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Foreword to the Financial Stability Review

The performance of the financial system in recent years has been shaped by very different risks from those to which we were accustomed in the past. They mostly come from the macroeconomic environment and from the natural environment, i.e. from outside the banking system. Conversely, the risks inherent in the banking system or the financial system themselves have recently been diminishing.

The first set of factors, which are affecting the financial system and will continue to do so in the future, certainly include the gradual cooling of the euro area economy, and also persistent high inflation. This situation has led us to raise our interest rates for the tenth consecutive time at our latest monetary policy meeting. The key interest rates have thereby reached levels that, maintained for a sufficiently long duration, will make a substantial contribution to the timely return of inflation to the target.

The rapid rise in interest rates over the past year has created highly favourable conditions for bank performance. The revision to last year's GDP figures has worsened the picture that we had of the Slovenian economy. Uncertainties related to the data basis are also affecting the forecasts of future developments. Currently, there is still little data available for the third quarter, and it does not provide a clear picture of macroeconomic developments in Slovenia. The picture will also be affected by the aftermath of the summer's severe weather events, which caused damage of unprecedented magnitude.

The real estate market lies between the two groups of factors, internal and external. The central bank is able to exert indirect influence on it, albeit to a limited extent, via interest rate levels and through macroprudential policy. Recently there has been a gradual slowdown in price growth, in the wake of a slightly sharper decline in volume, which is indicative of a possible reversal in the market. The indicators of overvaluation of residential real estate have undergone a downward reversal, and suggest that overvaluation relative to fundamentals is less than in previous quarters. In the wake of the rise in interest rates, the volume of new housing loans has also returned to its levels before 2021. All of this points to a correction in the real estate market, muted for now, which had seen the risk assessment lowered to moderate even in the previous quarter.

Exposure to credit risk has been high in recent years, on account of a variety of factors, but the level of credit risk is diminishing. Despite predictions to the contrary in previous years, NPL ratios have been gradually declining since the pandemic, and are currently at record low levels. They are also declining in the sectors that were worst hit during the pandemic. The aftermath of August's natural disasters poses a certain level of risk. Performance in energy-intensive sectors deteriorated after the outbreak of the Russian military aggression against Ukraine, while the gradual rise in interest rates might also see a deterioration in the bank portfolio segments that carry variable interest rates. Here it should also be noted that over the last ten years the Slovenian banking system has made a significant move away from variable interest rates towards fixed interest rates, particularly in household lending. Merely just over a tenth of household loans carried a fixed interest rate at the end of 2013, but today the figure is almost three-quarters. This has reduced credit risk in the banking system, but at the same time has increased interest rate risk. Interest rates for the majority of borrowers have been negative in real terms for some time now, thanks to persistently high inflation.

Given this asset structure, the situation in the Slovenian banking system is less difficult than in certain euro area countries where variable interest rates are prevalent on loans. It is significantly easier for banks to manage interest rate risk than their customers, particularly households and small businesses. In the current uncertainty surrounding future interest rates, we have kept our assessment of interest rate risk as elevated, but there are signs of a decline. The repricing gap remains at the level reached in the early part of the year, but the rise in liquid assets and the increase, albeit very slow, in the share of fixed-term deposits point to a decline in interest rate risk in the future.

The Slovenian banking system has largely relied on deposit funding, traditionally the most stable source, for a number of years now. In the low interest rate environment bank customers had no incentive to fix deposits, which meant that the structure of bank funding evolved over the course of just over a decade to the point where the majority of deposits are sight deposits. From a bank perspective this funding is favourable in cost terms, but also brings certain risks, which now that interest rates are gradually normalising might be realised at individual banks in the switching of deposits between banks, or in their withdrawal from the banking system entirely. The assessment of interest rate risk has therefore been held at moderate. Actual switching from sight deposits to fixed-term deposits remains modest, as Slovenian banks are only raising interest rates on deposits slowly, and among the slowest in the euro area. With real interest rates highly negative, customers might be encouraged to consider alternative investments, and so it makes sense for the banks to closely monitor the competition in the sector and to actively adjust their deposit interest rates.

The gradual adjustment of interest rates on the liability side is one of the main factors contributing to the high incomes generated recently by banks. Amid modest demand for loans, assets placed with the central bank also currently present a good investment opportunity, albeit rather passive. After years of facing challenges in income generation, as we regularly pointed out in our publications, better times have arrived for banks with higher interest rates. Banka Slovenije nevertheless warns that the current favourable conditions for generating income could rapidly change for the banks as a result of potential pressures on the deposit side, or on account of certain other external circumstances.

Since the previous Financial Stability Review we have unfortunately seen the realisation of climate risks, regarding which we have been warning for some time now that financial institutions need to take account of them in their everyday work. The current assessments are that the impact of the severe weather events will not drive a major increase in non-performing claims at banks, but the impact on insurers' performance will be larger. The increased frequency of events of this kind in Slovenia and around the world is a reminder that it is vital for financial institutions to take heed of climate risks, both transition and physical, in their operations. According to the information and figures that they are providing to us, banks are increasingly moving from the mere strategic consideration of climate risks into specific actions in this area.

Contrary to expectations, the number of cyber incidents has not risen, despite the war in Ukraine, and they have not posed a marked threat to the banking system. Banks are reporting an increase in SMS scams over the last year, where scammers impersonate banks and then misuse the data obtained from customers to make unauthorised payment transactions. It is therefore vital that bank customers remain cautious and are educated on the risks, and that financial institutions invest in increasing their cyber resilience.

There have not been any significant changes in the banking system's resilience to risks in recent months. The liquidity resilience of the banking system has been extremely high for several years now, and liquidity improved slightly further in the first half of this year, although there remain large variations between individual banks. By contrast, resilience in the solvency and profitability segment is assessed as medium. Given the record profitability of the banking system, there are exceptional opportunities for banks to strengthen their capital positions, and it would therefore make sense for them to retain as much of their earnings as possible, thereby strengthening their capital resilience. It would also make sense for any arrangements that might intervene in the banks' earnings to properly recognise the intention of any banks that opt to retain a larger share of their earnings.

Within the limits of its mandate Banka Slovenije addresses the described risks and resilience of the banking system through its macroprudential instruments, which have undergone several modifications in the last few months, with several more in the pipeline.

The modified macroprudential restrictions on lending, which make it easier for individuals with below-average income to access credit, entered into force in July. Concern for financial stability has remained the basic guiding principle of the modifications, for which reason the relaxation of the measure was implemented in parallel with a reduction in the allowed level of exemptions from the prescribed cap on DSTI.

If these measures primarily aim at reducing risks in the banking system, the capital buffers are primarily aimed at strengthening the financial system's (capital) resilience to the identified risks. This is most explicitly evident from the calibration of one of the sectoral systemic risk buffers that addresses the risks that could be realised following the approval of higher-risk household loans, in part as a result of the previously described adjustment of the measure. Given the continued easing of the risks inherent in the real estate market, there could in time be an adjustment to the other sectoral buffer, which was introduced with the aim of increasing the banking system's resilience to the risks to financial stability posed by the Slovenian real estate market, and the risks associated with increased household lending and the low interest rate environment, which has since come to an end.

During the next assessment, which will be conducted by the end of November, an adjustment to the methodology for setting the buffer for other systemically important institutions used by the ECB will give rise to an increase in the average buffer for the Slovenian banking system, i.e. to an increase in capital requirements at individual large banks, which could be used by the banks to absorb any realisation of risks.

There is a similar effect from the rise in the countercyclical capital buffer rate, which all banks and savings banks in the Slovenian banking system will be required to meet as of the end of the year. This instrument has gained an additional purpose over its years of use in the European space. A growing number of countries are opting for a positive-neutral buffer rate, which means that they set a positive buffer rate despite the absence of any rise in cyclical risks coming (primarily) from high credit growth. The benefits of a strategy of this type on the part of certain macroprudential authorities were evident during the realisation of risks coming from external events unrelated to the financial system itself (e.g. the pandemic). Given that right now we are mainly seeing risks coming from outside, a strategy of this type is becoming increasingly favoured by EU macroprudential authorities, whereby positive-neutral countercyclical capital buffer rates ranging between 0.5% and 2.0% have been announced or have already been introduced. The rapid transition from the period of low interest rates into a period of elevated inflation, higher nominal interest rates, and the resulting increased volatility in nominal and real economic categories carries the potential for an increase in risks, particularly in connection with sub-optimal investment decisions caused by major gaps between real and nominal categories. Cyclical developments might become more pronounced again in a situation of this type. Banka Slovenije is therefore looking at strengthening the preventive nature of macroprudential policy via an increase in the banking system's resilience to any rise in the risks described above.

Dr Primož Dolenc

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Executive Summary

The general level of systemic risks to financial stability in Slovenia is improving. Two major factors in this are the improvement in the banks' income position driven by the rise in interest rates, and the non-materialisation of risks that were prominent even in the early part of this year. We should nevertheless emphasize that the level of uncertainty remains high, on account of the persistently high inflation alongside the simultaneous cooling of the global economy. The risk assessments for the third quarter of 2023 were lowered for credit risk, income risk and the risk inherent in the performance of leasing companies. The credit risk assessment was lowered to moderate, in light of the improvement in asset quality indicators, while the aftermath of the recent floods poses the risk of a future rise in NPEs. The income risk assessment was lowered to low with a stable outlook, in light of the sharp increase in the banks' (net) interest income. The risks inherent in the performance of leasing companies, which are enjoying further growth in new and existing business while the proportion of arrears remains low, was also assessed as low. Compared with the spring issue of the FSR, the assessment of the risk inherent in the real estate market was also lowered, the period of high growth in residential real estate and housing loans having come to an end. The assessments of other systemic risks and of cyber risk and climate risks remain unchanged. The assessments of the resilience of the banking system also remain unchanged, at medium in the segment of solvency and profitability, and high in the liquidity segment. (Table 1.1).

Table 1.1: **Banka Slovenije's risk and resilience dashboard for the Slovenian financial system**

	Risk and resilience dashboard					
	Q4 2021	**Q4 2022**	**Q1 2023**	**Q2 2023**	**Q3 2023**	**Trend of change**
Systemic risk						
Risk inherent in the real estate market						⇨
Funding risk in the banking system						⇨
Interest rate risk in the banking system						⇩
Credit risk in the banking system						⇧
Income risk in the banking system						⇨
Risk inherent in leasing companies						⇨
Resilience to systemic risks						
Solvency and profitability of the banking system						⇩
Liquidity of the banking system						⇩
Other risks						
Cyber risk						⇨
Climate risks*						⇨

Colour code:

Risk	low	moderate	elevated	high
Resilience	high	medium	low	very low

Note: The risk and resilience dashboard is based on an analysis of key risks and resilience in the Slovenian banking system, and is defined as the set of quantitative and qualitative indicators for defining and measuring systemic risks and resilience. The colour code in the risk and resilience dashboard relates to the assessment for up to one quarter in advance. The arrow illustrates the expected change in risk or resilience in the scale (up or down) over a slightly longer horizon of around one year. For risks, an up arrow means an increase in risk, and vice-versa, while for resilience it means strengthening, and vice-versa. * Transition risks are taken into account under climate risks.
Source: Banka Slovenije

Despite the prevalence of downside risks to future growth, the global economy remains robust. Economic activity stagnated in the second quarter in the euro area, but strengthened in Slovenia, although its future level is uncertain, given the destruction wreaked by the severe weather. Key interest rates have continued to rise, further tightening the financing conditions. In the wake of higher interest rates on loans, the non-banking sector's burden from variable-rate debt and new debt has further increased, and bank funding costs are also rising. After a long period of difficult conditions for generating income, bank performance has otherwise improved. The probability of a systemic crisis in Slovenia in the next 12 months as assessed by an early warning model rose rapidly to above the signalling threshold following August's severe weather events, primarily as a result of volatility in the stock market, which reflects the current rise in uncertainty. Previously the risk to Slovenia had mostly been assessed as below the threshold, and lower than for the majority of the countries in the sample.

The assessment of the risk to financial stability inherent in the real estate market was lowered to moderate, having stood at elevated in the spring issue. The period of high growth in residential real estate prices and housing loans has ended for now, amid high inflation and rising interest rates. For the moment the slowdown in residential real estate prices and the decline in the number of residential real estate sales merely entail a price correction, and not the realisation of risks to financial stability.

The assessment of funding risk remains moderate. The maturity gap narrowed slightly in the first half of 2023 amid a simultaneous increase in liquid assets and a decline in long-term loans, but remained relatively large. The gradual rise in interest rates on deposits has given savers a little encouragement to fix their deposits, but sight deposits nevertheless continue to account for the majority of total deposits by the non-banking sector. Deposits remain a stable source of funding for banks, but wider gaps in deposit interest rates could drive more significant switching between individual banks in the future. Monitoring the competition in the sector and actively adjusting pricing policy therefore remain important to the banks' funding stability.

The assessment of interest rate risk remains at elevated, although it is expected to decline in the future. The repricing gap remained at a level similar to that half a year ago. As the stock of loans to the non-banking sector declines, the rise in the share of loans that carry a fixed interest rate is slowing, and the share of highly liquid assets is increasing. Conversely, the rise in interest rates on deposits is gradually increasing the share of fixed-term deposits, while the share of sight deposits is declining, which alongside the increase in the stock of issued debt securities is helping to reduce risk.

The credit risk assessment was lowered to moderate, in light of the improvement in asset quality indicators. Despite numerous challenges, asset quality has undergone continual improvement over the last few years, and reached a new milestone in the first half of 2023. Quality has begun to improve markedly even in portfolio segments where NPEs had remained persistently high. The recent floods entail a certain risk of a rise in NPEs, but according to current assessments they will not have a significant impact on the quality of bank assets. Rising corporate profits and high employment are indicative of the good financial position enjoyed by bank customers, which could deteriorate in the future on account of a cooling economy and persistently high inflation.

The banks are seeing further improvement in their conditions for generating income, and the income risk assessment was therefore lowered to low. The banks have seen a sharp rise in income, driven by growth in net interest income. The increase in net interest income and the rise in the net interest margin are mainly being driven by the rise in asset interest rates. Despite the slowdown in growth in loans, the impact on income generation is expected to remain highly positive over the remainder of the year. The high share of sight deposits and the very slow rise in interest rates on bank deposits at longer maturities are limiting and slowing the pass-through of higher interest rates into interest expenses. The catastrophic weather events that hit parts of the country in early August are not expected to lead to any reduction in income generation at the banks.

The assessments of other risks, including cyber risk and climate risks, remain unchanged. Cyber risk in the banking system remains moderate. The banks are not reporting any rise in the number of cyberattacks or incidents over the last year as a result of geopolitical risks. The number of cyber incidents in the period between March 2022 and July 2023, which was marked by the war in Ukraine, was low, and did not pose any particular threat to the banking system. Transition climate risks in the banking system also remain moderate, with a stable outlook. As far as physical risks are concerned, the rising frequency and intensity of loss events could have a significant impact on the financial system, particularly the insurance sector. Meanwhile the assessment of the impact of the recent floods remains rather uncertain, given the wide range of outcomes.

The assessment of the banking system's resilience from the perspective of solvency and profitability remains medium. Our assessment is that the increase in earnings being driven by strengthening net interest income is currently increasing bank resilience. Additional positive effects on profitability and solvency alike can be anticipated on this account this year. The favourable developments in profitability in 2022 and the sale of one leasing company in the first quarter of 2023 have also been positively reflected in the total capital ratio. The level of net profit and the future strengthening of regulatory capital from retained earnings will be affected by the introduction of the tax announced on bank total assets, while current assessments suggest that the high current earnings will be able to absorb the consequences of any deterioration in the portfolio as a result of the floods.

The assessment of the banking system's resilience in the liquidity segment also remains unchanged, at high. Although there was an improvement in all the liquidity indicators at the level of the banking system, we should reiterate that there is still considerable variation between the banks in their ability to cover the consequences of any realisation of funding risk.

The financial position of households and non-financial corporations also remains good in 2023. Households in Slovenia are less indebted than those in the euro area overall, which means that they face a smaller increase in the burden of borrowing costs imposed by rising interest rates. Amid a buoyant labour market, gross household disposable income also continued to grow in nominal terms, although real growth has recently been significantly lower or even negative. The indebtedness indicators for non-financial corporations also remain low, both in the year-on-year comparison and in comparison with the euro area overall. The recent difficult business conditions have not brought a significant rise in the number of bankruptcies initiated or in the number of account freezes at non-financial corporations, although the figures have begun to rise in certain sectors.

The performance of the non-financial sector remained relatively stable in the first half of 2023. The changes to supplemental health insurance and the aftermath of August's severe weather events could have a significant impact on the performance of the insurance sector. The assessment of the risk inherent in the performance of leasing companies was reduced to low. Leasing companies continued to strengthen their activities in the first half of 2023, which was reflected in an increase in new business and in growth in their total assets. Insurance corporations saw a renewed increase in their gross written premium in the first half of 2023, most evidently in general insurance. They also raised their insurance premiums, given the rise in claims, which was driven primarily by inflation. A government decree limiting the rise in premiums for supplemental health insurance entered into force at the beginning of the year, and had a major impact on insurance corporations' earnings, which in the first half of this year were down sharply on the same period last year. The consequences of August's severe weather events are not yet known in full, but are certain to have a negative impact on the performance of insurance corporations in the second half of the year. The domestic mutual funds saw a rise in assets under management in the first half of 2023, thanks above all to the prevalence of equity investments, where the markets enjoyed good growth.

Macroprudential policy is pitched at maintaining the resilience of the financial system. A countercyclical capital buffer rate in the amount of 0.5% was introduced at the end of 2022, and will have to be met by the banks as of 31 December 2023. A new regulation setting the O-SII buffer was passed in July of this year, and implements the revised methodology for setting the minimum O-SII buffer rate that will be applied by the ECB as of 1 January 2024. The application of this methodology will raise average O-SII buffer rates. A new regulation making an adjustment to the previous macroprudential restrictions on consumer lending entered into force on 1 July of this year. From the perspective of macroprudential policy, the consequences of the emergence from the period of low interest rates and low variability in various economic categories into a period of elevated inflation, higher nominal interest rates, and the resulting greater variability in nominal and real economic and financial categories will be of huge importance. This change will bring greater emphasis on monitoring the more pronounced cyclical developments. This consequently entails the focusing of macroprudential policy on increasing the resilience of the banking system, which is currently also being supported by high earnings.

There are again four boxes addressing particular subjects in this issue of the publication. The first analyses securities holdings, with a focus on the consequences of fair value changes. The second and third boxes examine the challenges facing the banks in the area of digitalisation and climate change. The fourth highlights the role of regular stress tests.

1 Macroeconomic Environment

The global economy is showing considerable robustness this year, despite the rise in central bank interest rates, this spring's shocks to several financial markets, the persistent geopolitical tensions and the slowdown in international trade. The outlook for economic growth continues to be accompanied by downside risks, particularly in connection with cooling demand in euro area countries and the persistently high, albeit slowing, inflation. Economic activity stagnated in the second quarter in the euro area overall, but strengthened in Slovenia, although the impact of the severe weather events will also be felt over the remainder of the year. The domestic labour market remains tight, and inflation is elevated, core inflation in particular, while the financing conditions are continuing to tighten. The assessment of the risk to GDP growth in Slovenia improved slightly in the second quarter, but the probability of a financial crisis increased after the floods. After a period of difficult conditions for generating income, the performance of banks has improved, but certain risks still remain.

The global economy is showing considerable robustness in 2023, despite many downside risks to economic growth. The risks to the financial sector have eased since the issues in the banking sectors in the US and Switzerland were resolved, and after an agreement was reached on raising the debt ceiling in the US, but the risks of lower global economic growth remain. The rise in central bank interest rates is putting a brake on economic activity, but inflation could remain high in the future despite its current slowdown, potentially on account of volatility on the energy markets, extreme weather shocks and high wage growth. Alongside high inflation, the downside risks to global economic growth come from the possibility of slower economic growth in China, and the potential issues for certain countries in refinancing their debt amid rising interest rates. Conversely, given the realisation of downside risks, inflation might fall faster than expected, thus reducing the need for further hikes in key interest rates. Domestic demand might also prove to be more robust than anticipated, and could further drive economic growth. The IMF is forecasting global economic growth to slow from 3.5% in 2022 to 3.0% this year and next year,[1] the latest economic forecast for this year being more optimistic than the previous one.[2]

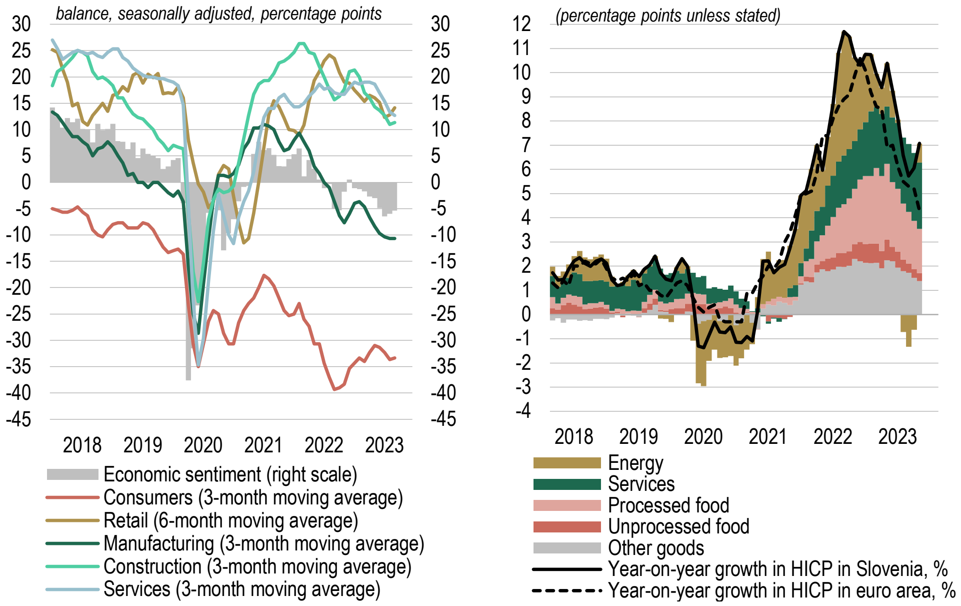
[1] IMF, World Economic Outlook, July 2023.

[2] 2.8% (IMF, World Economic Outlook, April 2023).

Figure 1.1: **Confidence indicators for Slovenia, and inflation and inflation components**

Confidence indicators

Inflation (HICP) and inflation components, comparison with euro area



Note: The confidence indicators in the left chart are illustrated as three- or six-month moving averages (other than the economic sentiment indicator). The indicators are expressed in the form of an average balance, where the balance is the difference between the proportions of positive answers and negative answers.
Sources: SORS, Eurostat, Banka Slovenije calculations

The euro area economy continued to stagnate in the second quarter of this year, but the Slovenian economy strengthened relative to the previous quarter. The domestic labour market remains tight and wage growth remains high, while inflation and, in particular, core inflation remain elevated. The euro area economy stagnated in the second quarter for the third consecutive quarter, and the latest growth forecasts have also been lowered.[3] Meanwhile growth in Slovenia was higher,[4] but future developments will depend on the impact of the severe weather events. The PMIs and the economic sentiment indicator for the euro area (see Figure 8.1 in the appendix) pointed to a further slowdown in economic activity in the third quarter in manufacturing and in services alike. They point to a similar slowdown in activity in Slovenia: the economic sentiment indicator over the summer months was at its lowest since 2021 (see Figure 1.1, left). With unemployment low, the domestic labour market remains tight, and firms are largely relying on hiring workers from abroad amid the shortage of domestic labour. Given the relative robustness of the economy and the sharp decline in credit activity, the gap between the business and financial cycles is ever-widening; the latter is in a clear phase of decline. Headline inflation as measured by the HICP is slowing in both economies (see Figure 8.2, right, in the appendix); the main factor over the summer was the negative contribution by energy prices (see Figure 1.1, right), but remains higher in Slovenia (it rose again in August and September after five months of decline).[5] Core inflation remains high and continues to outpace headline inflation,[6] thereby increasing the risk of a longer period of high inflation. Core inflation is also the largest factor in inflation in Slovenia outpacing the euro area average. The inflation

[3] According to seasonally and calendar-adjusted figures, euro area GDP in the second quarter of this year was up 0.1% on the first quarter, and up 0.5% in year-on-year terms. The ECB is forecasting (September 2023) economic growth of 0.7% this year (down 0.2 percentage points on its spring forecasts) and 1.0% next year (down 0.5 percentage points on its spring forecasts). For more information, see the ECB staff macroeconomic projections for the euro area.

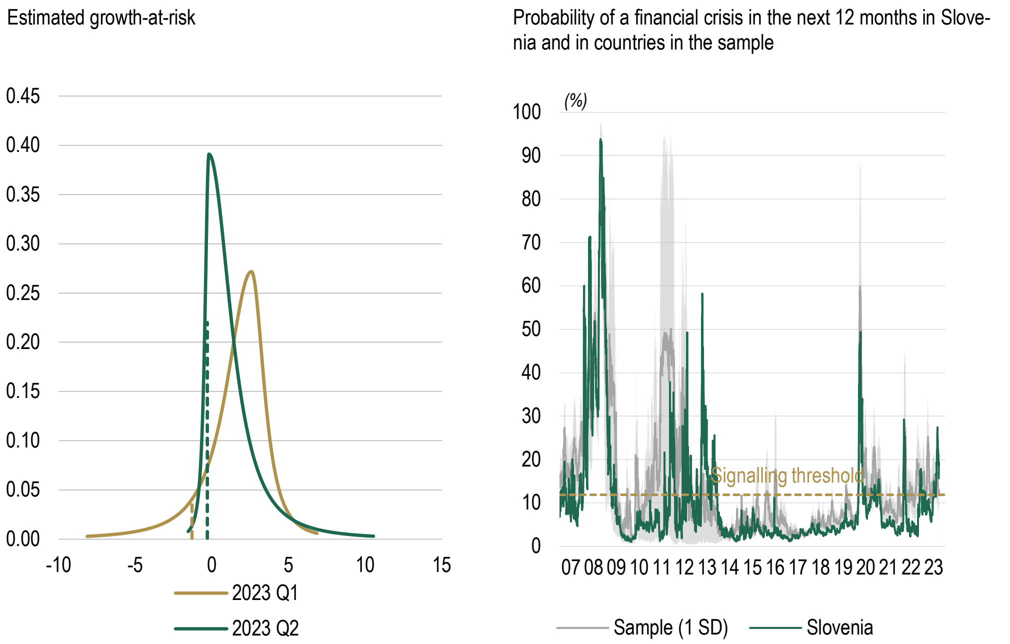
[4] According to seasonally and calendar-adjusted figures, GDP in Slovenia in the second quarter of this year was up 1.1% on the first quarter, and up 1.6% in year-on-year terms.

[5] The negative contribution by energy prices diminished in August, and then turned positive in September, which means that in the future the slowdown in headline inflation will be less reliant on low or negative energy price inflation.

[6] Headline inflation (HICP) stood at 7.1% in Slovenia and 4.3% in the euro area in September. Core inflation (HICP excluding energy, food, alcohol and tobacco) stood at 6.9% in Slovenia and 5.3% in the euro area in August.

developments are being tracked by monetary policy with ongoing rises in key interest rates, which are further tightening the financing conditions. Amid more favourable terms of trade, Slovenia's current account surplus has strengthened this year, driven above all by the goods trade surplus.[7] The general government deficit widened in the wake of the measures to mitigate the rise in energy prices, while increased expenditure to address the impact of the severe weather events also entails an increased risk to the public finances.

Figure 1.2: **Growth-at-risk in Slovenia and probability of financial crisis**



Note: Density distribution of average annual GDP growth for four quarters in advance. The model includes an autoregressive term, the financial conditions index (FCI), the systemic risk index (SRI) and the macroprudential policy index (MPI). A description of the basic methodology is given in Drenkovska and Volčjak (2022). After the quantile regression estimates were made, a conditional distribution of future GDP growth over the next quarter was calculated by fitting a parametric t-skew distribution to the growth forecasts. A growth-at-risk of 10% corresponds to the value of GDP growth which the left area under the curve has a probability density of 0.1. In the right chart the grey area illustrates the probability in countries captured in the sample that fall within one standard deviation of the mean (almost two-thirds of the sample). For more information on the methodology, see the October 2022 issue of the Financial Stability Review. Latest data: 22 September 2023.
Source: Banka Slovenije

The downside risks to domestic economic growth coming from the financial sector have declined slightly, but the probability of a systemic crisis increased after the summer's severe weather events. The growth-at-risk improved slightly in the second quarter, with regard to the macrofinancial environment. Analysis of growth-at-risk seeks the links between macrofinancial variables and the probability distribution of future GDP growth. The GDP growth outcome, falling into the 10th percentile of the conditional GDP growth distribution was estimated at -1.3% for the first quarter and -0.3% for the second quarter (see Figure 1.2, left).[8] The estimated probability of a systemic crisis in Slovenia in the next 12 months as assessed by an early warning model rose rapidly to above the signalling threshold following August's severe weather events, albeit primarily as a result of volatility in the stock market, which reflects the current rise in uncertainty. For the countries in the sample, mostly from the euro area,[9] the average risk has stayed close to the signalling threshold since the beginning of 2022, whereby

[7] For more information, see the September 2023 issue of the Review of macroeconomic developments.
[8] The growth estimate does not take account of the severe weather events of August.
[9] 18 euro area countries, plus Denmark and Sweden.

there were a number of uncertainties related to the war in Ukraine and to rising borrowing costs amid the monetary policy tightening. The estimated risk to Slovenia over this period was mostly below the threshold, and was lower than in the majority of the countries in the sample, but it surpassed the threshold following the floods in August and was among the highest in the sample of countries.

The financial and banking sectors are facing uncertain business conditions this year, with regard to future economic activity and the monetary policy stance. The ongoing rise in key interest rates is further tightening the financing conditions this year, while banks in advanced economies have sharply tightened their credit standards and curtailed the supply of loans. Higher interest rates on loans have further increased the burden that the non-banking sector faces vis-à-vis banks from variable-rate debt and new debt, which in the future might lead to an increase in credit risk, while funding risk might also increase amid a rise in the cost of bank funding. The higher interest rates have improved the performance of euro area banks, including those in Slovenia. The improved performance follows a lengthy period of difficult conditions for generating income, with a number of other shocks in addition to the low interest rate environment, such as the pandemic and the war in Ukraine. The improved performance was also reflected in gains for euro area banks on the stock markets, although their valuations were still below those of five years ago (see Figure 8.3, right, in the appendix). While stock markets have strengthened significantly this year, driven primarily in the US by tech firms and the promises of AI, they remain down on their peaks of last year. The domestic government sector is also facing higher financing costs as debt matures and is refinanced, and will face an even heavier burden in the future from the need to rebuild following the destruction of the severe weather events. The yields on Slovenian government bonds were up on the previous year, but did not change significantly over the first nine months of the year, although the spread over the German benchmark narrowed (see Figure 8.3, left, in the appendix). Slovenia maintained its existing scores with the rating agencies, with a stable outlook, thereby allowing investors to retain their high confidence.

2 Key Risks to Financial Stability

2.1 Risk inherent in the real estate market

Our assessment is that the risks to financial stability inherent in the real estate market have declined from elevated to moderate. The period of high growth in residential real estate prices and housing loans has now come to an end, although for now there is no expectation of a fast or substantial fall in prices. The real estate market has been cooling for some time now amid high inflation and rising interest rates. Growth in residential real estate prices has slowed, which for now entails a price correction, and not the realisation of risks to financial stability. The number of residential real estate sales has fallen, and growth in housing loans has slowed sharply. Demand for real estate is being supported by low unemployment, and by the low average indebtedness of Slovenian households compared with other EU Member States. According to the survey of the challenges facing the banking system,[10] two-thirds of the banks assess the risks inherent in the commercial real estate market as low, and one-third as medium.

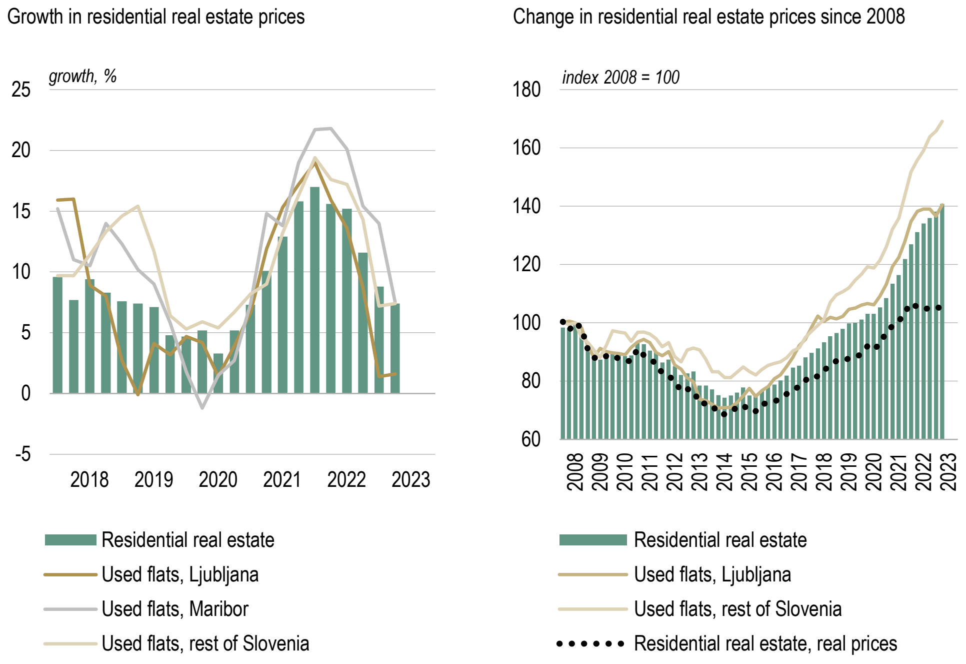
Residential real estate market

The Slovenian real estate market hit its price growth peak in the first quarter of 2022, since which the market has been cooling, which is reflected in a further slowdown in growth in residential real estate prices and a fall in the number of sales. Nominal year-on-year growth in residential real estate prices peaked in the first quarter of 2022 (at 17.0%), but had slowed to 7.4% by the second quarter of 2023. Growth in prices of used flats slowed the most in Ljubljana, reaching 1.6%, compared with 7.5% in Maribor and 7.4% in the rest of Slovenia (see Figure 2.1, left). Year-on-year growth in prices of new-build real estate stood at 0.7% in the second quarter of this year (compared with 9.0% in 2022). Year-on-year growth in prices of used family houses remained high at 11.2%.

The slowdown in growth in residential real estate prices reflects a correction of prices that moved closer to fundamentals, but not yet any realisation of risks to financial stability. Compared with the previous price peak in 2008, nominal prices of used flats in Ljubljana in the second quarter of 2023 were up 40.5%, while prices in the rest of Slovenia were up even more, at 69.1%. In real terms residential real estate prices were up 4.6% on 2008 (see Figure 2.1, right). Residential real estate remained overvalued in the first half of 2023 according to various indicators of overvaluation relative to fundamentals, but the overvaluation declined slightly as the gap with long-term fundamentals narrowed (see Figure 2.2, left). The real estate overvaluation indicator stood at 7.8% in the second quarter of this year, while the price-to-income ratio indicated overvaluation of 3.2% in the first quarter of 2023. The developments in real estate prices will in future be affected by the rise in interest rates and the cost of living, which will reduce demand for real estate. Conversely demand for real estate, and with it prices, is being boosted by households' favourable position on the labour market, while the supply of residential real estate is not keeping up with demand, which is increasingly being exacerbated by rising construction and financing costs. The risks to financial stability are assessed as moderate, with a stable outlook.

[10] The survey of the challenges facing the banking system (hereinafter: the challenges survey) was conducted at banks in June 2023, and again in August after the severe weather events that hit Slovenia.

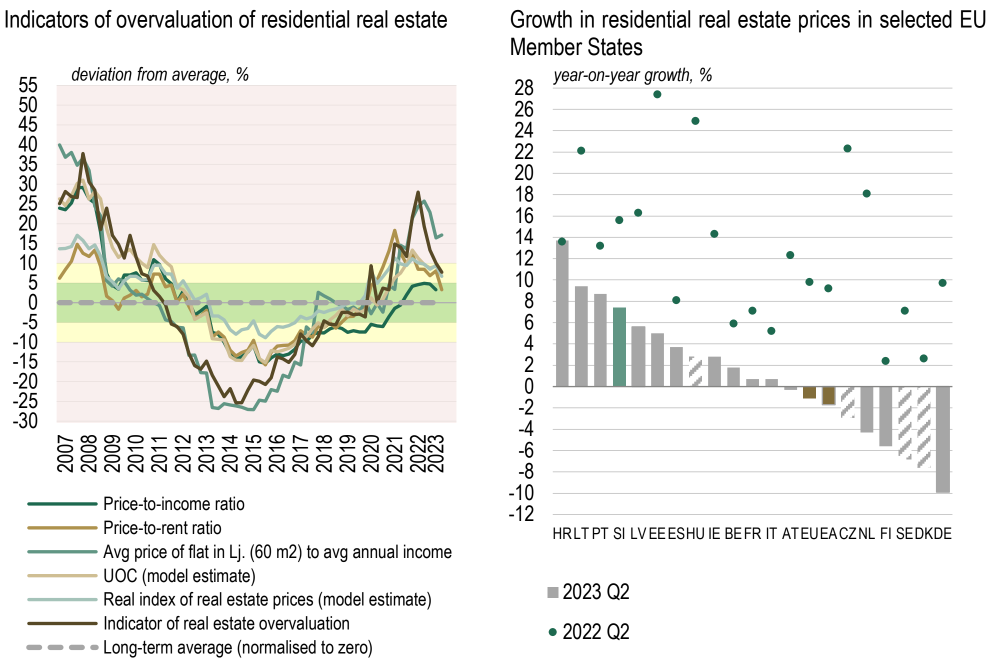
Figure 2.1: **Growth in residential real estate prices**



Source: SORS

The real estate market is cooling in most European countries, and growth in residential real estate prices in Slovenia remained among the highest rates in the second quarter of this year. Prices of residential real estate fell by 1.1% in the EU overall in the second quarter of this year, having risen by 9.8% in the same period last year (see Figure 2.2, right). The largest price falls in the second quarter of this year were recorded by Germany (9.9%), Denmark (7.6%) and Sweden (6.8%). Price growth slowed sharply in certain other EU Member States, such as Hungary (to 2.8%) and Estonia (to 5.0%). Growth was highest in Croatia, at 13.7%.

Figure 2.2: **Indicators of overvaluation and growth in residential real estate prices in selected EU Member States**

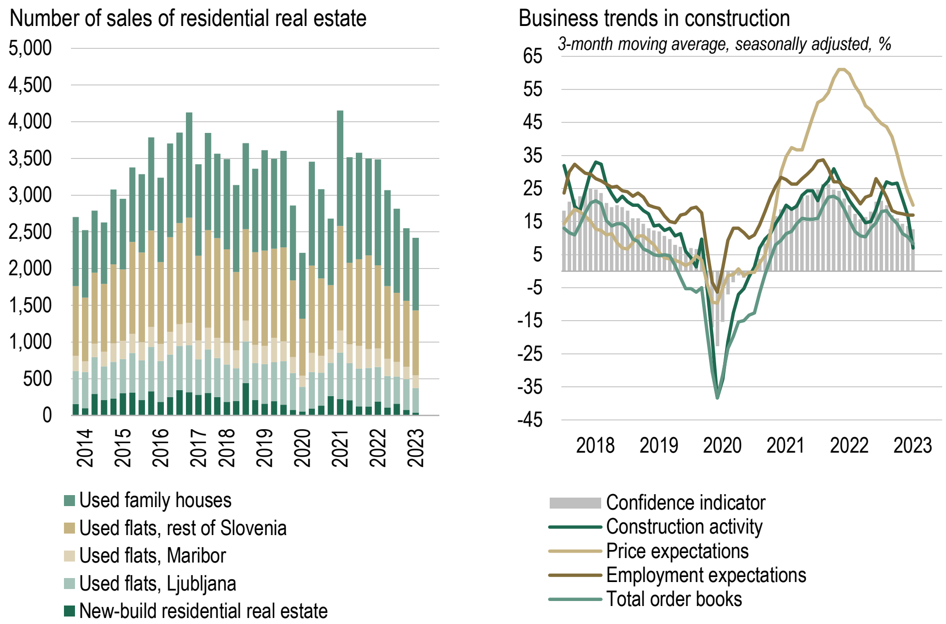


Note: In the left chart the indicators of housing price alignment with fundamentals are normalised around their own long-term averages, which are assigned a value of zero. Each indicator's deviation from the long-term average illustrates the overvaluation or undervaluation of residential real estate. The indicators are illustrated up to the second quarter of 2023, with the exception of the

ratio of real estate prices to disposable income, which is illustrated to the first quarter of 2023. Countries outside the euro area are indicated by hatched bars in the right chart.
Sources: SORS, SMARS, Slonep, Eurostat

The supply of residential real estate is still not keeping up with demand. The ratio of gross investment in housing to GDP remains low: it stood at 2.9% in the first quarter of this year, below the euro area average (6.0%). The rise in residential real estate prices in recent years has nevertheless driven a rise in the number of residential buildings for which building permits have been issued (year-on-year rises of 12.8% in 2021 and 5.4% in 2022), which is indicative of future construction activity (see Figure 8.6, left, in the appendix). Starts were made on 5,410 new homes in 2022, while 4,296 new homes were completed, up 22.3% and 6.3% respectively on the previous year.

Figure 2.3: **Number of sales of residential real estate and business trends in construction**



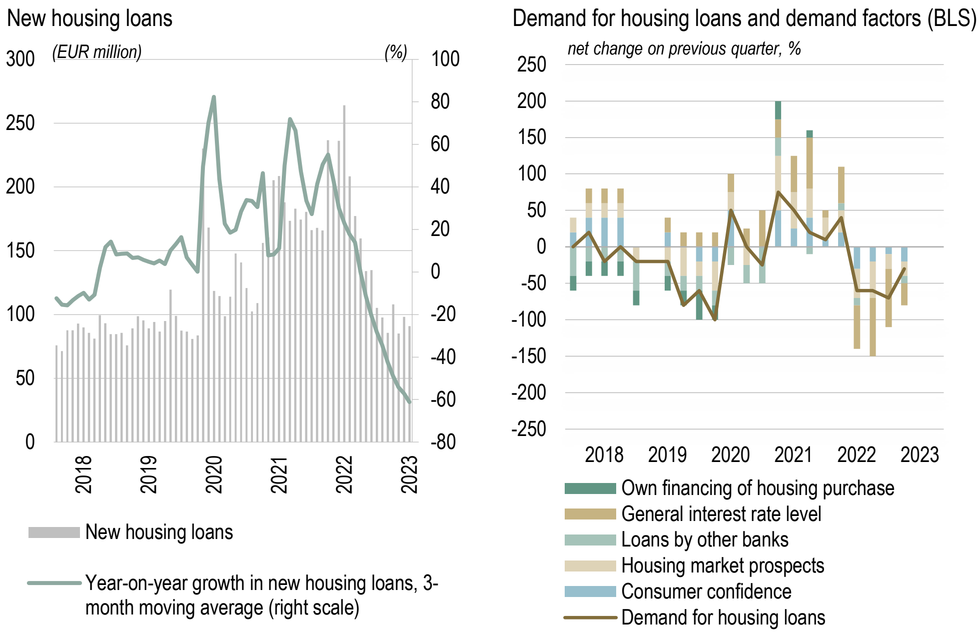
Note: Zero denotes the long-term average in the right chart. A positive figure shows that the indicator is above its long-term average, while a negative figure shows that it is below its long-term average. The long-term average is calculated from the average balance between the beginning of the time series and the December of the previous year.
Source: SORS

Alongside the shortage of skilled workers, the rise in financing costs and in material and labour costs in construction (see Figure 8.6, right, in the appendix) is hindering construction, which might curtail the future supply of new-build residential real estate on the market. Construction confidence deteriorated in the first half of this year, but in June was still 12.7 percentage points above its long-term average (positive zone). There were significant declines in order books and in the amount of construction put in place, and price expectations also slowed sharply (see Figure 2.3, right). The amount of building construction put in place in May of this year was up 17.1% in year-on-year terms, compared with the year-on-year increase of 83.8% in 2022.

The number of sales of residential real estate has been falling in year-on-year terms since the second quarter of 2022, the decline reaching 30.6% in the second quarter of 2023 (see Figure 2.3, left). The number of sales of used flats in the second quarter of 2023 was down 28.8% in Ljubljana, 30.8% in Maribor, and 21.9% in the rest of Slovenia. The number of sales of new-build flats fell by 81.3% over the same period. Amid the shortage of new-build residential real estate, rents rose by 19% in 2022 (according to the consumer price index), but the year-on-year rate of growth had slowed to 12.8% by June of this year. The vacancy rate for flats stood at 19% when last measured in 2021.

The rise in interest rates has reduced demand for housing loans, and new housing loans have been declining since October 2022. New housing loans in the first half of 2023 were down by fully a half in year-on-year terms, and stood at a similar level to the first half of the year in 2018 and 2019 (see Figure 2.4, left). According to the Bank Lending Survey (BLS), the reduced demand for housing loans was attributable to higher interest rates, the weaker outlook for the real estate market, and declining consumer confidence, but the effect of the interest rate level diminished in the first half of 2023, as did that of the real estate market prospects, slightly. Demand for loans continued to decline in the second quarter of this year, albeit to a lesser extent (see Figure 2.4, left), and the decline in demand is expected to have come to an end in the third quarter according to the banks.[11]

Figure 2.4: **New housing loans and demand for housing loans**

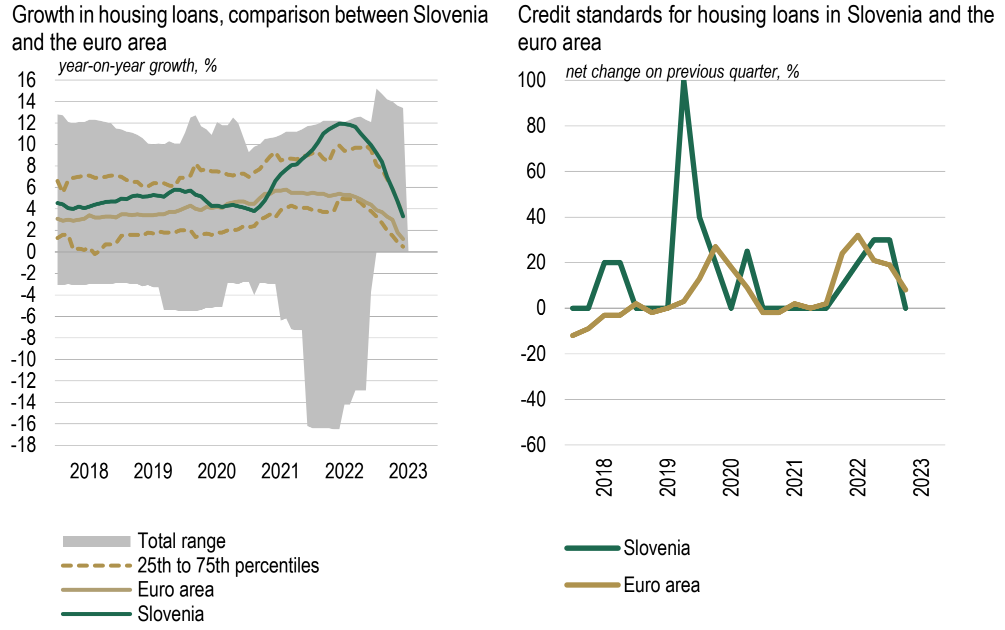


Source: Banka Slovenije

Growth in housing loans has slowed, and is close to the euro area average. From its peak of 11.9% in June 2022, year-on-year growth in housing loans had slowed to 3.3% by June of this year. Growth in housing loans in Slovenia, which in 2022 had seen one of the highest rates in the euro area, approached the euro area average of 1.2% in June of this year (see Figure 2.5, left). The stock of housing loans remained almost unchanged in the first half of 2023 at EUR 8.2 billion. The ratio of housing loans to GDP stood at 14%, significantly lower than the euro area average of around 40%. The average residual maturity of the total loan stock stood at 15.6 years in June 2023, while the average maturity of new loans stood at 18.0 years (down from 19.1 years in 2022). According to the BLS, after being tightened over the previous year, credit standards for housing loans remained unchanged in Slovenia in the second quarter of this year, while in the euro area overall they continued to tighten (see Figure 2.5, right).

[11] According to the latest data from the BLS, which was conducted in July 2023.

Figure 2.5: **Comparison of growth in housing loans and credit standards between Slovenia and the euro area**



Sources: ECB SDW, Banka Slovenije

The ongoing demand for residential real estate is being supported by the labour market's favourable position for households, with low unemployment. The rise in interest rates has increased debt servicing costs for certain households, but the share of housing loans carrying a fixed interest rate increased from 34% in 2020 to 67% in June 2023. Certain borrowers protected themselves against increased debt financing costs by changing from variable-rate to fixed-rate loans before or after the monetary policy tightening. In the second quarter of 2023 fully 95% of new housing loans were concluded with a fixed interest rate, compared with less than a half in 2020.[12]

Commercial real estate market

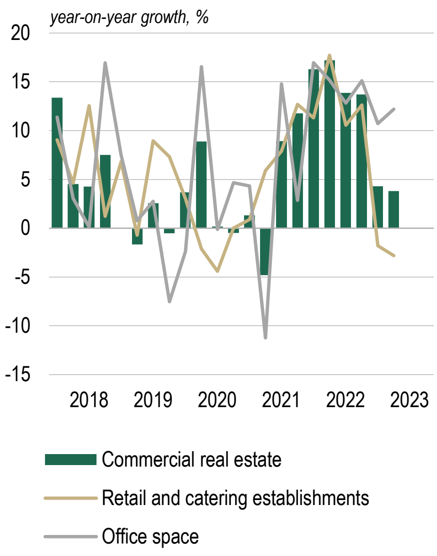
After high growth in commercial real estate prices in 2022, year-on-year growth in prices of office space slowed to 12.2% in the second quarter of 2023, while prices of retail and catering establishments were down 2.8%. Commercial real estate prices in the second quarter of 2023 were up 3.8% in year-on-year terms (see Figure 2.6, left), compared with the average year-on-year rate of 15% in 2022, the highest figure since 2008. Prices were still 24.5% higher than before the pandemic. Prices might see slower growth or even falls in the future, as indicated by the fall in the number of sales. The number of sales of office space and retail and catering establishments began to fall in the second quarter of 2022. Sales continued to fall, and were down 5.1% and 20.9% respectively in year-on-year terms in the second quarter of 2023.

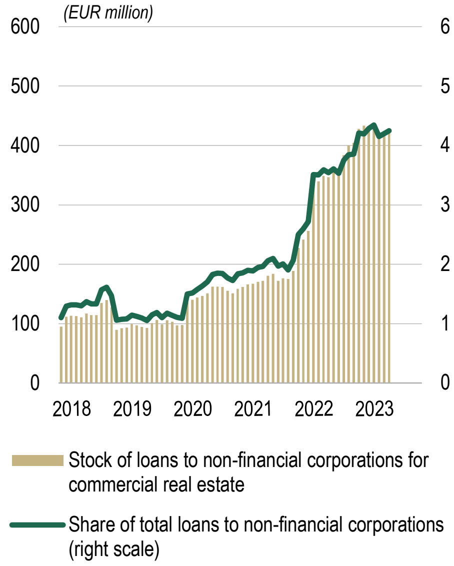
The stock of loans for commercial real estate again increased slightly in the first half of the year, but remains small. It accounted for 4.2% of the total stock of loans to non-financial corporations in June 2023 (see Figure 2.6, right). The rise in interest rates has greatly increased debt financing costs, and in June 2023 fully 94% of loans to non-financial corporations for commercial real estate carried a variable interest rate. A third of all loans for commercial real estate had a maturity of more than five years. The stock of loans to firms in the sectors of construction and real estate activities

[12] See Section 2.3 Interest rate risk.

amounted to EUR 1.3 billion, and their share of the total stock of loans to non-financial corporations increased to 13.0%.

Figure 2.6: **Commercial real estate prices and loans to non-financial corporations for commercial real estate**





Sources: SORS, Banka Slovenije

According to the challenges survey, two-thirds of the banks assess the risks inherent in loans to non-financial corporations secured by commercial real estate as low, and one-third as medium. The banks estimate that around 40% of all loans to non-financial corporations are secured by commercial real estate on average. The banks highlighted that the rises in interest rates have recently raised default risk, and that loans secured by real estate are a lower-risk segment of the portfolio of loans to non-financial corporations, as the repayment of these loans from collateral liquidation in the event of NPEs and enforcement procedures is higher than for unsecured loans. However, should commercial real estate prices fall, the value of this collateral would also fall, and banks would face losses from the need to create additional impairments and potential write-offs. Loans secured by commercial real estate are most often raised by non-financial corporations for the purchase or renovation of commercial real estate, for financing non-current assets and working capital, or for project financing.

The floods in Slovenia will likely have an impact on the real estate market in the worst-hit areas. The construction of replacement or new real estate, partly supported by EU funding, will increase gross investment in housing. This will raise the number of building permits, which might in turn raise costs of material and labour in construction. There might also be increased caution on the part of buyers and banks when it comes to assessing the risks in connection with real estate's exposure to natural disasters.

2.2 Funding risk

Our assessment is that funding risk remains moderate with a stable outlook. The maturity gap narrowed slightly in the first half of 2023, but remained relatively large. The gradual rise in interest rates on deposits has encouraged savers to fix their deposits, but sight deposits nevertheless continue to account for the majority of total deposits by the non-banking sector. A sudden sharp withdrawal of

deposits from the banking system or large-scale switching between banks as a result of a stress event could cause instability in the funding of certain banks. This has not occurred yet, and deposits therefore remain the stable and primary source of bank funding. Larger variation in interest rates on deposits could nevertheless drive heavier switching of deposits between banks in the future, for which reason monitoring the competition in the sector and actively adjusting pricing policy remain vital to the stability of bank funding.

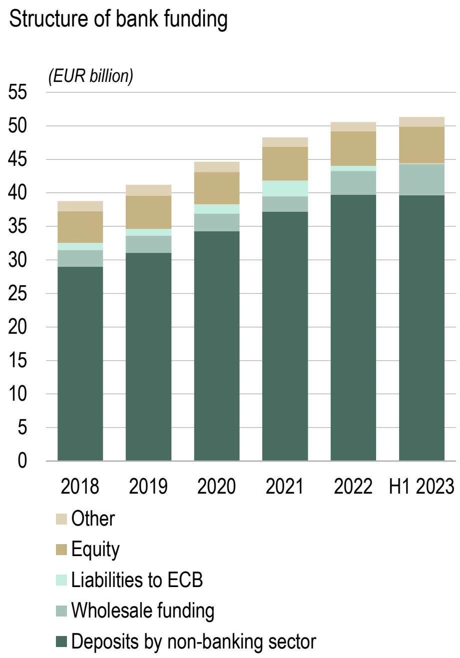
Bank funding

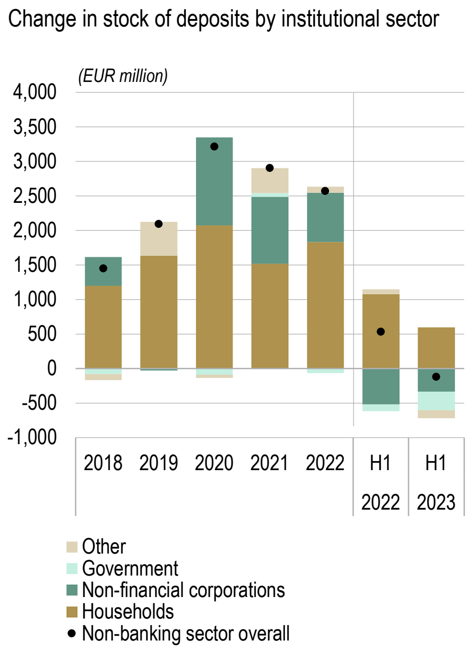
Deposits by the non-banking sector declined slightly in the first half of this year, but remained the most important source of bank funding, accounting for 77.2% of the balance sheet total. The stock of deposits by the non-banking sector declined by EUR 122 million to EUR 39.6 billion. Deposits declined in all sectors other than households (see Figure 2.7, right), which increased over the spring in particular. This brought an end to the slowdown in year-on-year growth in deposits by the non-banking sector seen since November 2022. Year-on-year growth in deposits stood at 5.1% in June 2023, down minimally on a year earlier (see Figure 2.8, left). Because the decline in deposits by the non-banking sector in the first half of the year was smaller than the decline in loans to the non-banking sector, the LTD ratio declined to 68.3%. This increased the gap by which Slovenia trails the euro area overall, where the LTD ratio has remained at 90.0% over the last year.

Given the high share of deposits by the non-banking sector and the large stock of liquid assets, the majority of banks have no need for additional funding, and thus dependence on other sources of funding remains low (see Figure 2.7, left). Following the repayment of the majority of liabilities to the Eurosystem (TLTRO-III), the banking system's stock of these liabilities amounted to just EUR 114 million in June of this year, or 0.2% of the balance sheet total. Conversely there was an increase in the share of wholesale funding in the first half of 2023, as a result of the issuance of debt securities by three banks.[13] It accounted for 9.1% of the balance sheet total in June, still less than quarter of the figure seen in 2008, when the banking system's dependence on wholesale funding was at its peak. The funding of the majority of the banks thus remains less exposed to contagion from any adverse developments on foreign financial markets. The main reason for the debt security issuance was the need to meet the minimum requirements for own funds and eligible liabilities (MREL), which could also be a driver of any future issuance.

[13] Wholesale funding consists of liabilities to foreign banks and issued debt securities.

Figure 2.7: **Funding structure and growth**

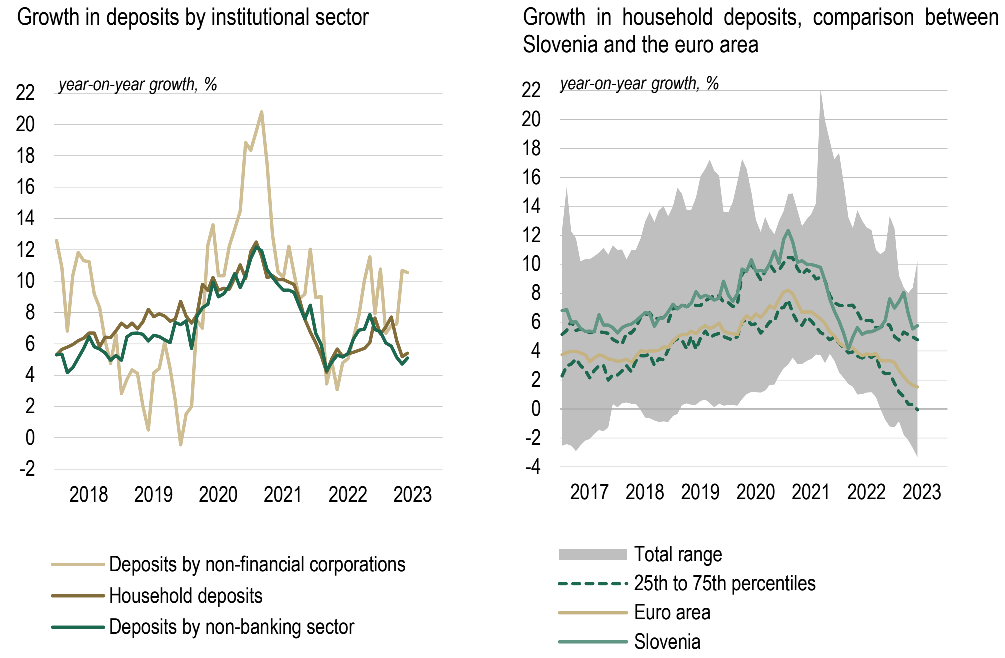




Source: Banka Slovenije

Although the increase in household deposits in the first half of this year was smaller than in previous years, they remain a robust source of funding for the Slovenian banking system. The stock increased by EUR 595 million to EUR 26.4 billion, more than half of the balance sheet total on the liability side, which ranks Slovenia in first place among euro area countries in terms of the importance of this source of funding. After strengthening in the previous year, year-on-year growth in household deposits slowed to 5.4% in the first half of this year, but remained well above the euro area average (1.5%), which has been slowing since the beginning of 2021 (see Figure 2.8, right). After a pronounced rise in deposits, particularly over the pandemic, the stock of household deposits increased by 10.9% in nominal terms between the summer of 2021, when inflation began to rise, and June 2023, but declined by 6.1% in real terms (see Figure 8.7, left, in the appendix). Amid high inflation and the rising cost of living, which are reducing real incomes, households have less opportunity to save, and growth in household deposits can be expected to slow in the future. The developments in household deposits will also be affected indirectly by the severe weather events that hit Slovenia over the summer: those who suffered damage are likely to use bank savings that they have to repair the damage.

Figure 2.8: **Growth in deposits in Slovenia and the euro area**



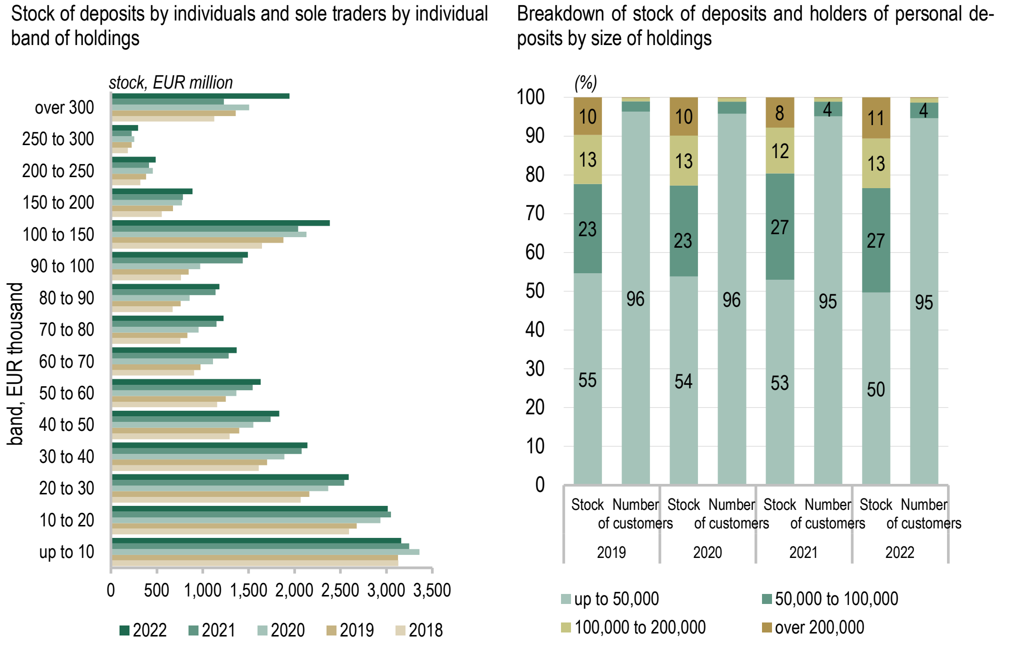
Sources: Banka Slovenije, ECB SDW, own calculations

It was individuals and sole traders who already held significant savings who most notably strengthened their bank deposits[14] in 2022 (see Figure 2.9, left).[15] The stock of deposits held by individuals and sole traders with balances of more than EUR 100,000 at a single bank increased by almost 28% to EUR 6 billion, equivalent to almost a quarter of the total stock of deposits by individuals and sole traders. At the same time the individuals with large savings are very few in number: they account for just 1.3% of all savers (see Figure 2.9, right). There was an increase in savings in the band of EUR 20,000 to EUR 100,000, which might be attributable to transitions from lower to higher bands. The majority (77%) of individuals and sole traders held less than EUR 10,000 with their bank in 2022, and the total stock of savings in this group declined by 2.6% over the course of one year to EUR 3.2 billion. Given the high inflation and rising cost of living, this could be attributable to the reduced opportunities to save, and the increased need to use savings. At the same time there might also be savers in the lowest bands who significantly increased their savings and thus transitioned to higher bands.

[14] In this paragraph the term “deposit” means all savings that an individual or sole trader holds with a particular bank (current account balances, regular savings accounts, savings accounts, fixed-term deposits and other forms of saving). The figures for 2023 were not yet available at the time of writing.

[15] The findings in this paragraph are based on data that the banks report to Banka Slovenije in accordance with the Regulation on the deposit guarantee scheme (Official Gazette of the Republic of Slovenia, Nos. 49/16, 27/17 and 139/20; http://www.pisrs.si/Pis.web/pregledPredpisa?id=SKLE10855), which covers eligible deposits of depositors as defined in Article 9 of the Deposit Guarantee Scheme Act (Official Gazette of the Republic of Slovenia, No. 27/16).

Figure 2.9: **Breakdown of deposits by individuals and sole traders into bands**



Note: Deposits are assigned to a holding size band with regard to the individual's or the sole trader's total holdings of deposits (i.e. the sum of current account balances, regular savings accounts, saving accounts, fixed-term deposits and other forms of saving) at an individual bank.
Sources: Banka Slovenije, own calculations

Non-financial corporations reduced their savings at banks in the first half of this year, similarly to the same period last year. Their deposits declined by EUR 336 million (see Figure 2.7, right), although at EUR 9.4 billion they accounted for almost a fifth of the balance sheet total and remained the second most important source of funding for Slovenian banks. The value of deposits by non-financial corporations increased by 15.8% in nominal terms between the summer of 2021, when inflation began to rise, and June 2023, but declined by 1.9% in real terms (see Figure 8.7, right, in the appendix). Following the uninterrupted growth in the second half of 2022, year-on-year growth in deposits by non-financial corporations has turned volatile again this year, and stood at 10.6% in June. It thus remained well above the euro area average (0.4%), which has slowed sharply since the pandemic. Deposits by non-financial corporations can be expected to see monthly fluctuation in the future, given their dependence on firms' current performance and investment. As is the case for households, it is the non-financial corporations that suffered damage in the floods who are most likely to make use of their savings, by directing their funds held at banks into rectifying their business.

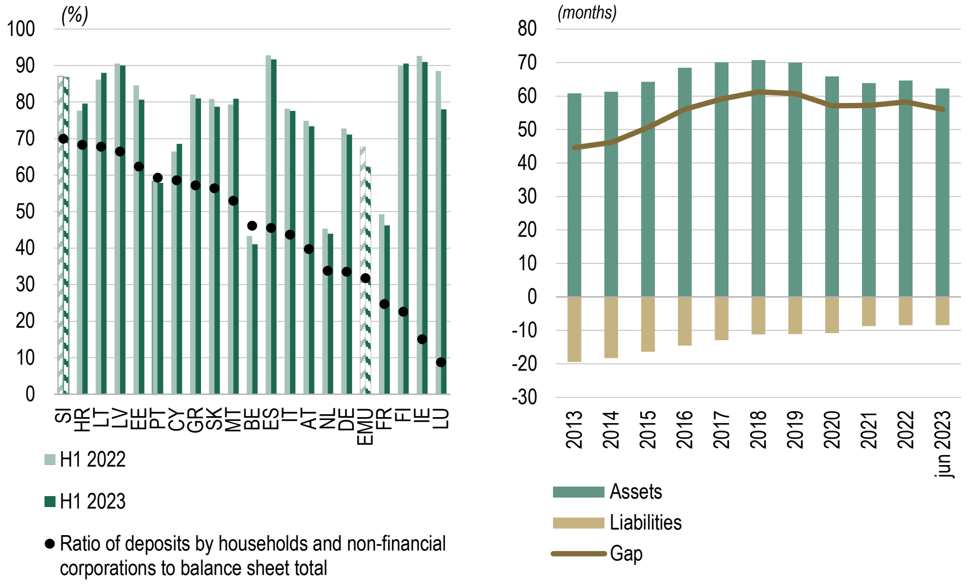
Deposit maturity and maturity gap between assets and liabilities

Given the moderate rise in interest rates on deposits, sight deposits declined in the first half of 2023 after many years of increase, but still account for the majority (82.3%) of total deposits by the non-banking sector. Non-financial corporations recorded a larger decline in the share of sight deposits than households (by 3.1 percentage points to 79.3% versus 1.1 percentage points to 88.0%), mainly as a result of an increase in short-term deposits, on which the banks offered higher interest rates for new short-term fixes than they did for household deposits. Similarly to Slovenia, most other euro area countries saw a decline in sight deposits as interest rates on deposits rose and fixing increased. Slovenia remains in first place in terms of the importance of household deposits and deposits by non-financial corporations in total funding, and is also among the countries with the highest shares of sight deposits (see Figure 2.10, left). This continues to expose the Slovenian banking system to greater risk of funding instability in the event of any major withdrawals than those countries that are less exposed to the aforementioned funding, or where the share of sight deposits is lower.

Figure 2.10: **Deposits in euro area countries, and maturity gap**

Share of total household deposits and deposits by non-financial corporations accounted for by sight deposits by euro area country

Weighted average maturity of assets and liabilities, and maturity gap



Sources: Banka Slovenije, ECB SDW, own calculations

The maturity gap, which is the source of funding risk, narrowed in the first half of 2023, but remained relatively large. The increase in liquid assets in the form of balances at the central bank and the decline in long-term loans has reduced the weighted average maturity of assets. With the weighted average maturity of liabilities virtually unchanged, the maturity gap narrowed by 2 months over the first half of 2023 to reach 4.5 years (see Figure 2.10, right), 1 year more than before the beginning of the increase in sight deposits in 2013. A sudden sharp withdrawal of deposits from the banking system or large-scale switching between banks could cause instability in the funding of certain banks. Our assessment is nevertheless that savers have retained high confidence in the working of the Slovenian banking system and that deposits by the non-banking sector have remained a stable source of funding, despite the various developments in previous years (the pandemic, difficulties at one of the Slovenian banks at the outbreak of the war in Ukraine).

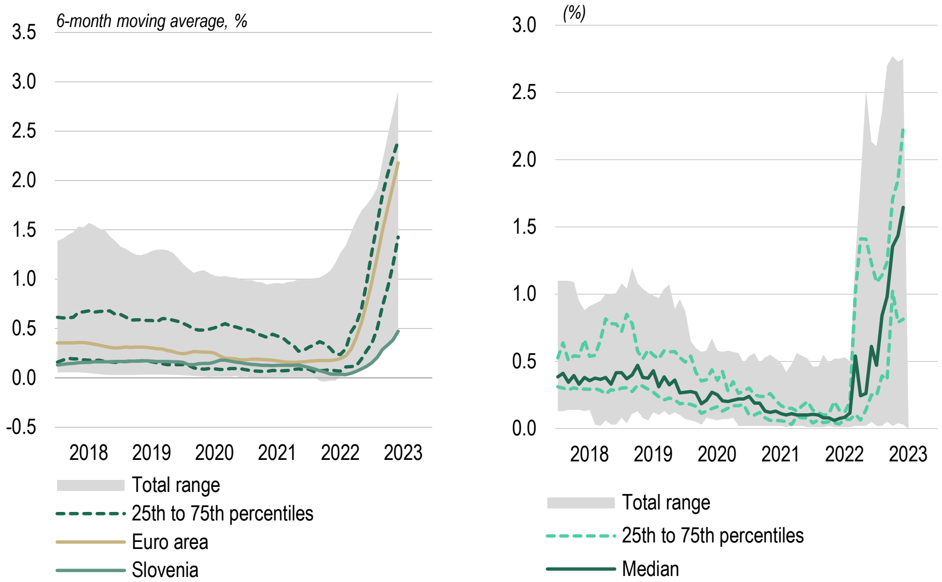
Given that the majority of savers kept their savings at banks despite low interest rates, banks are in no rush to raise interest rates, and are thus keeping interest expenses low. Interest rates on fixed-term household deposits and deposits by non-financial corporations did rise slightly over the first half of the year, but remained below the euro area average (see Figure 2.11, left and Figure 8.5, right, in the appendix). This is particularly the case of interest rates on short-term household deposits, which remain very low, ranking Slovenia in last place among euro area countries. The reasons for the faster rise in interest rates on deposits in other countries might be the need for new funding (maturing of the TLTRO-III), or a heavier dependence on other, generally more expensive, sources of funding (wholesale funding) that banks are aiming to replace with deposits by the non-banking sector, which are still more favourable in cost terms. Given their large stock of liquid assets and the high share of deposits by the non-banking sector, Slovenian banks have no need of additional funding for the moment, and thus there is little incentive to raise interest rates on deposits any faster at the majority of the banks.

Any major differences in the interest rates on deposits at individual banks could lead to larger-scale switching between them in the future. The challenges survey indicated that more than half of banks have already seen minor withdrawals of deposits in favour of other banks on account of higher interest rates on deposits. This is particularly evident in household deposits, where the process of transferring savings is probably simpler than for non-financial corporations. Although differences in interest rates on deposits between banks have already arisen (see Figure 2.11, right and Figure 8.5, left, in the appendix), and minor withdrawals of deposits have been identified, the challenges survey suggests that the majority of banks are not planning to significantly raise interest rates on fixed-term deposits by the end of 2023. One of the large banks nevertheless noticeable raised its interest rates on long-term household deposits in September, which might encourage other banks to do similarly in the future. We should emphasize that the careful monitoring of competition in the sector and the timely adjustment of pricing policy remain vital to maintaining the stability of bank funding.

Figure 2.11: **Interest rates on fixed-term household deposits**

Interest rates on new short-term household deposits, comparison between Slovenia and the euro area

Range of interest rates on new long-term household deposits at banks in Slovenia



Note: The data in the left chart does not include sight deposits.
Sources: Banka Slovenije, ECB SDW, own calculations

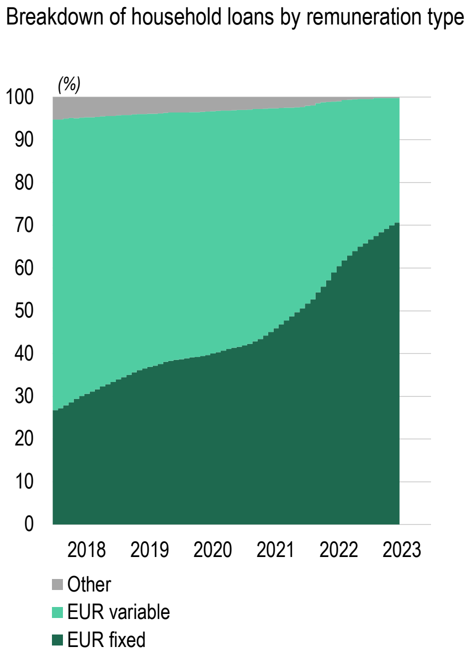
2.3 Interest rate risk

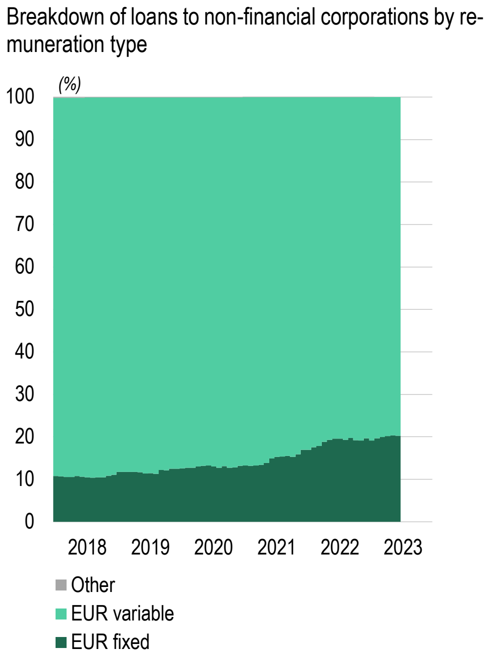
Interest rate risk was broadly unchanged in the first half of 2023, and in the third quarter remained assessed as elevated, with a trend of decline. The rise in the share of loans carrying a fixed interest rate, which in the absence of hedging increases exposure to interest rate risk, slowed, and the significant increase in the most liquid assets also acted favourably to reduce the risk. The rise in interest rates is increasing the share of funding accounted for by fixed-term deposits, while the share accounted for by sight deposits is declining. The repricing gap remained at its level from the beginning of the year. Given the slow pace of the rise in interest rates on deposits by the non-banking sector, banks continue to largely rely on funding of very short maturities, which exposes them to the risk of a rapid decline in this funding, although it has proven to be highly stable when viewed historically.

Interest sensitivity

The banks' exposure to interest rate risk was broadly unchanged over the first half of 2023, and in the third quarter the risk continued to be assessed as elevated, with a decline anticipated in the future. The slowdown in credit activity amid the slower rise in the share of loans carrying a fixed interest rate, and the rise in the share of fixed-term deposits point to a decline in interest rate risk in the future. On the asset side of the balance sheet there was a decline of EUR 464 million in the stock of loans to the non-banking sector in the first half of the year,[16] reducing the share of the balance sheet total they account for to 52.7% in June. The share of loans carrying a fixed interest rate continued to rise, particularly in the household segment, albeit much more slowly than in the second half of last year (see Figure 2.12). Changes in the stock of the most liquid assets and their relative share are the main factor reducing interest rate risk on the asset side.[17] They increased by EUR 1,224 million over the first half of the year, raising the share of the balance sheet total they account for by 2.1 percentage points from the end of last year to 22.7% in June. The average repricing period on the asset side lengthened slightly over the first half of the year (see Figure 2.13, left): despite the further lengthening in the average repricing period of loans, there was a considerable increase in the stock of the most liquid assets, and the average repricing period of securities continued to shorten.[18]

Figure 2.12: **Breakdown of stock of loans by remuneration type**





Note: Variable-rate loans comprise loans concluded with a variable interest rate or with an interest rate fixed for less than one year (even if it is fixed for the entire term to maturity), while fixed-rate loans comprise loans with an interest rate fixed for a period of more than one year. The category of other includes all loans in Swiss francs, which constitute the majority of other loans.
Source: Banka Slovenije

On the funding side there was a decline in liabilities to the non-banking sector amid a change in the structure of deposits. The change in the maturity breakdown of deposits acted favourably to reduce interest rate risk: amid rising interest rates on deposits, the share of fixed-term deposits is gradually rising, while the share of sight

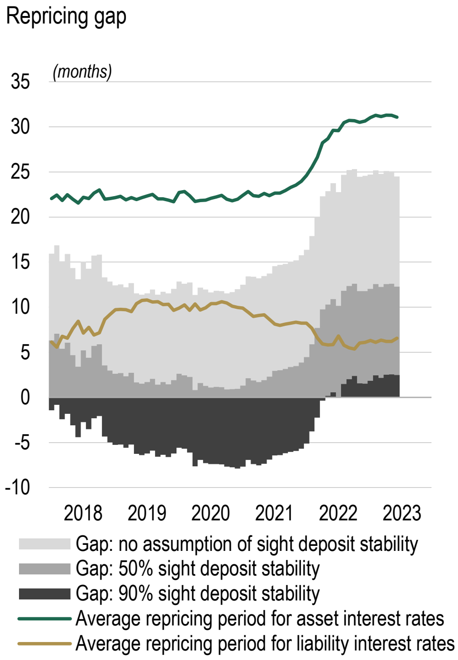
[16] This is primarily attributable to the repayment of loans at the leasing company sold in the first quarter, which significantly reduced the stock of loans to other financial institutions.

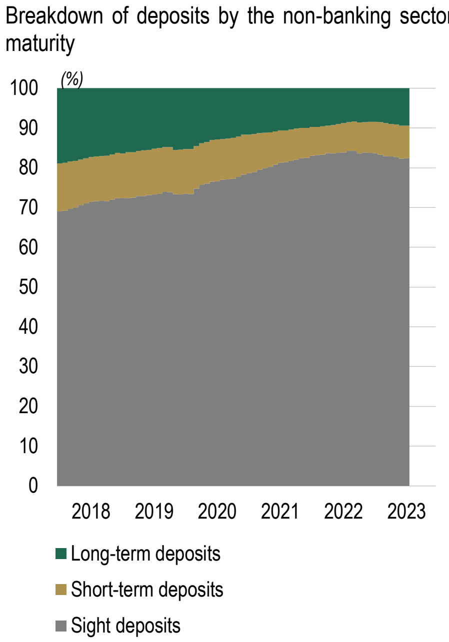
[17] Cash on hand, balances at the central bank and sight deposits at banks.

[18] For more on the changes in the breakdown of debt securities with regard to measurement method, see Box 1 Debt securities and the consequences of fair value changes.

deposits is declining (see Figure 2.13, right). They still accounted for 82.3% of total deposits by the non-banking sector in June, down 1.4 percentage points or EUR 650 million on the end of last year, partly as a result of the withdrawal of deposits from the banking system. The rise in interest rates, particularly on long-term deposits, increased the stock of long-term deposits by EUR 355 million,[19] raising their share of total deposits by 0.9 percentage points to 9.4%. The stock of short-term deposits also increased, although their significantly lower interest rates compared with long-term deposits meant that the increase was small: they were up EUR 174 million, increasing their share by 0.5 percentage points to 8.3%. The challenges survey indicates that a similar trend can be expected to continue in the future, given the expectations of rises in interest rates on fixed-term deposits.

Figure 2.13: **Repricing gap and maturity breakdown of deposits**





Note: The repricing gap in the left chart takes account of the stability of sight deposits through various assumptions about stability and by allocating the stable component of sight deposits across maturity buckets, and hedging via derivatives and amortisation. In the right chart short-term deposits are deposits fixed for a term of up to one year, while long-term deposits are those fixed for a term of more than one year.
Source: Banka Slovenije

Liabilities to the central bank declined, while the stock of issued debt securities increased notably. Banks reduced their liabilities to the central bank by EUR 644 million in the first half of this year, similar to the reduction in the second half of 2022, which meant that they accounted for just 0.2% of total funding in June. The significant increase of EUR 1,061 million in the stock of issued debt securities[20] was a major factor in the reduction of interest rate risk on the liability side, given that their average repricing period is significantly longer than that of deposits by the non-banking sector. This raised their share of total funding to 6.1%. The aforementioned changes in funding structure lengthened the average repricing period on the liability side (see Figure 2.13, left). The repricing gap remained at a similar level to that six months ago, which meant that the risk remained elevated, with a trend of decline. This is supported by the banks' responses in the challenges survey: many expect the maturity gap to narrow as a result of average maturities on the liability side lengthening more than those on the asset side.

[19] Long-term deposits consist of deposits fixed for a term of more than one year, while short-term deposits are those fixed for a term of up to one year.

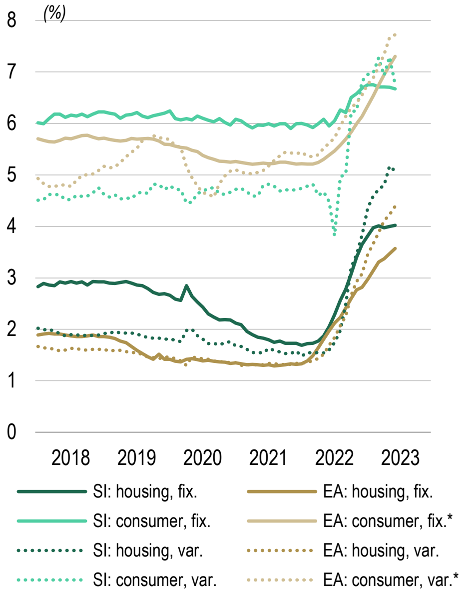
[20] The main purpose of the issuance of debt securities is to meet the minimum requirements for own funds and eligible liabilities (MREL), rather than any liquidity needs.

Interest rates

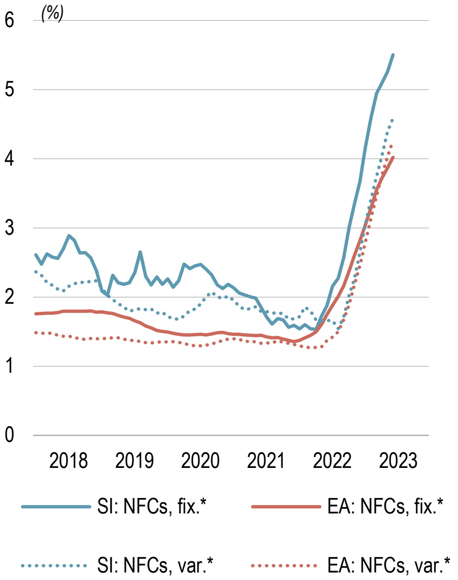
Interest rates on new loans to the non-banking sector rose more slowly in the first half of this year than in the second half of last year. The trend of rapid rises has eased somewhat this year, which is most evident in fixed interest rates on household loans (see Figure 2.14, left). They stagnated in the first half of the year on housing loans and consumer loans alike. Interest rates on housing loans had risen to 4.0% by June, up 0.3 percentage points on the end of 2022, while interest rates on consumer loans remained unchanged at 6.7%. Variable interest rates on consumer loans were also unchanged from the end of last year at 6.8%, although they hit 7.3% in the interim, while there was a more notable rise in variable rates on housing loans, which were up 1.2 percentage points at 5.1%. Given June's inflation rate of 6.6% (HICP), real interest rates on housing loans remained negative, while those on consumer loans turned slightly positive. The trend of rising interest rates on new household loans in the euro area overall also continued this year; average interest rates on housing loans in June were lower than those in Slovenia, while those on consumer loans were higher. The trend of rising interest rates on loans to non-financial corporations seen in the second half of last year also continued this year, with fixed and variable interest rates rising to a similar degree (see Figure 2.14, right). The former were up 1.5 percentage points on the end of last year at 5.7%, while the latter were up 1.2 percentage points at 5.0%. They remained negative in real terms, although the trend of increase was slightly faster than in the euro area overall. The gap by which fixed interest rates exceeded the euro area average in June was much larger than the comparable gap for variable rates.

Figure 2.14: **Interest rates on loans**

Average contractual interest rates on new household loans by remuneration type, comparison with the euro area



Average contractual interest rates on new loans to non-financial corporations by remuneration type, comparison with the euro area

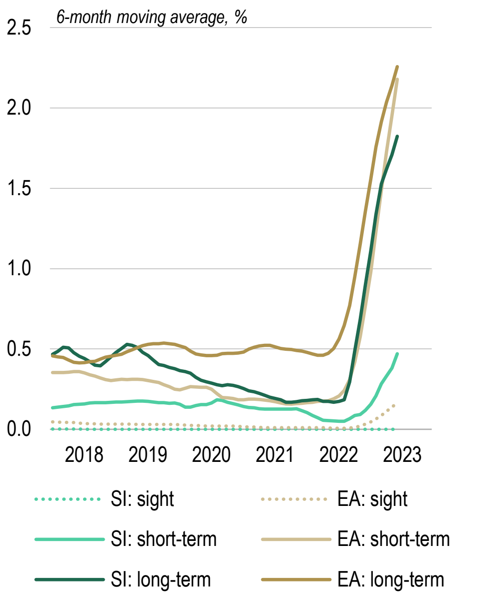


Note: Variable-rate loans comprise loans concluded with a variable interest rate (tied to the EURIBOR) or with an interest rate fixed for less than one year (even if it is fixed for the entire term to maturity), while fixed-rate loans comprise loans with an interest rate fixed for a period of more than one year. Series illustrated as six-month moving averages are denoted by an asterisk (*) in the key.
Sources: Banka Slovenije, ECB SDW

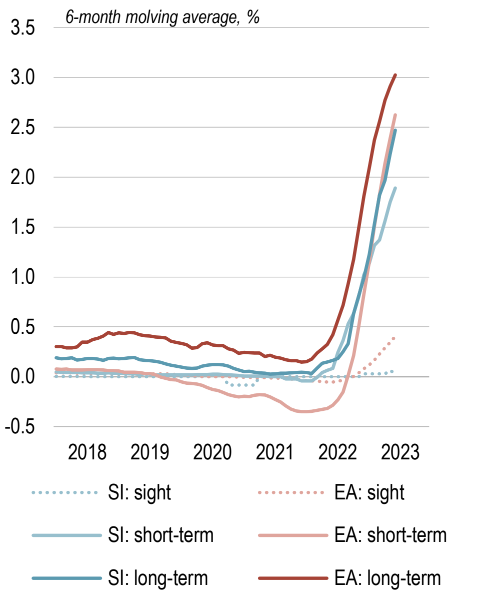
The trend of moderate increase in interest rates on new deposits by the non-banking sector continued over the first half of the year, although interest rates on sight deposits mostly remained at zero. The main increase in the household segment was in interest rates on long-term deposits, while interest rates on short-term deposits remained notably lower (see Figure 2.15, left). The former rose by 0.7 percentage points over the first half of the year to reach 2.1% in June, while the latter were up 0.5 percentage points at 0.7%. They remained at zero on sight deposits, which remain the strongly prevalent form of household deposits. Interest rates on short-term deposits in particular were significantly lower than in the euro area overall in June, while with the inflation rate of 6.6% in June (HICP) real interest rates on deposits remained strongly negative, irrespective of fixation period. There was a significant rise in interest rates on long-term and short-term deposits by non-financial corporations (see Figure 2.15, right). The former rose by 1.4 percentage points over the first half of the year to reach 2.6% in June, while the latter were up 0.9 percentage points at 2.2%. Average interest rates on sight deposits remained at zero in June, having risen slightly to 0.2% in May. Interest rates were lower than those in the euro area overall at all the aforementioned maturities. According to the challenges survey, the majority of banks will raise interest rates on short-term and long-term deposits alike in the future, but will remain more restrained in raising interest rates on sight deposits.

Figure 2.15: **Interest rates on deposits**

Average interest rates on new household deposits by maturity, comparison with the euro area



Average interest rates on new deposits by non-financial corporations by maturity, comparison with the euro area



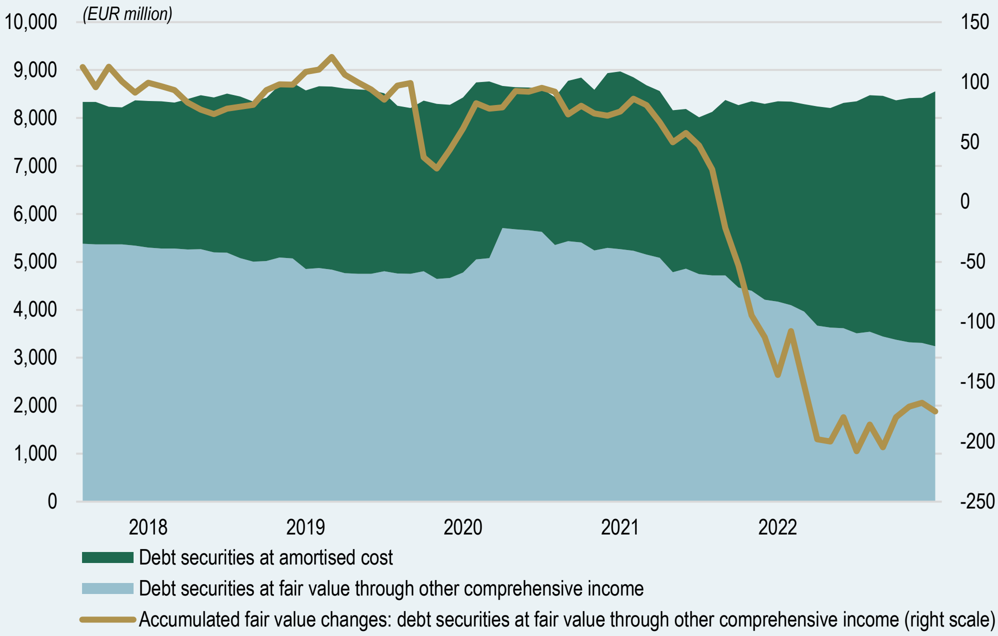
Sources: Banka Slovenije, ECB SDW

Box 1: Debt securities and the consequences of changes in their fair value

Rising interest rates have recently seen greater attention given to debt securities, particularly those that the banks measure at amortised cost. The focus has been the stock of these securities, and the difference between their carrying amount and their fair value (the corresponding unrealised losses that the banks would suffer when selling before maturity).

The banks held EUR 8.5 billion of debt securities on their balance sheets at the end of June 2023 (17.5% of the balance sheet total), of which EUR 5.3 billion (62%) was measured at amortised cost and EUR 3.2 billion (38%) was measured at fair value through other comprehensive income. Government securities were prevalent (72% of the total), followed by bank securities (20%), while the remainder were issued by non-financial corporations and other financial institutions. The breakdown of the debt securities portfolio across institutional sectors did not differ significantly between the two measurement categories.

Figure 2.16: **Stock of debt securities in selected measurement categories, and accumulated changes in fair value disclosed in other comprehensive income**



Note: The increase in the share of securities measured at fair value through other comprehensive income in 2020 was attributable to the reclassification of Abanka securities when being acquired by NKBM.
Sources: Banka Slovenije, ECB SDW

Similarly to banks in other EU Member States, the Slovenian banking system has seen significant structural changes between the two measurement categories in 2022 and 2023, as a result of repayments upon maturity, and sales and purchases of debt securities that can also be ascribed to changes in their market value. The aforementioned structural changes might reflect actions on the part of the banks aimed at reducing the sensitivity of the earnings to interest rate risk in the period of rising interest rates seen since 2021. Even at the end of 2021 the banks' portfolios mostly comprised debt securities measured at fair value through other comprehensive income (59% of the total). In 2022, when there was a significant decline in the fair value of debt securities, a number of banks classified newly purchased securities into the category of financial assets measured at amortised cost. Classifications of this kind have also been seen in 2023: the share of the debt securities portfolio measured at amortised cost increased by an additional 4 percentage points in the first half of the year to reach 62%, on account of a decline in the portfolio of debt securities measured at fair value through other comprehensive income. Based on the banks' predictions expressed in the challenges survey, further changes of this kind can be expected over the remainder of 2023. Both measurement categories have seen a gradual increase in the share of government securities since 2021 (from 67% at the end of 2021 to 72% at the end of June 2023) at the expense of securities issued by banks.

The banks that hold debt securities measured at fair value through other comprehensive income recorded losses in 2022 as a result of the decline in their fair value, which resulted in a decline in the total capital ratio at those banks. The accumulated losses on this account recognised in equity amounted to EUR 208 million after tax at the level of the banking system at the end of 2022. The situation on the market has eased somewhat this year, which resulted in a slight reduction in the accumulated losses over the first six months of the year, to stand at EUR 175 million after tax at the end of June.

Under IFRS 9 there is no need for banks to recognise the effects of measurement at fair value for securities measured at amortised cost, as the expectation is that the banks will hold these securities until maturity, when their fair value approaches their amortised cost. The banks only need to disclose the fair value of this portfolio.

Our estimate is that the fair value of securities measured at amortised cost was EUR 279 million less than their amortised cost at the end of June 2023. The estimate already includes the valuation effects due to any fair value micro hedges,[21] but not the effects of any macro hedges that include debt securities measured at amortised cost.[22] Given their current favourable liquidity situation, the banks have no need to sell debt securities, as they have other options available for managing liquidity, such as balances in accounts at the central bank and at commercial banks and obtaining additional funding from the ECB by pledging non-encumbered assets of the requisite credit quality (including the aforementioned portfolios of debt securities). It is therefore unlikely that the unrealised losses on this account would subsequently be realised.

Other salient information from the perspective of risk analysis concerns impairments for expected credit losses, which banks are required to recognise in profit or loss for both measurement categories. The banks assess the credit risk of their securities portfolios as low, which can be ascribed to the aforementioned large share of government securities. At the end of June 2023, the banking system presented coverage of their gross carrying amount by impairments at approximately the same level in both categories (0.13%).

[21] Under IFRS 9, in the case of a micro hedge the bank adjusts its carrying amount for the gain or loss resulting from the change in fair value under hedging.

[22] When a bank is hedging a group of financial instruments, changes in the fair value of the group are presented in a separate line item, and the carrying amounts of the individual hedged instruments that make up the group are not adjusted.

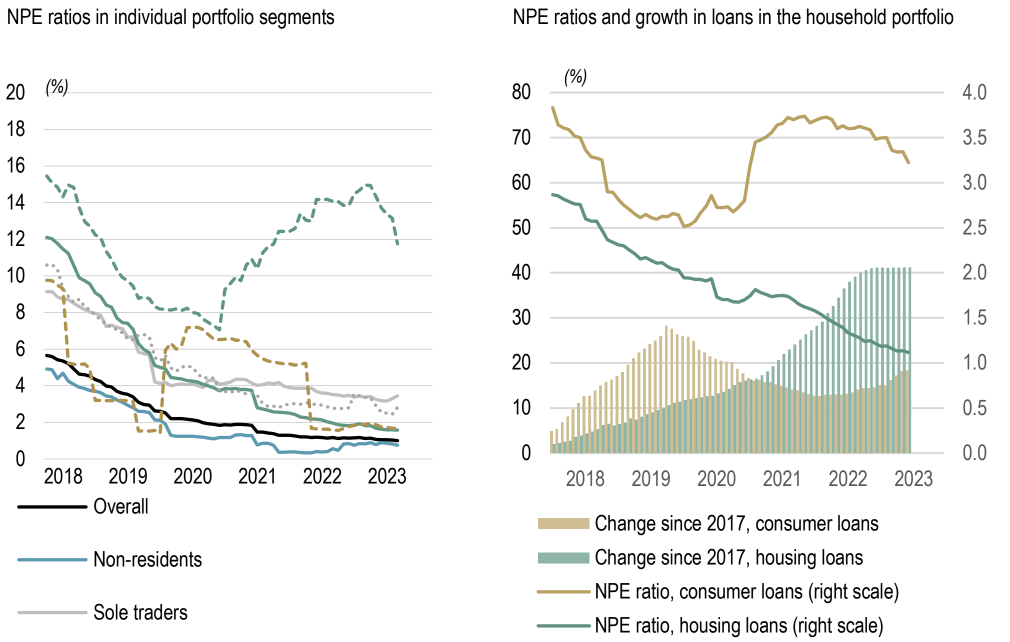
2.4 Credit risk

The assessment of credit risk in the banking system has been reduced from elevated to moderate. Despite the exceptional challenges facing businesses and households over the last three years, the asset quality has continually improved, reaching a new milestone in the first half of 2023. Quality has begun to improve markedly even in portfolio segments where NPEs had remained persistently high. Rising corporate profits and high employment with low indebtedness are indicative of the sound financial position of customers of banks, who are operating in a stable environment with a positive, albeit weaker, outlook. One risk of a future rise in NPEs comes from the consequences of the recent floods, which might be greater than currently identified given the complex interactions in the economy. Current assessments are that there should be no significant deterioration in the quality of bank assets on this account.

NPEs and credit risk stages

The NPE ratios declined further in the first half of this year, reaching 1.0% at the level of the total portfolio in June. A trend of decline in NPE ratios, albeit slower, is also evident at EU level. Slovenia had reached the level of the EU average by the end of 2021, and its faster decline has continued since then. The figure in Slovenia was 0.3 percentage points below the EU average in March 2023, and was also below the euro area average (see Figure 8.8, left, in the appendix). The NPE ratio in the non-financial corporations portfolio also reached its lowest level to date in Slovenia of 1.6%, while the NPE ratio in the household portfolio stood at 1.5% (see Figure 2.17, left). The only outlier is the sole traders portfolio, where the NPE ratio rose slightly by 0.1 percentage points to stand at 3.4%. Sole traders accounted for just a small share of total NPEs in the banking system in June, at 4.6%.

Figure 2.17: **NPE ratios**

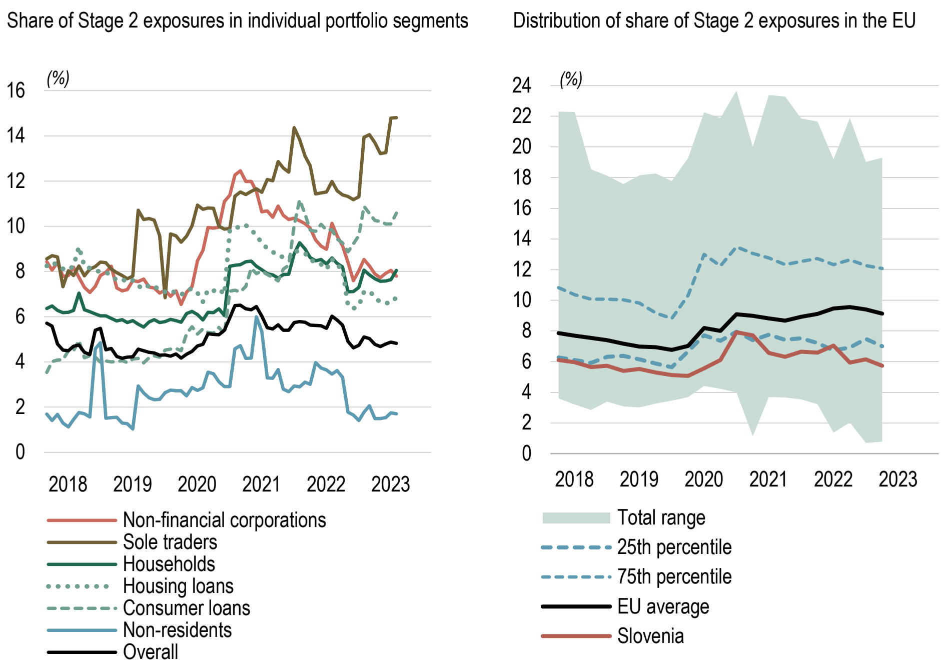


Source: Banka Slovenije

After a temporary deterioration in the final months of 2022, asset quality improved in the first half of 2023 even in the sectors that were hit hardest during the pandemic and suffered the longest consequences. Turnover in accommodation and food service activities in 2022 exceeded that from 2019 for the first time since the outbreak of the pandemic, and performance has further improved this year. The improved performance of firms in accommodation and food service activities was reflected in a decline of 23% in the stock of NPEs to the sector in the first half of 2023, and in a decline of 3.2 percentage points in the NPE ratio to 11.8%. Accommodation and food service activities nevertheless still accounted for 23% of total NPEs in the non-financial corporations portfolio in June, compared with 6% before the pandemic. After rising slightly in the final months of 2022, the NPE ratios in professional, scientific and technical activities and in arts, entertainment and recreation declined again over the first half of this year (see Figure 2.17, left). These three sectors recorded the highest NPE ratios in the non-financial corporations portfolio during the pandemic.

The trend of improvement in the quality of the housing loans and consumer loans portfolios continued over the first half of 2023. The decline of 0.3 percentage points in the NPE ratio in the consumer loans portfolio to 3.2% was attributable to a decline in the stock of NPEs and also to the rise in consumer lending from August 2022 (see Figure 2.17, right). The stock of consumer loans[23] increased by 3.0% over the first half of the year, while the stock of housing loans was unchanged from December. The NPE ratio in the housing loans portfolio is one of the lowest in all of the banks' credit portfolios: it stood at 1.1% in June, down 0.1 percentage points on December 2022.

Figure 2.18: **Share of Stage 2 exposures**



Sources: Banka Slovenije, EBA

The share of exposures in the stage with increased credit risk has declined further in 2023, but in certain segments of the portfolio this share points to increased identification of credit risk at banks. The share of Stage 2 exposures in the entire portfolio declined by 0.2 percentage points over the first half of the year to 4.9% (see Figure 2.18, left). An opposite dynamic is notable in the consumer loans portfolio,

[23] The section on credit risk addresses the entirety of bank exposure, both on-balance-sheet and off-balance-sheet. The consumer loans and housing loans portfolios both have very low shares of off-balance-sheet exposures (0.02% for consumer loans and 0.64% for housing loans in June), for which reason we speak solely of loans.

where the share of Stage 2 exposures increased to 10.6%. The consumer loans portfolio has mainly seen a rising trend ever since the outbreak of the pandemic, with individual shorter periods of intermittent rises and falls in the share of Stage 2 exposures. Increased reclassification to Stage 2 has also been evident since the final months of last year in the sole trader portfolio and in the micro enterprises portfolio (see Figure 8.9, left, in the appendix), which together account for just 5.2% of total bank exposure. There are no major outliers from the general trend of decline in any sectors within the non-financial corporations portfolio (see Figure 8.9, right, in the appendix). Accommodation and food service activities and arts, entertainment and recreation have both seen major reclassification from Stage 2 to Stage 1 (lowest credit risk) ever since the beginning of 2022. The share of Stage 2 exposures in the two sectors declined from over a half to 26% and 21% respectively in June 2023, still well above average.

A renewed decline in the share of Stage 2 exposures was also evident across EU Member States. The increase in credit risk as a result of the outbreak of the war in Ukraine was reflected at EU level in an increase in the share of Stage 2 exposures, but the trend reversed in the final quarter of 2022 and continued in the first quarter of 2023 (see Figure 2.18, right). The share of Stage 2 exposures at EU level stood at 9.1% in March, and was still slightly above its level before the outbreak of the war.[24]

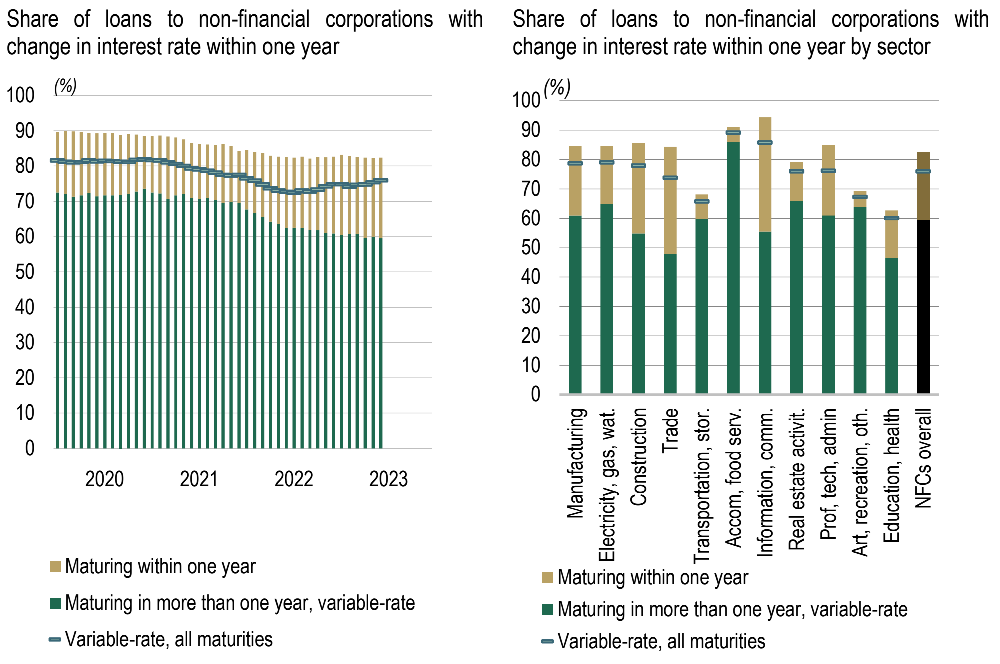
Bank credit standards and interest rates

The banks have slightly tightened their credit standards again in 2023, albeit less than in the previous year. According to the BLS, there has been a consistent tightening of credit standards since the very beginning of 2020, with a minor relaxation in 2021, and renewed tightening since the outbreak of the war in Ukraine (see Figure 8.8, right, in the appendix). The banks cite the economic situation and also various industry-specific situations as the most important factors in the tightening for loans to non-financial corporations. The most notable factor in the tightening of credit standards for households in the second quarter was the creditworthiness of the borrower, but the general economic situation and the poor housing market prospects also had a significant influence on standards. Expectations of the further tightening of credit standards for non-financial corporations over the next three months are declining. Conversely, the majority of the banks are expecting a relaxation of credit standards for housing loans and consumer loans over the same period. Changes in interest rates on loans are the loan terms most commonly cited by the banks.

The rise in interest rates was first reflected in variable-rate loans and in loans with short residual maturity. Variable-rate loans accounted for 76% of the stock of loans to non-financial corporations in June (see Figure 2.19, left), while any fixed-rate loans that are renewed at maturity will be concluded under the higher interest rates applicable at the time. Just under 60% of loans to non-financial corporations carry a variable rate with a residual maturity of more than one year, while an additional 22% are loans with a maturity of less than one year, irrespective of the remuneration type (see Figure 2.19, right). The information and communication sector is in the least favourable situation with regard to interest rates: almost 95% of its debt is due for repricing or renewal in less than one year. The figures are only slightly lower in accommodation and food service activities and in wholesale and retail trade, the latter primarily on account of the nature of the sector, which is largely financed through short-term loans.

[24] The item relates to the loan portfolio. The comparable figure for Slovenia for the same period is 5.7%.

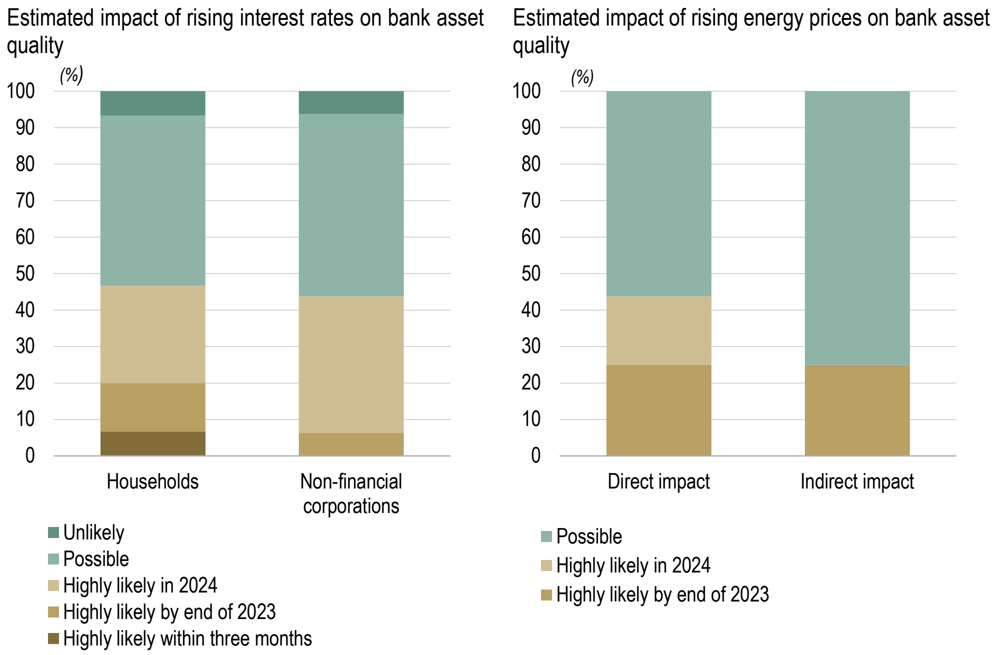
Figure 2.19: **Variable-rate loans to non-financial corporations**



Source: Banka Slovenije

Despite the increase in the interest burden, the banks are not expecting any major deterioration in asset quality this year or next year. According to the challenges survey, more than half of the banks are not expecting higher interest rates to have any major impact on debtors' debt servicing capacity, while those who are anticipating a deterioration in the credit portfolio on this account are mainly expecting it to be reflected in 2024 (see Figure 2.20, left). Less than half of the banks assess that the rise in energy prices will be reflected in asset quality for customers being hit directly by the rising prices, and merely just over 20% assess the same for customers impacted indirectly by rising energy prices (see Figure 2.20, right).

Figure 2.20: **Bank assessment of deterioration in asset quality**



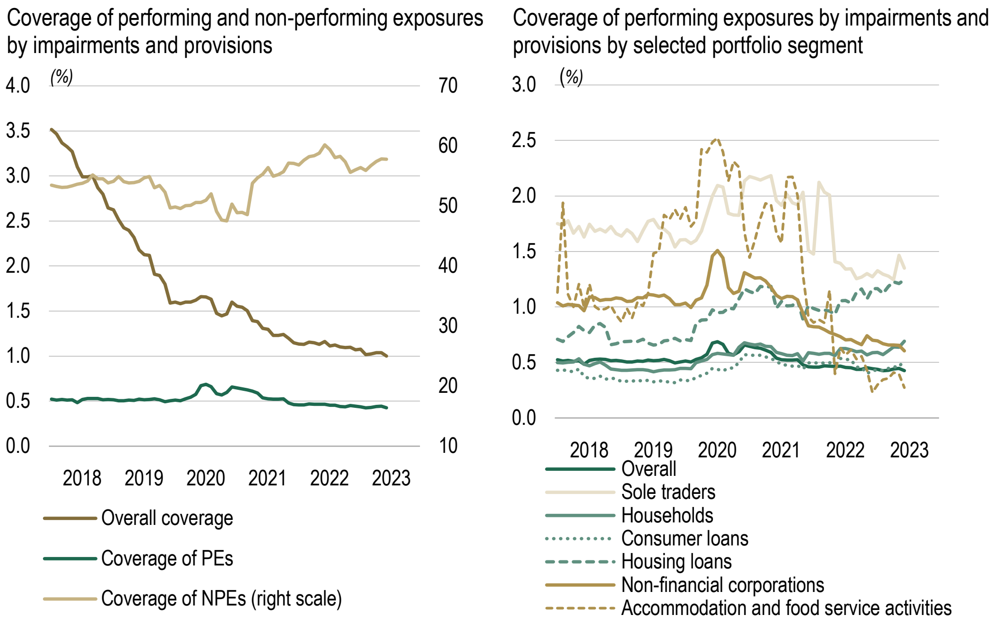
Note: The charts illustrate the share of banks giving each answer.
Source: Challenges survey

Coverage by impairments and provisions

After declining temporarily in the second half of 2022, coverage of NPEs by impairments and provisions improved again in the first half of 2023, while coverage of performing exposures declined further. Coverage of NPEs reached 57.8% in June, up from 56.0% at the end of last year (see Figure 2.21, left).[25] The increase in the coverage of NPEs was evident in all customer segments. Coverage of performing exposures declined again in the first half of the year to reach 0.43% in June. Consumer loans (and consequently the entire household portfolio) were notable for the rise in coverage as of 2022, by 0.2 percentage points in total to 1.2% (see Figure 2.21, right). The accommodation and food service activities sector is notable for its decline in coverage by impairments, from a peak of 5.9% in November 2021 to 2.3% in June 2023, in line with the reclassification of exposures from Stage 2 to Stage 1.

According to the challenges survey, the banks are not expecting any major increase in impairments and provisions in the future. Merely just under 19% of the banks assess that they will need to create additional impairments and provisions on account of rising interest rates, while just over 6% of the banks assess the impact of rising energy prices in this way. The assessments were made before the completion of the collection of data on the magnitude of the damage suffered by bank customers in this year's floods; the banks' current assessments are that the damage is thought to be minor. Bank customers who suffered damage during the floods will be able to exercise a debt moratorium at banks under the conditions set out by law,[26] or agree on other changes to contractual provisions or raise new loans to rectify the damage, which might drive a deterioration in asset quality and the need for additional impairments. Some of the increased demand for loans as a result of the floods will be financed directly at non-bank creditors, and not necessarily via banks. It is particularly uncertain how much indirect damage bank customers will suffer over the medium term as a result of the temporary disruption to supply chains.

Figure 2.21: **Coverage by impairments and provisions**



Note: PEs denotes performing exposures.
Source: Banka Slovenije

[25] The key factors in the decline in coverage in the second half of 2022 were the dynamics in NPEs, and the impairments for exposures to Russia, Belarus and Ukraine. The majority of exposures to these three countries were reclassified as NPEs in 2022, but they also include exposures with high coverage by collateral (government guarantee) and consequently lower coverage by impairments.

[26] Act Determining Intervention Measures for Recovery from the Floods and Landslides of August 2023 (ZIUOPZP) (pisrs.si)

2.5 Income risk

The assessment of income risk in the banking system was reduced to low, on account of the improvement in the conditions for generating income. Despite the slowdown in growth in loans, the impact on income generation is expected to remain highly positive over the remainder of the year. Net non-interest income also recorded positive growth in the first half of the year, while growth in operating costs was significantly outpaced by the increase in income. August's severe weather events will not have an adverse impact on the generation of income at the banks.

Gross income and net income

Banks saw a sharp increase in gross and net income in the first half of this year. The improvement in income was driven by a large and rapid increase in net interest, but was also attributable to growth in net non-interest income, which has again been relatively volatile this year on account of one-off factors. The banking system's gross income in the first half of 2023 was up 58.3% in year-on-year terms, while net income was up fully 135.3% amid moderate growth in operating costs (11%). Net income made a decisive contribution to the year-on-year increase in profit in the first half of 2023.[27] With price effects prevailing, it can be expected to continue increasing, despite any slowdown in growth in loans.

Net interest margin and net non-interest margin

Net interest income in the first half of the year doubled in year-on-year terms. The net interest margin is rising. Net interest income remains the main factor in the increase in the banks' income. Strengthening net interest was evident throughout last year, driven relatively equally by quantity effects and price effects. The positive price effects coming from the asset side of the balance sheet strengthened markedly between the second half of last year and June of this year amid rising interest rates, returns on assets of all types having increased profoundly (see Figure 2.22). There was an increase in interest income on loans, and on the most liquid assets, most notably claims against the central bank.

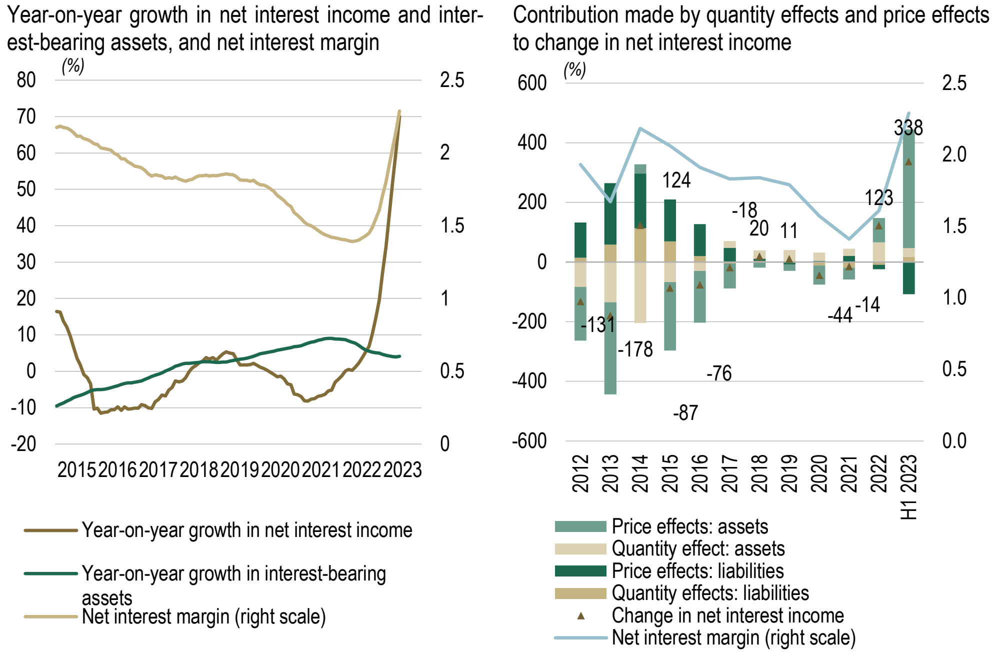
The increase in interest expenses was much smaller: it amounted to just a fifth of the increase in interest income. The reasons lie in the structure of bank funding, and the banks' interest rate policies. The prevalence of funding via deposits by the non-banking sector and the low share of more costly funding (wholesale funding in particular[28]) are major factors driving the increase in net interest income. The persistently high share of sight deposits, which carry almost zero interest, and the very slow rise in interest rates on deposits of longer maturities are driving a rapid rise in the net interest margin. Since reaching its lowest value (1.39%) in April 2022, it has risen rapidly, reaching 2.29% in June of this year.[29]

[27] See the section on profitability and solvency, which examines the differences in the amount of pre-tax profit that explain the changes in income and cost categories (net income), and in net impairments and provisions.

[28] The share of wholesale funding has increased this year, primarily as a result of the issuance of bonds at two large banks to meet the MREL targets.

[29] The quarterly developments in the interest margin over the preceding 12 months indicate that it had surpassed 2% by December of last year, before hitting 2.9% in June of this year, its highest value in almost two decades.

Figure 2.22: **Net interest margin, and contribution made by quantity effects and price effects to change in net interest income**



Note: In the above charts the net interest margin is calculated for a moving 12-month period.
Source: Banka Slovenije

The increase in net interest income in the first half of this year was driven above all by price effects on the asset side of the balance sheet. The quantity effects on the asset side were only small, given the slowdown in growth in loans and interest-bearing assets. Taking account of price effects alone, those on the asset side of the balance sheet were four times the size of those on the liability side.[30] The largest contribution on the asset side to the year-on-year increase in interest income came from interest income on loans, which account for more than half of interest-bearing assets. The increase in interest income driven by the most liquid assets in the form of claims against the central bank and against banks, which account for a fifth of the balance sheet total and almost a quarter of interest-bearing assets, should also be highlighted. The successive rises in the ECB's interest rates were immediately reflected in an increase in (net) interest income on this account.[31] On the liability side the negative price effects were relatively evenly distributed across the main types of funding (deposits by the non-banking sector, wholesale funding, other). All sources of funding are gradually becoming more expensive, with deposits by the non-banking sector recording the slowest rise.

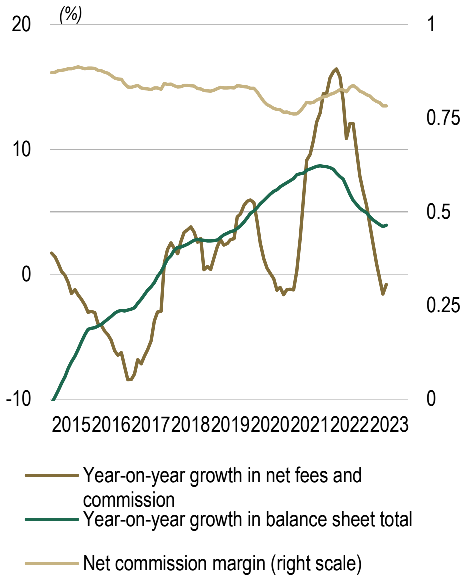
One-off factors have caused net non-interest income to fluctuate considerably, but in the first half of this year it was up 7.7% on the same period last year. The effect of the sale of a leasing company at one of the large banks was a major factor in the year-on-year decline in net non-interest income over the first four months of the year. The reversal in growth came in May, as a result of dividends received, which in the first half of the year were up sharply on last year at the level of the banking system (see Figure 2.23, right). Net fees and commission in the first half of the year were down 3.6% in year-on-year terms, reducing the net commission margin to 0.78% (down from 0.81% in December of last year). It should be remembered that the banks were still charging custody fees in the first half of last year. This year's decline in net fees and commission, which is the largest component of net non-interest income accounting for two-thirds of the total, was relatively small (EUR 7.4 million), particularly in comparison with the large increase in net interest.

[30] Price effects this year amounted to EUR 399 million on the asset side, and EUR 107 million on the liability side.

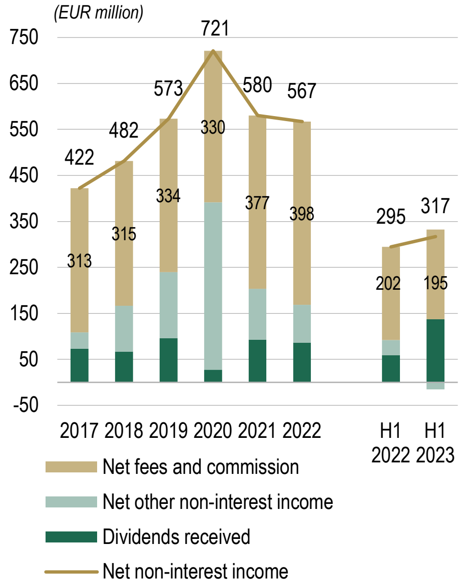
[31] The year-on-year difference in net interest income coming from interest income on claims against the ECB and the deposit facility in the first half of the year compared with the first half of last year, when excess reserves were still under negative remuneration, accounts for more than 40% of the total increase in net interest income.

Figure 2.23: **Net commission margin and types of non-interest income**

Year-on-year growth in net fees and commission and balance sheet total, and net commission margin



Net non-interest income



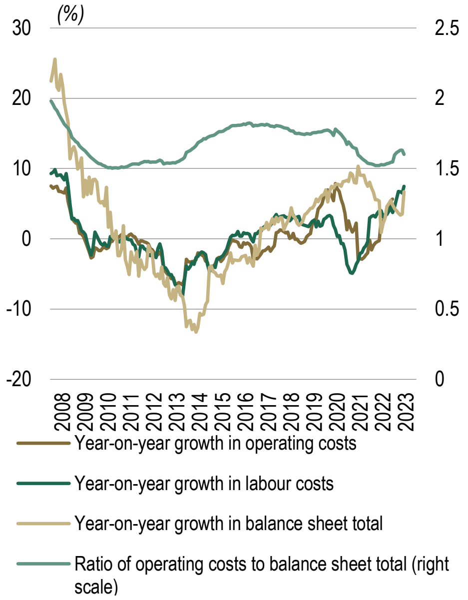
Note: The net commission margin in the left chart is calculated for the preceding 12 months. The figures in the right chart denote net non-interest income and net fees and commission.
Source: Banka Slovenije

Operating costs

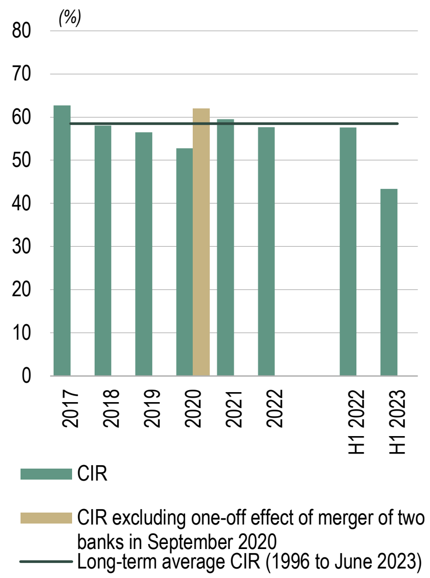
Growth in operating costs has been moderate this year, and has been outpaced by growth in gross income. Operating costs in the first half of the year were up 11% in year-on-year terms, somewhat higher than inflation but significantly less than the growth in income. Growth in labour costs was slightly lower, at 10.2%. The ratio of operating costs to the balance sheet total calculated over the preceding 12 months increased slightly, which was attributable to the slower growth in the balance sheet total (see Figure 2.24). The CIR declined sharply as a result of the high growth in income to stand at 43.4% (compared with 61.9% in the first half of last year, 57.6% over the whole of 2022, and a long-term average in the Slovenian banking system of 58.5%).

Figure 2.24: **Operating costs and CIR**

Growth in operating costs, labour costs and balance sheet total



Ratio of operating costs to gross income (CIR)



Source: Banka Slovenije

Expectations of income generation until the end of 2023

By the end of 2023 net income is expected to have increased sharply compared with last year. Given this year's interest rate levels,[32] there is still an expectation of high growth in net interest income relative to last year, and a rise in the net interest margin, even if growth in loans slows further.[33] Net interest income will be the main driver of the increase in income and earnings at the banks. Our assessment and forecast is that any moratoria that the banks approve for customers over the next 12 months in connection with August's severe weather events will have no impact in reducing interest income over this period. Any additional credit activity aimed at dealing with the consequences of the floods and landslides could have a positive effect on income.

The majority of the banks are expecting net interest income to increase over the remainder of this year, with a positive impact in driving up income and earnings, a relatively neutral effect from non-interest income, and a moderate negative effect from operating costs.[34]

Comparison of income and cost indicators in the Slovenian banking system with the euro area

A comparison of the main income and cost indicators relative to the balance sheet total in the Slovenian banking system with other EU Member States[35] in 2022 shows no significant changes from previous years. The Slovenian banking system was slightly above average (compared with the EU median) in terms of the net interest margin, net non-interest margin, and net commission margin, where it has one of the highest figures. At the same time Slovenian banks had a higher ratio of operating costs to the balance sheet total and a higher CIR compared with other countries, although the attributes and importance of the banking systems in the individual countries need to be taken into account. The comparison of the Slovenian banking system with banks of similar size (small banks in the EU), whose data is most comparable, also reveals for last year that the Slovenian banking system was a slight upward outlier in terms of the margins (net interest, net non-interest and net commission), while it also recorded a better (lower) result in 2022 for the ratio of operating costs to the balance sheet total, and was particularly notable for its CIR.

Signs of stronger shifts in the net interest margin began to be seen in the first quarter of 2023.[36] There was a notable widening of the difference between the net interest margin in the Slovenian banking system and other banking systems, which means that the Slovenian banking system has one of the highest rates of growth in net interest

[32] The interest rate on the ECB's deposit facility was raised from -0.4% to zero in July 2022, and then underwent nine further rises to reach 4.0% in September 2023. The 3-month Euribor moved similarly into positive territory in July of last year. That the 3-month Euribor averaged -0.4% in the first half of last year and 3% this year is evidence of the size of the differences in interest rates between the two years. Despite rising it averaged just 1.1% over the second half of last year, but had reached 3.9% by the middle of this September.

[33] Some 55% of all loans to households and non-financial corporations (accounting for 84% of total loans to the non-banking sector) carry a variable interest rate. The stock of the most liquid assets exceeds a fifth of the balance sheet total, and so more than two-thirds of interest-bearing assets are adjusted promptly to any rise in interest rates. Conversely, sight deposits by the non-banking sector for example, which have seen virtually no movements in interest rates this year, account for fully 72% of the banks' interest-bearing liabilities.

[34] In their set of responses to the question on the impact of individual income statement categories, 14 of the banks said that they are expecting net interest to have a major impact on profitability, with one bank expecting a minor impact and just one a significant decline. The expectations with regard to non-interest income are more evenly distributed: 13 of the banks gave relatively neutral responses (four are expecting a minor negative impact on profitability, four no impact, and five a minor positive impact on profitability). With regard to operating costs the vast majority of the banks are expecting a negative impact, of which five are expecting a major impact in reducing profitability and ten a minor impact (challenges survey).

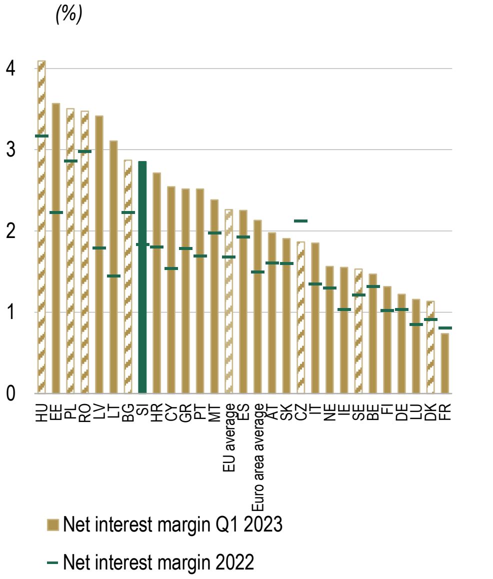
[35] The compared values relate to the whole of 2022 (ECB SDW). See Figures 8.13 to 8.16 in the appendix.

[36] These are the available quarterly figures, which have been annualised. It should be remembered that growth in net interest in 2022 only began to increase rapidly in the second half of the year, and particularly from the third quarter, for which reason the changes in 2022 were still relatively small. The figures for the first quarter of this year point to profound changes in net interest income.

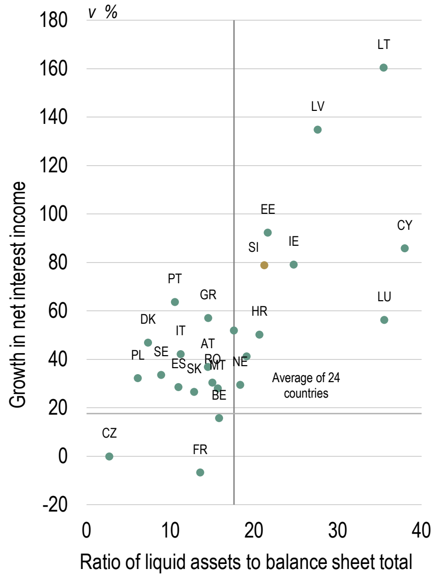
income in the EU (see Figure 2.25, right). The rapid rise in the margin and the widening of the difference with other banking systems is attributable to the factors cited above.

Figure 2.25: **Net interest margin and growth in net interest income in EU Member States**

Net interest margin in EU Member States, 2022 and first quarter of 2023



Year-on-year growth in net interest income and ratio of liquid assets to total assets in EU Member States



Note: The hatched bars in the left chart denote countries outside the euro area. The data in the right chart was only available for 24 EU Member States.
Source: Banka Slovenije

3 Other Risks

3.1 Cyber risk

Cyber risk in the banking system remains moderate. The banks are not reporting any report an increase rise in the number of cyberattacks or incidents over the last year as a result of geopolitical risks. This is also reflected in the results of the challenges survey, which continue to show that the cyber resilience of the banking system remains stable. Banks are still facing difficulties caused by a lack of supervision of outsourcing and suppliers, the obsolescence of information systems, and a lack of cyber hygiene, albeit less so than in previous years. The number of cyber incidents in the period between March 2022 and July 2023, which was dominated by the war in Ukraine, was low, and did not pose any particular threat to the banking system.

The banks are facing three cyber vulnerabilities: (i) insufficient supervision of outsourcing and suppliers, (ii) obsolescence of information systems, and (iii) issues with cyber hygiene.[37] Banks are still facing cyber vulnerabilities, but less than in previous years. The trend is towards hiring information solutions and support for them from outsourcers and suppliers, which increases exposure to cyberattacks and cyber incidents. The banks exercise supervision of outsourcers on the basis of the outsourcing policy, which follows the requirements of the EBA guidelines on outsourcing.[38] The banks order independent audits for critical outsourcers, which helps to improve the resilience of the banking system. The banks have clauses in their contracts with outsourcers requiring them to establish and implement organisational and technical security measures to ensure information security.

Banks are still dealing with obsolescent information systems, which pose a certain level of risk on account of easier cyber penetration. That information systems are obsolescent is attributable to the complexity of the information systems used by banks, the interactions of different services, and the occasional incompatibility of individual services with newer solutions. The banks are gradually addressing these, on the basis of their priorities, and analysis of the risks and threats. In order to improve cyber resilience and be able to identify threats more quickly and respond systematically to cyber threats, banks will need to allocate more resources in the future to strengthen their cyber defences with additional security mechanisms (implementation of a secure operating system, and internal and application firewalls). The banks otherwise report that they are intensively upgrading and updating their information systems, also with the aim of better protecting themselves against cyberattacks.

Banks report that they are still facing issues with regard to cyber hygiene. This is evidenced by various deviations from banks' security policies. Alongside various software applications and independent security audits, regular staff training can also play a role in security risk management (see Figure 3.1).

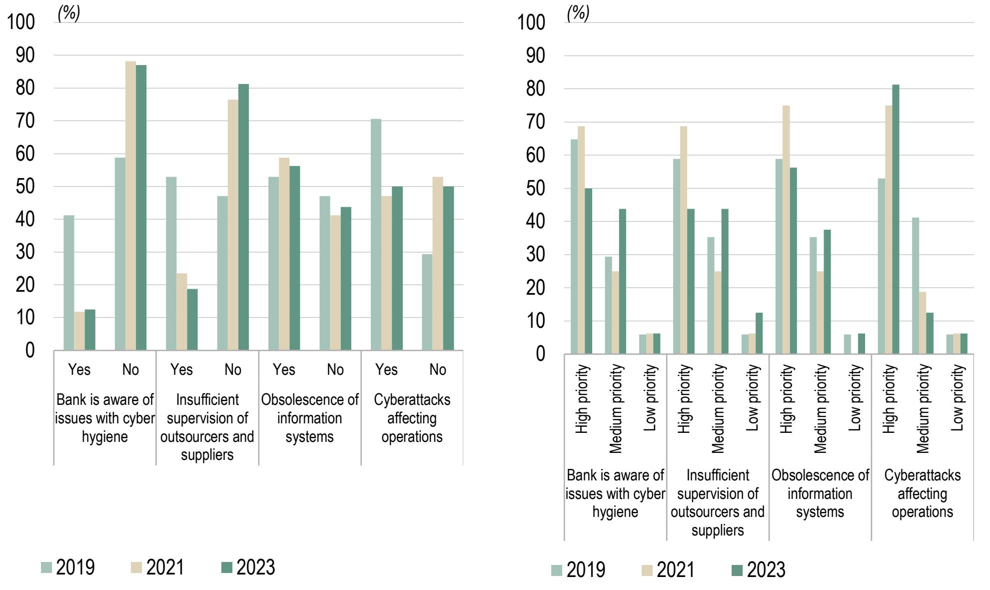
[37] Cyber hygiene is the practices and steps that users of computers and other devices take to improve online security.

[38] The EBA guidelines on ICT outsourcing can be found at EBA BS 2019 04 (Final draft Guidelines on ICT and security risk management).docx (europa.eu).

Figure 3.1: **Cyber vulnerability of banks**

Cyber vulnerability of the banking system

Prioritisation of cyber vulnerabilities in the banking system



Source: Banka Slovenije

Banks have reported an increase in SMS scams over the past year, where scammers impersonate banks. The scammers try to entice message recipients to click on an attached link that redirects them to a fake bank website, where they ask for confidential personal data to be entered. The scammers aim to convince Slovenian bank customers to provide them with enough data to be able to install software that can confirm transactions and to carry out phishing attacks. They misuse the data obtained from customers to make unauthorised payment transactions charged to their personal account. The banks are warning customers who receive messages of this kind by email or mobile not to click on them and not to enter their personal data.

The survey also aimed to understand how the banks are prioritising cyber vulnerabilities. The assessment was that they are seriously addressing the vulnerabilities identified through survey results. The cyber vulnerability[39] of the banking system has improved since 2019, which indicates that the banking system is better prepared for cyberattacks, and is better able to mitigate their consequences (see Figure 3.1, right).

Banks report that they have not observed an increase in the number of cyberattacks on bank information systems as a result of geopolitical tensions (the war in Ukraine). A trend of increase in the number of cyberattacks has been evident for several years now, but it has not been driven by the war in Ukraine. Bank systems have faced the following types of cyberattack in the last year, causing either interruptions to business or financial damage: phishing attacks, DDoS attacks, directory scams, scanning of external IP addresses, attempts to exploit known security vulnerabilities in the computer equipment used by banks, and ransomware. Between March 2022 and July 2023, there were 2,096 cyberattacks and the financial damage caused by them was estimated around EUR 202 thousand. The banks are not reporting any increased exposure of their information systems to cyberattacks as a result of geopolitical tensions, and are not earmarking additional funding for cyber security. They have also made no changes to their strategic plans to take account of geopolitical tensions.

[39] Cyber resilience is the ability of a bank or any other financial institution to achieve its missionby anticipating and managing cyber risks, and recovering quickly from cyber incidents. .

Box 2: Digitalisation of the banking system[40]

Digitalisation and new financial technologies (fintech)[41] **are having an increasing impact on banks' performance and business models.** The development of the fintech sector, which is based on the use of innovative information technology in financial services, has begun to change the use of technology in the development of new banking products and services and business models. The main objectives in the use of fintech are the digital transformation of business, and the maintenance of competitiveness on the market. Banks are using of fintech, but there is no sign of any increase in its use relative to previous years, which leads to the conclusion that caution prevails in the adoption of fintech as part of business as usual.

The banks are facing competitive pressure from fintech firms, and also from digital banks.[42] They report that fintech firms and digital banks are particularly competitive in the areas of current accounts, payments, and consumer lending, albeit less than in previous years. The competitors' advantages lie in additional services for more advanced digital users, and free services (price competition). The banks are increasingly collaborating with fintech firms by upgrading their internal information systems with new functionalities (particularly in the area of payment services and in new banking products; see Figure 3.2).

In recent years the banks have earmarked additional funding for the development of new products based on biometrics, cloud computing and AI. The use of AI and machine learning brings opportunities to increase revenues, reduce costs and to manage risks, resulting in increased competitiveness for banks. Banks do not see added value in using other fintech (e.g. distributed ledger technology and smart contracts) in their services or internal business processes.

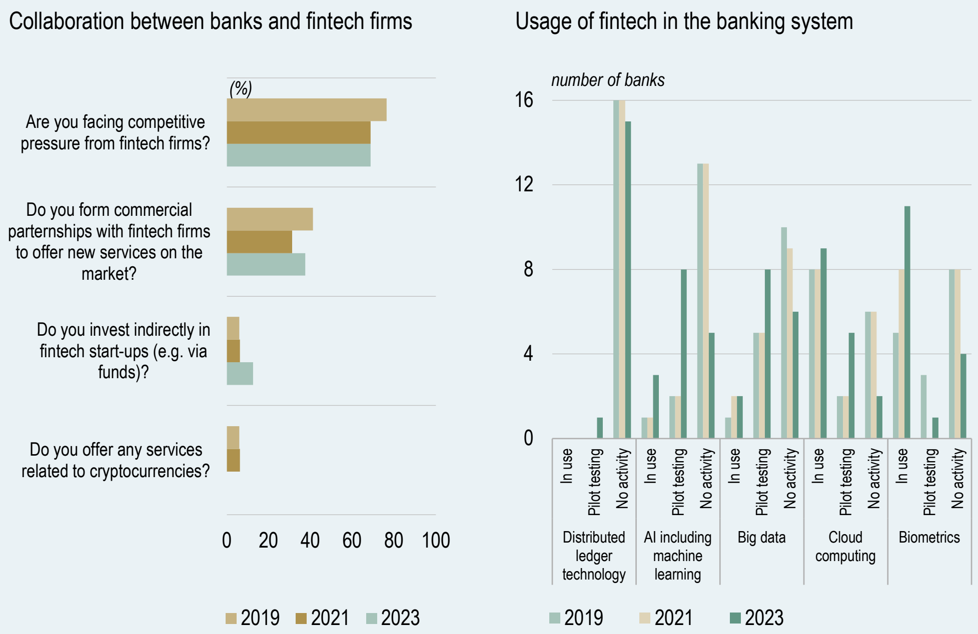
Banks remain conservative in their adoption of fintech, which means that they make a thorough assessment of the added value of the technology before deciding to implement it. When the use of fintech is compared with previous years (2019 and 2021), shifts can be seen mainly in the use of AI, biometrics and big data. The main finding is that banks use various AI applications in their internal processes (see Figure 3.2), such as neural networks, decision trees and regression analysis. They are mainly used for credit assessment, anti-money laundering, and real-time payments, including verifying the identification of payers and payees.

[40] The text in this section is based on the results of the challenges survey.

[41] Fintech includes cloud computing, digital/mobile wallets, biometrics, big data, AI (including machine learning), smart contracts, and distributed ledger technology.

[42] Digital banks do their business with customers exclusively via mobile apps or online platforms. Digital banks have no bricks-and-mortar branches, and do not do business with customers in any way reminiscent of traditional banking. There are two digital banks operating in Slovenia: N26 and Revolut.

Figure 3.2: **Collaboration between banks and fintech firms, and usage of fintech**

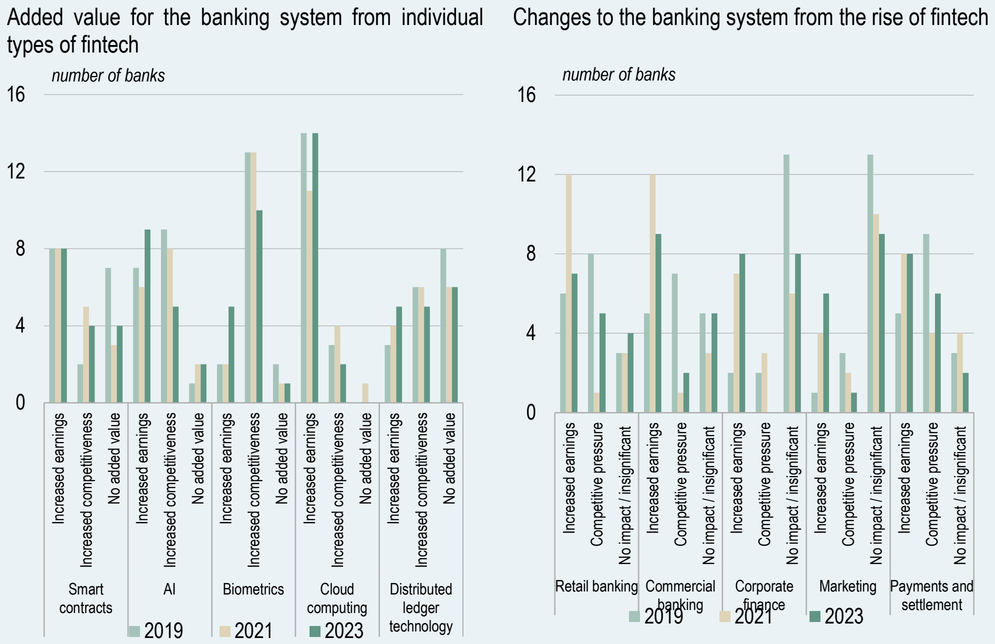


Source: Banka Slovenije

The banks are aiming to use fintech to improve their competitiveness on the market and to reduce operating costs. The banks are mainly using digital/mobile wallets, biometrics and AI to increase their market competitiveness (see Figure 3.3). Banks are using fintech such as cloud computing and AI to reduce operating costs. The majority of bank customers are already using digital channels for their everyday banking services. About 75% of retail banking customers make use of digital channels, while the figure in commercial banking is even higher, at around 85%. - Banks do not offer crypto products to their customers and have no plans to do so.

The survey shows that fintech is mainly having an impact on bank's business models in the areas of retail banking, commercial banking, and payments. The banks aim to adjust their business models to improve their business processes and meet rising customer expectations, thereby becoming more competitive with fintech firms and digital banks. The banks' primary aims in introducing fintech are to increase income, to attract customers, and to offer new services on the market. They also want to improve their range of services to satisfy new and existing customers. Compared to previous years the banks are adapting faster to the market situation through new products and services, and are continuing to invest in the digitalisation and automation of business processes. The survey shows that fintech firms and digital banks are still competing with the banks by offering free services in their dealings with customers, albeit less than was evident in previous years (see Figure 3.3).

Figure 3.3: **Added value and changes to the banking system from the rise of fintech**



Source: Banka Slovenije

The banks are primarily using tried and tested fintech in their operations, such as cloud services and software interfaces. Fintech is mainly being used in the area of cyber security, improving data quality, and in AML. Banks report that the use of cloud services enables the use of advanced analytical tools and big data processing. They are developing and using fintech to improve the range of services in open banking.

In making planned changes as part of the digitalisation process, similarly to previous years the banks face a lack of resources, legislative restrictions and fast-paced technological changes. The banks mention that there are shortages of personnel on the market with the requisite technical know-how, of qualified providers (IT firms) and of good-quality providers of information solutions. Similarly to previous years, there also is an evident shortage of time and resources in connection with legislation, given the increasingly complex regulatory requirements for the planned changes in the area of digitalisation. The banks earmarked less of their revenues for in-house fintech development in 2022 than in previous years. They are forecasting that investment in developing in-house fintech and in upgrading existing information infrastructure will increase slightly in 2023. For several years now the banks have been investing additional funds in the development of biometrics, AI, and big data, with the aim of further optimising internal business processes (such as reducing costs and downsizing staff), and offering their customers more attractive banking products. Fintech is bringing opportunities for banks to improve their customer-facing operations and their back-office operations, thereby increasing their profitability and competitiveness on the market.

Similarly to previous years, the banks report that they are working with the Big Tech firms[43] and currently see them as business partners rather than as competitors. In this year's survey the banks again believe that the Big Tech firms will enter the area of banking services sector in the coming years, improving the user experience, offering innovative products and services to customers, reducing operating costs, and creating new partnerships in the market. Banks still have certain advantages over big tech and fintech firms, such as better risk management and more personalised customer service.

[43] The Big Tech firms currently comprise Facebook, Apple, Amazon, Microsoft and Google. The Big Tech firms are dominant in their sectors: Apple in smart communications devices, Facebook in social media, Google in online search, Microsoft in software and Amazon in e-commerce. Given their dominance in the tech market, the Big Tech firms also exert a major influence on the economy and society as a whole.

3.2 Climate risks

Transition climate risks in the banking system remain moderate, with a stable outlook. There was a slight improvement in the indicators of (transition) climate risks in the first half of 2023, as a result of a base effect and the stabilisation of energy prices (see Figure 3.4). In terms of physical risks, the rising frequency and intensity of loss events could have a significant impact on the financial system, while the assessment of the impact of the recent floods remains rather uncertain, given the wide range of outcomes.

The August floods had large-scale consequences, encompassing the damage caused directly to private property and public infrastructure, the loss of income caused by interruptions to business activity, and the indirect effects along the supply chain. These consequences could have a significant impact on individual parts of the financial system, particularly the insurance sector, due to an increase in claims.[44] An impact on the banking sector is also possible, from the potential increase in credit risk. From a macrofinancial perspective, the impact on GDP could be positive amid increased investment in repairs and renovations, though government borrowing costs might also increase. Physical risks might increase significantly as the frequency of loss events increases, but adaptation measures can make a significant contribution to mitigate these risks in the future. An assessment of the transition climate risks is presesnted below.

The share of exposures to the most climate-sensitive sectors in the non-financial corporations portfolio increased slightly by 0.3 percentage points in the first half of this year to 37%, while the share of exposures to climate policy relevant sectors increased by 1 percentage point to 42%. While there was a slight increase in the exposure shares, the year-on-year growth rates of exposures to climate-sensitive sectors and to climate policy relevant sectors slowed significantly in the first half of the year.[45] This is attributable to a base effect and to the stabilisation of energy prices amid a decline in monthly inflows of exposures compared with the first half of 2022. Year-on-year growth in the first half of the year slowed from 18.4% to 6.9% according to the classification of sectors with regard to the emissions breakdown in Slovenia, and from 19.2% to 8.3% with regard to the emissions breakdown in the EU. The decline in growth in exposures to climate-sensitive sectors on the basis of the emissions breakdown in Slovenia was attributable to average contributions of 3.3 percentage points from manufacturing, electricity and construction, and 1.7 percentage points from transport. The decline in the growth rate of exposures on the basis of the emissions breakdown in the EU was attributable to energy-intensive sectors (4.1 percentage points), housing (3.1 percentage points) and utilities (2.3 percentage points).

The weighted carbon intensity declined slightly, and the tilt of the non-financial corporations portfolio towards polluting sectors is no longer increasing. The latter actually declined over the first half of 2023. The weighted carbon intensity declined by 2.3% over the first half of the year, driven largely by the sectors of electricity, gas, steam and air conditioning supply, agriculture, and manufacturing. The trend of in-

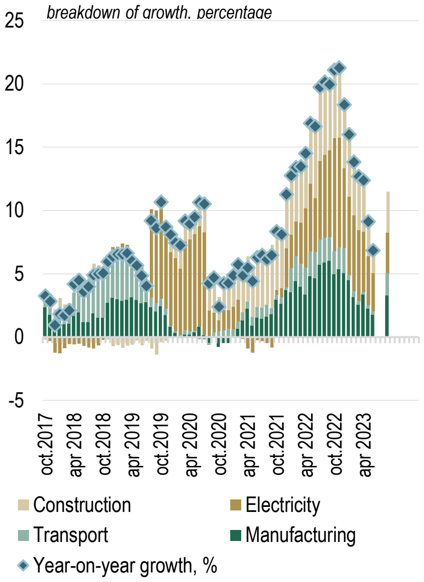
[44] For more, see Section 6.2 Insurers.

[45] Climate-sensitive sectors are defined on the basis of the share of total carbon emissions in Slovenia accounted for by the particular sector, and comprise manufacturing, construction, transport and electricity. Climate policy relevant sectors take account of the share of total greenhouse gas emissions accounted for by the particular sector at EU level (Battiston et al., 2017), and comprise buildings, transport, energy-intensive sectors, utilities and fossil fuels.

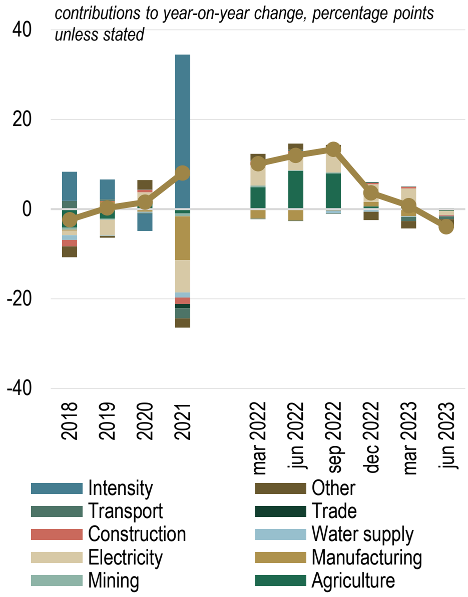
crease in the tilt reversed, as the tilt declined by 3.1 percentage points relative to December 2022 (granular emissions), primarily as a result of a decline in the tilt towards the electricity, gas, steam and air conditioning supply sector.[46]

Figure 3.4: **Exposures to polluting sectors in the non-financial corporations portfolio, and decomposition of changes in tilt to polluting sectors over time**

Growth in exposure to climate-sensitive sectors



Decomposition of year-on-year changes in tilt to polluting sectors over time



Note: The tilt is defined as the weighted carbon intensity of the banking system relative to the unweighted emissions intensity. The figure illustrates the contributions to changes in weighted emissions intensity by sector and the changes in the unweighted emissions intensity of the economy.
Source: Banka Slovenije

Credit risk remains low in climate-sensitive sectors: developments in the NPE ratios in these sectors are in line with the total non-financial corporations portfolio. The NPE ratio in climate-sensitive sectors in the non-financial corporations portfolio stood at 0.4% in June, while climate-sensitive sectors account for a quarter of total NPEs in the non-financial corporations portfolio. The outlook for climate risks over the coming quarters remains stable, amid a decline in energy prices and a relatively favourable economic outlook. The decline in energy prices is partly a reflection of the slowdown in manufacturing, and a deterioration in the outlook for economic growth in a period of rising interest rates, which are increasing the cost of (sustainable) financing, particularly in the event of a disorderly transition, might increase transition risks as extreme weather events become more frequent.

Box 3: Results of the challenges survey in connection with climate change

Over the last three years banks have implemented or developed a number of specific measures in the area of sustainability, but measuring climate risks remains a challenge given the data gaps and the complexity of the subject. Awareness of the importance of climate change and sustainability remains high, and the number of banks that have developed or intend to develop sustainable financial products has increased compared with 2021 (see Figure 3.5). The lower interest rates on green

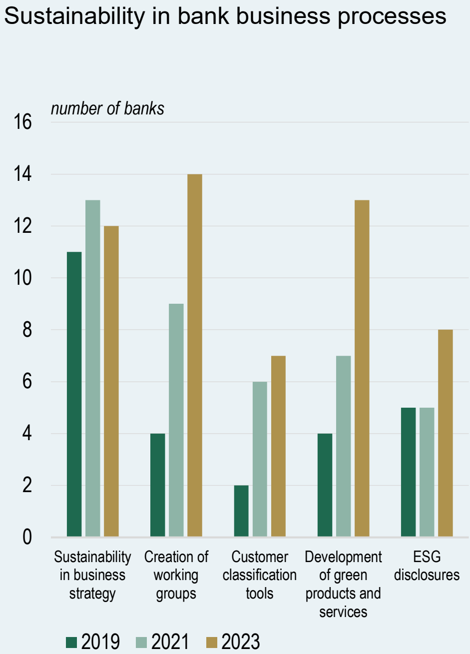
[46] The tilt is defined as the weighted emissions intensity of the banking system with regard to the unweighted emissions intensity of the economy, and reflects the difference between exposure weights and the particular sector's weights in value-added in the economy.

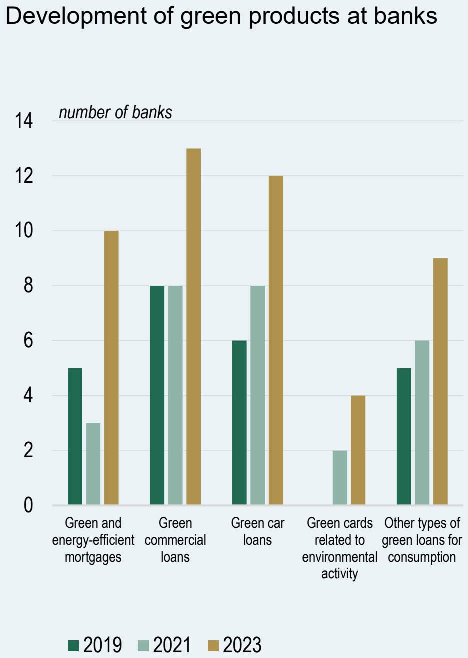
loans are an incentive for sustainable financing and the green transition. The measurement of climate risks, which could rise significantly over the period ahead, remains a challenge, particularly in light of data gaps, and the complexities in their processing and interpretation.

Climate risks are part of the strategy at the majority of the banks and in recent years banks have taken significant steps to include climate risks in their operations. The number of banks that have established a sustainability working group has increased compared with 2021 (see Figure 3.5, left), while approximately a third of the banks report introducing sustainability committees. Sustainability is regularly discussed at the majority of the banks at the level of individual departments and at management board level. The majority of the banks have also developed specific measures related to the sustainability strategy. These include the introduction of sustainable performance indicators, and the development of green and ESG financial products. Investment in staff training on sustainability has also increased significantly, while the target number of staff working in the area of sustainability has increased slightly compared with 2021.

The banks are to a certain extent classifying exposures with regard to sustainability or climate risks. Approximately half of the banks have developed tools for classifying assets and liabiltiies from the perspective of sustainability and identifying sustainability-focused customers.[47] Half of the banks use ESG assessments for their on-balance-sheet exposures, mostly to assess the non-financial corporations portfolio, while a third intend to introduce ESG assessments for the non-financial corporations portfolio within one year. A number of banks use ESG assessments for their bond portfolios.

Figure 3.5: **Sustainability aspects and products at Slovenian banks**





Source: Banka Slovenije

The supply of green loans has increased and interest rates on green loans are lower than on other loans. Almost half of the banks have started offering green loans, while the number of banks which intend to develop green loans for the corporate and household segments has also increased (see Figure 3.5, right). Green loans might

[47] For example on the basis of the EU Taxonomy, exclusion lists, or level of consideration of ESG factors.

carry a higher interest rate if green innovations are higher-risk investments, or a lower interest rate as an incentive for the green transition and for sustainable financing in general. Interest rates on green loans are lower across all banks offering loans of this type, by up to 3 percentage points, and are slightly higher for consumer loans intended for green financing.

The banks highlight poor data availability and the complexity of the subject among their key challenges. In addition to closing data gaps, processing and interpreting the data are also key challenges, particularly in light of the complexity of the subject. The majority of the banks use different definitions of sustainability and ESG assessment methodologies that are not comparable across banks. Thus, in addition to regulatory developments in the area of sustainable financing, a harmonised approach in tackling climate risks will be important going forward, so as to improve the measurement and consequently the management of climate risks.

4 Resilience of the Banking System

4.1 Solvency and profitability

The resilience of the banking system from the perspective of solvency and profitability remains medium. Our assessment is that the increase in income being driven by rapidly strengthening net interest income is currently increasing bank resilience. Additional positive effects on profitability and solvency alike can be anticipated on this account this year. The favourable developments in profitability in 2022 were also reflected in the total capital ratio, as the banks have already allocated some of their profits to retained earnings or to other reserves. The current good solvency position of the banks might decline in the future as a result of any increase in exposure to credit risk, or an increase in the taxation of banks, which would have an adverse impact on future growth in regulatory capital.

Solvency

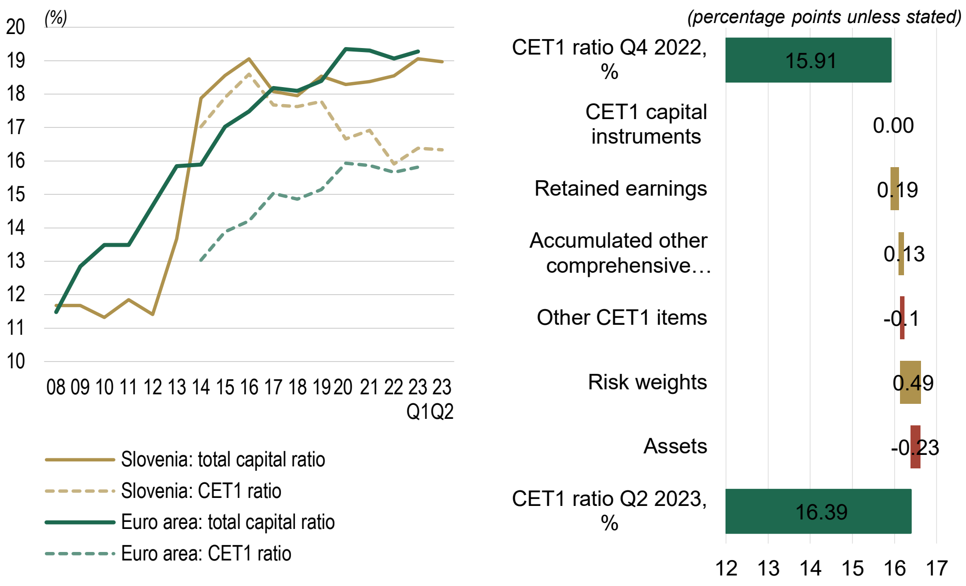
The banking system was showed a medium level of resilience to any shocks at the end of June 2023. The capital ratios were up compared to their levels at the end of 2022, but were slightly lower to those at the end of the first quarter of this year. A number of risks could have an impact on solvency in the future. Despite considerable robustness, the economic environment is gradually cooling, while in Slovenia additional risks are posed by the consequences of August's severe weather events, which also affected bank customers. It would therefore be prudent for the banks to continue strengthening their capital positions in the future. The rise in capital ratios in 2023 was mostly attributable to a decline in risk-weighted assets and growth in regulatory capital (see Figure 4.1, right). Risk-weighted assets declined by 0.8% as a result of a decline in exposure to credit risk driven by the sale of a leasing company, the impact of which outweighed the growth in exposure to other segments of lending. The positive effects driving the growth in regulatory capital came from the increase in retained earnings and other reserves, and a decline in accumulated losses from the valuation of debt securities, while ending the use of prudential filters for government bonds[48] had a negative impact. The banking system's total capital ratio on a consolidated basis reached 19.0% by the end of June 2023, up 0.4 percentage points, while the common equity Tier 1 capital (CET1) ratio had risen to 16.3%, up 0.4 percentage points (see Figure 4.1, left). The total capital ratio and the CET1 ratio on an individual basis increased by 0.6 percentage points over the first half of the year to reach 20.9% and 17.7% respectively. The figures for the euro area also show an increase in the capital ratios on a consolidated basis. The total capital ratio in the euro area overall reached 19.3% in the first quarter of 2023, while the CET1 ratio reached 15.8%.

[48] In the third quarter of 2022 certain banks made use of a prudential filter for government bonds on the basis of the CRR Quick Fix (Regulation (EU) 2020/873 of June 2020), thereby temporarily neutralising the impact of the volatility on the financial markets and in ROEs, which had a positive impact on the CET1 ratio. The regulation allowed for the temporary exclusion of unrealised gains and losses between 1 January 2020 and 31 December 2022 measured at fair value through other comprehensive income as a result of the Covid-19 pandemic from the calculation of their common equity Tier 1 capital items.

Figure 4.1: **Capital ratios, comparison with the euro area, consolidated basis and decomposition of change in CET1 ratio**

Capital ratios, comparison with the euro area, consolidated basis

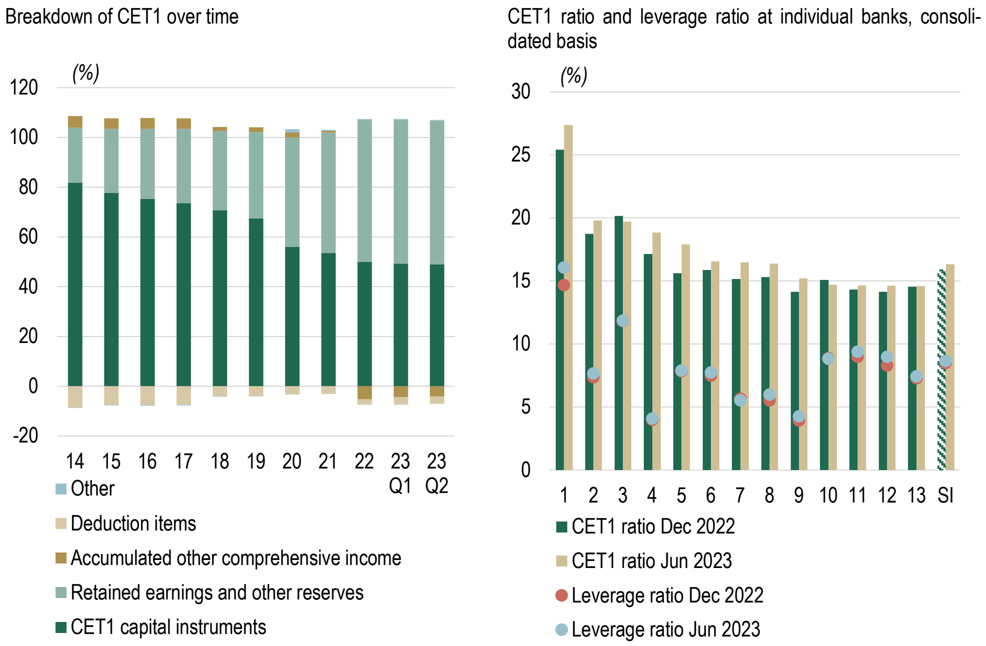
Decomposition of change in CET1 ratio, consolidated basis



Sources: ECB SDW, Banka Slovenije

More than three-quarters of the banks have seen a rise in their total capital ratio on a consolidated basis in 2023, and all of the banks are above the regulatory minimum for this metric. A rise in the CET1 ratio was seen at more than four-fifths of the banks, which was indicative of prudent behaviour on the part of the banks, who earmarked some of last year's profits to strengthen capital adequacy and thus their resilience. The rises in CET1 ratios ranged from 0.05 percentage points to 2.29 percentage points at individual banks, while the declines at individual banks ranged from 0.37 percentage points to 0.44 percentage points. The developments in risk-weighted assets and regulatory capital also had an impact on capital surpluses. The average capital surplus above the overall capital requirement at the level of the banking system increased to EUR 1.8 billion or 5.5 percentage points at the end of June 2023, up EUR 55 million and 0.2 percentage points on the end of 2022. The median capital surplus also increased relative to the end of 2022, while there was no significant change in the distribution of the surpluses across banks between the 25th and 75th percentiles. The surpluses increased at both ends of the distribution, which means that the banks with the lowest total capital ratios also increased their solvency (see Figure 8.24, left). Given the differences in capital surpluses, the banks also disclose differences in their capacity to absorb shocks. The leverage ratio at system level also rose slightly in 2023, by 0.1 percentage points to 8.6%, and remains lowest at the small banks (see Figure 4.2, right).

Figure 4.2: **Breakdown of CET1, CET1 ratio and leverage ratio**



Source: Banka Slovenije

After regulatory capital strengthened on a consolidated basis in the final quarter of 2022 primarily via instruments of additional capital (AT1 and T2), the strengthening in 2023 was driven by retained earnings and other reserves. Regulatory capital was still being reduced by the losses on accumulated other comprehensive income caused by bond revaluations, which otherwise diminished over the course of the year. Alongside the negative impact from bond revaluations, another factor reducing regulatory capital was the ending of the use of prudential filters for government bonds, which certain banks used in the third and final quarters of 2022 to temporarily neutralise the adverse impact on capital from volatility on the financial markets. Regulatory capital increased by EUR 88.6 million or 1.5% over the first half of the year, while CET1 capital increased by EUR 94.1 million or 1.9%. The share of regulatory capital accounted for by CET1 capital was unchanged at 86%, while the share of CET1 capital made up of retained earnings and other reserves increased, and the negative impact of other comprehensive income diminished (see Figure 4.2, left). The capital strengthening means that the banks are also meeting their MREL targets. Our assessment is that the banks will have no problems in meeting the mandatory targets from 1 January 2024.[49]

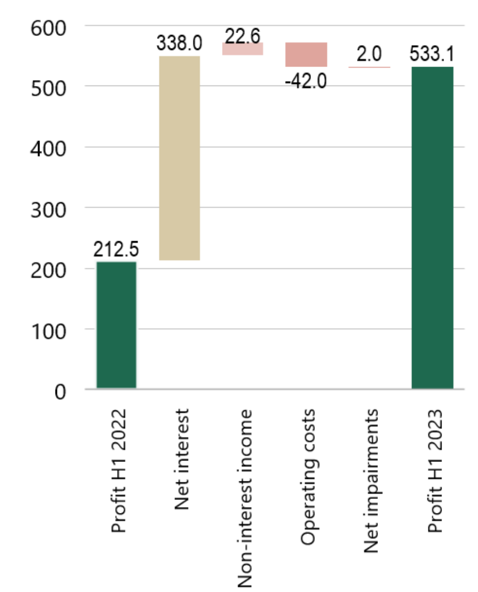
Total risk-weighted assets on a consolidated basis have declined by EUR 261 million in 2023 to stand at EUR 32.2 billion. The one-off effect of the sale of a leasing company by one of the banks in the first quarter of 2023 meant that the decline was largest in the household segment (at EUR 428.1 million or 4.6%), while there were increases in exposures to corporates (EUR 185 million or 1.9%), exposures secured by real estate (EUR 115.6 million or 4.4%) and exposures associated with particularly high risk (EUR 156.1 million or 13.8%). Given the systemic risks still present in the macroeconomic and international environments, there could be an increase in risk-weighted assets for exposures in default and exposures associated with particularly high risk, driven by a deterioration in the non-financial corporations segment and thus in the household segment. All of this could act to increase risk-weighted assets and to reduce capital adequacy via increased risk weights.

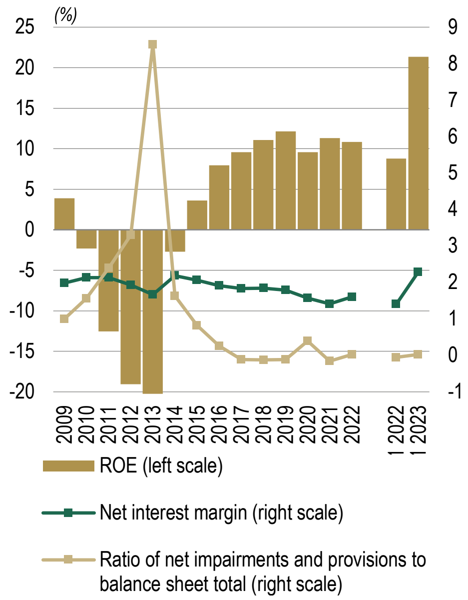
[49] Banks are required to fully comply with the MREL targets as of 1 January 2024. All of the banks are still short of meeting the final MREL targets at this moment, but all met the interim MREL targets as at 1 January 2023.

Profitability

The banking system is seeing above-average pre-tax profit this year. It amounted to EUR 533 million over the first half of this year, up 151% on the same period last year, while pre-tax ROE stands at double its level of recent years. The year-on-year increase in profit was attributable to an increase of EUR 321 million in net income,[50] which was driven by an increase of EUR 338 million in net interest (see Figure 4.3, left). Net impairments and provisions also remained low in the first half of this year: the figure of EUR 21 million was comparable to the same period last year (EUR 23 million). Pre-tax ROE rose sharply in consequence, reaching 21.4%, compared with the average of 11% over the five previous years (see Figure 4.3, right).

Figure 4.3: **Changes in generation and disposal of income and profit, and selected bank performance indicators**





Note: The June figures for net interest margin and the ratio of net impairments and provisions to the balance sheet total are measured over the preceding 12 months.
Source: Banka Slovenije

The net creation of impairments and provisions last year and in the first half of this year was low. The banks are not predicting net impairments and provisions to significantly reduce profitability this year. While the net release of impairments and provisions had often prevailed in Slovenia in recent years, the banks recorded net creation again in 2022, albeit in a small amount. Net impairments and provisions accounted for just 1.1% of the disposal of gross income in the banking system in 2022, and for 2.1% in the first half of 2023. The very low net creation of impairments and provisions was another factor in the banks' high profitability. An increase in net impairments and provisions can be expected, given the floods that hit the north of the country and the deterioration in the economic outlook. The banks' expectations in this regard (expressed in the challenges survey) nevertheless remain relatively modest. In response to the question of how the need to create net impairments and provisions would affect profitability over the remainder of the year, eight of the 16 banks and savings banks said that there would be a minor negative impact on profitability, two a large negative impact, three no impact, and three a slight positive impact on profitability.

[50] For more on the developments in income and costs, see the section on income risk.

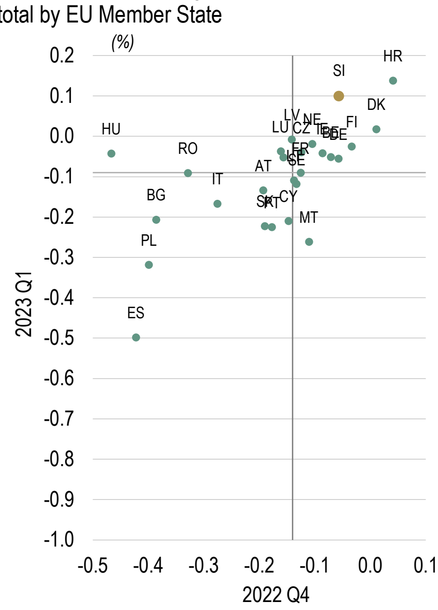
The banks will also see an increase in profit in the second half of 2023. Despite the potential further increase in net impairments and provisions, given the pronounced improvement in the conditions for generating income at banks, particularly from net interest, we are currently expecting the banks to see a further improvement in performance in the second half of the year. The current increase in net interest income will allow the banks to continue generating high profits over the months ahead, but at the same time might also bring slightly higher growth in operating costs and an increase in net impairments and provisions, which were again extremely low in historical terms in the first half of the year. Eight of the banks in the survey were forecasting that their profitability in 2023 would be significantly higher than in 2022, five that it would be slightly higher, two slightly lower and one bank that it would be significantly lower.

The ratio of net impairments and provisions to the balance sheet total in EU Member States increased slightly last year, but was still well below its pre-pandemic level. None of the countries was still recording a net release of impairments and provisions last year.[51] The ratio of net impairments and provisions to the balance sheet total increased slightly last year: the weighted average in the EU stood at 0.19%, while the median stood at 0.18%. The figure for the Slovenian banking system was just 0.08%, less than half of the weighted average and median in the EU, and just a third of the arithmetic mean of all EU Member States. The values of the indicator in the EU are lower than those from before the Covid-19 pandemic, while the Slovenian banking system actually recorded a net release of impairments and provisions in 2019.

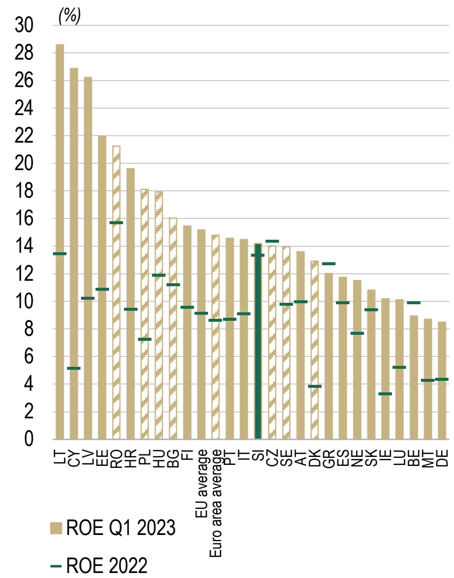
The first quarter of 2023 also saw no major year-on-year changes in net impairments in Slovenia and other EU Member States. The figures for the first quarter show a slight decline (improvement) in the ratio of impairments of financial assets to the balance sheet total compared with the end of last year. The net release of impairments and provisions at banks has actually prevailed in the Slovenian banking system, in Denmark and in Croatia (see Figure 4.4, left).

Figure 4.4: **Ratio of net impairments to balance sheet total in EU Member States**

Ratio of net impairments of financial assets not measured at fair value through profit or loss to balance sheet total by EU Member State



ROE in EU Member States, 2022 and first quarter of 2023 (consolidated data, post-tax ROE)



Note: The hatched bars in the right chart denote countries outside the euro area.
Sources: Banka Slovenije, ECB SDW, own calculations

[51] Four EU Member States, Slovenia among them, recorded a net release of impairments and provisions in 2021.

The Slovenian banking system outperformed the EU and euro area averages in terms of ROE last year. Banks in the EU saw their ROE increase by 0.4 percentage points last year to 6.9%. The average and the median also increased in 2022, to 9.1% and 9.6% respectively. The Slovenian banking system was one of the most profitable in the EU, with an ROE of 13.3%.[52]

The figures at EU level for the first quarter of 2023 show an additional increase in bank profitability in Slovenia, and particularly in the EU overall. ROE[53] in the Slovenian banking system in the first quarter of this year was up on last year at 14.0%, while a significant increase in profitability was evident in the EU overall, where the median increased to 14.2% and the weighted average to 10.6%. The increase in net interest income was the main driver of the increased profitability.

4.2 Liquidity

The banking system's resilience to systemic risks in the liquidity segment improved over the first half of 2023, but the trend might reverse in the future. Although all liquidity indicators at the level of the banking system have improved, it should be reiterated that there remain considerable differences between individual banks in their capacity to cover the consequences of any realisation of funding risk. Careful monitoring of the competition in the sector and the economic picture remain vital to liquidity management, and thus to banking stability, particularly at banks with slightly lower liquidity surpluses.

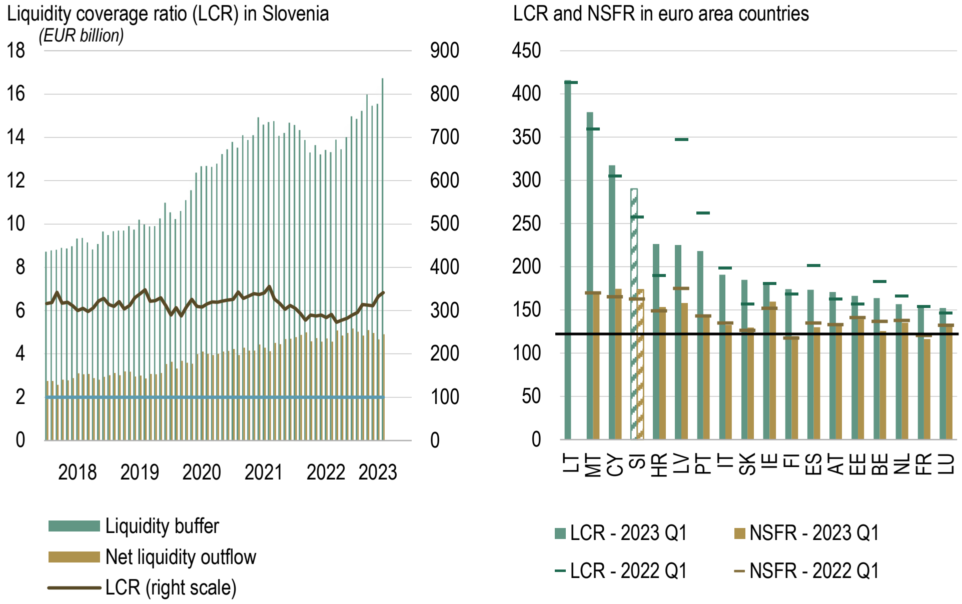
The high capacity to cover net liquidity outflows over a one-month stress period increased further at system level in the first half of this year. Amid an increase in the liquidity buffer, driven primarily by an increase in balances at the central bank, and a decline in net liquidity outflows, the liquidity coverage ratio (LCR) improved by 52 percentage points to 341% (see Figure 4.5, left). The surplus above the minimum regulatory requirement (100%) thus widened again. The liquidity surplus at system level increased to EUR 11.8 billion, the highest figure since the introduction of the LCR in January 2018. Although the LCR improved in almost two-thirds of euro area countries, Slovenia continues to be ranked among those with the highest capacity to cover net liquidity outflows over a short-term stress period (see Figure 4.5, right).[54]

[52] ROE averaged 11.0% in Slovenia between 2017 and 2022, compared with 5.4% in the EU and 5.2% in the euro area (ECB SDW (CBD)).

[53] Consolidated bank data at national level (ECB SDW (CBD)), annualised post-tax ROE.

[54] The comparison includes consolidated data for the first quarter of 2022 and the first quarter of 2023.

Figure 4.5: **Liquidity indicators for Slovenia and the euro area**



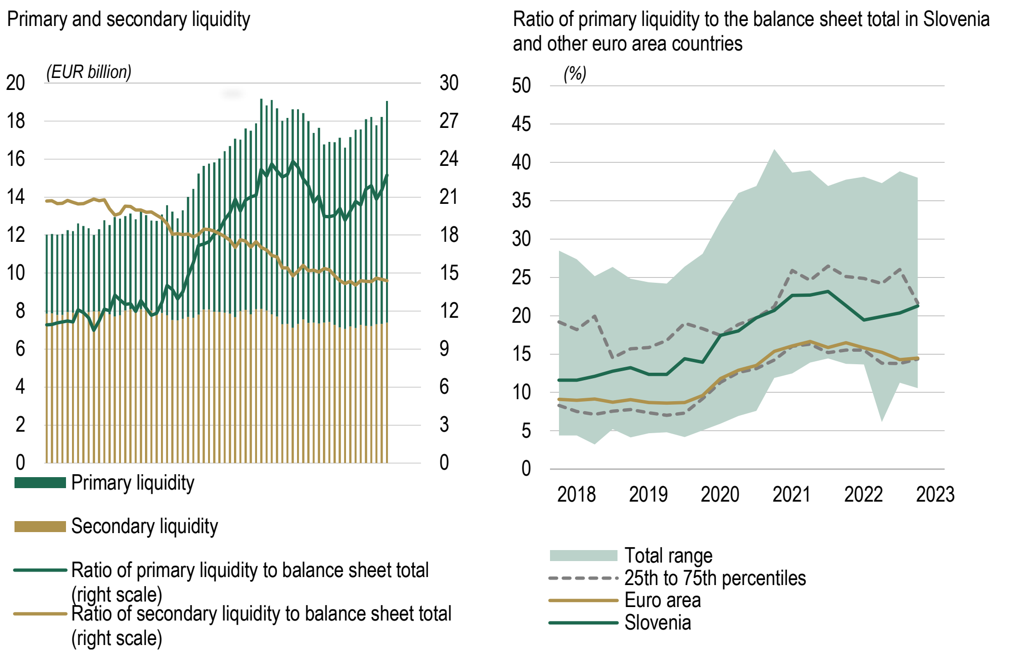
Note: The horizontal line in both charts denotes the minimum regulatory requirement (100%). The right chart includes publicly available data on a consolidated basis. There is no data available for the NSFR in Lithuania in the public database (ECB SDW).
Sources: Banka Slovenije, ECB SDW

The issuance of debt securities by certain banks brought a sharp increase in primary liquidity.[55] Despite a decline in deposits by the non-banking sector, which during the pandemic period in particular drove a sharp increase in the banking system's primary liquidity, the stock of primary liquidity increased in the first half of 2023, particularly after the issuance of debt securities by three banks. They left the majority of the funds from the issuance, the main purpose of which was to meet the MREL targets and not to meet liquidity needs, in accounts at the central bank. Primary liquidity at the level of the banking system thus increased by EUR 1.2 billion to a record high of EUR 11.7 billion (see Figure 4.6, left). Its ratio to the balance sheet total stood at 22.7%, well above its long-term average (6.8%)[56] and the euro area average (see Figure 4.6, right). This increased to 14.5% in the first quarter of 2023,[57] as primary liquidity increased similarly to Slovenia in more than half of the euro area countries. Were banks to direct their liquid assets in accounts at the central bank into the increased lending to the non-banking sector that will be needed to deal with the consequences of the severe weather events, primary liquidity could decline in the future. Its future developments will also be shaped by changes in deposits by the non-banking sector, and any new issuance of debt securities.

Bank investments in securities drove an increase in secondary liquidity.[58] The stock of secondary liquidity at system level increased by 4.0% over the first half of the year to stand at EUR 7.4 billion. The decline in the ratio of secondary liquidity to the balance sheet total seen over several years came to an end in 2022, and the figure rose to 14.4% in June 2023. Banks mainly purchased Slovenian government securities rather than foreign marketable securities rated BBB or higher. This brought an end to several years of decline in the concentration of the former in secondary liquidity: the share of secondary liquidity accounted for by Slovenian government securities increased slightly to stand at 35.2% in June 2023.

[55] Primary liquidity comprises cash on hand, balances at the central bank and sight deposits at banks.
[56] The average ratio of the stock of primary liquidity to the balance sheet total is calculated for the period of 2000 to 2022.
[57] Data for the second quarter of this year was not available at the time of writing.
[58] Secondary liquidity is the sum of Slovenian government securities and foreign marketable securities rated BBB or higher.

Figure 4.6: **Primary and secondary liquidity**



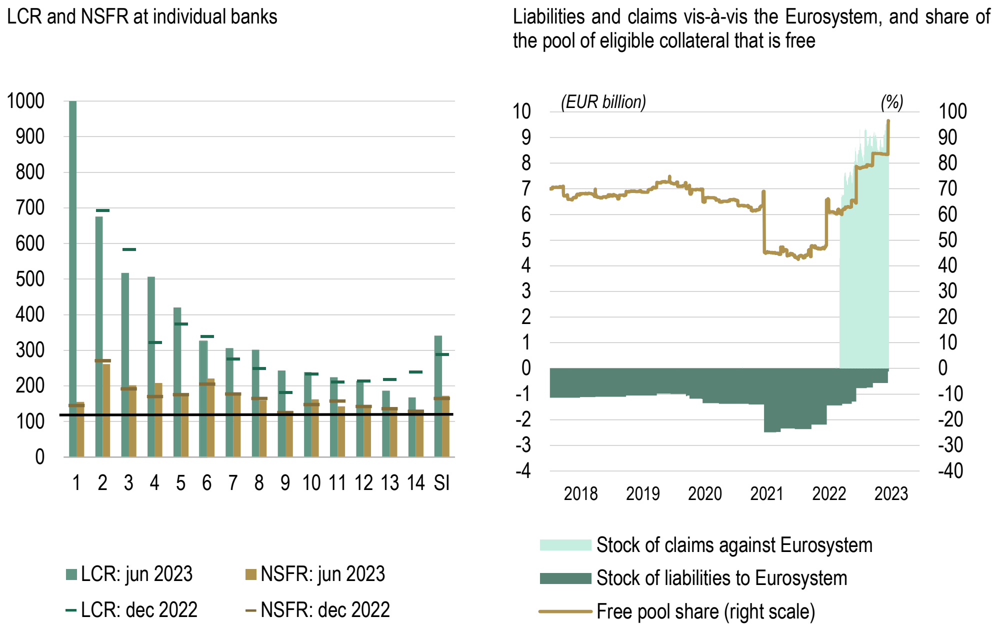
Note: Primary liquidity comprises cash on hand, balances at the central bank and sight deposits at banks. Secondary liquidity comprises Slovenian government securities and foreign marketable securities rated BBB or higher. See also Figure 2.26 (right).
Sources: Banka Slovenije, ECB SDW, own calculations

The banking system also improved its ability to finance liabilities over a one-year period. The decline in loans to the non-banking sector reduced the stock of required stable funding, which amid an increase in the stock of available stable funding drove an improvement in the net stable funding ratio (NSFR). It rose by almost 8 percentage points over the first half of the year to stand at 172%, and thus remained well above the minimum regulatory requirement (100%).The banking system thus held EUR 17.6 billion more available funding at the end of June 2023 than it would need to cover its liabilities over a one-year period. Although the NSFR improved in more than a third of the euro area countries, Slovenia remains at the top in the euro area in terms of this indicator.[59]

Although all banks exceeded the regulatory requirements for LCR and NSFR, there remain considerable differences between banks in their resilience to systemic risks in the liquidity segment. In the wake of an increase in liquid assets in accounts at the central bank, half of banks saw an increase in the LCR, while only at two was it lower than double the minimum regulatory requirement. The NSFR increased at almost two-thirds of the banks (see Figure 4.7, left), primarily as a result of a decline in loans to the non-banking sector and the resulting decline in required stable funding. At more than half of the banks the surplus by which the NSFR exceeds the minimum regulatory requirement was more than 50 percentage points. Although several banks repaid their liabilities under the TLTRO-III, this did not have a major impact on their liquidity indicators, as they freed up investment-grade securities pledged as collateral at the same time as the decline in funds in accounts at the central bank. Despite the relatively high values of LCR and NSFR, careful monitoring of the competition in the sector and prudent liquidity management remain vital to banks, particularly those with slightly lower liquidity surpluses.

[59] The comparison includes the latest available data (first quarter of 2023) on a consolidated basis.

Figure 4.7: **LCR and NSFR at individual banks, and stock of claims and liabilities vis-à-vis the Eurosystem**



Note: The horizontal line in the left figure denotes the minimum requirement for the LCR and the NSFR under the CRR (100%). For the sake of clarity, one bank is not illustrated in the left figure: its LCR in June 2023 was 2,681%.

Banks increased their stock of free assets that could be pledged as collateral with the Eurosystem in the event of additional liquidity needs. The repayment of the majority of the remaining liabilities under the TLTRO-III saw the share of the banking system’s pool of eligible collateral for Eurosystem operations that is free increase by 18 percentage points in the first half of 2023 to reach 97% (see Figure 4.7, right), still well above the euro area average (65%).Banks had a free pool of EUR 2.9 billion, while the stock of eligible collateral that banks hold on their balance sheets outside the pool increased by almost 4% to EUR 6.4 billion. In the event of additional liquidity needs, banks could mobilise this collateral for the pool, which would grant them access to additional liquidity with the Eurosystem. Given that the large stock of liquid assets means that they have no such need for now, they began placing these funds with the Eurosystem overnight once interest rates on the deposit facility began rising in June 2022. The stock of deposits averaged EUR 8.8 billion over the first half of the year.

Box 4: Stress tests

Stress tests are an important tool for analysing and evaluating the risks and resilience of the banking system. In essence their purpose is to assess the sensitivity of banks or the system as a whole on the basis of certain scenarios, namely a baseline scenario and one or more adverse scenarios. The set of risks and resilience segments can be quite broad. The basic segments are solvency and liquidity, credit risk, income risk, market risk, operational risk, legal risk, supervisory risk and reputation risk. At the same time banks and supervisors alike are aware of the importance of increasingly relevant risks, such as climate risks and cyber risks. Some supervisors are also developing stress tests that include aspects of contagion and spillover across the entire financial system, or the spillover of shocks from the banking system back into the real sector. The negative effects are measured in various ways: as a direct impact on profit, as an impact on cashflows (inflows and outflows), revaluation changes, and changes in equity and capital ratios. Stress tests thus have various purposes and various projection horizons, which means that taking account of all risks in a single set of stress tests is virtually impossible. They assess the impact of baseline and adverse macroeconomic scenarios on bank financial statements, profitability and solvency. It should be noted that the adverse scenarios generally represent critical systemic risks that are unlikely but possible, whose purpose is to reveal the banks' sensitivity rather than to make direct forecasts.

Stress tests are conducted regularly by banks as part of their in-house risk assessment, and by supervisors for the purpose of assessing systemic risks. Supervisory stress tests may be bottom-up, or micro stress tests, whose purpose is to make an assessment of an individual bank and also of the system. Within their framework individual banks have more freedom in the use of their own initial data and forecasts, and take an active part in the exercise. Exercises of this kind are thus run in collaboration and dialogue between individual banks and the supervisor. Stress tests may also be top-down, or macro stress tests. These are conducted without the involvement of the banks, through the direct application of models to the data made available to Banka Slovenije within the framework of the banks' supervisory reporting. These tests have the macroprudential purpose of testing financial stability, and usually focus on the impact of stress on the whole system and not on individual banks. Compared with micro stress tests, macro stress tests also try to relax certain assumptions that can be modelled at system level (e.g. assuming a dynamic rather than a static balance sheet, interest rate forecasting). This allows them to compare banks using the same methodology, although at the same time less data is available for the assessments.

EU-wide micro stress tests are conducted every other year under the aegis of the EBA and ECB. They encompass the traditional segments of credit risk, market risk and operational risk, and also the risk to net interest income. The main finding is a decline in the CET1 ratio in the final year of the adverse scenario. The scenarios are drawn up by the ESRB in conjunction with the ECB. The EBA sample includes only the largest European banks, both from the euro area (SSM) and from other European countries. Stress tests are also conducted for other significant institutions in the euro area under the aegis of the ECB, in parallel and using the same methodology. The largest Slovenian banks also participate in these tests. The EBA is required to publish the results of individual banks, while the ECB and Banka Slovenije report only aggregated results.

It should also be noted that under Article 100 of the CRD[60] the ECB is required to conduct annual stress tests for the purposes of the supervisory review and evaluation process (SREP). In the interim years when the EBA is not conducting stress tests, the ECB conducts stress tests, albeit only at the level of the euro area. These generally encompass a single risk only (targeted stress tests). They frequently also cover other risks not included in the traditional exercise that constitute an opportunity for further development.

Banka Slovenije follows the ECB when conducting stress tests. The sample comprises the less significant institutions and subsidiaries of foreign banks. To a certain extent Banka Slovenije's stress tests follow the methodology drawn up every other year by the EBA for the EU-wide stress tests, and also used by the ECB for significant institutions. In light of the small size and simple business models of Slovenian banks, and under the principle of proportionality, simplified templates were prepared for the Slovenian banking system.

The traditional micro stress tests were conducted at EU level this year. The results for the Slovenian banking system are comparable to the range of results across the SSM. They showed the banks operating in Slovenia as maintaining sufficient capital adequacy under the baseline scenario and adverse scenarios alike. The decline in the capital ratio under the adverse scenario is mainly due to an increase in credit losses in connection with a decline in the banks' capacity to generate income.

Next year (2024), when stress tests will be conducted for the euro area under the aegis of the ECB, the subject of the targeted tests will be cyber risk. This subject was chosen because it is extremely pertinent, and has not yet been the subject of stress tests at SSM level. It represents an opportunity for a learning exercise that will make a significant contribution to improving the processes at individual banks and also on the part of supervisors.

The macro stress tests conducted by Banka Slovenije also confirmed the stability of the Slovenian banking system, which has sufficient capital adequacy. Amid the favourable results, it is worth highlighting the potential risks to financial stability. In addition to uncertainty caused by the rapid pace of the normalisation of (hikes in) interest rates (more restrictive monetary policy) and by geopolitical risks mainly in connection with the reliability of gas supplies, Slovenia was also hit by severe weather events in early August. The impact of the severe weather and the government measures[61] in this connection are not taken into account in the forecasts, which poses additional risks to the assessment of the performance of the banking system. Given the extreme events of recent years, it is also worth highlighting the elevated model risks.

[60] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

[61] The assessments are based on data available by 30 June 2023.

5 Households and Non-Financial Corporations

5.1 Households

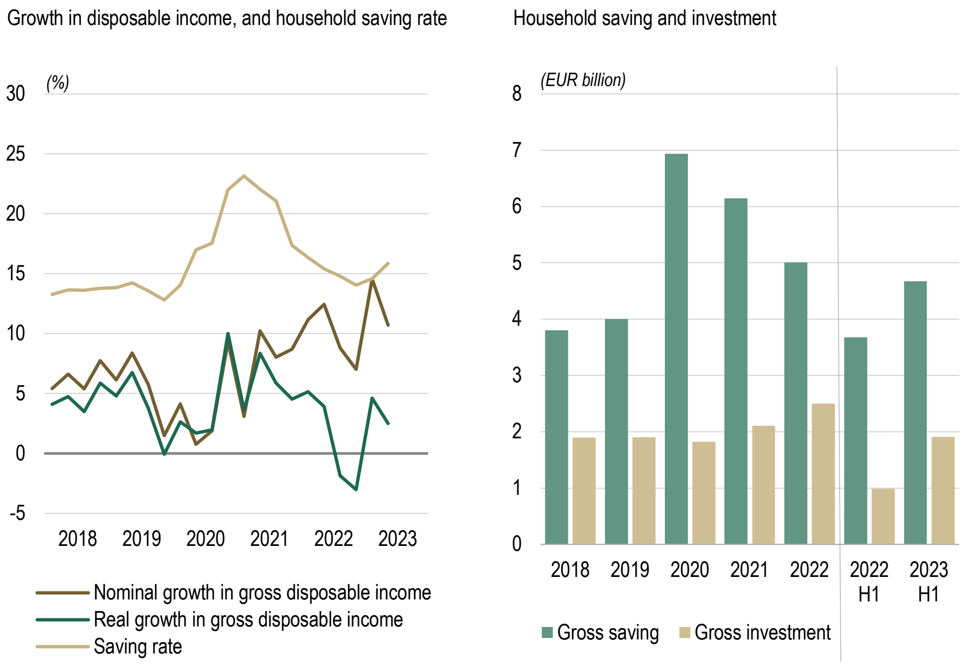
The resilience of the household sector remains good, amid a buoyant labour market with record low unemployment. Households in Slovenia are less indebted than those in the euro area overall, which means that they face a smaller increase in the burden of borrowing costs imposed by rising interest rates. Growth in final household consumption slowed in the first half of 2023, but households continued to see growth in their disposable income. Consumer confidence improved slightly in the first half of the year, but remained low compared with its long-term average.

Household consumption and saving

Final household consumption declined amid persistent inflation. Final consumption in the second quarter of 2023 was down 1.1% on the second quarter of 2022, compared with a year-on-year increase of 13.2% a year earlier. After declining in the last two years, the household saving rate in the first half of the year increased slightly to 15.9% (see Figure 5.1, left).

Gross household disposable income continued to rise in nominal terms amid the buoyant labour market. Household disposable income was up 10.7% on the previous year. Soaring inflation means that the gap between nominal and real growth in gross disposable income has widened greatly over the last two years. Real growth in gross disposable income turned negative in the second half of 2022, but rose again to 2.5% in the second quarter of 2023 (see Figure 5.1, left). Gross household investment in the first half of 2023 was up in year-on-year terms (see Figure 5.1, right).

Figure 5.1: **Disposable income, saving rate and household investment**



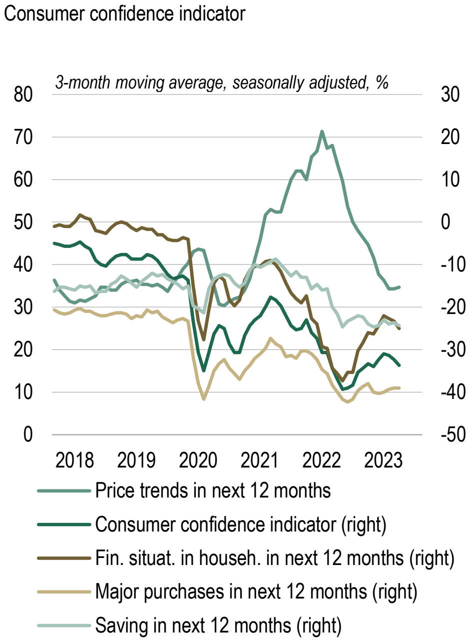
Source: SORS

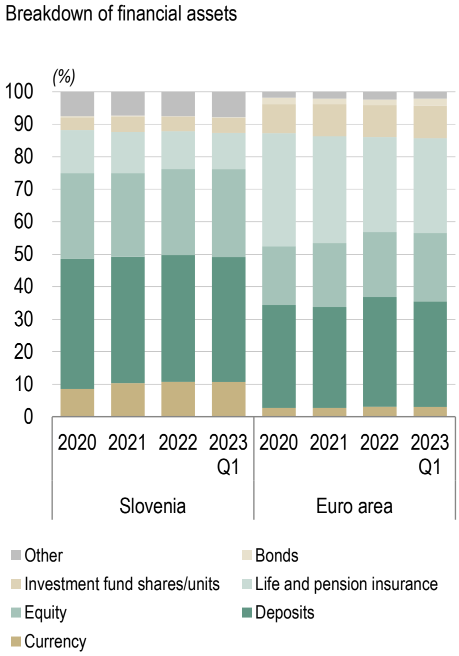
Consumer mood and household financial assets

Consumer confidence improved slightly in the first half of 2023, but remained low compared with its long-term average. There was a slight improvement in expectations with regard to the economic situation and the financial situation of households. The expectations with regard to price trends have weakened sharply over the last year (see Figure 5.2, left).

Compared with the euro area overall, in the breakdown of their financial assets households in Slovenia have a higher share of currency and deposits, which account for almost half, and a higher share of equity. In the euro area overall higher shares of financial assets are held in the form of life and pension insurance, and investment fund shares/units (see Figure 5.2, right). Slovenian households' financial assets stood at EUR 75.5 billion at the end of the first quarter of 2023, a nominal year-on-year increase of 6.7%, but down 2.9% in real terms.

Figure 5.2: **Consumer confidence and household financial assets**



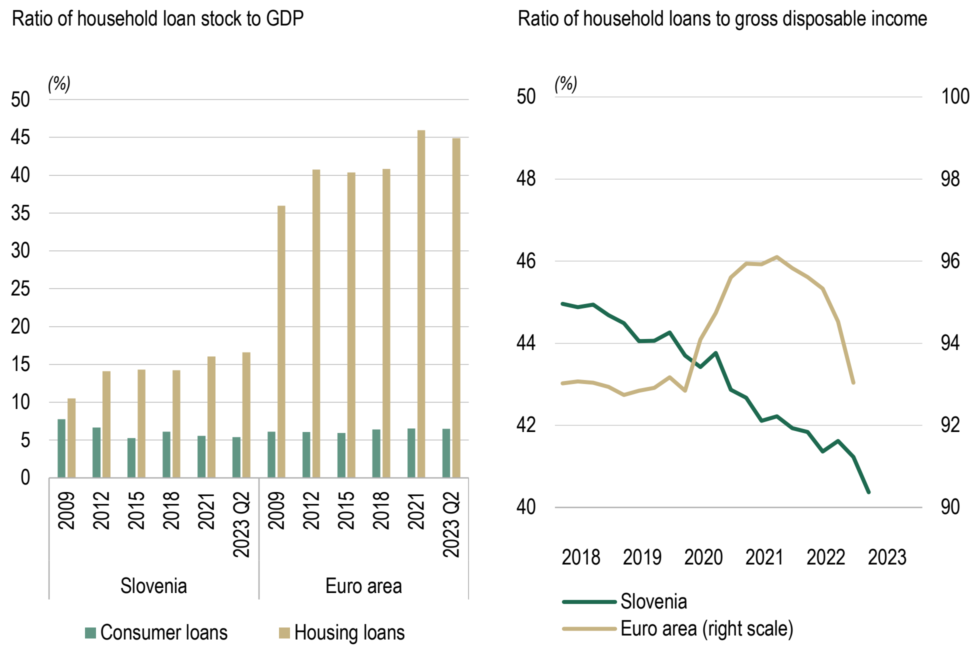


Note: In the right chart equity consists of listed shares, unlisted shares and other equity. Investment fund shares/units include shares in an investment fund when the fund has a corporate structure.
Sources: SORS, ECB SDW

Household indebtedness

The indebtedness of households in Slovenia is lower than in the euro area overall. The ratio of total household liabilities to GDP at the end of the first quarter of 2023 stood at 33.9% in Slovenia, and 74.7% in the euro area. Slovenian households held loans in the amount of EUR 14.8 billion at the end of the first quarter, the majority (96.4%) with financial corporations, of which EUR 1.5 billion was with other financial intermediaries, while their holdings of loans with non-financial corporations amounted to EUR 356.7 million. Households held EUR 244.0 million of loans from non-residents. The majority of the borrowing, EUR 12.5 billion, is therefore held with banks. The ratio of housing loans to GDP in Slovenia is significantly less than the euro area average, in part because of the high level of owner occupancy in the country. The ratio of households' consumer loans to GDP is also lower in Slovenia than in other euro area countries. Slovenian households borrowed less over the pandemic period compared with the euro area overall. The total burden of increased borrowing costs as a result of higher interest rates is therefore lower than in the euro area overall. The share of housing loans carrying a fixed interest rate stood at 67% in June, while the share of consumer loans carrying a fixed interest rate was 82%. Certain households, mainly those on lower incomes, could be hit harder by the rising cost of living and higher interest rates, which may deter them from major purchases in the future.

Figure 5.3: **Household indebtedness**



Source: ECB SDW

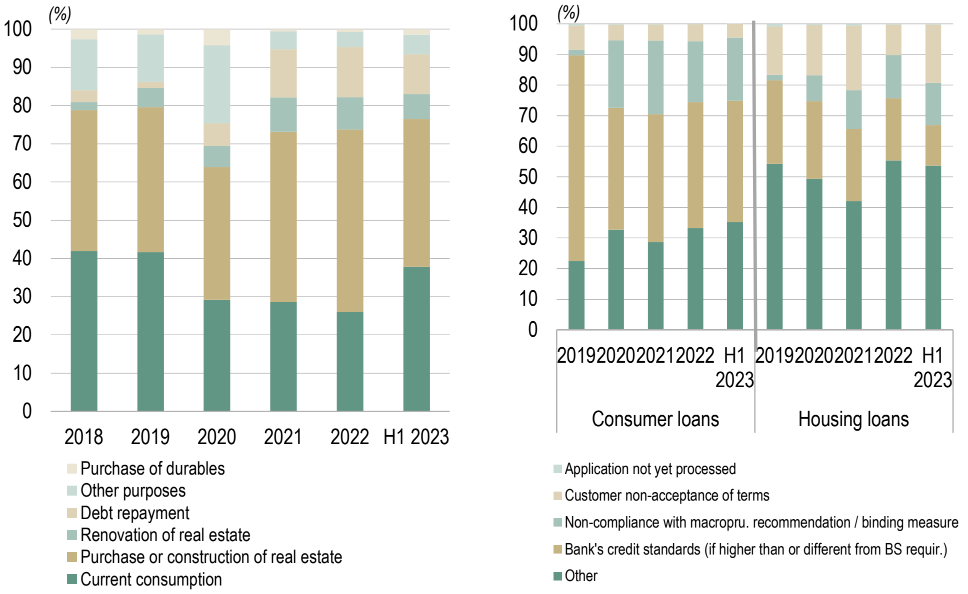
Loans for current consumption increased slightly in the first half of 2023 compared with 2022, while loans for the purchase or construction of real estate declined.[62] The banks report in the survey of demand for loans that in terms of the number of applications most demand from households still comes for loans for current consumption (see figure in appendix). In terms of amount, it is loans for the purchase or construction of real estate and loans for current consumption that are prevalent (see Figure 5.4, left). Undefined or "other" factors are cited as the main grounds for the rejection of household loans, along with credit standards at the bank (see Figure 5.4, right). A larger share of rejections of housing loans in the first half of the year were also due to customer non-acceptance of the terms. Non-compliance with a macroprudential measure was more prominent as grounds for the rejection of consumer loans, but was not cited as the primary grounds for rejection for loans of any particular type. Banka Slovenije adjusted its macroprudential restrictions on consumer lending in July.[63]

[62] See Section 2.1 Risk inherent in the real estate market.
[63] See Section 7 Macroprudential Policy.

Figure 5.4: **Household demand for loans**

Breakdown of household loans by purpose in terms of loan amount

Breakdown of rejected loan demand by grounds for rejection



Note: In the right chart, among the grounds cited by the banks as "other" grounds for rejection for 2022 and the first half of 2023 were that there was a failure to keep records of rejections or records of that type were in development, that the customer documentation was incomplete, that the land register was in disorder, or other grounds were not cited.
Source: Banka Slovenije

5.2 Non-financial corporations

Flows in the financial assets and financial liabilities of non-financial corporations (NFCs) have slowed over the last two quarters. The deficit in NFCs' financial assets relative to their liabilities also narrowed, and is below the euro area average. The slowdown in borrowing by NFCs is in line with the slowdown in economic growth. The indebtedness indicators for NFCs also remain low, both in the year-on-year comparisons and in comparison with the euro area overall. Rising interest rates are a major factor reducing demand for bank loans, particularly in light of the uncertainties brought by slowing economic growth and changes in relative prices of energy and commodities. The recent difficult business conditions have not brought a significant rise in the number of bankruptcies initiated or in the number of account freezes at NFCs, although the figures have begun to rise in certain sectors.

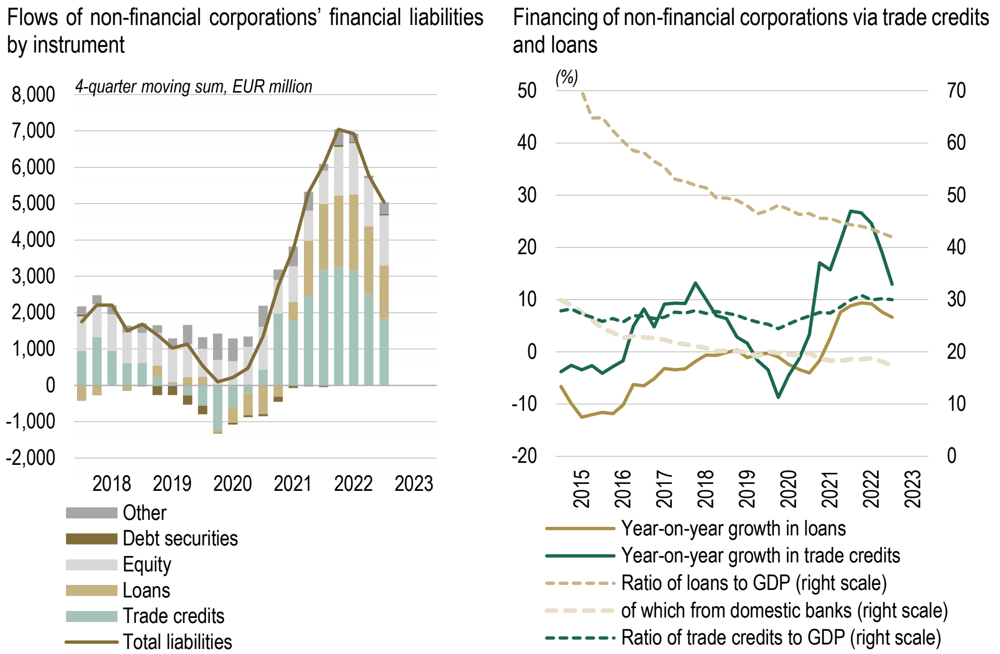
Financing and indebtedness of non-financial corporations

The increased borrowing by NFCs in 2021 and 2022 began to slow over the final quarter of 2022 and the first quarter of 2023. The dynamics in borrowing by NFCs have broadly tracked the dynamics in economic activity, and as the latter has slowed NFCs have also reduced the scale of their new borrowing (see Figure 5.5, left). Financing via trade credits has exceeded financing via loans since 2012,[64] but the annual inflow reached its highest level to date in 2022.[65] There are several reasons for the rise in the importance of trade credits (raised and granted alike), from the reduced access to bank loans in certain years, through increased promotion of merchandise trade, to the recent rise in interest rates on loans. After two years of rapid increase, the ratio of

[64] Even in years of negative flows, i.e. deleveraging, NFCs reduced trade credits by less than loans.
[65] The financial accounts data is available from 2002.

trade credits raised to GDP in Slovenia rose by 4 percentage points to 30%. By contrast, despite high nominal growth, the ratio of loans raised to GDP declined by a similar amount to 42% (see Figure 5.5, right).

Figure 5.5: **Financing of non-financial corporations**

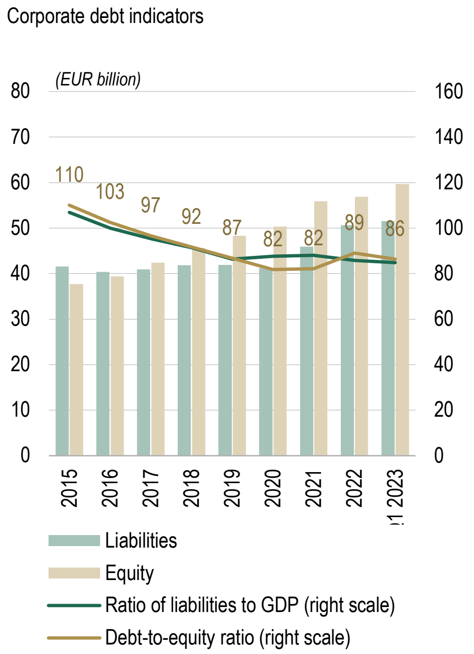


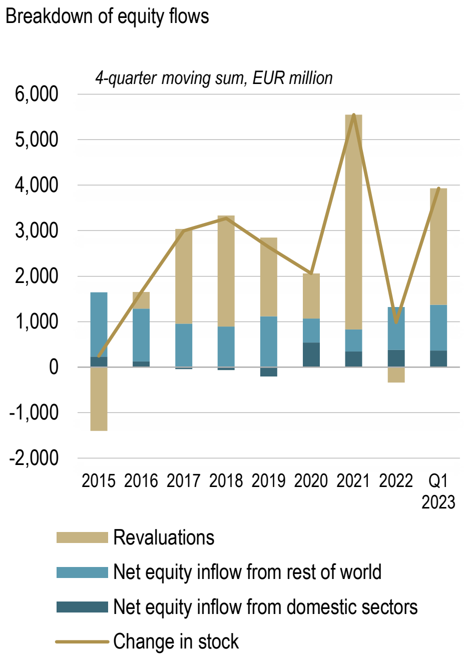
Note: All sources of financing for NFCs are captured, irrespective of the creditor sector.
Source: Banka Slovenije

The corporate debt indicators improved slightly compared with the end of 2022, and remained lower compared with 2019. The ratio of NFCs' debt liabilities to GDP stood at 84.8% at the end of the first quarter of 2023, down 1 percentage point on the end of 2022 and down 1.5 percentage points on the end of 2019 (see Figure 5.6, left).[66] Leverage also declined, by 2.7 percentage points relative to the end of 2022 to stand at 86.3%, similar to its level from the end of 2019 (86.7%). Leverage displayed greater volatility over the previous years compared with the indebtedness to GDP, on account of the major impact from the equity valuation in the denominator of the indicator (see Figure 5.6, right). Excluding revaluations since 2016, leverage at NFCs in the first quarter of 2023 would be at its level from 2015. Since 2015 the actual inflows of equity have also had a favourable impact in reducing leverage, and in the first quarter of 2023 reached their highest level of the last seven years when measured on an annual basis. The share of these accounted for by Slovenian investors has begun to strengthen since 2020.

[66] As far as the indebtedness of NFCs is concerned, Slovenia ranks low among EU Member States in terms of the debt-to-GDP ratio (when total debt liabilities are taken into account, and also when loans and debt securities alone are taken into account). In terms of the debt-to-equity ratio, Slovenia is in a more favourable position than most EU Member States (it is below the median and below the mean of EU Member States).

Figure 5.6: **Debt and equity financing of non-financial corporations**

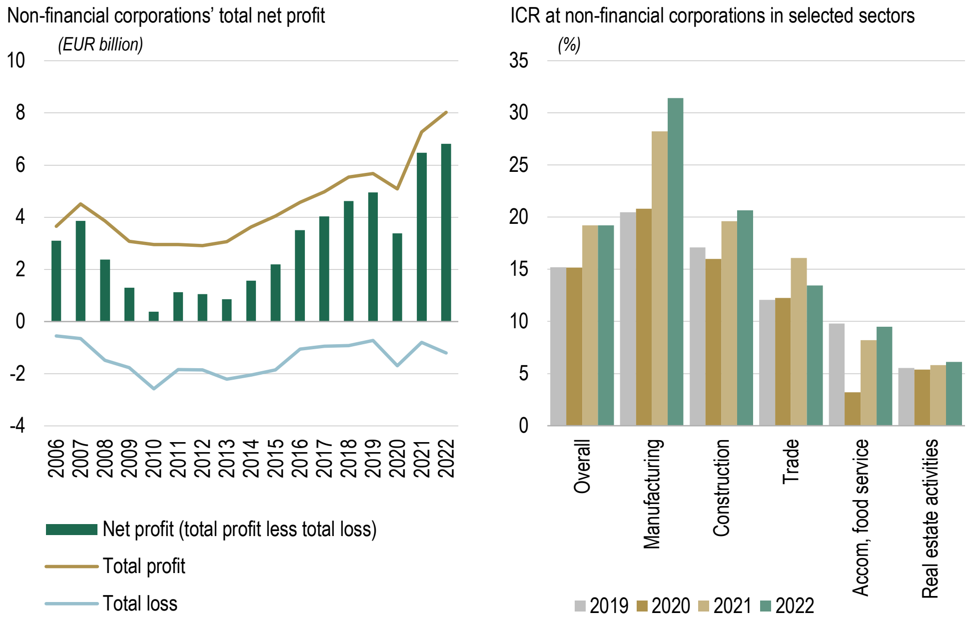




Source: Banka Slovenije

NFCs have seen their debt financing burden increase as a result of the rises in interest rates. In 2022 NFCs saw their capacity to service debt and to cover interest remain unchanged from the previous year, despite most of their bank borrowing being made via variable-rate loans. The ratio of net financial debt to EBITDA remained at 1.6 years in 2022 (see Figure 8.23, left, in the appendix), and was highest in real estate activities (6.0 years) and accommodation and food service activities (3.5 years). The interest coverage ratio (ICR) at NFCs remained at 19.2% in 2022 (see Figure 5.7, right), where there was a slight improvement in manufacturing (31.4%), construction (20.6%) and accommodation and food service activities (9.5%), and a deterioration in wholesale and retail trade (13.5%). NFCs also enjoyed high net profit at EUR 6.5 billion in 2021 and EUR 6.8 billion in 2022 (see Figure 5.7, left), while their cash holdings of EUR 10 billion in 2022 were significantly higher than before the pandemic (EUR 5.3 billion in 2017 and EUR 5.9 billion in 2018).

Figure 5.7: **Net profit and interest coverage at non-financial corporations**



Note: The interest coverage ratio (IRC) in the right chart is defined as the ratio of EBITDA to finance expenses for interest.
Sources: AJPES, Banka Slovenije calculations

The resilience of the NFCs sector has increased markedly over the last decade, NFCs having deleveraged sharply since the last financial crisis. Corporate indebtedness in 2022 remained almost the same as in the previous year, and the debt-to-equity ratio stood at 93.8%[67] (see Figure 8.23, right). In construction and real estate activities, where the indebtedness figures were among the highest during the financial crisis, leverage increased slightly, but at 156.6% and 126.3% respectively it remains significantly lower than before (434.6% and 259.6% respectively in 2008). Indebtedness also increased slightly in wholesale and retail trade (leverage stands at 132.6%), but fell in accommodation and food service activities (122.8%). Leverage remains low in manufacturing (93.8%).

Financing via loans slowed in the first half of the year[68] in all creditor sectors. Growth in loans from non-residents, which in previous years were driven primarily by foreign parent undertakings, has almost come to an end over the last year (see Figure 5.8, left). Intra-sectoral loans, which made a particularly important contribution to the total financing of NFCs via loans in 2021 and at the beginning of the war in Ukraine, have also declined notably over the last year. Financing via loans from households has increased slightly over this period. Year-on-year growth in loans from banks slowed from a peak of 17.3% in August 2022 to 3.9% in June 2023, amid a decline in new loans. The banks cite the interest rate level among the factors reducing demand for loans over the last year, while financing via internal resources is still a significant factor reducing demand.[69] The banks were forecasting a further decline in demand for the third quarter, but at the time of the forecast Slovenia had not yet suffered the flooding, or faced the demand from firms for extensive funds to make the related repairs.

[67] The debt-to-equity ratio differs slightly from that disclosed in Figure 5.6 (left), which illustrates the ratio of debt to equity in corporate financing on the basis of financial accounts data (the differences are the result of the differences in the methodology of data capture). The analysis presented here is based on data from NFCs' closing accounts filed with AJPES.

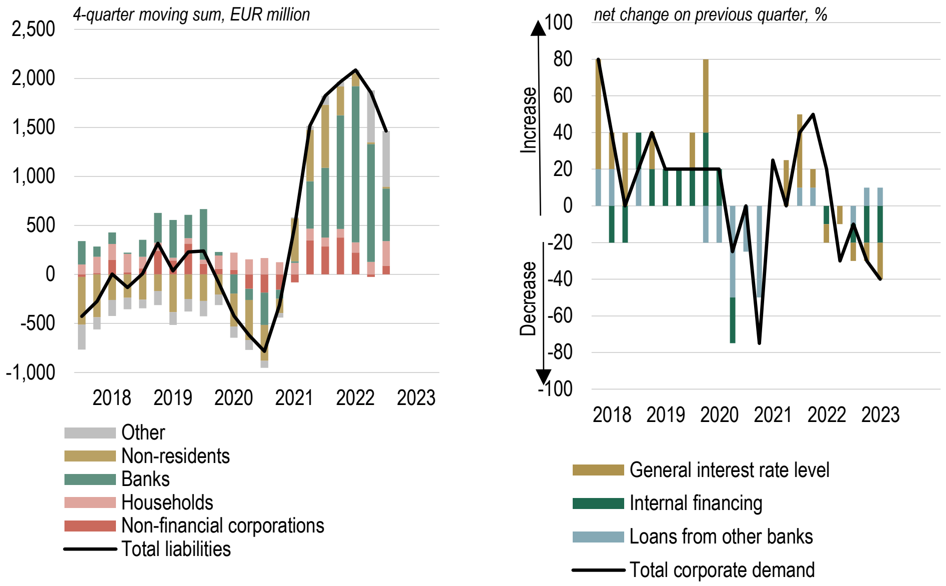
[68] The data on loans from non-residents and from domestic banks was available up to June 2023, while the only data at our disposal for financing via other creditor sectors is in the form of the financial accounts, which at the time of writing was only available up to the first quarter of 2023.

[69] BLS.

Figure 5.8: **Loans to non-financial corporations**

Flows of loans at non-financial corporations by creditor sector

Factors in the demand for loans at domestic banks



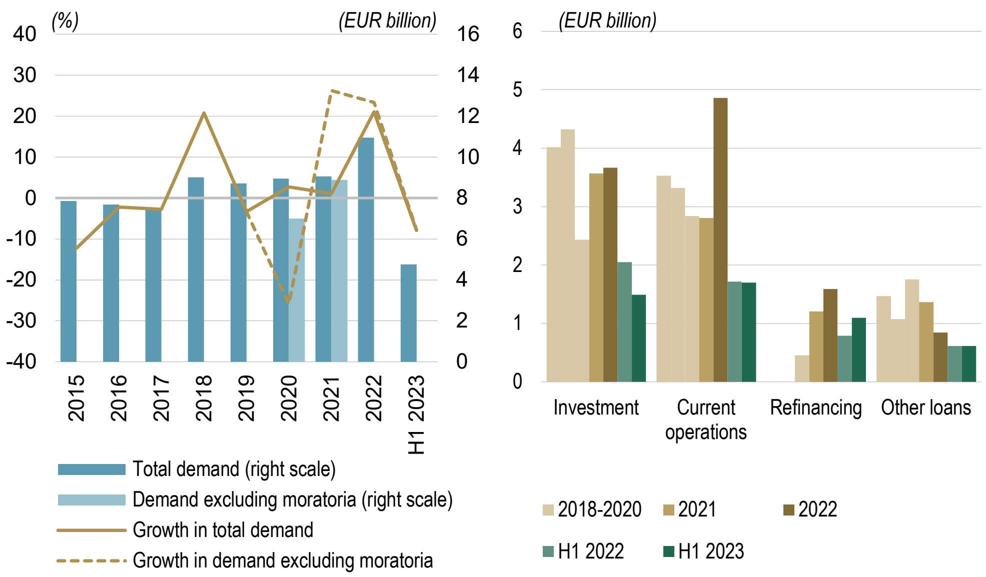
Note: “Other” includes one major government loan in December 2022.
Sources: Banka Slovenije, BLS

Further evidence of the decline in corporate demand for loans in 2023 comes from the bank survey of demand for loans. After increasing sharply last year, demand from NFCs in the first half of this year was down 8% in year-on-year terms (see Figure 5.9, left). The main decline was in demand for loans for investment, which over the previous two years had again approached their pre-pandemic level (see Figure 5.9, right). There was a notably sharp increase in demand for loans for refinancing, which was driven by the rapid rise in interest rates. These loans accounted for almost a quarter of total demand, compared with 5% in 2020[70] (see Figure 8.22, left, in the appendix).

Figure 5.9: **Non-financial corporations’ demand for loans**

Non-financial corporations’ total demand for loans

Non-financial corporations’ demand for loans by loan type



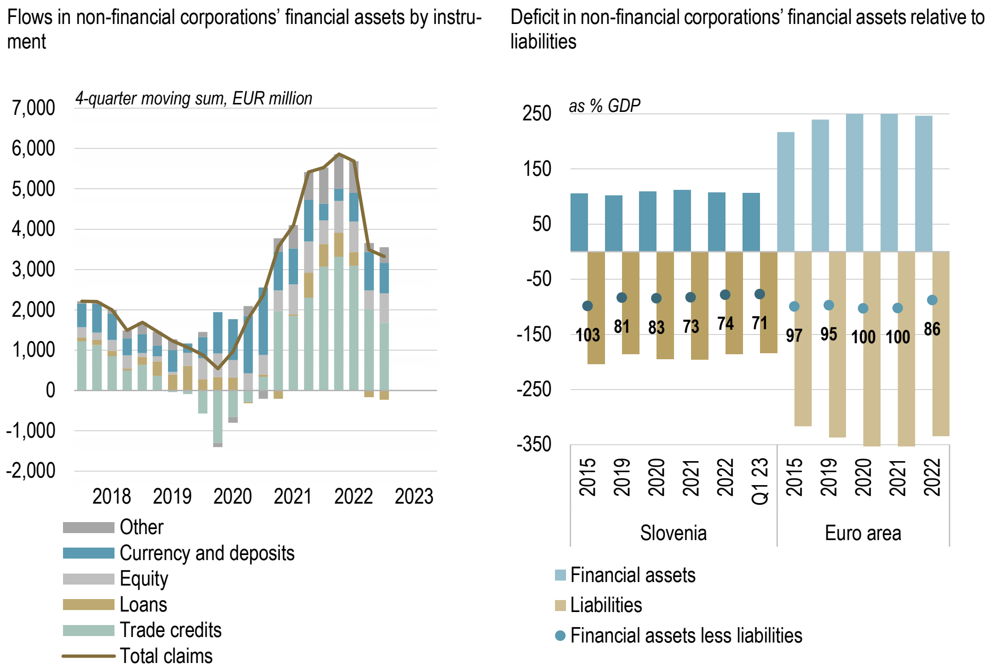
Note: Moratoria refer to those approved for the Covid-19 pandemic (under the emergency law and under bilateral agreements between bank and customer). Moratoria approved for the Covid-19 pandemic are included under other loans in the right chart.
Sources: Banka Slovenije, Survey of demand for loans

[70] Demand for loans for refinancing was first reported in the survey for 2020; previously it had been included in the category of other loans.

Non-financial corporations' financial assets

Similarly to liabilities, flows in NFCs' financial assets have also slowed over the last two quarters. Intra-sectoral loans, trade credits and equity account for fully 42% of NFCs' total financial assets,[71] which largely explains the similar dynamics in their financial assets and liabilities. Currency and deposits are also notable for their 16.8% share of financial assets, mostly placed with banks in Slovenia. Bank deposits declined slightly over the first half of the year, but constitute an important internal source of financing for current operations and investment at NFCs.

Figure 5.10: **Non-financial corporations' financial assets**



Note: The financial assets and liabilities in the right chart include all liabilities (debt and equity), for which reason the ratios of liabilities to GDP are higher than in Figure 5.6, which includes only debt liabilities under debt.
Source: Banka Slovenije

The deficit in NFCs' financial assets relative to liabilities has narrowed in the last year, and is also smaller than in the euro area overall. The gap between Slovenian NFCs' liabilities and their financial assets amounted to 71% of GDP (see Figure 5.10, right), the deficit in assets having declined significantly in recent years as a result of deleveraging (it stood at 103% of GDP in 2015). NFCs in the euro area overall have larger financial assets and liabilities, and the deficit as a ratio to GDP is also larger than in Slovenia, at 86%. A trend of decline in financial assets, liabilities and the deficit as ratios to GDP is also evident in the euro area overall.

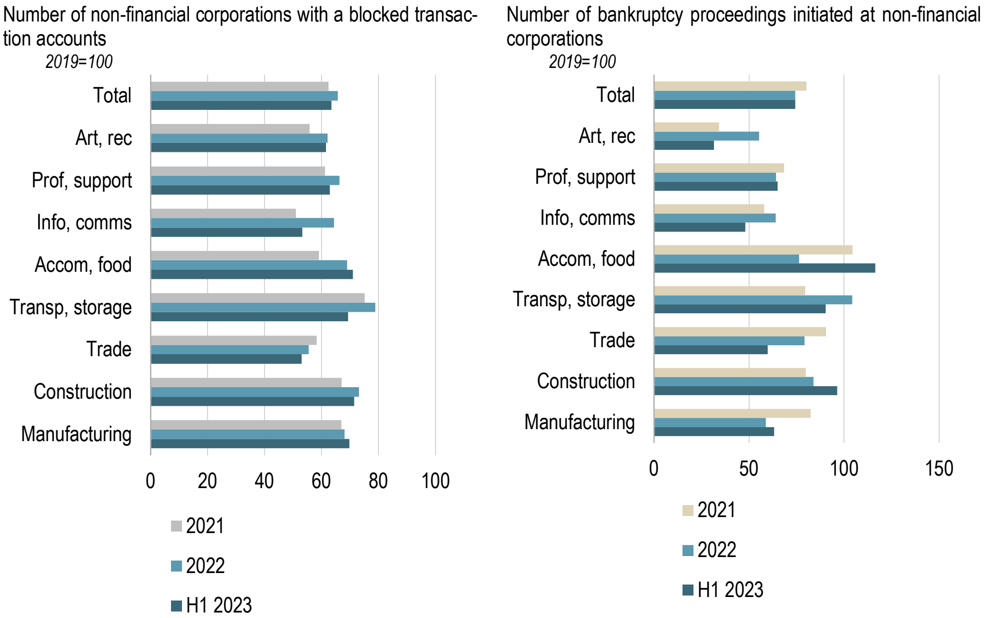
Bankruptcies and blocked transaction accounts at non-financial corporations

The number of bankruptcies initiated and the number of blocked transaction accounts freezes remained below their levels from 2019, with the minor exception of certain sectors. The monthly average of the number of bankruptcy proceedings initiated over the first half of 2023 (see Figure 5.11, right) showed no increase over 2022 in the NFCs sector overall. At sectoral level firms in accommodation and food service activities were notable for the 16.4% rise in the number of bankruptcy proceedings compared with the previous year. This was also the only sector where the number

[71] These intra-sectoral assets are disclosed in the same amount under NFCs' liabilities.

of bankruptcy proceedings has surpassed the figure from 2019. The construction sector too has seen the number of bankruptcy proceedings rise since 2022, approaching its pre-pandemic level. The number of blocked transaction accounts has also been rising since 2022 in accommodation and food service activities and in manufacturing (see Figure 5.11, left), but in the NFCs sector overall it remains well below its 2019 average.

Figure 5.11: **Bankruptcies and blocked transaction accounts at non-financial corporations**



Note: The illustrated indices are calculated from the monthly averages of the number of blocked transaction accounts and bankruptcy proceedings initiated.
Sources: Supreme Court, AJPES, Banka Slovenije

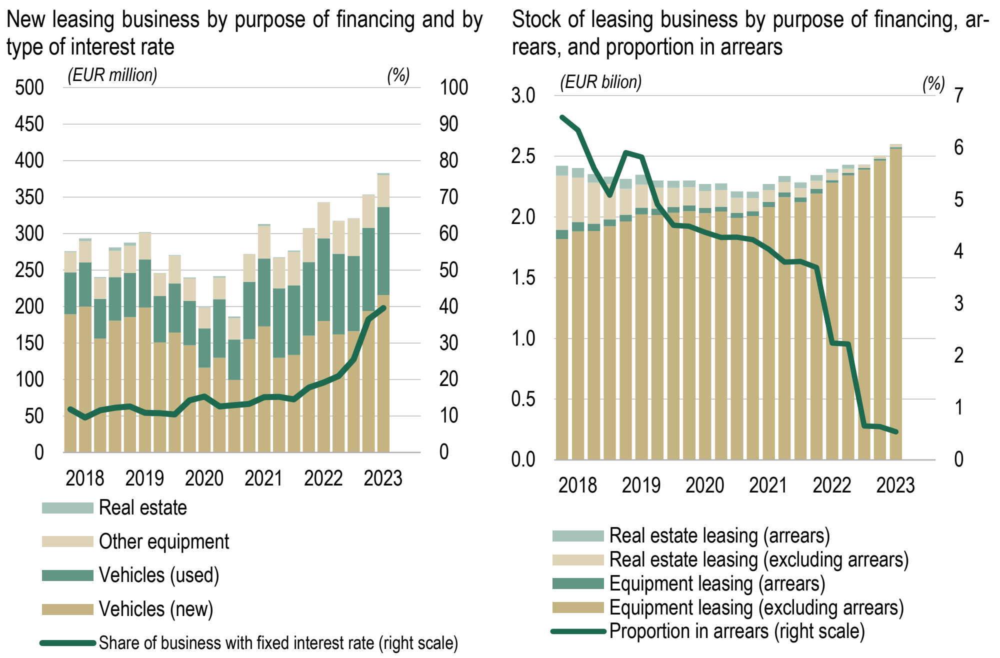
6 Non-Bank Financial Institutions

6.1 Leasing companies

The assessment of the risk inherent in the performance of leasing companies has been reduced to low. Leasing companies continued to strengthen their activities in the first half of 2023, which was reflected in an increase in new business and consequently in growth in their total assets. The risk inherent in leasing companies comes from lower profitability, as they reported a decline in annual profit in the first half of 2023. The decline in profit is primarily attributable to increased borrowing costs. There has recently been a significant increase in new fixed-rate business. The banks are continuing to strengthen their activities in the area of finance leasing, which was reflected in high year-on-year growth in new finance leasing business.

Leasing companies sharply strengthened their activities in the first half of this year, thus maintaining the trend of high year-on-year growth. Finance leases remain the prevailing form of business.[72] Leasing companies approved EUR 736 million of new business in the first half of 2023, up 13.1% on the same period last year (see Figure 6.1, left). Car leasing business was the prevalent form of new business (50.1% of the total) in terms of the number of operations, followed by leasing business for commercial and goods vehicles (34.8%). The largest share of new business was concluded with non-financial corporations (58.7% of the total), followed by households (40.3%).

Figure 6.1: **New leasing business and stock of leasing business**



Source: Banka Slovenije

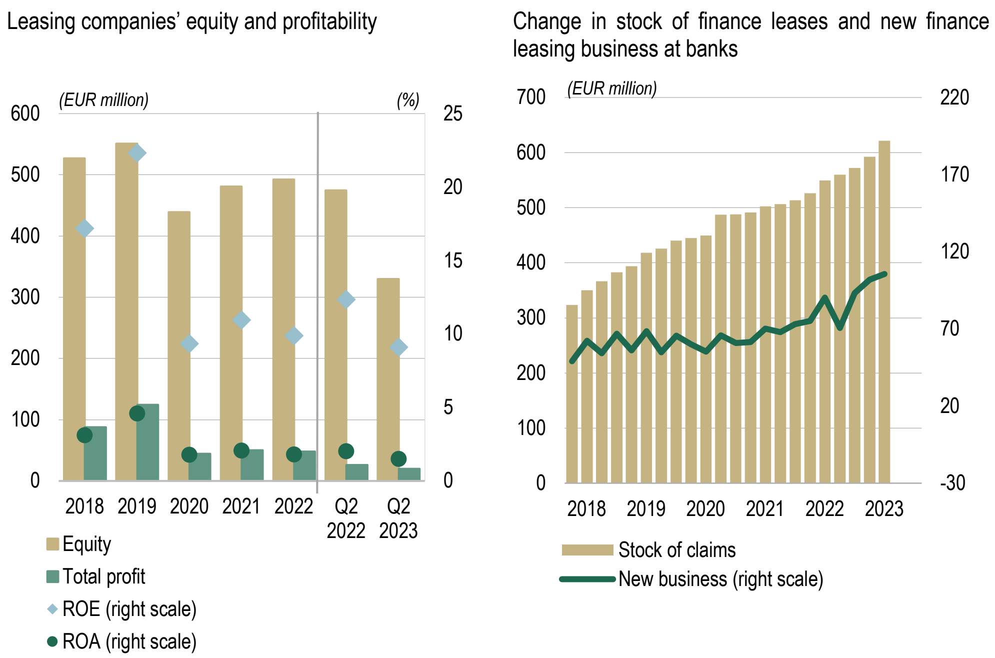
The number of new fixed-rate operations continued to rise significantly in the first half of the year. While the number of new variable-rate operations in the first half of the year was down 18% on the same period of 2022, the number of new fixed-rate operations rose by 122% (see Figure 6.1, left). There was no significant change in the maturity breakdown of new business. Maturities of one to five years accounted for the

[72] Leasing companies' operations comprise finance leases, operating leases and loans.

largest share (41.6%) of new business in the first half of the year, followed by maturities of five to ten years (40.5%).

The rise in new business was reflected in growth in leasing companies' total assets, which were up 9.1% in year-on-year terms to stand at EUR 3.0 billion at the end of June 2023. The stock of leasing business stood at EUR 2.6 billion at the end of June 2023, up 7.9% in year-on-year terms. The quality of the leasing portfolio improved further: just 0.54% of claims were more than 90 days in arrears at the end of June (see Figure 6.1, right). Despite an increase in net sales revenues, leasing companies' profit in the first half of this year was down 22.5% on the same period last year at EUR 20 million (see Figure 6.2, left). Leasing companies' profitability was affected most by finance expenses on loans, which rose in line with higher interest rates. Their equity amounted to EUR 330 million at the end of June 2023, down 30.5% in year-on-year terms. The sharp decline in equity was attributable to a fall in the number of companies in the reporting sample.[73]

Figure 6.2: **Leasing companies' profitability and finance leases at banks**



Source: Banka Slovenije

The banks have also increased their financing of non-financial corporations and households via finance leases this year. Their new leasing business amounted to EUR 208 million in the first half of 2023, up 25.4% on the same period last year. Households accounted for more than 52.3% of the new business, and non-financial corporations for 46.3%. The stock of business also continued to grow. The stock of finance leasing business at banks amounted to EUR 621 million at the end of June (see Figure 6.2, right). Leasing business with households is the prevalent form.

The August floods in Slovenia caused damage and destruction to property, including cars, machinery and equipment. Given the destruction and inoperability of certain assets, leasing companies can be expected to see growth in new leasing business over the coming months. At the same time credit risk is increasing as the economic situation

[73] Banka Slovenije sets out the statistical sample of reporting entities on the basis of the significance of their operations, and does not cover the entire leasing sector. The sample of reporting entities can change between quarters. If the leasing companies that were excluded from reporting in 2023 are omitted from the figures for the first half of 2022, the year-on-year decline in equity would have been 9.0%.

worsens, which might lead to issues with instalment repayments by borrowers, and a deterioration in the proportion of business in arrears.

6.2 Insurers

Insurance corporations saw a renewed increase in their gross written premium in the first half of 2023, most evidently in general insurance. Their claims ratios remained at similar levels to a year earlier. Changes began to be made to the voluntary supplemental insurance segment in early 2023. The government has capped premiums, and as of 2024 voluntary supplemental health insurance in Slovenia is expected to be finally abolished or merged into compulsory health insurance. Insurance corporations' profit in the first half of 2023 was down on the same period last year, primarily as a result of the caps on voluntary supplemental health insurance premiums. The capital adequacy of insurance corporations in Slovenia remains at a high level.

The insurance sector in Slovenia underwent regulatory changes in early 2023, affecting three insurance corporations that offer voluntary supplemental health insurance. These insurance corporations recorded gross written premium of just over EUR 665 million from supplemental insurance in 2022, equivalent to 22.1% of insurance corporations' gross written premium that year. The rising costs of healthcare services prompted insurance corporations to announce a rise in premiums, but shortly after the announcement a government decree[74] capping the rise in supplemental health insurance premiums entered into force. The decree is expected to remain in force at least until the end of 2023. From the beginning of 2024 it is envisaged that supplemental health insurance will be merged into compulsory health insurance.

Insurance corporations recorded gross written premium of EUR 1.5 billion in the first half of 2023, up 9.3% in year-on-year terms. The increase was driven by growth in gross written premium in general insurance (14.8%), but gross written premium in life insurance and health insurance also increased (by 3.1% and 2.4% respectively; see Figure 6.3, left). The main factor in the high growth in gross written premium was premium rises, which were largest in general insurance, particularly car insurance and home insurance. The reinsurance corporations' gross written premium in the first half of the year was up 16.0% on the previous year at EUR 303 million.

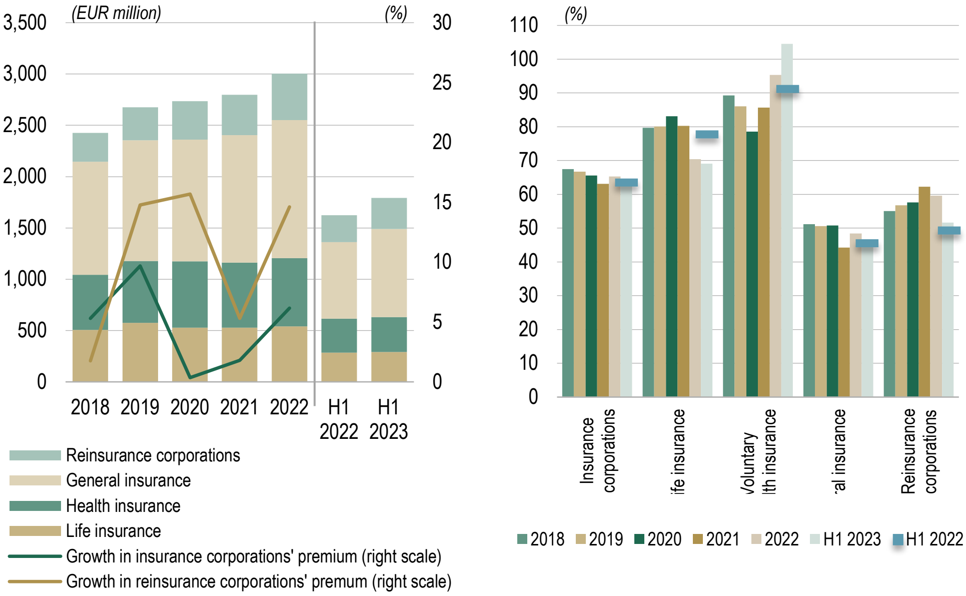
Given the similar growth in gross written premium and claims paid, the claims ratio at insurance corporations over the first half of the year deteriorated slightly. Claims paid were up 9.4% in year-on-year terms. The largest year-on-year rise in claims came in general insurance, driven above all by rising prices and higher repair costs. The claims ratio at insurance corporations deteriorated by 0.1 percentage points to 63.6%, driven by a significant deterioration in the claims ratio in voluntary health insurance as a result of the aforementioned decree, while the claims ratios in general insurance and life insurance improved. The reinsurance corporations saw their gross claims ratio in the first half of this year deteriorate compared with last year to stand at 51.6% (see Figure 6.3, right).

[74] Decree setting the maximum price of supplemental health insurance premiums (Official Gazette of the Republic of Slovenia, No. 44/23).

Figure 6.3: **Gross written premium and claims ratios**

Gross written premium and annual growth by class of insurance

Claims ratios for the main insurance classes



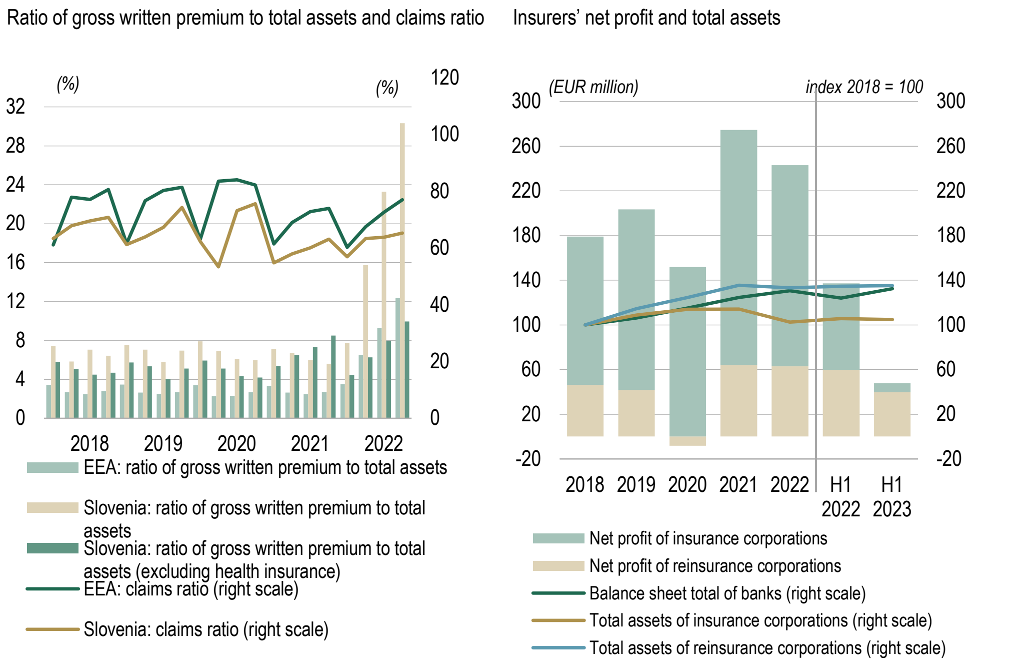
Note: Insurance data is based on Solvency II reporting.
Sources: ISA, EIOPA, Banka Slovenije, own calculations

The ratio of gross written premium to total assets increased in 2022 at insurance corporations in Slovenia and in the EEA overall. The ratio of gross written premium to total assets at Slovenian insurance corporations stood at 30.3% at the end of 2022. Excluding voluntary supplemental health insurance, it would have stood at 9.9%, compared with 12.4% at insurance corporations in the EEA overall (see Figure 6.4, left).

The profitability of insurance corporations and reinsurance corporations declined markedly in the first half of 2023.[75] Insurance corporations saw their profit decline by 89.8% to EUR 8 million (see Figure 6.4, right). The main decline in profit was in general insurance, which was largely attributable to the decree setting the maximum price of supplemental health insurance, as supplemental health insurance is classed as a type of general insurance. General insurance recorded a net loss of EUR 31.2 million in the first half of 2023, while life insurance recorded a net profit of EUR 39.7 million. The general insurance segment can also be expected to record a loss in the second half of the year, on account of the summer's severe weather events. The reinsurance corporations recorded profit of EUR 40 million in the first half of the year, down 22.8% in year-on-year terms. The total assets of insurance corporations and reinsurance corporations at the end of June 2023 were unchanged in year-on-year terms. Insurance corporations' total assets were down 0.8% in year-on-year terms at EUR 7.3 billion, while the reinsurance corporations' total assets were up 0.4% in year-on-year terms at EUR 1.3 billion.

[75] The net profits in the second quarter of 2022 and the second quarter of 2023 were not wholly comparable: the first figure was reported under IFRS 4, while the second was under IFRS 17. The reporting of quarterly financial statements under IFRS 17 entered into force with the reporting for the first quarter of 2023.

Figure 6.4: **Claims ratio, net profit and total assets**



Note: Since 2017 the data for gross written premium and the claims ratio has been based on aggregate statistical reports in line with Solvency II. The calculation of the claims ratio takes account of the cumulative data for gross claims paid and gross written premium at the end of each quarter. Changes in prices of supplemental health insurance also had a significant impact on gross written premium in the health insurance segment in Slovenia, for which reason changes excluding this effect have also been shown. The data for the EEA is available to Q4 2022 inclusive. Insurance data is based on Solvency II reporting. The exception is the data for profit, which is based on aggregated data.
Sources: ISA, Banka Slovenije

The capital adequacy of insurance corporations in Slovenia remains at a high level. Insurance corporations are required to provide adequate own funds in line with the Solvency II standards. The higher the risks that the insurance corporation takes up, the higher is its solvency capital requirement (SCR) and its minimum capital requirement (MCR), which it must cover using own funds. The median capital adequacy with regard to solvency capital (SCR coverage ratio) at insurance corporations operating in Slovenia stood at 220.5% in the second quarter of 2023, down 6.2 percentage points in year-on-year terms. The median SCR coverage ratio in Slovenia remained lower than in the EEA overall at the end of 2022 (202.7% in Slovenia, versus 219.3% in the EEA). The median MCR (minimum capital requirement) coverage ratio in Slovenia stood at 642.3% in the final quarter of 2022, down 9.1 percentage points in year-on-year terms (see Figure 8.25 in the appendix).

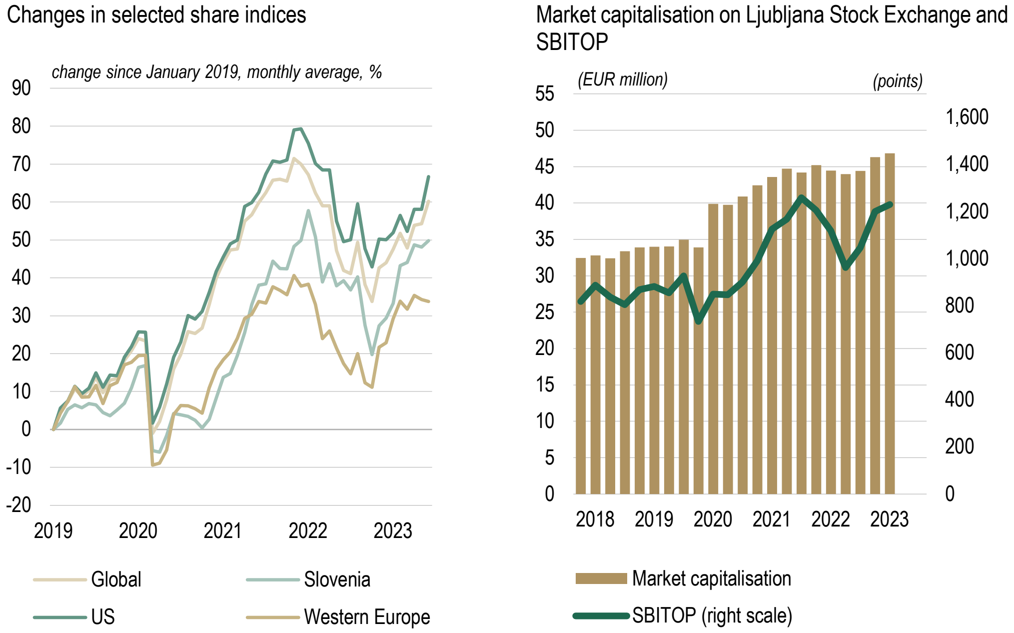
6.3 Mutual funds

Stock markets rose in early part of 2023, in the expectation of an end to monetary policy tightening, and amid announcements of advances in the area of AI. The domestic mutual funds hold most of their assets in equity and investment fund shares/units, and recorded growth in assets under management in the first half of this year, mainly on account of the large exposure to shares, whose prices rose on the markets. Public limited companies in the US are the prevailing form of share investments held by the domestic mutual funds.

After falling sharply in 2022, stock markets rose in the early part of 2023. In the expectation of an end to the monetary policy tightening, and in the wake of announcements of advances in the area of AI, stock markets forged ahead (see Figure 6.5, left). Amid persistent high inflation, core inflation in particular, the expectation that the ECB has not yet finished its interest rate hikes this year has grown.

The domestic stock exchange continues to face the challenge of low market liquidity. Volume amounted to EUR 153 million over the first two quarters of this year, down 39.3% in year-on-year terms. There were 16 public limited companies listed as at the end of June 2023, with a market capitalisation of EUR 46.8 billion, up 5.5% in year-on-year terms, a reflection of the general rise in investors' appetite for investments of this kind. The SBITOP share index gained 17.6% over the first half of 2023 (see Figure 6.5, right).

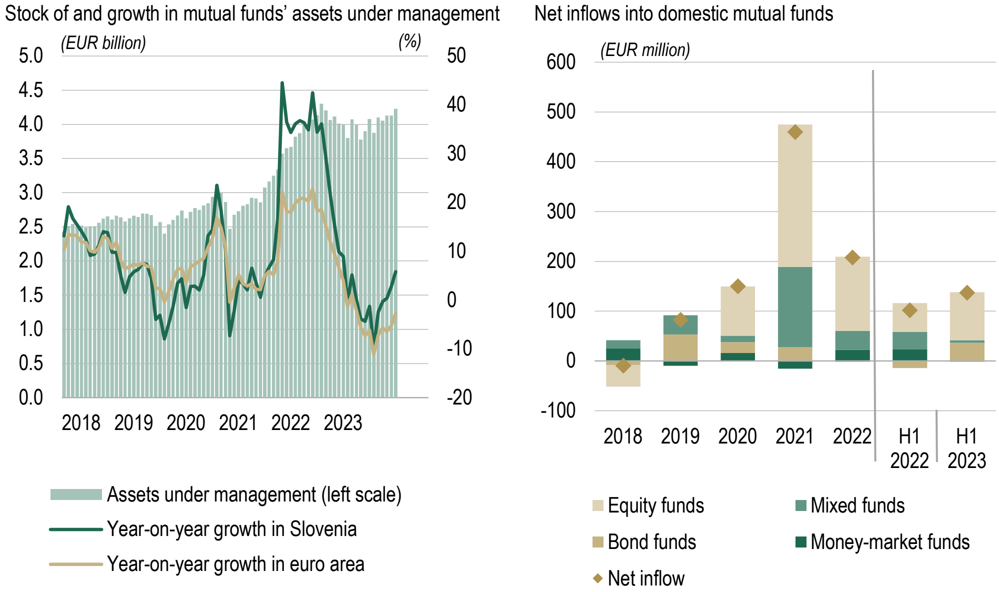
Figure 6.5: **Changes in share indices and market capitalisation on Ljubljana Stock Exchange**



Note: The indices in the left chart are the S&P 500 for the US, the Euro Stoxx 600 for western Europe, the SBITOP for Slovenia and the MSCI World Net Total Return Index for global equities. The data in the left chart is up to May 2023 inclusive, while the data in the right chart is up to April 2023 inclusive.
Sources: Bloomberg, Eurostat, Banka Slovenije

The mutual funds' assets under management increased in the first half of 2023, driven by the sharp gains in stock market indices and an increase in net inflows into mutual funds. The domestic mutual funds' assets under management amounted to EUR 4.4 billion at the end of June 2023, up 14.1% in year-on-year terms. The domestic mutual funds hold most of their assets in equity and investment fund shares/units. Compared with mutual funds in the euro area overall, which hold a significantly larger share of their assets in debt securities, the domestic mutual funds are more exposed to market risk. Alongside revaluations, the domestic mutual funds' high exposure to equities was also a factor in their growth in assets outpacing the euro area average (see Figure 6.5, left). The euro area overall saw a year-on-year decline in investment funds' assets under management, in contrast to the increase at the domestic mutual funds. The domestic mutual funds' equity investments are primarily held in public limited companies in the US (48.3% of the total) and the euro area (22.7%), while their holdings of debt securities focus mostly on euro area countries (73.2% of the total).

Figure 6.6: **Domestic mutual funds' assets under management and net inflows**



Note: The left chart illustrates data up to May 2023 inclusive. Money-market funds are not included in the data.
Sources: Banka Slovenije, ECB SDW

Savers retain their appetite for saving in mutual funds, supported by the rise in the average unit price of domestic mutual funds. Net inflows into mutual funds amounted to EUR 137 million in the first half of 2023, up 34.3% in year-on-year terms. The pronounced year-on-year growth was attributable to the low net inflows in the previous year caused by the uncertainty in connection with the war in Ukraine and the onset of more pronounced interest rate hikes at central banks in the fight against inflationary pressures. The ownership structure of domestic mutual fund units remains stable. Households remain the largest holders of domestic mutual fund units, and made contributions of EUR 93.3 million in the first half of 2023. There was a significant increase in the share held by non-financial corporations (with inflows of EUR 14.9 million), who were still making net withdrawals in the second half of 2022. Non-financial corporations made their largest investments in bond funds (44.0% of the total) and money-market funds (42.2%), in contrast to last year, when they mostly invested in equity funds.

There were certain changes in the breakdown of net inflows: equity funds recorded the largest net inflows in the first half of 2023. Equity funds further increased the share of total net inflows that they account for (70.5%), and were followed by bond funds (26.5%), which had recorded net withdrawals last year (see Figure 6.6, right). Meanwhile money-market funds recorded net withdrawals. Given the extensive damage suffered by particular areas of Slovenia, inflows into mutual funds can be expected to decline and withdrawals can be expected to increase for the needs of repairs and renovation.

7 Macroprudential policy for the banking system and leasing companies

Macroprudential measures serve to limit or mitigate the risks to which the banking system is exposed, and to increase the resilience of the Slovenian banking system. In light of the current macrofinancial environment, our assessment is that the macroprudential policy is pitched at maintaining the resilience of the financial system. A countercyclical capital buffer rate in the amount of 0.5% was introduced at the end of 2022, and will have to be met by the banks as of 31 December 2023. A new regulation setting the O-SII buffer was passed in July of this year, and implements the revised methodology for setting the minimum O-SII buffer rate that will be applied by the ECB as of 1 January 2024. A new regulation making an adjustment to the previous macroprudential restrictions on consumer lending entered into force on 1 July of this year.

Banka Slovenije macroprudential policy

Macroprudential policy is used to identify, monitor and assess systemic risks to financial stability, but its main purpose is to protect and maintain the stability of the entire financial system. The ultimate objective of macroprudential policy is ensuring that the financial sector makes a lasting contribution to economic growth. Macroprudential policy in Slovenia is formulated by the Financial Stability Board.

Banka Slovenije is responsible for the development and implementation of macroprudential measures for the banking sector and for leasing companies. The legal basis for the implementation of macroprudential policy consists of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, the Banking Act (ZBan-3), and the Macroprudential Supervision of the Financial System Act (ZMbNFS).

The process of drawing up and implementing macroprudential policy can be divided into four interconnected phases:

1. the identification and assessment of systemic risks,
2. the selection and formulation (calibration) of the macroprudential instrument,
3. the implementation of the macroprudential instrument,
4. the evaluation of macroprudential policy and the macroprudential instrument.

Banka Slovenije assesses the level of systemic risks on the basis of tools for monitoring financial stability. Systemic risk is defined as the risk of disruptions in the financial system that could have serious adverse effects on the functioning of the financial system and the real sector. The assessment of systemic risks is presented in Sections 2 and 3 of this report, while the resilience to the highlighted risks is analysed in Section 4. Banka Slovenije has developed a suite of indicators to monitor the evolution of systemic risks and the resilience thereto, and to evaluate the attainment of individual intermediate macroprudential policy objectives. These are:

- to mitigate and prevent excessive credit growth and excessive leverage,
- to mitigate and prevent excessive maturity mismatch and market illiquidity,
- to limit direct and indirect exposure concentrations,
- to limit the systemic impact of misaligned incentives with a view to reducing moral hazard,
- to strengthen the resilience of financial infrastructures.

If we assess that the level of systemic risks is rising or that there is a risk of the intermediate macroprudential policy objectives not being attained, Banka Slovenije can opt to impose macroprudential measures. The selection and calibration depend on the level and source of risk, and follow the principles described in the Strategic Framework for Macroprudential Policy. Once selected and calibrated, the instrument is implemented and subjected to assessments of its effectiveness. A macroprudential measure is successful if it contributes to the attainment of the intermediate macroprudential policy objectives, and indirectly helps to reduce systemic risks.

The consequences of the emergence from the period of low interest rates and low variability in various economic categories into a period of elevated inflation, higher nominal interest rates, and the resulting greater variability in nominal economic categories will be of huge importance to macroprudential policy in the near future. Inflation could lead to greater uncertainty in investment decision-making, and consequently to a rise in poor investment decisions on the grounds of sub-optimal assessments of the expected real-life developments. Greater variability in financial and economic categories will see future macroprudential policy place greater emphasis on monitoring and addressing the more-pronounced cyclical developments. Macroprudential policy will therefore focus on increasing the resilience of the banking system in macrofinancial circumstances that still allow it to do so.

Banka Slovenije macroprudential instruments

Banka Slovenije currently has four macroprudential instruments in force. The buffer for other systemically important institutions (O-SII buffer), the countercyclical capital buffer (CCyB) and the two sectoral systemic risk buffers (SyRB) require a higher level of capital at banks, and thus strengthen the (capital) resilience of the banking system. The macroprudential restrictions on household lending put minimum credit standards in place, and at the same time are pitched at mitigating and preventing excessive credit growth and excessive leverage, thereby reducing credit risk.

Table 7.1: **Banka Slovenije macroprudential measures**

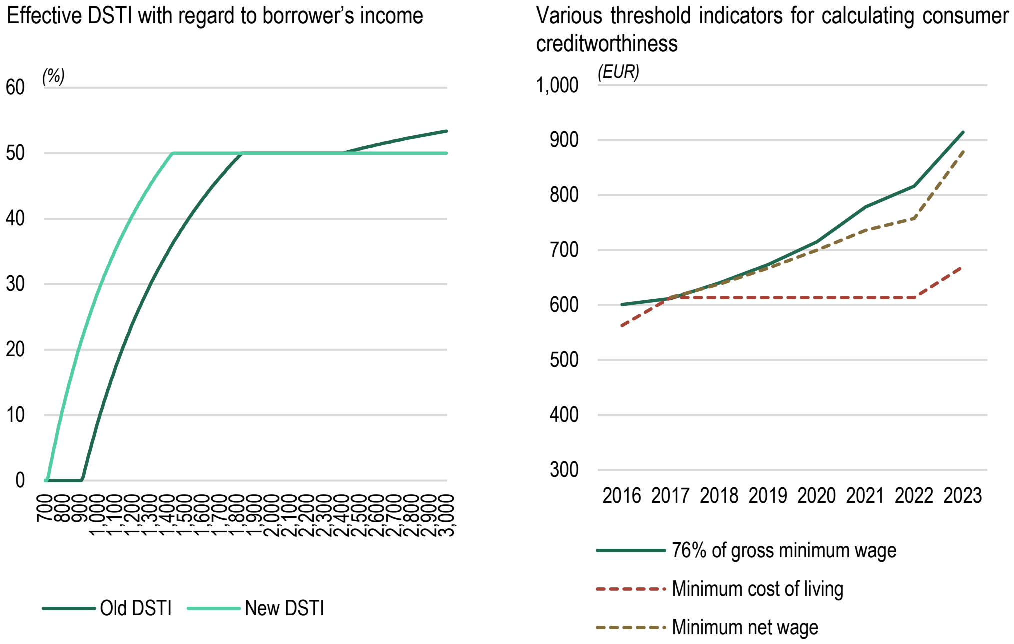
Macroprudential measure	Year of introduction/change	Type	Intermediate objective	Assessment of achievement of objective
Macroprudential restrictions on household lending (LTV, DSTI, caps on maturity)	2016*/2018**/2019***/2020****/2022*****/2023******	BINDING	To mitigate and prevent excessive credit growth and excessive leverage	Growth in consumer loans has slowed, and credit standards have improved in the approval of consumer loans and housing loans
O-SII buffer	2016	BINDING	To limit the systemic impact of misaligned incentives with a view to reducing moral hazard	Higher resilience as a result of higher requirements for common equity Tier 1 capital, which was not binding on the banks
Countercyclical capital buffer	2016/2022*******	BINDING	To mitigate and prevent excessive credit growth and excessive leverage	Banks must meet the buffer requirement of 0.5% as of 31 December 2023
Sectoral systemic risk buffers	2022********	BINDING	(a) to mitigate and prevent excessive credit growth and excessive leverage (b) to limit direct and indirect exposure concentrations	Assessment not yet available. Banks must meet the buffer requirement as of 1 January 2023.

Source: Banka Slovenije
* A recommendation with regard to LTV and DSTI was introduced in 2016 for housing loans.
** In 2018 the macroprudential recommendation was extended to consumer loans, to which a cap on maturity also applied alongside the cap on DSTI.
*** The caps on DSTI and maturity became a binding macroprudential instrument in 2019.
**** In response to the Covid-19 pandemic, adjustments were made to the cap on DSTI in 2020, allowing the banks under certain conditions to exclude the temporary loss of income during the pandemic when calculating DSTI.
***** Additional changes to the existing restrictions on household lending entered into force on 1 July 2022.
****** The most recent change to the existing restrictions on household lending entered into force on 1 July 2023.
******* A change in the methodology for setting O-SII buffer rates, which follows the ECB's standardised methodology, was effected via a regulation in July 2023.
******** At the end of 2022 the Governing Board of Banka Slovenije approved a rise in the countercyclical capital buffer rate from zero to 0.5%, with the banks obliged to meet the requirement as of 31 December 2023.
********* The two sectoral systemic risk buffers were introduced in 2022, and entered into force on 1 January 2023.

The macroprudential restrictions on household lending[76] were adjusted in June. The changes entered into force on 1 July 2023. The rise in the minimum wage to EUR 1,203.36[77] on 1 January 2023 (a rise of 12%[78]) brought a significant deterioration in creditworthiness in the household portfolio. Under the Regulation on macroprudential restrictions on consumer lending then in force, the calculation of creditworthiness was based on the amount set out in Article 102 of the Enforcement and Securing of Claims Act (ZIZ).[79] This stipulates that an amount equivalent to 76% of the gross minimum wage must remain for any debtor undergoing enforcement proceedings (plus an additional amount for any family dependants). Since the introduction of the macroprudential restrictions of household lending in 2016, the gap between the creditworthiness limit and the minimum cost of living has consistently widened (see Figure 7.1, right). The changes to the ZMbNFS,[80] under which supervisory authorities are no longer bound by the restrictions on enforcement defined by the regulations governing enforcement and the securing of claims when conducting macroprudential supervision, allowed for the macroprudential restrictions to be adjusted. Under the overhaul of the measure the lower creditworthiness limit was tied to the minimum cost of living (plus an amount for any family dependants), which is adjusted as necessary for the general level of inflation and for other factors.

[76] The Regulation on macroprudential restrictions on consumer lending (Official Gazette of the Republic of Slovenia, No. 63/23) and the Regulation laying down the minimum creditworthiness amount for consumers (Official Gazette of the Republic of Slovenia, No. 63/23).
[77] Official Gazette of the Republic of Slovenia, No. 4/23.
[78] Rise of EUR 100 in minimum wage | GOV.SI(in Slovene).
[79] Enforcement and Securing of Claims Act (ZIZ) (pisrs.si).
[80] Macroprudential Supervision of the Financial System Act (ZMbNFS).

Figure 7.1: **Difference in effective DSTI under old and new regulations, and various threshold indicators for calculating consumer creditworthiness**



Source: Banka Slovenije

The minimum creditworthiness amount for consumers will be reviewed at least once a year. It will be published online, and also in the Official Gazette of the Republic of Slovenia whenever it is being adjusted. The minimum creditworthiness amount has stood at EUR 745 since 1 July 2023. The amount was set by taking account of the calculation of the minimum cost of living by the Institute for Economic Research in the amount of EUR 669.8 from November 2022, which it adjusted for the inflation forecasts for 2023 and 2024. A standardised cap on the ratio of the consumer's total debt servicing costs to their income (DSTI) was also introduced: it may not exceed 50%. At the same time the level of allowable deviations from the cap on DSTI was also reduced. The cap on DSTI may be exceeded by no more than 3% of new credit agreements for residential real estate, and no more than 3% of credit agreements for consumer purposes. Credit agreements for consumer purposes that exceed the cap on DSTI must comply with the cap on maturity. The calculation of the consumer's annual income has also been modified: banks may also take account of child benefit and certain other social security benefits that had been excluded until now. When the amount of a credit agreement for consumer purposes does not exceed EUR 5,000, the consumer's income may be calculated in simple fashion by annualising the last three monthly employment income or pension income amounts.

The macroprudential restrictions on consumer lending have helped to maintain stable credit standards in recent years (see Table 7.2). The LTV fell below 60%, and now averages 58.1% according to the latest available data. The fall in the LTV in the third quarter of 2022 was driven by last year's change in the LTV recommendation, which lowered the recommended cap on LTV from 80% to 70% (with the exception of loans for primary real estate).[81] The average LTV in the first year following the change in the recommended cap on LTV stood at 60.3% for loans for primary real estate, and 53% for loans for secondary real estate. The level of deviations from the recommended LTV is stable at around 10%. The DSTI on housing loans remained stable in the first half of 2023 at around 33%. The average maturity on housing loans remains stable at around 18.5 years. The DSTI on consumer loans also remains stable, at around 26%. As in housing loans, the level of deviations in consumer loans from the cap on DSTI

[81] Loans for primary real estate are loans secured by residential real estate where the real estate pledged as collateral is also the subject of construction, purchase or renovation, and where the real estate is intended as the owner's residence.

increased in the first half of 2023. The increase in the level of deviations from the cap on DSTI was driven by the rise in market interest rates and the increase in the gross minimum wage. The average maturity of consumer loans remains stable at 6.2 years.

The relaxation of the macroprudential instruments that entered into force in the second half of 2022[82] was another factor driving up the level of allowable exemptions from the cap on DSTI. Loans approved for borrowers whose net income did not exceed the lower creditworthiness limit had accounted for just 0.4% of all new consumer loans and 0.1% of all new housing loans in the second half of 2022. Meanwhile they accounted for 1.0% of all new consumer loans in the first half of 2023, and 0.3% of all new housing loans. These loans had accounted for 11.6% of all new exemptions from the cap on DSTI on consumer loans in 2022, and just 2.1% of all exemptions on new housing loans. Consumer loans that failed to meet the DSTI requirement accounted for 17.6% of all new DSTI exemptions in the first half of 2023, while housing loans that failed to meet the DSTI requirement accounted for 4.8%. The banks did not take up all the allowable exemptions, from which it can be concluded that they were not lending to (low-income) individuals to a greater extent, either because of their own stricter credit standards,[83] or because of a lack of demand.

Table 7.2: **Average values of selected parameters for housing loans and consumer loans, and level of deviations from macroprudential instruments**

Weighted average	2019*	2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
						Housing loans						
LTV	67.7%	67.6%	65.1%	63.5%	62.8%	63.4%	61.8%	60.0%	57.8%	58.5%	58.3%	58.1%
Level of deviations in LTV	20.0%	15.7%	10.8%	10.3%	10.1%	10.8%	10.3%	9.9%	13.4%	9.1%	11.5%	10.0%
DSTI	32.1%	29.9%	30.7%	30.8%	31.4%	31.3%	31.3%	31.5%	32.8%	33.2%	33.3%	32.8%
Level of deviations in DSTI	15.7%	4.9%	9.7%	3.1%	3.7%	4.0%	6.9%	2.8%	2.4%	3.2%	7.2%	5.7%
Average maturity, years	19.1	19.3	19.2	18.6	18.7	18.6	18.6	18.3	18.6	18.6	18.7	18.3
						Consumer loans						
DSTI	26.4%	24.6%	25.8%	25.4%	26.0%	26.1%	25.8%	25.8%	26.2%	26.2%	26.0%	26.2%
Level of deviations in DSTI	21.8%	4.3%	11.7%	4.7%	4.0%	4.2%	6.0%	1.3%	3.1%	4.7%	7.0%	7.5%
Average maturity, years	6.5	5.8	6.1	6.2	6.2	6.2	6.2	6.2	6.1	6.2	6.1	6.2
Level of deviations in maturity	2.3%	5.8%	10.2%	10.0%	10.3%	10.1%	10.3%	9.6%	9.5%	9.8%	11.7%	11.3%

* The instruments capping DSTI and maturity (for consumer loans) only became binding on 1 November 2019. The maximum maturity was reduced at that time from ten years to seven years.

Source: Banka Slovenije

As of 31 December 2023 banks are required to meet the countercyclical capital buffer for exposures in Slovenia in the amount of 0.5% of the total risk exposure amount. The buffer rate was raised in 2022 on account of rising cyclical systemic risks driven by high growth in residential real estate prices, strengthened growth in lending to the private non-financial sector, and great uncertainty in the macroeconomic environment.[84]

[82] For more, see the October 2022 issue of the Financial Stability Review.

[83] These constitute the most important grounds for rejecting demand for loans (see Figure 5.4).

[84] For more information on the reasons for raising the countercyclical capital buffer, see the Banka Slovenije website.

Two sectoral systemic risk buffers are also in force. In addition to the risks inherent in the real estate market and the increased exposure to households, they are in particular addressing the risks posed by the relaxations of creditworthiness that entered into force in July 2022 and July 2023. Banks are required to meet the sectoral systemic risk buffers for: (i) all retail exposures to natural persons secured by residential real estate, with a rate of 1.0%, and (ii) all other exposures to natural persons other than the aforementioned, with a rate of 0.5%.

At least once a year the fulfilment of the criteria for other systemically important institutions (O-SIIs) is reviewed, and also the adequacy of the associated O-SII buffer rates.[85] The score achieved in the assessment of systemic importance is the main decision-making criterion in setting the O-SII buffer rate and classifying banks to categories that are assigned the same buffer. Banka Slovenije first identified O-SIIs in 2015, setting buffer rates for them. The aim of the latter is to limit the systemic impact of misaligned incentives with the aim of reducing moral hazard, which is also one of the intermediate macroprudential policy objectives set out by Banka Slovenije's Strategic Framework for Macroprudential Policy[86] and Recommendation ESRB/2013/1.[87] The banks identified as O-SIIs have been required to meet the buffer as of 1 January 2019. Banka Slovenije follows the EBA methodology in its identification of O-SIIs. July saw Banka Slovenije adopt a new Regulation determining the buffer for other systemically important institutions (Official Gazette of the Republic of Slovenia, No. 79/23). The change in the methodology for setting the O-SII buffer follows the implementation of the revised methodology for determining the minimum O-SII buffer rate that the ECB will apply as of 1 January 2024 for the assessment of the O-SII buffer rates proposed by national authorities.[88] The revised floor methodology has the objective of maintaining and strengthening the banks' capacity to absorb losses, and represents a step forward to greater harmonisation in the use of macroprudential instruments in the European banking union. The new methodology for setting O-SII buffer rates will be applied for the first time in the next annual review of the fulfilment of the O-SII criteria and the adequacy of the O-SII buffer rates.

Table 7.3: **Comparison of old and new methodologies: buckets for allocating O-SIIs on the basis of the systemic importance score and the corresponding buffer rate**

Bucket	2017	2023	Buffer rate
1	500 - 1,199	up to 750	0.25%
2	1,200 - 1,899	750 - 1,299	0.50%
3	1,900 - 2,599	1,300 - 1,949	0.75%
4	2,600 - 3,299	1,950 - 2,699	1.00%
5	3,300 - 3,999	2,700 - 4,449	1.25%
6	4,000 - 4,699	above 4450	1.50%
7	4,700 - 5,399		1.75%
8	above 5,400		2.00%

Source: Banka Slovenije

[85] For more on O-SII buffers, see: Capital buffer for other systemically important institutions on the Banka Slovenije website.

[86] For more on Banka Slovenije's strategic framework for macroprudential policy, see the 2020 Strategic Framework for Macroprudential Policy.

[87] Recommendation on intermediate objectives and instruments of macro-prudential policy (ESRB/2013/1).

[88] See Governing Council statement on macroprudential policies of 2 November 2022.

The European banking system is continuing to build its resilience to financial and other shocks. Despite the reversal in the financial cycle[89] and the huge macroeconomic uncertainty, certain countries opted to raise the countercyclical capital buffer in 2023 (Croatia, France, Hungary, Czechia, Ireland, Netherlands).[90] This was indicative of the trend in macroprudential policy in Europe, where mere uncertainty in the macrofinancial environment is not the sole factor influencing the action or inaction of supervisory institutions and competent authorities. A growing number of European countries favour expert judgment over mere mechanistic approaches to setting the countercyclical capital buffer rate. Consequently more and more countries are considering a positive neutral countercyclical capital buffer rate. In this way the supervisory authorities build the resilience of the banking system even when their jurisdiction is not seeing an exaggerated increase in cyclical systemic risk, and address cyclical systemic risks in the early phase of their increase. In this way they gain manoeuvring room to relax the buffer in the event of a shock to the banking system that does not originate in financial imbalances (e.g. the outbreak of a pandemic). Positive neutral countercyclical capital buffer rates are currently being applied by Cyprus, Estonia, Ireland, Latvia, the Netherlands, Czechia and Sweden, and also by the UK among non-EU countries.[91]

Borrower-based macroprudential measures are also relatively widespread in EU Member States. These support more sustainable borrowing and debt servicing capacity on the part of households, thereby strengthening the resilience of banks and borrowers. The most commonly used measures are a cap on DSTI and a cap on LTV. The measure capping the DSTI is defined as the ratio of the borrower's debt servicing amount to their income, and limits the total debt repayment amount relative to the borrower's income. Other less-frequent borrower-based measures are caps on loans maturity, caps on DTI, which limits an individual's total indebtedness relative to their income, the LSTI, which in contrast to the DSTI takes account of the loan repayment amount in the numerator instead of the total debt repayment, and the LTI, which limits the amount of a loan relative to the individual's income (see Table 7.4).

Certain countries have put a sectoral systemic risk buffer in place with the aim of increasing the banking system's resilience to the risks inherent in the residential real estate market and certain other risks. A sectoral systemic risk buffer in Slovenia, Belgium, Lithuania, Malta and Germany addresses bank exposure to loans secured by residential real estate. Austria, Bulgaria, Croatia, Romania, Sweden and Finland have put in place a sectoral systemic risk buffer that does not relate to individual exposure sectors, but rather to total exposure.

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[89] ECB: Financial Stability Review, May 2023, p. 88.

[90] Details of the countercyclical capital buffer rates in EEA countries can be found on the ESRB website (https://www.esrb.europa.eu/national_policy/ccb/html/index.en.html).

[91] Source: ESRB Annual Report 2022. Available online at https://www.esrb.europa.eu/pub/pdf/ar/2023/esrb.ar2022~2c04d37be4.en.pdf?2c298dffb0ba9d6d2e177e6dd8ed6f77.

Table 7.4: **Countercyclical capital buffer rates, systemic risk buffer rates and other macroprudential instruments by country**

	Countercyclical capital buffer		Sectoral systemic risk buffer associated with real estate risk		Other capital measures		Restrictions on lending
Country	**Rate**	**Date of introduction**	**Rate**	**Date of introduction**	**Application of Article 124/164 of CRR to exposures secured by residential real estate**	**Application of Article 458 of CRR for risks inherent in real estate market**	**Type of measure*** **
Austria	0%	01.01.2016					Cap on maturity, DSTI, LTV
Belgium	0%	01.04.2020	9.0% *	01.05.2022			DSTI/LSTI, DTI/LTI, LTV
Bulgaria	0.5%	01/04/2020					
	1.0%	01/10/2022					
	1.5%	01/01/2023					
	2.0%	01/10/2023					
Cyprus	0%	01/01/2016					DSTI, LTV
	0.5%	30/11/2023					
Czechia	0.5%	01/07/2020					Cap on maturity, DTI, DSTI, LTV, loan amortisation
	1.0%	01/07/2022					
	1.5%	01/10/2022					
	2.0%	01/01/2023					
	2.5%	01/04/2023					
	2.25%	01/07/2023					
Denmark	1.0%	30/09/2022					LTV, LTI
	2.0%	31/12/2022					
	2.5%	31/03/2023					
Estonia	1.0%	07/12/2022	2.0%	01.07.2022		X	Cap on maturity, DSTI, LTV
	1.5%	01/12/2023					
Finland	0%	16.03.2015					LTC
France	0.5%	07/04/2023					Cap on maturity, DSTI
	1%	02/01/2024					
Greece	0%	01.01.2016					
Croatia	0.5%	31/03/2022			X**		
	1.0%	31/12/2023					
	1.5%	30/06/2024					
Ireland	0.5%	15/06/2023					LTV, LTI
	1.0%	24/11/2023					
	1.5%	07/06/2024					
Iceland	2.0%	29/09/2022					DSTI, LTV
	2.5%	15/03/2024					
Italy	0%	01.01.2016					
Latvia	0%	01.02.2016					Cap on maturity, DSTI, LTV, LTI
Lichtenstein	0%	01.07.2019	1.0%	01.05.2022	X		LTV, loan amortisation
Lithuania	0%	01/04/2020	2.0%	01.07.2022			Cap on maturity, DSTI, LTV
	1.0%	01/10/2023					
Luxembourg	0.5%	01.01.2021					LTV
Hungary	0%	01.01.2016					DSTI, LTV
Malta	0%	01.01.2016			X		Cap on maturity, DSTI, LTV
Germany	0.75%	01.02.2023	2.0%	01.02.2023			
Netherlands	1.0%	25/05/2023				X	DSTI/LSTI, LTV, cap on maturity
	2.0%	31/05/2024					
Norway	1.0%	13/05/2020			X	X**	LTV, DTI, loan amortisation, exemptions from caps
	1.5%	30/06/2022					
	2.0%	31/12/2022					
	2.5%	31/03/2023					
Poland	0%	01.01.2016			X**		Cap on maturity, DSTI, LTV
Portugal	0%	01.01.2016					Cap on maturity, DSTI, LTV
Romania	0.5%	17/10/2022					Cap on maturity, DSTI, LTV
	1.0%	23/10/2024					
Slovakia	1.0%	01/08/2020					DSTI, cap on maturity, DTI, loan amortisation
	1.5%	01/08/2023					
Slovenia	0.0%	01/01/2016	0.5% (consumer loans)	01.01.2023	X		Cap on maturity, DSTI, LTV
	0.5%	31/12/2023	1.0% (all other loans)				
Spain	0%	01.01.2016					
Sweden	1.0%	29/09/2022				X	LTV, loan amortisation
	2.0%	22/06/2023					

* The buffer replaces the measure under Article 458 of the CRR that allows a rise in risk weight in the event of a real estate bubble.

** Higher risk weights are also applied to exposures to commercial real estate.

*** Includes binding measures and recommendations. The measures cited apply to consumer loans and to housing loans.

Sources: ESRB, ECB

Figures

Tables

8 Appendix

Table 8.1: **Risk and resilience dashboard (description of risks, resilience and factors)**

Risk and resilience dashboard	Description	Indicators
Risk inherent in the real estate market	The risk inherent in the real estate market primarily relates to high rates of growth in real estate prices, which increase the banking sector's exposure, and also the possibility of a large negative revaluation of real estate collateral during a crisis.	Growth in prices, sales and loans for residential and commercial real estate, indicators of real estate overvaluation, construction sector indicators, LTV, LTC and DSTI.
Funding risk	Funding risk is the risk of the potential instability of funding or the sudden outflow of individual classes of funding from the banking system, and depends on the maturity of the funding.	Funding structure, developments in deposits by the non-banking sector, particularly household deposits and deposits by non-financial corporations, LTD, changes in the maturity breakdown of deposits by the non-banking sector, residual maturity gap between assets and liabilities.
Interest rate risk	Interest rate risk is the risk of investment losses as a result of changes in interest rates, and comes from the maturity mismatch between assets and liabilities that have a fixed interest rate, and from the repricing gap between assets and liabilities.	The main indicator for monitoring interest rate risk is the repricing gap between asset and liability interest rates, where the most important factor for liability interest rates is the assumption about the stable component of sight deposits. Other indicators are: the average repricing period for asset interest rates, the average repricing period for liability interest rates, the share of new loans and existing loans accounted for by fixed-rate loans, and the average maturity of new loans and existing loans.
Credit risk	Credit risk is the risk of loss resulting from the failure of a debtor to settle their liabilities to the creditor, and comes from the debtor's inability to meet their financial liabilities by the agreed deadline, which may be temporary (illiquidity) or permanent (insolvency).	The main indicators are NPE ratios, the breakdown of exposures into credit risk stages, credit parameters (default rates, probabilities of default, transition rates), and coverage of NPEs and performing exposures by impairments, provisions and collateral. Moratoria and arrears in settlement of past-due instalments previously subject to a moratorium were also significant indicators during the Covid-19 pandemic.
Income risk	Income risk is the risk to the generation of adequate income by banks, and is based on developments in components of income generation and cost control.	The main indicators follow the generation and disposal of income, to the point of net income: net interest margin, net non-interest margin, net commission margin, gross income, developments in operating costs, CIR, developments in net income.
Risk inherent in leasing companies	The risk inherent in leasing companies is the risk of the generation of operating losses caused by a decline in turnover, the build-up of arrears of more than 90 days, and the potential spillover of adverse consequences into other sectors.	New business, stock of business, arrears of more than 90 days, other performance indicators of leasing companies (ROE, ROA, debt-to-equity ratio).
Solvency and profitability of the banking system	Resilience from the perspective of the capital position is the ability to absorb adverse effects or losses that would occur during a stress event, while from the perspective of profitability it is a sustainable source of capital adequacy.	Total capital ratio and CET1 ratio (both ratios on an individual and a consolidated basis), leverage ratio, capital surplus over the overall capital requirement (as a percentage of RWA), contribution of individual components to the change in the total capital ratio and CET1 ratio, ROE, ROA, ratio of net impairments and provisions to gross income and ratio of net impairments and provisions to net income.
Liquidity of the banking system	Resilience from the perspective of liquidity is the ability to repay all due liabilities, and the ability to absorb the adverse effects that would follow in the event of the realisation of funding risk.	LCR, developments in the ratio of primary and secondary liquidity to the balance sheet total, proportion of the pool of eligible collateral at the Eurosystem that is free.
Cyber risk	Cyber risk can be defined as a combination of the probability of cyber incidents and their potential impact on banking (which might be realised in the form of interruptions to business, financial losses, or the transmission of risk to other sectors). Cyber resilience is the capacity of a bank or any other financial institution to realise its mission statement through the anticipation and management of cyber risks, and fast recovery from cyber incidents.	Number of cyber incidents, direct and indirect financial losses, mean time to contain (minutes), market concentration of outsourced IT services (%), number of phishing and DDoS attacks, share of budget for IT security (bank self-assessment), number of devices with obsolete software, and number of outsourced IT service providers.
Climate risks	Climate risks can be divided into the physical risks inherent in the direct and indirect costs of loss events related to weather, and the transition risks inherent in the structural changes in the shift to sustainable economies, as a result of changes in consumer preferences, environmental policy or technology.	Weighted emissions intensity, loan carbon intensity, portfolio tilt to polluting sectors, share of portfolio exposure to climate-sensitive sectors, NPE ratio in climate-sensitive sectors, NPE concentration in climate-sensitive sectors.

Source: Banka Slovenije

Table 8.2: **Slovenian banking system balance sheet for selected time snapshots, 2004 to H1 2023**

	Stock, EUR million unless stated											Increase, EUR million				Year-on-year change, %		
	2004	Breakdown (%)	2008	Breakdown (%)	2013	2020	2021	2022	Breakdown (%)	H1 2023	Breakdown (%)	2020	2021	2022	H1 2023	2021	2022	H1 2023
Assets																		
Cash on hand, balance at central bank	592	2.5	1,250	2.6	2,452	8,825	11,495	10,445	20.7	11,668.5	22.7	3,042	2,671	-1,051	1,224	30.3	-9.1	24.5
Loans to banks	2,156	9.1	4,101	8.6	3,986	1,492	1,544	1,665	3.3	1,689.9	3.3	-100	52	121	24	3.5	7.8	12.9
Loans to non-banking sector	**12,947**	**54.4**	**33,718**	**70.3**	**24,359**	**23,561**	**25,045**	**27,538**	**54.4**	27,073.5	**52.7**	**42**	**1,484**	**2,493**	-464	**6.3**	**10.0**	**2.0**
of which to non-financial corporations	8,147	34.2	20,260	42.3	11,508	8,750	9,300	10,487	20.7	10,549.4	20.5	-127	550	1,187	62	6.3	12.8	4.3
of which to households	3,262	13.7	7,558	15.8	8,467	10,712	11,263	12,138	24.0	12,199.0	23.8	9	551	875	61	5.1	7.8	4.0
Financial assets / securities	7,013	29.4	7,307	15.2	8,318	8,958	8,355	8,759	17.3	8,985.3	17.5	120	-603	404	226	-6.7	4.8	2.9
Other	1,112	4.7	1,572	3.3	1,229	1,815	1,811	2,168	4.3	1,921.5	3.7	335	-4	357	-247	-0.2	19.7	-2.8
Equity and liabilities																		
Financial liabilities to Eurosystem	0	0.0	1,229	2.6	3,727	1,380	2,344	758	1.5	114.2	0.2	397	964	-1,586	-644	69.9	-67.6	-92.0
Liabilities to banks	4,719	19.8	18,168	37.9	7,729	2,378	1,716	2,034	4.0	2,183.6	4.3	-443	-663	318	150	-27.9	18.6	25.0
of which to domestic banks	435	1.8	2,065	4.3	2,381	799	649	600	1.2	629.2	1.2	-57	-150	-49	29	-18.8	-7.6	-1.2
of which to foreign banks	4,254	17.9	16,098	33.6	5,348	1,579	1,066	1,434	2.8	1,554.4	3.0	-386	-513	368	120	-32.5	34.5	40.1
Liabilities to non-banking sector (depos	**14,906**	**62.6**	**20,883**	**43.6**	**22,550**	**34,281**	**37,185**	**39,756**	**78.6**	39,634.6	**77.2**	**3,212**	**2,904**	**2,571**	**-122**	**8.5**	**6.9**	**5.1**
of which to non-financial corporations	2,667	11.2	3,728	7.8	4,196	8,031	8,998	9,710	19.2	9,374.1	18.3	1,273	967	712	-336	12.0	7.9	10.6
of which to households	9,904	41.6	13,407	28.0	14,365	22,437	23,953	25,784	51.0	26,379.7	51.4	2,072	1,516	1,832	595	6.8	7.6	5.4
Debt securities	973	4.1	1,276	2.7	1,657	1,058	1,250	2,066	4.1	3,126.9	6.1	458	191	817	1,061	18.1	65.4	102.7
Provisions	0	0.0	176	0.4	306	186	151	142	0.3	144.6	0.3	-2	-34	-10	3	-18.4	-6.5	-1.8
Shareholder equity	1,896	8.0	4,010	8.4	3,670	4,805	5,061	5,153	10.2	5,439.3	10.6	-158	256	93	286	5.3	1.8	11.8
Other	1,326	5.6	2,206	4.6	704	564	545	665	1.3	695.5	1.4	-25	-19	120	30	-3.3	22.1	2.1
Balance sheet total	**23,820**		**47,947.9**	**100.0**	**40,343.6**	**44,651**	**48,252**	**50,575**	**100.0**	**51,338.7**	**100.0**	**3,438**	**3,600**	**2,323**	**764**	**8.1**	**4.8**	**6.7**

Source: Banka Slovenije

Table 8.3: **Slovenian banking system income statement, 2018 to H1 2023**

	Amount, EUR million						Year-on-year growth, %						Ratio to gross income, %					
	2018	2019	2020	2021	2022	H1 2023	2018	2019	2020	2021	2022	H1 2023	2018	2019	2020	2021	2022	H1 2023
Net interest	672	683	639	625	748	661	3.0	1.6	-6.4	-2.2	19.6	110.0	58.2	54.4	47.0	51.9	56.9	67.6
Non-interest income	482	573	721	580	567	317	14.1	19.1	25.7	-19.5	-2.3	137.8	41.8	45.6	53.0	48.1	43.1	32.4
of which net fees and commission	315	334	330	377	398	195	0.6	5.8	-1.2	14.4	5.5	104.5	27.3	26.6	24.2	31.3	30.3	19.9
of which net trading gains/losses	13	12	16	18	31	8	-56.0	-6.9	31.8	10.8	76.4	7.7 .	1.1	1.0	1.2	1.5	2.4	0.8
Gross income	1153	1256	1360	1206	1315	979	7.4	8.9	8.3	-11.4	9.1	58.3	100.0	100.0	100.0	100.0	100.0	100.0
Operating costs	-669	-709	-718	-717	-758	-425	-0.6	5.9	1.3	-0.2	5.6	11.0	-58.0	-56.5	-52.8	-59.5	-57.6	-43.4
labour costs	-390	-401	-386	-398	-413	-218	2.2	2.8	-3.6	3.0	3.7	10.2	-33.8	-31.9	-28.4	-33.0	-31.4	-22.3
Net income	484	547	642	489	558	554	20.8	13.0	17.3	-23.9	14.1	135.3	42.0	43.5	47.2	40.5	42.4	56.6
net impairments and provisions	47	46	-170	74	-14	-21	10.1	-2.8	-470.8	-143.4	-119.2	-8.7	4.1	3.6	-12.5	6.1	-1.1	-2.1
of which at amortised cost	68	60	-133	72	-23	4		-12.9	-323.8	-153.8	-131.8	-118.6	5.9	4.7	-9.8	6.0	-1.7	0.4
Pre-tax profit	**531**	**593**	**472**	**562**	**543**	**533**	**19.8**	**11.6**	**-20.3**	**19.1**	**-3.3**	**150.9**	**46.0**	**47.2**	**34.7**	**46.6**	**41.3**	**54.5**
corporate income tax	-36	-62	-22	-37	-42	-66	93.4	73.9	-65.0	70.1	13.1	204.0	-3.1	-4.9	-1.6	-3.1	-3.2	-6.8
Net profit	495	531	450	525	502	467	16.6	7.1	-15.1	16.6	-4.5	144.8	42.9	42.2	33.1	43.6	38.1	47.7

Source: Banka Slovenije

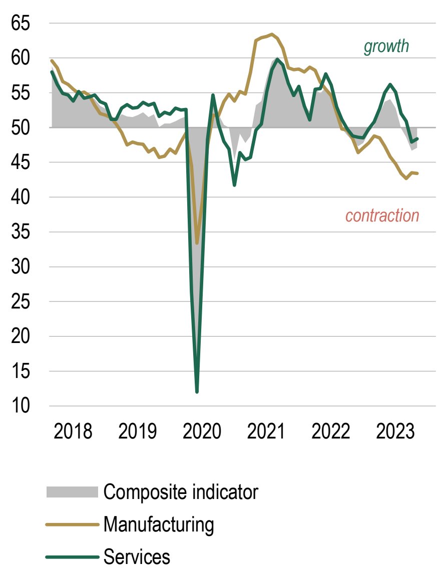
Table 8.4: **Selected bank performance indicators for the Slovenian banking system, 2011 to H1 2023**

(%)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	H1 2022	H1 2023
ROA	-1.06	-1.60	-7.70	-0.27	0.42	0.99	1.19	1.38	1.48	1.10	1.20	1.11	0.89	2.14
ROE	-12.54	-19.04	-97.30	-2.69	3.63	7.96	9.60	11.07	12.16	9.57	11.33	10.82	8.77	21.36
CIR	53.68	47.43	66.04	55.80	59.26	59.19	62.68	58.05	56.47	52.82	59.48	57.60	61.91	43.39
Net interest margin	2.13	1.93	1.68	2.18	2.06	1.91	1.83	1.84	1.79	1.57	1.41	1.61	1.43	2.79
Interest margin on total assets	2.02	1.83	1.59	2.09	1.96	1.82	1.75	1.75	1.70	1.49	1.34	1.53	1.35	2.66
Non-interest margin	0.85	1.40	0.85	1.01	1.09	1.23	1.13	1.26	1.43	1.67	1.24	1.15	1.24	1.29
Gross income / average total assets (FIM)	2.87	3.23	2.44	3.10	3.05	3.05	2.88	3.01	3.13	3.16	2.58	2.68	2.59	3.95

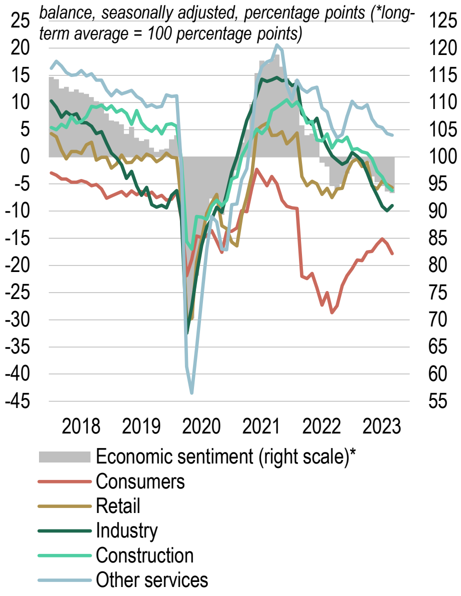
Note: FIM: financial intermediation margin.
Source: Banka Slovenije

Figure 8.1: **PMI and economic sentiment in the euro area**

PMI for the euro area



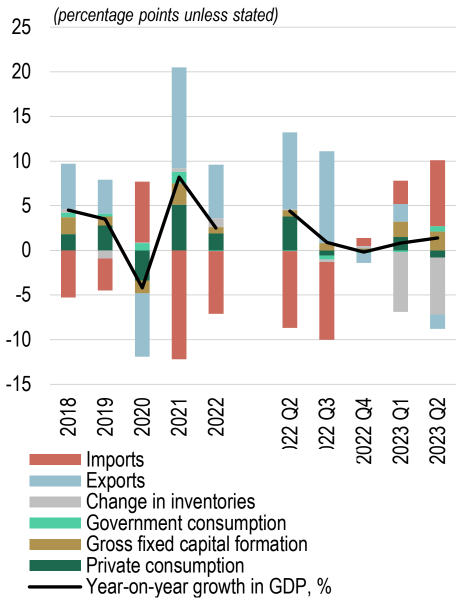
Confidence indicators in the euro area



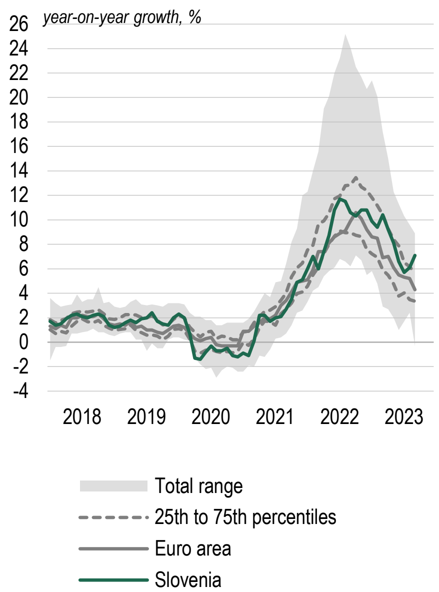
Note: In the left chart a PMI of more than 50 represents economic expansion with regard to the previous month, while a value of less than 50 represents contraction. The confidence indicators in the right chart are expressed in the form of an average balance, where the balance is the difference between the proportions of positive answers and negative answers.
Sources: Bloomberg, Eurostat, Banka Slovenije calculations

Figure 8.2: **Breakdown of GDP growth in Slovenia and inflation**

Breakdown of GDP growth in Slovenia: expenditure side



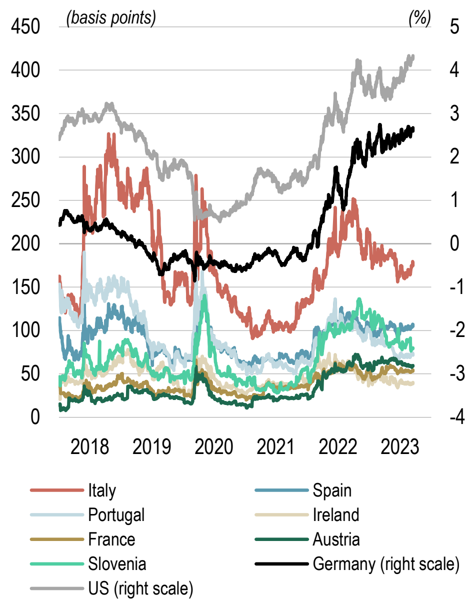
Comparison with inflation (HICP) in the euro area overall



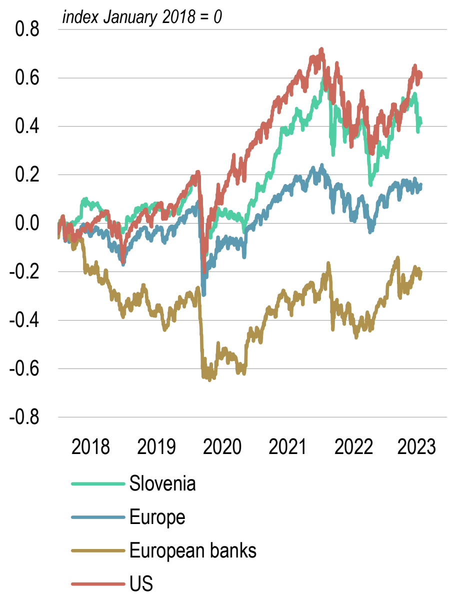
Sources: Eurostat, SORS

Figure 8.3: **Stock markets and financing costs**

Yield and spreads on 10-year government bonds



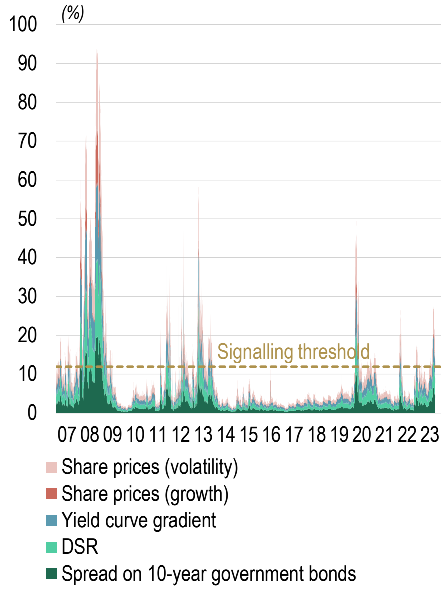
Stock market indices



Note: The spread in the left chart is calculated as the difference between the yield on the 10-year government bond and the yield on the benchmark (German bond) on a daily basis, and reflects the additional risk that the markets ascribe to the country in question. The selected indices in the right chart are the SBITOP for Slovenia, the Stoxx Europe 600 for European equities, the Stoxx Europe 600 Banks for European banks, and the S&P 500 for US equities. Latest data: 15 September 2023.
Sources: Bloomberg, Banka Slovenije calculations

Figure 8.4: **Probability of financial crisis**

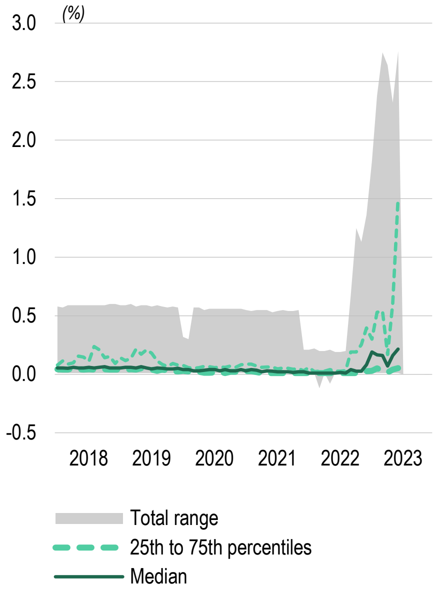
Probability of a financial crisis in the next 12 months in Slovenia, with contributory factors



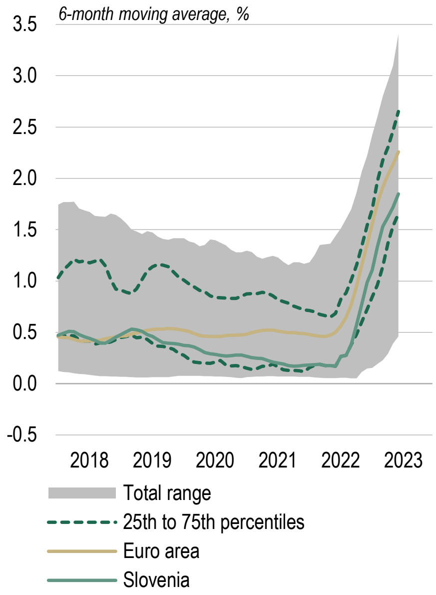
Note: The figure illustrates the probability of a crisis for Slovenia in the next 12 months over the entire sampling period, decomposed by contributory factors. Latest data: 15 September 2023.
Sources: SORS, Banka Slovenije

Figure 8.5: **Interest rates on fixed-term household deposits**

Distribution of interest rates on new fixed-term household deposits of up to one year at banks in Slovenia



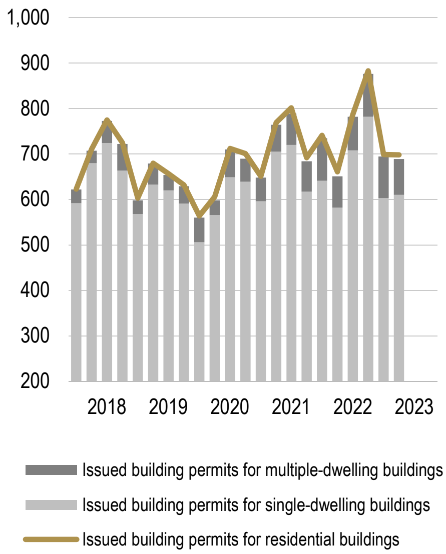
Distribution of interest rates on new fixed-term household deposits of more than one year in the euro area countries



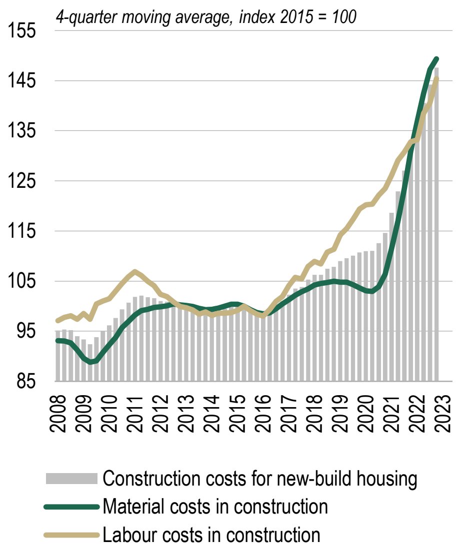
Note: The data in the left chart does not include sight deposits.
Sources: Banka Slovenije, ECB SDW, own calculations

Figure 8.6: **Building permits and construction costs**

Number of residential buildings for which building permits were issued



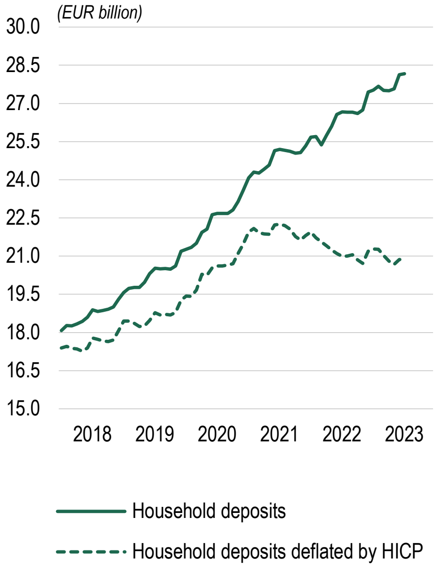
Construction costs for new-build housing



Source: SORS

Figure 8.7: **Nominal and real value of deposits by households and non-financial corporations**

Comparison of nominal and real value of household deposits



Comparison of nominal and real value of deposits by non-financial corporations

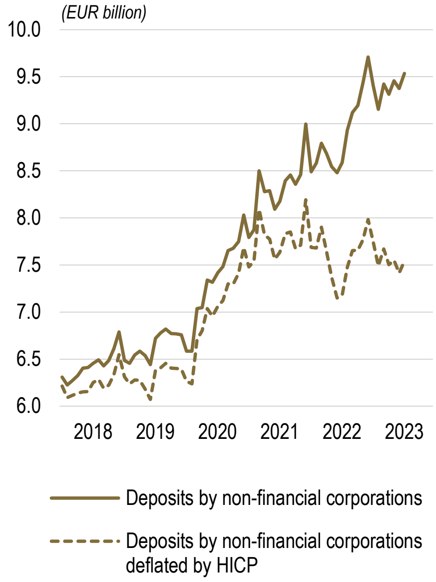
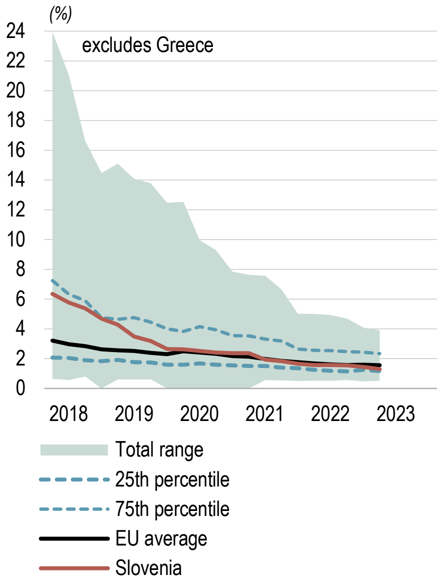
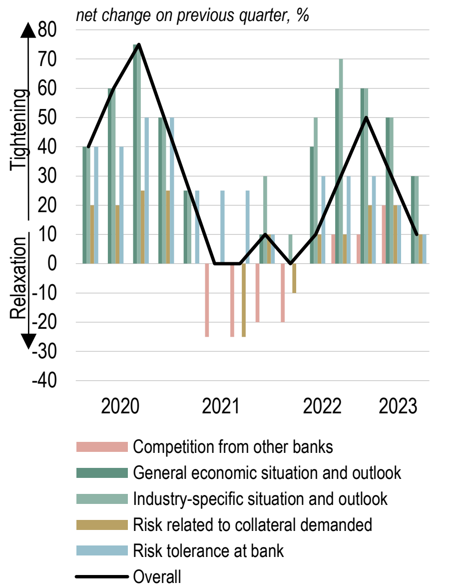


Figure 8.8: **NPE ratios and bank credit standards**

Distribution of NPE ratios in the EU



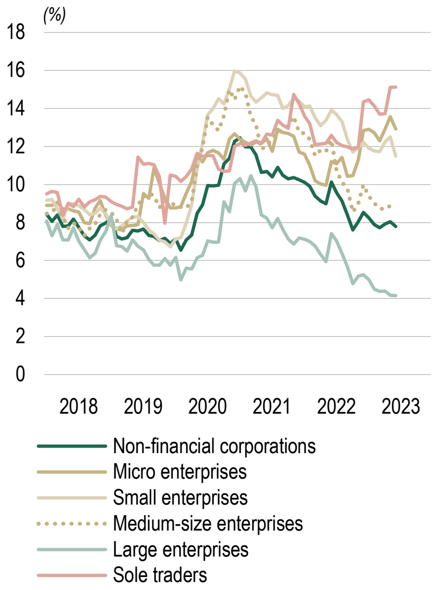
Bank credit standards for loans to non-financial corporations



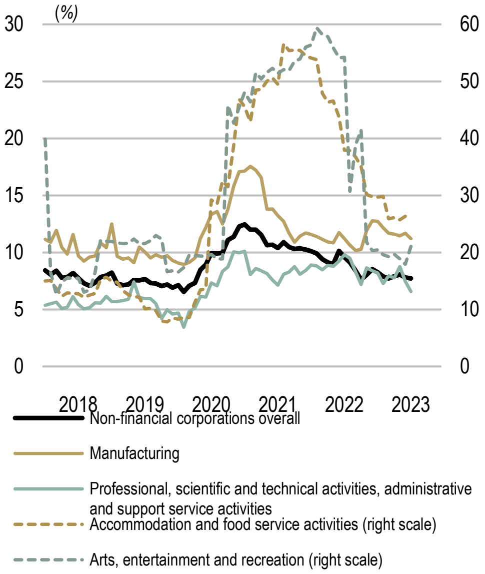
Note: The data for NPE ratios in Member States is at the consolidated level. The capture of NPEs in these comparisons is narrower than in the figures for the Slovenian banking system in this section: only exposures from debt instruments are captured, which primarily reduces the denominator and consequently increases the NPE ratio.
Sources: ECB SDW, BLS, Banka Slovenije

Figure 8.9: **Share of S2 exposures to non-financial corporations**

Share of S2 exposures to non-financial corporations by corporate size



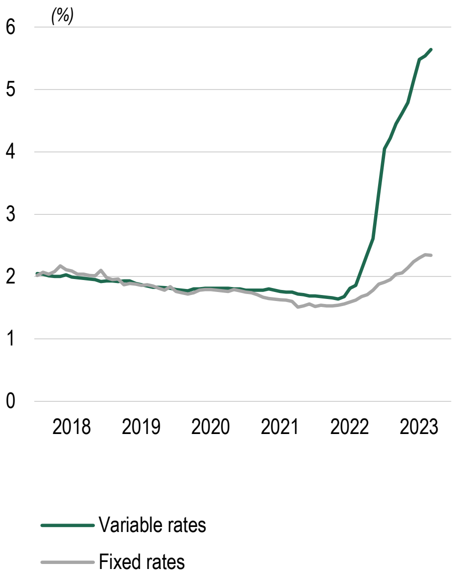
Share of S2 exposures to non-financial corporations by sector



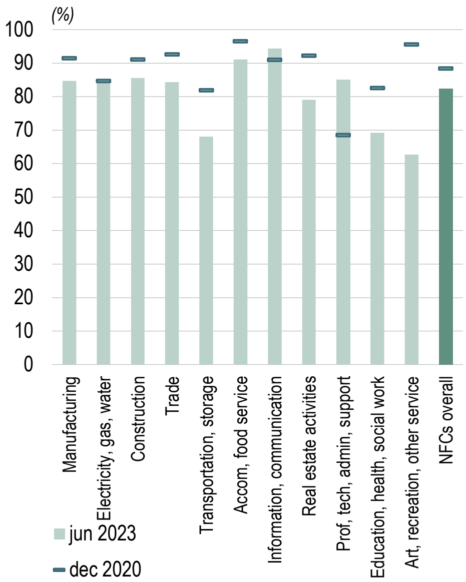
Source: Banka Slovenije

Figure 8.10: **Interest rates on loans to non-financial corporations**

Interest rates on the stock of loans to non-financial corporations



Loans to non-financial corporations subject to repricing within one year by sector

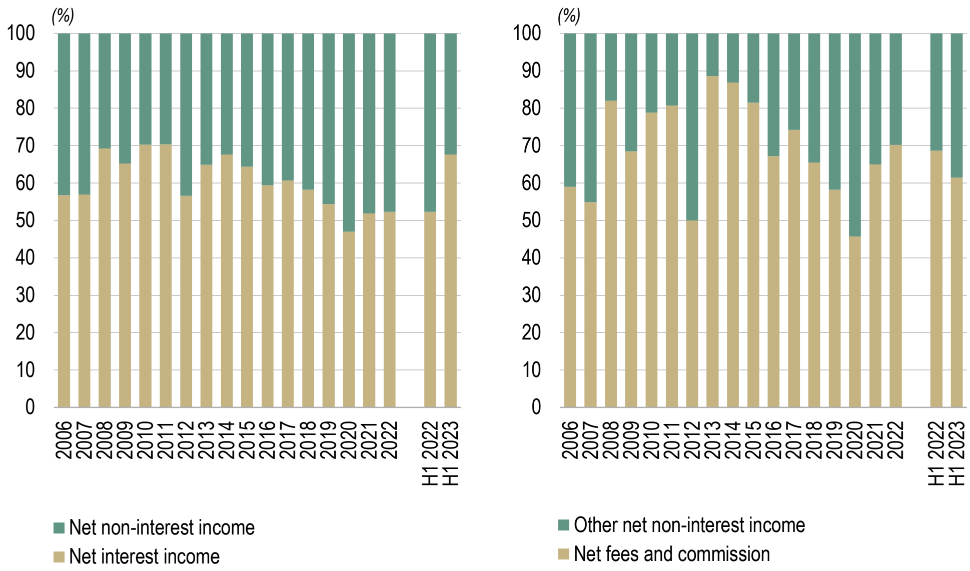


Source: Banka Slovenije

Figure 8.11: **Breakdown of gross income and non-interest income**

Breakdown of gross income

Breakdown of non-interest income

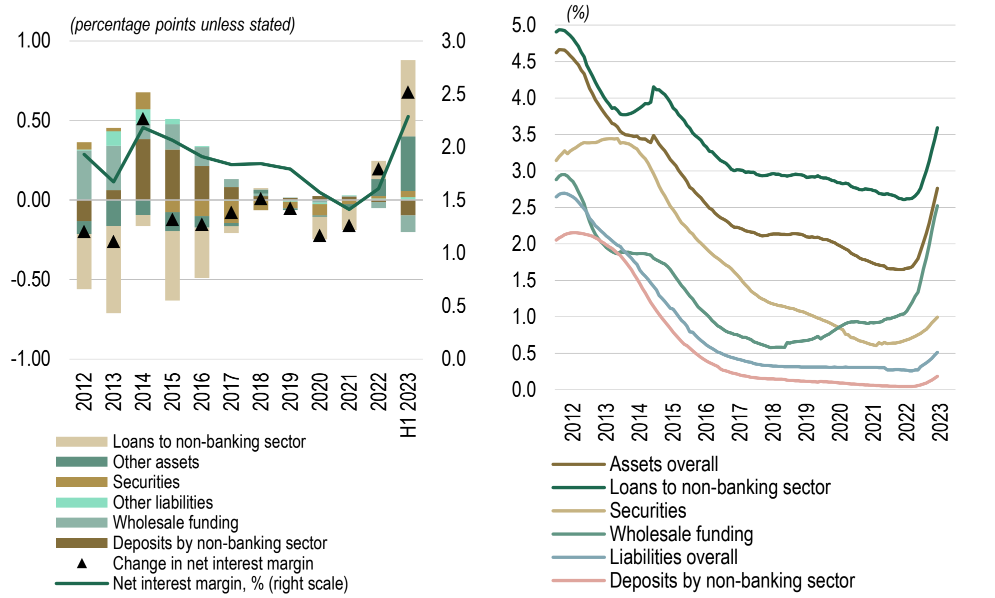


Source: Banka Slovenije

Figure 8.12: **Decomposition of change in net interest margin and effective interest rates**

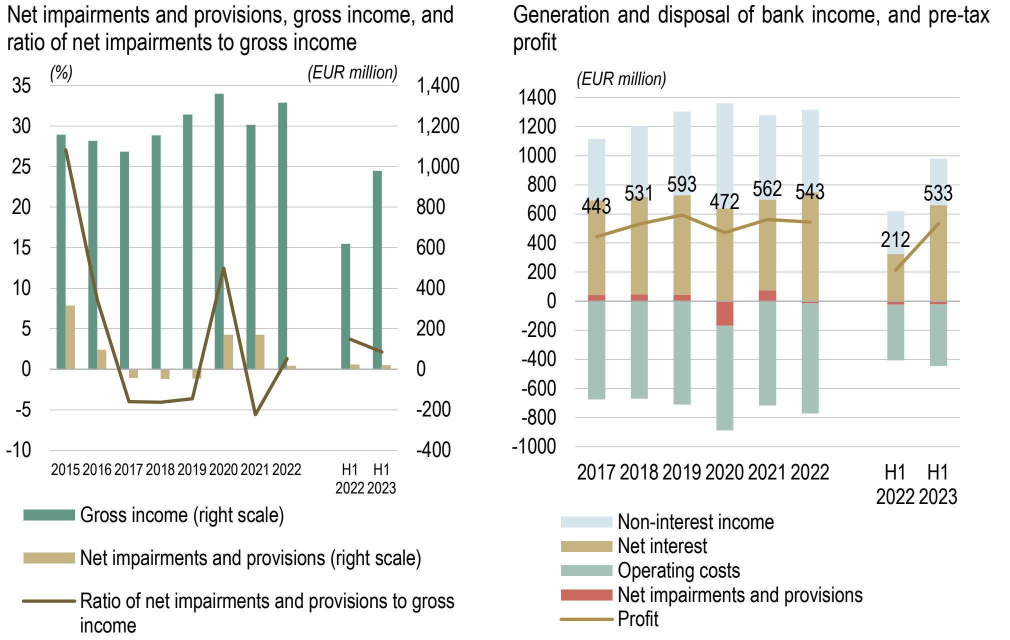
Contributions of interest-bearing asset and liability instruments to change in net interest margin

Effective interest rates by main instruments of interest-bearing assets and liabilities



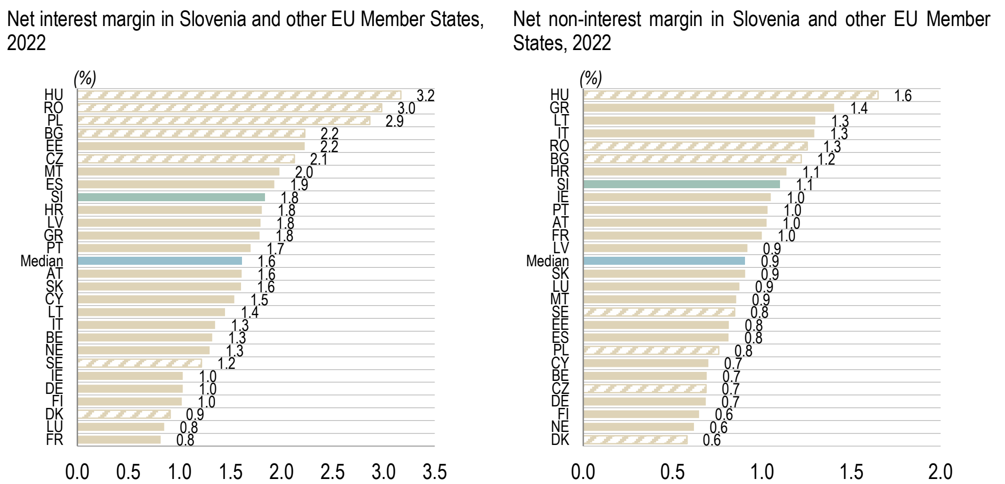
Note: In the left chart the change in asset items is the sum of the contributions made by loans, securities and other interest-bearing assets, while the change in liability items is the sum of the contributions made by deposits by the non-banking sector, wholesale funding and other interest-bearing liabilities. The change in the effect of liability items is multiplied by -1, as for example a rise in liability interest rates acts to reduce the net interest margin, while a fall acts to raise the net interest margin. Effective interest rates in the right chart are computed over the preceding 12 months.
Source: Banka Slovenije

Figure 8.13: **Net impairments and provisions, bank income, and other income statement categories**



Note: Negative values for net impairments and provisions represent the net release of impairments and provisions in the left chart, and net creation in the right chart. The data for the Slovenian banking system comes from balance sheet figures on an individual basis.
Source: Banka Slovenije

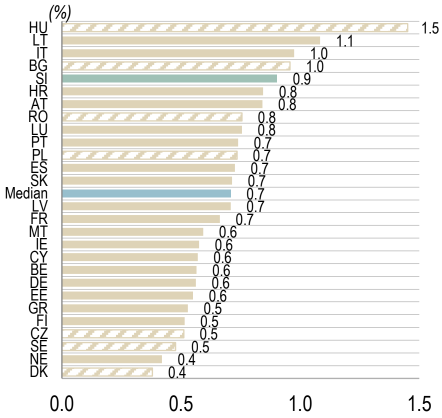
Figure 8.14: **Net interest margin and net non-interest margin**



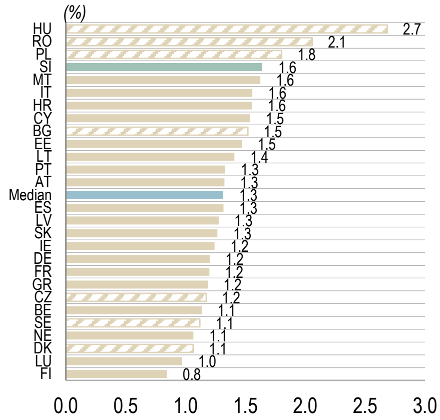
Notes: 1. The indicators are calculated on the basis of the ECB SDW's consolidated banking data. This data differs slightly from the figures based on balance sheets on an individual basis.
2. The hatched bars in Figures 8.14 to 8.17 denote EU Member States outside the euro area.
Sources: Banka Slovenije, ECB SDW

Figure 8.15: **Net commission margin and ratio of operating costs to balance sheet total**

Net commission margin in Slovenia and other EU Member States, 2022



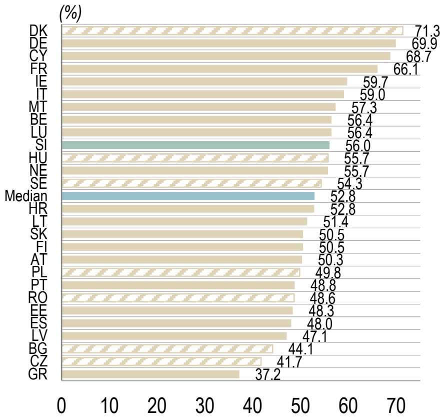
Ratio of operating costs to balance sheet total in Slovenia and other EU Member States, 2022



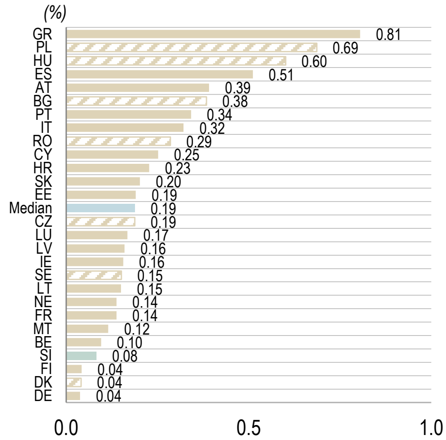
Note: The indicators are calculated on the basis of the ECB SDW's consolidated banking data. This data differs slightly from the figures based on balance sheets on an individual basis.
Sources: Banka Slovenije, ECB SDW

Figure 8.16: **CIR and ratio of net impairments and provisions to balance sheet total**

CIR in Slovenia and EU Member States, 2022

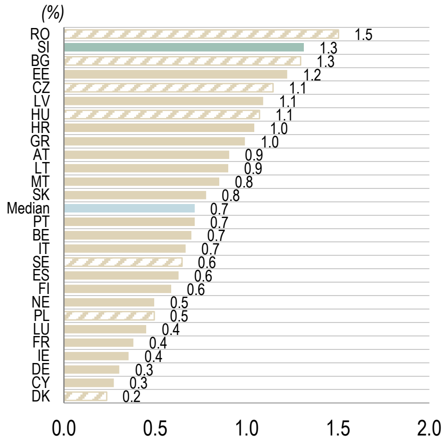


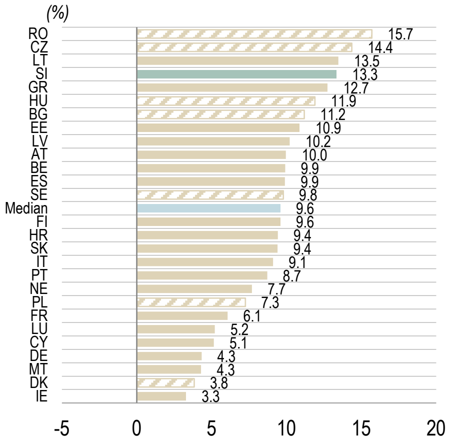
Ratio of net impairments and provisions to balance sheet total in Slovenia and other EU Member States, 2022



Note: The indicators are calculated on the basis of the ECB SDW's consolidated banking data. This data differs slightly from the figures based on balance sheets on an individual basis.
Sources: Banka Slovenije, ECB SDW

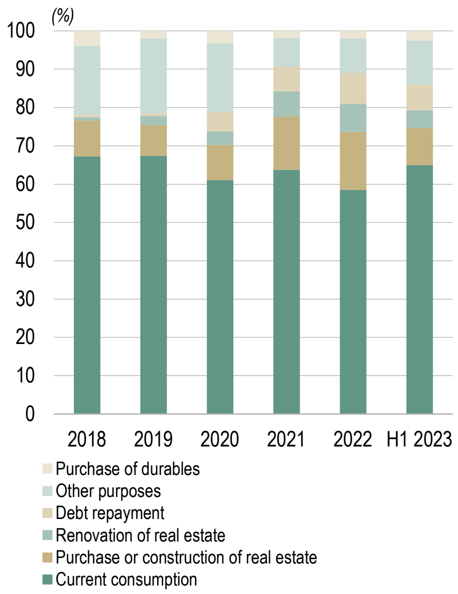
Figure 8.17: **ROA and ROE**





Note: The indicators are calculated on the basis of the ECB SDW's consolidated banking data. This data differs slightly from the figures based on balance sheets on an individual basis.
Sources: Banka Slovenije, ECB SDW

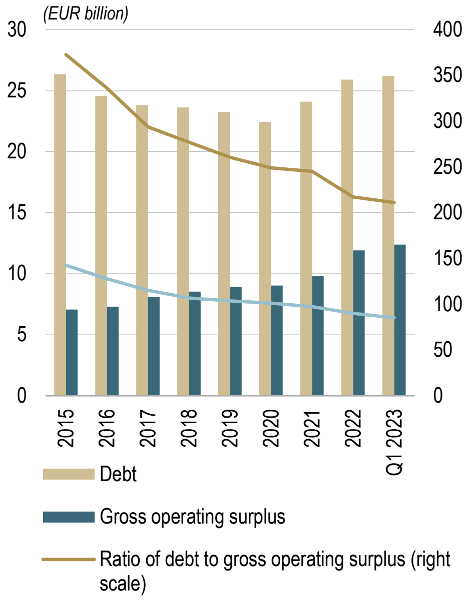
Figure 8.18: **Household demand for loans**



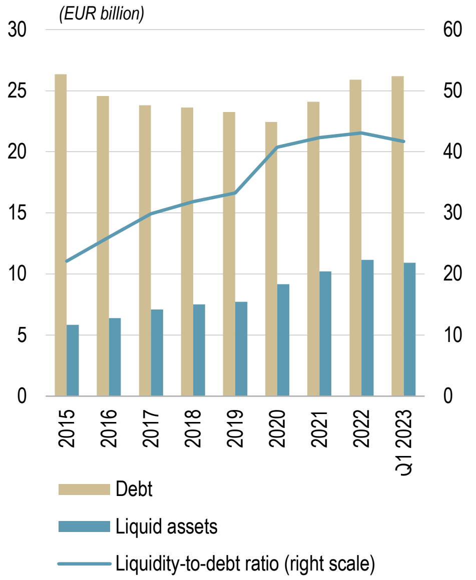
Note: Loans for other purposes in 2020 and 2021 include loans with legislative and bilateral moratoria for reason of the Covid-19 pandemic
Source: Banka Slovenije

Figure 8.19: **Non-financial corporations' debt sustainability indicators**

Ratio of debt to gross operating surplus at non-financial corporations



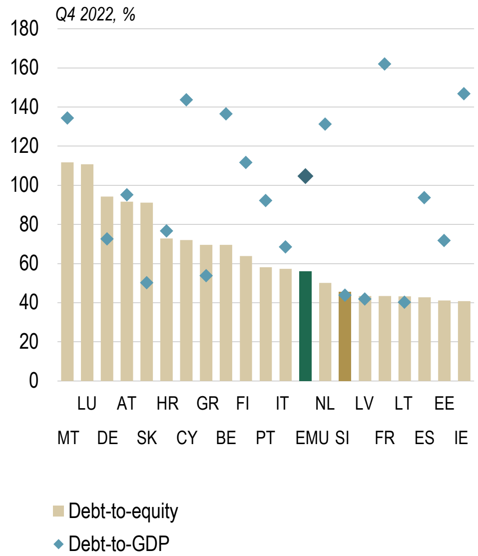
Coverage of debt by liquid assets at non-financial corporations



Note: Debt includes loans from all institutional sectors and debt securities.
Source: Banka Slovenije

Figure 8.20: **Corporate indebtedness by country**

Indebtedness indicators for non-financial corporations in euro area countries

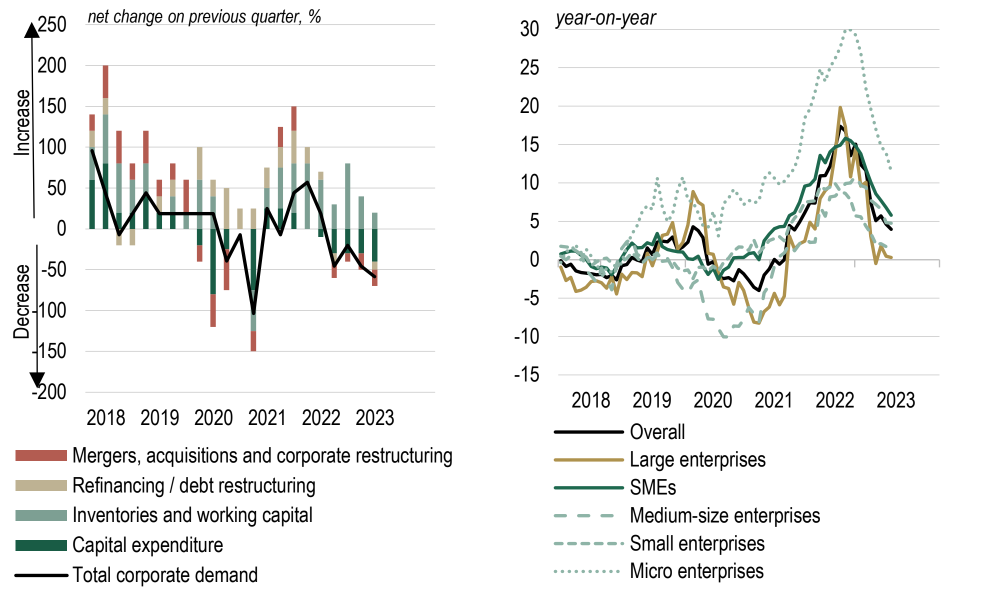


Sources: ECB SDW, Banka Slovenije

Figure 8.21: **Bank loans**

Demand for bank loans by purpose

Growth in loans to non-financial corporations by corporate size

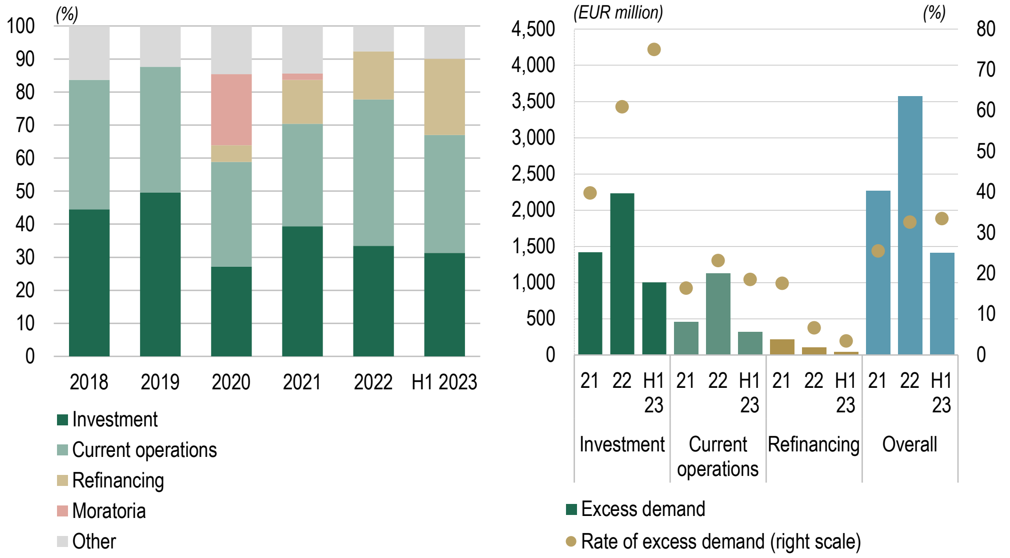


Sources: BLS, Banka Slovenije

Figure 8.22: **Non-financial corporations' demand for loans**

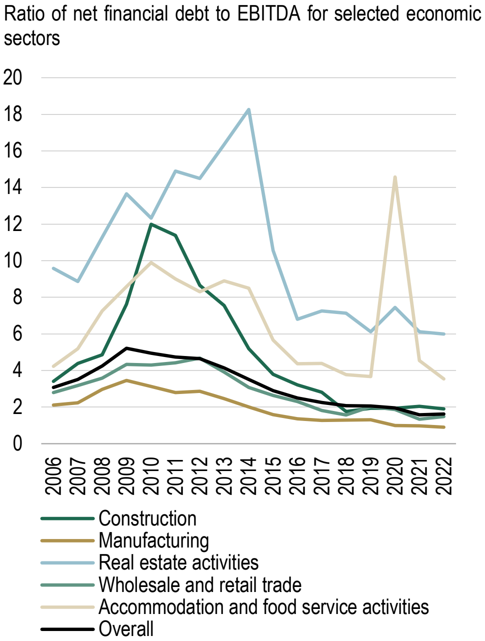
Breakdown of non-financial corporations' demand for loans by loan type

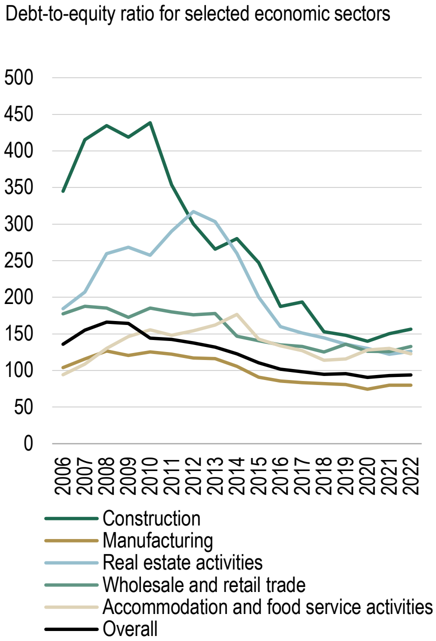
Non-financial corporations' excess demand for loans by loan type



Note: All bars in the right chart illustrate excess demand on the left scale (EUR million), even though the colour in the key refers solely to loans for investment. The spots denote the rate of excess demand.
Sources: Banka Slovenije, Survey of demand for loans

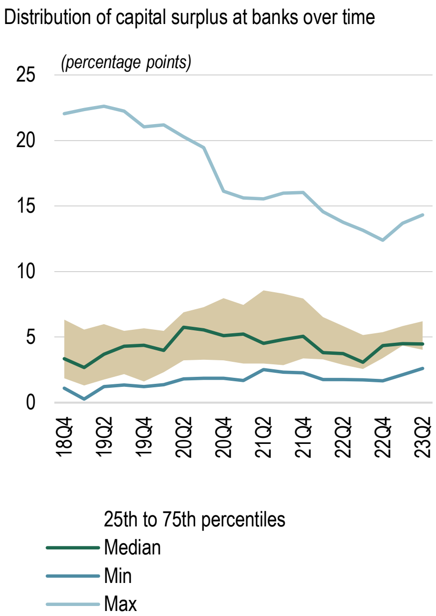
Figure 8.23: **Debt servicing capacity and debt-to-equity ratio at non-financial corporations**





Note: In the left chart the net financial debt to EBITDA indicator is measured as the ratio of financial liabilities, less cash and cash equivalents, to cashflows from operating activities, and indicates a firm's capacity to regularly service debt (interest and principal), and reveals how many years the firm will be able to service its debt and interest through the cashflows that it generates (assuming no change in net debt or EBITDA). The lower the ratio, the lower is the risk in the repayment of the firm's liabilities. In the right chart leverage is measured as the ratio of debt to equity.
Sources: Banka Slovenije, Survey of demand for loans, AJPES

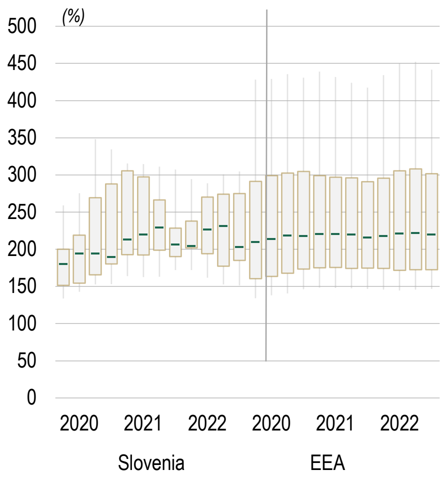
Figure 8.24: **Capital surplus over time**



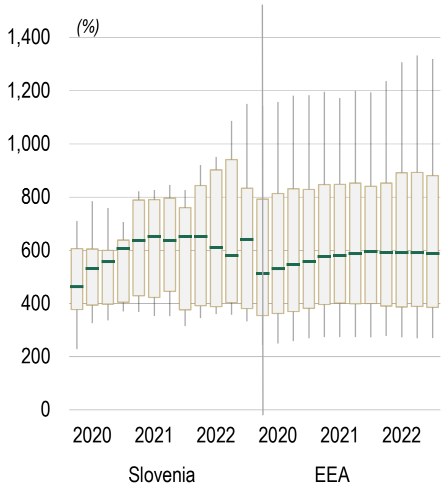
Source: Banka Slovenije

Figure 8.25: **Capital adequacy of insurance corporations**

Capital adequacy in terms of SCR coverage ratio (insurance corporations)



Capital adequacy in terms of MCR coverage ratio (insurance corporations)



Note: The 10th and 90th percentiles are taken as the upper and lower limits. The data for the EEA is available to the third quarter of 2022 inclusive. Sources: EIOPA, ISA, Banka Slovenije
Sources: BLS, Banka Slovenije

Table 8.5: **Default rates for micro, small and medium-size enterprises, and large enterprises**

	Micro, small and medium-size enterprises	Large enterprises
DR 2016-2017	4.1	1.9
DR 2017-2018	6.3	3.1
DR 2018-2019	5.1	2.3
DR 2019-2020	5.1	4.5
DR 2020-2021	4.1	3.3
DR 2021-2022	3.4	1.1

Note: The calculation of one-year default rates is based on the following assumptions:
1. Unit of observation: in the calculation of default rates the unit of observation is customer-date. Only one piece of data is taken into account for each customer, even if the customer has exposures at various banks. Banks and savings banks are included in the calculation. All customers whose classified claims measured at amortised cost are positive on the initial date are included in the calculation.
2. Defaulter is defined according to the EBA definition of non-performing exposure at the customer level.
3. Calculation of default rate:
The numerator of the default rate is defined as the number of customers who were non-defaulters on the initial date (end of year T) and have become defaulters at any time in the following year (T+1), where it is not necessary that they remain defaulters at the end of year T+1.
The denominator of the default rate is defined as the number of customers who were non-defaulters on the initial date (end of year T).
Each customer is taken into account in the calculation only once, even if the customer has exposures at various banks. A conservative approach has been used, where a customer who has been a defaulter at any bank at least once during the observation period is classed as a defaulter.

Table 8.6: **Transition rates between ratings of micro, small and medium-size enterprises, and large enterprises (transition matrices)[92]**

		Micro, small and medium-size enterprises					Large enterprises				
		Dec 2022					Dec 2022				
		A	B	C	D	E	A	B	C	D	E
Dec 2021	A	84.8	11.4	2.2	1.2	0.4	92.5	6.7	0.7	0.0	0.0
	B	12.6	77.2	7.9	1.2	1.1	13.2	85.2	1.7	0.0	0.0
	C	4.9	23.8	63.7	5.5	2.1	8.8	32.4	54.4	4.4	0.0
	D	1.1	4.7	6.0	74.3	14.0	2.4	0.0	9.5	81.0	7.1
	E	0.2	0.3	1.0	3.0	95.5	0.0	0.0	0.0	0.0	100.0

Note: The calculation of one-year transition rates is based on the following assumptions:
1. Unit of observation: in the calculation of transition rates the unit of observation is bank-customer-date. Each customer is taken into account in the calculation with regard to the number of exposures at various banks in the banking system. Banks and savings banks are included in the calculation. Customers whose data was in the credit register data at the beginning of the year in question are taken into account. The figure for the end of the period takes account of the final data available for the customer during the year. All customers whose classified claims have a positive amortised cost and who have a particular rating at the beginning of the observation period, and who were included in Sector S.11 in the business register on the date in question, are included in the analysis.
2. Calculation:
The numerator of the transition rate from ratings i to j is defined as the number of customers who had rating i on the initial date (end of year T), and whose latest available rating in year T+1 was j, where it is not necessary that they still held that status at the end of year T+1.
The denominator of the transition rate from ratings i to j is defined as the number of customers who had rating i on the initial date (end of year T).

[92] The transition matrices for past periods are published in the appendix to the October 2020 issue of the Financial Stability Review (Table 6.2 on page 86), in the appendix to the October 2021 issue of the Financial Stability Review (Table 7.3 on page 100), and in the appendix to the October 2022 issue of the Financial Stability Review (Table 6.6 on page 61).

8.1 Key to abbreviations

Abbreviations

AJPES	Agency of the Republic of Slovenia for Public Legal Records and Related Services
APP	Asset Purchase Programme
AUP	Average unit price of mutual fund
BAMC	Bank Assets Management Company
BLS	Bank Lending Survey
BoS	Banka Slovenije
CCyB	Countercyclical capital buffer
CET1	Common equity Tier 1 capital
CPI	Consumer Price Index
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
DORA	Digital Operational Resilience Act
DSTI	Debt-service-to-income ratio
EBA	European Banking Authority
EBITDA	Earnings before interest, taxes, depreciation and amortisation
ECB	European Central Bank
EEA	European Economic Area
EMU	European Monetary Union (euro area)
ESRB	European Systemic Risk Board
ESS	Employment Service of Slovenia
EU	European Union
Euribor	Interbank interest rate at which representative banks in the euro area offer deposits to one another
Eurostat	Statistical Office of the European Communities
GDP	Gross domestic product
HICP	Harmonised Index of Consumer Prices
IFRS	International Financial Reporting Standards
IFs	Investment funds
IRS	Interest rate swap
ISA	Insurance Supervision Agency
LCR	Liquidity coverage ratio
LTROs	Longer-term refinancing operations
LTV	Loan-to-value ratio
MCR	Minimum capital requirement
MREL	Minimum requirement for own funds and eligible liabilities
NFCs	Non-financial corporations
NIS2	EU-wide horizontal legislation on cyber security
NPEs	Non-performing exposures
NSFR	Net stable funding ratio
OCR	Overall capital requirement
O-SIIs	Other systemically important institutions
ROE	Return on equity
RWAs	Risk-weighted assets
S&P	Standard and Poor's
SCR	Solvency capital requirement
SDW	Statistical Data Warehouse
SMARS	Surveying and Mapping Authority of the Republic of Slovenia
SORS	Statistical Office of the Republic of Slovenia
SyRB	Systemic risk buffer
Tier 1	Tier 1 capital
Tier 2	Tier 2 capital
TLTRO	Targeted longer-term refinancing operation
ZBan-3	Banking Act
ZIUOPZP	Act Determining Intervention Measures for Recovery from the Floods and Landslides of August 2023
ZOPVTKK	Act on the Mitigation and Allocation of Currency Risk Between Lenders and Borrowers in Swiss Francs