans for first-time home buyers.

Grants for housing construction, housing stock, and economic promotion and restructuring of rental housing corporations are paid out by the National Housing Fund. In addition, guarantee payments based on guarantee liabilities and the expenses associated with securing loan receivables are paid from the assets, as are any interest subsidy payments. If necessary, the fund also uses its assets for its own loan amortisation and interest payments. The National Housing Fund does not currently have any debts.

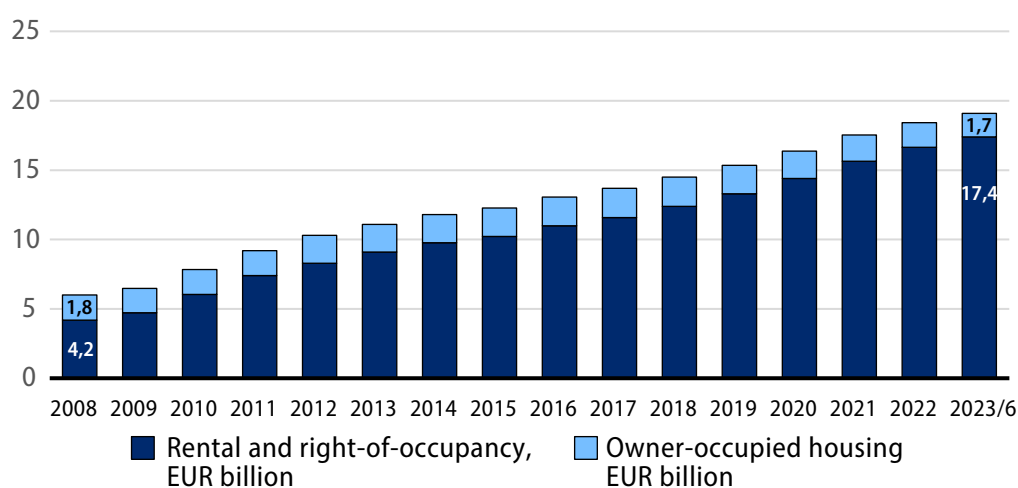
Long-term direct loans for housing financing (Arava) granted to rental housing and right-of-occupancy corporations before 2008 account for most of the receivables in the balance sheet of the National Housing Fund. The fund's revenue consists of direct loan repayments and interest, and various payments associated with government guarantees. No guarantee fees are charged for most of the housing loans. The amount of guarantee payments in 2022 was EUR 5.8 million (EUR 4.1 million in 2021). The loan portfolio for direct housing financing is decreasing, while the guarantee and interest subsidy loan portfolio is increasing.

Development of the guarantee portfolio

The housing financing guarantee portfolio has increased substantially over the past ten years, as indicated in figure 26. The guarantee portfolio totalled EUR 7.9 billion in 2010, and at the end of 2022, the guarantee portfolio had already increased to EUR 18.4 billion. Guarantees for corporate loans (rental and right-of-occupancy guarantees) accounted for EUR 16.6 billion of this total, and state guarantees for housing loans taken out by private households (owner-occupied) accounted for EUR 1.8 billion.

At the end of June 2023, the guarantee portfolio was EUR 19.1 billion. This year's growth was made up of corporate loan guarantees, which accounted for EUR 17.4 billion. Of this, the guarantee portfolio for right-of-occupancy housing corporations was EUR 4.4 billion. The proportion of financing for right-of-occupancy housing of the guarantees for corporate loans has increased from 15.5% in 2010 to 25% in June 2023. On the other hand, the number of mortgage guarantees for private individuals decreased slightly to EUR 1.7 billion at the end of June 2023.

Figure 26. Changes in housing loan guarantee portfolio, EUR billion

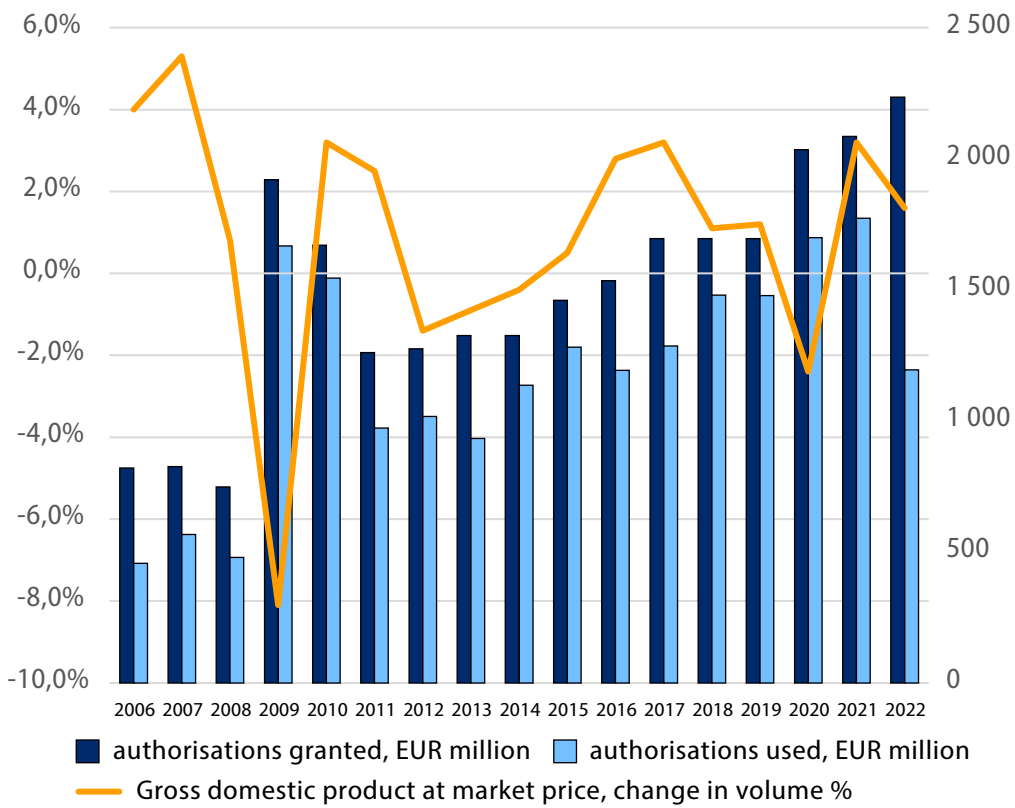


Source: State Treasury

The guarantee portfolio for housing financing has been increased by the discontinuation of direct state housing financing and a clear increase in the authorisation to grant interest subsidies and guarantee loans. In 2009 and 2010, the interest subsidy and guarantee loan authorisations for housing construction were at an exceptionally high level as a result of the financial crisis. Following this, the annual use of guarantee authorisations decreased through the 2010s, averaging EUR 1.2 billion per year. Since 2011, the trend in authorisations has been rising. The authorisation for 2022 was approximately EUR 2.2 billion, of which less than EUR 1.2 billion was used. The grant authorisation for 2023 is also approximately EUR 2.2 billion. Figure 27 illustrates how social housing production has been at a high level despite the cyclical situation. The government programme of 2023 contains an entry according to which interest subsidy and guarantee loan authorisations for state-subsidised housing production should be better scaled in line with the other economic situation in the construction sector, which means increasing the authorisation in a downturn and decreasing the authorisation in a high cycle or upturn.

Figure 27 shows how in 2022 the authorisations used are exceptionally low compared to the authorisations granted. The challenging cyclical situation in construction and the rise in construction costs and uncertainty about price development made it difficult to approve ARA projects. ARA rejected significantly more projects than in previous years: for example, the number of new-production housing loans decreased by 37% compared to the previous year. At the same time, the price of projects implemented increased by 7.4% in the Helsinki Metropolitan Area and by 9.5% elsewhere in Finland.

Figure 27. Authorisations granted and their use in different business cycles



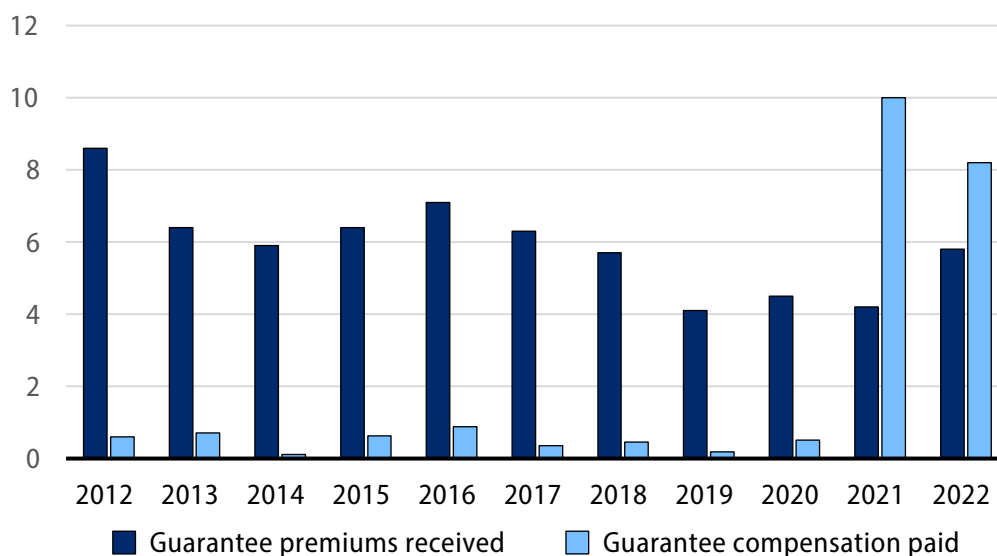
Source: Statistics Finland; VAR financial statements

Housing financing guarantees are deficiency guarantees. In case of insolvency, if the loan receivables cannot be covered by the realisation price of the collateral, the state will pay the financial institution a statutory guarantee compensation. As a rule, the deficiency guarantees for state housing financing construction involve intentional risk taking, because in housing construction loans, lending accounts for between 85% and 95% of the construction costs, the loan periods may be as long as 45 years, and often the amortisation plans are end-weighted. With such terms, market-based financing would only be available with additional guarantees.

EUR 7.8 million of guarantee compensations (EUR 9.0 million in 2021) were paid in 2022 in connection with corporate loans, while EUR 0.4 million (EUR 1.0 million in 2021) was paid in connection with private housing loans. The guarantee compensation paid on the basis of state guarantees related to housing loans for private persons was exceptionally high in 2021 due to the work of undoing application queues.

Figure 28 shows the development of guarantee premiums received and guarantee compensations paid between 2012 and 2022. The amount of guarantee compensation paid has increased significantly in 2021 and 2022 due to guarantees granted for corporate loans.

Figure 28. Guarantee premiums received and guarantee compensations paid in 2012–2022 (EUR million)

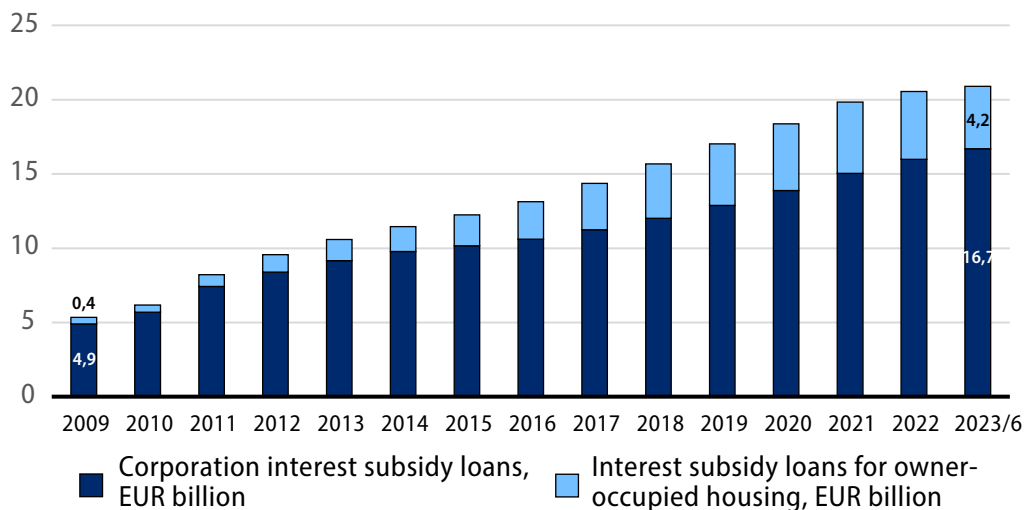


Source: Financial statements of the Housing Fund of Finland

Interest subsidy loans

Most of the state-subsidised financing for housing construction is interest-subsidised financing, in which the loan relationships are between the customers and financing institutions, and the state pays interest subsidies for the part exceeding the deductibility of the interest laid down in the law. Figure 29 shows how the loan portfolio for subsidised housing financing has increased since 2009. At the end of 2010, the loan portfolio was worth EUR 6.2 billion, and at the end of June 2023 it had already increased to EUR 20.9 billion. This means that the increase has been EUR 300 million since 2022.

Figure 29. Changes in interest subsidy housing loan portfolio, EUR billion



Source: State Treasury

In interest subsidy loans for housing financing, the rapid growth in previous years has been directed at ASP housing lending for private individuals. The loan portfolio increased from EUR 346 million at the end of 2010 to EUR 4.8 billion by the end of 2021, from which it decreased slightly to EUR 4.5 billion in 2022. The decrease is partly explained by one-off technical measures, in which expired loans erroneously remaining in the system have been terminated. In 2021, 35,850 new ASP accounts were opened, while in 2022 the number was decreasing, with 27,140 accounts opened. At the end of 2022, the total number of ASP savings accounts was 163,080.

In interest subsidy loans, the interest rate excess vary mainly between 1.0% and 3.8%, and interest subsidies are paid for periods ranging from 10 to 31 years. EUR 1.8 million of interest subsidy was paid out of the fund's assets 2022 (EUR 2.3 million in 2021). The estimated interest subsidy payments for 2023 are approximately EUR 87 million. Interest expenditure on the loan portfolio will increase as the banks adjust the reference rates, so changes in the general interest rate will be reflected in interest subsidy payments with a delay.

Credit losses related to subsidised loans have remained low in relation to the loan portfolio. However, as the loan portfolio increases and the growing mortgage-subsidised property portfolio reaches the renovation age, the credit loss risk is expected to increase in the future.

Increase in interest rates and interest rate risks in housing financing

Due to the long-standing low interest rates, interest subsidy payments for housing financing from the state to debtors have amounted to a few million euros a year in recent years. However, the substantial growth in interest-subsidised lending contains a potential interest rate risk for central government. Especially the general rise in interest rates and the low self-financing share of the interest rate paid in certain loan categories are increasing central government's interest rate subsidy costs.

In 2022, around EUR 1.2 billion of new interest-subsidised loans were approved, and the interest-subsidised loan portfolio in total, including interest-subsidised loans for corporations and owner-occupied housing, totalled EUR 20.9 billion at the end of June 2023. The interest-subsidy loan portfolio has grown by about EUR 1 billion per year over the past 10 years and is expected to continue growing.

In new, long-term interest-subsidy loans for rental housing, the deductible interest rate is 1.7% for all loans approved by the end of 2023. The deductible interest rate for right-of-occupancy loans and loans for short-term interest subsidies is 2.5%, and 3.8% for ASP and other interest-subsidy loans for owner-occupied housing. The lowered deductible interest rate (2.5% or less) covers slightly less than half of the subsidised loan portfolio. As of January 2024, new long-term interest subsidy loans will be granted

with a deductible interest of 2.3%, which will be valid throughout the loan period. In the current model, the interest subsidy is valid for 10–30 years depending on the product.

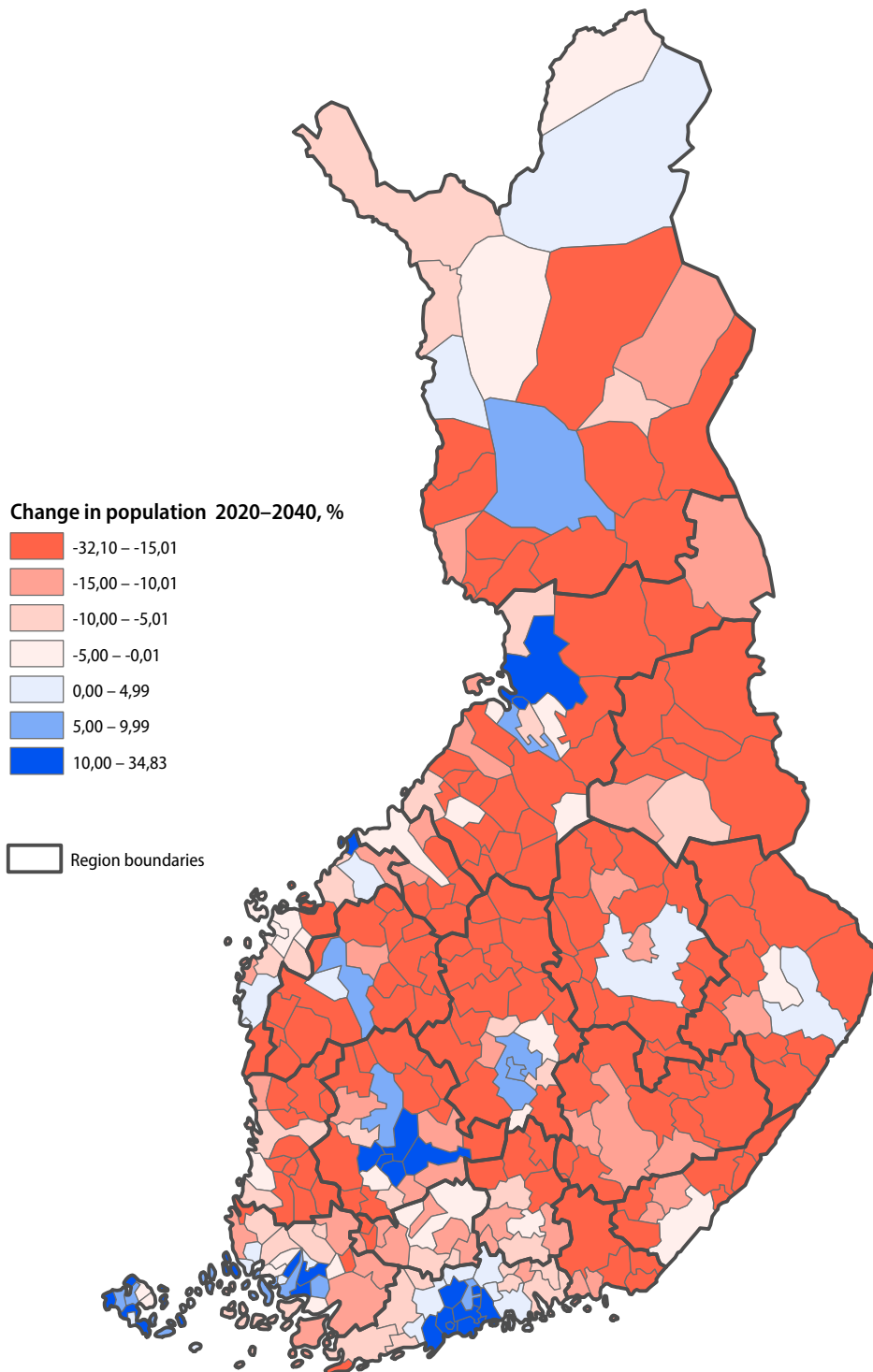
Low deductible interest will increase the state's interest subsidy costs as the interest rates increase. There is a risk that some rental housing companies will experience problems with the deductible interest in the current interest environment despite their low level. This may contribute to additional costs for the state.

68.2% of the interest subsidy loan portfolio is tied to Euribor interest rates, which have clearly increased over the past year. At the end of October 2023, the 6-month Euribor rate was 4.09%, and 38.1% of the loans were tied to it. At the end of October, the 12-month Euribor rate was 4.05%, and 28.6% of the loans were tied to it. 1.5% of the loans had been connected to the 3-month Euribor. The effect of Euribor interest rates will be shifted to the loan portfolio as MFIs carry out reference rate adjustments on loans. As a result, the average interest rate at the beginning of 2022 was only 0.95% (0.43% in 2021).

Regional and concentration risks

Shown in figure 30, the population projection prepared in 2021 indicates that besides the Helsinki region, population growth will be concentrated in a handful of regional centres. Since population in growth centre areas is partly also clustered around the actual centres, any examination based on municipal boundaries does not give an entirely reliable picture of, for example, development in periphery areas merged with growing regional centres.

Figure 30. Projected population change from 2020 to 2040 by municipality



Source: Statistics Finland: Population Structure 2020, Population Projection 2021, Division of municipalities and regions in 2021

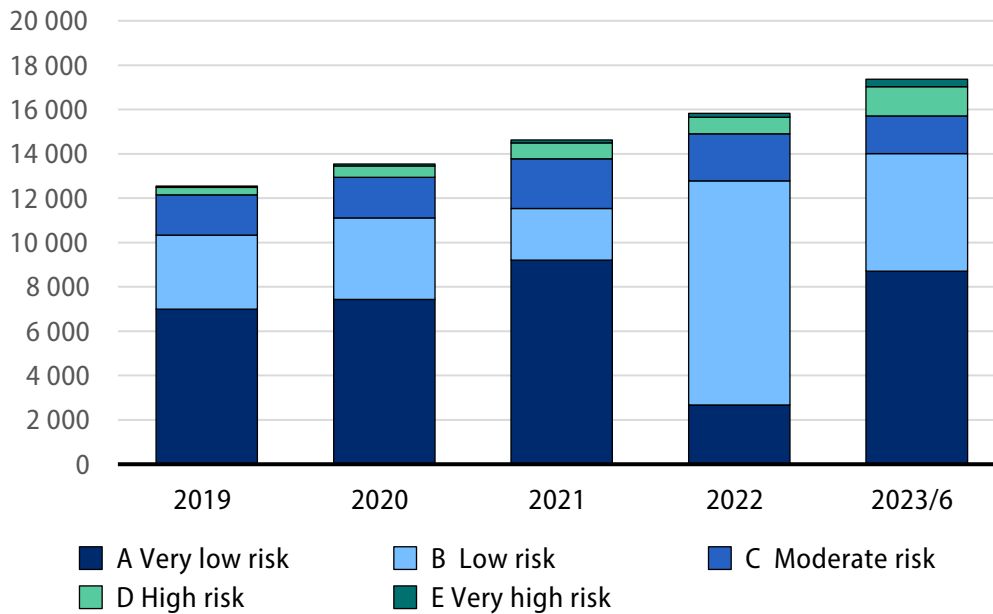
The concentration of population has been an ongoing trend in Finland for many years, and it has been reflected in the declining occupancy rates and payment problems of rental housing corporations, especially in sparsely populated areas, small rural municipalities and minor industrial towns. Ukrainian refugees have slightly increased the demand for rental housing and their utilisation rates in recent years: in 2022, the utilisation rate was 91.1%, compared with 89.3% a year earlier. In March 2023, there were 5,950 ARA flats empty for two months throughout the country, compared to 7,800 a year earlier, which means that similar developments have continued in 2023. 95% of the ARA flats used by Ukrainians were rented indirectly to reception centres or service providers and 5% directly to residents. However, the effect is estimated to be only temporary.

The pandemic increased the possibility of remote work and interest in areas outside growth centres. At this stage, it is difficult to assess how increased new forms of work, such as remote work, will affect migration and housing market developments and regional risks in the future.

Areas affected by depopulation where rental housing corporations struggle financially due to declining occupancy rates constitute a growing credit risk in housing financing. Direct loans granted to the high-risk areas totalled about EUR 0.64 billion in June 2023, while the guarantee portfolio for these areas amounted to about EUR 3.4 billion. This accounts for about 20.4% of the EUR 19.6 billion liability portfolio for the financing of rental housing and right-of-occupancy corporations. The liabilities of high-risk areas decreased by EUR 0.1 billion between 2021 and 2022, while the liabilities of high-risk areas increased by EUR 0.2 billion from the end of 2022 until June 2023.

Efforts have been made to reduce regional risks through the risk classification of municipalities. The risk categories divide municipalities into categories A–E, of which A is a very low risk category and E is a very high risk category. The intention is that new subsidised loans and state-guaranteed loans granted to corporations will only be granted to low-risk municipalities. In fact, the new subsidised loans have mainly been targeted according to the target. Similarly, the majority of state-guaranteed loans granted to corporations are in low or very low-risk municipal risk categories. Figure 31 illustrates the annual change in guarantee liabilities granted to corporations when examining the risk categories of municipalities. The number of guarantee liabilities is increasing in municipalities of high and very high risk category. As a result of the change in the risk rating in Helsinki, most of the guarantee liabilities of organisations have moved from category B to category A after the momentary lowering during the COVID-19 period.

Figure 31. Change in guarantee liabilities of organisations by municipal risk classification, EUR million



Source: State Treasury

In recent years, the importance of preventive plans and measures has also been emphasised at the municipal and corporate level, to ensure that actors take regional population developments into account in the planning of housing stock. In the risk management of social housing financing, it is possible to use the economic reorganisation measures for rental housing corporations laid down in special acts.²⁰ The purpose of the measures is to minimise the credit losses incurred by the state and to ensure the controlled continuation of the activities of rental housing corporations assessed as viable.

However, most of the reorganisation measures, with the exception of the reorganisation grant, are only suitable for direct lending, which is problematic from the perspective of central government risk management. In financing provided through the guarantee liability, the debt relationship is between the financial institution and the rental housing company, and in that case the state cannot participate in debt-related arrangements, despite the fact that the state bears the risk of credit losses.

²⁰ The most important remissions measures include changes to the loan terms, limitation and cancellation compositions, as well as reorganisation and demolition grants, which are described in more detail in chapter 3.4.

For a long time, the credit and collateral risks have, as a rule, concerned direct lending in housing financing, in other words the Arava loan portfolio, and only a small number of compensation claims concerning guarantees for corporate loans have been received. The risks associated with these guarantee liabilities are increasing, however, and in the future the realisation of credit losses can also be anticipated in the portfolio of government guaranteed loans. In addition to the occupancy rate gaps in properties, the risk is also increased by the fact that housing loans come with tail-end payment arrangements and the largest repayments take place at a time when the buildings are often in need of renovation. Furthermore, the collateral and market values of properties located outside growth centres have also declined, and this development can be assessed to continue, which means that in insolvencies, the collateral does not necessarily provide adequate cover for loan repayment.

The operations of the Housing Fund of Finland are also associated with concentration risks. At the end of June 2023, the three largest clients covered 24.3% of the exposure in the loan and guarantee portfolio of the housing fund (2022: 27.1%), the largest 10 covered 42.1% (46.2%) and the largest 20 covered 50.5% (55.9%).²¹

The financing of right-of-occupancy housing includes special risks arising from restrictions. The restrictions apply to the residential building, the shares of the company owning the building and the Arava-financed residential dwelling and the shares entitling to its management. Permanent restrictions pose collateral challenges, which make it more difficult to take out renovation loans and to realise the properties.²² According to a government programme entry published in June 2023, subsidies for new right-of-occupancy housing will no longer be granted.²³

21 The percentage of customer concentrations has been calculated from the combined loan and guarantee portfolio of rental housing and right-of-occupancy corporations. This total amounted to EUR 22.3 billion on 30 June 2023.

22 At the end of 2020, the government proposal for a new act on right-of-occupancy dwellings included a proposal on the possibility of granting exemptions from restrictions on use and handover under certain conditions, but the proposed changes were rejected in parliamentary discussions due to the statement of the constitutional committee.

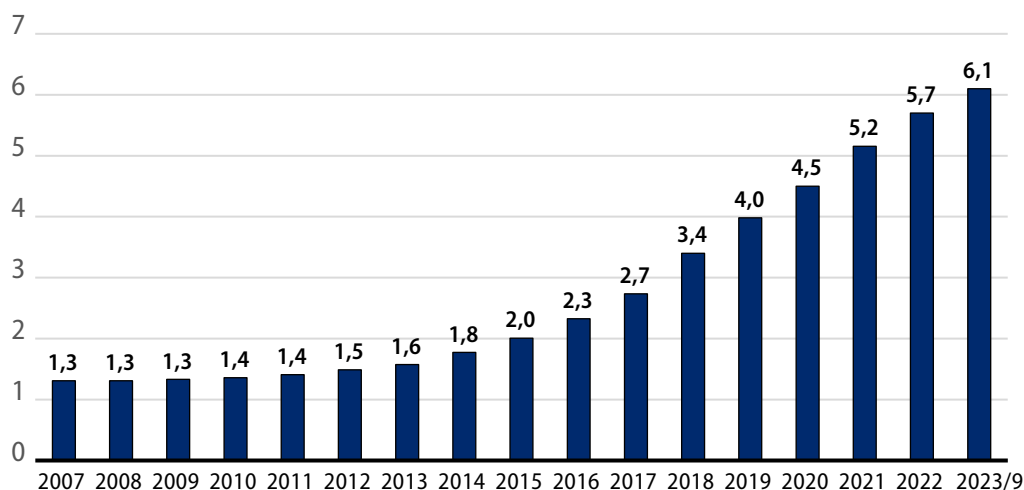
23 A strong and committed Finland – government vision (20 June 2023)

5.1.3 Student loans

The state-guaranteed student loan portfolio has grown in recent years, which is shown in figure 32. This development has been influenced by the 2017 reform of student financial aid, after which the loan portfolio has more than doubled. The popularity has been increased by the introduced student loan compensation for those who have graduated within the deadline and the increase in the amount of state guarantees. At the end of 2022, the loan portfolio amounted already to EUR 5.7 billion, compared with EUR 1.4 billion at the beginning of the 2010s. During 2023, the portfolio has continued to grow, reaching EUR 6.1 billion at the end of September.

At the beginning of November 2023, the government proposed new increases in the amount of the state guarantee for student loans, which will contribute to the strong growth of the guarantee portfolio. The proposal will be discussed in connection with the supplementary budget proposal for 2024.

Figure 32. Development of state guarantees for student loans, EUR billion



Source: Kela

By the end of 2022, the growth in the student loan portfolio has not been reflected in a significant increase in the guarantee liabilities of student loans in debt recovery. In 2022, the guarantee receivables totalled about EUR 126 million, whereas in 2016, for example, the corresponding figure was EUR 131.7 million. However, the receivables have been on the rise, with an increase of EUR 5.4 million in 2021 compared to the previous year, and an increase of EUR 4 million in 2022.

Yet, based on the guarantee liability, the amount of loans paid to banks has increased significantly during 2023. Prior to that, guarantee payments have steadily increased by some millions of euros per year. In 2020, the amount was EUR 24.9 million, compared with an increase to EUR 27.6 million in 2021, and to EUR 31.4 million by 2022. In 2023, the guarantee liability payments are expected to be approximately EUR 80 million, which means an increase of 155% from the preceding year.

The annual recovery revenue in 2022 was EUR 17.2 million, and the recovery was subject to exemptions and depreciation of approximately EUR 13.8 million.

At the end of 2022, a total of 533,400 persons had a student loan, and the average loan amount was EUR 10,677. Both the number of student debtors and the amount of the average student loan have increased since last year, when the number of debtors was 511,932 and the average loan was EUR 10,070.

The change in the interest environment is reflected in the rise in student loans' interest rates. In April 2022, the average interest rate on student loans was 0.27%, whereas in April 2023 the average interest rate was already 2.87%. Banks capitalise student loan interest rates, which increases the total amount of student loan. As a result of the increase in interest rates, a student's loan capital may increase by thousands of euros²⁴. In addition, in connection with the repayment of the loan, interest becomes normally payable, which may cause payment problems for some debtors.

A person with a low income can apply for an interest subsidy from Kela after graduation, in which case Kela will pay the student loan interest in full. In 2021, the number of recipients was 656 and EUR 60,194 was paid as benefits, while in 2022, the number of recipients was 1045 and EUR 126,473 was paid. According to the statistics reported by Kela for each academic year (2022–2023), the number of recipients of interest subsidy increased eightfold from the previous semester as a result of an increase in general interest rates and an increase in debt amounts, to a total of 4,610 persons. During the academic year 2022–2023, the amount of interest subsidies paid also increased 20-fold from EUR 55,000 to EUR 1.17 million. Increases in interest subsidies indirectly increase central government expenditure.

24 A written question (KK 741/2022 vp) related to an interest cap for the student loan and the amounts of the student loan was submitted to the parliament. The response (KKV 741/2022 vp) did not directly comment on an interest cap, but focused on measures to increase the security of student loans.

5.1.4 Bank of Finland

The state guarantees granted to the Bank of Finland by the Government are part of the financial arrangements of the International Monetary Fund (IMF). According to section 7 of the Act on the Bank of Finland (214/1998), the Bank of Finland must have sufficient credit guarantees.

The financial guarantee liabilities of the IMF consist of the IMF membership, the NAB²⁵ facility, the bilateral loan and the state guarantee for the benefit of the PRGT fund²⁶, which amounted to EUR 7.5 billion at the end of 2022. This amount increased slightly from EUR 7.4 billion in the previous year due to the EUR/SDR exchange rate. At the end of June 2023, the total amount of guarantees was EUR 7.7 billion. The amount increased with the entry into force of the new PRGT loan agreement.

Approximately EUR 774 million of the funding granted by Finland to the IMF was in use at the end of 2021 and about EUR 843 million at the end of 2022. At the end of June 2023, approximately EUR 885 million was in use. No guarantee fees have been charged for the Bank of Finland's state guarantees.

Government guarantees associated with the member's quota and the NAB arrangement are given in the IMF's accounting currency, SDR (special drawing right). Compensations to the Bank of Finland on the basis of the government guarantee would be paid in euros. Consequently, the euro-denominated value of the guarantee depends on the EUR/SDR exchange rate effective at the time.

The latest state guarantee granted relates to the loan agreement between the Bank of Finland and the IMF for the benefit of the PRGT fund, the maximum amount of which is 300 million SDRs and the maximum amount of the state guarantee granted is EUR 400 million. The loan may be drawn in batches, and the euro-to-SDR rate for each batch is determined by the date of drawdown. If the euro/SDR rate changes and SDR 300 million exceeds the authorisation granted by the parliament for the state guarantee of EUR 400 million, the Bank of Finland bears the risk for the part exceeding the maximum risk limit.

25 New Arrangements to Borrow

26 The PRGT loan agreement between the Bank of Finland and the IMF of up to 300 million SDRs entered into force on 29 March 2023. On 2 March 2023, the government decided to grant a state guarantee of up to EUR 400 million to secure a loan in favour of the Poverty Reduction and Growth Trust (PRGT).

The IMF financing involves, first and foremost, credit risks associated with the beneficiary countries' solvency. To limit these credit risks, debt sustainability analyses are carried out before any financing is granted, various economic policy conditions are imposed on lending, and financing is offered in tranches, with disbursement tied to the implementation of an adjustment programme. The status of IMF as a preferred creditor also reduces the credit risk associated with the financing granted by the institutions. During its history, the IMF has resorted to debt write-downs, mainly in the poorest member countries, as part of more extensive debt relief programmes.

5.1.5 Other guarantees

In 2022, the Russian attack on Ukraine caused an exceptionally strong increase in energy prices during the autumn. The strong rise in prices resulted in a strong increase in collateral requirements and a liquidity crisis for companies trading in electricity derivatives. In order to safeguard the functioning of the electricity market, the Ministry of Finance proposed a support programme to safeguard the liquidity needs of electricity producers critical to the functioning of society. The loan and guarantee programme for energy companies amounts to EUR 10 billion and is valid until the end of 2023. So far, no aid has been granted to companies under the programme.

The Ministry of Economic Affairs and Employment prepared a government proposal aiming to support consumers in the challenging economic situation caused by exceptionally high electricity prices and to support the ability of consumers and other customers of electricity retailers to pay electricity bills. As part of the proposal, electricity companies were obliged to grant extensions to the payment periods of electricity bills to end customers. In order to safeguard the liquidity of electricity companies, the state undertook to grant guarantees to electricity companies.²⁷ The maximum amount of state guarantees granted was EUR 600 million. No guarantee was granted from the programme by the deadline.

²⁷ Act on the extension of the payment period of electrical energy invoices and temporary support for the liquidity of electricity companies (276/2023)

The COVID-19 pandemic has contributed to increasing the state's guarantee liabilities. In April 2020, a guarantee programme for shipping companies critical to security of supply, worth a maximum of EUR 600 million, was approved as part of the second supplementary budget. Under the shipowners' guarantee programme, guarantees were granted to three shipping companies for a total amount of EUR 139.5 million under the authorisation valid until the end of 2020. At the end of 2022, the guarantee was valid for only one shipping company, and its amount at the end of the year was EUR 84 million and EUR 73 million at the end of June 2023. Since the easing of the problems caused by the pandemic, the guarantee liabilities related to shipowners' guarantees have decreased faster than estimated.

Due to the exceptional situation caused by the COVID-19 pandemic, in March 2020, the parliament granted a guarantee authorisation of up to EUR 600 million to secure a Finnair Oyj loan. The government approved a EUR 540 million state guarantee for a Finnair loan in May 2020. The Russian invasion of Ukraine and the airspace lockdown had a negative impact on Finnair's business and, as a result, the guarantee was extended in December 2022 until 2026 at the latest (the initial guarantee was valid until June 2023). The effective amount of the guarantee was EUR 450 million at the end of June 2023. Guarantee fees have been charged for the shipping company guarantees and the Finnair guarantee.

The maximum authorisation for the COVID-19 vaccine guarantee under the responsibilities related to the COVID-19 crisis is EUR 300 million. The guarantee amount in effect was EUR 29 million at the end of 2022 and EUR 29 million at the end of June 2023.

The state has also accrued new guarantee liabilities related to the COVID-19 pandemic through crisis management instruments established under the EU framework. EU responsibilities are discussed separately in chapter 6.

5.2 Callable capital

Callable capital refers to capital payable to international financial institutions (IFIs) in the event that capital is required to cover losses or to prevent their insolvency. By far the most significant callable capital is to do with the European Stability Mechanism (ESM). Finland's share of the callable ESM capital is EUR 11.12 billion. The ESM and Finland's other responsibilities associated with the EU are described in more detail in chapter 6.

Table 2. Government callable capital, EUR billion

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Asian Development Bank (AsDB)*	0.41	0.40	0.38	0.41	0.44	0.44	0.49	0.42	0.42	0.40	0.42	0.43
African Development Bank (AfDB)*	0.35	0.35	0.33	0.35	0.38	0.38	0.35	0.36	0.36	0.78	0.82	0.83
Inter-American Development Bank (IDB)**	0.12	0.13	0.14	0.18	0.22	0.25	0.22	0.23	0.23	0.22	0.23	0.25
European Bank for Reconstruction and Development (EBRD)	0.30	0.30	0.30	0.30	0.18	0.30	0.30	0.30	0.3	0.30	0.30	0.3
World Bank Group (WBG) ^{1**}	0.76	0.79	0.87	0.97	1.15	1.29	1.09	1.13	1.2	1.07	1.21	1.30
European Investment Bank (EIB)	2.82	2.82	2.82	2.82	3.10	3.10	3.10	3.10	3.1	3.10	3.69	3.36
Council of Europe Development Bank (CEB)	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06
Nordic Investment Bank (NIB)	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.33	1.33	1.33
European Stability Mechanism (ESM)	0.00	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.14	11.12	11.12
Total	5.83	17.00	17.05	17.24	17.69	17.98	17.77	17.76	17.83	18.41	19.19	18.99

* Capital is expressed in SDR (**USD) converted into euros using the last exchange rate of the year.

*** Includes the International Bank for Reconstruction and Development (IBRD), the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA).

Sources: Financial statements, Ministry of Finance, Ministry for Foreign Affairs

5.3 Other contingent contractual liabilities

In the EU, greenhouse gas emissions are divided into emissions from the emissions trading sector, the effort sharing sector, the land use sector (LULUCF) and international aviation and maritime transport. Of these, the state is responsible for achieving the emissions targets of the so-called effort sharing sector outside the emissions trading system and the land use sector (LULUCF). Other contingent contractual liabilities also include nuclear liability, i.e., liability for damage caused to third parties from radiation damage caused by a nuclear event.

Effort sharing sector liabilities

Under the EU climate law adopted in 2021, the EU must reduce its net greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. The Effort Sharing Regulation (2023/857) included in the European Commission's Fit for 55 package sets emission reduction obligations in the effort sharing sector and divides them into member-state-specific obligations. The most significant sources of emissions in the effort sharing sector are transport and agriculture, individual heating of buildings, machinery, waste treatment and F-gases. In the Effort Sharing Regulation, which was revised in 2023, the obligation to reduce greenhouse gas emissions in the Finnish effort sharing sector has been agreed to be 50% of the 2005 level by 2030, instead of 39% by 2030.

Fulfilling the new emission reduction obligation in the effort sharing sector requires additional measures from Finland. The new medium-term national climate policy plan for 2030, published in June 2022, outlines additional measures that, according to scenario impact assessments, would be sufficient to meet the new 50% obligation. However, impact assessments involve uncertainty related to the operating environment and policy measures. If the development of emissions levels were less favourable than expected in the 2020s, as a result of stronger-than-predicted economic growth, for example, central government would be forced to adopt new actions aiming to cut emissions.

In order to meet the 2030 obligation of the effort sharing sector, the medium-term national climate policy plan also requires the use of so-called flexibility mechanisms. These mechanisms allow a limited transfer of allowances or surplus units in the emissions trading sector to the effort sharing sector in order to meet its obligation.

The government has already made a decision on the full use of the aforementioned one-off flexibility mechanism for the benefit of the effort sharing sector (the maximum amount of flexibility is 2% of the Finnish effort sharing sector emissions in 2005). On the other hand, recent changes in the net sink of the Finnish land use sector have increased uncertainty as to whether the land use sector constitutes LULUCF for the effort sharing sector, i.e., surplus units of the land use sector, which could be used to meet the obligation of the effort sharing sector in 2026–2030, as assumed in the medium-term climate plan. According to the latest projections for the Finnish land use sector, the situation seems to be that a significant deficit is created in the land use sector during its obligation period 2021–2025, which, without further measures in the land use sector, would need to be covered in the effort sharing sector according to the EU's LULUCF regulation rules. The uncertainty about the usability of LULUCF flexibility in 2026–2030 has also increased. Combined with the already strict obligation of the effort sharing sector, these increased risks from the LULUCF sector for the effort sharing sector would, according to the 2023 annual climate report, mean that the deficit would probably not be covered by additional policy measures in the effort sharing sector. Instead, the Finnish state should procure surplus units in the effort sharing sector from other member states. There is no information at this stage on the availability and price of these units.

The liabilities of the effort sharing sector also involve the risk of legal consequences. If Finland does not make progress towards achieving the 2030 EU emission reduction obligation in its effort sharing sector, the European Commission could launch a sanctions procedure against the Finnish state. The Commission could refer the matter to the EU Court of Justice, which, in turn, could impose financial sanctions on Finland. The probability, form, schedule and possible economic and other ramifications of the sanctions procedure are unknown, due to the lack of prior experience of the procedure. The same applies to the corresponding sanctioning procedure in the LULUCF sector. However, in both cases, the possible burden of financial sanctions would be more widely reflected in the rest of the economy as central government expenditure increases.

Liabilities in the land use sector

In addition to the obligation of the effort sharing sector, the state will be responsible for meeting the emissions obligation of the land use sector (LULUCF sector) in the period 2021–2030. The period is divided into two commitment periods, 2021–2025 and 2026–2030. With regard to the LULUCF sector, Finland is committed to keeping the computational greenhouse gas removals at least at the computational emission level in the period 2021–2025 and, in accordance with the revised LULUCF Regulation ((EU) 839/2023) adopted in March 2023, to significantly increase the net sink of the land use sector in the period 2026–2030. If the LULUCF sector were to become a computational net source of emissions in the period 2021–2025, the computational emissions of the Finnish LULUCF sector could have to be covered by additional emission reductions in the effort sharing sector. Another option would be for the Finnish state to purchase land use sector units from other member states.

Based on the scenario calculations for the land use sector, Finland will not meet the LULUCF emissions reduction obligation for the period 2021–2025 without additional measures in the land use sector or purchases of sink units from other member states. According to an estimate prepared by Natural Resources Institute Finland in autumn 2023, the Finnish land use sector would have a deficit of 10–40 Mt CO₂ eq. without additional measures in the commitment period 2021–2025. This latest estimate takes into account the technical correction to the forest reference level calculation applied in the LULUCF obligation calculation. However, this correction must still be approved by the commission. There is no quantitative assessment of the progress made with the LULUCF obligation in 2026–2030.

Achieving the LULUCF obligations for the period 2021–2025 and 2026–2030 involves both significant uncertainties and financial risks. The uncertainties in the actual development of the Finnish LULUCF sector are high, and the deficit estimate will in any case be specified further in the coming years. The final result for the 2021–2025 obligation will be clear at the end of 2027, when the greenhouse gas inventory data for all years of the 2021–2025 period are available and the European Commission has assessed whether the member states have fulfilled their obligations on the basis of compliance reports submitted by EU member states. The result of the latter commitment period, on the other hand, will be known in 2032.

In the final report of the working group led by the Ministry of Agriculture and Forestry, the deficit estimate for the period 2021–2025 (50–80 Mt CO₂ eq.) before the technical correction of the forest benchmark was considered to be so great that the costs incurred by the Finnish economy to cover the deficit could reach billions of euros. In this context, the report presented an illustrative pressure calculation of the economic impacts, prepared by the Ministry of Finance, in a situation where the deficit would be covered solely by policy measures targeted at forestry in 2024 and 2025, in practice by limiting felling. According to the calculation, limiting felling by a third in 2024 and 2025 could reduce Finland's GDP annually by roughly 0.6% to 2.1%, depending on the assumptions used.

In the final report of the working group, a policy option more promising than robust and urgent national policy measures from the perspective of financial costs in order to cover the deficit in 2021–2025 was considered to be the acquisition of sink units from other EU member states, although there are significant uncertainties related to their price. If the entire EU land use sector in the period 2021–2025 were to show a computational surplus, the supply of sink units at EU level would exceed demand, which could result in a very low price of sink units in trade between member states. In this case, the cost of covering the deficit before the update of the forest reference level would, in the best case, be well below the billion-euro level. On the other hand, if the EU had a computational deficit in the period 2021–2025, the demand for sink units at the EU level would exceed supply and the purchase price could become high, with Finland competing with other deficit countries for surplus units.

If the LULUCF obligation for the period 2021–2025 were to remain in deficit in the land use sector even after the additional measures taken and the purchases of the sink units, this remaining shortfall would become an additional burden for the effort sharing sector and thus would not pose a risk of sanctioning with respect to the 2021–2025 LULUCF obligation. However, the risk of a sanction procedure is present for the LULUCF obligation for the 2026–2030 period, because, unlike in the previous period, any deficit will no longer be transferred to the effort sharing sector. In contrast, the progress and outcome of the 2026–2030 period will be assessed directly against Finland's 2030 net sink obligation set out in the revised LULUCF regulation.

On the estimated impacts of climate risks on general government finances and economic growth

The risks to public finances caused by climate change can be divided into physical risks, transition risks and risks to social stability. Physical risks include construction damage caused by drought or heavy rainfall. Transition risks are risks related to the implementation of the green transition, stemming from a change in the operating environment and manifested as regulatory, technological, market and reputational factors among economic operators. Extreme weather phenomena, such as rising sea levels or severe droughts, may, on the other hand, cause global social instability, which could be reflected in Finland as migration movements and as political and economic uncertainty caused by international conflicts. Assessing the economic impacts of climate change and the green transition on public finances is challenging due to major uncertainties. In the next few decades, however, the impacts of the green transition will probably be a more significant factor for the Finnish economy than the impacts of climate change itself.

The investment needs required by the green transition and the capital damage caused by climate change will, above all, be borne by the private sector, where production capital is mainly located. In the short term, pursuing carbon neutrality requires large investments in less efficient green production capital, which slows down economic growth and may have a negative impact on the general government budgetary position. At the same time, however, investments in green production technologies and improving their productivity are essential to safeguard long-term economic growth factors.

Supporting investments in the green transition with public debt can be attractive in the short term, but this would create additional pressure on already imbalanced central government finances and further increase central government debt management costs. The growth of the costs of the green transition can be curbed by policy measures that encourage private sector economic operators to reduce their emissions in a cost-effective manner by means of regulation and instruments that bring revenue to public finances, which may lead to lower realised costs of the transition. Emissions trading and taxation, among other things, are examples of ways to encourage the development of green technology and reduce the negative external impacts of emissions.

The impacts of climate change on Finland's general government finances have been estimated to be small in international comparisons. However, one significant channel of impact of climate change on public finances may be changes in the tax base, but they are expected to be slow. As a result of the green transition, Finland's current energy tax base, which focuses on fossil fuels, will decrease, and compensatory tax targets, tax increases or other means of balancing public finances should be sought.

Even if the direct physical consequences of climate change would have a lesser impact on the Finnish economy and public finances than in most other countries, these negative effects can be expected to accelerate if the temperature increase cannot be halted. It is difficult to predict the effect of direct climate impacts, such as extreme weather phenomena or damage caused by heat waves, on public expenditure. This increases uncertainty about the impacts of climate change and, on the other hand, emphasises the need to prepare for and adapt to the impacts of climate change. In addition, global impacts may be reflected in Finland in many indirect ways, for example through global flows of goods, energy, money and people. From the perspective of public finances, climate change could weaken the state's creditworthiness, increase economic instability and cause higher public expenditure.

Nuclear liability

Another contingent contractual liability that is legally binding on the central government concerns nuclear liability as set out in the Nuclear Liability Act (484/1972). Nuclear liability refers to the liability of the operator of a nuclear installation for damage to a third party by radiation resulting from a nuclear incident. The liability of an operator of a nuclear installation situated in Finland in respect of nuclear damage caused and suffered in Finland is unlimited. The Nuclear Liability Act is based on international conventions amended by protocols in 2004. The protocols and the resulting amendments to the Nuclear Liability Act entered into force at the beginning of 2022. The relevant government proposal for amending the Nuclear Liability Act was submitted to the parliament in September 2021. The legislative amendments increased the liability of operators of nuclear installations used in energy production for damage caused and suffered outside Finland from EUR 700 million to EUR 1.2 billion.

The maximum amount of transport liabilities and non-energy plants was set at EUR 80–250 million. In addition, in line with the government proposal, provisions were laid down concerning a special insurance guarantee which the Government could, if the conditions laid down in the provisions are met, grant to cover such personal injury that presents more than 10 years but no more than 30 years after a nuclear incident.

In accordance with the Nuclear Liability Act, the Finnish state is secondarily liable for nuclear damage if the injured party does not receive compensation for the insurance of the holder of the nuclear facility. Increasing the liability amounts of operators of nuclear installations used for energy production will reduce central government's share of liability as the operator's liability increases.

5.4 Implicit liabilities of the banking sector

Prudential and crisis resolution legislation imposes minimum obligations for banks. By fulfilling these obligations, banks are expected to either be able to continue their operations also through difficult circumstances in their operating environment or, if this is not possible for an individual credit institution, the continuation of society's critical functions could be ensured by employing an orderly crisis resolution procedure. Deposit guarantee legislation in turn safeguards enterprise and household access to deposits up to a specific limit in case of bank insolvency issues.

Central government has no statutory obligation to guarantee the continuity of banks' operations or their liabilities held by their creditors. The history of banking crises both in Finland and Europe has shown, however, that the direct and indirect societal costs of severe banking crises are, or they are considered to be, so high that the public sector has been forced to take support measures to ensure the continuity of financial services essential to society. In particular, this has been the case in a situation where several banks are simultaneously in difficulty and the functioning of the entire financial system is under threat. Situations like this can be referred to as the realisation of implicit liabilities in the banking sector.

5.4.1 Situation in the banking sector in Europe and Finland

The increase in interest rates since 2022 has improved the profitability of banks at a rapid pace. According to the figures collected by the European Banking Authority (EBA), return on equity (RoE) rose in early 2023, for the first time since the financial crisis, in the banking group monitored by the EBA to more than 10% on average. In

Europe and Finland, banks have produced very strong results, especially during the first half of 2023. The increased profitability strengthens the banks' own funds, and thus capital ratios. Finnish banks have capital ratios above the requirements, and they are stronger than the European average.

According to the Financial Supervisory Authority's calculations, the macroprudential decisions made by the board of directors of the Financial Supervisory Authority have reduced the surplus of banks' own funds by approximately EUR 1 billion to EUR 13.3 billion in 2023. The surplus remains at around 5.6% of risk-weighted receivables.

Estimated by various market indicators (share prices, etc.), European banks have managed well to overcome the turbulence of the banking sector in spring 2023. The liquidity ratios (LCR, NSFR) are also on average well above the requirements. It should, however, be noted that Finnish banks are dependent on market funding (approximately half of funding), which may not cover all risks and disturbances, especially those of a slightly longer duration.

In spring 2023, the short-term turbulence affecting the banking sector was related to individual operators, not the whole sector. In the United States, four regional banks were closed by the authorities after their liquidity weakened rapidly and sharply. In Switzerland, a globally significant bank, Credit Suisse, merged with its competitor UBS with the support of the authorities. The bank had been experiencing various difficulties for a long time before its problems had worsened. For all problem banks, the development was ultimately exacerbated by the loss of market confidence and traditional bank run. For example, deposits worth USD 42 billion were withdrawn from Silicon Valley Bank over one day, and were worth EUR 100 billion on the day it was finally closed in March. Finnish banks were not affected by the lack of trust. Deposits remained stable, banks received funding from the wholesale market and the covered bond market continued to operate without major disruptions.

According to various estimates, the reason for the loss of trust was the combination of a very growth-oriented business model with a failure in risk management. Shortcomings have also been identified in the United States in the supervision of medium-sized banks in particular. It was also surprising how significant (albeit short-term) effects the failure of a few small banks caused to the market. However, the determined work of the authorities stabilised the situation quite quickly. The banks were closed, taken over by the authorities and put on sale. Deposits in the crisis banks were also guaranteed for the excess of deposit insurance coverage by using the systemic risk exemption. The situation calmed down.

5.4.2 Views and risks

Based on surveys conducted among banks, it appears that demand for credit is dampening in Europe and Finland. The situation in Finnish housing lending is one where significantly fewer new mortgages are taken than previously and additional instalments are made on loans taken out. In September 2023, the housing loan portfolio had decreased by more than two percent from the previous year. At the same time, the costs of bank funding are increasing with the increase in deposit interest rates and with the banks replacing their repaid preferential central bank financing from the market.

Early signs of deterioration in the quality of the receivables portfolio have also been seen. The projected subdued macroeconomic development and, in particular, problems in certain sectors, such as real estate and construction, increase credit risks in banks' balance sheets. However, in the short term, the net interest margin will generate net income for banks at least partly to compensate for the need for any write-down provisions. Over a period of approximately one year, the situation of banks seems good on average, but it is worth preparing for any noticeable differences between banks.

If weak macroeconomic development continues for longer or the recession is sharper than forecast, it will inevitably also be reflected in the banks' balance sheets and results. However, the results of the recent stress tests published by the authorities (see below) indicate a high degree of stress tolerance in both Europe and Finland. However, individual problems caused by, for example, the failure of risk management are naturally possible as in spring 2023, even though the situation seems good at the level of the entire sector. It is, however, very difficult to anticipate them.

The authorities in the United States and Europe are now examining how to proactively prevent events such as spring 2023 from happening. The digital payment environment and the very rapid spread of information and disinformation through different channels among bank clients and counterparties can expose the whole system to dangerous instability. This also involves the threat of cyberattacks. Banks have occasionally been subjected to various denial-of-service attacks, and this will probably continue.

The largest single risks for European and Finnish banks in the near future are the financing of the commercial real estate sector and the related construction activities. The sectors are particularly vulnerable to tightening financing

conditions. In December 2022, the European Systemic Risk Board (ESRB) issued a recommendation on the management of potential systemic risks posed by the sector.

Recommended measures include stepping up the monitoring and assessment of risks in the commercial real estate sector, assessing the risk management of commercial real estate financing by financial institutions and ensuring the resilience of potential shocks (capital buffers). In addition to the above, the ESRB recommends that the Commission assess macro-prudential regulation from the perspective of commercial property risks.

In addition to direct risks in the real estate sector and construction activities, indirect risks through macroeconomic and, in particular, employment deterioration can be more significant for banks. If construction stops, it will affect, among other things, trade, transport and the construction product industry. According to estimates, the construction industry directly employs some 200,000 people and indirectly even half a million Finns.

At the end of July, the EBA, the ECB and the Financial Supervisory Authority published the results of the bank stress tests. The EBA and the ECB tested larger European banks, and the Financial Supervisory Authority tested smaller Finnish operators under its own supervision. Nordea and the OP group from Finland participated in the EBA test. The EBA test set consisted of 70 banks from 16 countries, and the ECB tested 98 supervised banks. The baseline and weaker development scenarios covered the period 2023–2025.

The weaker development scenario used in the stress tests was rather severe. In 2023 and 2024, GDP would fall by a total of 7.7% before turning to growth in 2025. The prices of housing and properties would fall sharply. The interest rate would remain elevated, driven by high inflation. In the scenario, banks in the EBA test pool would generate losses of nearly EUR 350 billion, even though the net interest income would soften the accumulation of losses. There is only one bank in the test set (La Banque Postale) whose core capital adequacy would be zero in the weaker development scenario. Others would maintain a satisfactory level of solvency. In the stress scenario, the weakest country-specific (average) and solvency figures below the EU average were among French and German banks at the end of 2025.

Of Finnish banks, only Nordea's and OP group's results are public. In the weaker scenario of the stress test, the solvency ratios of both of them decline clearly and the buffers decrease, but the banks would be able to withstand the demanding circumstances. The average core capital ratio of smaller Finnish banks decreased

to 11.3%, but according to the Financial Supervisory Authority, there are major differences between the banks. However, even the stressed solvency of all banks exceeded the requirements.

On 18 April 2023, the Commission published a legislative package to reform the banks' crisis management and deposit guarantee framework. Above all, the proposal aims to improve the crisis resolution of small and medium-sized banks. The aim is to bring more banks of that size within the crisis resolution framework, thus avoiding insolvency proceedings that, in the Commission's view, are detrimental to financial stability. It is proposed to extend the use of deposit guarantee funds in crisis resolution, but the Commission does not propose a common deposit guarantee. The proposal is currently being discussed by the member states.

5.5 Local government

Under section 121 of the Constitution of Finland (731/1999), Finnish municipalities have extensive self-government. The central government is not responsible for the municipalities' financial liabilities, but municipal finances are part of general government finances and are thus closely linked to central government finances. Thus, any problems in local government finances would also impact central government finances in one way or another.

The combined annual margin of municipalities has been positive in recent years. It has been quite strong since 2020, but the decline in 2022 was about EUR 0.4 billion. Despite this, the annual margin exceeded the depreciation level and net investments, as in the past few years. Before 2020, the annual margin has been weak, which has led to an increase in the loan volumes of municipalities. However, with the good annual margins of recent years, the loan portfolio has no longer grown as strongly, and in 2022 the loan portfolio even decreased.

However, at the same time, municipalities have been forced to increase their local tax rates. The weighted average local tax rate for all Finnish municipalities has risen from 18.12% in 2004 to 20.01% in 2022. The reform of the wellbeing services counties will reduce municipal tax rates by 12.64 percentage points from 2023 onwards.

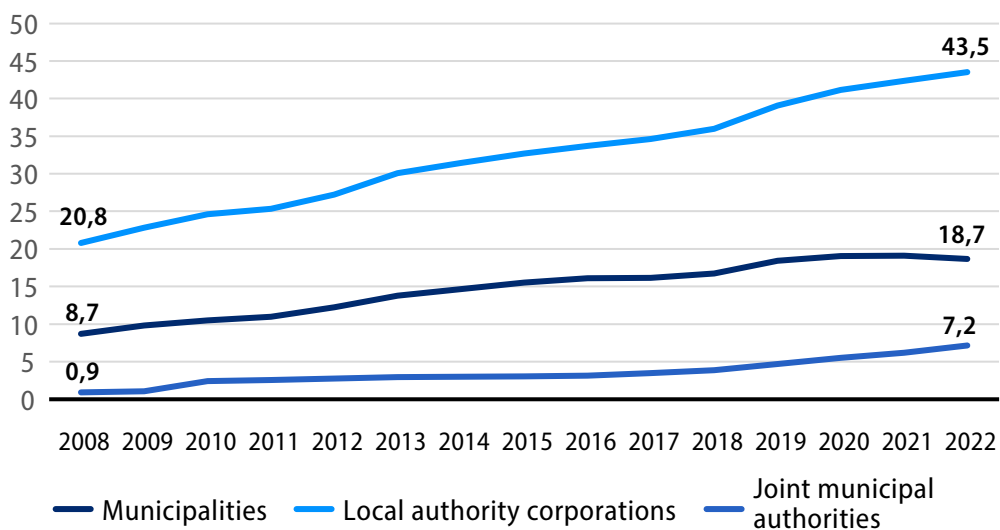
The wellbeing services counties that started at the beginning of 2023 will significantly change the activities of municipalities. The wellbeing services counties are examined in more detail in section 5.5.3.

5.5.1 Municipal loan portfolio

According to the final accounts for 2022, the municipalities' loan amount decreased by about EUR 440 million during the year, while the loan portfolio totalled EUR 18.7 billion at the end of the year. The decrease in loan amounts was the first time in the 2000s, but there are still major differences in loan amounts between municipalities. One-off sales of property improved municipalities' profits by hundreds of millions and reduced the borrowing needs of municipalities. However, in the longer term, the municipalities' loan amount has increased strongly. In 2000, the municipal loan portfolio was only EUR 3.85 billion.

In 2022, the combined loan portfolio of local government finances, i.e. municipalities and joint municipal authorities, increased by EUR 550 million to EUR 24.7 billion at the end of the year. The growth was created by joint municipal authorities, as the municipalities' loans decreased. In 2023, approximately EUR 5.1 billion will be transferred from local government loans to wellbeing services counties, which will reduce the future loan portfolio. The majority of the transferred loan consists of the loan portfolio transferred from hospital districts operating as joint municipal authorities. In contrast, at the end of 2022, the combined loan portfolio of the entire municipal group was EUR 43.4 billion. Figure 33 illustrates the development of the loan portfolios of municipalities, joint municipal authorities and municipal groups.

Figure 33. Development of loan portfolios of municipalities, joint municipal authorities and municipal groups, EUR billion



Source: Statistics Finland; State Treasury

In particular, municipalities have funded large construction investments in recent years using the PPP model as an alternative procurement model for investments. It is estimated that its use has become clearly more common in the last ten years. Projects are often financed through loans and real estate leasing funding.

Municipality Finance and Municipal Guarantee Board

The shared mission of Municipality Finance and the Municipal Guarantee Board is to ensure competitive funding for the clientele carrying out a public task in all market conditions. The clients of the Municipality Finance group are municipalities, joint municipal authorities, wellbeing services counties and companies controlled by them. Municipality Finance is a credit institution owned by the municipalities, municipal corporations and the local government pension institution Keva, and in which the central government has a 16% stake. Other funding providers include commercial banks and the European Investment Bank.

The Municipal Guarantee Board, in turn, guarantees the funding of Municipality Finance, and its member municipalities are all municipalities in mainland Finland. The premise is that the Municipal Guarantee Board covers its operating costs with revenue from its operations. The Guarantee Board's income consists of guarantee commissions and investment income. These revenues generate funds for the fund of the Guarantee Board, which amounted to EUR 21.7 million at the end of 2022. If the funds in the fund are not sufficient, under the act on the Guarantee Board, the members of the Guarantee Board are jointly responsible for the commitments of the Guarantee Board and the financing of expenditure. The responsibilities of the member municipalities are proportional to their population.

The guarantees provided by the Municipal Guarantee Board have grown on a par with the operations of Municipality Finance. The amount of funding guaranteed by the Board has nearly tripled in just over ten years: it was EUR 17.5 billion in 2011 and EUR 41.8 billion in 2022.

Risks and risk management

The clean credit history of Finnish municipalities and legislation that addresses the financial problems of individual municipalities have supported the credit standing of the Finnish municipal sector in the financial markets. As a result, there are few differences between municipalities in the pricing of loans taken out through Municipality Finance. This may involve risks, because financially weaker

municipalities can also borrow money on reasonable terms. The weak municipalities can take loans that are too large in relation to their borrowing capacity, as the pricing of the loans does not correctly reflect the municipality's financial situation.

The risks are managed using an assessment procedure based on the final accounts of municipalities, which allows the Ministry of Finance to monitor the finances of the municipalities and, if necessary, provide them with guidance. Very weak finances and lack of restructuring potential may result in a municipality being merged with another municipality with a more sustainable financial position. The number of municipal mergers has been low in recent years. The latest municipal merger dates back to 2021, when Honkajoki merged with Kankaanpää. With the merger, the number of municipalities in Finland is 309.

However, the inability of a municipality to repay its loans is very unlikely and would be the result of highly exceptional circumstances. If a municipality were not able to repay its loans, the lender would incur a credit loss regardless of whether the lender was within the municipalities' joint funding scheme or a private credit institution.

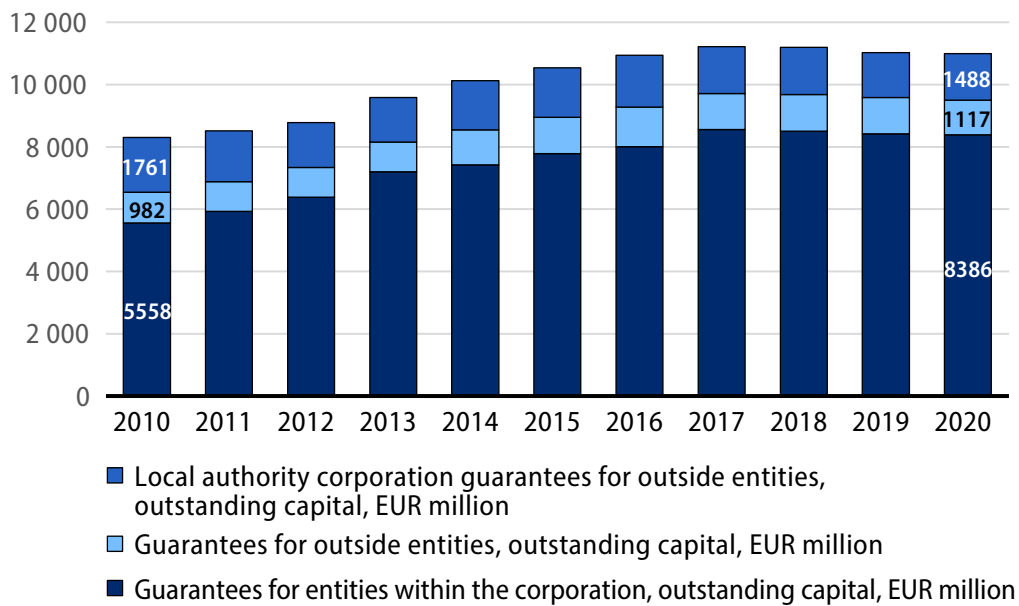
However, on the whole, the municipal loan portfolio cannot in all likelihood be deemed to constitute a material risk factor for the government or local government finances, particularly now that part of the municipal loan portfolio has been transferred to the wellbeing services counties. However, the loan amount is projected to continue to grow despite the temporary decline in the loan portfolio. The increase in loans is being translated into a decline in the municipal equity ratio and a weakening of the indicator measuring relative indebtedness. In the end, the increase in interest rates will also be passed on to local government finances as additional costs, tightening the local government finances.

5.5.2 Guarantees granted by municipalities

Based on the financial statements for 2020, guarantees granted by municipalities would total EUR 8.4 billion, of which approximately EUR 1.1 billion was granted to entities outside of the same group (figure 34). Changes in municipal guarantees over the past few years have been relatively minor. In 2021, municipal reporting was transferred from Statistics Finland to the State Treasury. The information base to be collected as a result of the reporting reform changed from the previous one in 2021, and there are deficiencies in the quality of the information reported by municipalities, so figure 34 contains the information until 2020.

The amount of guarantees provided by joint municipal authorities was significantly lower. In 2020, their guarantees for entities in the same local authority corporation totalled EUR 643 million and for others more than EUR 17 million.

Figure 34. Development of the municipal guarantee portfolio, EUR billion



Source: Statistics Finland

An examination of municipalities' guarantee practices reveals that small municipalities, in particular, have given significant guarantees in relation to their fiscal capacity, whereby the realisation of the guarantee liabilities could jeopardise the operations of the municipalities. In some municipalities, the guarantee liabilities are equivalent to a full year's operating expenses in the social and health care sector. If a guarantee liability is realised, municipalities typically cover the losses by taking out a loan.

5.5.3 Wellbeing services counties

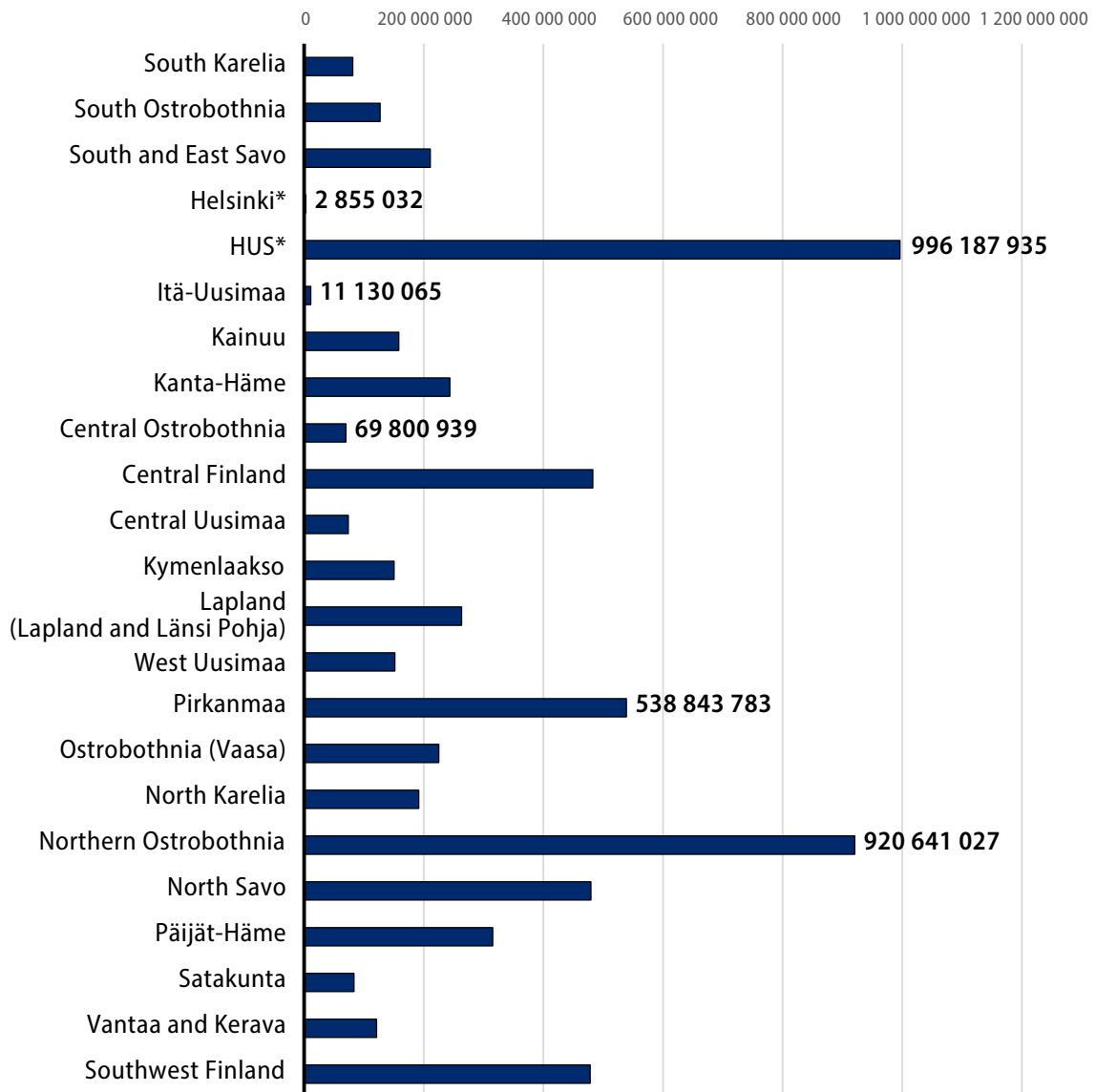
The wellbeing services counties entered into force at the beginning of 2023 with the transfer of the responsibility for organising social welfare and health care and rescue services from municipalities and joint municipal authorities to 21 wellbeing services counties. An exception to this is the City of Helsinki, which will remain responsible for organising its healthcare, social welfare and rescue services. Separate provisions have been laid down for Helsinki University Hospital (HUS) on its responsibility for organising tasks related to specialised healthcare in its area.

The funding for the wellbeing services counties is mainly based on central government funding and partly on customer and user fees. The counties do not have a taxation right. With the increase in service needs and costs, the need for financing has been projected to grow by more than EUR 8 billion without new measures by 2031, at which time the funding would amount to EUR 30 billion per year. The amount of the funding in 2023 is budgeted at EUR 23.6 billion. The state has a special responsibility to ensure the sufficiency of any funding allocated by it, which is why the counties' finances are closely monitored and controlled. For example, a county applying for additional funding may become subject to an evaluation procedure already after the first application.

In addition to funding, the wellbeing services counties have a borrowing mandate, which is based on the county's economic balance. The county is automatically allowed to borrow if its finances are in good condition. In contrast, a county in a bad economic situation must separately seek authorisation to borrow. So far, only one county has been automatically authorised to borrow, and several wellbeing services counties have applied for the change. On 19 October 2023, the government decided on the change of the borrowing authorisation of six wellbeing services counties in 2024 (Kanta-Häme, Northern Ostrobothnia, Northern Savo, Päijät-Häme, Satakunta and Southwest Finland).

At the end of 2022, the wellbeing services counties' loan portfolio totalled EUR 4.9 billion, consisting of liabilities transferred from the hospital and special care districts. The projected loan portfolio for 2023 is EUR 6.4 billion, in addition to which the borrowing mandate granted on the basis of the investment plans is EUR 3.1 billion.

The wellbeing services counties are already very indebted, which is due to large hospital projects carried out in municipalities just before the reform entered into force. Figure 35 shows the loan portfolio forecast of different wellbeing services counties for 2023 and their differences. The figure shows the three largest and smallest loan portfolios according to the forecast.

Figure 35. Forecast of the loan portfolio for 2023 of wellbeing services counties, EUR

Source: Ministry of Finance

Impact of wellbeing services counties on local government finances

In addition to the changes mentioned earlier in the main chapter, the reform of the wellbeing services counties reduces the tax rates of municipalities equally by 12.64 percentage points. At the same time, the responsibility for organising social welfare, healthcare and rescue services as well as their costs will be eliminated from municipalities, which will significantly reduce their costs. The municipalities can decide on their tax rate from 2024 onwards.

A potential risk can be caused by municipal assets that are now leased to wellbeing services counties. At the moment, the wellbeing services counties rent social welfare and healthcare properties from municipalities for three years, and if necessary, the wellbeing services county may extend the contract by one year. There is a risk if the municipality cannot sell the properties and they remain empty. Uncertainty about the fate of properties may also lead to neglect of their maintenance. In particular, small municipalities are risk areas. Municipalities have the right to receive compensation from the state for direct costs arising from property arrangements.

The results of municipalities in 2023 have been exceptionally good because income is delayed with the higher tax rate of 2022. The final economic outlook will therefore only become more visible in 2024. The municipal sector is not expected to pose a risk to central government finances in 2023, but the situation may change in the longer term. However, as a result of the reform, local government finances decreased considerably, which means that there is less flexibility in their operations.

5.6 Implicit liabilities of state-owned enterprises

State-owned enterprises are part of central government financial assets, but they may also create financial liabilities for the central government. The government may decide to provide loss-making companies or companies facing difficulties with capital injections or other financial support measures over times of crisis. The latest crises, the COVID-19 pandemic and the Russian invasion of Ukraine have had a negative impact on the operations of several companies, including state-owned enterprises. Support measures for companies are always exceptional and temporary measures in which the company is also responsible for reorganising its business. The electricity grid company Fingrid, gas transmission company Gasgrid and energy company Gasum, which are important for security of supply, are examples of companies whose operations may be significantly affected by the energy crisis or geopolitical crises and cause capital risks to the state. Other liabilities, such as environmental damage, can also be realised through the companies.

Especially in companies of strategic interest, the central government must take more responsibility for the company's operations if necessary, and the central government actively strives to monitor and influence the development of the company's strategy. From the perspective of the state as the owner, participation in general meetings and boards is an important channel of influence in risk management.

At the beginning of August 2023, the state had direct holdings in 70 companies, which it owns wholly or partly with other owners. State-owned enterprises are divided into listed companies, unlisted commercial companies and companies entrusted with special assignments. The value of the ownership at the end of 2022 was EUR 41 billion, which is 8 billion less than a year earlier, mainly due to the Russian invasion and the energy crisis.

Impacts of the Russian invasion

The Russian invasion of Ukraine and the resulting economic measures, such as sanctions, have affected the economy of the European Union and Finland. As a result of the war, supply chains have been disrupted and an exceptional situation has been seen in the energy market as Russia stopped gas supplies to Europe. The situation led to a strong rise in electricity prices in winter 2022–2023, which affected the financial position of both businesses and households.

As a result of the discontinuation of Russian gas supplies, the 51%-state-owned Fortum subsidiary Uniper faced payment difficulties. Uniper had to buy gas at high spot-market prices and sell it cheaper to its customers due to its long supply contracts. Due to the problems, Uniper made a loss of about EUR 12 billion in early 2022. Finally, Fortum sold its Uniper holdings to the German state, which resulted in losses of less than EUR 6 billion for Fortum for the entire Uniper investment. Fortum's holdings in Russia as a whole have now been written down, even though in theory the production facilities are still the company's property.

As a result of the increase in energy prices, the state supported Fortum with bridge financing through Solidium, which amounted to EUR 2.35 billion. With the help of financing, Fortum sought to secure sufficient liquidity for the rising power price and the resulting collateral requirements on the derivatives exchange. Fortum withdrew EUR 350 million of the funding. The financing arrangement expired on Fortum's initiative on 17 March 2023.

In addition, the state directly supported all electricity companies through a 10 billion loan and guarantee programme to cover the liquidity needs arising from the collateral needs of derivatives. The aim was to ensure the functioning of energy companies and to safeguard the functioning of the electricity market. The aid is intended to be the last-resort financing option for companies and has not been withdrawn so far. The programme will be in force until the end of 2023.

Consumer and business customers were also extensively supported as energy became more expensive. Electricity companies were obliged by law to grant extensions of payment periods to consumer and business customers. As a result, electricity companies can apply for state guarantees for loans covering the granted extensions of payment periods (mandate 600 million). Guarantees were not applied for by the deadline. In addition, consumers were supported in the form of an automatic electricity bill compensation. A compensation of EUR 255 million has been paid out of the EUR 400 million reserved.

The exceptional energy market situation also caused concerns in the state grid company Fingrid Oyj, where, as the price of regulating electricity increased sharply, there was an increase in market operators' concerns about the rising collateral requirements of balance-responsible parties and its effects on the functioning of the electricity system. Fingrid's message was to work with the authorities and market operators to find solutions to the concerns and situation raised during the winter. The Ministry of Finance issued Fingrid with guidelines on the management of risks in the electricity balancing market in the event of a liquidity crisis affecting the collateral of balance-responsible parties.

The Russian invasion has also called for the support of other state-owned companies. The strategic-interest company Finnair, which suffered from the COVID-19 pandemic, faced difficulties due to the closure of Russian airspace, as its business strategy was strongly focused on Asia. The EUR 540 million guarantee granted by the state in 2020 was extended due to the difficulties caused by the invasion in June 2022. The loan period of the guaranteed loan is until 2025, with repayments of EUR 100 million every six months starting in June 2023.

Russia's invasion of Ukraine continues, which may also affect the need for various support measures in the future. At present, however, there are no new ones in sight in addition to the old ones. In addition, energy prices have returned to a low level in Finland, and the situation in the electricity market has calmed down.

5.7 Liabilities associated with environmental damage

Secondary liability systems for environmental damage are used to prepare for compensating for the costs arising from the prevention and management of environmental damage and related threats and for carrying out restoration measures, and for compensating victims for environmental damage caused by insolvency or unknown or unreachable causes. In Finland, these systems comprise the compulsory insurance based on the Environmental Damage Insurance Act (81/1998) and the Oil Pollution Compensation Fund. The state budget represents last-resort financing. The systems also include a support system in accordance with a Budget appropriation for old contaminated areas to identify their degree of contamination and to decontaminate them. Municipalities also finance the restoration of old contaminated soil and groundwater sites.

Since 2013, the state budget has funded the management of serious environmental risks and the prevention of environmental pollution incidents in eight different cases. All cases are related to financial difficulties of companies, which typically have gone bankrupt. In 2013–2021, financing granted from the Budget totalled approximately EUR 153 million. Of this amount, Talvivaara's proportion is clearly the most significant, approximately EUR 127 million.

This has shown that the existing secondary environmental liability systems and securities do not cover all situations and are less than optimal. The new Environmental Damage Fund is to start operating on 1 January 2025. Its aim is to create more comprehensive secondary liability systems for environmental damage so that operators' environmental obligations are met as extensively as possible without central government intervention.

6 Responsibilities related to EU membership

- In addition to the contributions to the financial framework, Finland's most important EU responsibilities relate to the stability instruments of the euro area and measures taken during the COVID-19 pandemic. In addition, EU support to Ukraine has increased Finland's guarantee liabilities during 2022.
- The growing spending needs of the EU may also exert upward pressure in the future, for example with the amortisation of the loan component of the recovery instrument and through the financing of Ukraine, which may also be reflected in Finland's liabilities.

At the end of 2022, Finland's total liabilities related to EU membership, including guarantee liabilities, totalled approximately EUR 41.1 billion (table 3). The number of financial instruments used for EU crisis resolution, support and funding allocation has increased over the past decade as a result of different crises. In recent years, the guarantee liabilities related to EU financial instruments have increased significantly due to factors such as the pandemic support instruments, in addition to which Finland's liabilities for financing the EU's multiannual financial framework have also increased. In addition, in 2022, Finland, together with other EU countries, has guaranteed loan programmes related to support for Ukraine, and support for Ukraine may also increase Finland's EU liabilities in the future.

The purpose of this chapter is to open up key EU-related liabilities and related risks to Finland's general government finances. The largest items are the Member State share of the EU's multiannual financial framework (2021–2027), the European Stability Mechanism (ESM) and the European Financial Stability Facility (EFSF) guarantee liabilities, as well as the liabilities of the unique EU financial instruments implemented during the COVID-19 pandemic. In addition, Finland has payment and guarantee liabilities in funds and financial institutions outside the EU budget, such as the European Investment Bank (EIB), its Interim COVID-19 Guarantee Fund and the European Peace Facility (EPF). The different financial instruments differ significantly in their payment terms and periods of validity.

Table 3. The central government's most significant EU-related direct liabilities, callable capital, and guarantee liabilities, EUR billion

	Liabilities at the end of 2022	Notes
Direct future liabilities		
EU Multiannual Financial Framework 2021–2027	EUR 11.7 billion	EUR 5 billion of EU membership fees paid in 2021–2022. Finland's total liability in the financing framework is approximately EUR 16.7 billion
EU Recovery Instrument contribution	EUR 7.2 billion	Estimated payments in 2028–2058, does not include interest costs.
European Peace Facility (EPF)	EUR 0.09 billion	Total Finnish liability EUR 0.1 billion, of which EUR 13.9 million paid in 2021–2022. Fund outside the EU budget.
Callable capital		
European Stability Mechanism (ESM)	EUR 11.12 billion	Capital payable on demand by Finland. Total amount of liabilities EUR 12.55 billion, of which EUR 1.43 billion has been paid.
European Investment Bank (EIB)	EUR 3.4 billion	Capital payable on demand by Finland.
Guarantee liabilities		
European Financial Stability Facility (EFSF)	EUR 6.72 billion	Finland's guarantee liability.
SURE instrument	EUR 0.43 billion	Finland's guarantee liability.
EIB's COVID-19 guarantee fund	EUR 0.3 billion	Finland's guarantee liability.
The Ukrainian MFA programmes (2022)	EUR 0.06 billion	Finland's guarantee liability for MFA loans granted to Ukraine in 2022.
Total liabilities	EUR 41.1 billion	

Source: Ministry of Finance

6.1 EU Multiannual Financial Framework

Finland's contribution to the EU's multiannual financial framework for 2021–2027 is approximately EUR 16.7 billion. This responsibility is the maximum liability set in the decision on own resources agreed in the context of the negotiations on the financial framework with other EU countries. Taking inflation into account, Finland's EU payments average EUR 2.6 billion per year. The contribution is primarily affected by the size of the financial framework and the growth of Finland's gross national income (GNI) relative to the growth of GNI in other member states. Finland's GNI share is estimated at 1.7% of the total of the financial framework. In theory, if one or more member states failed to meet their GNI-based liabilities, Finland's liability could temporarily increase to cover the necessary guarantee liabilities until the failing member states would be able to assume their liabilities. However, so far, there have been no non-compliances with EU payments in the past.

The mid-term review of the EU's multiannual financial framework for the period 2024–2027 was launched in June 2023, following a proposal from the Commission. According to the proposal, EU expenditure would increase from the current level of the financial framework, mainly to cover Ukraine's support needs and increased interest expenditure under the recovery instrument. The Ministry of Finance estimates that the proposal, if implemented, would increase Finland's EU payments by approximately EUR 1.1 billion in total between 2024 and 2027.

In addition, the growing spending needs of the EU may also exert upward pressure on the future 2028–2035 financial framework from its current level. For example, the amortisation of loans on the grant side of the recovery instrument created as a result of the COVID-19 crisis from 2028 onwards will increase the expenditure of the EU budget, which may also be reflected in Finland's liabilities.

The EU's Multiannual Financial Framework also includes contingent liabilities, which can be divided into liabilities covered by the EU budget and non-budget liabilities²⁸. For both liabilities, Finland's share is limited according to its GNI share.

Within the EU budget, credit loss provisions have been set for the reserved contingent liabilities, taking into account the expected losses of financial instruments and an adequate safety margin. The assets have been deposited in the

28 Report from the Commission to the European Parliament and the Council on financial instruments, budgetary guarantees, financial assistance and contingent liabilities, situation at 31 December 2022: <https://op.europa.eu/en/publication-detail/-/publication/d65b1049-7256-11ee-9220-01aa75ed71a1/>

EU's Common Provisioning Fund (CPF) individually for each financial instrument, which includes the credit loss risk of contingent liabilities. At the end of 2022, these contingent liabilities amounted to approximately EUR 105.9 billion, the largest of which are the European Fund for Strategic Investments (EFSI), the European Fund for Sustainable Development (EFSD and EFSD+), InvestEU and the EU's external lending mandate (ELM). The amount of contingent liabilities earmarked increased by more than EUR 45 billion from the end of 2021, which is explained by the guarantees of the European Fund for Sustainable Development Plus and the InvestEU programme.

Of the unallocated liabilities of the EU budget, the largest are balance-of-payments loans to EU countries outside the euro area (BoP), Euratom loans, the European Financial Stability Mechanism (EFSM), and the loan shares of the SURE instrument during the COVID-19 pandemic and the EU Recovery Instrument. At the end of 2022, contingent liabilities outside the EU budget amounted to approximately EUR 204.1 billion, which has increased significantly from EUR 163 billion at the end of 2021. This growth is mainly explained by the new EU Recovery Instrument loans, the macro-financial assistance to Ukraine and new SURE loans. Over the coming years, the amount of loans will rise significantly from the current level with the use of the recovery instrument.

6.2 EU support measures and instruments

The European Stability Mechanism (ESM) and the European Financial Stability Facility (EFSF)

With regard to EU responsibilities, the largest on-demand callable capital for Finland is the permanent support mechanism established in 2012 by the euro area member states, the European Stability Mechanism (ESM), which provides financial assistance to member states in financial difficulties. The absolute maximum amount of liabilities in Finland is EUR 12.55 billion, of which EUR 1.43 billion has already been paid into ESM equity. The ESM may require Finland to pay up to EUR 11.12 billion to cover losses of the ESM or to avoid its insolvency. The ESM's maximum lending capacity is EUR 500 billion, of which EUR 86.2 billion was in use at the end of December 2022. Finland's calculated share of the used loan capacity is approximately EUR 1.6 billion.

The European Financial Stability Facility (EFSF) was established in 2010 and served as a temporary crisis management tool for the euro area until the launch of the ESM. Euro area member states guarantee EFSF funding up to a maximum amount of EUR 241 billion under the funding programme approved in 2012. It has not been possible to grant new programmes after 2013. The guaranteed amount, including net interest, amounts to approximately EUR 219.8 billion, of which Finland's share, including interest and over-guarantees, was approximately EUR 6.72 billion at the end of 2022. The guarantees provided by the euro area countries relate to the EFSF's funding from the financial markets and its ability to meet its external payment obligations, not to loans provided under financial support programmes.

For the second Greek and Spanish programmes, the Finnish state has received guarantees based on the amounts of loans granted by the EFSF or the ESM. The collateral arrangements secure the Finnish state's receivables and compensate for losses incurred for reasons arising from Greece or Spain. The market value of the collateral received from Greek banks was around EUR 882.9 million at the end of December 2022. The market value of the collateral under the Spanish scheme was around EUR 284.2 million at the end of the year.²⁹

Given the high level and long-term nature of the total liabilities of the ESM and EFSF, the guarantee liabilities and callable capital of the euro area member states have been considered to be significant for central government finances. The last instalments of the aid paid by the ESM will mature in 2060, and the last EFSF loans will mature in 2070. Long loan periods reduce the overall risk related to repayment, but the other side is the long-term guarantee and callable capital of euro area countries. In other words, any capital losses would not be realised on a one-off basis, but insolvency risks would be spread over a long period of time, and it would be unlikely that Finland's maximum exposure would be triggered at once. In addition, the equity risk of euro area member states is mitigated by the preferential creditor status of the ESM immediately after the International Monetary Fund (IMF), the principle of unanimity in decision-making and the strict conditionality of loans. On the other hand, the risk related to EFSF loans is increased by the lack of preferential creditor status. The EFSF only has a cash buffer and practically no equity. In addition, the country-specific concentration risk of EFSF loans is higher, so the possibility of disruptions to funding is greater, for example, in the event of insolvency in the countries receiving the loans.

²⁹ Like other euro countries, Finland has also granted bilateral loans to Greece. Finland has approximately EUR 850 million in loan receivables from Greece at nominal value.

Both the EFSF and the ESM seek funding on the market and lend it to member states in need of financial support. If the state that received financial support through the EFSF programme is unable to meet its obligations, Finland would be required to pay the EFSF in accordance with its guarantee share so that the EFSF can pay its commitments to its own creditors. The ESM, in contrast, operates primarily on the basis of the capital paid to it. Any losses of the ESM would be covered primarily by its reserve fund and secondarily by its equity. At the end of 2022, the amount of the reserve fund was approximately EUR 3.2 billion. The callable capital to be paid on demand would only be payable by Finland if ESM's equity were insufficient to cover losses.

Measures during the COVID-19 pandemic

In order to recover the EU economy, the exceptional and temporary EU Recovery Instrument (NextGenerationEU)³⁰ of EUR 806.9 billion agreed for the COVID-19 pandemic consists of grant-based support (EUR 421.1 billion) and a loan-based contribution (EUR 385.8 billion). Support in the form of grants is paid to the EU budget, and the loan form is covered by member states' guarantees. Finland's contribution to the aid in the form of a grant is approximately EUR 7.2 billion, and the calculated maximum contribution in the form of a loan is approximately EUR 6.6 billion. The guarantee liability would only be realised if the member state receiving the loan through the recovery instrument was unable to repay its loan or settle its guarantee liability. However, the total real responsibility for the loan component will depend on whether the EU member states use all available loans in their recovery and resilience plans (RRPs)³¹.

Finland's EUR 7.2 billion contribution to the aid in the form of a grant will be paid with interest during the period 2028–2058. According to the estimate of the Ministry of Finance, Finland's annual EU payments will increase by approximately EUR 230–540 million, plus interest expenses, depending on the repayment schedule. However, there are significant uncertainties related to real liability, especially due to the development of interest rates. In addition, the repayment of loans can be funded with the EU's possible own new resources, i.e., income sources, which would mean that Finland's payments would increase less than anticipated. Interest costs will be covered until 2028 from the EU budget.

30 The recovery instrument is divided into seven programmes, of which the Recovery and Resilience Facility (RRF) is the largest in size, totalling EUR 723.8 billion in grants and loans.

31 According to the European Commission, by the deadline of 31 August 2023, loans amounting to EUR 292.6 billion had been applied for. As a result, EUR 93 billion of the available loan was not applied for. https://commission.europa.eu/system/files/2023-09/01092023-Final-overview-of-MS-loan-requests-under-the-RRF_en.pdf

Measures taken during the COVID-19 pandemic also include the EUR 100 billion SURE facility³², through which the EU provided loans to member states under favourable conditions to reduce unemployment risks. A total of 19 member states borrowed EUR 98.4 billion under the facility between 2020 and 2022. 25% of SURE's total funding is covered by member states' guarantees, of which Finland's maximum guarantee liability is EUR 432 million. In addition to the member states' guarantees, the EU's financial framework is used to secure SURE loans with a 75% share of the loans granted, of which Finland's calculated maximum liability is limited to its GNI share. Guarantors may be required to make additional payments immediately up to the total maximum if one or more member states were unable to meet their obligations. The loans are to be repaid by 2050.

Funds and special instruments outside the EU budget

For the European Investment Bank, Finland's liability is the capital contribution of EUR 3.4 billion payable on demand. In addition, Finland's guarantee liability for the temporary COVID-19 Guarantee Fund of EUR 25 billion created under the EIB is approximately EUR 0.3 billion.

Of the special instruments outside the EU budget, the most important one is the European Peace Facility³³, established in March 2021, which finances actions under the EU's common foreign and security policy that have military or defence implications. The Peace Facility finances the common costs of EU military crisis management operations and assistance measures to support the military and defence capabilities of third states, regional and international organisations, or the military aspects of peace support operations led by them.

The agreed maximum amount of European Peace Facility funding currently exceeds EUR 12 billion. The initial cap for the period 2021–2027 was EUR 5.69 billion, but this amount has been increased twice, mainly to support Ukraine, first by EUR 2.29 billion and then by EUR 3.5 billion in 2023.

32 The temporary Support to mitigate Unemployment Risks in an Emergency (SURE)

33 European Peace Facility, EPF; Council Decision 2021/509/CFSP

The fund is financed by contributions from member states in accordance with the GNI distribution principle. It is not possible to precisely predict Finland's annual contribution, as it depends on the common costs incurred by the EU military crisis management operations, the size of the assistance measures provided by the fund and the annual GNI contribution per member state. In spring 2023, it was agreed to increase the fund, as a result of which Finland's contribution increased to EUR 210 million in 2021–2027.

The InvestEU funding programme is a project launched by the European Commission with the aim of launching investments in Europe worth a total of EUR 372 billion by the end of 2027. The programme is implemented in cooperation with the Commission by the European Investment Bank Group and national financial institutions. The state of Finland has negotiated with the Commission a member-state-specific guarantee programme for its sustainability guarantee, which would amount to approximately EUR 700 million. In September 2022, under the authorisation of the second supplementary budget of 2022, the government approved a EUR 8.7 million back-to-back guarantee for the European Investment Fund, which is part of the InvestEU funding facility, which, in turn, enables the granting of guarantees from the European Investment Fund for the green transition of banks and energy solutions through the Finnish state's financial investment. The back-to-back central government guarantee (EUR 8.7 million) is a way of preparing for compensating credit losses of the investment loans guaranteed by the European Investment Fund to the extent that they cannot be compensated from the EUR 91.3 million cash sum that Finland has deposited as collateral for the loan programme.

EU macro-financial assistance (MFA)

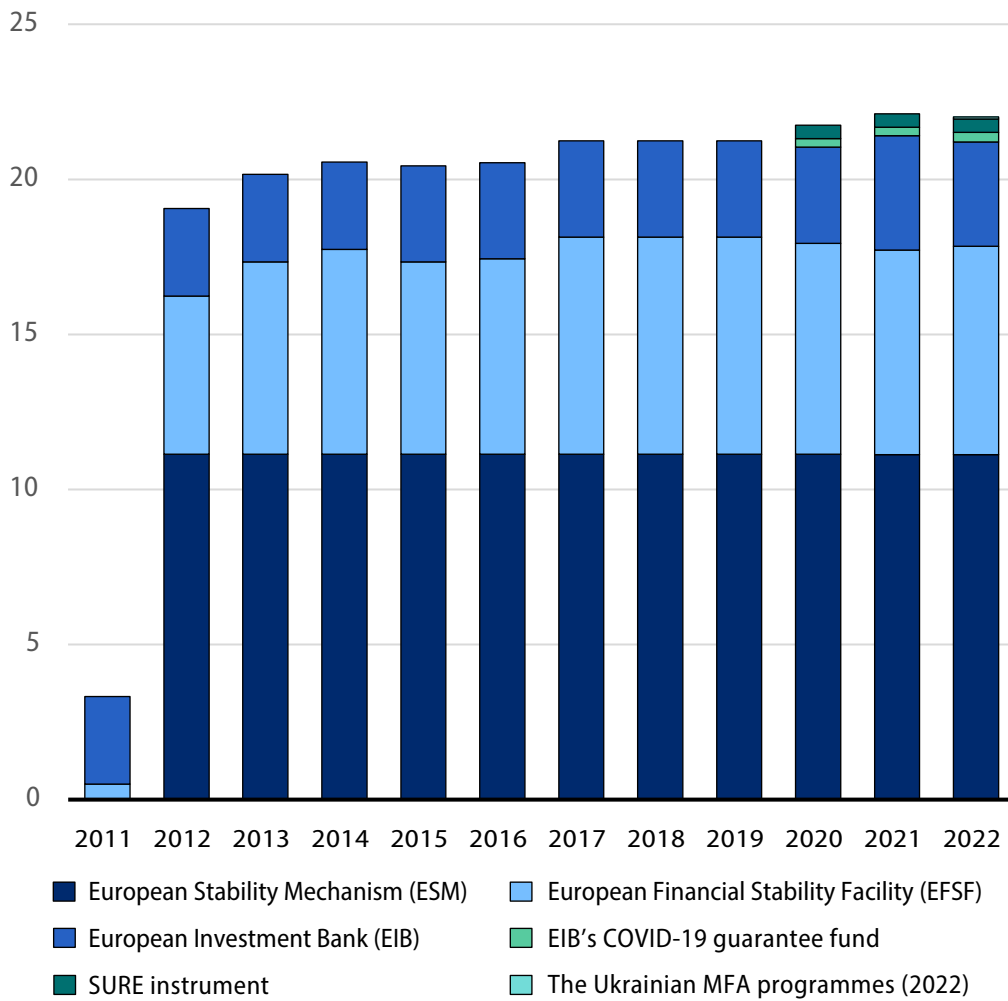
The EU's macro-financial assistance (MFA) is a financial instrument for non-EU countries, which aims to support countries external to the EU facing serious balance-of-payments problems to meet their external financing needs, and to support the implementation of economic policy reforms in the recipient countries. The total amount of macro-financial assistance, the duration of the loan and the conditions will be decided on a case-by-case basis, and the access to assistance will be tied to the economic restructuring agreed with the IMF. Macro-financial assistance is generally provided in the form of medium-term loans and may in some cases include a grant component. Loans are guaranteed from the Union budget, and any losses are covered by the guarantee fund (CPF) earmarked in the EU budget. The grants are also paid from the Union budget.

The EU has also supported Ukraine under the MFA programme regularly even before the start of the war, and after it with various special arrangements. During 2014–2021, the EU has provided Ukraine with various financial assistance totalling approximately EUR 7.8 billion. At the beginning of 2022, a EUR 1.2 billion macro-financial loan programme was implemented before the Russian invasion to support the country's external financing gap. The funding programme was financed by borrowing from the Union within the headroom of the EU's financial framework, with an agreed maturity of 15 years.

In addition to these responsibilities related to the EU's financial framework during 2022, responsibilities for Ukraine have also been guaranteed by the member states. Following the Russian invasion of Ukraine, the EU has supported Ukraine through three exceptional MFA programmes aimed at supporting Ukraine's immediate resilience and covering the Ukrainian state budget deficit. The total value of the programmes in 2022–2023 is EUR 24 billion, and the loans have been arranged with longer payment periods and favourable loan terms. Exceptionally, interest expenses and management fees are also financed by the EU budget. Unlike the usual MFA programmes, the credit loss provision for financial assistance in the headroom of the EU budget was increased from the usual 9% to 70% due to significant risks in supporting a country at war. The 70% guarantee consists of a 9% reserve in the EU budget and, where appropriate, additional guarantees from member states to cover credit losses up to 61% of the value of the loans. Finland's national guarantee liability for loans under the Ukrainian MFA programmes is approximately EUR 64 million.

The union's macro-financial assistance involves clearly more significant risks that member states' guarantee liabilities may also actualise. Credit losses from loan programmes would be covered primarily by the provision available to the EU CPF and only then by member states' guarantees. If another member state fails to meet its guarantee liabilities, the deficit will be covered by transfers within the EU budget. However, in this case, Finland's contribution to the EU budget could increase if the member state that has neglected its contribution were unable to meet its obligations. The guaranteed loans have a maturity of up to 25 years, which makes Ukraine more likely to repay its loans and less likely to trigger the guarantees required from the member states. However, the long loan period and, consequently, the long term of the guarantees also includes risks for future developments that are difficult to assess.

Figure 36. The state's EU-related capital and guarantee liabilities at the end of the year, EUR billion



Source: Ministry of Finance

7 Stress scenario

The report assesses the impacts of a sudden cyclical deterioration on general government finances by means of a stress test on general government finances. The test uses a scenario to describe the impacts of the deterioration of the economic cycle and the triggering of contingent liabilities on general government revenue, expenditure, budgetary position and debt. In addition, the scenario examines impacts on central government assets and net debt. The trend identified by the stress scenario is not a forecast. The purpose of the scenario is to illustrate the potential impacts of a serious economic and financial market shock on general government finances.

Description and assumptions of the stress scenario³⁴

The stress test scenario illustrates a situation where the Russian invasion of Ukraine leads to large-scale geopolitical polarisation. As a result of the polarisation, international production chains will be disrupted and existing bottlenecks in production will worsen even further. Logistics problems become more common and the global economy deteriorates in general. Overall, the economic shocks mentioned above lead in particular to an increase in prices and production costs.

The scenario assumes that rapidly rising inflation will lead to lower real earnings of households, thus undermining private sector consumption. Businesses reduce their investments as a result of increased costs and reduced demand. The adjustment of companies to weakened demand and reduced profits leads to an increase in unemployment, which further weakens private demand. Uncertainty about future economic development will also increase.

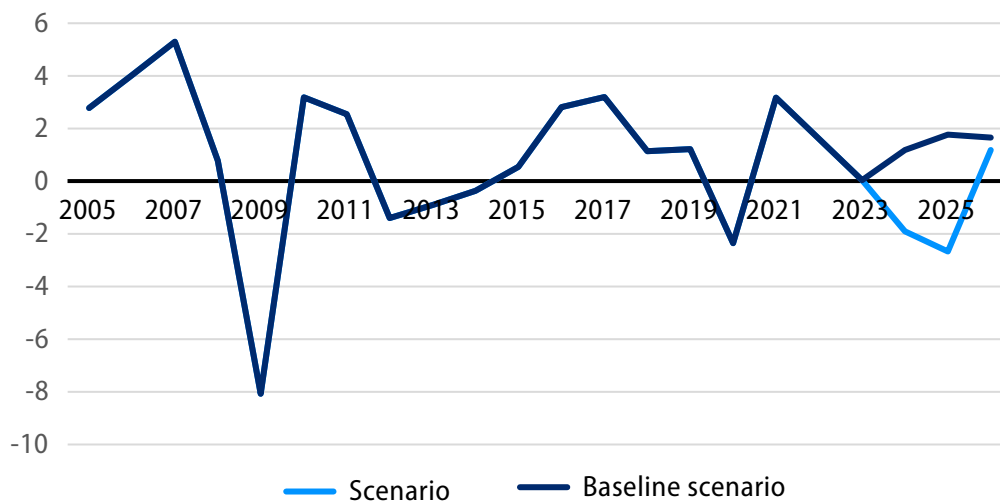
As a result of higher prices and lower real earnings, higher wage increases are required. The rise in earnings creates a price-wage cycle, which makes high inflation a longer-term phenomenon. This leads to a decline in demand and investments for several years. At the same time, unemployment continues to grow.

34 The scenario follows the European Banking Authority's 2023 stress test.

As a result of inflation and an increase in inflation expectations, the European Central Bank is expected to tighten its monetary policy and market interest rates are expected to rise. In financial markets, uncertainty increases and prices of assets fall.

In the scenario, the economy will contract significantly in 2024 and 2025. 2026 will mark a return to low growth (see figure 37), but growth will be weaker than in the baseline. Cumulatively, the economy will contract by 8% compared to the baseline. For example, compared to the COVID-19 crisis, the scenario's economic downturn is more long-term and deeper. In the scenario, consumer prices will cumulatively increase 1.8% faster than the baseline and earnings 1.6% faster. The unemployment rate will rise to 9.6% in 2026, which is 3 percentage points higher than the baseline. Table 4 illustrates the development of key parameters in the baseline and scenario.

Figure 37. GDP growth, baseline and stress scenario



Source: Ministry of Finance

Table 4. Baseline and risk scenario variables

	Baseline scenario			Scenario			Difference		
	2024	2025	2026	2024	2025	2026	2024	2025	2026
GDP, volume, change, %	1.2	1.8	1.7	-1.9	-2.7	1.2	-3.1	-4.4	-0.5
GDP, price, change, %	2.2	2.3	2.5	3.7	1.5	3.5	1.5	-0.7	1.1
Private consumption, volume, change, %	1.0	1.8	2.0	-1.8	0.9	2.6	-2.8	-0.9	0.6
Private consumption, price, change, %	2.0	1.9	2.0	3.5	1.1	3.0	1.5	-0.7	1.1
Consumer price index, change, %	2.2	1.7	2.0	3.7	1.0	3.1	1.5	-0.7	1.1
Index of wage and salary earnings, change, %	3.5	3.3	3.0	3.6	3.8	4.0	0.1	0.5	1.0
Sum of wages and salaries, change, %	3.7	4.0	3.6	2.1	2.0	5.6	-1.6	-2.0	2.0
Operating surplus, change, %	3.2	4.1	4.1	1.7	-1.1	4.7	-1.6	-5.2	0.6
Unemployment rate, %	7.2	7.0	6.6	8.8	10.9	9.6	1.6	3.9	3.0
Bond interest rate (10 years), %	3.2	3.2	3.2	5.3	5.0	4.8	2.2	1.8	1.6
Share prices, annual change, %							-55.3	-48.4	-43.4

Source: Ministry of Finance

Impact of the scenario on general government finances

The reactions of general government finances to the economic development described in the scenario is estimated with the aid of a scenario model for general government finances³⁵. It is not assumed that fiscal decisions be made in the scenario but that revenue and expenditure will change according to macroeconomic changes, and automatic stabilisers operate freely.

The contraction in economic growth will reduce central government tax revenue in particular. A decrease in the wage amount reduces central government income taxes, and the decrease in the profitability of companies (operating surplus) reduces the revenue from business taxes. A decrease in private consumption, in turn, leads

³⁵ The scenario model for general government finances is a general government finances forecast model developed in the Ministry of Finance's Economics Department.

to a decrease in VAT revenue. The rapid rise in prices, earnings and unemployment rates, on the other hand, increases general government expenditure. In particular, social benefits paid by social security funds and general government consumption expenditure (mainly wage earners' compensation and intermediate consumption) react to the increase in prices and earnings levels. In addition, the increase in the number of unemployed people will increase benefit expenditure, which will also increase as a result of index adjustments. A rise in interest rates and a fall in stock exchange values continue to have a major impact on earnings from earnings-related pension funds. An increase of interest rates also increases the costs of public debt.

Table 5. General government indicators in relation to GDP, baseline and scenario

	Baseline scenario			Scenario			Difference		
	2024	2025	2026	2024	2025	2026	2024	2025	2026
General government (consolidated) revenue, relative to GDP, %	51,4%	51,3%	50,8%	50,6%	51,9%	52,0%	-0,9%	0,6%	1,2%
General government (consolidated) expenditure, relative to GDP, %	54,7%	54,7%	53,8%	56,6%	60,6%	59,3%	1,9%	5,9%	5,5%
General government budgetary position, relative to GDP, %	-3,3%	-3,4%	-3,0%	-6,0%	-8,7%	-7,3%	-2,7%	-5,3%	-4,3%
General government debt, relative to GDP, %	76,8%	78,9%	80,4%	79,4%	89,2%	92,8%	2,6%	10,3%	12,4%

Source: Ministry of Finance

Table 5 provides a summary how the key indicators describing general government finances develop in the baseline and the scenario. Economic developments in accordance with the stress scenario would severely weaken the general government's budgetary position (see figure 39). In particular, the central government's deficit would deteriorate, whose expenditure would increase and revenues would decrease. In 2024, the central government deficit would be about EUR 3.5 billion higher than in the baseline. In 2025, the deficit would be already almost EUR 8.6 billion higher than the baseline and in 2026 approximately EUR

7.5 billion higher. The financial position of the municipal sector and the wellbeing services counties will also deteriorate in the scenario compared to the baseline, but considerably more moderately than the central government.

Economic development in line with the scenario would also weaken the financial position of social security funds. The social security contributions collected by the social security funds would decrease compared to the baseline and, on the other hand, the social benefits and subsidies paid by the funds would increase significantly in the scenario. At the end of the period under review, the financial position of social security funds would be about EUR 4 billion weaker than in the baseline.

In the scenario, public sector (consolidated) revenue will decrease by less than EUR 5 billion in 2024, by more than EUR 8 billion in 2025 and by approximately EUR 6 billion in 2026 compared to the baseline. The decline in income is mainly the result of a reduction in property income and tax revenue. In 2026, the property income of general government is EUR 3 billion and social security contributions are approximately EUR 0.6 billion lower than in the baseline. Direct taxes received, on the other hand, will decrease by approximately EUR 2.5 billion in 2026 compared to the baseline. Direct taxes will decrease mainly as a result of the collapse of income tax revenue. Taxes on production and imports will also decrease in the scenario compared to the baseline.

Total public sector (consolidated) expenditure will increase (compared to the baseline) by approximately EUR 3 billion in 2024 and by just under EUR 6 billion in 2025 and 2026. The most significant expense growth takes place in social benefits. In the scenario, social benefits and grants paid by general government will be less than EUR 1.5 billion higher than the baseline in 2024, approximately EUR 4 billion higher in 2025 and nearly EUR 2.5 billion higher in 2026. In 2026, interest expenditure is estimated to be approximately EUR 2.6 billion higher than in the baseline, and consumption expenditure, i.e., wages and goods purchases, will increase by less than EUR 0.6 billion in 2026 compared to the baseline.

In the scenario, the general government deficit is financed by borrowing, which also increases the general government debt (see figure 40). In 2024, the general government debt-to-GDP ratio would be more than 2.5 percentage points and in 2025 about 10 percentage points higher than the baseline. At the end of the review period in 2026, general government debt in the scenario would rise above the baseline by more than 12 percentage points, to more than 92% of GDP.

Contingent liabilities

The state has a significant number of guarantees and other contingent liabilities. Crises in recent years, such as the COVID-19 pandemic and dramatic changes in energy market prices, have also brought new responsibilities. The role of contingent liabilities is examined in the stress test by focusing on Finnvera and the Housing Fund of Finland, as was done in the previous years' scenarios, too. Most of the contingent state liabilities are liabilities associated with these two bodies. In the stress scenario, the housing fund's interest subsidy loans are processed in accordance with the new statistical method, in which the housing fund's interest subsidy loans are included in the general government debt in accordance with national accounts.

The scenario assumes that the recession would drive some of Finnvera's most high-risk guarantee customers into insolvency. The assumption aims at illustrating the risk of credit losses from liabilities to the central government.

According to the scenario, the guarantees cover about half of the guarantee receivables of insolvent customers, but even after that, the total losses would rise to EUR 2.1 billion. The losses would wipe out both of the export financing risk buffers. If the State Guarantee Fund were depleted, this would increase general government deficit, erode the cash assets and push up borrowing needs, as the State Guarantee Fund is connected via the liaison account with the overall cash assets of central government. In the scenario, the Fund and Finnvera are provided with capital injections totalling EUR 2.1 billion in 2023.

With regard to the National Housing Fund, the scenario assumes that a single large and several medium-sized clients whose combined exposure is about 1.6 billion will become insolvent. Realisation of property collateral would cover 50% of the liabilities, which means that credit losses would total EUR 800 million. However, the realisation of the large housing stock may take time, so the entire EUR 1.6 billion guarantee liability transfers to the Housing Fund of Finland and increases general government deficit by the same amount. The National Housing Fund has liquid cash funds totalling EUR 3.2 billion, which means that it does not require any budget funding to cover the guarantee liabilities and there is no need for capital injections either. Although the triggering of guarantee liabilities does not have a direct budgetary impact, it leads to a reduction in the central government's cash reserves, as the housing fund's cash reserve is also part of the central government's total cash reserve through a gateway account, which means that the central government will have to take additional debt of EUR 800 million to keep the cash funds at a sufficient level.

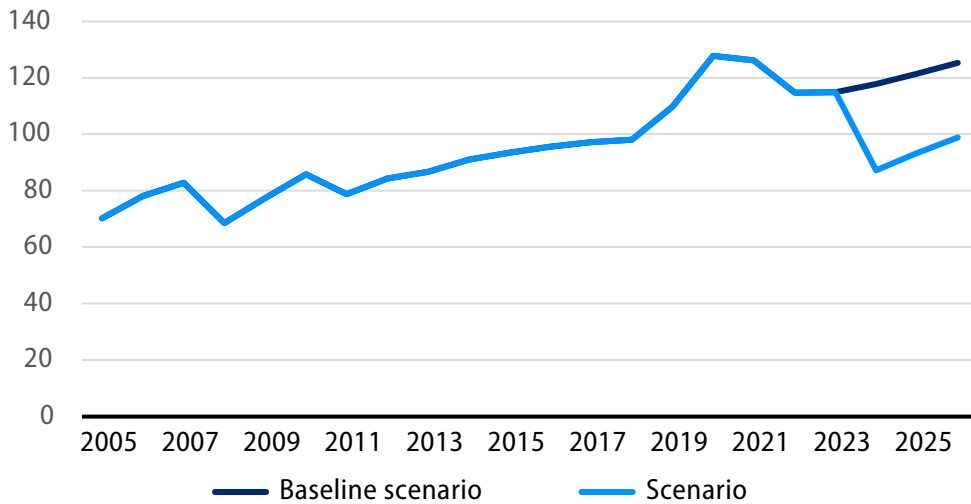
In total, contingent liabilities would cause losses of EUR 2.9 billion at the 2025 level after the realisation of the collateral. Keeping central government cash funds to baseline levels would require additional borrowing totalling EUR 2.9 billion. Nevertheless, the debt-to-GDP ratio in the general government debt statistics does not increase through the Housing Fund of Finland, because the insolvency of the large individual customer results in an equal reduction in related guarantees, which are included in general government debt, in line with the new statistics compilation method.

Central government financial assets

In an economic crisis, the development of central government assets also plays a role. Uncertainty in financial markets and changes in prices affect state ownership. In the second quarter of 2023, the central government had financial assets of EUR 114.9 billion, of which EUR 22.1 billion was held by the State Pension Fund (VER)³⁶ and the rest by other central government units.

In the baseline scenario, the GDP ratio of central government equity and reserve assets is assumed to remain unchanged. At the end of 2023Q2, the state owned listed shares and equity funds worth EUR 51.5 billion. In the stress scenario, central government's financial assets will decrease by about EUR 30 billion in 2024, which is about 26% compared to the baseline. The equity market will not recover in the scenario and the state's assets will remain at EUR 26.0 billion, or approximately 21% of the baseline. It is also assumed that the value of certain loan receivables will decrease. The shock is not assumed to affect other central government receivables, including loans granted during the euro crisis, the value of real estate companies, universities' assets, the book value of unlisted state-owned companies or other receivables.

36 In the sectoral classification of the national accounts, the State Pension Fund belongs to earnings-related pension providers, not central government. In this analysis, VER's assets are regarded as state assets.

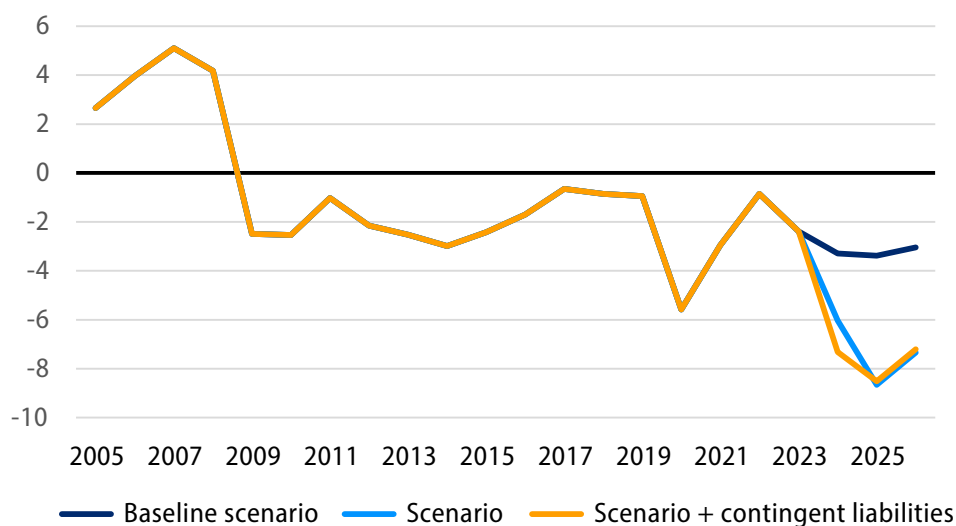
Figure 38. Central government financial assets

Source: Ministry of Finance

Public sector fiscal position and debt ratio

In the early 2020s, Finland and the world economy have already faced two major shocks: the COVID-19 pandemic and the inflation caused by energy prices as a result of the Russian invasion. The war started just when the economic impacts of the pandemic were waning and the Finnish economy was on a strong recovery track. In addition, Finland has had to make significant investments in preparedness, and the rise in interest rates has increased interest expenditure on general government finances.

A new crisis in the scenario would cause a deep deficit in general government finances, and debt would accelerate at the pace of the COVID-19 years.

Figure 39. General government budgetary position in relation to GDP

Source: Ministry of Finance

The general government finances situation will deteriorate significantly in the stress scenario. Compared to the baseline, the general government budgetary position will deteriorate by more than 4 percentage points of GDP at the end of the review period. The general government debt-to-GDP ratio will increase to 93%, up to 12 percentage points above the baseline.

Table 6 presents a breakdown of the factors affecting the public debt ratio. Most of the deterioration in general government finances is due to an increase in the primary balance. The debt ratio is also somewhat increased by increasing interest expenses. The contraction in GDP also has a clear impact on the growth of the debt ratio.

Table 6. Breakdown of the debt-to-GDP ratio change

	Baseline scenario			Scenario			Difference		
	2024	2025	2026	2024	2025	2026	2024	2025	2026
Debt-to-GDP ratio	76.8	78.9	80.4	79.4	89.2	92.8	2.6	10.3	12.4
Debt-to-GDP ratio change	2.6	2.2	1.5	5.2	9.8	3.6	2.6	7.7	2.1
Primary balance of central government, local government and other social security funds	3.0	3.3	2.9	4.2	6.3	5.0	1.2	3.0	2.1
interest expenses	1.2	1.3	1.4	1.5	2.0	2.4	0.3	0.7	1.0
Other reasons	0.8	0.5	0.3	0.7	0.5	0.3	-0.1	-0.0	-0.1
GDP value change and residual	-2.4	-3.0	-3.1	-1.2	0.9	-4.0	1.2	4.0	-0.9
Employees Pensions Act surplus (no influence on borrowing)	1.0	1.3	1.3	-0.2	-0.5	-0.1	-1.2	-1.8	-1.4

Source: Ministry of Finance

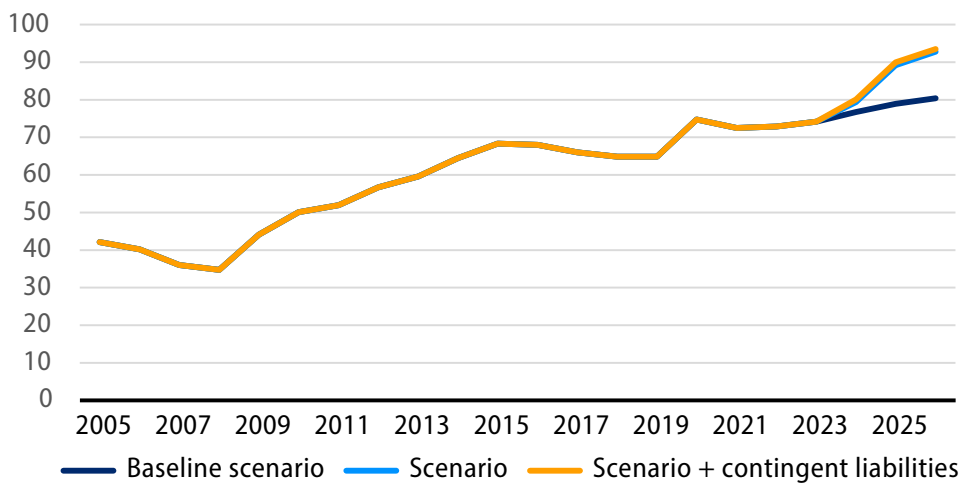
The triggering of guarantee liabilities would further exacerbate the situation by weakening the deficit and increasing the debt ratio. The buffers are already lower with regard to export credit guarantees, due to earlier loss provisions. In relation to the gloomy economic scenario, the losses appear to be minor, but the costs are significant, and in the recession, it is also necessary to prepare for unexpected expenditure needs through contingent liabilities.

Central government net debt³⁷ was negative before the 2008 financial crisis, which means financial assets exceeded debt. After the crisis, the net debt-to-GDP ratio has risen to around 15–20%. In the scenario, central government net debt grows to around 35%. The effects of macroeconomic shocks are often also reflected in the financial markets, as a result of which general government net assets may deteriorate, not only through debt to finance deficits, but also through changes in value.

37 EDP debt plus derivative liabilities and minus central government financial assets in the national accounts and the State Pension Fund.

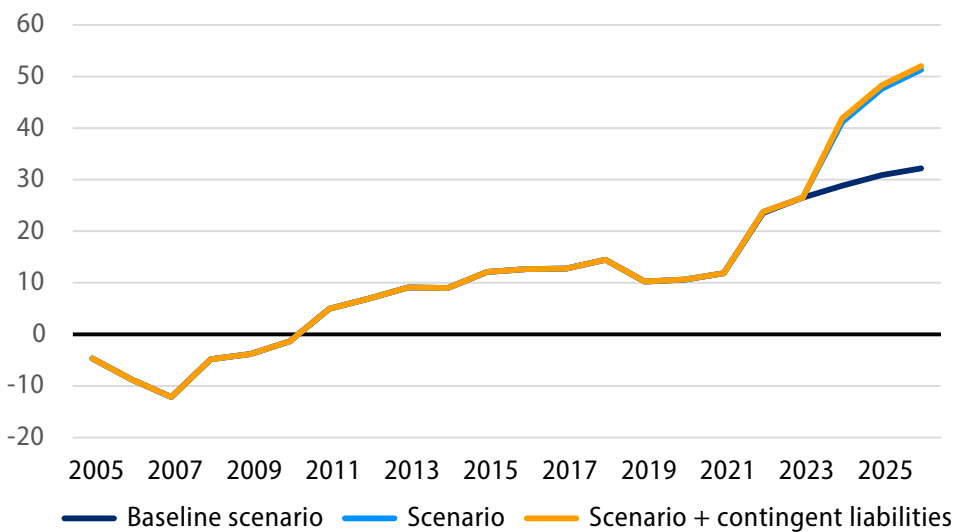
Extending and deepening the crisis would further increase general government debt. At the same time, the headroom of public finances would be reduced. The possibilities for fiscal measures will be reduced. The beginning of this decade has shown that public finances are subject to shocks from unexpected sources. For this reason, it is essential to ensure the necessary headroom also in the future and to take unexpected crises and needs into account when preparing for the future.

Figure 40. General government debt in relation to GDP



Source: Ministry of Finance

Figure 41. Central government net debt



Source: Ministry of Finance

Attachments

Appendix 1. Classification of government financial liabilities

Liability/ obligation	Direct Obligation in any event	Contingent should an event occur Obligation
Explicit Legally binding	<ul style="list-style-type: none"> • budgetary expenditure • loan, interest • service fees under the PPP model • other statutory or contractual obligations 	<ul style="list-style-type: none"> • central government guarantee (including export credit guarantee) • callable capital in international financial institutions • climate liabilities • nuclear liability
Implicit Societally/ politically binding	<ul style="list-style-type: none"> • citizens' basic social security 	<ul style="list-style-type: none"> • deposit guarantee and other support to the banking sector • capitalisation of state-owned companies or ensuring their solvency • financial aid to the municipal sector • environmental liabilities, catastrophes, external and internal security

Source: Ministry of Finance

Appendix 2. Breakdown of central government guarantees in effect 2012–2022, EUR billion

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Muutos 2021–2022
Finnvera*	14.8	14.6	17.5	22.6	22.6	27.7	30.3	32.6	31.6	32.12	35.06	9.15 %
<i>Export guarantees and special guarantees</i>	<i>11.2</i>	<i>11</i>	<i>12.6</i>	<i>16.3</i>	<i>15.3</i>	<i>19.1</i>	<i>19.7</i>	<i>20.9</i>	<i>19.5</i>	<i>19.5</i>	<i>22.0</i>	<i>12.97 %</i>
<i>Finnish liability portfolio</i>	<i>2.7</i>	<i>2.5</i>	<i>2.3</i>	<i>2.3</i>	<i>2.2</i>	<i>2.1</i>	<i>2</i>	<i>1.9</i>	<i>2.4</i>	<i>2.6</i>	<i>2.3</i>	<i>-11.70 %</i>
<i>Central government guarantees for funding</i>	<i>0.9</i>	<i>1.1</i>	<i>2.6</i>	<i>3.9</i>	<i>4.9</i>	<i>6.5</i>	<i>8.7</i>	<i>9.7</i>	<i>9.7</i>	<i>10.0</i>	<i>10.7</i>	<i>7.22 %</i>
Student loans	1.5	1.6	1.8	2	2.3	2.7	3.4	4	4.5	5.0	5.5	10.42 %
EFSF	5.1	6.2	6.6	6.2	6.3	7	7	7	6.8	6.6	6.7	1.20 %
Bank of Finland	0.8	0.7	0.6	0.5	0.6	0.4	0.5	0.6	0.6	0.8	0.8	9.09 %
Central government financial assets	10.2	11.2	11.8	12.3	13.2	13.8	14.6	15.5	16.5	17.7	18.6	5.09 %
<i>National Housing Fund</i>	<i>10.2</i>	<i>11.1</i>	<i>11.8</i>	<i>12.3</i>	<i>13.1</i>	<i>13.7</i>	<i>14.5</i>	<i>15.3</i>	<i>16.4</i>	<i>17.5</i>	<i>18.4</i>	<i>5.13 %</i>
<i>Development Fund of Agriculture and Forestry</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>9 %</i>
COVID-19 interventions	-	-	-	-	-	-	-	-	1	1.4	1.4	0 %
Others	1.2	0.8	0.9	0.6	1.1	0.5	0.7	0.7	0.7	0.7	0.4	-50 %
Total	33.7	35	39.2	44.2	46.1	52.1	56.6	60.2	61.7	64.3	68.5	4.22 %

*) The liabilities in effect (used and unused) have been included in the guarantee amounts related to export guarantee and special guarantee operations. The risk arising from repayments of export credits granted by Finnish Export Credit Ltd is covered by an export credit guarantee granted by the parent company, Finnvera. Funding acquired by Finnvera within the framework of the EMTN and ECP loan programmes has a central government guarantee. To the extent that the loan guaranteed by the government has been used to finance export credits, the government's liabilities for export guarantees and government guarantees for funding are not doubled, but as a result of various factors, they could be realised at different times.

Source: State Treasury; Ministry of Finance; Ministry of Economic Affairs and Employment



MINISTRY
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MINISTRY OF FINANCE
Snellmaninkatu 1 A
PO BOX 28, 00023 GOVERNMENT
Tel. +358 295 160 01
financeministry.fi

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