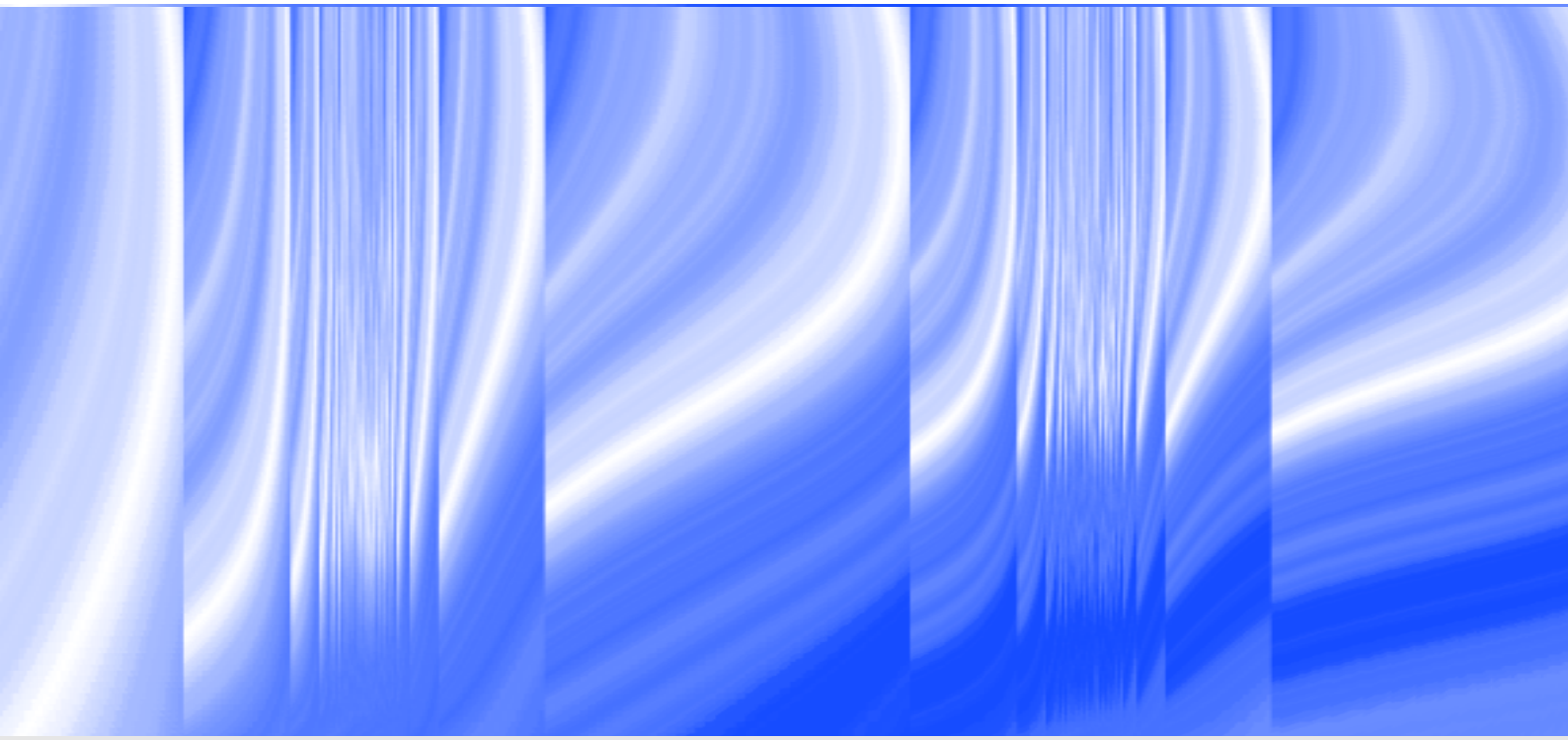
BANKA SLOVENIJE

BANK OF SLOVENIA

EUROSYSTEM

# FINANCIAL STABILITY REVIEW



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**Boxes**

# EXECUTIVE SUMMARY

***As a result of the Covid-19 pandemic and the accompanying containment measures, which constitute an big shock to the domestic and global economies, the risks to financial stability have increased significantly. Economic activity in Slovenia has declined sharply, and the predicted recovery comes with great uncertainty. Deteriorating economic conditions are increasingly being reflected in the performance of the banking sector, although the full impact of the Covid-19 crisis will only be revealed over the coming months and years. The recovery will depend on the duration of the pandemic, and the success in dealing with its consequences in Slovenia and in other countries.***

***The measures by governments and central banks to mitigate the impact of the Covid-19 pandemic, the like of which had never been seen, were taken quickly and decisively. Given the magnitude of the crisis, they were extremely wide-ranging, but were vital in protecting households and firms and in maintaining the stability of the financial system. During this crisis it is vital for the banking system to continue performing its function of financing households and firms. Alongside the high risk to financial stability from the deterioration in the macroeconomic environment, this report also highlights the elevated income risk and credit risk faced by the banks, their business conditions having deteriorated sharply. The banks' resilience to risk remains high, due to their sound capital and liquidity positions.***

## *Key risks to the banking system*

***The decline in economic activity as a result of the crisis caused by the Covid-19 pandemic was the largest since Slovenia's independence.*** *GDP was down 2.5% in year-on-year terms in the first quarter of this year, and 13.0% in the second quarter. There was a profound downturn in the economic sentiment and confidence indicators, although in recent months they have already been pointing to an improvement, but the recovery is uncertain over the longer term. Lower oil prices and other energy prices in the second quarter were the main factor in the fall of consumer prices. As economic activity slowed, the labour market hit a downturn, but the adverse effects were alleviated by emergency job retention measures. The measures to alleviate the crisis brought an increase in general government expenditure. The general government deficit amounted to 5.0% of GDP in the first quarter, and 16.1% of GDP in the second quarter, the highest since the end of 2013.*

***The Covid-19 crisis has brought a sharp deterioration in the conditions for banks to generate profits, and income risk is therefore assessed as elevated.*** *Income risk had been highlighted in the previous Financial Stability Review (December 2019) because of low interest rates and the expectation of a deterioration in the conditions for generating interest income. The conditions in which the banks are doing business are now even harsher. The deterioration in the macroeconomic environment saw impairment and provisioning costs rise at almost all of the banks in the first half of the year, after the net release of impairments and provisions had been a significant factor in their high profitability of recent years. Bank profitability, which had been among the highest in the EU in 2019, fell sharply in the first half of this year. Profits in the first half of the year were just a third of those recorded in the same period last year. In the harsh economic situation, bank profitability can be expected to decline further.*

***Credit risk in the banking system has increased since the end of 2019: the expectation is that the economic downturn in the Covid-19 crisis will lead in the future to a deterioration in the quality of the credit portfolio.*** *Thanks to the anti-crisis measures, the NPE ratio at the level of the banking system at the end of the first half of the year was not yet indicating any deterioration in portfolio quality, having continued to decline for several months even after the outbreak of the pandemic. It is our assessment that NPEs could increase after the loan moratoria expire, which means that the credit risk elevated by the Covid-19 crisis might be evident after a lag of several months because of the emergency measures, but by no later than several months after the end of the moratoria. NPEs could in particular begin increasing in the sectors that were hit or are still being hit hardest by the crisis, and indirectly in related sectors. The potential lengthening and deepening of the economic crisis will also raise the probability that some of the claims whose repayment has been deferred will be reclassified as non-performing. For now consumer loans is the only major segment of bank exposure where the NPE ratio has begun increasing in 2020. The NPEs burden from consumer loans varies from bank to bank, but the banks with large exposure to consumer loans also have higher credit risk in this segment (and consequently in the portfolio as a whole). The sudden downturn in the economy also brought a sharp increase in the creation of impairments for the performing part of the portfolio. The process*

*was most pronounced in the non-financial corporations portfolio, although coverage by impairments is also increasing in other segments, particularly in exposures to households.*

Table: Bank of Slovenia's risk dashboard for the Slovenian banking system

| | Risk and resilience dashboard | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | | | Trend |
| | | | Q1 | Q2 | Q3 | |
| **Systemic risk** | | | | | | |
| **Macroeconomic risk** | | | | | | ⇨ |
| **Income risk** | | | | | | ⇧ |
| **Credit risk** | | | | | | ⇧ |
| **Risk inherent in leasing companies** | | | | | | ⇨ |
| **Risk inherent in real estate market** | | | | | | ⇧ |
| **Funding risk** | | | | | | ⇨ |
| **Interest rate risk** | | | | | | ⇨ |
| **Resilience to systemic risks** | | | | | | |
| **Banking system: solvency** | | | | | | ⇩ |
| **Banking system: liquidity** | | | | | | ⇩ |

| Colour code: | | | | |
|---|---|---|---|---|
| Risk | low | moderate | elevated | high |
| Resilience | high | medium | low | very low |

*Note:* *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. The risk and resilience dashboard is based on 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.*
*Source:* *Bank of Slovenia*

***Funding risk is moderate, despite the Covid-19 crisis, as the stock of household deposits and corporate deposits increased further in the early part of the pandemic, and remained the banks' key source of funding.*** *The dependence on foreign funding is low. The stock of household and corporate deposits at banks increased sharply in the first months of the pandemic. Households were most likely spending less on consumption, at the same time as receiving cash assistance from the government, while corporates most likely drew down previously approved credit lines and kept the money in bank accounts on precautionary grounds. Growth in household deposits is expected to slow in the future with the downturn on the labour market, as will growth in corporate deposits, as firms use the money to bridge liquidity gaps and other difficulties. The banking system's dependence on wholesale funding is low, which reduces the chances of the international financial markets having an adverse impact on the funding of Slovenian banks. A potential source of instability in the funding of the banking system comes from the maturity gap between assets and liabilities, although the sound liquidity position means that the ability to absorb the adverse impact of a possible realisation of funding risk is relatively good.*

***The risks to the banking system inherent in the real estate market remain moderate, despite the Covid-19 crisis.*** *The final impact of the crisis on the residential and commercial real estate market will depend on its duration and on the pace of the economic recovery. The risks to the banking system inherent in the real estate market had been assessed as elevated since 2018, on account of surging residential real estate prices. On*

*this occasion the risk is assessed as moderate, primarily on account of the slowdown in real estate price indicators compared with last year. The trend of rising risk in the future has been maintained, mainly because of the deterioration in the economic situation amid the Covid-19 pandemic, and the consequences that the crisis might yet have. However, the crisis has only had a partial impact on the residential real estate market to date: the containment measures sharply reduced the number of transactions, but prices remained stable until the end of the second quarter, and rose moderately. It is also our assessment that residential real estate prices were close to their long-term fundamentals before the Covid-19 crisis. The banks' exposure to the construction sector and the real estate activities sector is much smaller than during the previous crisis, and growth in housing loans has been moderate in recent years. The banks have slightly tightened their credit standards on new housing loans.*

### *Resilience of the banking system*

***The resilience of the banking system is its ability to withstand any adverse shocks, while continuing to supply credit to households, firms and other parts of the economy.*** *The resilience of the banking system is evidenced in adequate solvency and liquidity in the system. At the outbreak of the Covid-19 pandemic, fiscal and monetary policy measures made an important contribution to maintaining the resilience and stability of the banking system: the loan moratoria, government loan guarantees, and the extension of the expansionary monetary policy to additional non-standard measures allowed the banks to reduce or delay credit losses and to increase liquidity.*

***The resilience of the Slovenian banking system during the adverse economic situation caused by the Covid-19 pandemic remains good for now, while the banks' capital and liquidity position is significantly better than before the previous global financial crisis.*** *The common equity Tier 1 capital ratio on an individual basis increased over the first half of 2020 and remained above the euro area average, while the quality of the capital used by the banks to meet their capital requirement has remained high, despite an increase in Tier 2 capital. Resilience was strengthened by the inclusion of the profit from the previous financial year in their equity. A Bank of Slovenia macroprudential measure saw the banks retain their profits in full. The resilience of the banking system is expected to decline in the future, as a result of the deterioration in the quality of the credit portfolio and the decline in bank profitability. Here it should be noted that resilience, and with it the capacity to absorb the anticipated adverse effects of the economic downturn caused by the Covid-19 pandemic, varies from bank to bank. The banks with lower capital surpluses and the banks with large exposure to the sectors hit hardest in the crisis will find it harder to deal with the consequences of the economic shock.*

***The banking system's liquidity position remained good in the first half of the year; resilience actually increased as primary liquidity reached a historically high level. This improved the capacity to absorb the adverse effects that might come from the realisation of funding risk.*** *The banking system thus now has a record high ratio of primary liquidity to total assets, and a stable ratio of secondary liquidity to total assets. The LCR at system level remains well in excess of the regulatory requirement, although there is considerable variation from bank to bank. The additional monetary policy measures adopted by the ECB, which aimed to ensure adequate liquidity in the euro area at favourable terms, are also having a positive impact on bank liquidity. The banking system's current good liquidity position could deteriorate in the future, amid the ongoing downturn caused by the Covid-19 epidemic and the magnitude of its consequences. The liquidity stress tests revealed the survival period in an emergency to be relatively long, despite low liquidity surpluses at certain banks, which will allow the banks to adapt to the situation.*

### *Corporates and households*

***The vulnerability of non-financial corporations and households can have a significant impact on the evolution of risks in the banking system.*** *The average indebtedness of Slovenian households is low compared with the euro area overall, which does not mean that the risks in this loan segment are also low, as the position of individual households varies greatly, despite the favourable overall average. The financial position of households remains good in general. Households have large savings, particularly in the form of bank deposits, while the unemployment rate and household debt indicators were low going into the Covid-19 crisis. Given the relatively high share of debt-free households, the distribution of existing debt is also important. Survey figures show that a fifth of all households with the lowest net assets have debt and debt servicing costs that exceed the euro area average. The Covid-19 crisis could see a rise in the risk of their inability to meet their financial liabilities. Household resilience remains relatively high, due to government measures, while the macroprudential measure of restricting household lending has also helped to limit the*

*debt taken on by the most vulnerable groups. Should the economic recovery prove slow, and the improvement on the labour market gradual at best, the vulnerability of households could increase significantly.*

***The financial position of non-financial corporations was sound in the early part of the year, which helped them maintain non-defaulter status despite the liquidity difficulties that hit the entire economy at the same time.*** *Low indebtedness, a reduced debt servicing burden, and high profits on one hand, and large holdings of liquid assets on the other, together with the emergency laws to alleviate the consequences of the pandemic, helped to extend the survival period for non-financial corporations amid the sudden deterioration in the macroeconomic environment in the first months of the pandemic. There was no significant rise in the number of corporate bankruptcies for several months after the outbreak of the pandemic. Non-financial corporations are also creating liquidity reserves by increasing their approved but undrawn loans and credit lines, while investment plans have mostly been postponed. Certain sectors remain more vulnerable, and dependent on future trends in the economy, and on the extension of certain containment measures that sharply limit their operations.*

## *Non-bank financial institutions*

***Non-bank financial institutions constitute almost a quarter of the Slovenian financial system.*** *They are divided in terms of their operations into insurance corporations and reinsurance corporations, pension companies and funds, mutual funds, leasing companies, and other non-bank financial institutions. Covid-19 has increased risks in this part of the financial system, and has put the stability of all non-bank financial institutions to the test, although certain adverse effects will only be reflected in performance in the coming quarters.*

***The risks to the stability of the financial system inherent in the performance of leasing companies have increased, and the Covid-19 pandemic is already being adversely reflected in their performance.*** *Leasing companies saw a sharp decline in their business activities as a result of the Covid-19 pandemic, which will also put downward pressure on total profit, which remains positive. The stock of leasing business will most likely decline in the future, while arrears of more than 90 days will increase. The importance of banks in financing investment and personal consumption via finance leases has increased further during the Covid-19 pandemic.*

***The risk from insurance corporations remain moderate.*** *The economic downturn caused by the Covid-19 pandemic brought a decline in the capital adequacy of the Slovenian insurance sector. Despite the pandemic, insurance corporations succeeded in increasing their gross written premium in the first half of the year, and saw an improvement in the claims ratio. The rise in supplementary health insurance premiums was a major factor in the growth in gross written premium. The decline in the related claims payments brought an improvement in insurance corporations' profitability. This increased despite the Covid-19 pandemic, but the two reinsurance corporations reported a significant decline in profits, on account of a rise in loss provisions and a decline in income from investments. The capital adequacy of insurance corporations and reinsurance corporations deteriorated, as a result of adverse movements on the stock markets.*

***Despite the fact that mutual funds registered a sharp decrease in valuation of net assets value, they did not suffer any major liquitdity difficulties at the outbreak of the pandemic. .*** *Mutual funds recorded high growth in asset values and increased inflows before the Covid-19 pandemic. The outbreak of the pandemic brought a major correction on the stock markets, which also triggered increased withdrawals from funds, although these were short-term in nature, and therefore no major liquidity difficulties were reported. High liquidity and the diverse investment policy proved to be major factors in the resilience of mutual funds' performance.*

## *Macroprudential policy for the banking system and leasing companies*

***The purpose of macroprudential policy is to mitigate the impact of systemic financial shocks on the real sector by reducing risks in the financial system and increasing its resilience.*** *The outbreak of the Covid-19 pandemic brought a change in the pitch of macroprudential policy in the EU and further afield, from predominantly restrictive to a focus on releasing existing capital buffers and adopting additional instruments to maintain favourable financing conditions and the resilience of the banking system, and to strengthen the confidence of households and firms.*

***Based on guidance by the Financial Stability Board, in April 2020 Bank of Slovenia introduced a temporary restriction on profit distributions by banks and savings banks.*** *The purpose of the measure is to retain capital at banks so that the Slovenian banking system is better able to withstand potential losses, and to continue supplying credit to businesses and households. A recommendation also issued similar guidance to leasing companies with regard to profit distributions. The purpose of the recommendation is to ensure that leasing companies retain the highest possible level of capitalisation, thus contributing to the maintenance of financial stability.*

***The macroprudential measures for households consist of caps on DSTI and LTV, and caps on the maturity of consumer loans.*** *In May 2020 the macroprudential restrictions on household lending temporarily granted banks greater flexibility in the calculation of DSTI.*

***There are also other macroprudential measures in force, but these have not been modified in recent months.*** *These are the capital buffer for other systemically important institutions (the O-SII buffer), the countercyclical capital buffer, which has remained unchanged at zero since its introduction, the macroprudential liquidity measure, which is the ratio of the annual change in the stock of loans to the non-banking sector before impairments to the annual change in the stock of deposits by the non-banking sector (gross loans to deposits flows or GLTDF), and the limit on deposit rates.*

# 1 KEY RISKS TO THE BANKING SYSTEM

## 1.1 Macroeconomic risk

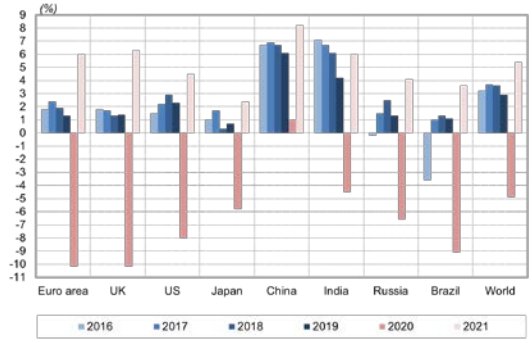
*Following the outbreak of the Covid-19 pandemic,[1] the global economy has been facing the largest economic crisis since the end of the Second World War, and is entering a period of gradual and extremely uncertain recovery. With global economic growth already slowing in 2019, the global economy has entered a deep recession in 2020, with the risks stemming from the international environment becoming high. The lifting of the containment measures and the quick and wide-ranging application of non-standard fiscal and monetary policy measures have started to be seen in a gradual recovery, although given the great uncertainty surrounding the further spread of the virus and the huge increase in sovereign debt, this will be lengthy, and uneven between different euro area countries.*

*Amid the huge decline in economic activity in its main trading partners, and the fall in domestic demand, Slovenia's GDP was down 2.5% in the first quarter and 13.0% in the second quarter. There was a profound downturn in the economic sentiment and a fall in confidence indicators, although in recent months they have already been pointing to an improvement. The labour market also hit a downturn, while the increase in government debt has brought a deterioration in the public finances. There is great uncertainty surrounding the forecasts by domestic and international institutions with regard to the future growth of the Slovenian economy; they are predicting a large year-on-year contraction in 2020, but a solid recovery over the following years, provided that the epidemiological picture remains relatively favourable. The worsening macroeconomic situation has further strengthened certain risks to which the banking system is exposed.*

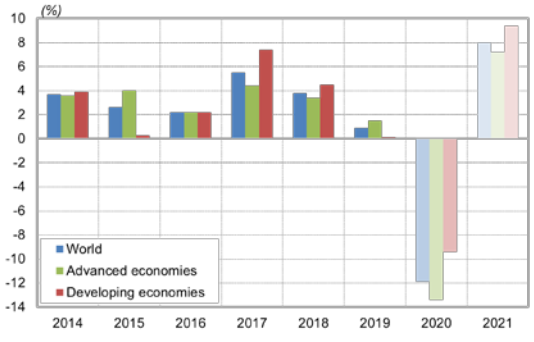
### *International environment*

**The global economy has been facing the largest economic crisis since the end of the Second World War, and is entering a period of gradual and extremely uncertain recovery.** This year's decline in global economic activity is expected to be at least double that seen in the global crisis of 2009, while the proportion of countries that will see a decline in GDP will be the largest since 1870. The Covid-19 pandemic is a global health crisis, which forced world economies into drastic measures to contain its spread. Governments responded to the pandemic quickly, and mostly with strict containment measures that locked down much of public life and hugely limited economic activity. Even after the gradual lifting of the containment measures, there is still uncertainty surrounding the recovery of the global economy, which is most likely to be a lengthy process. Many international corporates have experienced the vulnerability of the connectedness and interdependence of the global economy via the disruption to global supply chains; some of them transferred operations back to their home countries. Global trade contracted sharply, and the likelihood of a more pronounced deglobalisation increased.

Slika 1.1: GDP growth in major global economies, and forecasts for 2020 and 2021




Slika 1.2: Growth in global trade, and forecasts for 2020 and 2021




Note: Data for 2020 and 2021 are IMF forecasts. Data in the right figure consist of simple average growth in imports and exports of goods and services.
Source: IMF (June 2020)

**With economic growth slowing in recent years, the global economy has entered a deep recession in 2020, with risks stemming from the international environment becoming high.** According to IMF data,

[1] The WHO declared the pandemic on 12 March 2020; the epidemic was declared in Slovenia on the same day, and an official end was declared on 31 May.

economic growth stood at 2.9% in 2019, down 0.7 percentage points on the previous year. According to IMF's June forecasts, the global economy is expected to contract by 4.9% this year as a result of the Covid-19 crisis, followed by a recovery in 2021 with growth of 5.4%. The Covid-19 crisis has also increased the trade and geopolitical tensions seen before the pandemic, which had depressed growth in global trade in the previous year. International institutions are forecasting a large economic contraction in 2020 for the major global economies, which will be particularly pronounced in the euro area, where certain countries were hit harder than average by the pandemic. After weak growth of 1.3% in 2019, the European Commission is forecasting an 8.7% decline in economic activity in 2020, followed by a recovery in 2021 with growth of 6.1%, assuming the shock gradually abates and growth proceeds at a lower baseline level and a carry-over effect. The forecast is for an incomplete recovery, with GDP at the end of 2021 still down on the pre-Covid level.

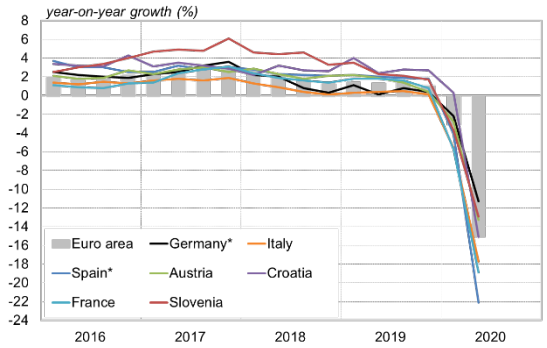
Table 1.1: Selected macroeconomic indicators for Slovenia's main trading partners

| (%) | Real GDP growth | | | | Unemployment rate | | | | Inflation | | | | Current account balance, as % share of GDP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | 2018 | 2019 | 2020 | 2021 | 2018 | 2019 | 2020 | 2021 | 2018 | 2019 | 2020 | 2021 |
| **EU** | 2.1 | 1.5 | -8.3 | 5.8 | 7.2 | 6.7 | 9.0 | 7.9 | 1.8 | 1.4 | 0.6 | 1.3 | -0.4 | -0.6 | -8.3 | -3.6 |
| **Euro area** | 1.9 | 1.3 | -8.7 | 6.1 | 8.1 | 7.5 | 9.6 | 8.6 | 1.8 | 1.2 | 0.3 | 1.1 | -0.5 | -0.6 | -8.5 | -3.5 |
| Germany | 1.5 | 0.6 | -6.3 | 5.3 | 3.4 | 3.2 | 4.0 | 3.5 | 1.9 | 1.4 | 0.4 | 1.5 | 1.9 | 1.4 | -7.0 | -1.5 |
| Italy | 0.8 | 0.3 | -11.2 | 6.1 | 10.6 | 10.0 | 11.8 | 10.7 | 1.2 | 0.6 | 0.0 | 0.8 | -2.2 | -1.6 | -11.1 | -5.6 |
| Austria | 2.4 | 1.6 | -7.1 | 5.6 | 4.9 | 4.5 | 5.8 | 4.9 | 2.1 | 1.5 | 0.8 | 1.2 | 0.2 | 0.7 | -6.1 | -1.9 |
| France | 1.8 | 1.5 | -10.6 | 7.6 | 9.0 | 8.5 | 10.1 | 7.9 | 2.1 | 1.3 | 0.3 | 0.7 | -2.3 | -3.0 | -9.9 | -4.0 |
| Croatia | 2.7 | 2.9 | -10.8 | 7.5 | 8.5 | 6.6 | 10.2 | 7.4 | 1.6 | 0.8 | 0.4 | 1.4 | 0.2 | 0.4 | -7.1 | -2.2 |
| **Slovenia** | 4.1 | 2.4 | -7.0 | 6.1 | 5.1 | 4.5 | 7.0 | 5.1 | 1.9 | 1.7 | 0.2 | 1.1 | 0.7 | 0.5 | -7.2 | -2.1 |

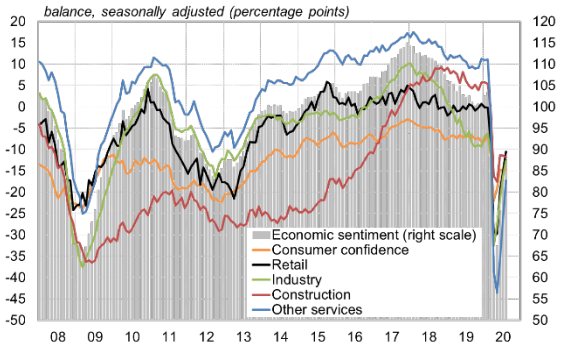
Note: The grey areas denote European Commission forecasts (summer forecasts from July 2020 for real GDP growth and inflation, spring forecasts from May 2020 for unemployment rate and general government position).
Source: European Commission (July 2020, May 2020)

**Economic activity in the euro area declined sharply because of the Covid-19 crisis, but the confidence indicators are suggesting a gradual recovery.** The majority of euro area countries introduced containment measures in mid-March, and gradually relaxed them towards the end of the second quarter. The euro area economy contracted by 3.1% in year-on-year terms in the first quarter of this year, and by 15.0% in the second quarter. The contraction was particularly pronounced in Spain (22.1%), France (18.9%) and Italy (17.7%), while GDP in Germany was down 11.3% in year-on-year terms in the second quarter.[2] Since bottoming out in April, the confidence indicators have strengthened in recent months, but nevertheless remain well below their long-term averages. The rise in the economic sentiment indicator was driven primarily by an increase in confidence in industry, retail and other services, while confidence in the construction sector declined slightly. The composite Purchasing Managers Index (PMI) is also pointing to a gradual recovery, having strengthened sharply since April. There is uncertainty surrounding the economic recovery from the Covid-19 crisis, and it will most likely be slow and long-lasting in the hardest-hit countries.

Slika 1.3: GDP growth in selected countries by quarter




Slika 1.4: Confidence indicators in the euro area

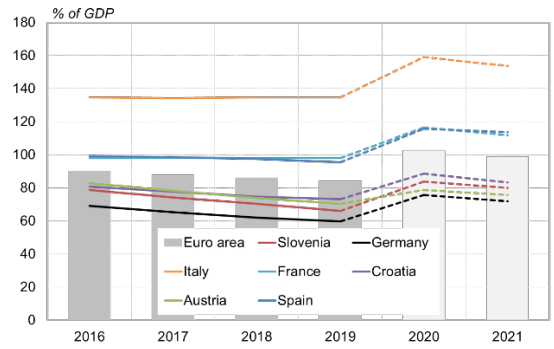



Note: GDP growth data in the left figure are seasonally adjusted and calendar-adjusted. Data for Germany, Spain and Croatia are preliminary. Confidence indicators in the right figure are expressed as an average balance. The balance is the difference between the shares of positive answers and negative answers.
Sources: Eurostat, European Commission

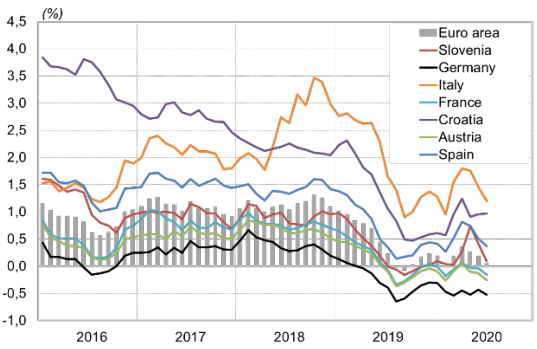
[2] Preliminary figures for Germany and Spain.

**A number of factors present even before the outbreak of Covid-19 are also putting downward pressure on euro area growth.** The continuation of protectionist policies by major world economies, the absence of a trade agreement between the EU and the UK, and firms' reduced integration into global production chains are among the major factors. The main upward pressure would come from an improvement in the epidemiological picture in euro area countries, provided that this is attained by containment measures that do not further curtail the recovery. The improvement in the epidemiological picture will also depend on the introduction of a vaccine and on its efficacy.

Slika 1.5: Gross general government debt




Slika 1.6: Required yield on 10-year government bonds

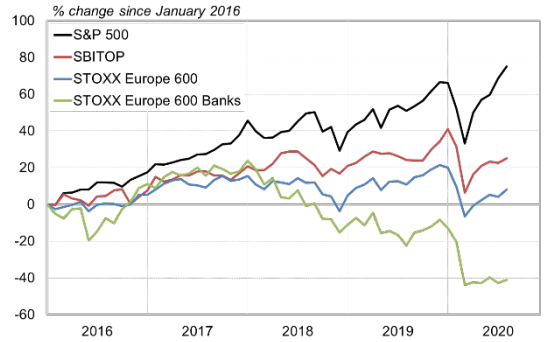



Note: The data for 2020 and 2021 in the left figure are European Commission forecasts.
Sources: Eurostat, European Commission (May 2020)

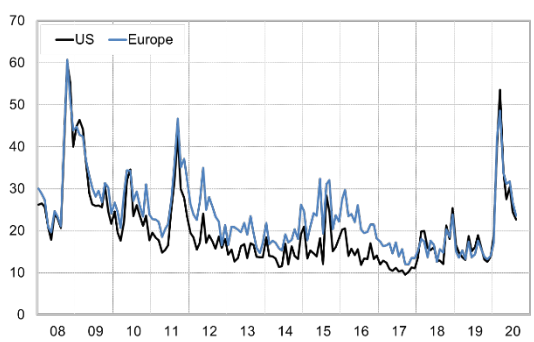
**Extensive non-standard fiscal policy measures (for more on the measures in Slovenia, see Box 1.1) and monetary policy measures (for more, see Box 2.2) were quickly adopted to alleviate major economic consequences.** The increased government borrowing to fund the measures to alleviate the economic impact will be reflected in rising deficits and in a substantial increase in public debt. This will be particularly pronounced in the countries that entered the pandemic period with an already high public debt and were hit harder by the pandemic. At the same time central banks have significantly expanded their balance sheets and have provided for even more favourable financing conditions, by holding interest rates low, strengthening asset purchase programmes and making targeted interventions on the financial markets. The further relaxation of monetary policy has underpinned the provision of inexpensive bank lending to the real economy, with the aim of speeding up the recovery and the normalisation of economic activity.

**Mass government borrowing after the outbreak of the Covid-19 pandemic triggered a short-term rise in required yields on government bonds on the debt securities market.** As is typical in a crisis, investor flight to safe haven assets led to differences in the rise in required yields between the core countries and the periphery countries. The rise in required yields was most pronounced for the countries hit hardest by the pandemic, which were also among the more heavily indebted even before the outbreak. Monetary policy measures saw yields ease again slightly by the end of June. Meanwhile premiums on corporate bonds increased, particularly those with lower ratings, but also investment-grade bonds. Despite the calming of the markets due to central bank measures, the rebound of the stock markets and a decline in volatility on the stock markets, many indicators on the financial markets remain significantly worse than before the outbreak of the pandemic.

Slika 1.7: Change in stock market indices




Slika 1.8: Expected stock market volatility



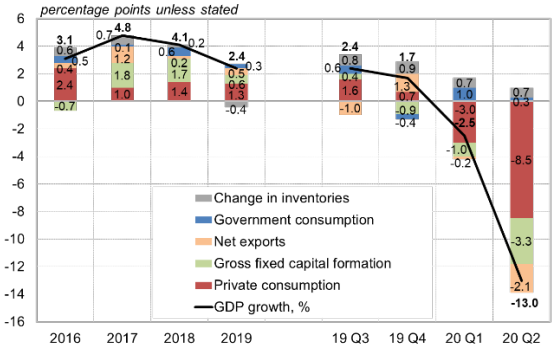

Note: US: CBOE Volatility Index (VIX); Europe: STOXX 50 Volatility VSTOXX EUR (V2TX). The expected volatility indices in the right figure measure market expectations of short-term volatility, as reflected by prices of stock index options, and represent a metric of market risk and investor confidence.
Source: Investing

**Rapid spread of the virus, government lockdown measures and the expectation of a large decline in economic activity triggered huge falls on the stock markets, a large increase in stock market volatility, a lack of liquidity in certain markets, and a general deterioration in the financial situation.** The S&P 500 lost a third of its value in one month following late February, but had entirely regained the losses by mid-August. A similar fall was suffered by shares in European stock markets, although their recovery has only been partial. The upheaval on the capital markets at the outbreak of the pandemic also brought a sharp increase in volatility. Shares of large European banks also lost almost half of their value from mid-February, as the market valuations of banks in the euro area hit record lows, with their funding costs also rising. There was a sharp increase in uncertainty surrounding the banks' profit expectations and asset quality as well. The banks' ROE in 2020 is forecast to be significantly lower than before the pandemic. Banks and bank share values are benefiting from measures to reduce capital requirements, while the measure temporary prohibiting dividend payments and share buybacks is strengthening loss absorption capacity amid the short-term downward pressure on bank share values.

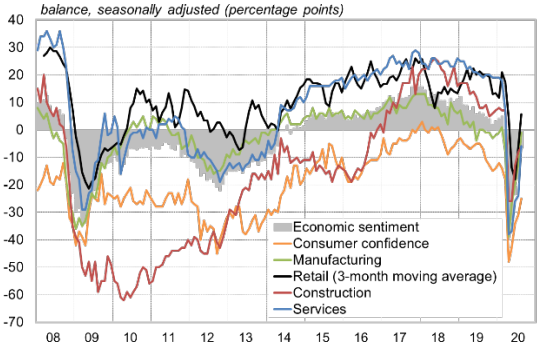
## *Economic situation in Slovenia*

**The economic shock caused by the Covid-19 pandemic hit the Slovenian economy hard, and the deterioration in the economic climate has also brought a worse economic outlook.** The decline in domestic and foreign demand when containment measures were introduced both in Slovenia and abroad, led to a decline in economic activity of 2.5% already in the first quarter of 2020. As economic activity remained well down, and the containment measures stayed in place, the year-on-year decline in GDP in the second quarter was even more pronounced, at 13.0%. There was a profound downturn in the economic sentiment and a fall in confidence indicators in the second quarter. The decline was largest in April, when consumer confidence, manufacturing confidence and services confidence all fell to extremely low levels. The economic sentiment has improved significantly in recent months, as all the confidence indicators have improved, although they nevertheless remain well below their averages of recent years. A recovery is expected in the second half of the year, but it will remain uncertain amid a further deterioration in the epidemiological situation.

Slika 1.9: GDP growth and contributions to GDP growth




Slika 1.10: Confidence indicators and economic sentiment indicator




Note: Confidence indicators are expressed as an average balance, which is the difference between the share of positive answers and negative answers.
Source: SORS

**The uncertainty surrounding the future situation on the labour market brought a sharp decline in final household consumption, amid increased caution in spending and the postponement of major purchases of durables during containment measures.** The large decline in gross fixed capital formation had a negative contribution to economic growth, while the contribution made by government consumption was positive as all the measures to support the economy led to an increase in final government consumption. The decline in domestic and foreign demand brought a large fall in imports and exports. After several years of positive growth, both recorded a year-on-year decline, and the contribution to GDP growth made by net trade was also negative. There is great uncertainty surrounding the forecasts by domestic and international institutions with regard to the future growth of the Slovenian economy: they range from –7.8% to –6.5% for 2020, and between 3.5% and 6.1% for 2021.[3]

[3] Bank of Slovenia, June 2020 (2020: –6.5%, 2021: 4.9%), IMAD, September 2020 (2020: –6.7%, 2021: 5.1%), European Commission, July 2020 (2020: –7.0%, 2021: 6.1%), OECD, June 2020 (2020: –7.8%, 2021: 4.5%), EBRD, September 2020 (2020: –7,5 %, 2021: 3,5 %).

***Box 1.1: Measures to alleviate the Covid-19 crisis[4]***

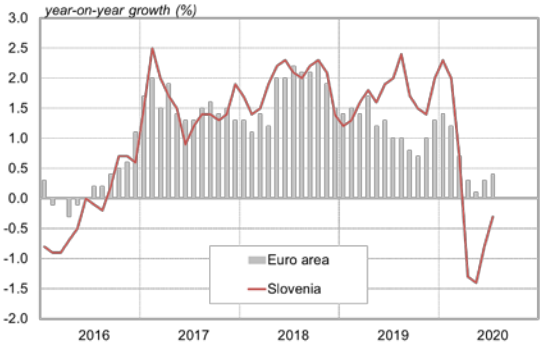
As part of the package of measures to alleviate the impact of the Covid-19 pandemic, the following measures with a significant impact on financial stability were adopted at national level:

- loans made from public funds, encompassing additional financing by SID banka and additional guarantees for loans and liquidity loans to SMEs by the Slovene Enterprise Fund,
- the guarantee scheme for corporates and the corporate debt repurchase mechanism,
- the option of deferring tax liabilities (applying to all tax deductions and income tax prepayments) for up to 24 months or paying liabilities in 24 monthly instalments if the pandemic has caused a loss of income,
- a two-month extension of the deadline for submitting the return for the personal income tax prepayment for business activities and the tax return,
- a three-month deferral of the payment of social security contributions for self-employed persons who have no other employees, where the total value of the deferred contributions needs to be settled by 31 March 2022, except for interest for late payment,
- the deferral of the prepayment of personal income tax on business activities for April and May 2020 (until April 2021, when tax returns for 2020 are due),
- government guarantees for a moratorium on payments deriving from all liabilities under loan agreements for up to 12 months for non-financial corporations, sole traders, farmers and private individuals (Article 65 of the Act Determining Emergency Measures to Contain the Covid-19 Epidemic and Mitigate its Consequences for Citizens and the Economy; the ZIUZEOP).

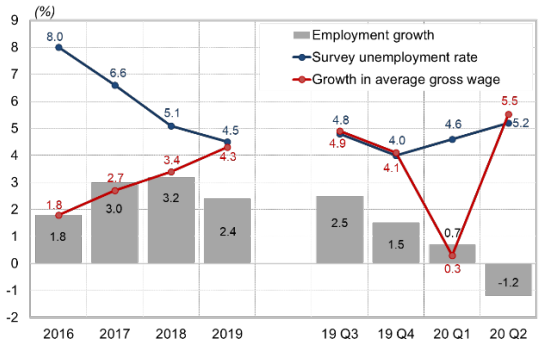
Numerous measures were also adopted to alleviate the impact of the pandemic on the labour market, most notably the partial coverage of wage compensation during temporary lay-off (furloughing), the crisis bonus, the monthly basic income and relief from the payment of social security contributions for claimants who were unable to pursue their business activities because of the epidemic or whose business was significantly curtailed, and temporary cash assistance for job loss from the first day of unemployment until the lifting of the emergency measures. From the perspective of the labour market, the emergency measures are primarily aimed to preserve jobs, keep firms alive, and to improve the economic circumstances of the public, thus having an indirect impact on financial stability, as they help indebted individuals to retain loan servicing capacity.

**Lower oil prices and other energy prices in the second quarter were the main factor in the fall of consumer prices.** After annual inflation as measured by the HICP has ranged between 1% and 2% over the last three years, it turned negative in the second quarter. April and May saw year-on-year deflation of more than 1%, with inflation remaining negative in June and July as well. The sharp fall in the second quarter was largely related to the lower electricity prices triggered by a temporary government ordinance issued as part of the measures to alleviate the social and economic consequences of the Covid-19 pandemic, which remained in place until the end of May. The fall in energy prices was also attributable to a sharp year-on-year fall in prices of refined petroleum products and the government's adjustment of excise duties, which are largely responsible for the gap with euro area inflation. The contributions to headline inflation by food prices and services prices meanwhile remained positive in the second quarter.

Slika 1.11: Inflation (HICP)




Slika 1.12: Growth in employment, unemployment rate and growth in gross wages




Note: The employment figures are from the national accounts, while the gross wage figures are from monthly statistics. The employment growth figures in the right figure are seasonally adjusted and calendar-adjusted.

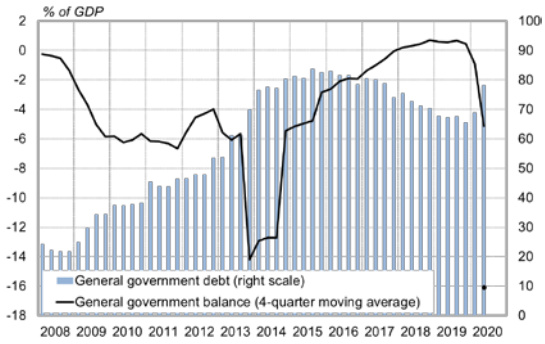
Sources: Eurostat, SORS

**As economic activity slowed, the labour market hit a downturn, but the adverse effects were alleviated by emergency job retention measures.** After several years of positive growth, year-on-year employment growth re-entered negative territory in the second quarter; the number of unemployed grew as well. Having fallen to 4.0% in the final quarter of 2019, its lowest value since 2008, the survey unemployment rate rose

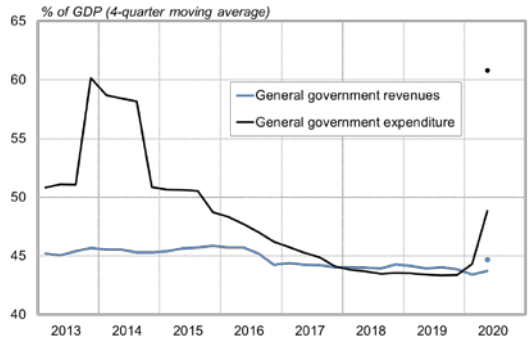
[4] For more on the measures adopted and their affects, see Macroeconomic Projections for Slovenia, June 2020 (https://bankaslovenije.blob.core.windows.net/publication-files/macroeconomic-projections-for-slovenia-june-2020_ii.pdf).

again in the first quarter of this year, reaching 5.2% in the second quarter, up only 1 percentage point in year-on-year terms. The fall in employment was particularly pronounced in accommodation and food service activities and in all service activities where personal contact is necessary and were therefore hit particularly hard by the containment measures. Employment expectations also point to a fall in employment, although corporates' pessimism regarding employment expectations declined sharply, at least in the summer months. Year-on-year growth in gross wages rose sharply in the second quarter, but the calculation of the average was strongly affected by the data capture methodology for wages of furloughed workers. Bonus payments on the basis of the emergency measures were also made during this period.

Slika 1.13: Public finances




Slika 1.14: General government revenues and expenditure




Note: The dots represent the latest data (Q1 2020). The general government position data in the left figure is seasonally adjusted and calendar-adjusted.
Source: SORS

**The state of public finances is deteriorating in the harsh macroeconomic situation.** After several years of economic growth, and general government surpluses over the last two years, the ratio of general government debt to GDP increased slightly already in the first quarter of 2020, while in the second quarter the increase was more pronounced. General government revenues declined in year-on-year terms as the economy contracted and tax revenues fell. By contrast, there was a significant increase in general government expenditure, driven primarily by the measures to alleviate the economic impact of the crisis and to preserve jobs. The general government deficit thus amounted to 5.0% of GDP in the first quarter and 16.1% of GDP in the second quarter, the highest since the end of 2013. The required yield on 10-year Slovenian government bonds rose during the epidemic, but fell again to its pre-epidemic value when the ECB measures were adopted and a comprehensive EU recovery plan was put in place. Following last year's upgrade of Slovenia's credit ratings by the three largest international rating agencies, the ratings and outlooks have remained unchanged this year. This is indicative of Slovenia's resilience to the effects of the Covid-19 pandemic, which was achieved through the successful reduction of external, financial and fiscal imbalances in recent years.

Table 1.2: Slovenia's sovereign credit ratings at the major rating agencies

| Agency | Rating | Outlook | Last change |
|---|---|---|---|
| Standard and Poor's | AA- | stable | June 2020 |
| Moody's | Baa1 | positive | April 2020 |
| Fitch | A | stable | July 2020 |

Source: Ministry of Finance

***Box 1.2: Probability of a financial crisis in Slovenia in a one year period***

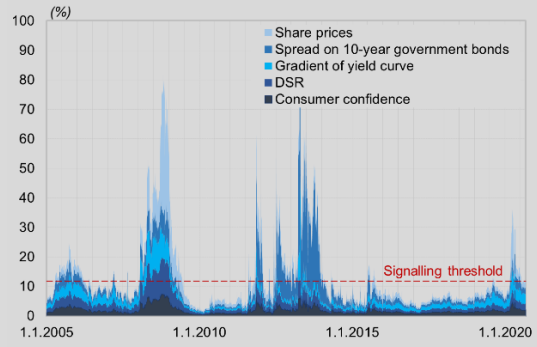
**The probability of a financial crisis over the next 12 months is assessed by an early warning system[5] model based on past relationships between macroeconomic risk indicators[6] and systemic crises[7] on a sample of**

[5] The identification and dating of systemic financial crises are based on the ECB/ESRB database of crises described in Lo Duca et al. (2017).

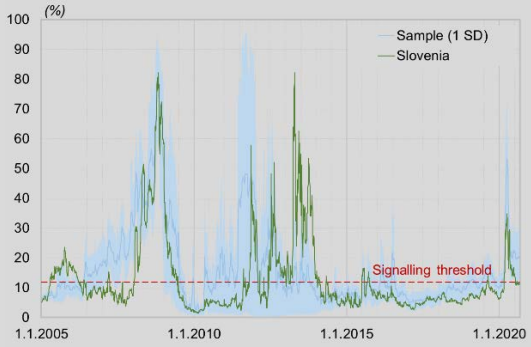
[6] The model's variables ensure good performance in forecasting a systemic crisis in the next 12 months, and reasonable causality in the probability of a crisis. The model variables include: debt servicing level of the non-financial private sector (annual change, with a two-quarter lag because of delays in publication), consumer confidence indicator (European Commission survey, with a one-month lag), government bond spreads (interest spread on 10-year government bonds relative to the euro area average), annual growth in share prices, realised volatility in share prices over the last month, and gradient of the curve of risk-free return. Growth in prices of equities and volatility as measured by share indices are combined into the category of "share prices" in the presentation of results.

**euro area countries.**[8] The model contains variables that can be updated on a daily basis with high-frequency data to monitor the evolution of the probability of a financial crisis in real time. The macroeconomic developments since the outbreak of Covid-19 suggest a sharp increase in the probability of a financial crisis in the euro area and in Slovenia over the next 12 months. For Slovenia, the estimated probability briefly stood at 34% in early April, above the early warning threshold.[9] At that time the probability of a crisis remained slightly below the average probability of a crisis in the sample. These levels are significantly lower than those seen in 2008 at the outbreak of the global financial crisis, and those at the outbreak of the euro area debt crisis in 2011. The estimated probability of a crisis in Slovenia has declined since May, and by the end of August had fallen below the signalling threshold (11.4% on 31 August).

Slika 1.15: Probability of a financial crisis in Slovenia, with contributory factors




Slika 1.16: Probability of a financial crisis in Slovenia and other sample countries




Note: The left figure illustrates the probability of a crisis for Slovenia over the entire sampling period, decomposed by contributory factors. In the right figure the light blue area illustrates the probability in sample countries that fall within one standard deviation of the mean (almost two-thirds of the sample). Final data recorded on 31 August 2020.
Source: Bank of Slovenia

**Private-sector debt sustainability as measured by falling debt servicing indicators in recent years is better than in 2008, and is helping to limit the probability of a crisis.** Policies that limit the decline in aggregate income while curbing borrowing costs are important in preventing further increases in the probability of a financial crisis occurring. Country risk is measured by the spread in 10-year government bonds over the euro area average, which puts Slovenia among countries facing difficulties in 2011.[10] Currently it does not appear among risk factors. The decline in stock market volatility and improvement in consumer confidence, the two factors that had led to the initial increase, have since June helped to reduce the probability of a crisis.

## 1.2 Income risk

*Income risk in the banking system is increasing. The economic downturn caused by the Covid-19 pandemic and the low interest rate environment are the main factors reducing bank profitability. Having recorded record profits last year, the banks saw their profitability decline sharply in the first half of this year. Even before the pandemic, this was attributable to the anticipated worsening of the conditions for generating income, and the net creation of impairments and provisions. Growth in net interest income has been negative since April of this year, while net non-interest income is well down on last year's above-average levels. Credit growth has also slowed sharply this year, owing to the change in circumstances. Profits in the first half of this year were just a third of those recorded in the same period last year. In the harsh conditions for banking, profitability can be expected to decline further.*

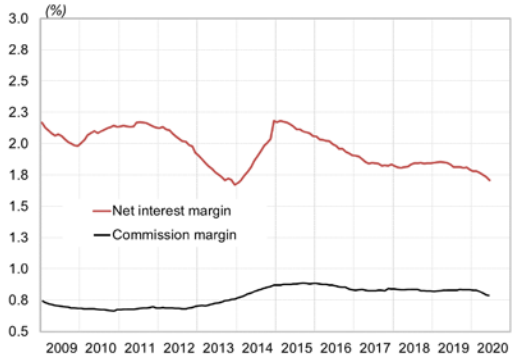
[7] The sample includes 18 euro area countries plus Denmark, Sweden and the UK. The sample covers the period of January 2004 to August 2020.
[8] The early warning model follows the ECB's approach from June 2020.
[9] The threshold is a compromise between false alarms occurring and the possibility of missing serious crisis events, with a higher weight assigned to preventing a serious crisis event from being overlooked.
[10] The ECB/ESRB database of European financial crises denotes December 2009 as the starting date of the crisis in Slovenia, which was triggered by the financial crisis of 2008. The small estimated probability of a crisis in Slovenia in 2010 and 2011 might seem surprising, given the crisis that was already underway. The reason for this is the model capturing the dynamics (macrofinancial developments) that forecast an upcoming crisis, which is highly likely to be different from the dynamics of the current crisis.

### *Net interest margin and net non-interest margin*

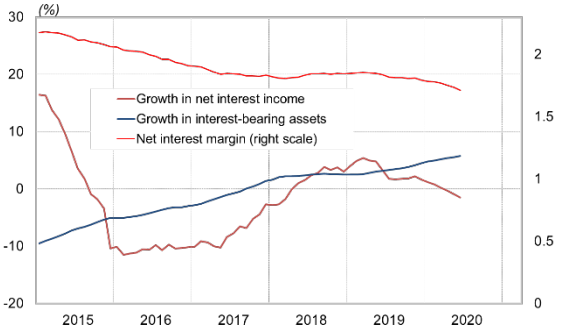
**The net interest margin is displaying a trend of decline.** Amid the renewed decline in net interest income driven by low interest rates and the less-favourable structure of bank assets, the interest margin can be expected to decline further. Having stabilised in 2018, the net interest margin declined to 1.79% in 2019, and had declined further to 1.71% by the end of June 2020. The distribution of net interest margin across the banks has widened slightly in recent years.[11]

**The gradual decline in the net interest margin has been driven by growth in interest-bearing assets outpacing growth in net interest income.** The gap has widened this year. Net interest income in the first half of the year was down 3.6% on last year, while the total over the 12 months to June was down 1.5% in year-on-year terms. Growth in net interest at the annual level began to be outpaced by growth in gross interest-bearing assets[12] in mid-2019, which was then reflected in a decline in the net interest margin.The decline and the contribution made by net interest income to the decline in gross income and lower profitability remain small for now.[13]

Slika 1.17: Net interest margin and commission margin in the banking system




Slika 1.18: Year-on-year growth in net interest income and interest-bearing assets, and net interest margin, 2015 to H1 2020

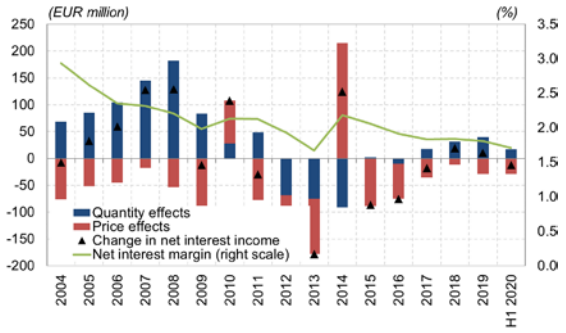



Note: In the left figure the two margins are calculated for a moving 12-month period. Only the most important and least volatile component of non-interest income is illustrated in the figure, namely the ratio of net fees and commission to the balance sheet total.
Source: Bank of Slovenia

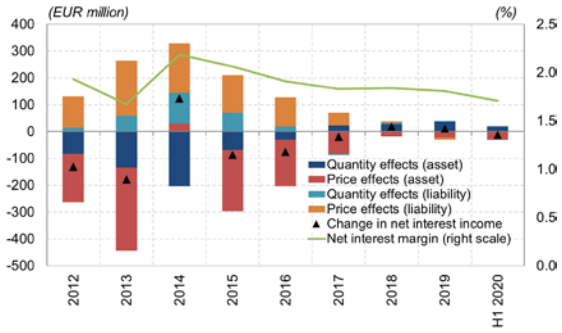
**In 2020 price effects are once again prevailing over quantity effects, and are reducing net interest income.** Quantity effects on the asset side (loans) were prevalent in the changes in net interest income in 2018 and 2019. The first half of 2020 brought an end to the prevalence of quantity effects, and a decline in net interest income driven by reduced lending.[14] The decline in interest rates and the gradual replacement of maturing higher-yielding assets with lower-yielding assets mean that price effects have been putting downward pressure on net interest for several years now. Growth in interest income has been slowing, and had entered negative territory by the end of the first half of the year. Interest income from loans to the non-banking sector during the first half of the year was just about comparable to last year (up 0.2%), while the figure over the preceding 12 months was up just 2% in June, and interest income from securities was down a fifth.[15] Interest expenses have remained low in recent years, as a result of the increase in sight deposits and the fall in interest rates in previous years. The only slight increase of note in the first half of the year was in interest expenses from wholesale funding, which is more expensive than deposits.

[11] At the end of June of this year, half of the banks were located in the range of 1.5% to 2.0%, compared with a range of 1.75% to 2.10% at the end of 2017.
[12] Changes in the make-up of interest-bearing assets were less favourable in 2020: the proportion of higher-yielding forms of loans began to decline, while the proportion of lower-yielding claims against the central bank increased as a result of the extensive inflow of deposits.
[13] The figures calculated over the preceding 12 months reveal minimal changes in interest income in June 2020: the year-on-year decline in the entire banking system amounted to just EUR 4.9 million. Meanwhile interest expenses increased by EUR 5.5 million, which indicates that the total year-on-year decline in net interest income was more than EUR 10 million. See also the appendix.
[14] The factors affecting the change in net interest income can be divided into price effects (e.g. a change in the effective interest rate/rates) and quantity effects (e.g. an increase in loans or other forms of interest-bearing assets). For more, see previous issues of the Financial Stability Review, and the article by Ahtik, Banerjee and Remšak: Net interest margin in a low interest rate environment: evidence for Slovenia (Bančni Vestnik 11/2016).
[15] The structure of interest income has changed in recent years. The banks generate around 85% of their interest income from loans to the non-banking sector (compared with 75% in 2016 for example), 9.4% from securities (2016: 19.9%) and 5.2% from other investments (2016: 4.8%).

Slika 1.19: Quantity effects and price effects in change in net interest income, and net interest margin



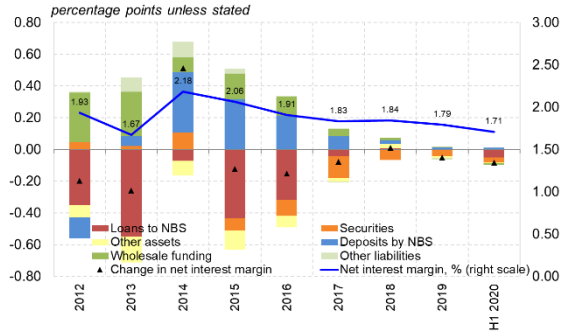

Slika 1.20: Quantity effects and price effects in change in net interest income on asset and liability sides



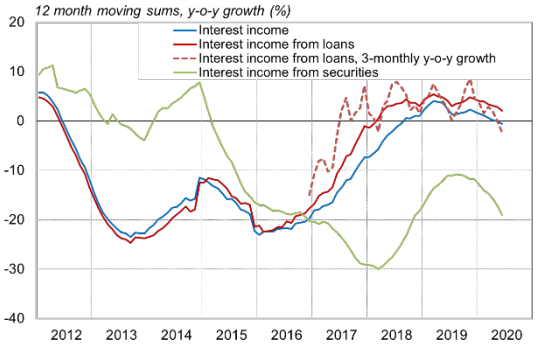

Note: The above figures take account of the 12-month moving total of interest income/expenses, while the net interest margin is calculated for the same period.
Source: Bank of Slovenia

**The dynamics in net interest income are being driven most by interest income, particularly from loans to the non-banking sector.** The current and projected changes in the net interest margin derive from the asset side of the balance sheet, and further downward pressure is expected. The changes on the income side are being reflected quickly in net interest income. The largest factor on the asset side in the increase in net interest in 2018, 2019 and the first half of 2020 was positive quantity effects from loans. By contrast, the price effects on the asset side, from loans and securities alike, have been negative in recent years, which is indicative of the falling returns on all the main forms of asset. There are several factors on the income side in the anticipated downward pressure on net interest income: the replacement of higher-yielding forms of assets from the past with lower-yielding assets in the low interest rate environment, slowing growth in loans to the non-banking sector, which have higher-than-average returns compared with other forms of asset, an increase in low-yielding liquid forms of asset[16] on account of the increase in sight deposits, and the bottoming-out of interest expenses, unless the banks were to introduce negative interest rates on household deposits.[17] The developments in net interest income in 2020 also need to take account of the current favourable circumstances for banks, in the undisrupted accrual of interest income. Due to the loan moratoria under the ZIUOPOK and the EBA guidelines,[18] the decline in interest income has not been too large for now. After the moratoria expire, interest income might fall as borrowers become unable to repay their liabilities on time.

Slika 1.21: Contributions of interest-bearing asset and liability instruments to change in net interest margin




Slika 1.22: Year-on-year growth in interest income by type (overall, from loans to non-banking sector, from securities)




Source: Bank of Slovenia

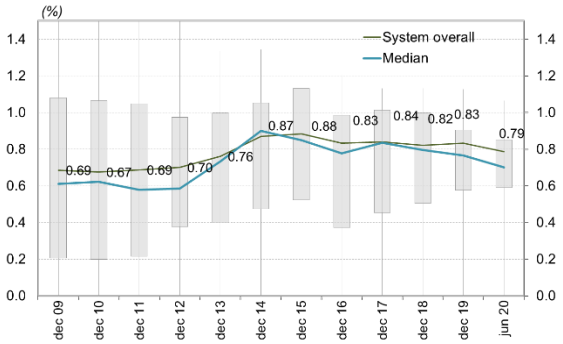
[16] Year-on-year growth in interest-bearing assets stood at 6.9% in June 2020: growth in loans to the non-banking sector had slowed to 1.8% and growth in holdings of debt securities to -2.8%, while other forms of interest-bearing asset (claims against the central bank and banks) were up 38% in year-on-year terms.

[17] For more, see: Custody fees and negative interest rates for household deposits (https://bankaslovenije.blob.core.windows.net/publication-files/negativne_obrestne_mere_za_vloge_prebivalstva_eng-gb_02.pdf).

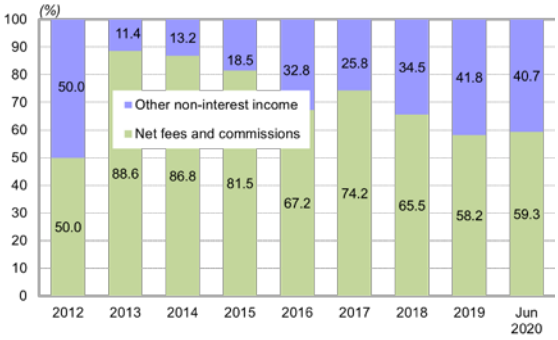
[18] See the Emergency Deferral of Borrowers' Liabilities Act (ZIUOPOK), and the EBA guidelines, available at https://eba.europa.eu/eba-publishes-guidelines-treatment-public-and-private-moratoria-light-covid-19-measures.

**Non-interest income in the first half of this year was well down on last year's above-average levels.** The economic downturn also brought a slight decline in income from net fees and commission. Having reached the above-average value of 1.43% in 2019, the net non-interest margin declined in the first half of 2020, reaching 1.15% in June calculated over the preceding 12 months. The decline in income from net fees and commission also reduced the net commission margin, which reached 0.79% in June, its lowest value of the last six years. The relatively sharp decline in net commission margin has been driven by high growth in the balance sheet total, and a decline in net fees and commission. Total non-interest income has been relatively volatile in recent years. The notably high non-interest income in 2019, particularly at some of the largest banks, was attributable to the strong economy, and to factors such as dividend payments, revaluations of shares and banks' claims against corporates, and the sale of assets. The decline in net non-interest income in the first half of this year was primarily driven by a sharp decline in dividends received and negative revaluations of financial assets (on a fair value basis). There has also been a decline in net fee and commission income and in the net commission margin this year. Although the banks were still generating relatively high growth in net fees and commission last year through more active policy, they have been unable to continue the trend this year, partly in reflection of the economic downturn of the Covid-19 era.

Slika 1.23: Net commission margin, overall and quartile distribution, at end of period




Slika 1.24: Breakdown of non-interest income into net fees and commission, and other non-interest income




Note: The figures for June 2020 in the left figure are calculated for the preceding 12 months.
Source: Bank of Slovenia

**The net interest and net non-interest margins in the Slovenian banking system are high compared with many EU Member States.** The net interest margin has undergone a trend of decline in recent years, driven by the low interest rate environment and declining returns on assets. Further downward pressure on the margins is also expected in the coming years.In 2019 the net interest margin at Slovenian banks surpassed the average in the EU28 (1.71%[19]), placing it just below the countries in the top third, and surpassed also the weighted average in the euro area (1.25%) and the EU28 (1.13%). When the margin of the Slovenian banking system is compared with the margins of similarly sized banks across the EU, the gaps are smaller.[20] Slovenia was ranked at the bottom of the top quarter of EU Member States in terms of net non-interest margin in 2019 (the median in the EU28 stood at 0.92%), as a result of its above-average non-interest income. Slovenia was also ranked above average in terms of the commission margin: the median in the EU was 0.72% last year, compared with 0.88% in Slovenia. The higher margins are mainly seen in countries of eastern and southern Europe.[21]

### *Profitability factors of the disposal of gross income*

**Operating costs increased in 2019 and the first half of 2020, although there was no significant change in cost-effectiveness measured against total assets, while the CIR increased.** Operating costs in the first half of the year rose by a relatively high 7.8%,[22] largely as a result of the classification of the banks'

[19] The comparison is made on the basis of the consolidated banking data from the ECB SDW. These figures differ slightly from figures based on balance sheets. See the appendix.

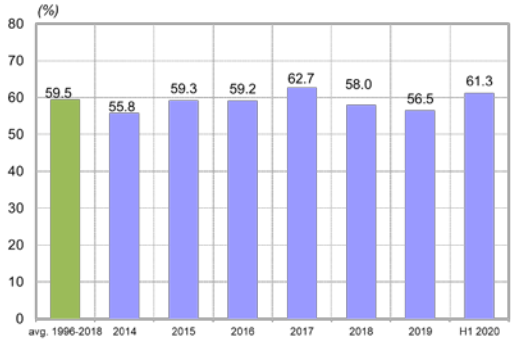
[20] The net interest margin at small banks across the EU, whose values are the most comparable to banks in the Slovenian banking system, stood at 1.72% in 2019, compared with 1.95% in Slovenia according to the same data source (consolidated banking data, ECB SDW). See also the appendix.

[21] See the appendix with the international comparison of banking system indicators in the EU28.

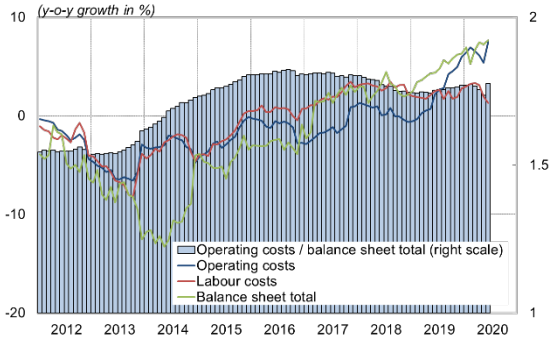
[22] The rise in operating costs was primarily driven by a methodological effect, as the banks' costs in connection with payments into the resolution fund and the deposit guarantee scheme were newly classed as operating costs. They accounted for 8.5% of total operating costs in the first half of this year, but this figure will have declined by the end of the year, as the payments for this year have already been made. Prior to June 2020, these costs were classed as other operating expenses. Operating costs had nevertheless been rising even before this.

payments into the resolution fund and the deposit guarantee scheme as operating costs. Ignoring this effect, operating costs would be unchanged. Amid high growth in total assets, there was no significant change in the ratio of operating costs to total assets, which stood at 1.77% in June. Labour costs, which account for more than half of operating costs, were down in the first half of the year (by 0.6%). Amid the significant decline in gross income caused by the decline in net interest and net non-interest income, the CIR worsened to 61.3%, driven both by the aforementioned rise in operating costs and a decline in the banks' gross income. Net income, i.e. gross income minus operating costs, declined sharply in the first half of this year, as gross income fell and operating costs rose. In 2019 the CIR was comparable to the median figure for the EU28.

Slika 1.25: CIR in the banking system




Slika 1.26: Growth in operating costs, labour costs and balance sheet total



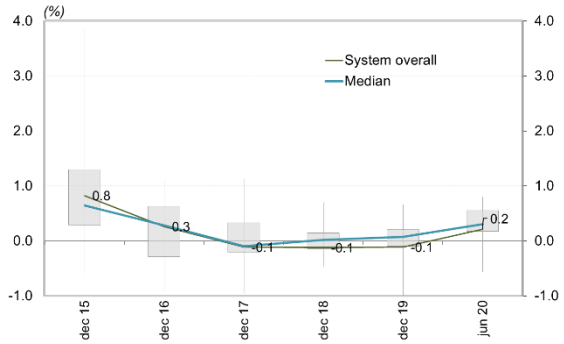

Note: The values in the left figure are calculated on the basis of monthly balance sheet figures for the Slovenian banking system on an individual basis, while the values in the right figure are consolidated banking data figures (ECB SDW).
Sources: Bank of Slovenia, ECB

**After three years of the net release of impairments and provisions prevailing, the banks again recorded positive impairment and provisioning costs in the first half of 2020.** Their ratio to gross income remains below the long-term average for now. Even before the Covid-19 pandemic, the anticipated cooling of the economy had been expected to bring an end to the net release of impairments and provisions. The NPE ratios at numerous banks have now declined sharply, and a further release of impairments on this account was less likely. The banks recorded EUR 98 million of impairment and provisioning costs in the first half of the year. Slightly less than half of all credit institutions, primarily the largest banks, were still recording a net release of impairments and provisions in 2019, but in the first half of this year there was only one bank that did not record positive impairment and provisioning costs.[23] There had been several factors in the release of impairments and provisions, which was unusual in historical terms,[24] and during the last two years was also an exception compared with other European countries: the improvement in the quality of the credit portfolio, the strong economy, and the banks' business policies.

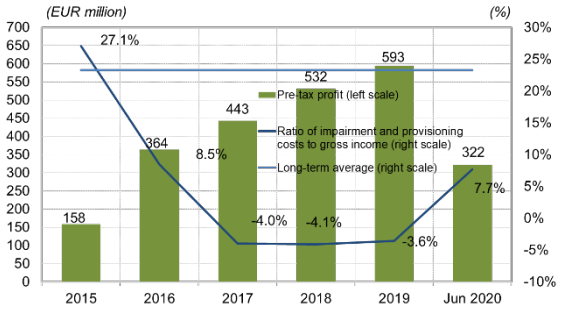
**Given the economic downturn in 2020, the expectation is that impairment and provisioning costs will have a significant impact on bank profitability.** Given the economic shock triggered by the Covid-19 epidemic, and owing to the nature of the IFRS requirements, the coming months can be expected to see a gradual increase in impairment and provisioning costs at banks.[25] The deterioration in the economy could be reflected in a higher default rate and a rapid increase in expected credit losses on account of transitions to Stage 3. The nature of IFRS 9 means that the additional creation of impairments and provisions is also expected in Stages 1 in 2. In the event of a sudden significant downgrading of the economic forecasts, the recalibration of the credit risk parameters could lead to sudden significant growth in credit risk impairments and provisions. The less favourable developments anticipated in the generation of net interest and net non-interest income will also put downward pressure on bank profitability in the coming years.

[23] The number of credit institutions (banks and savings banks) disclosing costs on account of impairments and provisions has increased in recent years: from six in 2017, to eight in 2018, ten in 2019, and 16 (all but one) in the first half of 2020.
[24] The banks disposed of 23% of their gross income on impairment and provisioning costs on average between 1996 and 2018. This calculation excludes 2012, 2013, and 2014, when impairment and provisioning costs were far above average, and 2017, 2018 and 2019, when the banks recorded a net release of impairments and provisions.
[25] Similarly to the accrual of interest, it should be noted that the loan moratoria based on the ZIUPOK or the EBA guidelines (see, for example, Footnote 7, which cites the EBA guidelines) are also reducing the volume of impairments and provisions.

Slika 1.27: Impairment and provisioning costs, overall and quartile distribution, at end of period



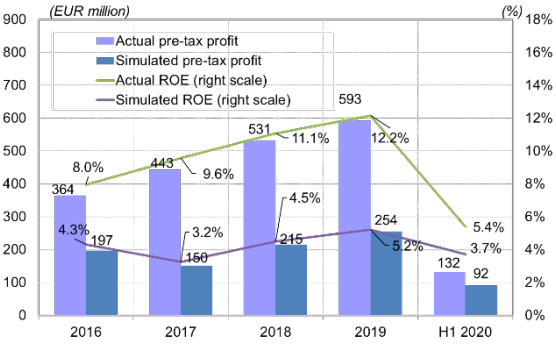

Slika 1.28: Pre-tax profit and ratio of impairment and provisioning costs to gross income



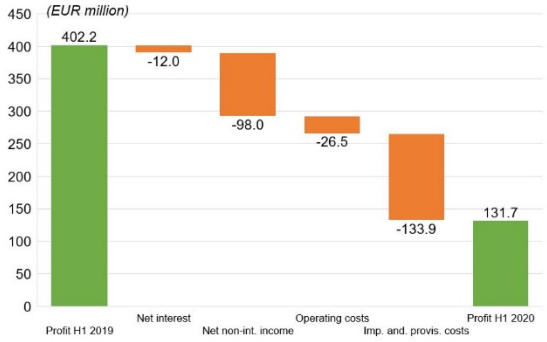

Note: The two figures disclose the figures over the last five years. The values in the right figure are calculated for the preceding 12 months. A positive ratio of impairment and provisioning costs to gross income denotes the net creation of impairments and provisions, while a negative value denotes the net release. The line in the right figure denotes the long-term average of the ratio of impairment and provisioning costs to gross income. See also the note under Figure 1.30.

Source: Bank of Slovenia

Slika 1.29: Comparison of observed and simulated bank profitability




Slika 1.30: Pre-tax profit and impact of changes in components of generation and disposal of gross income, H1 2020 to H1 2019

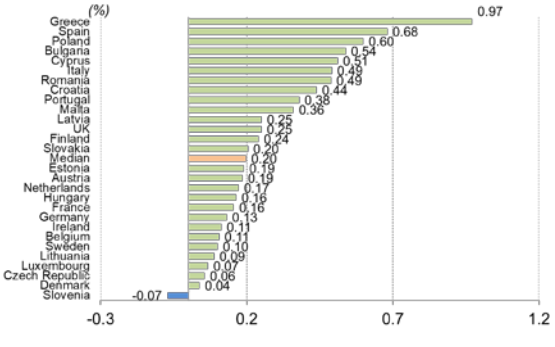



Note: The simulated profit and ROE in the left figure are calculated by taking account of the average ratio of impairment and provisioning costs to gross income for the Slovenian banking system. The banks disposed of 23% of their gross income on impairment and provisioning costs on average between 1996 and the end of 2018. This calculation excludes 2012, 2013, and 2014, when impairment and provisioning costs were far above average, and 2017, 2018 and 2019, when the banks recorded a net release of impairments and provisions.

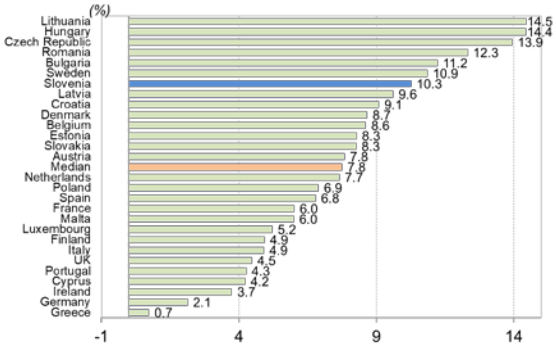
Source: Bank of Slovenia

**The Slovenian banking system was an exception among the EU28 for the second consecutive year in 2019, in recording a net release of impairments and provisions.** Its ROE exceeded the average of the EU28. ROE in the Slovenian banking system stood at 10.3% in 2019 (according to the ECB's consolidated banking data), and exceeded the EU28 median of 7.8%, and also the euro area average (5.1%) and the EU28 average (5.2%). Had the disposal of gross income on impairments and provisioning in the Slovenian banking system been at the level of its long-term average, ROE in 2019 would have been less than half of what it was. The banks saw a sharp decline in profits in the first half of 2020, driven by all the main components of generation and disposal of gross income (see Figure 1.31).

Slika 1.31: Ratio of impairment and provisioning costs to total assets across EU28, 2019




Slika 1.32: ROE across EU28, 2019




Note: Negative values in the left figure represent the net release of impairments and provisions. The values in the two figures are based on consolidated data, and differ slightly from those previously disclosed, which were based on the banks' balance sheet figures on an individual basis.
Source: ECB (SDW [consolidated banking data])

## 1.3 Credit risk

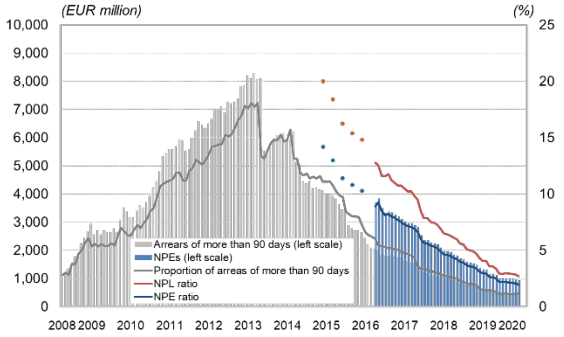
*Credit risk at banks, which was still being assessed as low at the end of 2019, has increased sharply since the outbreak of the pandemic. The reversal in economic growth is generally weakening customers' ability to settle their debts to banks, but thanks to the coordinated measures by governments and European institutions to alleviate the consequences of the pandemic, this has not been reflected at Slovenian banks in a deterioration in indicators of non-performing exposures. These continued to improve in the months following the start of the pandemic. The likely lengthening of the global health and economic crisis could cause a rise in NPEs in the future, particularly in sectors that have been or will still be hit hard by the crisis, and indirectly in related sectors. The sudden downturn in the economy also brought a sharp increase in the creation of impairments for the performing part of the portfolio. The process was most pronounced in the non-financial corporations portfolio, although coverage by impairments is also increasing in other segments, particularly in exposures to households.*

***Overview of non-performing claims indicators:***

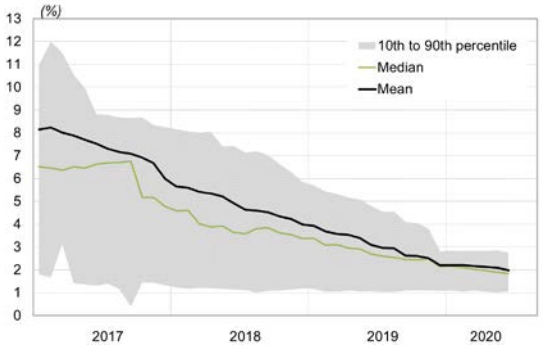
**At the end of June 2020, three months after the outbreak of the Covid-19 pandemic, the banks' non-performing exposures reached their lowest levels since 2007 in terms of stocks and ratios.**[26] The declaration of the pandemic in March 2020 and the decline in economic activity or total shutdown of the economy in parts did not halt the further decline in NPEs at banks. The NPE ratio at system level declined to 2.0% in June, while the NPL ratio declined to 2.7%. Claims more than 90 days in arrears fell from their peak of EUR 8.1 billion in 2013 to just over EUR 0.5 billion in June, or 1.2% of classified claims. Several years of action on the part of the banks and Bank of Slovenia to reduce non-performing claims, with the support of a favourable economic environment, have brought an improvement in portfolio quality at all banks. The range of NPE ratios at individual banks has narrowed significantly over the last three years; the highest NPE ratio at an individual bank is now 3.9%. No bank had an NPL ratio in excess of 5.0% in June.

[26] The banks' reporting of claims more than 90 days in arrears, which according to the EBA definition is the main indicator of portfolio quality, was introduced in the final quarter of 2007.

Slika 1.33: NPEs, NPLs and claims more than 90 days in arrears, stocks and ratios




Slika 1.34: Distribution of NPE ratios across banks

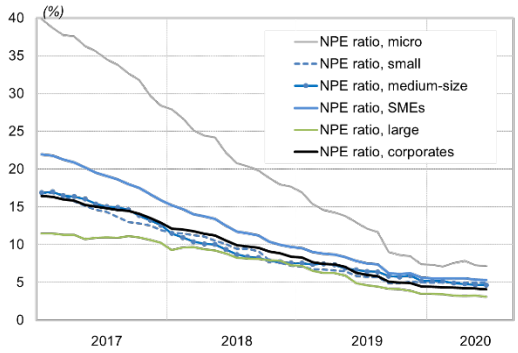



Source: Bank of Slovenia

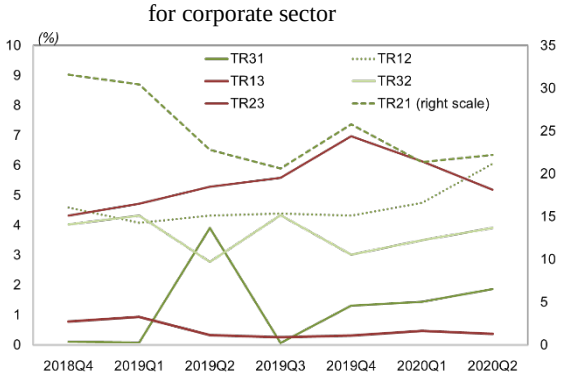
### *Corporate portfolio and credit risk*

**All portfolio segments in terms of corporate size have seen a decline in NPEs, although the micro enterprises segment still stands out.** The average NPE ratio in the micro, small and medium-size enterprises segment declined to 5.3%, with considerable variations between individual segments. The NPE ratio for the SMEs segment is now approaching the figure for the entire corporate portfolio, at 4.1%, while the NPE ratio for micro enterprises remains at 7.2%, despite the rapid decline. Micro enterprises account for a relatively small proportion of the banks' total exposure to corporate sector (10.4%[27] in June), but for a significantly large proportion of total NPEs in the corporate sector (18.2%). In terms of portfolio quality they are also significantly worse than the sole traders sector, with which they are most comparable, indicating a particular vulnerable segment of customers. The banks have nevertheless made notable progress in reducing non-performing claims in this part of the portfolio: at the end of 2016 micro enterprises accounted for a quarter of all NPEs to the corporate sector, but the figure had fallen by 7 percentage points by June 2020.

Slika 1.35: NPE ratios by corporate size




Slika 1.36: Transition rates between credit risk stages for corporate sector




Note: The labels in the key in the right figure refer to the transition rate (TR) for transitions between credit risk stages (1, 2 and 3). The unit of observation for calculating the transition rates of exposures between individual credit risk stages is the commercial bank-contract-date. All exposures that are classified claims with a positive amortised cost and were in a particular credit risk stage at the start of the observation period are included. The figure for the end of the period takes account of the final data available for the contract during the year.

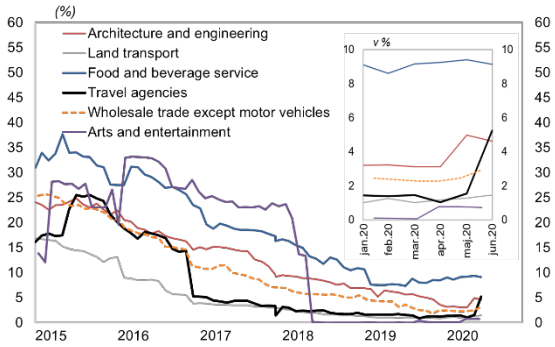
Source: Bank of Slovenia

**Other indicators of portfolio quality are similarly not yet showing a rise in non-performing claims as a result of the Covid-19 crisis.** By June the default rate[28] according to the EBA definition of default was not yet reflecting a rise in defaults as a result of the Covid-19 containment measures, and remains at the very low level from the end of 2019, at around 1%. The transitions between credit risk stages in the second quarter show a slight increase in transitions from Stage 1 to Stage 2 with a significant increase in credit risk (albeit not yet in the position of default). Transitions to default status (Stage 3) were actually slightly lower than in the previous two quarters. The vintage analysis in this period also fails to identify any increased inflow of new NPEs in the sectors of corporates and sole traders. In terms of economic sector, the only increases in NPEs in the second quarter of 2020 were in accommodation and food service activities and construction,

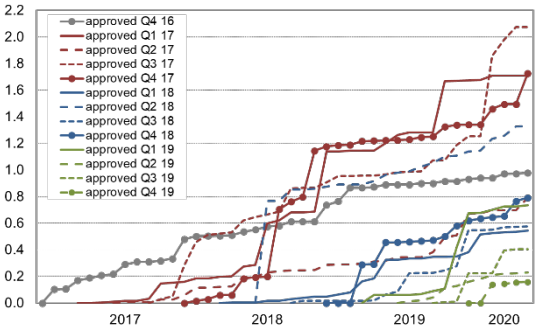
[27] SMEs for 17.9%, and large enterprises for 52.3%.
[28] Exposure-weighted one-year transition rates.

while in numerous other sectors a minor increase was evident in amid the cooling economy before the outbreak of Covid-19, in the final months of 2019 and the first quarter of 2020. The narrower indicator of non-performing claims, the proportion of claims more than 90 days in arrears, increased slightly in the corporate sector in May and June, to 1.7%. Only certain sectors hit hard by the crisis recorded an increase: land transport in the transportation and storage sector, wholesale trade, and food and beverage service activities. At the majority of firms whose performance was hit hard by the crisis, the low occurrence of default was partly attributable to the impact of the emergency laws, in particular the moratorium on debt repayments to banks.

Slika 1.37: Arrears of more than 90 days by sector




Slika 1.38: New contracts concluded since Q4 2016 that had become non-performing by June 2020



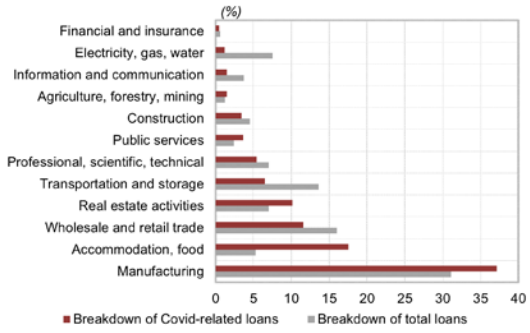

Source: Bank of Slovenia

**The stock of exposures for which a moratorium has been approved had reached EUR 1.9 billion by the beginning of September or 11.2% of total corporate exposures.**[29] Furthermore, the banks approved liquidity loans to the corporate sector for bridging difficulties caused by the pandemic independently of the emergency laws, and only a small volume of liquidity loans with a government guarantee. Loans for which a moratorium was approved[30] and bridging loans in connection with the pandemic accounted for 19% of the total stock of corporate loans at the banks in July, although there were considerable variations between economic sectors. The figure in the accommodation and food service activities sector was 63% of the total stock of loans. The figure was also high in public services, at almost 29%, where in the arts, entertainment and recreation sector it exceeded 35%. The figures in manufacturing and real estate activities were also above-average.

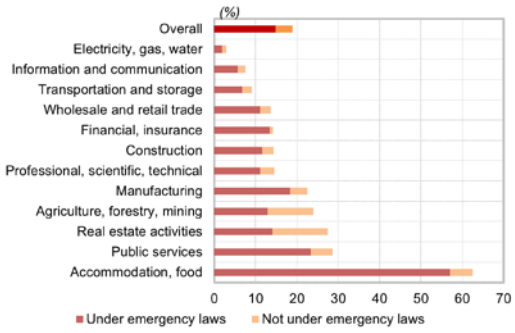
**The lengthening and deepening of the economic crisis is also raising the probability that some of the claims whose repayment has been deferred will be reclassified as non-performing.** Although the approval of a general moratorium on debt repayments does not mean that the deferred exposures are automatically reclassified as forborne or non-performing (for details, see Box 1.3 in this section), whether the bank will nevertheless carry out this reclassification depends on its assessment of the individual debtor and the debtor's financial position. At the outbreak of the crisis firms were financially strong, with relatively low indebtedness, which helped in the retention of non-defaulter status, despite emerging liquidity problems that simultaneously affected the entire economy. However, without measures to alleviate the impact of the crisis that would enable the survival of these firms, a long-lived decline in activity or, in certain sectors, a total shutdown would over time be reflected in an increase in NPEs in these sectors. The scale and dynamics of individual customers' transitions to default will also largely depend on the assessment of the individual bank.

[29] Moratoria on loans to non-financial corporations, OFIs and sole traders.
[30] Total debt at the time of the moratorium, not solely the deferred instalments.

Slika 1.39: Covid-affected loans by sector




Slika 1.40: Ratio of Covid-affected loans to total loans by sector



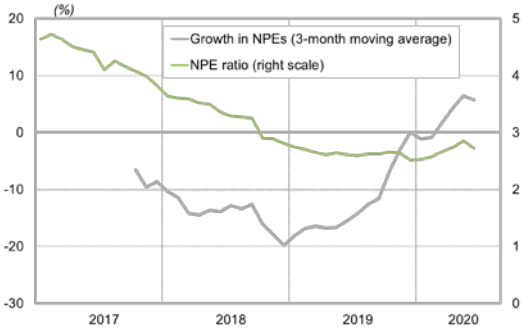

Note: The figures show bank loans approved or modified (e.g. for moratorium) because of the debtor's liquidity difficulties caused by the declaration of the Covid-19 pandemic in Slovenia. In the right figure, the loans not approved or extended under the emergency acts solely consist of Covid-affected loans.
Source: Bank of Slovenia

### *Household lending and credit risk*

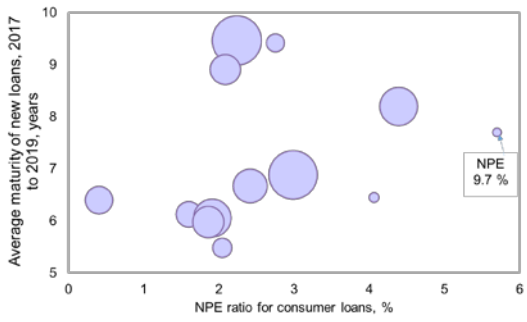
**Consumer loans is the only major segment of bank exposure where the NPE ratios have begun increasing in 2020.** The stock of NPEs in the consumer loans portfolio has been increasing in year-on-year terms since March of this year. The NPE ratio rose from the beginning of the year, reaching 2.9% in May, before falling back slightly in June. Alongside the increase in the stock of NPEs, the rise in the NPE ratio is also attributable to a decline in the stock of consumer loans since October 2019, which amounted to 5.3% by June. The proportion of bank exposure accounted for by consumer loans declined by 0.7 percentage points over this period, and now stands at 5.7%. This portfolio segment typically sees periodic major reductions in built-up NPEs, which is what happened in June of this year after several months of increase.[31] The NPE burden from consumer loans varies from bank to bank, but there is a discernible correlation between lower quality of the portfolio of consumer loans and the importance of the segment relative to the bank's total credit portfolio. With a few exceptions, the banks with large exposure to consumer loans also have higher credit risk in this segment, and consequently in the portfolio as a whole. NPE ratios in the housing loans segment continue to decline, reaching 1.7% by June.

**The findings in the household segment with regard to the impact of the loan moratoria on portfolio quality indicators are similar to those in the corporate segment.** It is our assessment that the household portfolio quality indicators will not deteriorate significantly during the moratorium period, and that the credit risk increased by the Covid-19 crisis will be evidenced with a lag of several months, in the months following the end of the moratorium at the latest. Currently there is no evident strong correlation in the NPE ratios in the consumer loans portfolio with the longer original maturity of these loans at origination (Figure 1.42), although it can be concluded from the data on the increased maturity of new loans after the introduction of the moratorium option that it was mainly customers for whom loans with above-average maturity were approved that have requested moratoria.

Slika 1.41: NPEs for consumer loans




Slika 1.42: NPE ratio for consumer loans versus maturity and loan growth

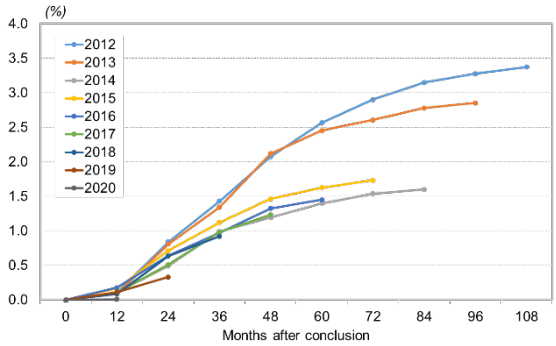



Note: The size of the circles in the right figure denotes the growth of consumer loans in 2017, 2018 2019 until October.
Source: Bank of Slovenia

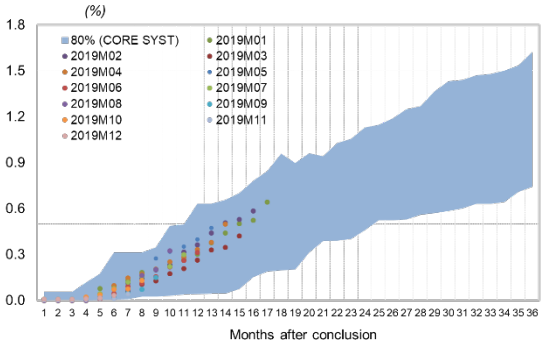
[31] In the household loans portfolio (there is no separate data by loan type), banks are achieving the reduction in NPEs via partial or full repayment of non-performing loans, reclassification as performing and, to a lesser extent, write-offs and collateral liquidation.

**The vintage analysis for household loans[32] across the entire sector does not indicate an increased inflow of new NPEs in 2020.** The gradient of the curve depends on the credit standards and the macroeconomic environment in the years following the conclusion of the transaction. As a result of the profound change in the macroeconomic environment between 2012 and 2018, the effect of credit standards is difficult to isolate. The newest vintages of 2019 and 2020 are lower (lower risk) than the previous vintages at system level (of course in a time horizon of 12 to 24 months after origination). The figures for 2020 are not yet entirely relevant, as default status is only evident 90 days after the first arrears occur. The higher inflows of defaulters from transactions concluded in 2020 will consequently be evident in later months. Any impact on the 2020 figures from the Covid-19 crisis is therefore yet to be seen. Slightly more precise vintage analysis can be conducted using monthly data.[33] Vintages originating in 2019 are positioned slightly above the (historical) median of all vintages, but within the core band, which indicates that the quality of the aforementioned vintages in the first year after origination does not differ significantly from previous vintages.

Slika 1.43: Cumulative proportion of household loan exposures more than 90 days in arrears for particular vintages, versus number of months after conclusion




Slika 1.44: Cumulative proportion of exposures in arrears for particular vintages (monthly data), versus number of months after conclusion




Note: The time horizon in the right figure is limited to 36 months. The blue area is the core band, i.e. the relatively homogenous aggregate of 80% of the cumulative functions of all vintages at system level. The vintages originating in 2020 are excluded from the figure, as they are new vintages where arrears of more than 90 days are not yet (materially) evident.
Source: Bank of Slovenia

***Non-residents portfolio and credit risk***

**Loans to the non-resident non-banking sector, mostly foreign firms, have recorded significantly lower growth in 2020 than in the previous year, but the year-on-year rate of 12.6% in June remains relatively high.** These loans accounted for 15.3% of the banks' total exposure to non-residents[34] (EUR 1.1 billion of EUR 7.5 billion), but are the sole segment of exposure to non-residents in which non-performing claims are being generated. The NPE ratio for bank loans to foreign firms stood at 7.8% in June, while the NPE ratio for the entire exposure to non-residents (which also includes loans to financial institutions and investments in securities) remains low at 1.2%. The growing loans to foreign firms are the most vulnerable segment of the banks' credit portfolio, albeit relatively small. Their quality largely depends on the macroeconomic environment in the home countries of the firms in question, and their business partners.[35]

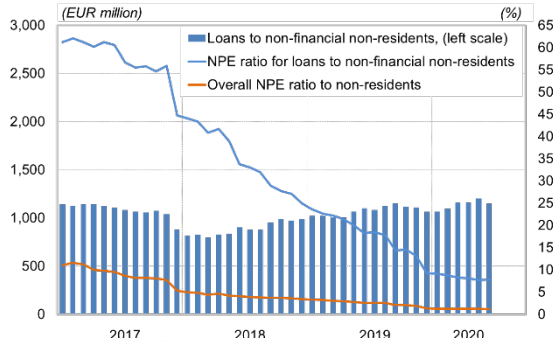
[32] Vintage analysis of the retail credit portfolio is based on the methodology presented in Box 1.2 of the December 2019 issue of the Financial Stability Review, which was modified in 2020 by the merger of the consumer loans and housing loans portfolios, and the narrowing of the core band from 90% to 80%. The issue of the independent treatment of housing loans was described in the December issue.

[33] 100 vintages are constructed for the period of January 2012 to May 2020. Of these, 80% constitute a relatively homogenous band, named the core band, while the remaining 20% are outliers. The cumulative functions are empirically limited to 36 months (the time horizon for monitoring a vintage). All the vintages are treated in the same way, irrespective of the exposure amount.

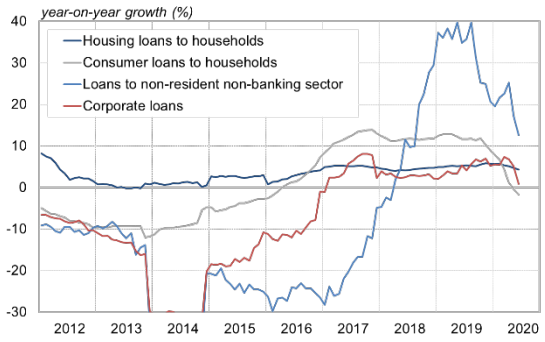
[34] Exposure to non-residents consists of on-balance-sheet and off-balance-sheet exposures to non-resident financial and non-financial legal and natural persons.

[35] When a domestic bank participates in the financing of a foreign firm via a syndicated loan, only the information about the registered office of the bank that arranged the syndicated loan is available, and not information about the registered office or residency of the debtor.

Slika 1.45: NPE ratios in non-residents portfolio by asset type




Slika 1.46: Growth in loans by type



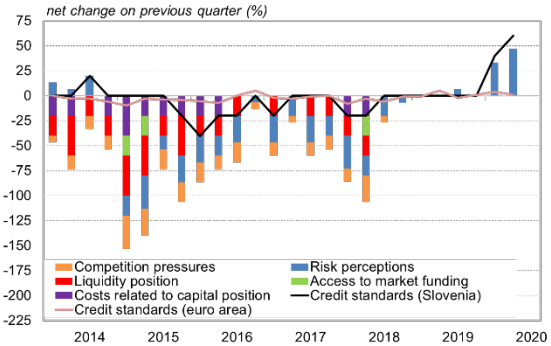

Source: Bank of Slovenia

***Structure of the credit portfolio and credit standards***

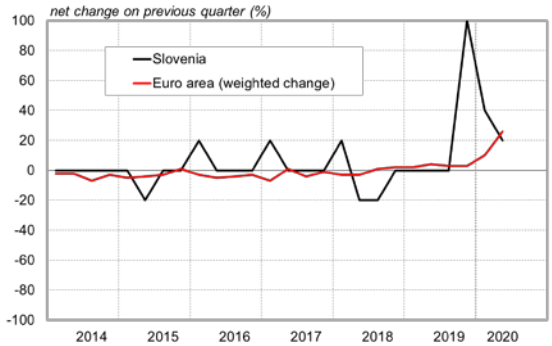
**There have not been significant changes to the structure of the banks' exposures recently, although growth in lending to the most important customer segments declined markedly after the outbreak of the crisis.** The proportion of bank assets accounted for by claims against the central bank gained 3.8 percentage points over the last year and a half, at the expense of exposures to corporates, households and non-residents, while the breakdown of exposures to the three aforementioned sectors has been practically unchanged since the end of 2018. There has been a significant slowdown in lending to corporates, households and non-residents since the outbreak of the pandemic. Growth in corporate loans is slowing, despite increased approvals of liquidity loans, some with a government guarantee, but most independently of the emergency laws.[36] Amid the general uncertainty there has been a sharp decline in demand for other types of loan during this period (see Box 3.2). Year-on-year growth in consumer loans turned negative for the first time in May, which was not unexpected. Exposure structure thus shifted towards lower-risk but lower-yielding forms of asset (liquid assets), but the depth of the crisis on this occasion means that this shift to safety is small relative to the possibility of rising non-performing claims in higher-risk parts of the portfolio. Perception of the risk level as elevated in the first half of the year led to a tightening of the banks' credit standards.

**According to the Bank Lending Survey[37] (BLS), credit standards were tightened in the first half of the year, in corporate and household lending alike.** The banks are expecting to further tighten credit standards for corporates in the third quarter of this year. For household loans, the banks judged that credit standards had been sharply tightened in the final quarter of 2019 with the introduction of binding macroprudential restrictions on household lending, but this year's crisis contributed to a further tightening via a change in risk perceptions. In contrast to corporate loans, the banks are expecting credit standards for housing loans and consumer loans to remain unchanged in the third quarter.

Slika 1.47: Credit standards for corporate loans and factors affecting credit standards in Slovenia




Slika 1.48: Credit standards for consumer loans

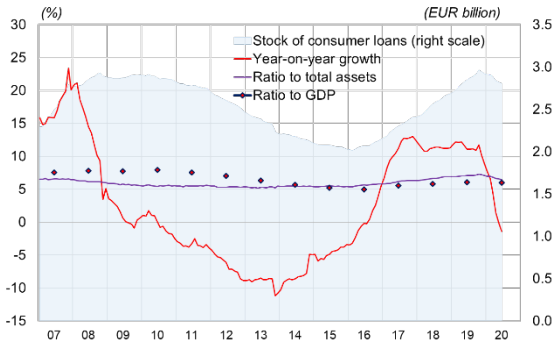



Sources: Bank of Slovenia, ECB

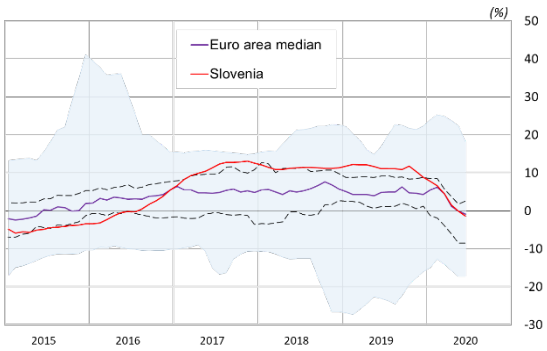
[36] Loan moratoria under the ZIUOPOK do not reduce the stock of loans.
[37] The BLS for Slovenia covers five reporting banks, who accounted for 60% of the banking system in terms of the balance sheet total at the end of 2019, and for 53% of loans to non-financial corporations, 65% of housing loans and 61% of consumer loans.

**The increase in consumer loans in recent years could have triggered a deterioration in the good financial position of households, for which reason binding macroprudential measures were introduced in November 2019.** The high growth in consumer loans gradually began to slow following the introduction of the measures, while the Covid-19 pandemic also depressed new loans. The high growth in consumer loans seen over several years (the rate had surpassed 10% by 2017) began to slow in November 2019 following the introduction of binding macroprudential measures in the area of household lending. Year-on-year growth in loans had entered negative territory by May, thus falling below the 75th percentile in the euro area and approaching the euro area median. The stock of consumer loans peaked at EUR 2.95 billion in October 2019, since which it has begun to decline, reaching EUR 2.80 billion in June of this year. The macroeconomic recovery remains uncertain in light of the evolution of the Covid-19 pandemic. The increased uncertainty among consumers, the downturn on the labour market and the fall in household income caused households to postpone non-essential purchases, which is likely to be a major factor in the future slowdown in growth in consumer loans, and will thus also act to reduce bank profitability.

Slika 1.49: Growth in and stock of consumer loans



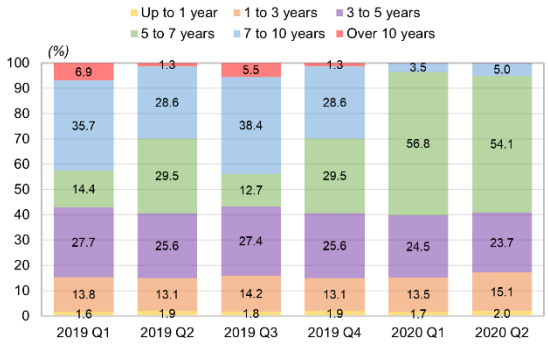

Slika 1.50: Growth in consumer loans, comparison with euro area



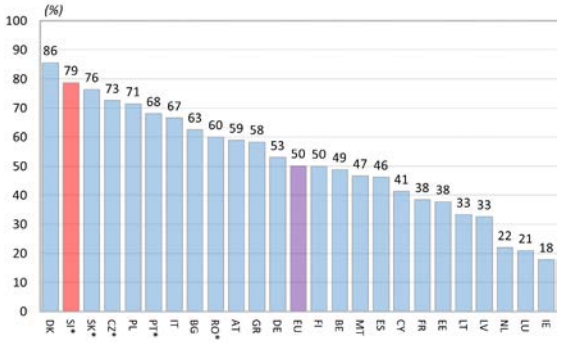

Note: In the right figure the blue area illustrates the minimum and maximum values. The dotted black lines represent the 25th and 75th percentiles.
Sources: Bank of Slovenia (left figure), ECB (SDW) (right figure)

**As a result of the introduction of binding macroprudential measures, the banks are no longer approving consumer loans with longer maturities, which is beginning to reduce the average maturity of consumer loans.** The banks approved fewer consumer loans with a maturity of more than seven years in the final quarter of 2019, following the introduction of the macroprudential measures. While loans with a maturity of more than seven years accounted for more than 40% of newly approved loans in the third quarter, the figure in the first half of 2020 had fallen to less than 5%. The proportion of new consumer loans with a maturity of between five and seven years increased markedly, reaching 54% in the second quarter of 2020. Compared with the EU overall, the Slovenian banking system is still notable for its proportion of long-term consumer loans. While consumer loans with a maturity of more than five years account for 50% of all consumer loans on average across the EU, the corresponding figure in Slovenia is almost 80%. Slovenia has one of the highest proportions of consumer loans with a maturity of more than five years. Loans with longer maturities have lower annual repayments, which should reduce the borrowers' probability of default (PD), but can increase loss given default (LGD) for the banks. The interest rate risk for borrowers can be higher, as long-term loans are usually approved with a variable interest rate. The trend of shortening average maturity on consumer loans is therefore to be welcomed.

Slika 1.51: Breakdown of maturity of consumer loans




Slika 1.52: Proportion of consumer loans with a maturity of more than five years in EU Member States

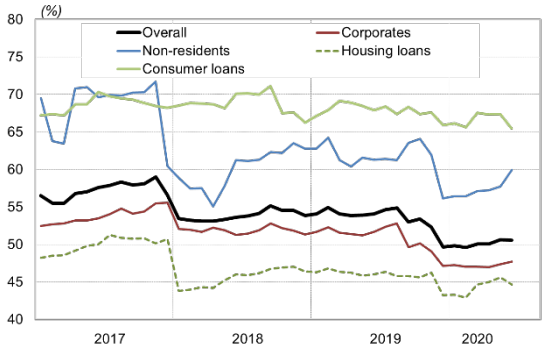



Note: New data collection means that the average maturity and the proportion of consumer loans differ from the figures presented in previous publications. In the right figure the countries denoted by the asterisk have introduced macroprudential restrictions on the maturity of consumer loans.
Sources: Bank of Slovenia (left figure), ECB (SDW) (right figure)

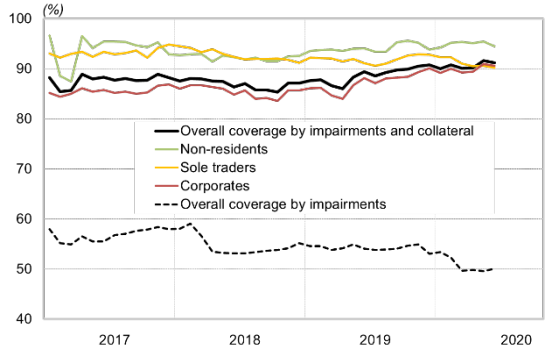
### *Coverage of performing and non-performing exposures by impairments*

**Coverage by impairments increased in the first half of the year in both the non-performing and performing parts of the portfolio.** The reduction in NPEs via sales and write-offs is generally reflected in reduced coverage of the remaining NPEs by impairments, as it is the worst claims that are removed from the portfolio in this manner, generally those with above-average or complete coverage by impairments. Coverage in June thus stood at 50.6%, down around 4 percentage points on August 2019, when it began a rapid decline. The trend of decline has come to an end this year. However, overall coverage by impairments and collateral is continuing to increase, and stood at 91.2% in June. It is around this level for corporates and sole traders, while it stands at 95% in the non-residents portfolio. Given the prevalence of real estate collateral, the indicator of overall coverage is subject to future developments in real estate prices.

Slika 1.53: Coverage of NPEs by impairments by selected customer segment



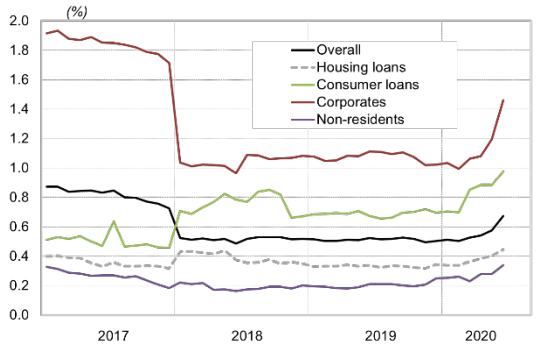

Slika 1.54: Coverage of NPEs by impairments and collateral



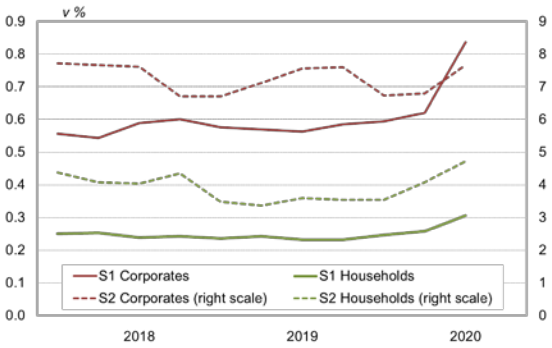

Note: Coverage in the right figure does not include the household sector. Collateral received is taken into account up to the carrying amount of non-performing exposures after the value of adjustment due to impairment and provisions
Source: Bank of Slovenia

**An increase in impairments on the performing part of the portfolio had been expected even prior to the outbreak of the pandemic, owing to the forecast cooling of economic activity in Slovenia and its main economic partners; the pandemic accelerated that process.** The predicted slowdown in economic growth even prior to the pandemic indicated an increase in the future formation of impairments for performing exposures, in accordance with the principles of IFRS 9. Total impairments on the performing part of the portfolio were up nearly 40% in the first half of the year (relative to the end of 2019), and by 33% in the second quarter alone. The coverage of the performing portfolio by impairments rose from a stable 0.5% over an extended period to 0.7% in June. The most pronounced increase in the coverage of performing exposures was recorded in the corporate segment, from 1.1% to 1.5%. However, growth in coverage was also recorded in exposures to non-residents and households, for housing loans and even more so for consumer loans. The breakdown of performing exposures by credit risk stages also indicates growth in coverage in both stages, both in the lowest-risk Stage 1 and in Stage 2 with a significant increase in credit risk. At the same time, as stated previously, a portion of the portfolio is reclassified from Stage 1 to Stage 2, which entails the increased creation of impairments in Stage 2 to cover a portion of the portfolio that is generally more poorly covered by impairments. Higher growth in impairments for performing exposures to corporates is a reflection of the banks' increased awareness of an expected rise in NPEs in this segment of the portfolio in the future.

Slika 1.55: Coverage of performing exposures by impairments by selected customer segment




Slika 1.56: Coverage by credit risk stage (excluding Stage 3)




Note: Stage 3 represents non-performing exposures, and for the sake of better transparency has not been illustrated in the right figure (coverage of NPEs ranges between 45% and 55%, and between 50% and 60% for households).
Sources: Bank of Slovena

***Box 1.3: Current changes in regulations in the area of credit risk as a response to the Covid-19 pandemic***

**A number of regulatory activities at EU level in the area of credit risk and reporting in this connection were made in response to the Covid-19 pandemic as part of the measures to alleviate its impact on businesses and households.** The European Commission, the EBA and the ECB issued interpretations and guidance to clarify how banks would best be able to exploit the flexibility in the existing regulatory (CRR) and accounting framework (introduction of IFRS 9) during the time of the Covid-19 pandemic.

**The application alone of support measures aimed at bridging the temporary period of reduced liquidity in the economy should not automatically lead to stricter prudential or accounting treatment of loans, when the debtor's financial situation is not deteriorating.** At the same time it is essential that banks continue to measure risks consistently and transparently, which is vital to monitoring the effects of the Covid-19 crisis on the EU economy and to ensuring the foundations for a resilient banking sector. Banks must promptly identify cases when borrowers are facing financial difficulties that could affect their long-term loans creditworthiness, and must continue applying reliable standards of loan approval and customer due diligence as required by EU legislation.

**In its statement of 25 March 2020 (Statement on the application of the prudential framework regarding default, forbearance and IFRS9 in light of Covid-19 measures), the EBA highlights the following aspects of flexibility within the existing regulatory framework:**

(a) in the event of the default of a debtor, banks retain flexibility in the sense of deciding how to continue the business relationship with the debtor;
(b) the definition of default must remain objective, which is particularly the case for the criterion of material credit liabilities more than 90 days in arrears, where arrears during the crisis may not be defined as technical defaults;
(c) the measures adopted by individual countries to alleviate the adverse impact of containment measures could mitigate the effect of the deterioration in the credit portfolio, as guarantees received by banks directly reduce loss in the event of default, while measures aimed at alleviating the impact of the liquidity crisis in the economy (e.g. deferrals of tax liabilities, subsidisation of labour costs) have a positive impact on the probability of debtors' survival;
(d) the establishment of a loan moratorium measure on the basis of national emergency laws does not automatically entail a significant increase in credit risk (important from an accounting perspective because of reclassification to Stage 2) and forbearance or default (important from a regulatory perspective because of the capital requirements in connection with exposures in default).

**On 2 April 2020 the EBA published its Guidelines on treatment of public and private moratoria in light of Covid-19 measures, which clarify the regulatory treatment of public and private moratoria introduced because of the Covid-19 pandemic that meet the conditions for general payment moratoria set out in the guidelines.** When banks approve a loan moratorium that meets the conditions for a general payment moratorium (it is not a measure tailored to the specific situation of an individual borrower), this does not automatically require the reclassification of the exposure as forborne (in accordance with the definition of forbearance under Article 47b of the CRR) or defaulted (in accordance with the definition under Article 178 of the CRR). The guidelines are important to Slovenian banks, as the Emergency Deferral of Borrowers' Liabilities Act (ZIUOPOK)[38] established just such a public moratorium. Via a regulation on the application of the guidelines, Bank of Slovenia stipulated

[38] Official Gazette of the Republic of Slovenia, Nos. 36/20 and 49/20 [ZIUZEOP].

that banks subject to its supervision should apply the end of the period of six months after the official end of the epidemic in Slovenia as the final deadline for the use of the moratorium, which was stipulated as the deadline for submitting applications for a moratorium to banks by the ZIUOPOK.

**On 2 June 2020 the EBA published its Guidelines on reporting and disclosure of exposures subject to measures applied in response to the Covid-19 crisis.** The guidelines apply to the reporting and disclosure of (i) exposures to which the prudential treatment set out in the guidelines on moratoria (general payment moratorium) applies, (ii) exposures subject to forbearance measures applied in response to the Covid-19 crisis, and (iii) newly originated exposures subject to public guarantee schemes introduced in Member States in response to the Covid-19 crisis. The first reporting and disclosure was undertaken as at 30 June 2020.

**The Report on the implementation of selected Covid-19 policies was published by the EBA on its website in July, and includes answers to FAQs in connection with the application of the guidelines on moratoria.** The report also contains an overview of the general moratoria established in individual EU Member States, supplemented with a list of public guarantee schemes established in EU Member States in response to Covid-19. The report is dynamic in nature, and is updated in response to current changes. Bank of Slovenia consequently updated its Guidelines for implementing the Regulation on reporting by monetary financial institutions, based on which it was possible for the first time to identify credit transactions concluded or modified owing to financial difficulties on the part of the debtor caused by the Covid-19 pandemic in the reporting as at 31 July 2020 using new fields in the BS1S report.

**One of the EU measures to alleviate the impact of the Covid-19 crisis on businesses and households was the publication in late June of a new version of the CRR (the CRR Quick Fix), which made certain changes in the area of credit risk.** Favourable treatment introduced in the area of capital requirements for credit risk by the CRR2 is being applied early: special treatment of loans to employees and pensioners approved by banks on the basis of unconditional transfer of part of the borrower's salary or pension to the bank, the use of the SMEs supporting factor, and the use of a new infrastructure supporting factor. Transitional arrangements (until the end of 2024) are being reintroduced for the favourable treatment of exposures to central governments and central banks denominated and funded in the domestic currency of another Member State. The transitional arrangements for these exposures within the framework of large exposures are also being extended. In addition, the transitional period for mitigating the impact of IFRS 9 provisions on the regulatory capital of banks is being extended by two years (until the end of 2024), thereby mitigating any impact on bank lending capacity from a sudden significant increase in expected credit-loss provisions during the economic downturn caused by Covid-19. Within the framework of the prudential backstop mechanism, loans with a government guarantee are subject to the same preferential treatment in terms of the requirements for minimum coverage of losses for NPEs as loans guaranteed by official export credit agencies (100% coverage required after seven years).

**Last but not least, it is worth citing the Guidelines on loan origination and monitoring published in late May 2020, which aim to improve the management of credit risk at banks (which should consequently have an impact on NPE ratios at banks).** The guidelines were not drafted in response to the Covid-19 epidemic, but the exceptional circumstances influenced the EBA's decision to make the effective date of the guidelines later than originally envisaged. They will begin to apply on 30 June 2021.

## 1.4 Risks inherent in the real estate market

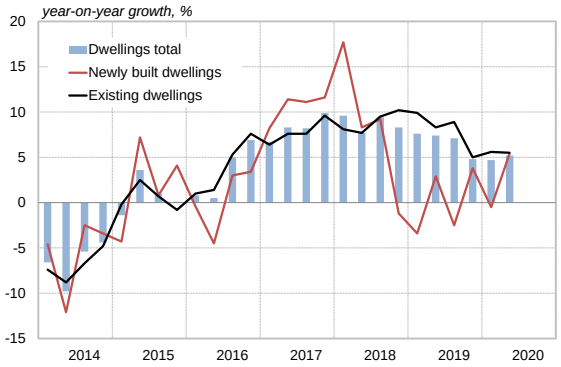
*The situation in connection with the Covid-19 pandemic entails a risk to the real estate market, but Slovenia is facing this crisis without major imbalances on the real estate market. Residential real estate prices have risen in Slovenia in recent years, while commercial real estate prices were already falling in 2018 and 2019 owing to the relatively low number of transactions and the consequent price volatility. The positive trend in residential real estate prices is the result of improvements in fundamentals (rising household income and favourable loan terms), and the low price levels after the previous global financial crisis. In the recovery prices overtook their long-term levels based on fundamentals, but the crisis is expected to bring lower growth in residential real estate prices in the period ahead. In keeping with expectations of lower growth in real estate prices, a decline in the volume of transactions was evident in 2018 and 2019, even before the outbreak of the Covid-19 crisis.*

### *Developments on the residential real estate market*

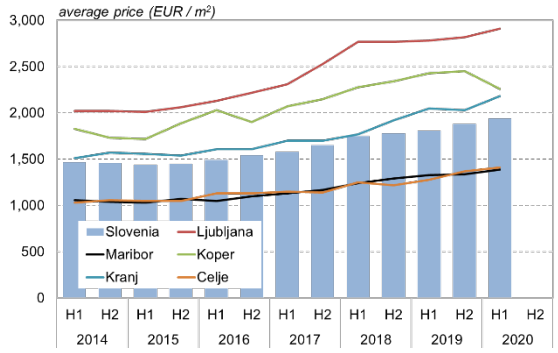
**Residential real estate prices have risen sharply in recent years.** Prices of all residential real estate rose by an average of 7.8% per year between 2015 and 2019, according to the nominal price index. Prices in the

second quarter of 2020 were up 5.2% in year-on-year terms.[39] According to the SMARS figures, prices per square metre on the used residential real estate market did not fall in the first half of the year, except in Koper and its environs. Prices per square metre remain highest in Ljubljana.

Slika 1.57: Residential real estate prices



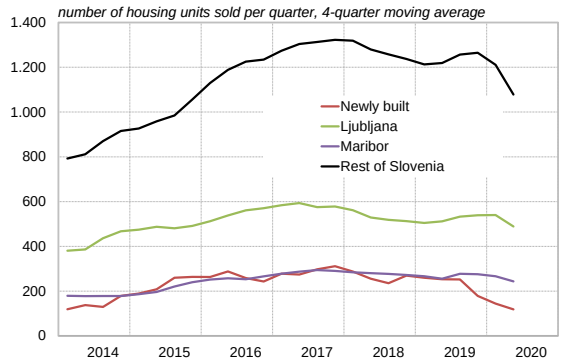

Slika 1.58: Average prices of used flats in major towns in Slovenia



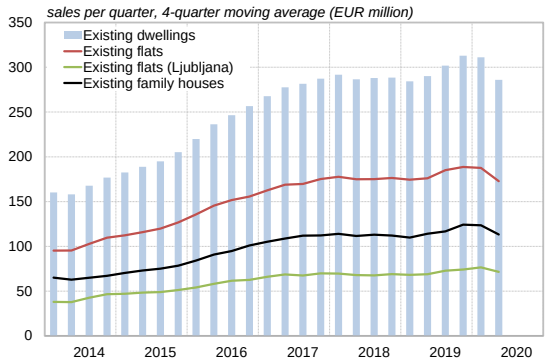

Sources: SORS, SMARS

**Although price developments were stable, the adverse impact of the outbreak of the Covid-19 crisis on the residential real estate market was reflected in a slight fall in the number of housing units sold as early as the first quarter of 2020.** Growth in the average value of transactions in residential real estate also slowed at this time. According to the initial SMARS figures, there were 10,800 real estate sales in Slovenia in the first half of 2020, with a total transaction value of EUR 770 million. Although there were signs of a slowdown in the residential real estate market even in 2018 and 2019, the number of transactions was down on the first half of 2019. The significant fall in the number of sales and total transaction value in residential real estate, particularly in the second quarter of this year, could be indicative of slower growth in prices in the future. Over the long term, the impact of the Covid-19 crisis on the residential real estate market will nevertheless depend on its duration.

Slika 1.59: Number of sales of residential real estate




Slika 1.60: Transaction volume in residential real estate

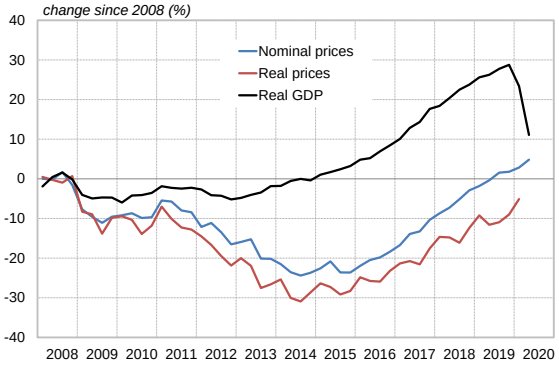



Source: SORS

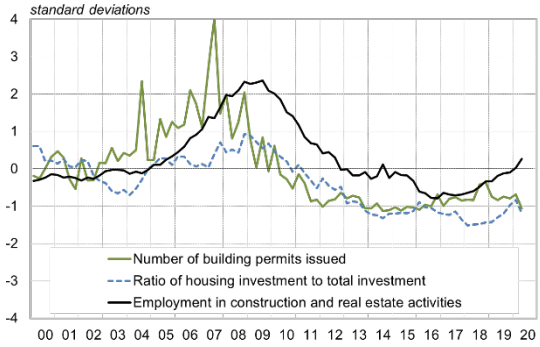
**Despite the slower growth in the last year, residential real estate prices are in line with the improvement in the fundamentals over the last five years.** The trend of rising housing prices in Slovenia over the last five years reflects the general growth in GDP the household disposable income, and the favourable borrowing terms on the bank lending market. Furthermore, on the supply side the number of issued building permits, the total workforce in employment in construction and the ratio of investment in real estate to GDP all indicate that supply of real estate is responding to the higher prices. The latest figures suggest that there have not been major deviations in construction, despite the restrictions imposed at the outbreak of the Covid-19 pandemic. Construction's share of total employment had increased in recent years from 6.3% in 2016 to 7.2% by the second quarter of 2019.

[39] SORS revised the nominal house price index from 2016 onwards. Most of the revisions stemmed from the revision in newly built dwellings index. The nominal house price index was therefore up 4.7% in the first quarter of 2020 as in comparison to the previous first quarter growth of 5.5%.

Slika 1.61: Change in GDP and in nominal and real residential real estate prices



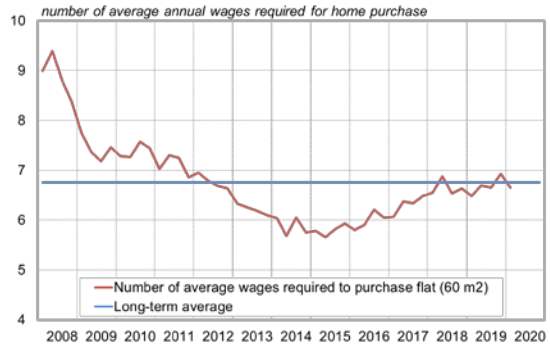

Slika 1.62: Deviations from long-term average in various indicators in construction and real estate activities sectors



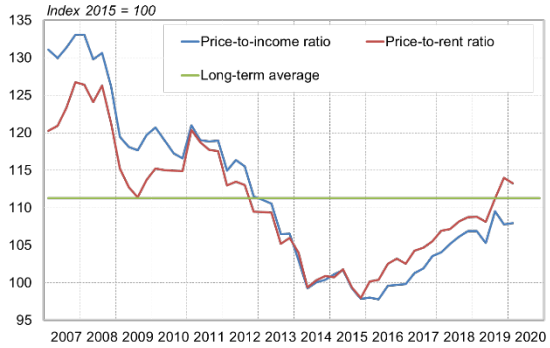

Note: The GDP figure is seasonally adjusted. Employment in construction and real estate activities in the right figure is illustrated in number of hours worked. All data series in the right figure are standardised for the sake of comparability.
Sources: SORS, Bank of Slovenia calculations

**There are no signs of overheating on the residential real estate market: the price-to-income and price-to-rent ratios are still close to their long-term averages.**[40] A similar conclusion can be reached from the indicator showing number of average wages needed to purchase a flat, defined as the ratio of the average price of a (60 $m^2$) flat to the average annual wage in Slovenia.

Slika 1.63: Ratio of housing prices to average wages in Slovenia compared with long-term average




Slika 1.64: Price-to-income ratio and price-to-rent ratio




Sources: Eurostat, SORS, OECD

**According to the latest assessment based on the residential real estate market valuation model,[41] prices on the residential real estate market are in line with their long-term fundamentals.** A structured VaR model is used to estimate the long-term fundamental trend in residential real estate prices, which is then compared with current developments in the real estate price index. The residential real estate price index has moved in line with the long-term fundamental prices in recent years, and the current difference between the two is not indicative of a significant gap in real estate valuations. The model forecasts for the period ahead suggest further growth in real estate prices, albeit at slower rates than in the previous years.

### *Supply and demand on the real estate market and the impact of the Covid-19 crisis*

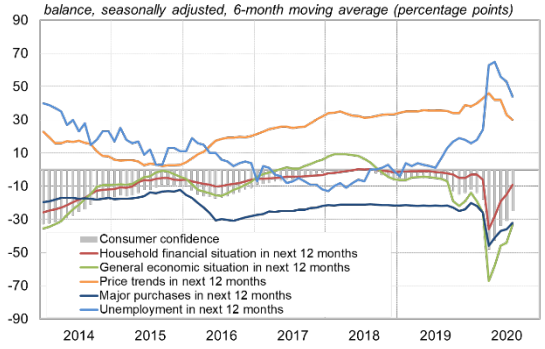
**According to the BLS, demand for residential real estate was slowing even before the outbreak of the Covid-19 pandemic.** The gradual cooling of the economy made consumers less optimistic about the economic outlook in Slovenia and their own financial position. Consumer optimism took a sharp downturn at the outbreak of the Covid-19 pandemic, although it has improved over the last three months according to the confidence indicators. The slowdown in demand for real estate is also attributable to diminishing

[40] The price-to-income ratio, which is reported by the OECD, is composited from two time series. The real real estate price index is the seasonally adjusted series of nominal real estate prices adjusted by the household consumption deflator. The price-to-rent ratio is determined using the seasonally adjusted series of nominal real estate prices and actual rents obtained from the consumer price index.

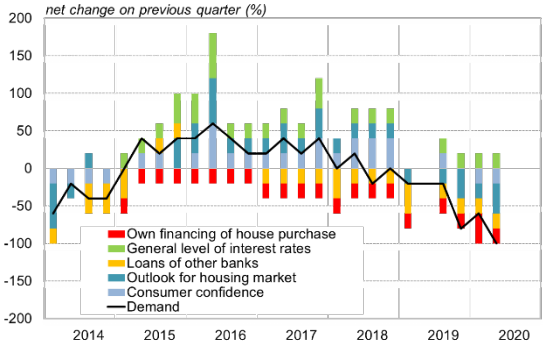
[41] The econometric model includes the following variables with quarterly frequency: residential real estate prices, rents, GDP, employment in construction (hours worked), construction costs, permits, average interest rate on mortgage loans (at various maturities) and inflation. Information about the model and the estimation method can be found in the June 2019 issue of the Financial Stability Review.

affordability, as growth in real estate prices outpaced growth in disposable income, particularly before the slowdown in the last year.

Slika 1.65: Consumer confidence



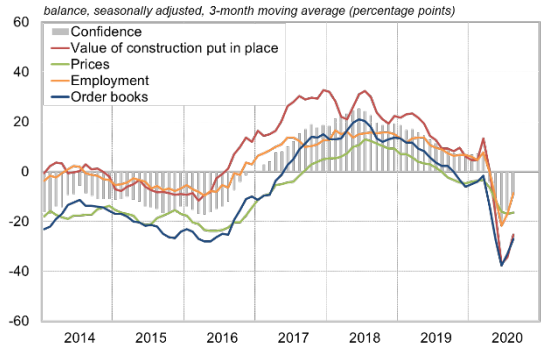

Slika 1.66: Demand for housing loans and demand factors



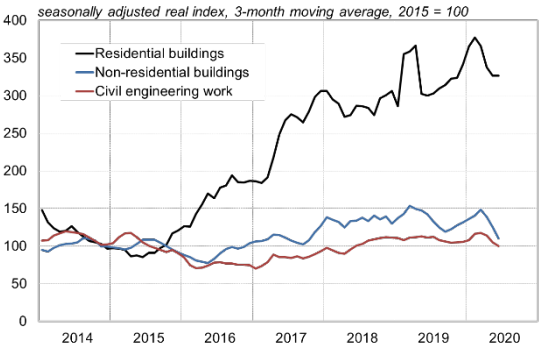

Note: The data in the right figure illustrates the net percentage change on the previous quarter. A positive net change indicates that the factor is increasing demand, while a negative net change indicates that the factor is reducing demand.
Sources: SORS, Bank of Slovenia (ECB SDW)

**On the supply side, the construction confidence indicators in the first half of 2020 were down significantly on 2018 and 2019, reaching their levels of 2015 and 2016.** By contrast, recent months have seen a rebound in the majority of confidence indicators, which currently suggest that Covid-19 had only a temporary impact, slowing activity in the construction sector in March and April, and crippling it entirely in real estate activities. The positive (longer-term) trend in construction is evident from the rise in the amount of residential construction put in place. A longer-term increase could also be discerned in the amount of non-residential construction put in place and in civil engineering work.

Slika 1.67: Business trends in construction




Slika 1.68: Amount of construction put in place




Source: SORS

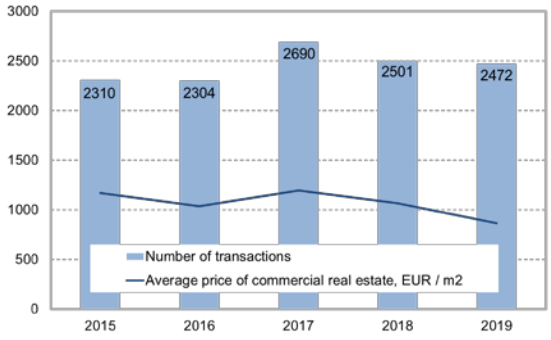
## *Developments on the commercial real estate market*

**Price dynamics on the commercial real estate market in 2019 were dependent primarily on sales of office space and retail/catering establishments, while the number of transactions in connection with industrial and tourism-related real estate remained negligible.** Average prices of commercial real estate in 2019 were down 18.8% on 2018, as prices of office space fell by 13.6%, primarily as a result of falls in prices of office space outside of cities (31.3% in the environs of Ljubljana), and in Kranj (46.5%) and Koper (9.7%). Prices of retail/catering establishments fell overall in 2019, by 24.2%, driven primarily by falls in prices of establishments in Ljubljana (22.8%), Maribor (12.6%) and Koper (45.2%).[42] By contrast, prices of office space remained almost unchanged in Ljubljana in 2019, and rose by 18.8% in Celje. It should be noted that the commercial real estate market in Slovenia remains small, and consequently is concentrated solely in the major retail centres and the central parts of the largest towns. Given the relatively small number of transactions, price volatility is high, and the rental market is highly competitive. The SMARS also finds the stock of commercial premises to be relatively old, given that in 2019 there was not yet any sign of much

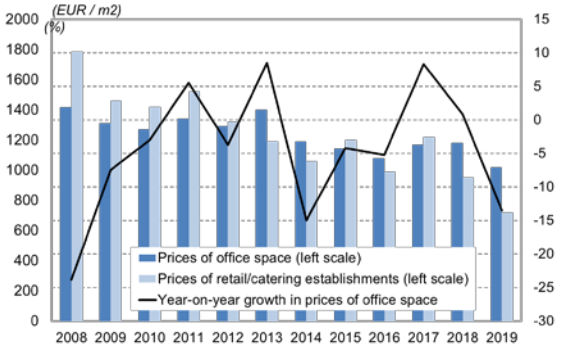
[42] The calculation of average commercial real estate prices captures the weighted average of prices of office space and retail/catering establishments.

appetite from investors for the construction of commercial premises, and volume has remained stable over the years at around 2,500 sales per year.

Slika 1.69: Commercial real estate prices and transactions



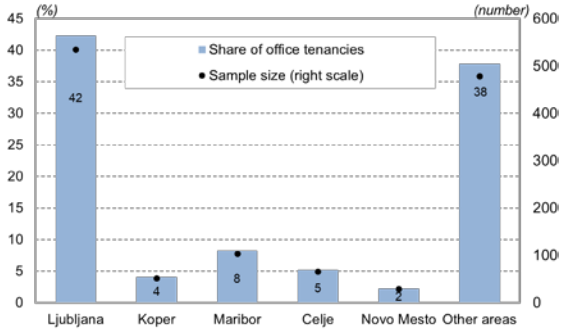

Slika 1.70: Prices of office space and retail/catering establishments



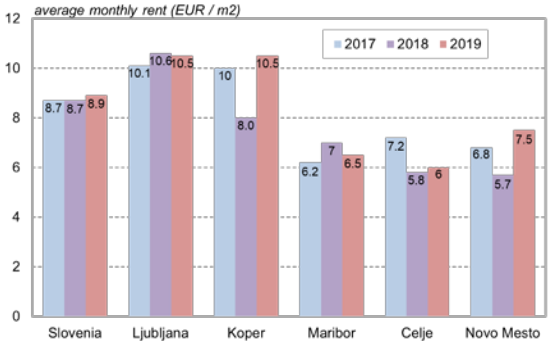

Source: SMARS

**The total number of new tenancy agreements fell again in 2019, as it had in 2018.** There was a 31.4% fall in new tenancy agreements for office space, and a 4.7% fall for retail/catering establishments. Despite the fall in the number of new tenancy agreements for office space and the economic slowdown in Slovenia in 2019, the rental market continued to see significant demand for commercial real estate. The main driver, particularly in Ljubljana, was the full occupancy of office space and retail establishments in the centre of the city and in retail centres. A shortage of new commercial real estate was thus evident in 2019. The proportion of new tenancy agreements outside of Ljubljana and Maribor consequently increased last year, an indication of the trend of increasing commercial activity outside the cities. The number of issued building permits for office and retail buildings rose slightly last year,[43] although the majority of the planned new build was for own use. There was no significant change in commercial rents relative to the previous year, with exception of Koper and Novo Mesto. The dynamics of the commercial rental market over the remainder of this year will depend significantly on the impact of Covid-19 on the Slovenian economy.

Slika 1.71: Breakdown of tenancies by municipality, 2019




Slika 1.72: Commercial real estate rents in major towns in Slovenia



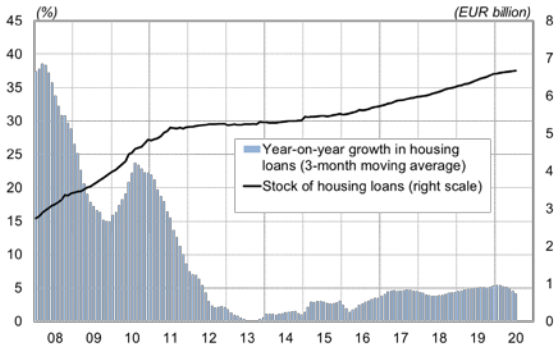

Source: SMARS

## *Real estate market and the banking system*

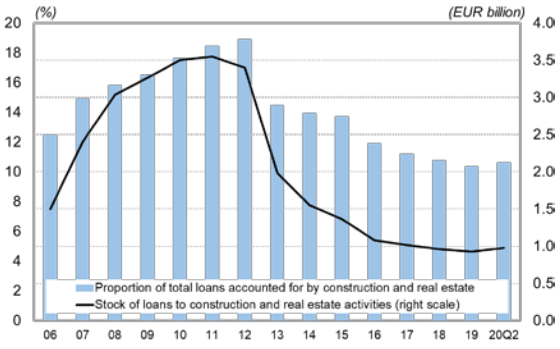
**In recent years the banks have reduced their exposure to the construction sector, while growth in housing loans to households has also been moderate.** The stock of loans to the sectors of construction and real estate activities is just around EUR 1 billion, down significantly on the figure of almost EUR 3.5 billion in 2012. Growth in housing loans slowed slightly in the first half of 2020, the year-on-year rate reaching 4.2% in June. The stock of housing loans to households amounted to EUR 6.7 billion in June.

[43] Also evident in the dynamics in construction confidence indicators, as stated above under Figure 1.67.

Slika 1.73: Stock of and growth in housing loans



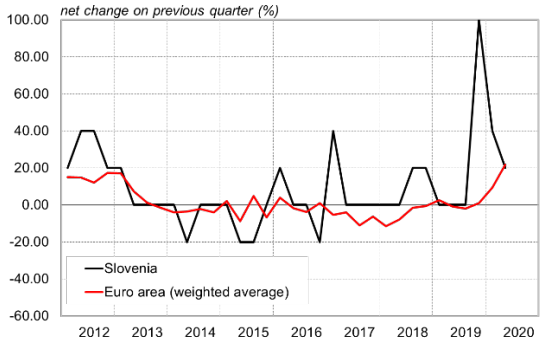

Slika 1.74: Stock of loans to the construction and real estate activities sectors



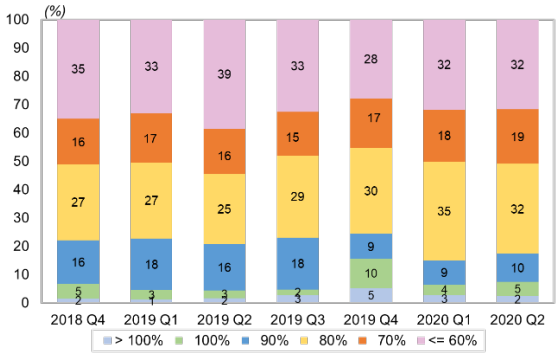

Sources: Bank of Slovenia, ECB (SDW)

**The banks' have slightly tightened their credit standards on new housing loans in Slovenia and in the euro area overall.** The average ratio of the value of the housing loan to the value of all forms of collateral for new housing loans declined. The LTV for new housing loans in 2019 and the first quarter of 2020 stood at 66.8%, but 66.6% in the second quarter of 2020.[44] The share of loans where the LTV exceeds 80% fell below 20% in the first half of 2020.

Slika 1.75: Credit standards for housing loans




Slika 1.76: Distribution of LTV for housing loans

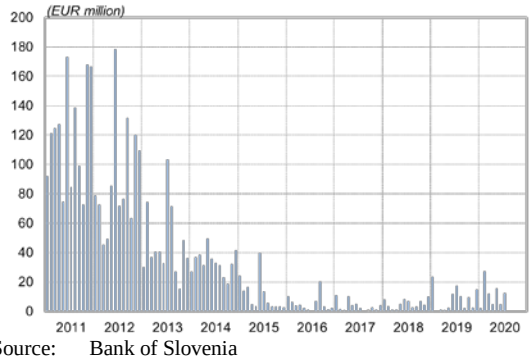



Note: The data in the left figure illustrates the net percentage change in the credit standards on the previous quarter (the net percentage of credit institutions in the sample recording a tightening of credit standards). A positive net change indicates a tightening of credit standards, while a negative net change indicates an easing of credit standards.

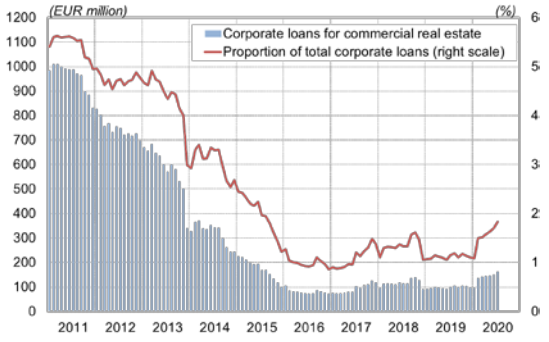
Sources: Bank of Slovenia, ECB (SDW)

**Bank loans for commercial real estate remained at a historically low level in the first half of 2020, despite an increase compared with the same period last year.** The stock of loans for commercial real estate amounted to EUR 151 million in June of this year, up EUR 58 million in year-on-year terms. The increase was driven by a slight increase in new loans for commercial real estate in the first half of the year, which averaged EUR 11 million per month. The Covid-19 pandemic thus did not have an impact on activity in the market. That the commercial real estate market is less active than the residential real estate market is primarily reflected in the lower demand for bank financing over the last five years.

Slika 1.77: New loans for commercial real estate




Slika 1.78: Stock of loans for commercial real estate

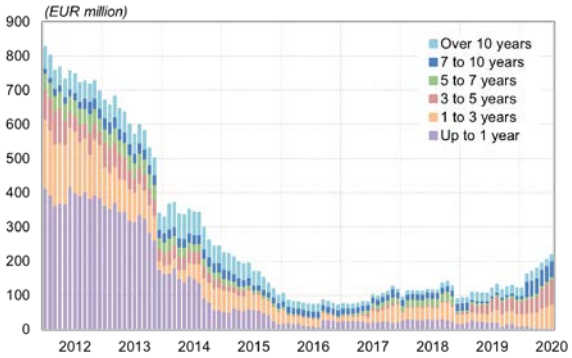



Source: Bank of Slovenia

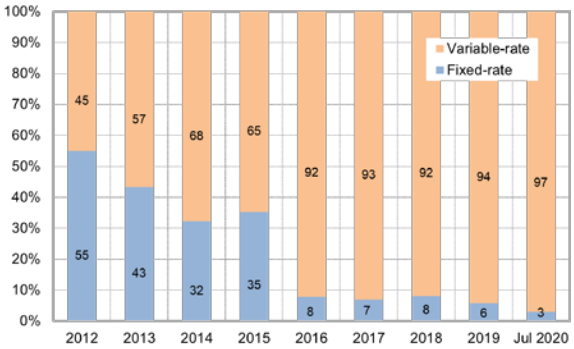
[44] The LTV relates to all loans secured by residential real estate collateral.

**The majority of loans for commercial real estate are variable-rate.** Some 97% of all loans for commercial real estate are variable-rate, and in July 2020 all loans were euro-denominated. In early 2019 approximately half of all loans for commercial real estate had been approved with an original maturity of more than three years, but in the second half of 2019 and the first half of 2020 the figure increased to two-thirds.[45]

Slika 1.79: Breakdown of stock of loans for commercial real estate by maturity




Slika 1.80: Breakdown of stock of loans for commercial real estate by type of remuneration




Source: Bank of Slovenia

## 1.5 Funding risk

*Deposits by the non-banking sector also increased in the adverse economic situation caused by the Covid-19 pandemic, thus strengthening the most important source of funding for Slovenian banks. There were increases in household deposits, driven primarily by reduced consumption and partly by the government's crisis transfers, and also in corporate deposits, predominantly in the form of sight deposits. Funding risk remains moderate, but average funding maturity is shortening as sight deposits continue to increase. The maturity gap between assets and liabilities remains a potential source of instability in the funding of the banking system, although the sound liquidity position means that the ability to absorb the adverse impact of a possible realisation of funding risk is relatively good.*

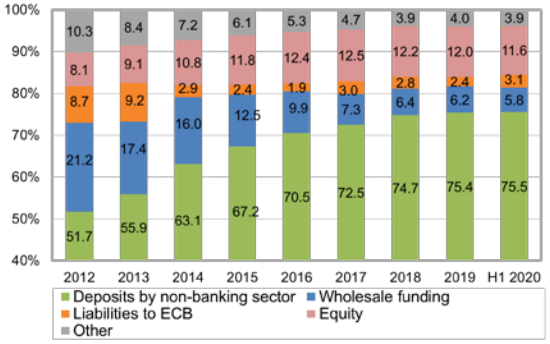
### *Bank funding*

**Despite the Covid-19 pandemic and the resulting economic shock, deposits by the non-banking sector remained a stable source of funding for the banking system.** They amounted to EUR 32.7 billion in June 2020, or three-quarters of total bank funding, having increased by 10% over the previous 12 months. Amid the ongoing increase in deposits and the simultaneous decline in loans, the LTD ratio for the non-banking sector declined to 71.8% in June, 26 percentage points less than the European average.[46] The low LTD is indicative of the Slovenian banking system's low dependence on other sources of funding. Most other European countries also saw a rise in deposits and a slowdown in credit growth after the declaration of the pandemic, which will also reduce the LTD at euro area level.

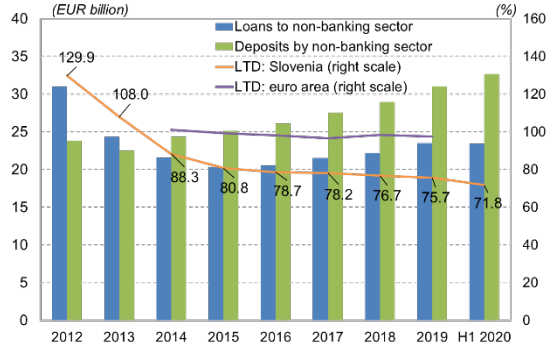
**The banking system's low dependence[47] on wholesale funding reduces the chances of the international financial markets having an adverse impact on the funding of Slovenian banks.** The banks continued to reduce their liabilities to banks in the rest of the world in the first half of the 2020, while issued debt securities increased slightly. Given the ample excess liquidity in the banking system, the banks can be expected to continue reducing their liabilities to foreign banks, while any issuance of debt securities will most likely be seen at banks that want to provide eligible instruments for meeting their MREL requirements. The improved terms for obtaining funding in ECB operations also encouraged Slovenian banks to participate. Despite an increase in liabilities to the ECB of EUR 374 million in the first half of the year 2020, the proportion of total funding that they account for remains low.

[45] The coefficient of correlation between the proportion of fixed-rate loans for commercial real estate and the proportion of short-term loans (up to one year) is 88%, measured between 2012 and 2020.
[46] Latest figures for the end of 2019.
[47] Wholesale funding accounted for 5.8% of the balance sheet total in June 2020, significantly less than at the outbreak of the previous crisis (the figure was 36% in December 2008).

Slika 1.81: Structure of bank funding



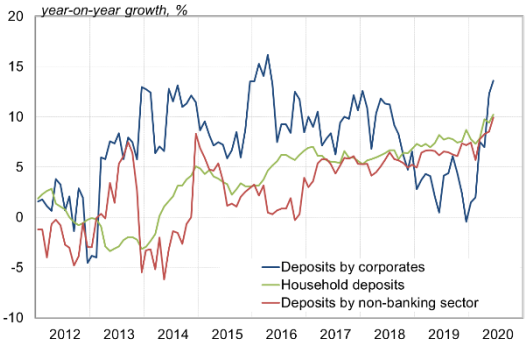

Slika 1.82: LTD ratio for non-banking sector



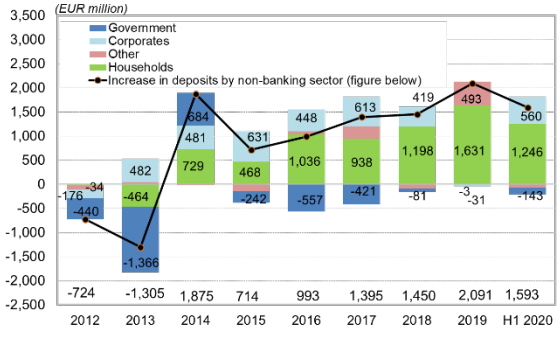

Note: Wholesale funding comprises liabilities to banks in the rest of the world and issued debt securities. The right figure illustrates the LTD figures for the euro area on a consolidated basis; data is available for 2014 to 2019.
Sources: Bank of Slovenia, ECB (SDW)

**Household deposits increased sharply at the beginning of the Covid-19 crisis, driven primarily by reduced consumption and partly by the government's crisis transfers. Growth in household deposits is expected to slow in the future.** Household deposits increased by EUR 1.2 billion over the first half of the year 2020 to reach EUR 21.6 billion, equivalent to half of the banking system's balance sheet total, a record high figure. The pronounced increase in household savings at banks, particularly between March and June, was attributable to reduced household spending on goods, services, movable property, real estate, etc., and also to the government payments made to alleviate the impact of the epidemic. Another factor in the increase was a seasonal effect (payment of leave allowance), with households most likely spending less of it than normal, on account of increased caution and the possibility of redeeming government holiday vouchers. Our expectation is that future growth in household deposits will slow: the economic shock has weakened the labour market, unemployment has risen, and disposable income has declined, which is reducing the capacity to increase bank savings.

Slika 1.83: Growth in deposits by sector




Slika 1.84: Increase in deposits by sector




Source: Bank of Slovenia

**After slowing over the previous two years, growth in corporate deposits rose sharply in the first half of 2020, the year-on-year rate reaching 13.6% in June.** The monthly changes in corporate deposits remain highly volatile. Similarly to household deposits, there was a significant increase in the stock of corporate deposits in the first months of the Covid-19 pandemic, when certain firms most likely drew down previously approved credit lines on precautionary grounds, and kept the money in bank accounts. In the future firms can be expected to gradually reduce their holdings at banks from the current level of EUR 7.3 billion, using the money to cover their own liquidity needs, particularly those firms hit hardest by the crisis (firms in tourism, accommodation and food services, service activities, the car industry, etc.). The main factor affecting developments in corporate deposits will be the ongoing evolution of the epidemiological picture and the economic situation.

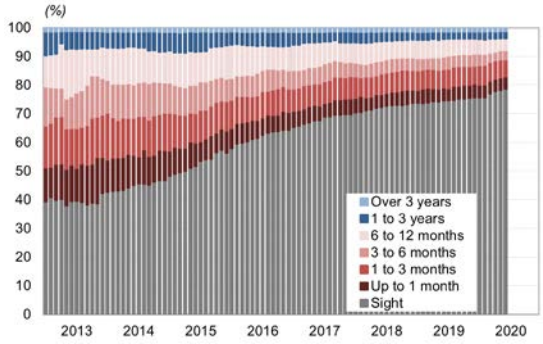
### *Deposit maturity and maturity gap between assets and liabilities*

**The first months of the pandemic mainly saw an increase in sight deposits, while short-term deposits began to decline.** The proportion of total deposits accounted for by sight deposits stood at 76.5% in June 2020 for the non-banking sector overall, and 81.4% for household deposits, up more than 3 percentage points in both segments relative to the end of 2019. Short-term household deposits had been gradually increasing

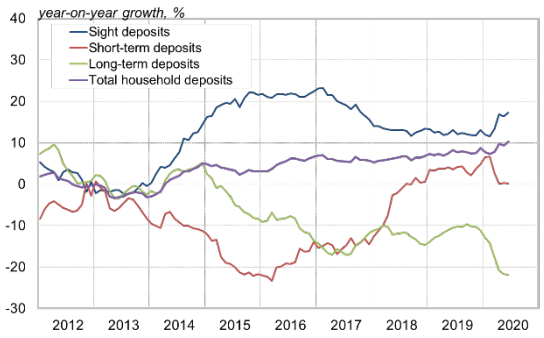
since the end of 2018, but began to decline with the outbreak of the epidemic. The decline in long-term household deposits seen since 2015 picked up pace at the same time.

**Interest rates on deposits remain extremely low, and below the euro area average, which is deterring savers from fixing deposits for longer terms.** Other factors are the epidemiological situation, and the uncertainty surrounding future developments in the economy and in the labour market. By holding their money in bank accounts, some savers are ensuring the immediate availability of their savings in the event of liquidity needs, while for others the build-up of sight deposits is merely temporary in nature, and the money is earmarked for investment and spending, which was highly constrained during the time of the epidemic (e.g. major purchases, including real estate). Given the aforementioned circumstances, the trend of increase in the proportion of total deposits by the non-banking sector accounted for by sight deposits is expected to continue in the future.

Slika 1.85: Breakdown of stock of deposits by the non-banking sector by residual maturity



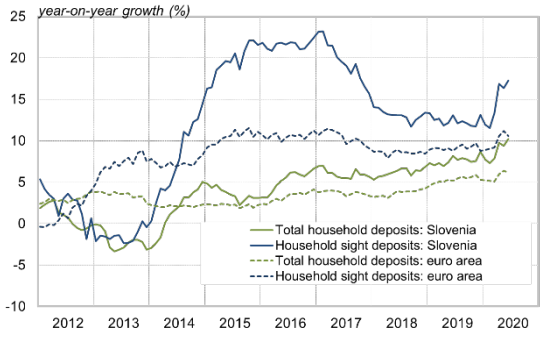

Slika 1.86: Growth in household deposits by maturity



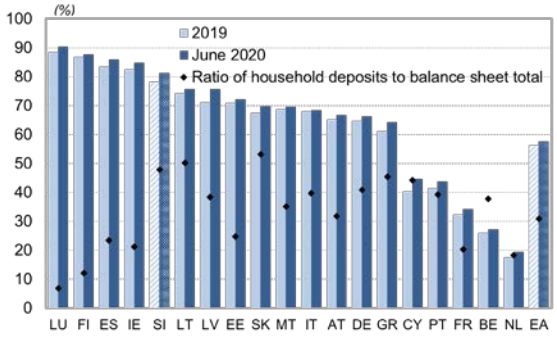

Source: Bank of Slovenia

**Household deposits, and household sight deposits, increased in the majority of euro area countries in the first half of this year.** Similarly to Slovenia, growth in household deposits was more pronounced in the euro area countries after the declaration of the Covid-19 epidemic. Year-on-year growth in household sight deposits in the Slovenian banking system had increased to 17% by the end of June, six percentage points higher than the euro area average. Slovenia remains one of the top five countries in the euro area in terms of the ratio of household deposits to the balance sheet total, with sight deposits dominating its household deposits.

Slika 1.87: Growth in household deposits by maturity, Slovenia and euro area average




Slika 1.88: Proportion of household deposits accounted for by sight deposits by euro area country

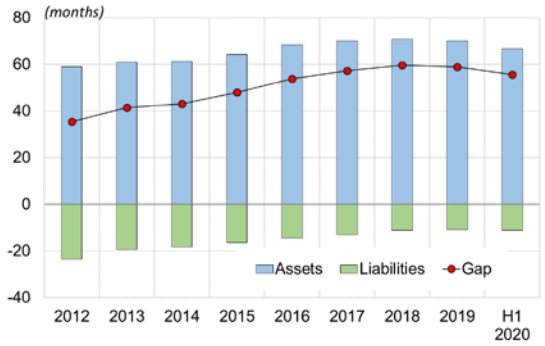



Sources: Bank of Slovenia, ECB (SDW), euro area statistics, Bank of Slovenia calculations

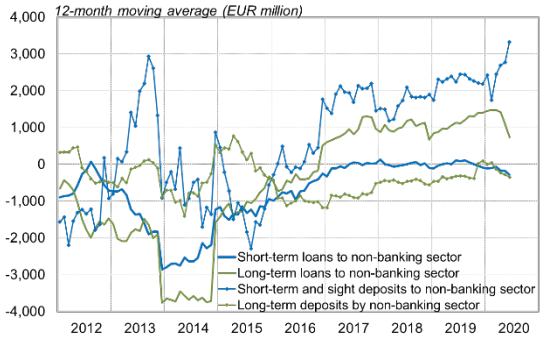
**A potential source of instability in the funding of the banking system comes from the maturity gap between assets and liabilities, although it is assessed that the likelihood of this risk being realised is low over the short term.** The increase in maturity mismatch most evident in the period of rapid growth in sight deposits since 2013 came to an end in the first half of 2020. In contrast to 2019, short-term and long-term loans declined in the first half of 2020, which helped to slightly reduce the maturity gap between assets and liabilities amid the further increase in sight deposits. This nevertheless stood at a high 4.6 years in June, up 14 months on 2013. The funding risk from the aforementioned maturity gap might be realised in a sudden stress event that triggers major switching of deposits between banks, or deposit flight from the banking system. The Covid-19 epidemic caused a sudden economic shock, but savers retained their confidence in the

Slovenian banking system, and deposits remained a stable source of bank funding. The realisation of this risk did not occur. Given the banking system's sound liquidity position, which is described in detail in the second section of this report, the ability to absorb the adverse impact of any realisation of funding risk is relatively good.

Slika 1.89: Weighted average maturity of assets and liabilities, and maturity gap




Slika 1.90: Net increases in deposits by and loans to the non-banking sector by maturity




Note: Loans to the non-banking sector solely include loans at amortised cost.
Source: Bank of Slovenia

## 1.6 Interest rate risk

*Interest rate risk remained moderate in the first half of 2020. The cumulative interest rate gap up to one year remains strongly positive, meaning that any rise in market interest rates in a one year horizon would have a positive impact on the banks' net interest income. Taking into account the stability of sight deposits, the average repricing period for liability interest rates remained longer than that for asset interest rates. In the event of a rise in market interest rates, asset interest rates would adjust faster than liability interest rates, which would see interest income rising faster than interest expenses. The impact on net interest income would therefore be positive. So far there is no sign of an impact from the Covid-19 pandemic and its economic consequences on the dynamics of maturities and interest rates on new loans to the non-banking sector.*

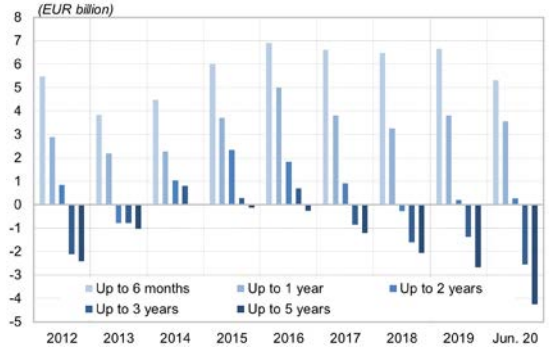
### *Interest sensitivity*

**The cumulative interest rate gap[48] up to one year has closed slightly since the beginning of this year, but remains strongly positive.** It also closed minimally in the horizon of up to two years, but remained positive, while in the horizon of up to three years it was negative, and still increasing in absolute terms. The main factor in the positive cumulative interest rate gap for the horizons of up to two years is the effective maturity[49] of sight deposits. These have an effective maturity that is much longer than their contractual maturity, and in the event of any change in market interest rates would mostly be retained, i.e. they would not be withdrawn. Individual maturity intervals reveal the maturity of almost half of bank assets to be between one and six months, which is also a major factor in the positive cumulative gap alongside the stability of sight deposits. Any rise in market interest rates would have a positive impact on the banks' net interest income over a period of one year. This is also the case for a period of up to two years, albeit to a lesser extent.

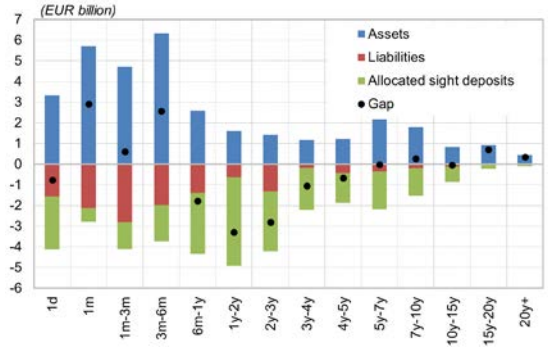
[48] The cumulative interest rate gap over a specific time horizon (e.g. up to one year) is the difference (in EUR billion) between asset and liability positions whose residual maturity is equal to or less than the given horizon.

[49] The effective maturity and stability of sight deposits need to be taken into account for the assessment of interest rate risk. Irrespective of the contractual maturity, which for sight deposits is *de facto* zero, sight deposits are classed as funding with indeterminate maturity. Their effective maturity is not unambiguously defined, and under normal market conditions it is the case that it sharply exceeds the contractually determined maturity, and can even amount to several years.

Slika 1.91: Cumulative interest rate gap



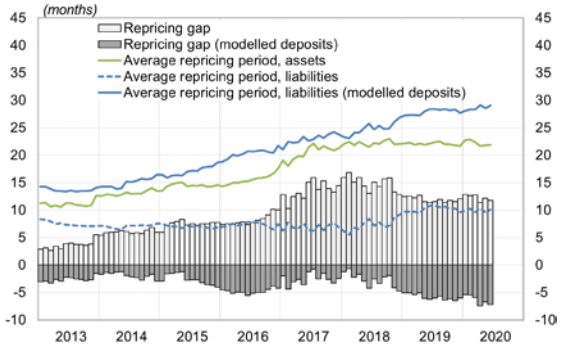

Slika 1.92: Interest-sensitive position of the system



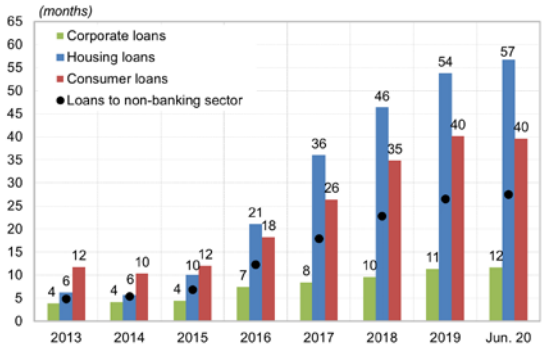

Note: The cumulative interest rate gap in the left figure takes account of the stability of sight deposits by allocating the stable component of sight deposits across intervals. The data in the right figure is for 30 June 2020.
Source: Bank of Slovenia

**Interest rate risk remained moderate in the first half of 2020.** The average repricing period for asset interest rates remained at its 2019 level during the first half of 2020, while the average repricing period for liability interest rates lengthened slightly, under certain assumptions. Taking account of off-balance-sheet items, amortisation schedules, interest rate hedges and the stability of sight deposits,[50] in June the average repricing period for liability interest rates was longer than that for asset interest rates. The repricing gap (modelled deposits)[51] therefore remained negative, and increased slightly in absolute terms relative to the end of 2019. In the event of a rise in market interest rates, asset interest rates would adjust faster than liability interest rates, despite the increase in the maturity gap in recent years, which would see interest income rising faster than interest expenses. The impact on net interest income would therefore be positive.

Slika 1.93: Comparison of repricing gaps including off-balance-sheet items




Slika 1.94: Average repricing period by loan type




Note: The left figure takes account of a sight deposit stability of 89% (modelled deposits), derivatives hedges, and amortisation schedules.
Source: Bank of Slovenia

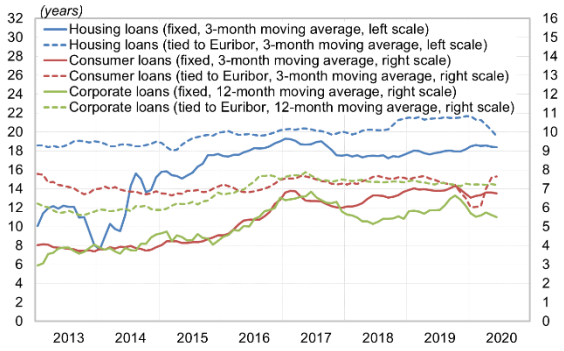
**The average repricing period for loans to the non-banking sector has lengthened since the beginning of 2020.** The largest increase was for housing loans, followed by corporate loans, while the average repricing period for consumer loans has shortened slightly. The lengthening of the average repricing period for housing loans is the result of the gradual lengthening of average maturity and a rise in the proportion of fixed-rate loans. By contrast, the average maturity of the stock of consumer loans has been gradually shortening since November 2019, when a binding macroprudential instrument was introduced to cap maturities at seven years, while the proportion of consumer loans with a fixed interest rate has been increasing more slowly.

[50] The allocation of the stable component of sight deposits across intervals takes account of a model-based estimate (modelled deposits). The stable component of sight deposits is estimated at 89%.
[51] The stability of sight deposits is estimated by means of a model, which provides an estimate of the stable component of sight deposits. The stable component is that part of sight deposits whose interest rates are highly unlikely to change even in the event of a change in market interest rates.

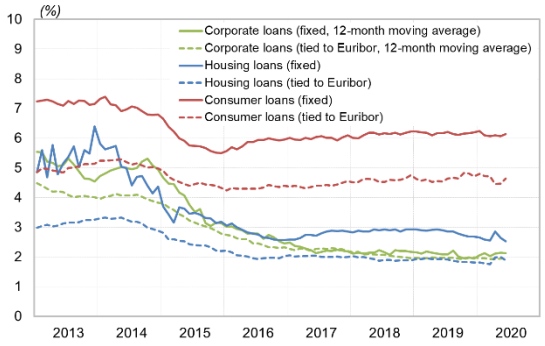
### *Dynamics of changes in loan maturities and interest rates*

**The decline in nominal interest rates in recent years has seen banks direct their funds into loans of longer maturities, to prevent an excessive loss of return on their credit portfolios.** The dynamics in average maturities of new long-term loans to the non-banking sector have differed this year among different types of loan. The average maturity of fixed-rate housing loans exceeded 18 years, up slightly on the previous year, which is gradually lengthening average maturity in the stock of such loans. Meanwhile average maturities of new corporate loans and consumer loans have shortened, with the same directional impact on the average maturities of the stocks of these loans. The average maturity of corporate loans in the first half of this year was less than five years, while the average maturity of consumer loans was less than seven years. While the shortening maturities of consumer loans can mainly be attributed to the binding macroprudential instrument that caps the maturity of consumer loans at seven years, for the moment there is no sign of the Covid-19 pandemic and its economic consequences having an impact on the maturity of loans to the non-banking sector.

Slika 1.95: Average maturities of individual types of new long-term loan




Slika 1.96: Average interest rates on individual types of new long-term loan

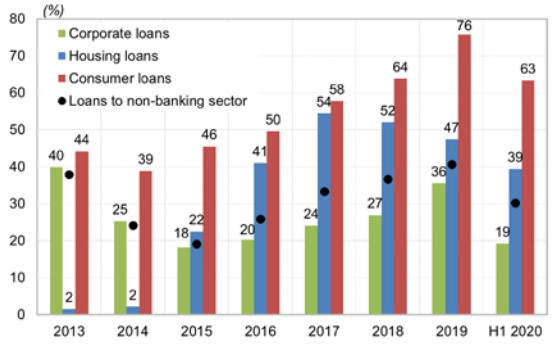



Note: In the left figure the maturity is calculated as a three-month average or 12-month average, owing to high variability. In the right figure the interest rate on corporate loans is calculated as a three-month average, owing to high variability.
Source: Bank of Slovenia

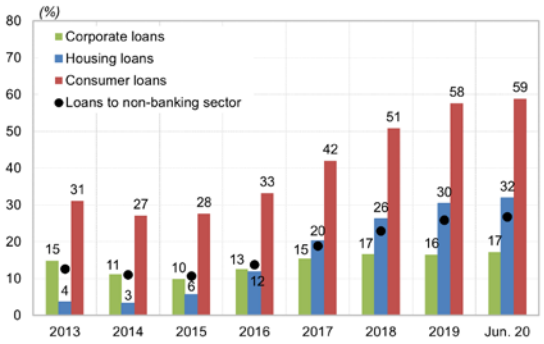
**The dynamics in interest rates on individual types of new long-term loan remained similar to the early part of the year even after the outbreak of the Covid-19 pandemic.** The largest increase was in fixed interest rates on corporate loans, although they remained close to their average of the last three years, amid great volatility. Fixed interest rates on corporate loans averaged 2.3% in the first half of the year, while the average spread between fixed and variable interest rates widened to 0.4 percentage points. Fixed interest rates on housing loans have gradually fallen[52] since the halfway point of last year, reaching their lowest average of the last ten years by June. Fixed interest rates on housing loans averaged 2.6% in the first half of the year, while the average spread between fixed and variable interest rates narrowed to 0.8 percentage points. Fixed interest rates on consumer loans have been the most stable: their average of 6.1% in the first half of this year was slightly below their average in 2019. The spread with variable interest rates remained, and stood at 1.5 percentage points.

[52] The rise in interest rates on new loans was attributable to the reporting method. Existing loans on which an annex to the contract was signed to modify the contractual repayment terms are also included under new loans. These loans were subject to a deferral of repayment or an extension of the residual maturity, and were therefore reported as new loans. Because interest rates were higher in the earlier periods when the loans were concluded, these loans had an upward impact on the average interest rate (the largest impact was evident in April of this year).

Slika 1.97: Share of fixed-rate loans for individual types of new loan




Slika 1.98: Share of fixed-rate loans for individual types of loan stock




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). Fixed-rate loans comprise loans concluded with a fixed interest rate for a period of more than one year.

Source: Bank of Slovenia

**The proportion of new loans to the non-banking sector with a fixed interest rate in the first half of 2020 was much lower than in the same period last year.** The figure for housing loans has been falling for three consecutive years. While more than half of housing loans in the first half of 2019 were concluded with a fixed interest rate, in the same period of this year the figure was just 39%. After rising for several years, the proportion of new consumer loans and corporate loans carrying a fixed interest rate in the first half of the year was down on the same period last year. Some 63% of new consumer loans in the first half of this year carried a fixed interest rate, down 7 percentage points on the same period last year, while the figure for corporate loans was 19%, down almost a half on last year. Despite the fall in the proportion of new loans, the proportion of loan stock accounted for by fixed-rate loans increased for all three types of loan. It is possible that the type of interest rate on new loans reflects an effect of older loans on which a moratorium has been applied. With the gradual slowing of the increase in the proportion of the loan stock accounted for by fixed-rate loans, the lengthening of the average repricing period for asset interest rates is also slowing.

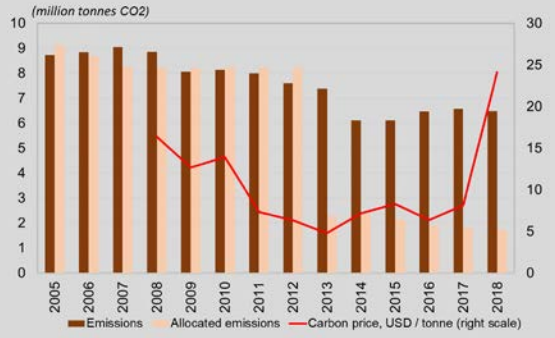
***Box 1.4: Climate risks: analysis of the banking system's sensitivity to an increase in $CO_2$ prices***

**Climate risks, whether physical or transition, are becoming increasingly important from the perspective of financial stability.** Given the economic downturn caused by the Covid-19 crisis and the impending energy transition, it is important to highlight initiatives like the European Green Deal and the increase in green investment in the European Commission's recovery fund, as these can contirbute significantly to the economic recovery after the current crisis and bring new opportunities for growth. Climate risks are characterized by uncertainty, related to climate change, and the timeline for the energy transition and its effects. This box presents an assessment of the banking system's sensitivity to changes in environmental policy within the framework of the energy transition, such as changes in prices of carbon dioxide (hereinafter: $CO_2$) emissions.

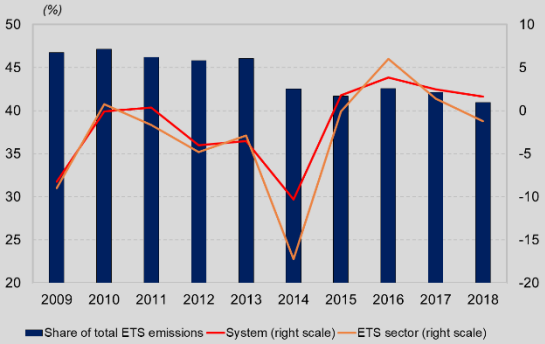
**One factor in climate risks is the price of $CO_2$ emissions, which is determined within the EU emissions trading system; the $CO_2$ price fell significantly at the outbreak of the Covid-19 epidemic, before returning to its pre-crisis level of December 2019.** The quantity of allowed emissions of greenhouse gases (emissions allowances) is determined each year within the framework of the EU's emissions trading system (ETS).[53] A proportion of the allowances are allocated cost-free in the ETS, while the remainder must be obtained by firms on the market. The proportion of emissions allocated cost-free has been reduced over the years (most notably in 2013), resulting in an increase of $CO_2$ prices. Other determinants of the $CO_2$ price are market expectations with regard to changes in environmental policy and economic activity: the $CO_2$ price fell significantly during the Covid-19 pandemic (to EUR 17 in March of this year), but rose sharply again after the lockdown (to its pre-crisis level of EUR 26 in August). The Slovenian firms taking part in the ETS accounted for 40% of total emissions in Slovenia in 2018. The emissions of Slovenian firms in the ETS fell sharply in 2014, which is indicative of the ETS's high sensitivity to the $CO_2$ price and its systemic importance.

[53] The quantity of allowances in the ETS is reduced on an annual basis by a linear factor, which is 2.2% in the period of 2021 to 2030.

Slika 1.99: Emissions in Slovenia and $CO_2$ price in the EU ETS, 2005 to 2018



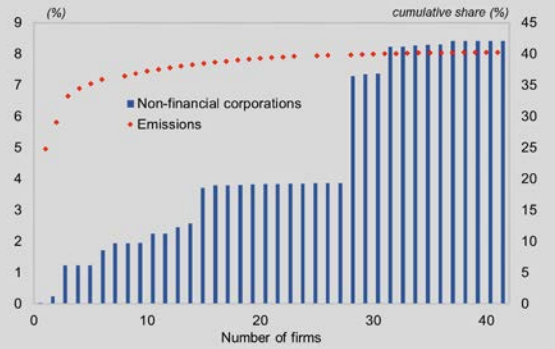

Slika 1.100: Proportion of Slovenia's total emissions covered by the EU ETS, and annual growth in Slovenia's emissions inside and outside the ETS, 2009 to 2018



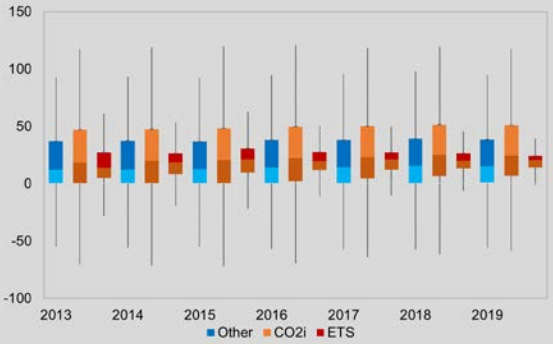

Sources: EU ETS registry, Bloomberg, ICE (2020)

**The number of emissions allowances is expected to fall in the future, thus raising $CO_2$ prices, to achieve reductions in emissions of greenhouse gases.** The projected $CO_2$ prices under various climate risk scenarios go as high as USD 100 per tonne of $CO_2$, or four times the current price, which is already at a record high. The latter could be a significant risk for the banking system in the event of the bank's high exposure to firms in the EU ETS that are less profitable.

Slika 1.101: Proportion of total bank exposure to NFCs accounted for by firms in the ETS, and proportion of total emissions accounted for by firms in the ETS, versus number of firms in the ETS




Slika 1.102: ROE of firms by segment




Note: The left figure illustrates the data for ETS emissions and total systemic emissions from 2018. The data on bank exposure is from June 2020. In the right figure $CO_2$i denotes the most climate-sensitive sectors as defined in the December 2019 issue of the Financial Stability Review, while ETS denotes firms included in the EU ETS. The individual colours denote the second and third quartiles of the distribution.
Sources: EU ETS Registry (2019), Bank of Slovenia (2020), AJPES

**The banks' exposure to firms in the ETS is small, which suggests that climate risks are manageable from this perspective, although these firms are less profitable than other firms.** These firms accounted for just 8.4% of the banks' total exposure to non-financial corporations in June 2020 (a decline by 0.6 percentage points relative to March). The $CO_2$ emissions generated by these firms are strongly concentrated in a small number of firms: the ten firms with the largest emissions accounted for almost 38% of the total. Climate risks could also increase for other firms with lower emissions, in the event of a change in $CO_2$ prices and lower profitability of these firms. A comparison of the profitability of carbon-intensive firms, other firms and firms in the ETS reveals that the profitability of firms in the ETS is lower than other firms'. The gap between the profitability of carbon-intensive firms and other firms is structural, and was evident in all years between 2013 and 2019. The latter is a potential factor of increased climate risk for banks.

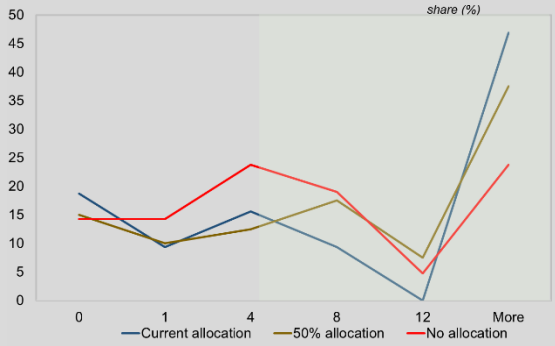
**Profitability robustness has been assessed under various scenarios for the purpose of assessing the climate sensitivity of firms in the ETS.** Profitability robustness is measured as the factor of increase in the cost of emissions allowances that a firm is able to withstand under its current profitability.[54] The first scenario envisages

[54] The factor of increase in pollution costs is calculated as profit/(p*Qk), where *Qk*, the quantity of allowances, changes under the various scenarios. A higher factor of increase in pollution costs means a higher absorption capacity, which represents the ability to maintain positive earnings when $CO_2$ prices change, and vice-versa.The analysis is based on the latest data from 2019, and takes account solely of changes in $CO_2$ prices from the cost of emissions allowances, and not from environmental taxes on air pollution, as set out in

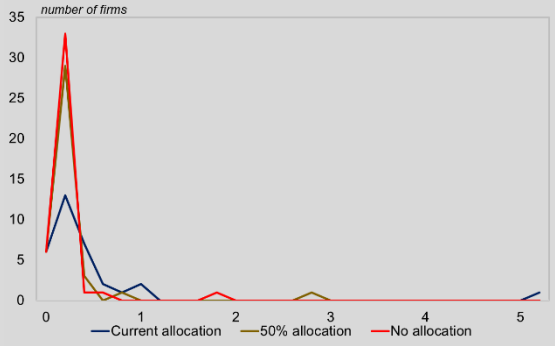
the current allocation from 2019, the second envisages a 50% cut in the number of allowances, while the third envisages no cost-free allocation. The final scenario is the most severefrom the perspective of the pollution costs burden.

**The results show that the majority of firms are able to withstand a fourfold increase in pollution costs (the envisaged price under climate scenarios).** This is also the case of the scenario with zero cost-free allocation of emissions allowances. Certain caveats need to be added here. First, an increase in pollution costs could significantly reduce profits, even with a positive absorption capacity. Second, firms' profits will be sharply reduced by the Covid-19 crisis, and subsequently affectingtheir absorption capacity in the event of a fast, intensive energy transition. Third, a rise in $CO_2$ prices could also impact profits in non-crisis times, depending on the energy transition concept. Fourth, firms with greater absorption capacity generally have lower emissions. Weighting absorption capacity by the share of emissions skews the distribution to the right, which illustrates a lower capacity to absorb higher $CO_2$ prices for the largest polluters.

Slika 1.103: Distribution of profit robustness of firms in the ETS under various scenarios




Slika 1.104: Distribution of profit robustness of firms in the ETS under various scenarios (weighted by share of emissions)




Sources: ARSO (2019), Bank of Slovenia (2020)

**The analysis reveals the climate risks in the banking system from a change in $CO_2$ prices to be low-to-moderate.** The banking system has relatively low exposure to firms in the ETS, and the majority of firms are able to withstand a significant rise in $CO_2$ prices. In the wake of environmental measures and the economic downturn caused by the Covid-19 crisis, uncertainty surrounding corporate performance is also rising. Initiatives like the European Green Deal and the increase in green investment in the European Commission's recovery fund can mitigate these risks, and bring new opportunities for growth. The latter will also depend on the economic recovery, and the green stimulus in EU Member States.

the Decree on the environmental tax on atmospheric pollution caused by carbon dioxide emissions (Official Gazette of the Republic of Slovenia, No. 48/18).

# 2 RESILIENCE OF THE BANKING SYSTEM

*Despite the economic downturn caused by the Covid-19 pandemic, the Slovenian banking system remains highly resilient, while the banks' capital position and liquidity position are significantly better than they were prior to the last global financial crisis. The common equity Tier 1 capital ratio remains above the euro area average. The quality of the capital used by the banks to meet their capital requirement has remained high, despite an increase in Tier 2 capital. The resilience of the banking system was strengthened by the inclusion of the profit from the previous financial year in regulatory capital, as the banks retained their earnings in full at the request of Bank of Slovenia.[55] Here it should be noted that resilience, and with it the capacity to absorb the anticipated adverse effects of the economic downturn caused by the Covid-19 pandemic, varies from bank to bank, as they have different levels of capital surplus at their disposal. The resilience of the banking system is expected to decline in the future, as a result of the deterioration in the quality of the credit portfolio and the decline in bank profitability. The banks with lower capital surpluses and the banks with large exposure to the sectors hit hardest in the crisis will find it harder to deal with the consequences of the economic shock.*

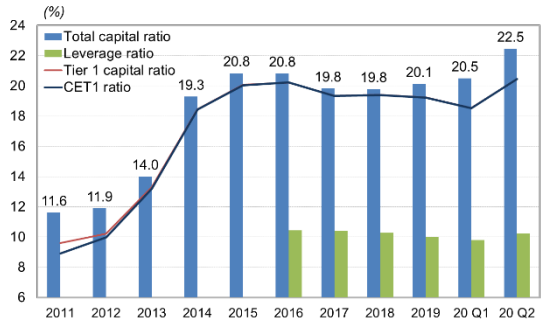
*The banking system's liquidity position improved even after the declaration of the Covid-19 pandemic, which further strengthened the banking system's resilience to a possible realisation of funding risk. The banking system now has a historically high ratio of primary liquidity to total assets, and a stable ratio of secondary liquidity to total assets. The proportion of the pool of eligible collateral at the Eurosystem that is free remained high, despite certain banks participating in tenders for ECB long-term refinancing operations. The LCR at system level remains well in excess of the regulatory requirement, although there is considerable variation from bank to bank. The liquidity stress tests revealed the survival period in an emergency to be relatively long, despite low liquidity surpluses at certain banks, which will allow the banks to adapt in the event of a worsening situation. A further deterioration in the economic situation and rising unemployment will have an impact on the use of savings kept with the banks, which could in the future lead to a deterioration in their liquidity position, particularly those with lower liquidity surpluses.*

## 2.1 Solvency

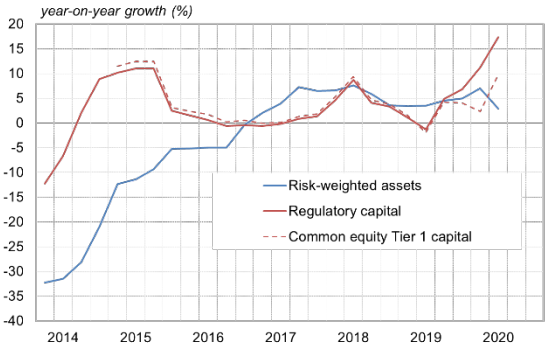
**Despite the economic downturn caused by Covid-19, the banking system has retained a sound capital position, and with it the capacity to absorb the adverse effects of the pandemic, which will continue affecting bank solvency in the future.** The banking system's total capital ratio and common equity Tier 1 capital (CET1) ratio on an individual basis both rose in the first half of 2020. As corporate and household lending slowed, growth in risk-weighted assets (hereinafter: RWA) slowed in the second quarter in particular, and was outpaced by growth in total capital. Regulatory capital increased in the first half of the year via retained earnings and via subordinated debt instruments included in capital Tier 2. As a result the total capital ratio on an individual basis increased by 2.4 percentage points in the first half of the year to 22.5%, while the CET1 ratio increased by 1.3 percentage points to 20.5%.

[55] Regulation on the macroprudential restriction on profit distribution by banks (Official Gazette of the Republic of Slovenia, No. 49/20), published online in Slovene at https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2020-01-0770/sklep-o-makrobonitetni-omejitvi-razdelitev-dobickov-bank.

Slika 2.1: Banking system's capital ratios on an individual basis



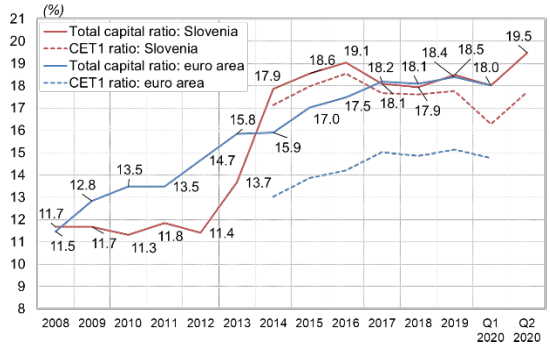

Slika 2.2: Changes in components of the total capital ratio on an individual basis



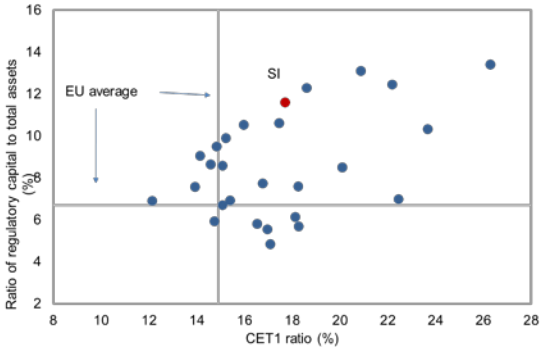

Source: Bank of Slovenia

**The CET1 ratio and the total capital ratio on a consolidated basis continued to exceed the euro area averages.** The total capital ratio increased to 19.5% over the first half of 2020, and while the CET1 ratio declined a fraction to 17.7%. The increase in regulatory capital was driven primarily by retained earnings, and the inclusion of subordinated bonds in capital Tier 2, as was the case on an individual basis. The proportion of total regulatory capital accounted for by capital Tier 2 nevertheless stood at 8.9%, a quarter less than the euro area average, which means that Slovenian banks meet more of their capital requirements with higher quality common equity Tier 1 capital than do banks on average in the euro area. An additional indicator of the robustness of the Slovenian banking system is the ratio of regulatory capital to total assets, which at 11.6% ranks Slovenia in the top five countries in the EU.[56]

Slika 2.3: Capital ratios compared with the euro area, consolidated basis




Slika 2.4: CET1 ratio and ratio of regulatory capital to total assets by EU Member State, consolidated basis, Q1 2020

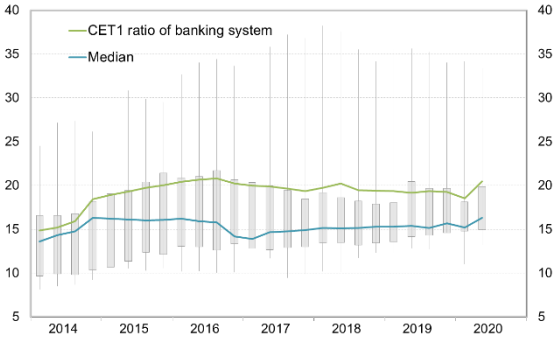



Note: The latest data (June 2020) is taken into account for Slovenia in the right figure.
Sources: Bank of Slovenia, ECB (SDW)

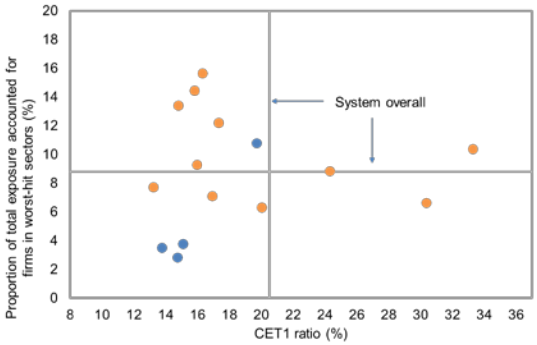
**Resilience to the adverse impact of the Covid-19 pandemic varies from bank to bank, owing to differences in their capital surpluses and differences in the structure and quality of the credit portfolio.** The capital position of almost all Slovenian banks is better than before the previous global financial crisis of 2008, although there remain differences between the banks. The small domestic banks and savings banks have improved their capital positions in recent years via recapitalisations, but the ongoing growth in the balance sheet total means that their leverage ratio (which averaged 4.8%) is still well below the average of the Slovenian banking system, which stood at 10.3% in June 2020. The significant banks[57] stand out for their high total capital ratios and leverage ratios, which grant them better capacity to absorb the adverse effects of the pandemic. The banks with lower capital surpluses and the banks with large exposure to the sectors hit hardest in the crisis will find it harder to deal with the consequences of the pandemic.

[56] The latest data for EU Member States is available up to the first quarter of 2020 inclusive.
[57] In line with the definition of the Single Supervisory Mechanism (SSM), they comprise the three largest banks in Slovenia, which are under the ECB's direct supervision: https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.listofsupervisedentities20190301.en.pdf. All other banks in the Slovenian banking system are classed as less significant institutions (LSIs).

Slika 2.5: Distribution of common equity Tier 1 capital ratio on individual basis




Slika 2.6: Common equity Tier 1 capital ratio on an individual basis versus exposure to firms in the worst-hit sectors at individual banks, Q2 2020




Note: In the right figure the small domestic banks and savings banks are denoted by the blue dots. Includes exposures to firms in the following sectors: transportation; accommodation and food service activities; professional, scientific and technical activities; administrative and support service activities; cultural activities.
Source: Bank of Slovenia

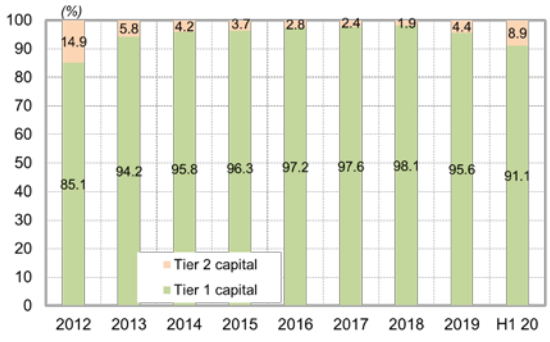
**Regulatory capital increased by 13.2% over the first half of the year 2020 to reach EUR 5.1 billion, primarily as a result of the retention of earnings from the previous financial year and an increase in Tier 2 capital.** With the aim of maintaining a stable capital position and providing eligible instruments for meeting the MREL requirements, after 2018 certain banks began increasing their Tier 2 capital by issuing subordinated debt securities. The proportion of total regulatory capital accounted for by Tier 2 capital thus increased over the first half of 2020 to 8.9%, which still means that Slovenian banks meet their capital requirements primarily with common equity Tier 1 capital. Common equity Tier 1 capital increased by 7.9% over the first half of the year, as a result of the retention of earnings from the previous financial year, which the banks were required to retain in full. This was the result of a macroprudential measure introduced by Bank of Slovenia in April of this year with the aim of strengthening resilience to the economic shock during the Covid-19 pandemic, thereby maintaining the financial stability of the banking system (for more on the measure, see the fifth section of this report). Our estimate is that ordinary dividend payments would have reduced the banking system's common equity Tier 1 capital on an individual basis by between 0.5% and 1.0% in the first half of the year.[58] This means that the CET1 ratio would have amounted to 18.9% at the end of June 2020, approximately 1.6 percentage points less than the actual value of 20.5%. Amid the economic downturn caused by the Covid-19 pandemic and the resulting anticipated deterioration in the quality of the credit portfolio, and the simultaneous slowdown in credit growth, generating profits will be a major challenge for the banks in the future, and the opportunities for growing capital will be diminished. Covering losses with capital surpluses will in future lead to a reduction in the banking system's resilience to a possible downturn.

**Another factor in capital management is the need to meet the minimum requirements for own funds and eligible liabilities (hereinafter: MREL). Our assessment is that the banks will have no difficulty in covering the MREL deficit over the transition period provided.** All banks in Slovenia (with one exception, owing to its move to another banking group) have been informed of their MREL requirements. Banks that are earmarked for compulsory wind-down have an MREL in the amount of their capital requirements,[59] while banks that meet the conditions for resolution have higher requirements. MREL-eligible instruments at banks in Slovenia amounted to 14% of their total equity and liabilities at the end of 2019 (compared with 15% at the end of 2018). Banks that are earmarked for resolution and have an MREL that is higher than their capital requirements primarily met the MREL via own funds, which accounted for 81% of all MREL-eligible instruments at the end of 2019 (up from 77% at the end of 2018), and less via unsecured claims and non-covered deposits (deposits by financial institutions, pension funds, government). Within the framework of the amended Directive establishing a framework for the recovery and resolution of credit institutions and investment firms,[60] banks with a shortfall in MREL-eligible instruments will have a transition period until 2024 in which they will be able to provide for the requisite MREL-eligible

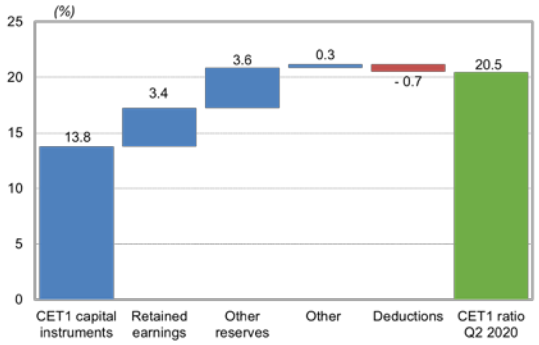
[58] The calculation of the estimate took account of a dividend rate based on: i) the EBA stress test methodology, which includes a maximum dividend rate of between 30% and the median rate of the last five years in the baseline and adverse scenarios, and ii) the average dividend rate of the last five years.
[59] The capital requirement is the sum of capital requirements under Pillar 1 and Pillar 2, and all buffer requirements.
[60] Directive (EU) 2019/879 of the European Parliament and of the Council of 20 May 2019 amending Directive 2014/59/EU as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms and Directive 98/26/EC.

instruments. Given current conditions on the market, the banks should not have any difficulties in covering the MREL shortfall. The expectation is that for the sake of cost-efficiency, additional MREL-eligible instruments will be provided via unsecured claims, both in the form of issued debt securities and in the form of loans raised. The transposition of the amendments to the aforementioned directive into Slovenian law by the end of 2020 will bring the stipulation of the MREL requirements in the form of a percentage of total risk exposure and total exposure, which will make it easier for banks to plan the requisite MREL-eligible instruments.

Slika 2.7: Capital structure, individual basis



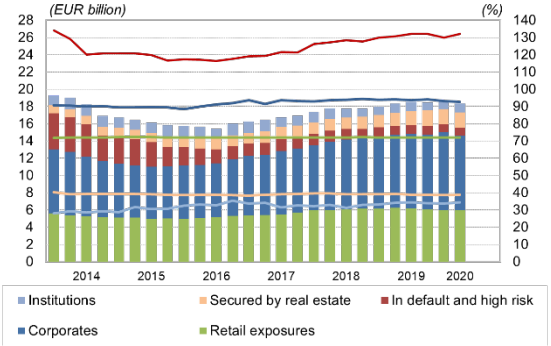

Slika 2.8: Ratio of common equity Tier 1 capital components to risk-weighted assets, individual basis



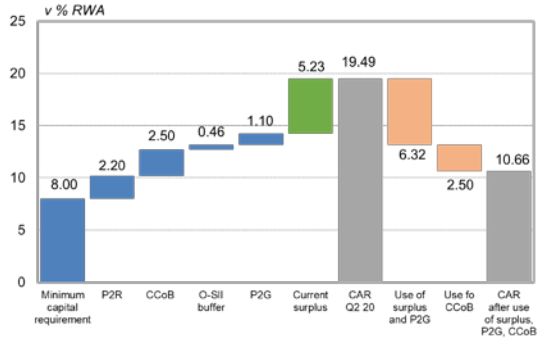

Source: Bank of Slovenia

**Year-on-year growth in RWA has slowed to 2.9%, as a result of reduced lending to corporates and households.** This reduced RWA in the form of retail exposures and exposures to corporates, but together they still account for almost 71% of total risk-weighted assets for credit risk. Exposures secured by real estate, where it is possible to apply lower risk weights, remained almost unchanged, and account for less than a tenth of RWA for credit risk. The proportion of exposures in default and exposures associated with particularly high risk, where the highest weights are applied, remained low in the first half of 2020. The economic crisis caused by the Covid-19 pandemic will reduce the quality of the credit portfolio, which will increase the average risk weight and raise RWA. The average risk weight at the end of June 2020 stood at 47%, almost 17 percentage points higher than the euro area average. The reason for the higher average risk weight is that Slovenian banks apply the standardised approach to fully 93% of their RWA for credit risk, which gives less capacity to apply lower risk weights. The corollary is that the use of more conservative methods makes Slovenian banks more robust.

Slika 2.9: Breakdown of risk-weighted assets for credit risk, and corresponding average risk weights, individual basis




Slika 2.10: Breakdown of capital requirements,[61] consolidated basis




Note: The abbreviation RWA in the key in the left figure stands for risk-weighted assets. In the right figure the blue columns denote the components of capital requirements, the green column is the surplus, and the orange columns denote the relaxation of capital requirements within the framework of the temporary measures of the ECB and Bank of Slovenia.

Source: Bank of Slovenia

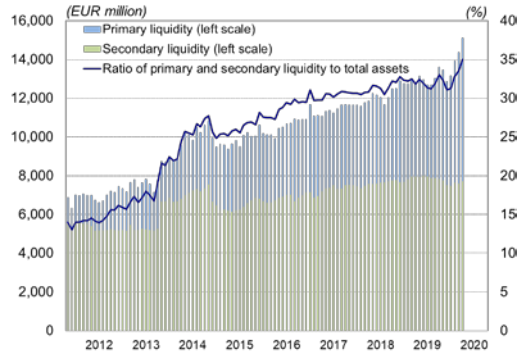
[61] The capital requirement consists of i) the minimum capital requirements (Pillar 1), ii) the Pillar 2 requirements (P2R), which are the result of the supervisory review and evaluation process (SREP), iii) the capital conservation buffer (CCoB), iv) the buffer for other systemically important institutions (O-SII buffer; for more, see the section entitled *Bank of Slovenia macroprudential measures*), and v) the Pillar 2 guidance (P2G), which in contrast to the P2R is not binding.

**The Slovenian banking system had a capital surplus of EUR 1,380 million at the end of June 2020.** Measures granting temporary relief from capital requirements were adopted by the ECB for significant banks and by Bank of Slovenia for less significant banks, with the aim of providing support to banks in dealing with the impact of the Covid-19 pandemic and providing further support to the economy. Banks are able to claim the temporary release of the capital conservation buffer and Pillar 2 guidance. This means a release of EUR 948 million or together with a surplus a possible use of EUR 2,328 million of capital in the Slovenian banking system. Whether these measures are adequate will depend on the duration of the pandemic and the magnitude of its impact.

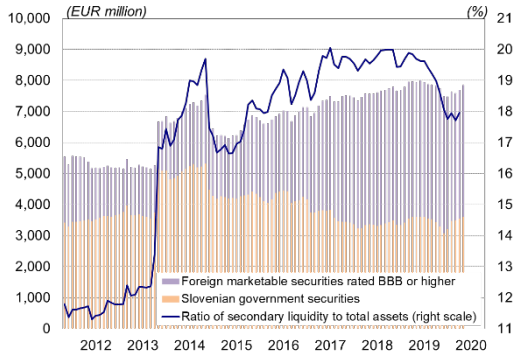
## 2.2 Liquidity

**The banking system's liquidity position remains good, despite the downturn caused by the Covid-19 pandemic. With primary liquidity[62] rising to a historically high level, the resilience of the banking system actually increased in the first half of 2020, and with it the capacity to absorb the adverse effects of a possible realisation of funding risk.** In the wake of the pronounced growth in deposits by the non-banking sector following the declaration of the Covid-19 pandemic, primary liquidity increased by EUR 1.6 billion in the first half of 2020 to EUR 7.4 billion. This took its ratio to total assets to the record high of 17.2%. Secondary liquidity[63] declined slightly in the first half of 2020, but at 18% of total assets it remained a third higher than during the previous crisis of 2013. The banks slightly increased the concentration of their secondary liquidity in the first half of 2020, by reducing their investments in foreign marketable securities rated BBB or higher and purchasing Slovenian government securities. The proportion of the banking system's secondary liquidity accounted for by Slovenian government securities amounted to 46% at the end of June, or 8.3% of total assets. It was high in general at the less significant banks.

Slika 2.11: Primary and secondary liquidity




Slika 2.12: Secondary liquidity




Note: Primary liquidity comprises cash on hand, balances at the central bank and sight deposits at banks. Secondary liquidity is calculated from liquidity ladder data as the sum of the monthly average of Slovenian government securities and foreign marketable securities rated BBB or higher.
Source: Bank of Slovenia

**The high liquidity coverage ratio (LCR) is indicative of the high capacity to cover net liquidity outflows over a short-term stress period.** There was no significant change in the LCR over the first half of the year: it stood at 310% in June 2020, three times higher than the regulatory requirement (100%), which ranks Slovenia third amongst EU Member States in this regard. The banking system's liquidity surplus over the regulatory requirement amounted to EUR 8.4 billion in June 2020, the largest figure since 2016. The liquidity buffer and net liquidity outflows both increased by 13% in the first half of 2020, as a result of which the LCR was unchanged. The increases in both components were primarily driven by the increase in household deposits and corporate deposits. Because growth in lending to the non-banking sector was strongly outpaced by growth in deposits by the non-banking sector, the banks kept the money received from deposits in accounts at the central bank, which raised the liquidity buffer and with it the LCR. At the same time growth in deposits had a negative impact on LCR via increased net liquidity outflows, particularly the growth in corporate deposits, where the rate of outflows is higher.

**All banks exceeded the regulatory LCR value, but the differences between banks remain significant.** There was a huge range in the LCRs of individual banks in June 2020, from a low of 172% to a high of

[62] Primary liquidity comprises cash on hand, balances at the central bank and sight deposits at banks.
[63] Secondary liquidity comprises Slovenian government securities and foreign marketable securities rated BBB or higher.

1,200%. It is primarily the small domestic banks and savings banks that have high LCRs: they hold a high level of primary and secondary liquidity on their balance sheets, in contrast to the subsidiary banks under foreign ownership. The subsidiary banks with lower LCRs (which nevertheless exceed the regulatory requirement) are less resilient to potential stress events, which is also confirmed by the results of the liquidity stress tests conducted by Bank of Slovenia (for more, see Box 2.1 below). At the same time the chances of these banks surviving a stress period could be greater, if the parent bank is able to provide support in the event of major liquidity needs.

***Box 2.1: Liquidity stress tests***

**This year's supervisory (solvency) stress tests, which are conducted primarily at EBA level, followed by the ECB and the national supervisors for banks under their jurisdiction, have been postponed until 2021 because of the outbreak of the Covid-19 crisis.** Given the importance of monitoring key risks at the level of individual banks and savings banks, and at the level of the banking system, Bank of Slovenia therefore decided to conduct liquidity stress tests of the entire banking system in Slovenia nevertheless. Liquidity risk has been highlighted on several occasions as one of the three key risks (alongside credit risk and capital risk) that need to be intensively monitored over the short and medium terms.

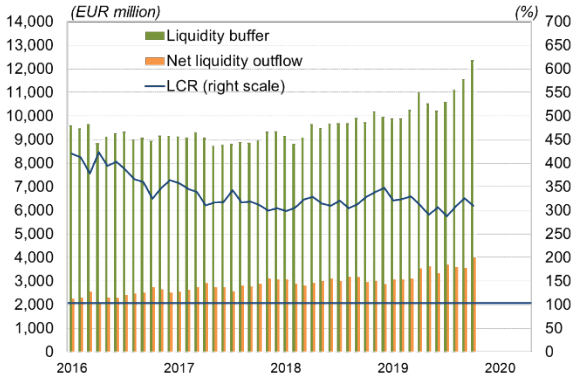
**The approach is based on a micro top-down calculation, and the ECB SSM methodology for targeted liquidity stress tests in 2019.** The scenarios used (an adverse scenario and an extreme scenario[64]) are based on previous liquidity crises, and were calibrated for all European countries by the ECB. Bank of Slovenia has made the scenarios even harsher or more extensive, having added a partial shock to secondary liquidity (revaluation), which is a key element in the liquidity position within the framework of the ECB methodology. The methodology of analysis thus encompasses i) the stress-impacted outflow of sight deposits, ii) the revaluation of secondary liquidity, iii) assurance of an adequate liquidity position through contraction of the balance sheet, iv) the impact of undrawn approved credit lines, and v) calculation of liquidity capacity for the needs of new lending. The banks' results are evaluated through a survival period, and a normalised net liquidity position at the end of the test horizon.

**The analysis reveals that the banks' liquidity position remains sound under the baseline scenario, while the stress test was failed by one of the 15 banks under the adverse scenario, and four of the 15 banks under the extreme scenario.** The survival period nevertheless remains relatively long, and does not fall below five months (under the adverse scenario) or three months (extreme scenario) for any bank. This ensures that there is sufficient manoeuvring room to potentially make adjustments to liquidity positions and to carry out mitigation measures. There is greater sensitivity to liquidity shocks at the subsidiary banks under foreign ownership where secondary liquidity is lower and at banks whose business model is primarily based on covering the liquidity position directly through ordinary cashflows.

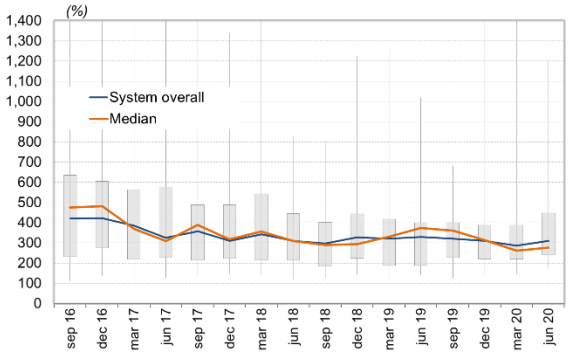
**There was a significant improvement in the quality of liquidity reporting in 2019, and consequently the results of the 2020 liquidity stress tests were more consistent.** The key activities include: i) revisions of the initial data and reporting within the framework of the ECB SSM quality assurance process, ii) Bank of Slovenia's call to improve the quality of reporting within the framework of regular bilateral meetings, iii) the warning in connection with poor data quality and the inadequate approach to stress tests in the SREP letters and the annual letter to management boards, and iv) off-site inspection of the quality of supervisory reporting in the area of liquidity.

[64] The identification of the main channels via which liquidity risk was transmitted in the past and the calibration of the shocks were undertaken on the data of 15 euro area banks that survived a liquidity crisis between 2014 and 2018. The liquidity shocks are reflected in factors (between zero and 100%), and define the level of outflows (inflows) of contractual liability (asset) cashflows. For example, the adverse scenario envisages outflows of fixed-term deposits of between 18% and 66% (compared with between 36% and 84% under the extreme scenario), outflows of sight deposits of between 12% and 48% (compared with between 29% and 74%), and a fixed stock of lending to non-financial customers (a static balance sheet or inflows of zero).

Slika 2.13: Liquidity coverage ratio (LCR)



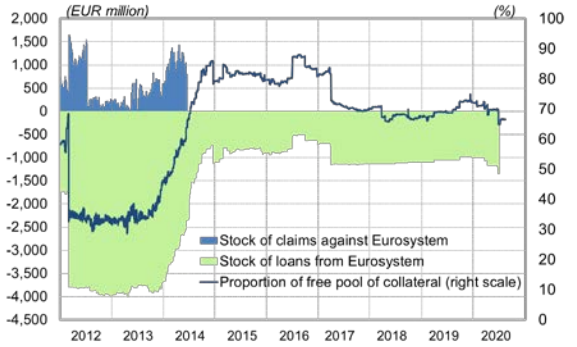

Slika 2.14: Distribution of LCR by quartiles



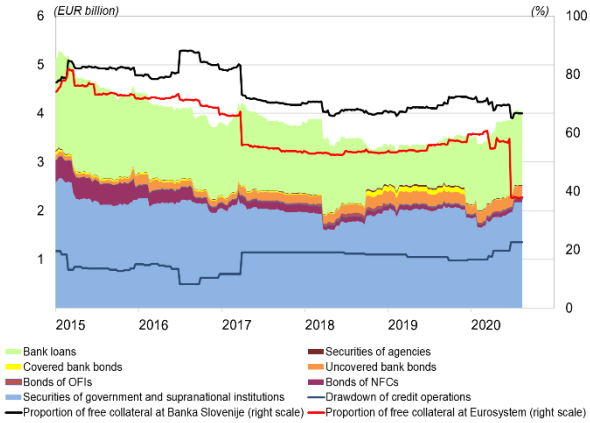

Note: In the left figure the horizontal blue line denotes the minimum requirement for the LCR in accordance with the CRR (100%).
Source: Bank of Slovenia

**The proportion of the pool of eligible collateral at the Eurosystem that is free remained high, despite the banks' participation in the TLTRO-III, which allows them to obtain additional funds in the event of major liquidity needs.** The aforementioned figure declined by 7 percentage points over the first half of the year 2020 to stand at 65% in June, double the euro area average. Slovenian banks still mainly include government bonds and bank loans in the pool of eligible collateral. The approval of more favourable terms for the TLTRO-III as part of the Eurosystem's additional monetary policy measures to promote lending to the non-banking sector in the downturn caused by Covid-19 also encouraged Slovenian banks to participate in the operations. They constitute stable and inexpensive long-term funding, which is a particular benefit for smaller banks for whom market funding represents a higher opportunity cost, especially in times of increased uncertainty on the financial markets. Slovenian banks obtained EUR 1.1 billion of funding in the June TLTRO-III, although the net impact on liquidity was small, owing to the repayment of funds from the TLTRO-II. Given their high excess liquidity, Slovenian banks have only taken advantage of one fifth of all available TLTRO-III funds. This, in turn, makes it possible for the banks to access the aforementioned source of liquid funds in the event of major liquidity problems in the future. The impact of Eurosystem monetary policy measures on the liquidity of the Slovenian banking system is described in detail in Box 2.2.

Slika 2.15: Banks' claims and liabilities vis-à-vis the Eurosystem, and proportion of the pool of eligible collateral that is free




Slika 2.16: Eligible collateral for Eurosystem operations




Sources: Bank of Slovenia, ECB

**With the further aggravation of the situation due to the Covid-19 pandemic, and the magnitude of its consequences, the banks liquidity position could deteriorate.** The economic downturn, rising unemployment and declining income are all factors that will impact the spending of the funds held in bank accounts by corporates and households. Major outflow of deposits by the non-banking sector, which are the main source of funding, could worsen the liquidity position and thus resilience, particularly at banks with lower liquidity surpluses. Another factor adversely affecting the banking system's liquidity will be the moratoria on borrowers' payments covered by the government measure to alleviate the impact of the

epidemic on the economy, although the simulations suggest that the measure will not significantly weaken the banking system's liquidity position.[65]

***Box 2.2: Impact of ECB measures on the liquidity of Slovenian banks***

**In addition to a sharp expansion in securities purchases, the Eurosystem responded to the downturn caused by the Covid-19 pandemic with extra refinancing operations and changes in the collateral terms.** By March of 2020 it had launched additional longer-term refinancing operations maturing in June 2020 for the immediate provision of liquidity to the financial system. In April it then announced seven extraordinary pandemic emergency longer-term refinancing operations with a maturity of eight to 16 months (PELTROs), and also improved the terms of the third series of targeted longer-term refinancing operations (TLTRO-III). It also eased the criteria for eligible collateral for Eurosystem operations, to ensure that counterparties face minimal disruption to their drawdown of operations. In conjunction with other central banks around the world, it also provided seven-day and three-month liquidity in US dollars on a daily and weekly basis.

**A wide spectrum of additional monetary policy measures was used by the Eurosystem to respond in three areas in connection with the macroeconomic and market situation during the pandemic.** First, the measures contributed to the stabilisation of the market situation in circumstances of extreme uncertainty. Second, sufficient liquidity was made available to the financial system at accommodative terms to prevent any deterioration in financing conditions or the interruption of lending to the real economy. Third, the measures aimed to ensure that the pitch of monetary policy was suitably accommodative, and via a functioning transmission mechanism would provide support for the economic recovery while protecting price stability over the medium term.

**Providing sufficient liquidity at favourable terms is of great importance in the euro area and in Slovenia, as banks play a key role in financial intermediation.** An important role in this area is being played by the TLTRO-III. The banks' participation in the TLTRO-III is tied to their past and future lending to the private non-financial sector, as the purpose of these operations is to encourage banks to continue supporting the economy by approving loans to corporates and households. At a time of elevated risks and uncertainty in the real sector and the financial sector alike, banks were further encouraged in their lending by the more attractive terms of the TLTRO-III adopted by the Governing Council of the ECB in the spring: a lower interest rate, increased lending, and a cut in the lending performance threshold.[66]

**The more favourable terms made the TLTRO-III a more attractive proposition, and pushed banks in the euro area to record high levels of participation in the June operations.** A total of EUR 1,308 billion was allotted to 742 banks in the euro area in June 2020, more than in the two allotments in the three-year LTROs conducted during the euro area debt crisis in 2011 and 2012 (EUR 1,019 billion in total). The euro area figures show bank lending to non-financial corporations to have increased sharply in recent months: it rose by EUR 250 billion over the four months from February 2020. This was most likely attributable to firms' increased demand for loans and also, at least in certain countries, to government guarantee schemes, which have increased the banks' certainty of mostly being able to take advantage of the most favourable terms. This would entail banks being able to achieve an interest rate of 50 basis points below the deposit facility (currently an interest rate of -1.00%) for one year, and an interest rate equal to the deposit facility (currently -0.50%) for the remaining two years. The early repayment option available to banks at the quarterly level from September 2021 has also increased the attractiveness of operations for banks with high excess liquidity that do not need additional sources of liquidity. Growth in lending activity together with the easing of the lending performance threshold increase the banks' certainty of achieving the lowest interest rate, which alongside the two-tier remuneration of excess reserves should partly compensate them for the cost of the negative interest rates paid for excess liquidity.

**Slovenian banks' level of participation in the June tender of the TLTRO-III was lower than the euro area average.** They obtained funds of EUR 1.1 billion, less than the total obtained in the two three-year operations in 2011 and 2012, in which Slovenian banks participated at record levels. They utilised 22% of their available funding, compared with the euro area average of 52%. While funds in the two previous three-year longer-term operations were predominantly drawn down by significant banks, on this occasion the majority was drawn down by other banks. The net increase in liquidity amounted to EUR 176 million, as the banks mainly rolled over liquidity from the TLTRO-II and other longer-term operations introduced in March 2020.

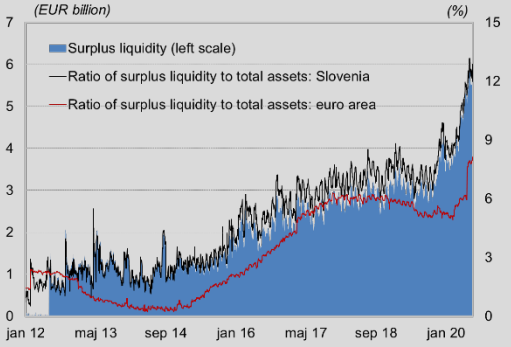
[65] The simulation is presented in detail in the Assessment of systemic risks and resilience of the financial sector during the Covid-19 epidemic, which can be found on the Banka Slovenije website at https://bankaslovenije.blob.core.windows.net/publication-files/ocena-sistemskih-tveganj-in-odpornosti-financnega-sektorja-ob-epidemiji-covid.pdf.

[66] The interest rate for the period of June 2020 to June 2021 will be 50 basis points below the average interest rate applying to the main refinancing operations during this period, while for banks that do not reduce their lending to the non-financial sector between March 2020 and March 2021 the interest rate will be 50 basis points below the average interest rate on the deposit facility prevailing over the same period. The borrowing allowance for each TLTRO-III was also raised from 30% to 50% of their stock of eligible loans as at 28 February 2019, minus any funds borrowed in the TLTRO-II. The lending performance threshold was reduced from 2.5% to 1.15% for the two-year period of 1 April 2019 to 31 March 2021, and to 0% for the pandemic period of 1 March 2020 to 31 March 2021.

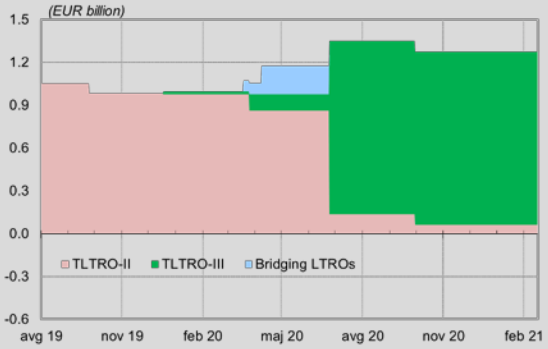
**The lower utilisation of the borrowing allowance by Slovenian banks is most likely attributable to their initial pessimism with regard to achieving the lowest interest rate and their high excess liquidity.** In contrast to banks in the euro area overall, growth in corporate lending slowed sharply in Slovenia in the second quarter of 2020, which might suggest a lower probability of achieving the lowest interest rate in the TLTRO-III. According to Bank of Slovenia figures, after the first five months the lowest interest rate would only have been achieved by a few banks and savings banks in Slovenia, while fewer than half of the banks would have paid the maximum interest rate for their borrowings. These are of course preliminary figures, as the period for reviewing the lending data for the calculation of the interest rate is 13 months, i.e. from 1 March 2020 to 31 March 2021.

In addition, Slovenian banks are also facing high excess liquidity.[67] Their balances at the central bank accounted for 14% of the asset side of the balance sheet at the end of June, significantly more than at the end of 2012 (2%), and more than the euro area average (8%). The banks' main source of funding consists of household deposits and corporate deposits, growth in which is outpacing growth in lending, which is increasing their excess liquidity. Despite the risk of sudden withdrawals, this funding is more stable than wholesale funding and less subject to external shocks, which is most likely also the explanation for the smaller proportion of Slovenian banks' funding accounted for by Eurosystem liquidity operations compared with 2011/2012 (3% at the end of June 2020 compared with 8% at the end of 2012).

Slika 2.17: Excess liquidity of Slovenian banks and savings banks




Slika 2.18: Stock of monetary policy instruments in Slovenia with maturity




Note: In the right figure the abbreviation LTROs denotes longer-term refinancing operations.
Source: Bank of Slovenia

**Slovenian banks rarely participate in other refinancing operations.** A small number of banks participated in the additional LTROs introduced in March. The liquidity thus obtained, maturing at the end of June, was mostly rolled over into the TLTRO-III. The banks have not shown any demand for the PELTROs. There is also very little interest in liquidity denominated in US dollars.

**The easing of the collateral criteria in April 2020, which was adopted by the Eurosystem as one of its temporary measures, reduced the collateral valuation haircuts for Slovenian banks.** Haircuts on bank loans were reduced more than those on securities. The proportion of bank loans in the collateral structure of Slovenian banks is higher than the Eurosystem average. The reductions in haircuts saw the banks increase their pool of eligible collateral by 4.7% or EUR 172 million to EUR 3.8 billion. Other measures had no direct impact on Slovenian banks: some were irrelevant because of the structure of the Slovenian banks' pool, while some that increase the stock of additional bank loans in the banks' portfolio are still in the process of being studied.

### *Box 2.3: Resilience of the banking system to cyberattacks*

**The relentless rise of digitalisation, which is impacting banking in Slovenia and across the globe, is also bringing increased exposure to cyber incidents,[68] which can interrupt the operations of banks or even inflict financial damage on them.** However, a single policy for limiting systemic risks in connection with cyber incidents is yet to be formulated at the European level. Based on Slovenian banks' reporting of cyber incidents, Bank of Slovenia can identify that the number of cyber incidents is not growing, and did not even

[67] Excess liquidity is the liquidity that the banks hold in excess of their needs deriving from net autonomous factors and the prescribed minimum reserve requirements. It is defined as the amount by which the deposit facility at the Eurosystem exceeds the reserve requirement. Autonomous factors include issued banknotes, deposits by public-sector entities at the central bank and financial assets of the central bank that are not a consequence of the implementation of monetary policy.

[68] Cyber incidents are defined as an unwanted or unexpected information security event or a series of such events that could plausibly disrupt the operations of an institution and endanger information security.

rise during the Covid-19 pandemic. One of the keys to improving the banking system's cyber resilience is regular testing of information systems against cyber incidents and penetration.

***Review of existing cyber resilience of the banking system***

**The year-on-year rise in the number of cyber incidents targeting banks, insurance corporations, firms and individuals is more than 12%. The banking system faces online fraud, particularly in the form of phishing and DDoS[69] attacks, which aim to disrupt the functioning of banking services for the purposes of blackmail.** Bank staff are increasingly becoming a target of attacks via mail containing malware, which is usually found in an attachment, where opening the attachment triggers the transfer of malware to the bank's network. The last two years have seen a rise in the number of phishing attacks on bank customers; the attacks have mostly been unsuccessful, with no financial damage to the customer or the bank. It is one thing to measure how many cyber incidents there are at banks, but it is also necessary to take account of how many of the incidents are successful, i.e. caused financial damage or totally disrupted the bank's operations. The assessment for 2020 is that the number of cyber incidents in the Slovenian banking system is low, as they are primarily phishing attacks, which failed to cause financial losses. Mostly these are attacks with trojans and penetrations of card operations, which did not cause major financial damage.

**A degree of dependence on external providers of IT services is also evident in the banking system. The dependence on this concentration of providers is problematic, primarily from the perspective of managing the risks inherent in this business cooperation.** There is one external provider of IT services that provides similar services at more than half of the banks across the system. The banking system's exposure to certain cyber risks is thus increasing; the ending of cooperation with this service provider would not only endanger the operational functioning of banks (on account of potential disruptions to the maintenance and upgrade of the information system), but would also increase the likelihood of the knowledge of the system being abused for potential penetration of the network, thus causing financial damage.

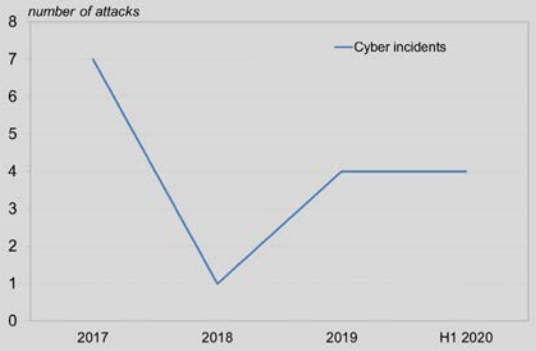
**Based on Slovenian banks' reporting of cyber incidents,[70] Bank of Slovenia can report that the number of cyber incidents remains stable.** While the number of DDoS attacks was still higher in 2017, in recent years phishing attacks and ransomware have been more prevalent. The cyber incidents being reported by the banks mainly cause disruption to key business processes and the theft of individual data on customers. Responsibility for handling critical cyber incidents lies with SI-CERT, the security agency and the police, who help in the resolution of incidents, and the banks' own IT departments. Cyber incidents are problematic for banks from two points of view: they entail the realisation of operational risk (business interruptions) and reduce the reputation of individual banks (if the incident has a high public profile). The figures also suggest that no cyber incident that might have caused major financial damage has been suffered by the banks in recent years.

**In a survey of future challenges in the banking system conducted by Bank of Slovenia in 2019, Slovenian banks reported that they are dealing with outmoded information systems, which is increasing the risk of cyber penetrations.** The banks are replacing their outmoded information systems with the help of external providers of IT services, thereby improving the information security of their systems. A particular issue is information systems that are nearing the end of their life time, but support key business processes at the bank.

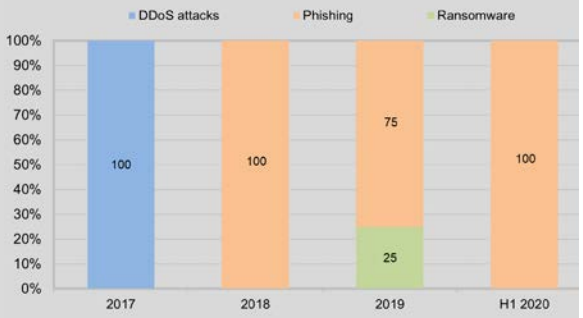
[69] Cyber attacks mainly come in the form of phishing mail (malevolent email) and distributed denial-of-service (DDoS) attacks. Recent years have mainly seen a rise in the number of phishing attacks, and a fall in the number of DDoS attacks.

[70] The ECB has defined thresholds for banks' reporting of cyber incidents, based on the following criteria: the incident has become public knowledge or could damage the institution's reputation, the estimated financial consequences of the incident exceed a certain amount, the incident has been internally reported to the IT director, the cyber incident leads to breaches of legal or regulatory obligations, contingency management procedures are triggered, and the cyber incident is reported to the national response centre for incidents in connection with the security of electronic networks and information (the computer emergency response team or CERT).

Slika 2.19: Number of cyber incidents reported by banks




Slika 2.20: Breakdown of cyberattacks




Source: Bank of Slovenia

***Testing of information systems against cyberattacks***

**One of the keys to improving the banking system's cyber resilience is regular testing of information systems against cyber incidents and penetration.** Based on the results of the survey of future challenges in the banking system, our assessment is that the majority of banks conduct regular information system vulnerability assessments and penetration tests.[71] To ensure basic testing, it is good for security reviews to be conducted regularly, and to be sent to the supervisory staff at banks in the form of reports. Should the banks wish to additionally examine the banking system's resilience and to make improvements on this basis, they could also conduct threat-led penetration testing[72] (TLPT), which would allow them to identify and rectify security deficiencies that were not detected by preliminary testing.

**The number of cyber incidents in the banking system in the first half of 2020, including the period of the Covid-19 pandemic, was the same as in 2019.** A rise in the number of cases of fraud at banks and at the customers themselves might have been expected during lockdown, given the increase in working from home. But based on Slovenian banks' reporting of cyber incidents, no such rise in the number of cyber incidents was discernible. The banks reported on incidents in 2020 either before or after the lockdown, and it can therefore be concluded that the number of cyber incidents in the period between March and May of this year was low, despite the increase in risks inherent in the changeover to virtual operations.

***Cyber security regulations from the perspective of financial stability***

**A number of international financial institutions have been involved in recent years in the regulation of systemic cyber risk from the perspective of financial stability. In addition to understanding systemic cyber risk, the objective is to draw up a common macroprudential policy.** The ESRB has been active in this area, and has established the European Cyber Security Group (ESCG). Based on the ESCG's findings, in February of this year the ESRB issued a report on systemic cyber risk,[73] in which it defined how cyber incidents can give rise to a systemic crisis in the financial system and endanger financial stability. The ESCG tested various hypotheses and real historic scenarios, with the aim of examining how cyber incidents could lead to a systemic event. The report defines a conceptual model for the triggering of a systemic event by a cyber incident. The model consists of four phases: (i) context, in which the circumstances under which a cyber incident can arise are defined, (ii) shock, in which the immediate technical and business impacts caused in the financial system by the cyber incident are described, (iii) amplification, which defines the mechanisms for the amplification of the shock (interactions and propagation of contagion between financial institutions), and iv) systemic event, which can be defined as the point at which the financial system is no longer able to absorb the shock. During a systemic event, there are three aspects to the paralysis of the financial system: operational disruption, financial losses and loss of confidence in the system. All of this is conditioned by the duration of the interruption of the financial system's operations (the longer the interruption triggered by the cyber incident lasts, the more systemic is the nature of the cyber risk). A systemic event impacts both the

[71] Penetration tests are an integral part of the comprehensive cyber security plan. A penetration test is a process where an external provider or firm tests the capabilities of a bank's security defences. The testing process consists of the following phases: collection of information, formulation of threats, analysis of sensitivity to attack, cyber penetration of the information system, resolution of the consequences of the cyber penetration, and reporting on the cyber incident.

[72] Threat-led penetration testing is based on analysis of insecurities for the financial sector and the individual institution. Specialist third-party providers draw up insecurity analysis and a cyber attack simulation. The employees are unaware that it is merely a test. The objective of the testing is to assess the response of the bank and the employees to cyber attack (testing can take up to six months).

[73] The material is published online at: https://www.esrb.europa.eu/pub/pdf/reports/esrb.report200219_systemiccyberrisk~101a09685e.en.pdf.

liquidity and the solvency of the financial system. In the coming years the ESRB is also planning to draw up microprudential and macroprudential policy in the area of cyber security at the European level. The selected instruments should provide for the mitigation of the shocks caused by systemic cyber incidents.

# 3 HOUSEHOLDS AND CORPORATES

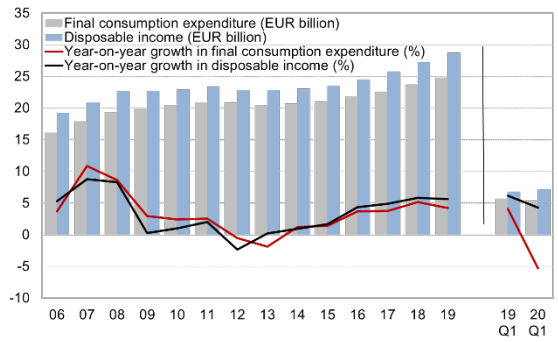
*The average indebtedness of Slovenian households is low compared with the euro area average, which does not mean that the risks in this loan segment are also low, as the position of individual households varies greatly, despite the favourable overall average. Thanks to their large savings, particularly in the form of bank deposits, the financial position of households is generally sound, while the unemployment rate and household debt indicators were low going into the Covid-19 crisis. Given the relatively high share of debt-free households, the distribution of the existing debt is important: survey figures show that a fifth of all households with the lowest net assets have debt and debt servicing costs that exceed the euro area average. The Covid-19 crisis could see a rise in the risk of their inability to meet their financial liabilities. Household resilience remains relatively high, thanks to government measures, while the macroprudential measure of restricting household lending has also helped to limit the debt taken on by the most vulnerable groups. Should the economic recovery prove slow, and the improvement on the labour market gradual at best, the vulnerability of households could increase markedly.*

*Firms were in a good financial position going into the pandemic. Low indebtedness, a reduced debt servicing burden, and high profits on one hand, and large holdings of liquid assets on the other, together with the emergency laws to bridge the liquidity difficulties caused by the shutdown in operations, made it easier for firms to survive amid the sudden deterioration in the macroeconomic environment in the first months of the pandemic. This gained the banks vital time to prepare for a potential longer period of economic contraction. Corporate demand for loans is reflecting caution on the part of firms, who have postponed their investment plans. Firms are also creating liquidity reserves by drawing down their undrawn but approved loans and credit lines. Certain sectors remain more vulnerable, and more dependent on future trends in the economy, and on the extension of containment measures that sharply limit their operations.*

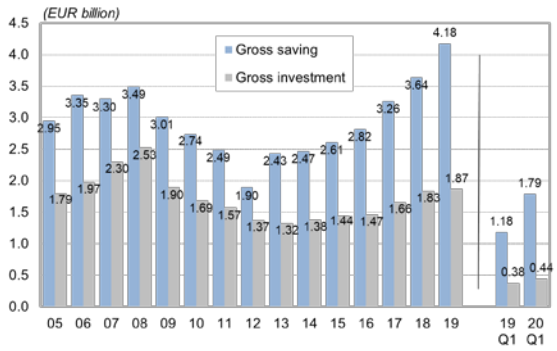
## 3.1 Households

**Households reduced their expenditure in year-on-year terms in the first quarter of this year at the outbreak of the Covid-19 pandemic, while year-on-year growth in disposable income also slowed slightly.** Households continued to display a firm appetite for saving: gross household savings amounted to EUR 1.8 billion in the first quarter of the year, up EUR 0.6 billion on the same period last year. The gross saving-investment gap also widened sharply, as gross investment remained broadly unchanged from last year. A potential downturn in the economy during the Covid-19 pandemic and the resulting downturn on the labour market might weaken households' purchasing power in the future, thus increasing the pressure on further growth in consumption and investment, and not least the ability of indebted households to repay their financial liabilities.

Slika 3.1: Gross disposable income and final consumption expenditure




Slika 3.2: Household saving and investment

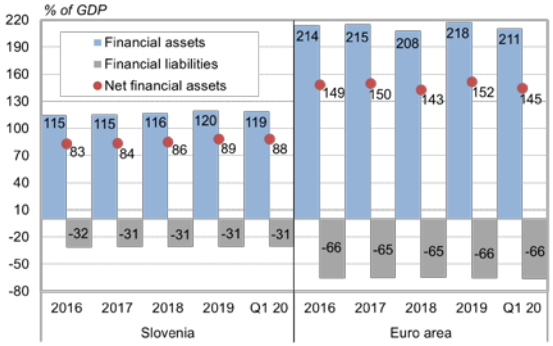



Source: SORS

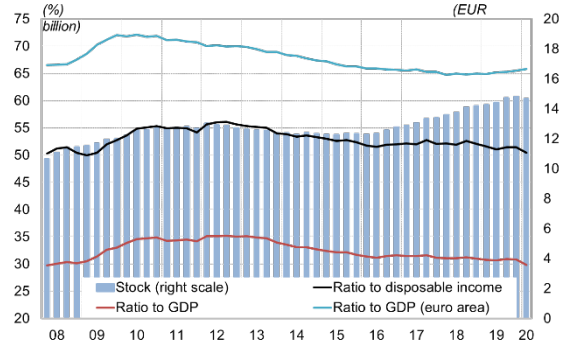
**The ratios of households' financial assets and liabilities to GDP remained stable in Slovenia at the outbreak of the Covid-19 pandemic in the first quarter of this year, while at the euro area level there was a slight decline in net financial assets, primarily driven by a decline in households' financial assets.** The overall stock of households' financial liabilities in Slovenia declined by a fraction in the first quarter of this year, from EUR 14.8 billion to EUR 14.7 billion. Despite the stability in net financial assets, at the outbreak of the Covid-19 pandemic there was still a risk of increasing pressure on the settlement of financial

liabilities, particularly at households with higher levels of debt and relatively low income. According to the Household Finance and Consumption Survey (HFCS), a fifth of all households with the lowest net assets have debt and debt servicing costs that exceed the euro area average. Household debt as a ratio to GDP and to disposable income remains stable overall in Slovenia.

Slika 3.3: Household financial assets and liabilities



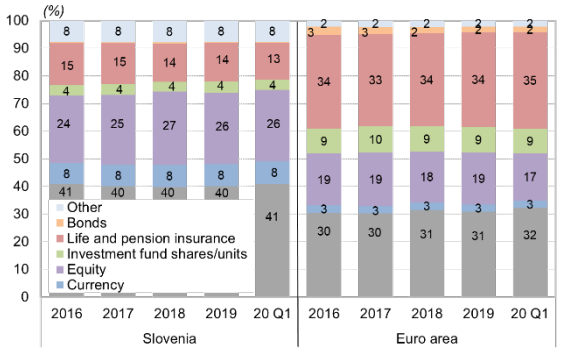

Slika 3.4: Household financial liabilities



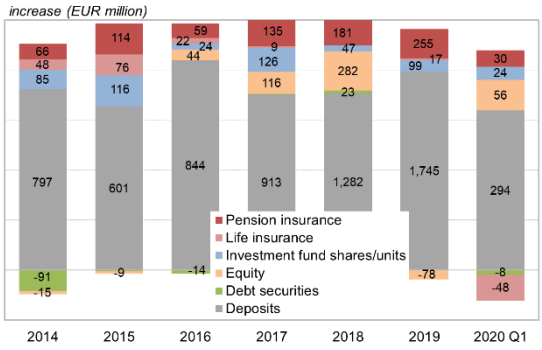

Source: ECB (SDW)

**On the asset side, the significant increase in deposits seen in 2019 has continued: despite the outbreak of the Covid-19 pandemic, households' bank deposits increased by EUR 294 million in the first quarter of 2020.** Despite the very low interest rates, bank deposits still account for almost half of the financial assets of households in Slovenia. The breakdown of households' financial assets is slightly different in the euro area overall, where financial assets are predominantly in the form of life and pension insurance. The breakdown of households' financial assets remained stable in the first quarter in Slovenia and in the euro area overall, although there was a decline in debt securities driven by falling prices on stock markets. In contrast to the previous year, pension entitlements declined in the first quarter, and the increase in life insurance entitlements was also negative. Amid the economic downturn and the rising uncertainty on the labour market, there is not yet any expectation of a gradual increase in investment in other (higher-risk) forms of assets, as households remain cautious, with a firm appetite for saving and lower-risk assets.

Slika 3.5: Breakdown of household financial assets, stocks



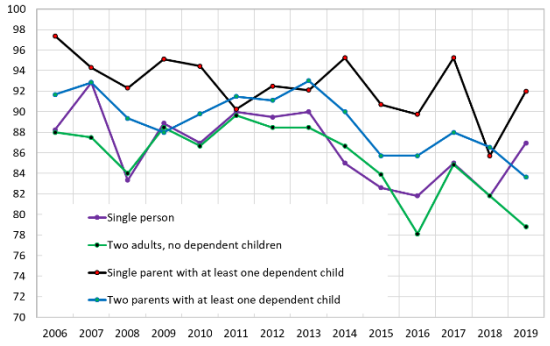

Slika 3.6: Breakdown of household financial assets, transactions



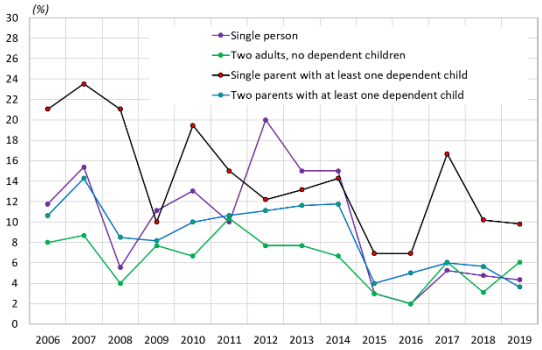

Note: Equity is a financial asset, and consists of listed shares, unlisted shares and other equity. Investment fund shares or units include shares in an investment fund when the fund has a corporate structure.
Source: Bank of Slovenia

**Hire purchases and other non-housing loans represent a large or medium-large burden for the majority of households.** According to the survey of income and living conditions (SILC), which in Slovenia is conducted by the SORS, hire purchases and other non-housing loans represent a large or medium-large burden for a significant proportion of the surveyed households holding liabilities of this type. The share of households of this type responding that hire purchases are a large or medium-large burden for them is seen to be larger at households with dependent family members. Arrears for financial reasons in the repayment of hire purchases and other non-housing loans over the last 12 months are also more common at households with dependent family members. The share of households responding that they are in arrears is highest among single-parent households with at least one dependent child.

Slika 3.7: Share of households for whom hire purchases represent a large or medium-large burden




Slika 3.8: Share of households responding that they have been in arrears with payments in the last 12 months

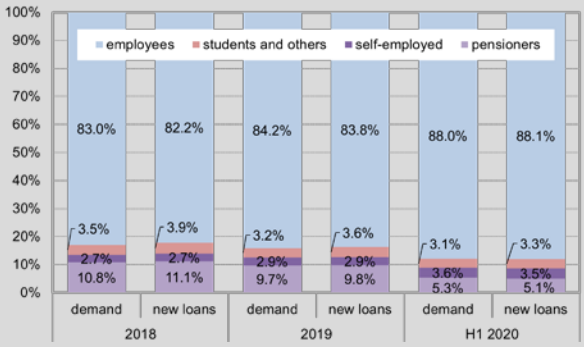



Source: SORS

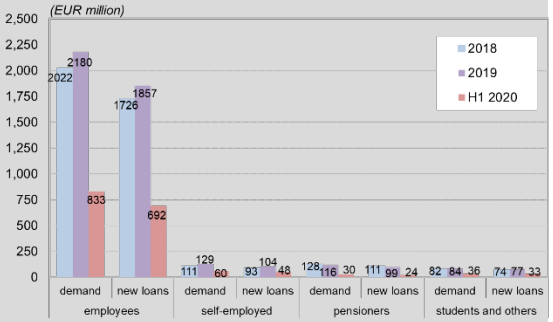
***Box 3.1: Survey of demand for loans: households***

**This box presents the results of a survey of demand for bank loans, which for households had been conducted for the first time.** The survey was sent to 16 banks, and the questions on bank loans to households related to the size of the demand for loans, the volume of loans approved, the purpose of the loans, and the reasons for rejecting household loans for 2018, 2019 and the first half of 2020.[74] Loan applicants for whom loans were approved were largely employed persons, although they also included pensioners, self-employed persons, and others. The share of pensioners among loan applicants in the first half of 2020 was down around 4.5 percentage points on 2019, while the shares of employed persons and self-employed persons both increased. Some banks attribute the decline in demand from pensioners to the consequences of the Covid-19 pandemic and also the macroprudential measures introduced by Bank of Slovenia towards the end of 2019. Similarly to the breakdown of demand, the majority of approved loans went to employed persons.

Slika 3.9: Breakdown of loans (demand and new loans) by customer type, absolute numbers




Slika 3.10: Breakdown of loans (demand and new loans) by customer type, loan amount

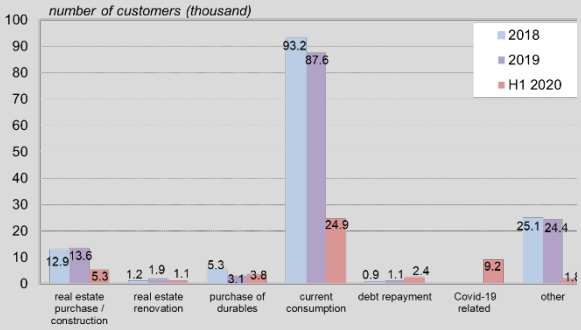



Source: Bank of Slovenia

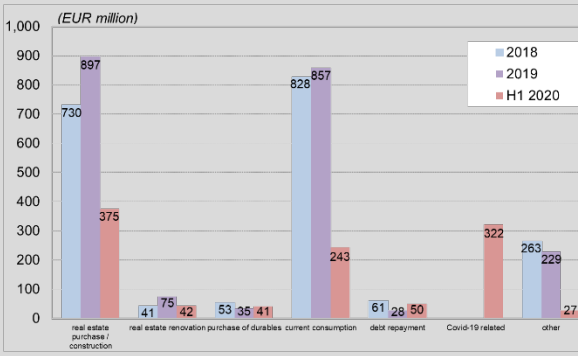
**Banks report that the largest number of customers cite current consumption as the purpose of their loan demand, with a smaller number citing loans for purchasing, building or renovating real estate.** Only a small number of customers cited the repayment of liabilities, while almost 9,200 customers (18.9% of the total number) received a loan to alleviate the impact of the Covid-19 pandemic. Although the corresponding number of customers was smaller, loans for purchasing, building or renovating real estate accounted for the largest share of the total loan amount, followed by loans for current consumption. The total amount earmarked for alleviating the impact of the Covid-19 pandemic in the first half of 2020 was EUR 322 million.

[74] Full responses to the question on household demand for loans and new loans were received from 13 of the 16 banks. Full responses to the question on loan purpose were received from 11 banks, while two others answered for this year only.

Slika 3.11: Breakdown of loans by purpose, absolute number of customers



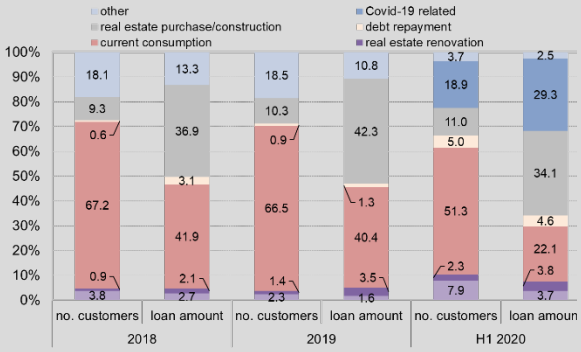

Slika 3.12: Breakdown of loans by purpose, loan amount




Source: Bank of Slovenia

**The breakdown of loan purpose shifted slightly following the outbreak of the Covid-19 pandemic.** Banks report that the shares accounted for by current consumption and other forms of loan declined relative to 2018 and 2019 in terms of the absolute number of customers and in terms of loan amount, primarily on account of loans to alleviate the impact of the Covid-19 pandemic. By contrast, the shares of loans for purchasing, building or renovating real estate in the first half of 2020 remained similar to those seen in 2018 and 2019. According to the banks' assessments, the impact of the Covid-19 pandemic and the adoption of the Bank of Slovenia macroprudential measures in late 2019 are also being reflected in a slight decline in the share of loans approved relative to the reported demand for loans for certain customer groups. The share of loans approved in the first half of 2020 was down 6 percentage points on 2019 for pensioners, but remained stable for employed persons, who account for by far the largest number of customers. The share of loans approved relative to demand thus remained unchanged overall, primarily because of employed persons.

Slika 3.13: Breakdown of loans by purpose, in terms of absolute number of customers and loan amount




Slika 3.14: Share of loans approved, by customer type


Source: Bank of Slovenia

## 3.2 Corporates

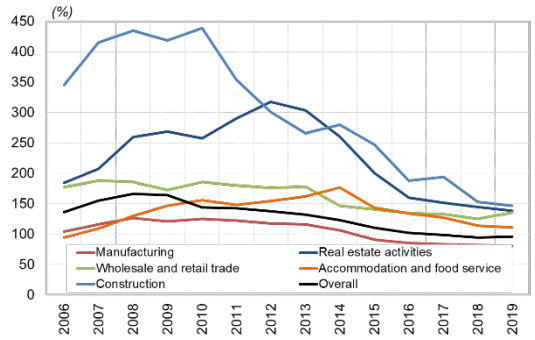
**Corporates' resilience was good at the outbreak of the Covid-19 pandemic: the average indebtedness of the corporate sector is among the lowest in the EU.** Average corporate indebtedness in 2019 was substantially lower than during the previous crisis. As measured by the debt-to-equity ratio,[75] it declined from 166% in 2008 to 96% in 2019. Thanks to the persistence of low interest rates, the debt servicing burden faced by corporates has been low in recent years. Corporates' repayment of their liabilities last year was associated with a lower level of risk: the ratio of net financial debt to EBITDA[76] at overall corporate sector declined from 5.2 years in 2009 to 2.1 years in 2019. The ratio in accommodation and food service activities, which was hit harder by the Covid-19 crisis, was higher in 2019 than in other activities, at 3.5 years. The

[75] Leverage is calculated as the debt-to-equity ratio from closing corporate balance sheet figures collated by AJPES.

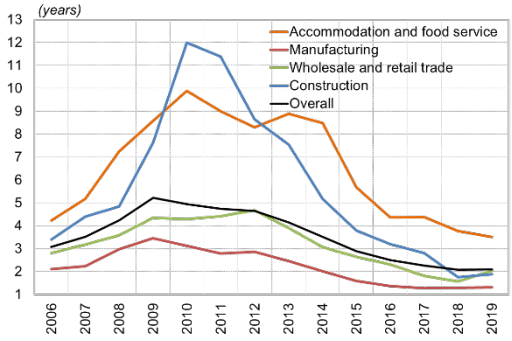
[76] The net financial debt to EBITDA indicator is measured as the ratio of financial liabilities, less cash and cash equivalents, to cash flows from operating activities, and indicates a firm's capacity to regularly service debt (interest and principal). The indicator shows how many years of cash flow the firm needs to repay its debt (assuming no change in net debt and EBITDA). The lower the ratio, the lower is the risk in the repayment of the firm's liabilities.

large stock of corporate deposits at the banks, which has increased even further since March of this year,[77] is indicative of corporates' favourable liquidity position before the Covid-19 crisis.

Slika 3.15: Leverage (debt-to-equity ratio) for selected economic sectors



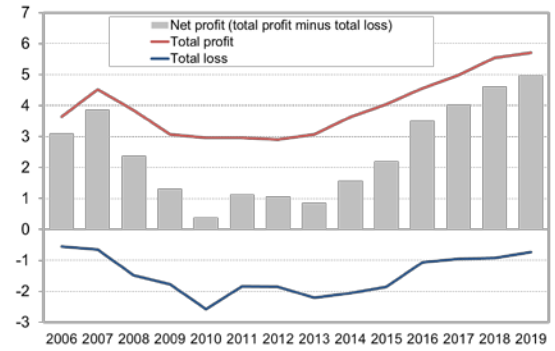

Slika 3.16: Ratio of net financial debt to EBITDA for selected economic sectors



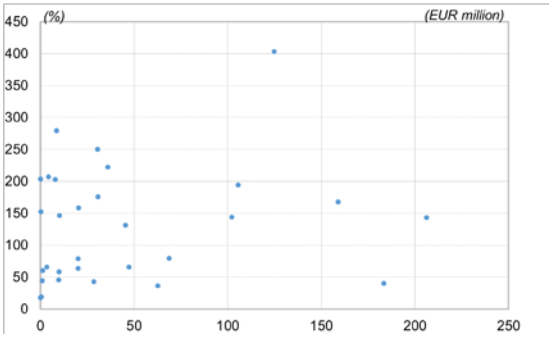

Sources: AJPES, Bank of Slovenia calculations

**Given the magnitude of the impact of the Covid-19 pandemic, corporates' resilience is expected to weaken over the course of the crisis; in particular as a result of declining profits in the contracting economy.** Corporates will require bank loans to bridge the decline in profits, liquidity difficulties and other adverse impacts of the Covid-19 crisis, but during the crisis it will become increasingly difficult for many firms to service their debt, particularly as a result of the decline in profits in the contracting economy. The banks are less exposed to the corporate sector than during the previous crisis of 2008, when their lending was primarily to the corporate sector, and less to households. Corporates' stock of financing via bank loans has decreased by more than half since 2008; the increase in equity and earnings in recent years has allowed firms to finance themselves with internal resources more than in previous years. Given the high level to which certain Slovenian firms depend on sales on foreign markets, which will shrink as a result of the Covid-19 crisis, those firms will be increasingly vulnerable, and thus might be less capable of repaying their loans to banks and to other firms, which could transmit the consequences of the crisis downwards along the production chain.

Slika 3.17: Corporates' total net profit




Slika 3.18: Bank loans to largest exporters versus their indebtedness



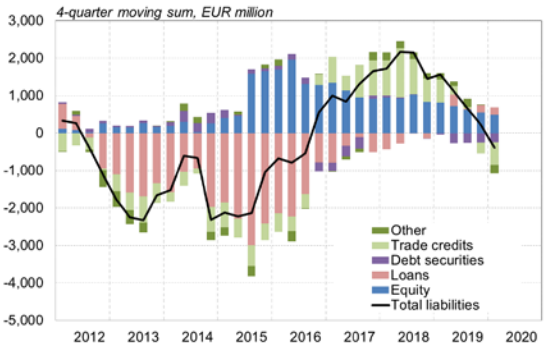

Note: In the right figure "largest exporters" are defined as the firms that had the largest sales revenues on foreign markets in 2019. Corporate indebtedness is measured as leverage (debt-to-equity ratio).
Sources: AJPES, Bank of Slovenia

**The slowdown in economic activity before the outbreak of the Covid-19 pandemic put downward pressure on corporate borrowing.** Corporates' financing flows[78] have contracted as of the second half of 2018, and turned negative in the first quarter of 2020: the total annual flow of corporate financing (via all instruments) swung from EUR 1.5 billion in 2019 to a net decline of EUR 389 million[79] in early 2020. A key driver of the decline in total financing was the contraction in trade credits, which generally track the dynamics in economic activity. They can be expected to have declined further in the second quarter of this

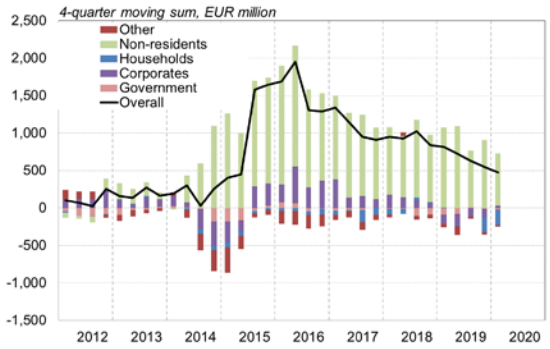
[77] For more on this, see the section on funding risk.
[78] Total financing according to the financial accounts methodology encompasses financing via debt and equity instruments, excluding non-financial corporations' internal resources.
[79] Annual figures, or the sum of the last four quarters.

year. Loans were still making a positive contribution to the amount of new financing, and inflows of new equity also continued.

Slika 3.19: Flows of corporates' financial liabilities by instrument




Slika 3.20: Equity flows by institutional sector

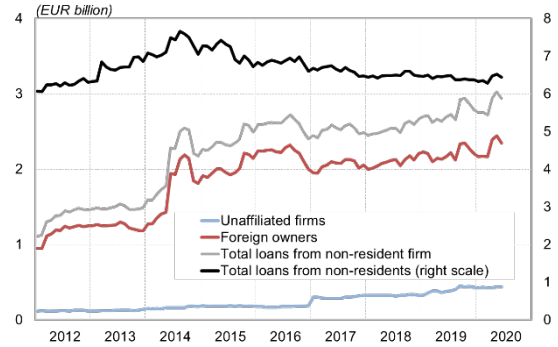



Note: Total loans to corporates consist of loans from the rest of the world, loans from domestic banks, loans from the government and other financial institutions, business-to-business loans, and loans from households. DS: debt securities.
Source: Bank of Slovenia

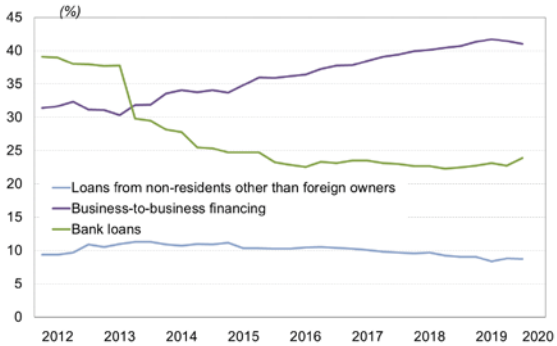
**After several years of net borrowing, corporate financing from the rest of the world moved into net repayment territory, with only loans from foreign parents growing in terms of loan financing.** Trade credits are again a key factor in the overall dynamics in financing from the rest of the world. Corporates have been making net repayments of foreign loans since 2014. Loans by foreign owners of Slovenian corporates are continuing to grow, and accounted for 36% of all foreign loans in the first quarter of 2020, up 10 percentage points on the end of 2014.

**The trend of equity inflows from the rest of the world continued in the early part of this year, while domestic owners made net withdrawals of equity.** All domestic institutional sectors have been reducing their holdings of corporate equity in net terms since mid-2018. Changes in corporate ownership are being reflected in a higher proportion of loan financing from foreign parent undertakings, and consequently in reduced borrowing at domestic banks. Total business-to-business financing via loans and trade credits is also increasing, and by the end of 2019 accounted for 42% of corporates' total debt financing. The proportion accounted for by bank loans declined by 15 percentage points between 2013 and 2016, but then stabilised at between 22% and 23% over the following years.

Slika 3.21: Loans from foreign firms, by ownership link




Slika 3.22: Shares of corporates' debt financing accounted for by individual sources of financing




Note: In the right figure business-to-business financing encompasses financing via loans and trade credits from domestic and foreign firms.
Source: Bank of Slovenia

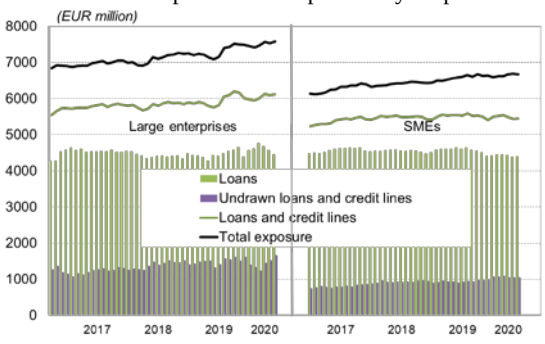
**The future dynamics of corporate borrowing at banks are uncertain.** Given the unpredictability of the current crisis, firms have sharply reduced their demand for investment loans, and have limited their demand to loans for current operations and for bridging liquidity difficulties (see also Box 3.2). The largest loan moratoria are in sectors hit hardest by the current crisis. Firms held EUR 380 million of bank loans approved for alleviating the impact of Covid-19[80] at the end of July, but only a small volume of new loans were approved under the government guarantee scheme. Loans raised via the Slovene Enterprise Fund have also mitigated the burden placed on firms by weaker liquidity. The stock of bank loans declined in the second

80 The data cover loans that were not approved or deferred under the intervention laws, but are the result of the Covid-19 pandemic.

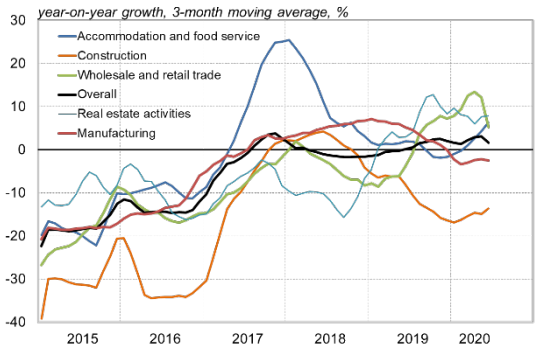
quarter in the majority of sectors, which means that firms were making net loan repayments alongside the moratoria on part of the debt. In view of the continued growth in liquid assets at banks, it is possible that firms raised some of the liquidity loans and applied for moratoria on precautionary grounds.

**SMEs had begun to reduce their indebtedness at banks even before March of this year, and this process continued after the outbreak of the pandemic.** In parallel with their net loan repayments, SMEs began to see an increase in their approved but undrawn loans and credit lines, which could be used to ease their liquidity position in the coming months. The stock of bank loans has been declining since March at large enterprises, while their potential indebtedness has increased significantly more than at SMEs. It is hard to forecast the ongoing dynamics in bank financing, given the uncertainty surrounding the future evolution of the macro environment. In a survey the banks assessed that positive shifts have been seen in corporate demand since the official end of the epidemic, but there is still reluctance when it comes to loans for investment purposes. The proven vulnerability of the Slovenian and European economies to the disruption of links in the globalised economy entails a major challenge to all countries and their development strategies, and consequently to future investment in the Slovenian economy.

Slika 3.23: On-balance-sheet and off-balance-sheet exposures to corporates by corporate size




Slika 3.24: Corporate loans at domestic banks by sector

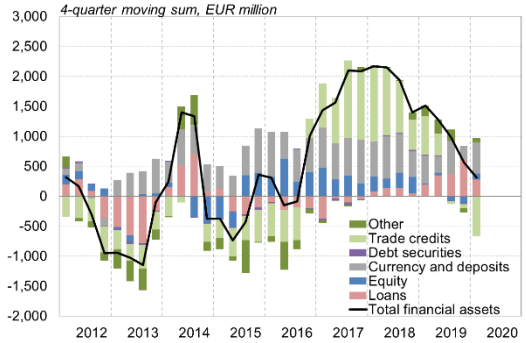



Source: Bank of Slovenia

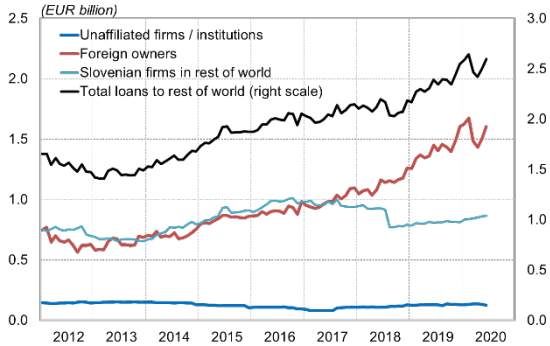
**The proportion of corporates' financial assets accounted for by liquid assets is continuing to increase.** The dynamics in corporates' total financial assets are slower than in previous years, primarily as a result of a decline in business-to-business trade credits (which is a mirror image of their liabilities under this instrument). Bank deposits began to grow strongly in the first half of 2020, reaching EUR 7.3 billion in June. They already account for 16.4% of corporates' financial assets (data for first quarter), and represent an additional resource for financing current operations and investments, as well as a liquidity reserve during the crisis.

**Corporates' holdings of foreign loans, in particular loans to parent undertakings in the rest of the world, are recording even higher growth than their holdings of currency and deposits.** Loans to the rest of the world had reached EUR 2.7 billion by July of this year, of which EUR 2 billion was to foreign parent undertakings. Loans to Slovenian firms abroad also increased slightly last year, but the stock is just a half of that of loans made to foreign owners. Given corporates' large holdings of liquid assets at banks, this is probably a consequence of the management of their surplus liquidity, which has partly been directed into affiliates in the same group instead of into bank deposits with low or even negative interest rates.

Slika 3.25: Corporates' financial assets by instrument




Slika 3.26: Corporates' loans to the rest of the world by ownership link

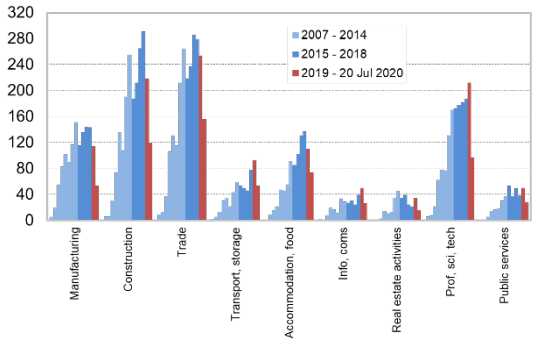



Note: In the left figure financial assets are disclosed under the financial accounts methodology, where financial assets also include claims from business relationships arising when there is a difference of timing between transactions and payments (trade credits, advances, etc.).

Source: Bank of Slovenia

**There was no rise in the number of corporate bankruptcies for several months after the outbreak of the pandemic.** Certain sectors (wholesale and retail trade, accommodation and food service activities, construction, transportation and storage) saw an above-average rise in the number of bankruptcies during the first seven months of the year relative to 2019, but there is little likelihood that these bankruptcies were related to the pandemic. The initiation of bankruptcy proceedings is generally preceded by a lengthy period of illiquidity, while in addition to easing liquidity difficulties for firms the emergency laws also introduced a moratorium on bankruptcy proceedings initiated as a result of a deterioration in performance caused by the declaration of the pandemic.[81] The expectation is therefore that corporate bankruptcies have also been postponed until a time when it will become evident which firms have successfully made it through the crisis period.

Slika 3.27: Number of corporate bankruptcy proceedings initiated by sector



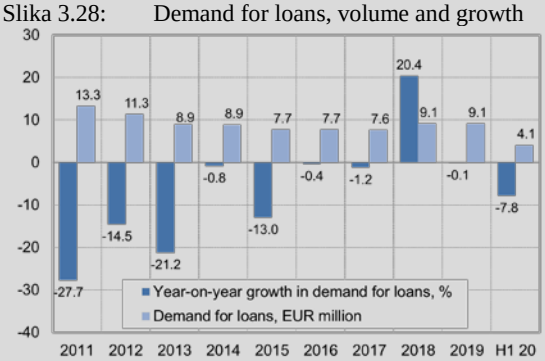

Sources: Bank of Slovenia, Supreme Court

***Box 3.2: Survey of demand for loans: corporates***[82]

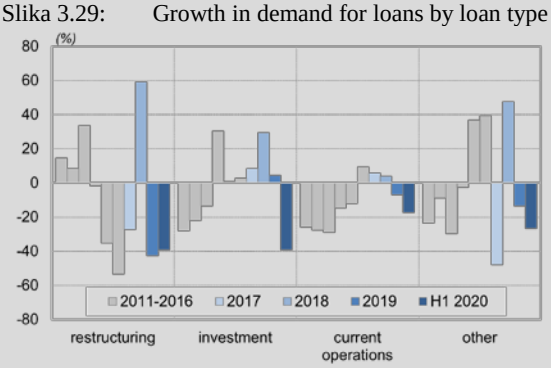
**Banks are reporting significant changes in trends in corporate demand for loans in the first half of 2020.** The changes relate primarily to the outbreak of the Covid-19 pandemic and the declaration of the epidemic in Slovenia, and to the contraction in economic activity of a major part of the economy. Until the declaration of the pandemic in March of this year, the demand trends at banks seen in 2019 had continued, but the changes in the subsequent months had a key impact on semi-annual aggregates.[83]

**While growth in demand in 2018 was the highest since the inception of the annual survey on corporate demand for loans, in 2019 no growth was observed – demand was lower by 0.1% compared to the previous year.** Growth in demand was negative (–7,8 %) in the first half of 2020. There were notable changes in the breakdown of demand according to loan type, the largest changes coming in the sectors hit hardest by the containment measures.

Slika 3.28: Demand for loans, volume and growth




Slika 3.29: Growth in demand for loans by loan type




Note: In the right figure liquidity loans in connection with the Covid-19 epidemic have been excluded from the calculation of growth for the first half of 2020.
Source: Bank of Slovenia

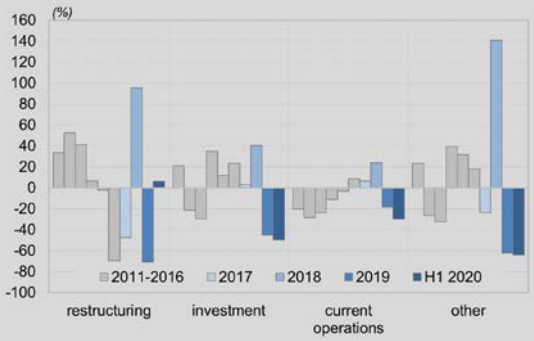
[81] Articles 96 and 97 of the Act Determining Emergency Measures to Contain the Covid-19 Epidemic and Mitigate its Consequences for Citizens and the Economy (ZIUZEOP).

[82] Bank of Slovenia has been conducting the survey of demand for corporate loans for ten years now. For the sake of data comparability, the content of the survey has remained the same over all these years, and covers demand for loans, new loans and reasons for rejection. In light of the specific circumstances, this year the loan purposes were expanded to cover liquidity loans and inquiries for loan moratoria which are available under emergency laws. Full responses were received from 15 of the 16 banks surveyed.

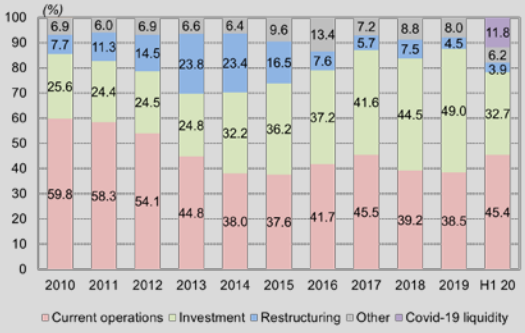
[83] In the survey banks report on demand in the previous year and in the first half of the current year.

**Banks recorded positive trends in demand for investment loans until mid-March 2020. These loans accounted for 49.0% of total demand for loans last year.** The main increase in demand came from firms doing business on the domestic market, while in mid-March demand switched to loans for financing current operations or working capital and to liquidity loans. There was also demand for moratoria on existing loans, while firms became cautious and reluctant with regard to their investment decisions, and postponed long-term investments. This meant that total demand for investment loans in the first half of 2020 was down significantly on the same period of 2019. Demand for investment loans in the manufacturing sector had declined in the second half of 2019 to such a degree, that the figure for the entire year was down 45% in year-on-year terms. The year-on-year decline deepened even further in the first half of 2020, to 50%. Given the improvement in the economic climate in the second half of 2020, certain banks were already reporting a slight increase in demand for loans, although they were also warning of firms still being rather cautious in their decision-making. Firms redirected some of their demand toward loans offered by the Slovene Enterprise Fund, which are intended to alleviate the impact of the epidemic, while banks also sought loans secured by a guarantee from the Slovene Enterprise Fund.

Slika 3.30: Growth in demand for loans in the manufacturing sector by loan type



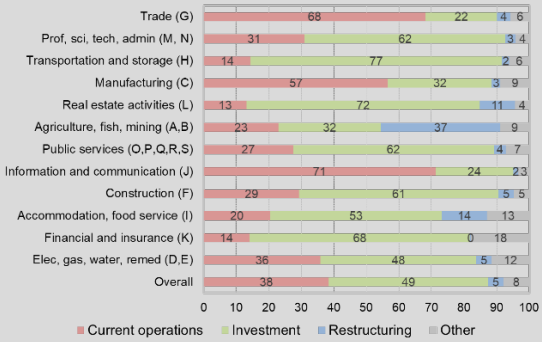

Slika 3.31: Breakdown of demand for loans by loan type



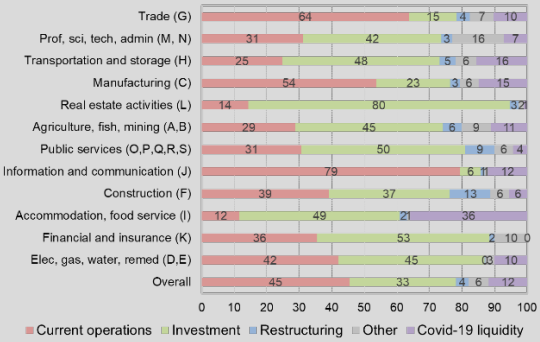

Note: In the left figure liquidity loans in connection with the Covid-19 epidemic have been excluded from the calculation of growth for the first half of 2020.
Source: Bank of Slovenia

**Certain banks are finding that the successful deleveraging by large enterprises in recent years has made a positive contribution to their financial fitness, allowing them to focus their demand in the current crisis on securing additional liquidity.** At the same time, compared with the previous crisis, firms are also being more cautious in assessing the future market situation and more restrained when it comes to major investments. Certain banks have identified that demand for investment loans has been maintained at SMEs in lower-risk sectors.

Slika 3.32: Breakdown of demand for loans in each sector by loan type, 2019




Slika 3.33: Breakdown of demand for loans in each sector by loan type, H1 2020

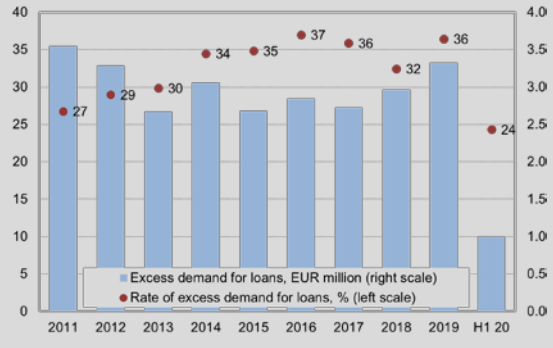



Source: Bank of Slovenia

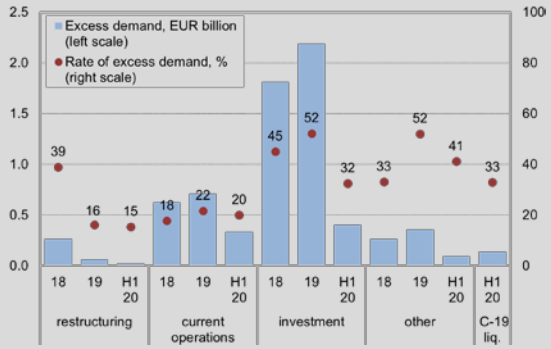
**The breakdown of demand for various types of loan across individual economic sectors that were affected differently when the containment measures were in place shows major differences.** In the manufacturing sector, which accounted for more than 27% of total corporate demand for loans in the first half of 2020, loans for current operations accounted for more than half of total demand, similar to 2019. The proportion of investment loans was down 9 percentage points on 2019 at 23%, while liquidity loans in connection with Covid-19 accounted for 15% of the total. The largest proportion accounted for by liquidity

loans in connection with Covid-19 was recorded in accommodation and food service activities (36%), which was one of the sectors hit hardest by the containment measures. The breakdown of aggregate corporate demand by loan type primarily shifted in the direction of less demand for investment loans (down 16 percentage points on 2019 at 33%), on account of liquidity loans in connection with Covid-19, which accounted for 12% of total demand, and a relative increase in demand for loans for current operations (up 7 percentage points on 2019 at 45%).

Slika 3.34: Excess demand and rate of excess demand for loans




Slika 3.35: Excess demand and rate of excess demand for loans by loan type




Source: Bank of Slovenia

**After two years of growth in excess demand, which in 2019 reached its highest level since 2011, it declined in the first half of 2020.** Excess demand amounted to just under EUR 1 billion in the first half of 2020, while the rate of excess demand was also down on previous years at 24%. The largest decline in the first half of this year was seen in investment loans, which in previous years had seen much higher excess demand than other types of loan. The rate of excess demand for loans for current operations remained unchanged over the first half of this year, while the volume was approximately half of the excess demand recorded in 2019. Excess demand for liquidity loans in connection with Covid-19 amounted to just under EUR 140 million in the first half of 2020.

### *Box 3.3: Analysis of firms engaged in cryptoassets trading*

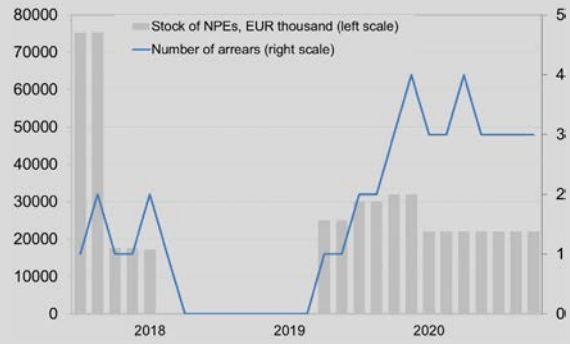
**Firms engaged in the trading of cryptoassets account for just 0.1% of all firms in Slovenia in terms of total assets. Bank exposure to these firms is also very low, but its quality as measured by the NPE ratio is lower than for other firms.** This analysis covers firms engaged in the trading of cryptoassets (simply referred to as firms in the context of this box), i.e. enabling the sale or purchase of cryptoassets. The Slovenian market in this area has also strengthened in recent years. Cryptoassets are traded via the various trading platforms that they operate as intermediaries. This analysis includes a review of the firms' performance and financing, and an overview of the banking system's exposure to these firms.

**These firms are typically micro enterprises with a small number of employees and small turnover.** The firms had total assets of around EUR 73.4 million in 2019, with equity of EUR 5.4 million. The 33 firms employed a total of 310 people, up a third on 2018. The rise in the number of firms involved in cryptoassets has been slow, as the better-performing firms move abroad for more favourable tax treatment, but there are nevertheless still firms operating in the Slovenian market (currently 25 domestic firms and eight foreign firms).

**The firms increased their revenues and profits last year, and reduced their losses, but it is a sector that is extremely sensitive to events in the rest of the world, as even minor changes in the global market can have an impact on their performance.** The firms recorded a net profit of EUR 0.6 million in 2019. Their revenues amounted to EUR 26.8 million in 2019, the majority of which (EUR 14.7 million) came from the rest of the world. More of their trading in cryptoassets is conducted in the rest of the world than in the domestic market. They suffered major losses in 2018, in the amount of EUR 10.3 million. The losses were driven by the major fall in cryptoasset prices, which had an adverse impact on the volume of trading in cryptoassets. An upturn came to the cryptoasset market in 2019, which had a positive impact in higher volume and higher profits. Their pre-tax ROE stood at 0.05% in 2019. Cryptoasset prices have continued to rise in 2020, and accordingly profitability is also expected to grow further. The performance of firms engaged in cryptoassets trading is typically unpredictable: a minor change in cryptocurrency values can have an impact on trading, resulting in major losses over a short time scale. The firms operated normally during the Covid-19 epidemic, as cryptoassets trading was neither frozen nor interrupted. The sector therefore did not suffer major losses, and in fact many firms saw an increase in revenues.

**The firms held around EUR 10 million of bank loans in June 2020**, and the stock is increasing in year-on-year terms. Their non-performing loans are small, in the amount of approximately EUR 22 thousand, or 0.2% of the total loans to firms in the sector. Compared with other firms with non-performing loans, exposure to firms engaged in cryptoassets trading was low. Compared with other sectors, the exposure is very low. The NPL ratio in the sector is also declining each year. There was no increase in arrears in loans repayments as a result of the Covid-19 epidemic.

Slika 3.36: Stock of NPEs and number of arrears




Slika 3.37: Fintech firms' net profit


Source: Bank of Slovenia

# 4 NON-BANK FINANCIAL INSTITUTIONS

## 4.1 Leasing companies

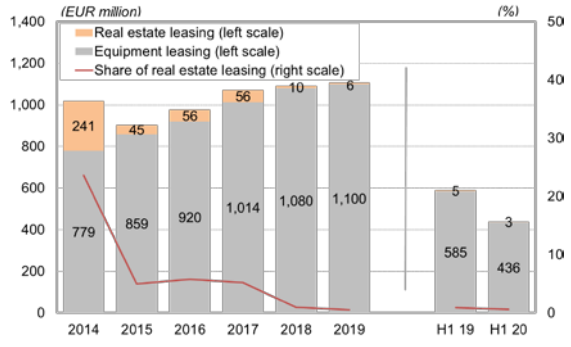
*The Covid-19 pandemic was reflected in leasing companies' performance in a decline of business in both the first quarter and the second quarter, which will reduce total profit, which nevertheless remains positive. The stock of leasing business is already declining on account of Covid-19, while leasing liabilities are not yet showing any sign of arrears induced by the pandemic. The systemic risks inherent in the performance of leasing companies have increased, as a result of which we issued in May a macroprudential recommendation to freeze profit distributions by leasing companies.*

**The initial consequences of the Covid-19 pandemic were reflected in leasing companies' performance[84] in a decline in new business in all segments, which is increasing the systemic risks inherent in the leasing sector.** One of the measures to alleviate the impact of the epidemic in Slovenia that had a major impact on leasing companies' performance was the government ordinance prohibiting trading with consumers.[85] This was a strong constraint on leasing companies, as the majority of their business consists of car leasing. The increased uncertainty caused by the Covid-19 pandemic also made households and non-financial corporations more cautious in the management of financial assets at their disposal. Households and non-financial corporations have accounted for almost all new business in recent years, and for more than 90% of the stock of leasing business.

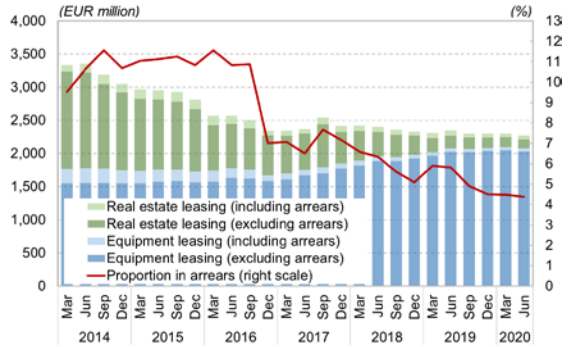
**The Covid-19 pandemic brought a sharp decline in new business in the first quarter and, in particular, the second quarter of this year, when the adverse effects of the pandemic intensified.** New leasing business amounted to EUR 438 million in the first half of 2020, down 25.7% in year-on-year terms, while the number of first-time registrations[86] was down 28.6% in year-on-year terms. Car leasing business, which has accounted for more than 60% of total new business in recent years, was down 24.5% in year-on-year terms at EUR 287 million, while new leasing business in commercial and goods vehicles declined by 31% to EUR 90 million. The negative trend seen for more than a year in the market for commercial and goods vehicles was exacerbated by the pandemic. The proportion of new leasing business accounted for by companies that conduct also the most business in commercial and goods vehicles, fell below 50% for the first time in five years.

**The containment measures had a rapid impact on leasing companies' performance: new business in the first quarter was down 16.7% in year-on-year terms.** As expected, the declaration of the epidemic had a larger impact on performance in the second quarter, when leasing companies recorded a year-on-year decline of 34.3% in new business, in part because of government containment measures that were then lifted in May. The negative trend is expected to continue in the second half of this year, albeit not as pronounced as in the first half of the year.

Slika 4.1: New leasing business[87]




Slika 4.2: Stock of leasing business and proportion of arrears




Source: Bank of Slovenia

[84] Three leasing companies were added to the reporting population in 2020, one of which will replace a company in liquidation. They accounted for 4% of new leasing business in the first half of 2020.

[85] This includes a government measure temporarily prohibiting roadworthiness inspections and other procedures in connection with motor vehicle registration and work at tachograph workshops in Slovenia, which was in force between 17 March and 16 April 2020.

[86] According to monthly figures published online by the SORS. The number of first-time registrations in March and April, when the government measure was in place, was down by 61% and 65% respectively in year-on-year terms.

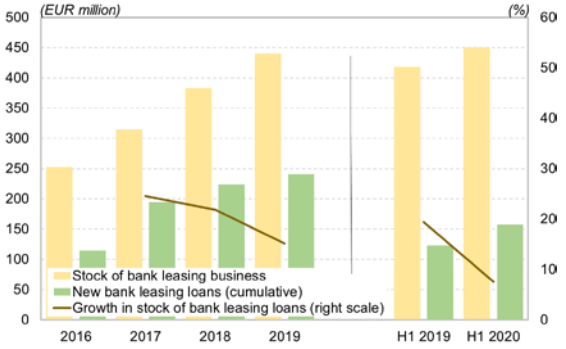
[87] Leasing business is disclosed at financed value, excluding the financing of inventories.

**Owing to the Covid-19 pandemic, the stock of leasing business is expected to decline further over the coming quarters, while arrears of more than 90 days are likely to increase.** The total stock of leasing business amounted to EUR 2.3 billion in June 2020, down 3.2% in year-on-year terms.[88] Leasing companies' business models in recent years have been based on equipment leasing (primarily vehicles), for which reason the breakdown of the stock of leasing business in June 2020 remained similar to that in 2019. An adverse impact from the Covid-19 pandemic was not yet evident in arrears of more than 90 days by June of this year; the proportion of arrears was down more than 1 percentage point at 4.4%. The concentration of arrears remains high: the three leasing companies with the highest arrears accounted for 82.2% of the total arrears of more than 90 days, while the proportion of the total stock of leasing business that they account for was just 7%. The deterioration in the macroeconomic picture and the dwindling of government support, when the official end of the epidemic was declared, could have a significant impact on future developments in arrears of more than 90 days in the vehicles segment, where arrears have been at low levels in recent years. The increase in arrears of more than 90 days is also raising the systemic risks inherent in the performance of leasing companies.

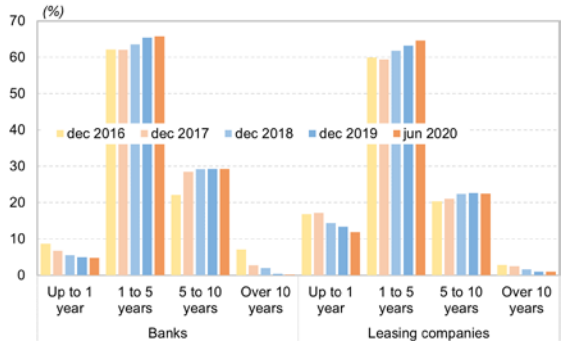
**The adverse impact of the Covid-19 pandemic is already being reflected also in leasing companies' performance.** Profit amounted to EUR 25.6 million in the first half of the year, down 45% in year-on-year terms. Leasing companies are already taking account of the change in macroeconomic forecasts in their impairment methodology, which is being reflected in a decline in income from the reversal of impairments, an increase in expenditure on impairments, and consequently a decline in total profit. The decline in income from operating leasing was also a factor in the fall in profit in the first half of 2020. Leasing companies' balance sheet total and equity in June were down 3.5% and 7.3% respectively in year-on-year terms.[89] With the aim of maintaining the resilience of leasing companies amid the economic impact of the Covid-19 epidemic, Bank of Slovenia issued a macroprudential recommendation in May of this year for a freeze on profit distributions by leasing companies. The majority of leasing companies responded positively to the recommendation, and confirmed that they would not be distributing their 2019 profits.

**The importance of banks in financing investment and personal consumption via finance leases increased during the Covid-19 pandemic.** Their new leasing business and stock of leasing business both increased in year-on-year terms in the first half of 2020: the former by 7.6% to EUR 157 million, and the latter by 19.5% to EUR 450 million. Despite the high growth in the first half of 2020, the banks' direct presence in the finance leasing market remains low, which might well be a major factor in the larger changes in the stock of leasing business. Three banks remain active in this line of business, and the majority of their business consists of equipment leasing with a maturity of one to five years.

Slika 4.3: Banks' finance leasing business




Slika 4.4: Stock of leasing business by maturity




Source: Bank of Slovenia

[88] The year-on-year comparison was also affected by the reporting population: one entity was removed from the list of mandatory reporters, while two were added. The stock of leasing business would have declined by 4.7% on a comparable basis, while there would have been no significant change in arrears.

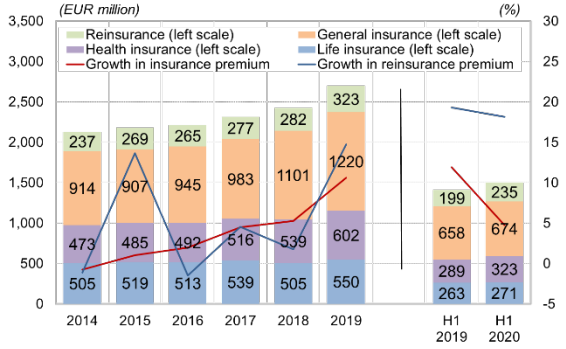
[89] For the sake of data comparability, the companies that ceased reporting their financial figures in 2020 have been excluded, while the companies that began reporting in 2020 have been taken into account.

## 4.2 Insurers

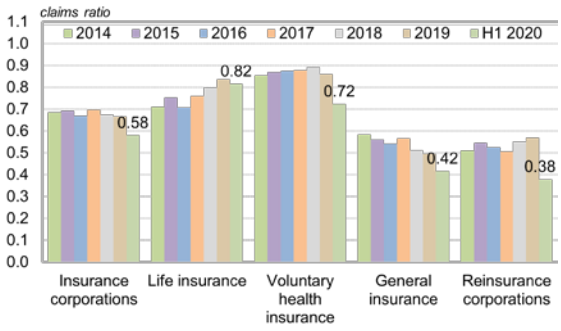
*The economic downturn caused by the Covid-19 pandemic brought a deterioration in the capital adequacy of Slovenian insurance corporations.*[90] *Insurance corporations nevertheless succeeded in increasing their gross written premium in the first half of the year, and saw an improvement in the claims ratio. The rise in supplementary health insurance premiums was a major factor in the growth in gross written premium, and in insurance corporations' profitability.*

**Underwriting risk remains moderate.** Insurance corporations and reinsurance corporations recorded year-on-year growth in gross written premium in the first half of 2020, despite the adverse impact of the Covid-19 pandemic. Insurance corporations recorded their highest growth in health insurance (11.8%), followed by life insurance (2.8%) and general insurance (2.5%). The increase in health insurance was driven by a rise in voluntary supplementary health insurance premiums in the second half of 2019. In the life insurance segment, there was growth in with-profits policies, although the main category, namely unit-linked life insurance, actually recorded a decline in gross written premium because of the turmoil on the stock markets. In the general insurance segment, there was a year-on-year increase in gross written premium in fire and natural forces insurance, land motor vehicle insurance, and motor vehicle liability insurance. The reinsurance corporations recorded growth in gross written premium in fire and natural forces insurance, and in all insurance of vehicles, vessels and aircraft.

Slika 4.5: Gross written premium and annual growth by type of insurance




Slika 4.6: Claims ratio for major types of insurance




Note: The figures for gross written premium and claims ratio are based on aggregate statistical reports until 2017 inclusive, and on Solvency II reporting after 2017.
Sources: ISA, Bank of Slovenia

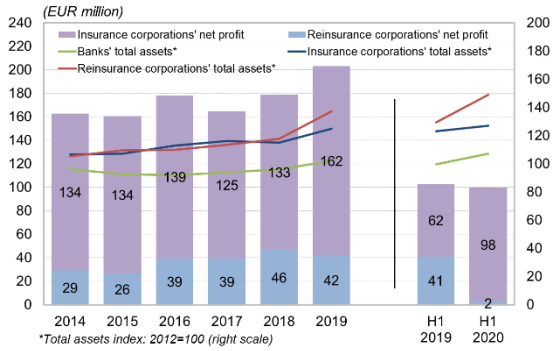
**Increasing gross written premiums and decreasing claims, had a positive inpact year-on-year on the claims ratio in the first half of this year.** Insurance corporations saw their claims ratio for the first half of the year decline by 7.2% in year-on-year terms, while at reinsurance corporations it declined by 4.0%. Insurance corporations reported a decline in claims in the general insurance and health insurance segments, but an increase in claims in non-unit-linked life insurance. The largest decline in claims was recorded in the health insurance segment (20.4%). The decline was mainly attributable to a fall in the number of health services provided within the framework of top-up insurance and supplementary health insurance as a result of the Covid-19 pandemic. The pandemic was also a factor in the year-on-year decline in compensation from general liability insurance, motor vehicle liability insurance and land vehicle insurance. Despite an increase in claims in the first half of 2020, the reinsurance corporations saw a year-on-year decline in their claims ratio, thanks to an increase in payments in fire and natural forces reinsurance.

**Insurance corporations' profitability increased despite the Covid-19 pandemic, but the two reinsurance corporations reported a significant decline in profits.** Insurance corporations' net profit in the first half of 2020 was up 58.4% in year-on-year terms at EUR 98 million. A major factors in the increased profitability were the increase in gross written premium and the decline in the claims ratio in voluntary supplementary health insurance. The technical result from supplementary health insurance increased in year-on-year terms from a loss of EUR 7.7 million to a profit of EUR 46 million. The favourable claims ratio in the general insurance segment had a positivie effect on technical result from general insurance whitch had

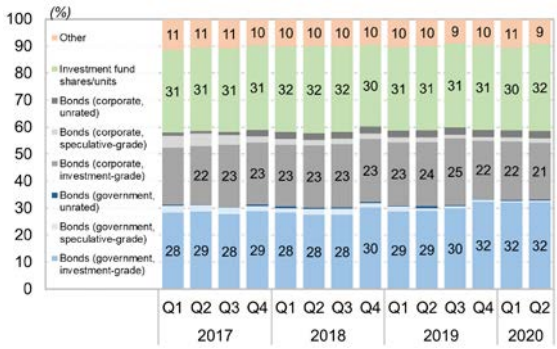
[90] With the formal merger of two insurance corporations into a single corporation, and the inclusion of a new insurance corporation on the list of entities supervised by the ISA, the number of supervised insurance corporations stood at 13 in June 2020, unchanged in year-on-year terms.

increased more than 40% to EUR 62 million, while the technical result from life insurance increased by almost 30% to EUR 12 million. Performance was affected by the increased creation of insurance technical provisions because of the Covid-19 pandemic. Despite the big moves on the stock markets, insurance corporations reported a 21.6% decline in income from investments, while the unrealised gains on the assets of life insurance policyholders who have taken up investment risk declined by 58.5%. Owing to mass loss events, the reinsurance corporations almost triple the gross provision for outstanding claims. This had an adverse impact on the technical result, while income from investments declined by 84% to EUR 6.9 million. The latter had accounted for 86.1% of total income in the income statement in the first half of 2019, where the main sources of income from investments were dividends and other profit sharing by undertakings in the group.

Slika 4.7: Insurers' net profit and total assets




Slika 4.8: Breakdown of insurers' investments in securities



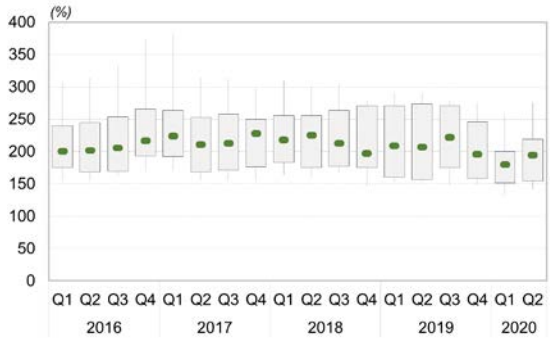

Note: The figures in the right figure are based on aggregate data from the financial statements, while the figures in the left figure are based on Solvency II reports.
Sources: ISA, Bank of Slovenia

**The Covid-19 pandemic has increased market risks, but the asset structure of insurance corporations and reinsurance corporations remains stable.** The exposure to investment-grade corporate bonds was down in June 2020 in year-on-year terms, while there were increases primarily in exposure to investment-grade government bonds, and in part to investment fund shares and units. Holdings of speculative-grade bonds and unrated bonds declined to 5.3% of the investment portfolio, from 6.1% a year earlier.

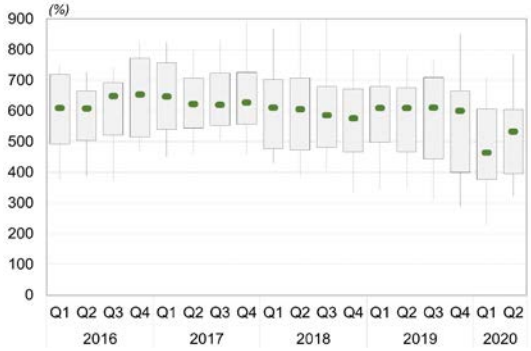
**The capital adequacy[91] of insurance corporations deteriorated, as a result of adverse movements on the stock markets.** A sharp deterioration in capital adequacy was reported by insurance corporations at the end of the first quarter of 2020, when stock markets fell and bond yields spiked. The correction in the stock markets in the second quarter also brought a gentle recovery in capital adequacy. Capital adequacy in terms of the solvency capital requirement (SCR coverage ratio) in June 2020 was down significantly in year-on-year terms at the majority of insurance corporations: the number of insurance corporations with an SCR coverage ratio of less than 200% rose from six to eight, while two had an SCR coverage ratio of less than 150%. There was greater volatility in insurance corporations' capital adequacy in terms of the minimum capital requirement (MCR coverage ratio), particularly in March, when the median value fell below 500% for the first time. The reinsurance corporations also recorded a decline in capital adequacy, albeit to a lesser extent. Given the different nature of the business, the SCR coverage ratio at the two reinsurance corporations is well above 200%, while the MCR coverage ratio is well above 600%.

[91] The data on capital adequacy is obtained on the basis of insurers' quarterly reporting under Solvency II. The graphical comparison of capital adequacy and minimum capital includes only the insurers that reported over the entire period (13 insurance corporations).

Slika 4.9: Capital adequacy in terms of SCR coverage ratio (insurance corporations)




Slika 4.10: Capital adequacy in terms of MCR coverage ratio (insurance corporations)




Note: The 10th and 90th percentiles are taken as the upper and lower limits.
Sources: Quarterly Solvency II figures for insurers, ISA, Bank of Slovenia

**The quality of own funds for capital adequacy valuation purposes remained appropriate.** Own funds consist of the surplus of assets over liabilities, valued under the rules set out by the ZZavar-1, and subordinated liabilities, which together constitute basic own funds, and ancillary own funds. Own funds are divided into three tiers. Own funds eligible for covering the solvency capital requirement are Tier 1 items (no limit), and Tier 2 and Tier 3 items up to a certain limit. Only basic own funds are eligible for covering the minimum capital requirement, including Tier 1 items (no limit), and basic Tier 2 items up to a certain limit.In both cases insurance corporations' assets in the form of unrestricted Tier 1 items made up more than 94% of the total in June 2020 (100% at reinsurance corporations), while Tier 2 assets did not exceed 6% of insurance corporations' eligible basic own funds.

**Similarly to insurance corporations, pension companies[92] recorded growth in gross written premium in the first half of 2020, but their operating result was negative.** Gross written premium in the first half of the year was up 13% in year-on-year terms, driven by the buoyant labour market in late 2019 and early 2020. As a result of an increase in claims paid (by 24%) and expenses on assets, and a decline in income, the net technical result declined by 31% to EUR 0.3 million, while the operating result was negative. During the Covid-19 pandemic and the turmoil on the stock markets, there was a rise in the risk of failure to attain the minimum guaranteed return, which covers the majority of policyholders' assets. This in turn increased the risks in connection with profitability and solvency, as they will have to use their own resources to cover guaranteed returns to compensate for a lack of return on the financial markets.

**In line with a recommendation by the FSB, the Insurance Supervision Agency issued a call[93] for a freeze on dividend payments at insurance corporations, reinsurance corporations and pension companies.** This is principally a preventive measure to ensure the short-term financial stability of the insurance sector during the spread of Covid-19.

## 4.3 Mutual funds

*Mutual funds[94] recorded high growth in asset values and increased inflows before the outbreak of Covid-19. The outbreak of the pandemic brought a major correction on the stock markets, which also triggered increased withdrawals from funds, although these were short-term, and therefore no major liquidity difficulties were reported. High liquidity and the diverse investment policy proved to be major factors in the resilience of mutual funds' performance to potential shocks on the financial markets.*

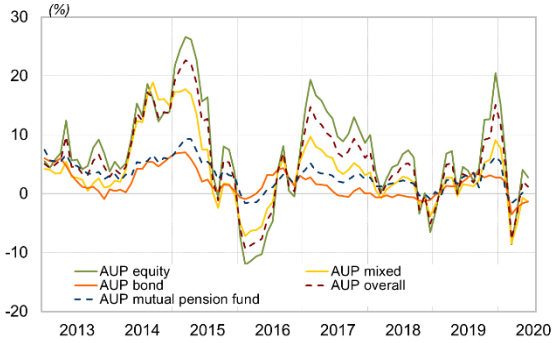
**Their average unit price fell sharply at the outbreak of the pandemic, but domestic mutual funds did not suffer any major liquidity difficulties.** The assets under management of domestic mutual funds exceeded EUR 3 billion for the first time going into 2020, thanks to booming stock markets. The spread of Covid-19 and the declaration of the pandemic triggered huge selling pressure on the equity markets. Mutual funds' assets under management fell by 16.3% in March to below EUR 2.6 billion. The large-scale

[92] The three pension companies that fall under the oversight of the ISA are addressed here.
[93] The call can be found online (in Slovene) at:https://www.a-zn.si/wp-content/uploads/Sporocilo004.pdf.
[94] A lack of available data means that only mutual funds are discussed below. According to the Securities Market Agency, assets in alternative investment funds (AIFs) operated by AIF operators established in Slovenia amounted to EUR 170 million as at 31 December 2019, while mutual pension funds' assets under management amounted to EUR 1.27 billion as at 30 June 2020.

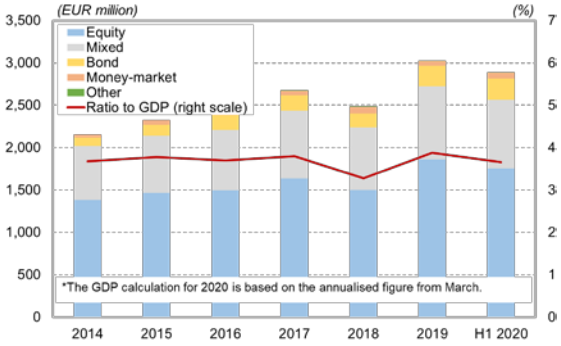
government borrowing to contain the pandemic and its impact on economies reduced investor confidence in government debt securities. This also reduced the assets under management at bond funds, whose investment policies make them a safer form of asset than equity funds. The decline in fund values also drove net withdrawals from funds in March, and reduced net inflows in the second quarter.

**The resilience of mutual funds at the beginning of 2020 was good, thanks to their high liquidity. This proved to be a good buffer in March, when domestic mutual funds recorded the largest monthly shift in assets of the last decade.** The increased uncertainty in March saw funds receive more than EUR 120 million of requests for withdrawals or asset transfers (more than 4% of total assets under management). Because they were mainly transfers to other funds (transfers from equity funds to money-market or bond funds), the liquidity difficulties were manageable; the net withdrawal in March amounted to EUR 25 million. It was evident that mutual funds could have suffered more serious liquidity difficulties had the trends in March continued in the second quarter of the year. Based on a recommendation by the FSB, the SMA issued an opinion[95] in connection with dividend payments and profit distributions by management companies, operators of alternative investment funds, investment firms, Ljubljana Stock Exchange and the Central Securities Clearing Corporation (KDD), with the aim of maintaining the capacity to absorb potential capital losses and of ensuring an adequate level of liquidity at all times.

Slika 4.11: Year-on-year change in average unit prices of mutual funds



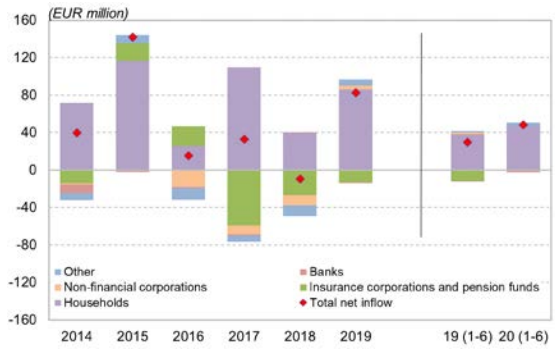

Slika 4.12: Breakdown of assets by fund type and ratio to GDP*



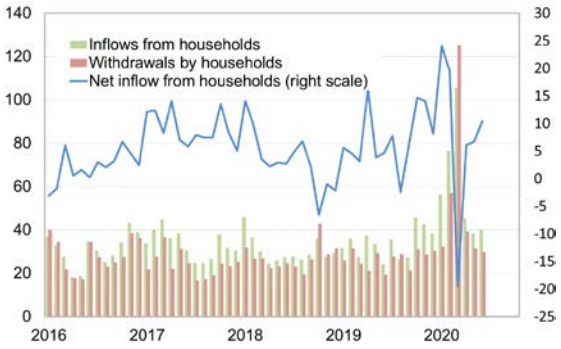

Sources: SMA, Bank of Slovenia

**Despite the adverse situation on the stock markets and the increased uncertainty, the net inflow in the second quarter of 2020 and the cumulative net inflow in the first half of the year were both positive.** The net inflow in funds in the first half of the year was up 63% in year-on-year terms, driven primarily by increased inflows in the first two months of the year and in June, when the Covid-19 situation eased slightly. The increased net withdrawals in March were driven by the adverse developments on the stock markets and, above all, the initial response to the pandemic, which was confirmed by the higher net inflows in the second quarter. Households remain the largest holders of mutual fund units, and the largest net contributors to mutual funds. The dynamics in inflows could therefore change in the future, with an adverse impact on fund liquidity, particularly if the adverse effects of Covid-19 have a long-term impact on the labour market and on the surplus of liquid assets at the disposal of households even before the declaration of the pandemic.

Slika 4.13: Net inflows into mutual funds by investor sector




Slika 4.14: Households' inflows into and withdrawals from mutual funds

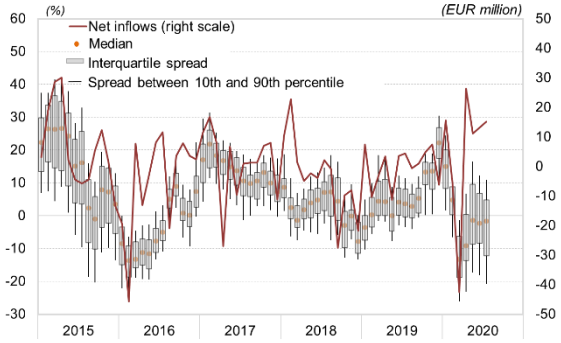



Sources: SMA, Bank of Slovenia

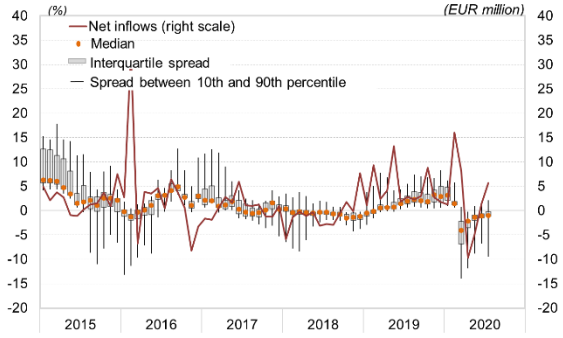
[95] The SMA opinion is available online (in Slovene) at: https://www.a-tvp.si/storage/app/media/Documents/zakonodaja/priporocila/Priporocila/Mnenje_ATVP_v_zvezi_z_izplacilom_dobickov7-4-2020.pdf.

**The violence with which investors responded on the equity markets in particular was also transmitted to equity mutual funds.** The average unit price at equity funds in March was down more than 40% in year-on-year terms, while the average unit price at bond funds, a more conservative form of saving, fell by 14% over the same period. The majority of assets transferred in March went to money-market funds, which in June 2020 nevertheless accounted for just 2.6% of mutual funds' assets under management, compared with 60.7% at equity funds and 8.8% at bond funds.

Slika 4.15: Distribution of annual returns and net inflows into equity funds




Slika 4.16: Distribution of annual returns and net inflows into bond funds




Sources: SMA, Bank of Slovenija

**Operators of mutual pension funds face an additional challenge: the majority of assets are still held in funds with a guaranteed return.** The market risk and the associated risk of failure to attain the minimum guaranteed return are borne in full by the operator and not the saver, as is typically the case with other forms of mutual pension fund and mutual fund. The risk of failure to attain the minimum guaranteed return has increased as the low interest rate environment has persisted, and was only driven higher by the Covid-19 pandemic. Funds with a guaranteed return have to use their own assets to cover any shortfall in the guaranteed return.

**During the outbreak of the Covid-19 pandemic, the largest liquidity difficulties were experienced by mutual funds that were more exposed to corporate bonds and mutual funds with larger exposure to the real estate market.**[96] The domestic mutual funds' exposure to these assets is negligible, and accordingly they did not report any major liquidity difficulties during the pandemic. Neither did they see a reversal in the trend of net inflows into funds, although this is not ruled out in the future. The funds' large liquidity portfolio was also important at the outbreak of the pandemic, when mutual funds recorded major switching of assets within the umbrella funds, which was not reflected in increased net withdrawals.

[96] The ESRB identified five priority areas where coordinated action by supervisory authorities is required to alleviate the adverse impact of Covid-19 and to strengthen the resilience of the financial system (for more, see Section 5.1 and online at https://www.esrb.europa.eu/news/pr/date/2020/html/esrb.pr200514~bb1f96a327.en.html).

# 5 MACROPRUDENTIAL POLICY FOR THE BANKING SYSTEM AND LEASING COMPANIES

## 5.1 Macroprudential policy in light of Covid-19

**In accordance with Recommendation ESRB/2013/1, Bank of Slovenia has put in place a macroprudential strategy that links the ultimate objective of macroprudential policy with the intermediate objectives and instruments.** The ultimate objective of macroprudential policy is to contribute to safeguarding the stability of the financial system as a whole, including strengthening the resilience of the financial system, and preventing and mitigating the build-up of systemic risks, thereby ensuring a viable and sustained contribution to economic growth from the financial sector.

**The macroprudential strategy represents the starting point for the formulation of macroprudential policy, and sets out the operational framework for the implementation of macroprudential policy.** The strategic document sets out the use of macroprudential instruments as a key tool of macroprudential policy, and defines the methods for identifying and assessing systemic risks, and the communication policy.

**Defining the intermediate objectives on the basis of specific market deficiencies makes it possible to provide macroprudential instruments with an economic basis for their calibration and use.** Bank of Slovenia tailors the selection and calibration of the macroprudential instruments to the current assessment of risks in the financial system, and the type of risk identified (cyclical or structural). To attain the five intermediate objectives of macroprudential policy defined, Bank of Slovenia currently uses the eight macroprudential instruments presented in detail below. The individual intermediate objectives are each pursued by at least one macroprudential instrument. During a period of financial and credit expansion, when cyclical systemic risks can increase, macroprudential policy is primarily restrictive in nature. This mainly entails the adoption of measures to constrain the credit cycle and increase the banks' resilience for periods of increased capital burden and losses.

**The outbreak of the Covid-19 pandemic brought a change in the pitch of macroprudential policy in EU Member States and further afield, from predominantly restrictive to a focus on releasing existing capital buffers and adopting additional instruments to maintain favourable financing conditions, and to strengthen the confidence of households and firms.** EU Member States were still tightening the countercyclical capital buffer in 2019, as one of the key, most frequently used instruments to prevent procyclicality in the financial system. Given the growing risks in individual segments of the financial system, particularly in connection with lending for real estate purchase, countries have adopted or tightened other macroprudential instruments. However, as a result of the outbreak of the Covid-19 pandemic, numerous countries fully or partly released the countercyclical capital buffer or cancelled previously announced tightening. This released the accumulated capital and increased the banking system's resilience during the Covid-19 pandemic, when losses were occurring. Based on guidance by the Financial Stability Board, Bank of Slovenia has introduced a temporary restriction on profit distributions by banks. The purpose of the measure is to retain capital at banks so that the Slovenian banking system is better able to withstand potential losses, and to continue supplying credit to businesses and households. In light of the Covid-19 epidemic, Bank of Slovenia has also temporarily modified the conditions for implementing the macroprudential restrictions on household lending. The modifications relate to the ability to exclude a consumer's reduced income during the Covid-19 epidemic from the calculation of his/her creditworthiness.

**The European Systemic Risk Board (ESRB), which is responsible for the macroprudential oversight of the financial system in the EU, responded to the Covid-19 pandemic by adopting priority measures to ensure the stability of the financial system.** The measures related to a) implications for the financial system of guarantee schemes for loans and other fiscal measures to protect the real economy, b) market illiquidity and implications for asset managers and insurers, c) impact of large-scale downgrades of corporate bonds on markets and entities across the financial system, d) system-wide restraints on dividend payments, share buybacks and other payouts, and e) liquidity risks arising from margin calls.

**The consequences of the Covid-19 epidemic in the area of the operations of financial corporations could lead to disruptions of the financial system.** These could have an adverse impact on the functioning of the financial system and on the real sector, particularly via a decline in capital strength i.e. the capacity to absorb the capital losses of financial corporations arising from the potential realisation of systemic risks

during the Covid-19 epidemic and for a certain period of time afterwards. The FSB therefore issued a recommendation[97] to the supervisory authorities of financial corporations that they issue a supervisory measure or instrument commensurate with the identified risks with the aim of imposing limits or exercising caution with regard to the payment of dividends for the previous year and for 2020, imposing limits or exercising caution with regard to share buybacks aimed at remunerating shareholders, and imposing limits or exercising caution with regard to the distribution of profits achieved in 2019 and 2020, undistributed profits, and reserves from previous years for such purposes, to financial corporations trading in Slovenia that are under their supervision.

***Box 5.1: Use and release of capital buffers[98]***

**The purpose of macroprudential policy is to mitigate the impact of systemic financial shocks on the real sector.** One of the channels that macroprudential policy works through is the build up of capital buffers and ensuring that the loan approval conditions remain suitably stringent in times of risk accumulation and releasing these buffers when risks materializes. In this way macroprudential policy contributes in smoothing the financial cycle by limiting the build-up of systemic risks during expansionary phases, and mitigating the adjustment in credit activities during the phases of contraction. In the current circumstances, when the economy is facing an exogenous shock rather than the materialisation of risk generated endogenously by the financial sector, the use of capital buffers built up previously could allow banks to absorb the forseen increased losses without constraining the supply of loans as a result of the crisis. The continued provision of financing to firms and households may prevent that the financial sector aggravates the economic recession.

**The EU macroprudential policy framework offers four macroprudential capital buffers (see Table 5.1), the aim of which is to maintain the functioning of the banks irrespective of shocks, thus strengthening the resilience of the financial system.** For example, the countercyclical capital buffer (CCyB) by definition is activated when excessive credit growth is identified. The macroprudential authorities opt to release it during times of elevated economic stress, with the aim of granting banks flexibility and continuing their lending to the economy.

Table 5.1: Overview of capital buffers

| Buffer | Level of design | Level of calibration | Distribution restrictions | Possible to deactivate |
|---|---|---|---|---|
| CCoB | global | global | automatic | no |
| GSIB/O-SII | global (GSIB) / jurisidictional | global (GSIB) / jurisidictional | automatic | no (GSIB) / design-dependent (O-SII) |
| CCyB | global | jurisidictional | automatic | yes |
| SyRB | jurisidictional | jurisidictional | automatic | yes |

Source: Based on Drehmann et al. (2020).[99]

**Given the impact of the Covid-19 pandemic on the economy, several European national authorities adopted macroprudential measures at its outbreak, taking into account the specific circumstances of the individual country and the existing buffer rates.** Certain authorities took the decision to reduce capital requirements, wich in particular included the CCyB and other macroprudential buffers. According to the ECB's assessments, these measures released more than EUR 20 billion of common equity Tier 1 capital, which is expected to help in the absorption of credit losses, and enable uninterrupted lending to the economy. An overview of the macroprudential measures adopted by European macroprudential national authorities in response to the Covid-19 epidemic is presented in Table 5.2. Of the seven euro area countries with positive CCyB rates, the authorities in France, Ireland and Lithuania reduced their rates to zero, while Slovakia cancelled a previously announced rise in the rate. Having been announced earlier, the activation of the CCyB was cancelled in Belgium and Germany. Given the automatic reciprocation, which requires banks to apply the CCyB rates of the countries where their exposures are located, it was not only the reduction of CCyB rates in the home country and euro area countries that reduced capital requirements for banks in the euro area, but also the reductions in the Czech Republic, Denmark, Hong Kong, Iceland, Norway, Sweden, and

[97] The FSB recommendation of 7 April 2020 is available at: https://www.bsi.si/financna-stabilnost/makrobonitetni-nadzor/odbor-za-financno-stabilnost-ofs/gradiva-ofs. The FSB guidance was also followed by the SMA and the ISA, which issued an opinion in connection with dividend payments to supervised firms.

[98] The release of a buffer entails the formal reduction of the buffer rate that banks are required to meet; the use of a buffer means that the bank makes use of a buffer already built up and does not maintain the prescribed buffer rate.

[99] Drehmann, M., Farag, M., Tarashev, N. and Tsatsaronis, K. (2020), Buffering Covid-19 losses - the role of prudential policy, No 9, BIS Bulletins, Bank for International Settlements (https://EconPapers.repec.org/RePEc:bis:bisblt:9).

the UK. Bank of Slovenia maintained its countercyclical capital buffer rate at zero (0% of total risk exposure).

**Some countries released other macroprudential instruments, which were at their disposal, such as the systemic risk buffer (SyRB).** The macroprudential authorities in Estonia and Finland reduced their buffer rates to zero, while the Netherlands reduced the existing rates for three institutions (which had been 3%). Some countries opted to reduce, or postpone the introduction of, other structural buffers, such as the buffer for other systemically important institutions (O-SII buffer). In addition to reductions in the SyRB, there were reductions in the O-SII buffer in Finland and the Netherlands, albeit selectively, i.e. one bank in each country, which effectively reduced the combined capital requirement (SyRB and O-SII buffer) by 1% of the risk-weighted assets. The Netherlands also deferred the additional requirements for exposures from domestic mortgage loans introduced pursuant to Article 458 of the CRR.[100]

**All of the above measures complement the measures adopted by the ECB Supervisory Board on 12 and 20 March.**[101] On 15 April the ECB issued a press release[102] stating that it supports the swift action taken by euro area macroprudential authorities to address the financial sector impact of the coronavirus outbreak by releasing or reducing capital buffers. The EBA and the BCBS encouraged credit institutions to use their available capital and liquidity buffers, and to make appropriate use of the operational flexibility offered by microprudential and macroprudential policy in adapting to the new situation. Despite the press release and the support from international and European supervisory institutions, the communication of macroprudential measures and the uncertainty in their use pose a significant challenge in employing structural instruments to meet cyclical objectives. As shown in Table 5.2, some countries have, instead of using structural instruments, decided to act through instruments based on cyclical indicators that are calculated automatically, such as the countercyclical capital buffer. That the instruments were designed for purposes other than those for which they are being used in the current crisis is not the only issue facing these authorities. Another issue is the uncertainty regarding returning to normal and the use of buffers to address potential future shocks. In this respect it is worth mentioning the communication of the central bank of the Netherlands (DNB) in its bulletin, where it announced a reduction in the SyRB for the largest banks and stated its intention to compensate for the reduced buffers after the crisis with a gradual increase in the CCyB, which ultimately would restore the total buffer requirements for these banks to the pre-pandemic level.[103] The DNB would thus ensure a more flexible structural/cyclical make-up of capital requirements, while simultaneously allowing a release of capital, which the banks could use to provide financial services for households and businesses. Other countries that opted not to use the CCyB as an instrument for alleviating the adverse impact of Covid-19 used other macroprudential instruments that were available (SyRB and O-SII buffer). Although these were largely instruments whose principal purpose was not addressing economic shocks such as those triggered by the Covid-19 pandemic, the countries in question opted to release these buffers with regard to the magnitude of the adverse systemic effects as the only immediately available measure for easing the burden on credit institutions.

[100] Regulation (EU) No 575/2013.
[101] Press release on the ECB Banking Supervision site.
[102] See press release.
[103] See bulletin of 23 March.

Table 5.2: Macroprudential measures in European countries in response to Covid-19

| Country | CCyB (%) | | | Other measures |
|---|---|---|---|---|
| | Rate announced prior to 29 Feb | Rate implemented by 29 Feb | Last rate notified | |
| Belgium | 0.50 | 0.00 | 0.00* | |
| Bulgaria | 1.50 | 0.50 | 0.50 | |
| Cyprus | | | | postponement of remaining phase-in of O-SII buffer by 12 months |
| Czech Republic | 1.75 | 2.00 | 1.75 | |
| Denmark | 1.50 | 1.00 | 0.00 | |
| Estonia | | | | full release of SyRB |
| Finland | | | | full release of SyRB and selective release of O-SII buffer |
| France | 0.25 | 0.50 | 0.00 | |
| Germany | 0.00 | 0.25 | 0.00* | |
| Hungary | | | | full release of O-SII buffer |
| Iceland | 2.00 | 2.00 | 0.00 | |
| Ireland | 1.00 | 1.00 | 0.00 | |
| Lithuania | 1.00 | 1.00 | 0.00 | postponement of remaining phase-in of O-SII buffer by 12 months |
| Luxembourg | 0.50 | 0.25 | 0.50 | |
| Netherlands | | | | partial and selective release of SyRB and O-SII buffer; postponement of floor on risk weights for domestic mortgage loan exposures of IRB banks** foreseen for Q3 2020; the floor is to increase with the LTV ratio of the underlying mortgage loans |
| Norway | 2.50 | 2.50 | 1.00 | |
| Poland | | | | partial release of SyRB |
| Portugal | | | | relaxation of recommendations to banks with regard to financing conditions (cap on DSTI for household loans and liquidity loans) |
| | | | | |
| Slovakia | 2.00 | 1.50 | 1.50* | |
| Slovenia | | | | temporary restriction of profit distributions by banks and savings banks; adjustment of measure for household lending |
| Sweden | 2.50 | 2.50 | 0.00 | |
| UK | 1.00 | 2.00 | 0.00 | |

Note: The table illustrates the macroprudential measures adopted in European countries. It is based on information available up to 8 July 2020. Missing CCyB rates mean that no changes have occurred in these countries; countries not included in the table did not use any macroprudential instrument in response to Covid-19.
*Note: Cancelled decision to activate the CCyB.
**Note: Institutions using an internal ratings-based approach.
Sources: Bank of Slovenia, taken from *ECB*, *ESRB* and BDE[104]

**Both directly, and via policies under the aegis of the Eurosystem, the Single Supervisory Mechanism and the EBA, Bank of Slovenia has assisted in alleviating the situation induced by the Covid-19 epidemic.** On 13 March a letter was sent to the banks where they were notified of the measures taken by Bank of Slovenia. It was comunicated that under the aegis of the Single Supervisory Mechanism the ECB had adopted a temporary relief in the supervision of the significant banks, and that in accordance with the level-playing field principle these were also being extended to less significant banks whose microprudential supervision is conducted directly by Bank of Slovenia. The following were granted to all banks and savings banks:

- temporary relief from meeting capital buffers, including the Pillar 2 guidance (P2G),
- temporary relief in the composition of Pillar 2 requirements from capital of lower quality than common equity Tier 1 capital,
- temporary relaxation of the liquidity coverage ratio (LCR).

Also on the basis of an ECB recommendation, and with the aim of increasing the resilience of the financial system to financial shocks, maintaining financial stability, preventing disruptions to the financial system and reducing the build-up of systemic risks from the Covid-19 epidemic, Bank of Slovenia introduced a **temporary restriction on profit distributions** by banks and savings banks established in Slovenia, and modified a measure regulating the conditions for household lending (for more, see Section 5.2).

**The impact of the Covid-19 epidemic revealed the need for careful examination of the options offered by the current framework of the Basel Committee on Banking Supervision for the activation of the countercyclical capital buffer. These are not necessarily limited to the case of excessive credit growth.** A need was also revealed for a higher level of capital requirements that are more responsive to the

[104] FSR, Spring 2020, Banco de España.

macrofinancial cycle. Drehmann et al. (2020) state that the crisis solutions of macroprudential policy should not undermine confidence in tomorrow's financial system. "Bank counterparties, market participants and the public at large need to remain convinced that the banking systems' buffers will help them weather economic stress along the entire path to full recover. Only banks that remain resilient over the medium term will be able to continue playing a constructive role in supporting real activity, not least by smoothing Covid-19 losses over time." Communication is of key importance in pursuing macroprudential policy, and given its immediate impact on the expectations of agents it needs to be deployed in a clear, well-planned fashion.

## 5.2 Bank of Slovenia macroprudential measures

***Macroprudential restriction of profit distributions by banks***

**In light of the potential impact of the Covid-19 pandemic, a temporary restriction on profit distributions by banks and savings banks was introduced in April 2020.**[105] The aim of the measure is increasing the resilience of the financial system to financial shocks, maintaining financial stability, preventing disruptions to the financial system and reducing the build-up of systemic risks from Covid-19. The measure applies to all banks and savings banks established in Slovenia.

**The purpose of the measure is to retain capital at banks so that the Slovenian banking system is better able to withstand potential losses caused by the Covid-19 epidemic, and to continue supplying credit to businesses and households.** The macroprudential measure pursues an intermediate objective of macroprudential policy, namely to limit the systemic impact of misaligned incentives with a view to reducing moral hazard.

**Other reasons to temporarily freeze dividend payments and profit distributions for previous years and the current year are as follows:**

- to prevent a deterioration in the liquidity of financial institutions through the payment of dividends and share buybacks in favour of the owners, i.e. through the distribution of their profits;
- to prevent regulatory recommendations adopted by EU institutions that aim to make it easier for financial institutions to meet regulatory limits in order to ensure no disruption to lending (e.g. the ECB waiving capital and liquidity buffers for significant banks, and a similar measure by Bank of Slovenia for less significant banks) from being abused for dividend payments and share buybacks instead of the maintenance of an adequate range of financial services;
- to prevent the legislator's measures to mitigate the consequences of the Covid-19 epidemic and to maintain liquidity in the real sector from being abused for dividend payments and share buybacks at financial institutions;
- to limit the reputation risk for the financial sector in the event of dividend payments and share buybacks in favour of the owners of financial institutions.

**The macroprudential measure to restrict profit distributions by banks includes a temporary freeze on payments of dividends or interim dividends, payments in connection with common equity Tier 1 capital or Tier 2 capital instruments, and payments of the variable component of remuneration or the establishment of obligations for the payment of the variable component of remuneration or discretionary pension benefits for staff whose professional activities have a material impact on the bank's risk profile (identified staff).** The macroprudential measure applies to banks' profits generated in 2019 and 2020, and to undistributed profits and reserves from previous years, and is effective for one year from its publication in the Official Gazette.[106] Bank of Slovenia may rescind the measure early if the risks decline significantly, or extend the measure in the event of increasing risks. Our assessment is that the measure will bring significant benefits to the banking system and the real sector during the economic downturn. Common equity Tier 1 capital increased by 7.9% over the first half of 2020, as a result of the retention of earnings from the previous financial year, which the banks were required to retain in full.

[105] The Regulation on the macroprudential restriction of profit distributions by banks was adopted on the basis of Article 13 and the first paragraph of Article 31 of the Bank of Slovenia Act (Official Gazette of the Republic of Slovenia, Nos. 72/06 [official consolidated version], 59/11 and 55/17), Articles 4 and 17 and point 16 of the first paragraph of Article 19 of the Macroprudential Supervision of the Financial System Act (Official Gazette of the Republic of Slovenia, No. 100/13), and Recommendation OFS/2020/1 of 6 April 2020.

[106] For the detailed content of the macroprudential measure, see Official Gazette of the Republic of Slovenia, No. 49/20.

*Macroprudential restriction of profit distributions by leasing companies*

**Having adopted a macroprudential measure restricting profit distributions by banks and savings banks, Bank of Slovenia also issued a recommendation extending similar guidance to leasing companies.**[107] Bank of Slovenia recommended that leasing companies temporarily restrict the distribution of distributable profit and retained earnings generated in 2019 and 2020. The recommendation is expected to be in place for one year.

**The purpose of the recommendation is to ensure that leasing companies retain the highest possible level of capitalisation, thus contributing to:**

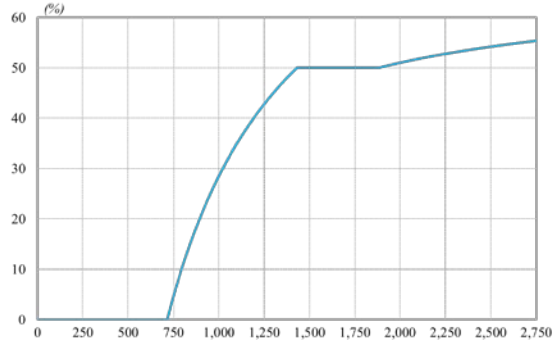
- the increased resilience of the financial system to financial shocks;
- the maintenance of financial stability;
- the prevention of disruptions to the financial system in Slovenia;
- the reduced build-up of potential systemic risks.

**The recommendation applies to leasing companies that generated at least EUR 1 million in new leasing business in 2019, where finance leasing accounted for at least 50% of the total new business, and whose total assets exceed EUR 10 million.** It includes a temporary restriction on profit distributions to shareholders/members, the distribution of paid-up capital surplus related to capital instruments, retained earnings, accumulated other comprehensive income, other reserves and provisions, and the use of earnings for other purposes, e.g. bonuses for members of the senior management.

*Macroprudential restrictions on household lending*

**A measure capping the borrower's debt-service-to-income ratio (DSTI) was made binding in November 2019 for all new household loans.** The maximum allowed DSTI ranges from 0% to 67%,[108] and depends on the borrower's income level (see Figure 5.1), income structure (one-off and occasional earnings as well as the income exempt from attachment are not included), the level of the minimum wage and the number of dependent family members.[109] A cap on maturity at seven years was also made binding for new consumer loans[110] in November 2019.[111] Following the introduction of the binding macroprudential measures, growth in consumer loans gradually began to slow.[112]

Slika 5.1: Maximum DSTI versus borrower's net monthly income[113]




Note: The graph illustrates the maximum DSTI for a person with no dependent family members and no pre-existing financial liabilities (leases and loans).
Source: Bank of Slovenia calculations

[107] The macroprudential recommendation was issued on the basis of the first paragraph of Article 31 of the Bank of Slovenia Act (Official Gazette of the Republic of Slovenia, Nos. 72/06 [official consolidated version], 59/11 and 55/17), and Articles 4 and 17 and point 16 of the first paragraph of Article 19 of the Macroprudential Supervision of the Financial System Act (Official Gazette of the Republic of Slovenia, No 100/13), and Recommendation FSB/2020/1 of 6 April 2020.
[108] The permitted exemptions allow the banks to grant a portion of new loans with a higher DSTI. The DSTI for permitted exemptions may not exceed 67%. Borrowers must also be left with at least 76% of the gross minimum wage after deducting total debt servicing costs. The amount is increased in case of dependent family members.
[109] Irrespective of the DSTI, borrowers must be left with at least 76% of the gross minimum wage (EUR 714.84 in 2020) after deducting total debt servicing costs. The amount is increased in case of dependent family members.
[110] Consumer loans are all loans to households that are not secured by residential real estate, or whose purpose is not the purchase, renovation or construction of residential real estate.
[111] The permitted exemptions allow the banks to grant a portion of consumer loans with a maturity of up to 10 years.
[112] For more information on current developments in the consumer loan market, see Section 1.3.
[113] The Regulation on macroprudential restrictions on household lending takes account of annual debt servicing costs and annual income in the calculation of DSTI. For ease of illustration, the graph shows maximum DSTI against monthly income.

**The macroprudential measures that restrict household lending[114] aim to prevent excessive credit growth and excessive leverage, and introduce minimum credit standards.** The cap on DSTI reduces the probability of default by limiting the individual's debt. The cap on maturity is a complementary measure which pursues the same intermediate objective of macroprudential policy. It also helps to prevent the avoidance of the cap on DSTI by lengthening of loan maturities. The recommendation regarding the a cap on the ratio of the loan amount to the value of the residential real estate collateral (LTV) still applies to loans secured by residential real estate. It is recommended that LTV does not exceed 80%. This measure reduces the bank's loss given default and is complementary to the cap on DSTI, and pursues the same intermediate objective of macroprudential policy.

**In May 2020, in light of the Covid-19 epidemic, Bank of Slovenia temporarily granted[115] greater flexibility in the calculation of DSTI.** In cases when a borrower suffered a temporary decline in income during the time the Covid-19 epidemic was officially declared in Slovenia, banks are allowed to exclude this period from the calculation of borrower's income. Banks may exercise this option when they have at least one piece of evidence of accounted and paid income that shows that the borrower's income is no longer being affected by the epidemic.

***O-SII buffer***

**Bank of Slovenia first identified other systemically important banks (O-SIIs) in 2015, when we defined 1 January 2019 as the phase-in period for the capital buffer.** In the 2019 annual identification process one additional bank was identified as systemically important as compared to 2018 and a buffer requirement was set for it. The other identified O-SIIs have retained their status from the previous years and similarly the buffer rates that correspond to the bracket in which their indicator of systemic importance lies.

**The buffer for other systemically important banks (the O-SII buffer) that introduced pursuant to the ZBan-2 aims to limit the systemic impact of misaligned incentives with a view to reducing moral hazard.** This is one of the intermediate macroprudential policy objectives set out by our Strategic framework for macroprudential policy. The process of identifying O-SIIs in Slovenia almost entirely follows the Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs). Under the aforementioned guidelines banks are evaluated with regard to the following criteria: size, importance to the economy of the European Union or of Slovenia, cross-border activity, and the interconnectedness of the bank or group with the financial system.

**The ZBan-2 stipulates that at least once a year Bank of Slovenia should verify the fulfilment of O-SII criteria and the appropriateness of O-SII buffer rates.** In identifying O-SIIs Bank of Slovenia largely followed the EBA Guidelines,[116] while the associated buffer rates are currently defined by the Regulation on the determination of the capital buffer for other systemically important institutions (Official Gazette of the Republic of Slovenia, Nos. 96/15 and 68/17).

**Bank of Slovenia identified seven systemically important banks in 2019, one more than in the previous year.** The O-SII buffer rates for the next year are set out in the table below. In a change from the previous year, Banka Intesa Sanpaolo d.d. has also been classed as an O-SII, with a buffer rate of 0.25%. The phase-in period for Banka Intesa Sanpaolo d.d. has been was set to 1 January 2021. Each bank must meet the buffer at the highest level of consolidation in Slovenia, through the common equity Tier 1 capital.

[114] They were introduced by the Regulation on macroprudential restrictions on household lending (Official Gazette of the Republic of Slovenia, No. 64/19).
[115] Regulation amending the Regulation on macroprudential restrictions on household lending (Official Gazette of the Republic of Slovenia, No. 75/20).
[116] More information on the mandatory indicators for the identification of O-SIIs prescribed by the EBA can be found on the Banka Slovenije website.

Table 5.3: Indicator of systemic importance and capital buffer rate for O-SIIs

| Bank | Indicator of systemic importance | Buffer rate |
|---|---|---|
| NLB d.d. | 2915 | 1.00% |
| SID banka d.d., Ljubljana | 1428 | 0.50% |
| Nova KBM d.d. | 940 | 0.25% |
| Abanka d.d. | 712 | 0.25% |
| SKB d.d. | 631 | 0.25% |
| UniCredit banka Slovenija d.d. | 602 | 0.25% |
| Banka Intesa Sanpaolo d.d. | 512 | 0.25%* |

Note: The deadline for building up the buffer is 1 January 2021.
Source: Bank of Slovenia.

***Countercyclical capital buffer***

**On 26 June 2020 the Governing Board of Bank of Slovenia took the decision to add a composite indicator to the existing set of indicators for determining the countercyclical capital buffer.** The composite indicator summarises the level of cyclical systemic risks in the Slovenian banking system, and aids decision-making with regard to the countercyclical capital buffer.

**The countercyclical capital buffer is one of the principal macroprudential instruments set out within the framework of the Basel III[117] arrangements.** The purpose of the countercyclical capital buffer instrument is to protect the banking system against potential losses when these are related to an increase in risks in the system as a result of excessive growth in lending. Bank of Slovenia introduced the countercyclical capital buffer in 2016.

**The buffer directly increases the resilience of the banking system, and prevents excessive credit growth.** In the event of the reversal of the credit cycle or a decline in risks, the buffer rate is either reduced, or fully released (a zero rate). The lower buffer rate allows banks to absorb potential losses. The risk of the supply of loans being restricted by regulatory capital requirements is reduced at the same time.

**The buffer is activated when excessive credit growth is linked to an increase in risks in the system.** In light of indicators of imbalances in the banking system originating in excessive corporate lending, and on the basis of expert judgment, the capital buffer rate has remained unchanged at zero since its introduction.

**The key indicator for setting the buffer rate is the private-sector credit-to-GDP gap, i.e. the deviation in the private-sector credit-to-GDP ratio from its long-term trend.** This indicator signals potential excessive credit growth in relation to economic growth. In addition to the credit-to-GDP gap, Bank of Slovenia also monitors the following indicators:

1. annual growth in real estate prices (a measure of the potential overvaluation of property prices),
2. annual growth in lending to the domestic private non-financial sector (a measure of developments in lending),
3. the LTD ratio for the private non-banking sector (a measure of the strength of bank balance sheets),
4. return on equity (a measure of the strength of bank balance sheets), and
5. the ratio of credit to gross operating surplus (a measure of private-sector indebtedness).

**We also monitor the composite indicator.** This combines individual risk indicators that have shown good predictive power in forecasting a crisis on the basis of data from euro area countries and from Denmark, Sweden and the UK. The risk indicators combined into the composite indicator are:

1. bank credit to the domestic private non-financial sector relative to GDP (a measure of credit developments),
2. overall real growth in credit (a measure of credit developments),
3. the ratio of residential real estate prices to income (a measure of potential overvaluation of property prices),
4. the debt-service-to-income ratio (a measure of private sector debt burden),
5. the ratio of the current account balance to GDP (a measure of external imbalances).

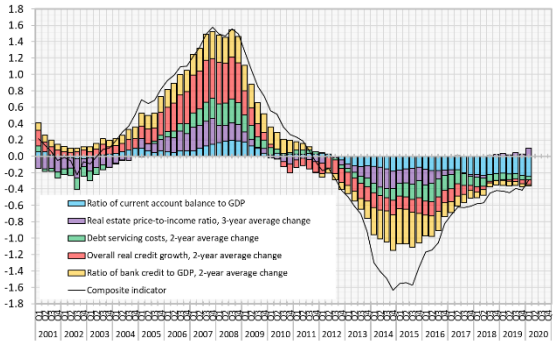
**Various changes (quarterly, one-year, two-year and three-year) were tested for each of these indicators with the aim of identifying those with the best predictive power.** The two-year or three-year changes in the indicators have the best predictive power in forecasting a crisis. When used, the individual indicators rise

[117] BCBS (2010). Basel III: A global regulatory framework for more resilient banks and banking systems.

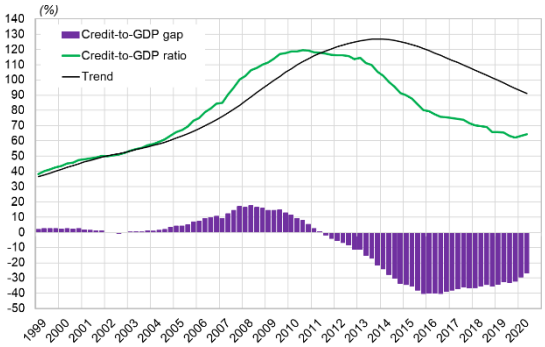
or fall for approximately five years before the outbreak of a systemic financial crisis, and usually hit their peak or trough one to two years before the crisis, which are desirable attributes for early warning indicators.

The individual risk indicators are combined into a composite indicator so as to optimise the predictive power of the early warning of the crisis five to twelve quarters before the outbreak of the crisis.[118] Figure 5.2 illustrates the value of the composite indicator in the first quarter of 2020, and the individual indicators' contributions to the composite indicator. The composite indicator stood at -0.29 in the first quarter of 2020.

Slika 5.2: Composite indicator




Slika 5.3: Credit-to-GDP gap




Note: The calculation of the credit-to-GDP gap includes all bank loans (by domestic and foreign banks) to the private non-banking sector (the non-banking sector excluding the government sector). Loans before impairments (gross loans) are taken. GDP is annualised as the sum of nominal GDP over the last four quarters. The trend in the credit-to-GDP series is estimated by means of a recursive Hodrick-Prescott (HP) filter with a lambda parameter of 400,000. The credit-to-GDP gap is the gap between the actual credit-to-GDP ratio and its trend.
Source: Bank of Slovenia

**Bank of Slovenia may set the countercyclical buffer rate for Slovenia between 0% and 2.5% of the total risk exposure amount, or even higher in exceptional cases.** The rate is set in steps of 0.5 percentage points. When the defined buffer rate is higher than zero, or when an established rate is being raised, the new buffer rate begins to be applied 12 months after the announcement. In extraordinary circumstances, a new buffer rate may also be applied less than 12 months after the announcement.

**The full release of the buffer (from a rate of 2.5% to a zero rate) is envisaged at the reversal of the credit cycle, or in the event of profound imbalances that could threaten the functioning of the banking system.** Indicators that react rapidly to financial stress apply to release. The release of the buffer is subject to a higher level of uncertainty, and requires a very high level of discretionary judgement.

**Many national macroprudential authorities opted to lower or fully release the countercyclical capital buffer in response to the outbreak of the Covid-19 epidemic.** The countries that opted to release the buffer in light of recent events include Belgium, Denmark, France, Germany, Slovakia, Ireland, Norway, Sweden, Iceland, Lithuania and the UK.[119] The aim in reducing or releasing the buffer is to provide banks with extra capital for absorbing potential losses, and reducing the risk of regulatory capital constraining the supply of credit, and thus having an adverse impact on the real sector.

***Macroprudential liquidity instruments***

**The medium-term objective of macroprudential liquidity measures is to mitigate and prevent excessive maturity mismatch and market illiquidity.** Macroprudential liquidity instruments mainly comprise measures of two types. The objective of the first type of measure is to strengthen the banks' resilience to liquidity shocks, which relate to very short timescales (30 days, six months). The objective of the second type of measure is to prevent the banks' excessive dependence on unstable funding, i.e. funding that heavily exposes banks to rollover risk. One example of the first type of measure is the first-bucket liquidity ratio adopted as a national measure in Slovenia in the early nineties. The measure prescribed a minimum ratio (of one) between financial assets and funding with a residual maturity of up to 30 days. Following the introduction of the harmonised liquidity measure known as the liquidity coverage ratio, and in light of the excess liquidity in the banking system originating in the frequent use of non-standard monetary policy measures after the European sovereign debt crisis, the first-bucket liquidity ratio has undergone two regulatory changes. First, the measure was applied as a macroprudential recommendation from January 2018.

[118] More information on the make-up of the composite indicator can be found in Anticipating the bust: a new cyclical systemic risk indicator to assess the likelihood and severity of financial crises, Occasional Paper ECB No 219, February 2019.
[119] More information about current countercyclical capital buffer rates can be found on the ESRB website.

Second, the recommendation for a minimum value in the first-bucket liquidity ratio is no longer in force as of 1 April 2020.

**A macroprudential liquidity measure known as gross loans to deposits flows (GLTDF) is currently in force in Slovenia.** The GLTDF measure recommends that banks with a positive annual inflow of deposits by the non-banking sector should have an annual increase in lending to the non-banking sector (before impairment) that is not negative. This macroprudential measure was introduced in June 2014 to slow the pace of reduction in the LTD ratio in the banking system. The banks had expanded their balance sheets before the great financial crisis by excessively increasing wholesale funding. During the crisis the banks faced difficulties in rolling over this funding, and were forced to use funds obtained from deposits to repay providers of wholesale funding. Restricting this option deters banks from again becoming excessively dependent on unstable wholesale funding. The GLTDF measure is an example of the second type of measure.

**Compliance with the GLTDF measure was always achieved at system level in 2019 and the first quarter of 2020.** Following the outbreak of the pandemic, loans were expected to decline (owing to supply-side and demand-side factors), and a breach of the measure would arise. This was indeed identified in the second quarter of this year. In the current situation the purpose of the measure is to remind banks of the necessity of promoting lending to the non-banking sector. The purpose of the measure in particular is to prevent any harmful impact on the real sector and the financial system that might occur if the banks stopped rolling over their corporate loans.

***Limits on deposit rates***

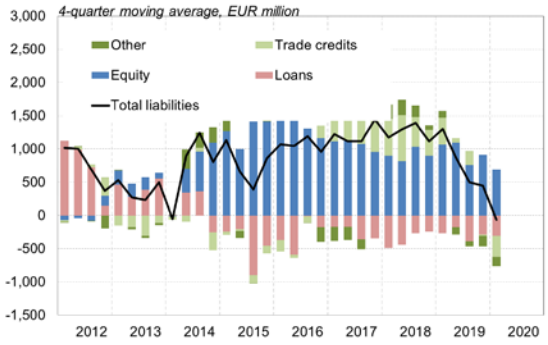
**Bank of Slovenia introduced a macroprudential instrument in March 2012 to limit deposit rates.** The measure is part of the ICAAP-SREP process and defines an add-on to capital requirements for income risk taken up as a result of new deposits by the private non-banking sector where the realised deposit rate exceeds the ceiling set by the instrument.

**The purpose of the limit on deposit rates, which is currently not constraining banks, was to limit the income risk for banks in the event of an excessive rise in interest rates on deposits by the non-banking sector.** The measure as adopted was to encourage banks to exercise even greater caution in the management of levels of liability interest rates, which would have a positive impact on lending rates.

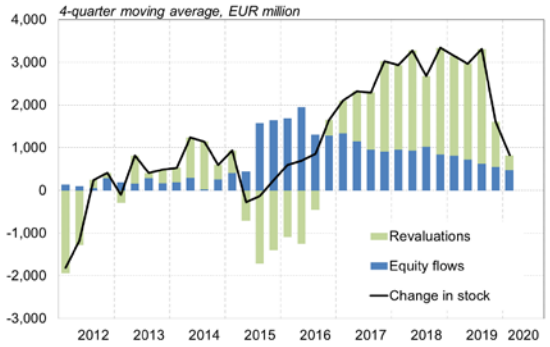
# 6 APPENDIX

### *Non-financial corporations*

Slika 6.1: Flows of non-financial corporations' financial liabilities to the rest of the world by instrument

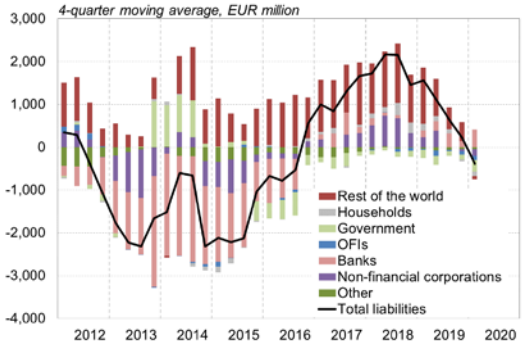



Slika 6.2: Breakdown of change in non-financial corporations' equity



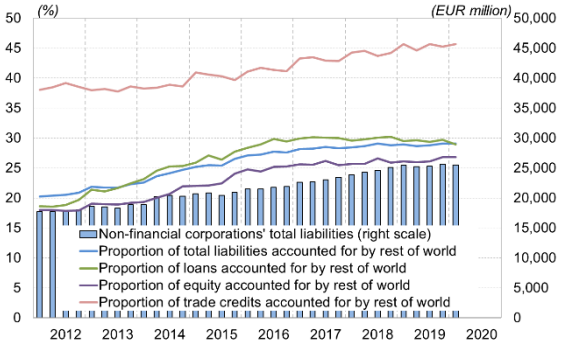

Note: Total loans to non-financial corporations consist of loans from the rest of the world, loans from domestic banks, loans from the government and other financial institutions, business-to-business loans, and loans from households. DS: debt securities.
Source: Bank of Slovenia

Slika 6.3: Flows of non-financial corporations' financial liabilities by creditor sector




Source: Bank of Slovenia

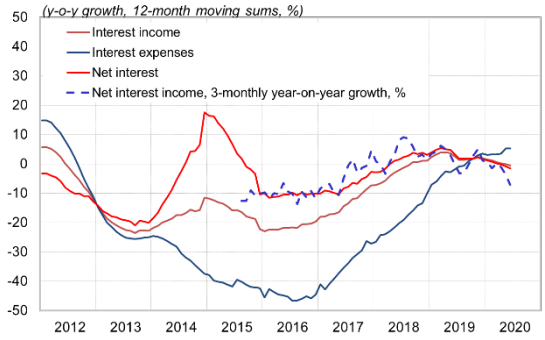
Slika 6.4: Stock of non-financial corporations' liabilities, and proportions accounted for by the rest of the world by instrument




Source: Bank of Slovenia

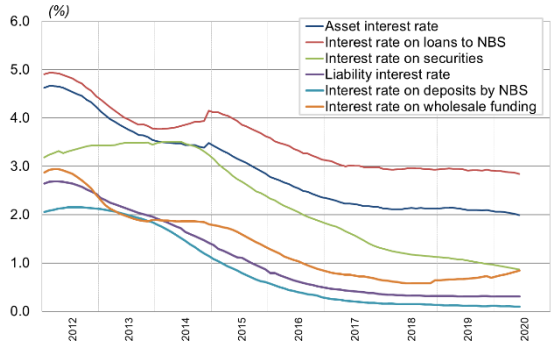
### *Income risk*

Slika 6.5: Growth in interest income, interest expenses and net interest

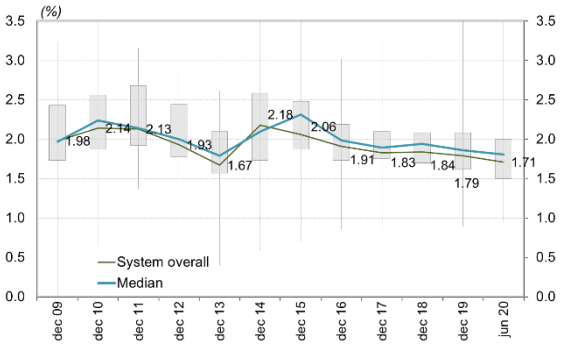



Source: Bank of Slovenia

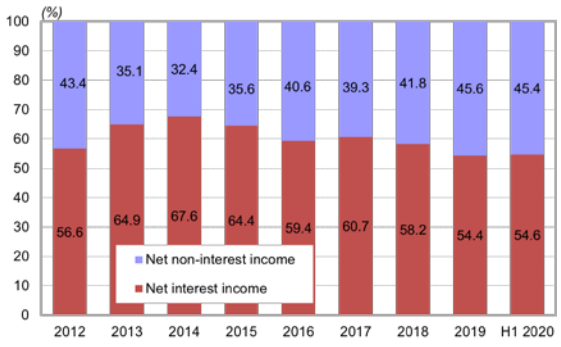
Slika 6.6: Effective interest rates by main instruments of interest-bearing assets and liabilities



Slika 6.7: Net interest margin for the Slovenian banking system, and distribution of net interest margin by quartile at end of period

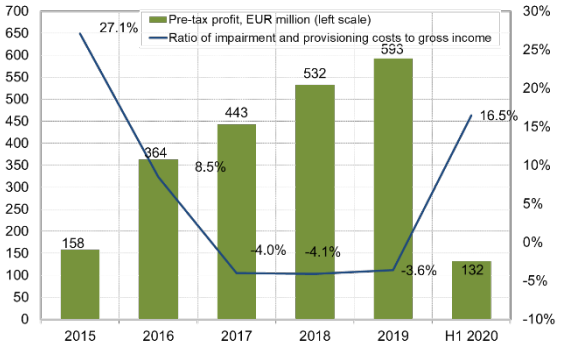



Slika 6.8: Breakdown of banks' gross income

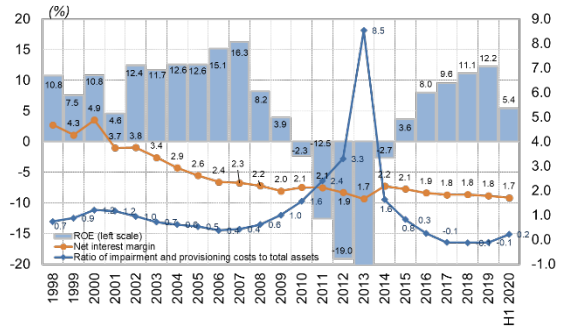



Source: Bank of Slovenia

Slika 6.9: Pre-tax profit and ratio of impairment and provisioning costs to gross income

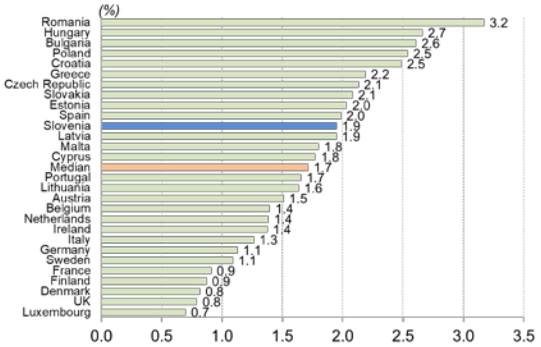



Slika 6.10: ROE, net interest margin, and ratio of impairment and provisioning costs to total assets

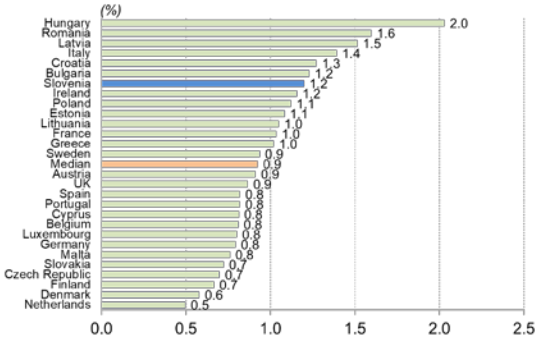



Note: Negative values for net impairment and provisioning costs represent a net release.
Source: Bank of Slovenia

Slika 6.11: Net interest margin in the EU28, 2019

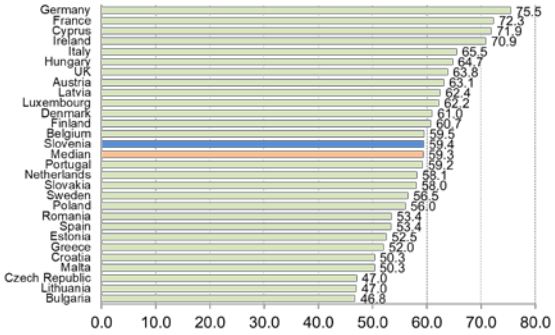



Slika 6.12: Net non-interest margin in the EU28, 2019

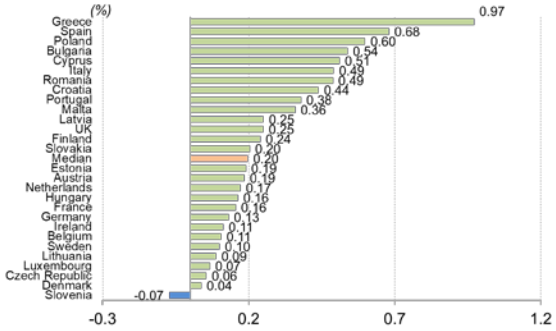



Note: The net interest margin and other indicators for Slovenia according to the ECB's consolidated banking data differ slightly from the values on an individual basis in the report.
Source: ECB (SDW [consolidated banking data])

Slika 6.13: CIR across EU28, 2019

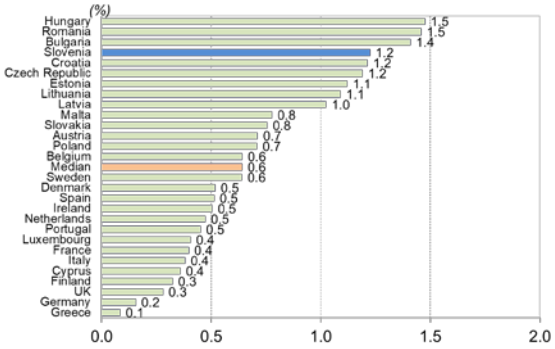



Slika 6.14: Ratio of impairment and provisioning costs to total assets across EU28, 2019

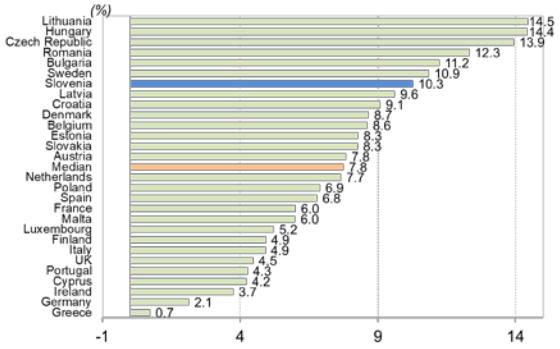



Note: Negative values in the right figure represent the net release of impairments and provisions.
Source: ECB (SDW [consolidated banking data])

Slika 6.15: ROA across EU28, 2019



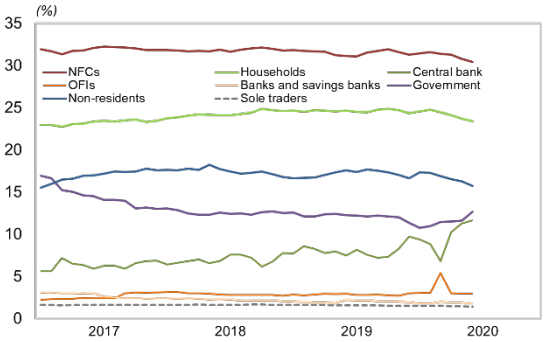

Slika 6.16: ROE across EU28, 2019




Note: Negative values in the left figure represent the net release of impairments and provisions.
Source: ECB (SDW [consolidated banking data])

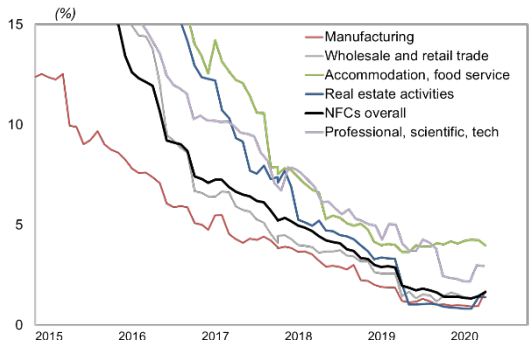
### *Credit risk*

Slika 6.17: Breakdown of exposure by customer segment

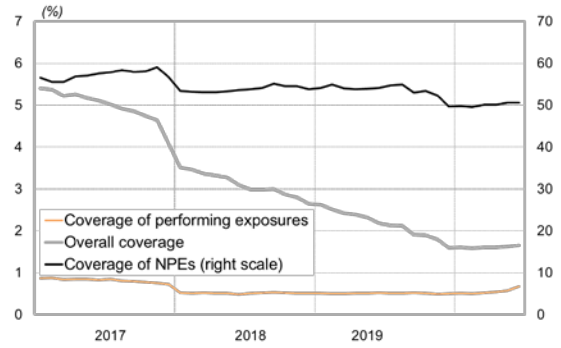



Source: Bank of Slovenia

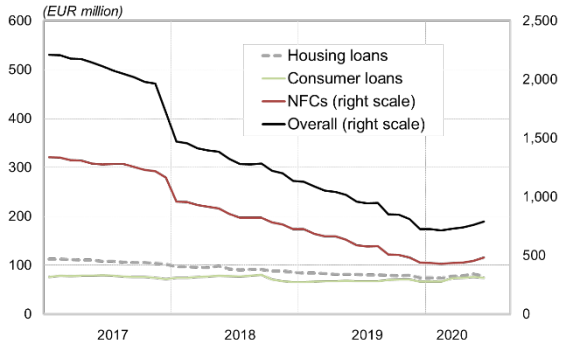
Slika 6.18: Proportion of arrears of more than 90 days by sector



Slika 6.19: Coverage of performing and non-performing exposures by impairments

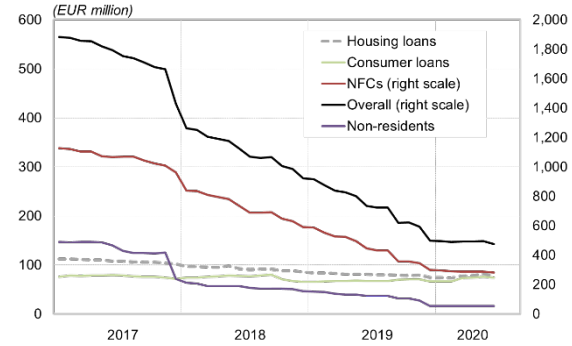



Slika 6.20: Total impairments

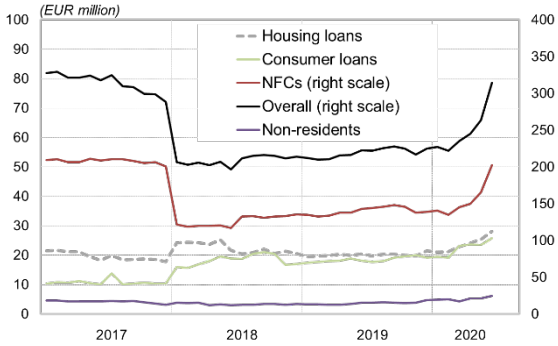



Source: Bank of Slovenia

Slika 6.21: Impairments for NPEs

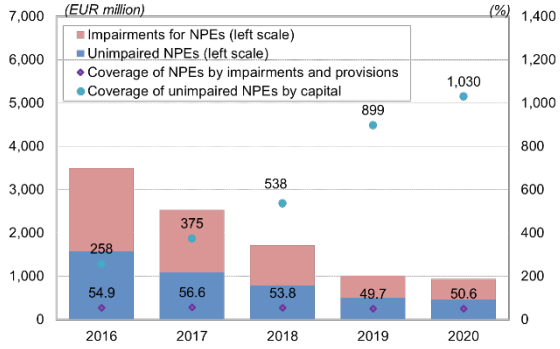



Slika 6.22: Impairments for performing exposures




Source: Bank of Slovenia

Slika 6.23: Coverage of unimpaired NPEs by capital




Source: Bank of Slovenia

***Default rates and transition matrices for non-financial corporations***

Table 6.1: Default rate 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 | 6.2 | 3.1 |
| DR 2018-2019 | 5.1 | 2.3 |

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 6.2: Transition rates between ratings of micro, small and medium-size enterprises, and large enterprises (transition matrices)

Micro, small and medium-size enterprises

| | | dec.17 | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| dec.16 | A | 88.9 | 7.1 | 2.0 | 1.0 | 1.0 |
| | B | 13.9 | 76.8 | 6.3 | 2.1 | 0.9 |
| | C | 6.0 | 15.3 | 70.0 | 6.6 | 2.2 |
| | D | 1.2 | 1.2 | 3.0 | 80.0 | 14.5 |
| | E | 0.2 | 0.0 | 0.2 | 1.5 | 98.1 |

| | | dec.18 | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| dec.17 | A | 83.3 | 11.4 | 2.6 | 1.7 | 1.0 |
| | B | 18.8 | 63.9 | 11.0 | 4.5 | 1.7 |
| | C | 8.0 | 21.8 | 57.1 | 10.8 | 2.3 |
| | D | 2.1 | 1.7 | 4.4 | 74.0 | 17.8 |
| | E | 1.6 | 0.2 | 0.9 | 4.9 | 92.5 |

| | | dec.19 | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| dec.18 | A | 85.9 | 9.6 | 2.1 | 1.7 | 0.7 |
| | B | 16.3 | 70.6 | 9.4 | 2.6 | 1.3 |
| | C | 5.0 | 20.1 | 62.0 | 8.6 | 4.3 |
| | D | 1.2 | 1.4 | 3.6 | 76.2 | 17.6 |
| | E | 0.3 | 0.0 | 0.4 | 1.5 | 97.8 |

Large enterprises

| | | dec.17 | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| dec.16 | A | 93.7 | 5.5 | 0.6 | 0.3 | 0.0 |
| | B | 9.6 | 86.0 | 3.4 | 1.0 | 0.0 |
| | C | 2.3 | 15.2 | 77.2 | 4.7 | 0.6 |
| | D | 0.6 | 1.3 | 8.4 | 85.8 | 3.9 |
| | E | 0.0 | 0.0 | 1.4 | 4.1 | 94.6 |

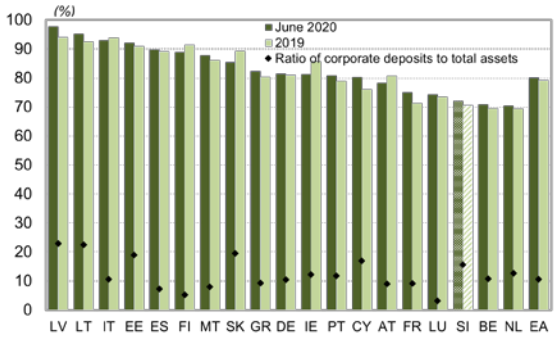
| | | dec.18 | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| dec.17 | A | 92.2 | 6.4 | 1.2 | 0.1 | 0.1 |
| | B | 24.3 | 70.9 | 4.4 | 0.3 | 0.0 |
| | C | 11.2 | 35.5 | 48.6 | 4.7 | 0.0 |
| | D | 0.9 | 2.6 | 7.0 | 83.3 | 6.1 |
| | E | 0.0 | 1.8 | 0.0 | 2.6 | 95.6 |

| | | dec.19 | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| dec.18 | A | 93.4 | 5.9 | 0.3 | 0.4 | 0.0 |
| | B | 18.6 | 77.5 | 3.2 | 0.4 | 0.4 |
| | C | 5.6 | 18.3 | 71.8 | 2.8 | 1.4 |
| | D | 1.2 | 1.2 | 9.9 | 82.7 | 4.9 |
| | E | 0.0 | 0.0 | 0.0 | 1.1 | 98.9 |

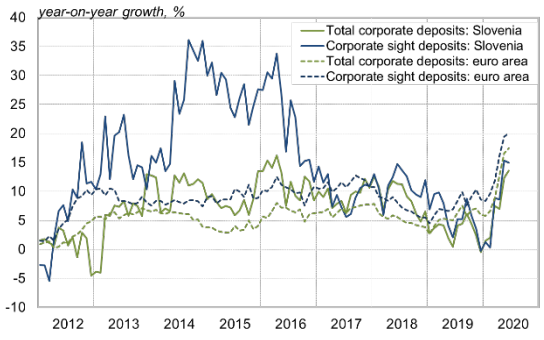
Note: The calculation of one-year transition rates is based on the following assumptions:
1. Unit of observation: in the calculation of transition rates the unit of observation is bank-customer-date. Each customer is taken into account in the calculation with regard to the number of exposures at various 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 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).

### *Funding risk*

Slika 6.24: Corporate sight deposits across euro area countries

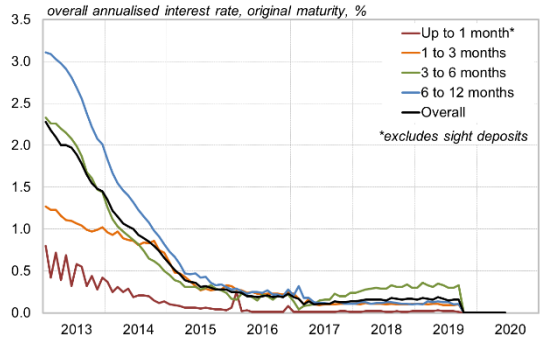



Slika 6.25: Corporate deposits by maturity, Slovenia and euro area average

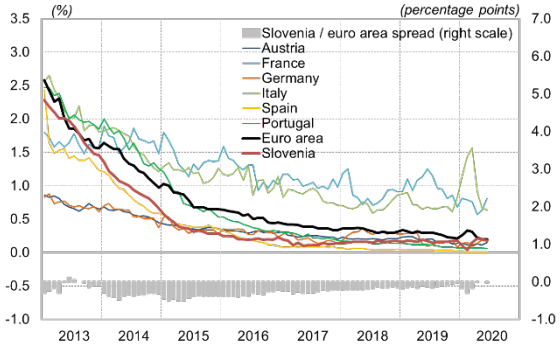



Note: EA denotes the euro area.
Sources: Bank of Slovenia, euro area statistics, ECB (SDW)

Slika 6.26: Interest rates on new short-term household deposits




Slika 6.27: Interest rates on household deposits of up to one year




Sources: Bank of Slovenia, ECB (SDW)

Table 6.3: Structure of the Slovenian financial system

| | Financial assets, EUR million | | | | | Breakdown, % | | | | | Ratio to GDP, % | | | | | Growth, % | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2016 | 2017 | 2018 | 2019 | 2020Q1 | 2016 | 2017 | 2018 | 2019 | 2020Q1 | 2016 | 2017 | 2018 | 2019 | 2020Q1 | 2016 | 2017 | 2018 | 2019 | 2020Q1 |
| Monetary financial institutions | 39,072 | 39,547 | 39,927 | 41,828 | 42,897 | 56.2 | 54.5 | 53.2 | 51.3 | 52.1 | 96.8 | 92.0 | 87.3 | 95.4 | 89.4 | -3.2 | 1.2 | 1.0 | 4.8 | 5.9 |
| Central bank | 12,860 | 14,850 | 16,668 | 19,593 | 20,239 | 18.5 | 20.5 | 22.2 | 24.0 | 24.6 | 31.9 | 34.5 | 36.4 | 44.7 | 42.2 | 25.2 | 15.5 | 12.2 | 17.5 | 29.8 |
| Non-monetary financial institutions | 17,548 | 18,151 | 18,414 | 20,152 | 19,157 | 25.3 | 25.0 | 24.5 | 24.7 | 23.3 | 43.5 | 42.2 | 40.2 | 46.0 | 39.9 | 2.4 | 3.4 | 1.4 | 9.4 | 0.1 |
| insurance corporations | 7,416 | 7,691 | 7,670 | 8,396 | 8,090 | 10.7 | 10.6 | 10.2 | 10.3 | 9.8 | 18.4 | 17.9 | 16.8 | 19.2 | 16.9 | 6.0 | 3.7 | -0.3 | 9.5 | 1.4 |
| pension funds | 2,564 | 2,685 | 2,741 | 3,058 | 2,943 | 3.7 | 3.7 | 3.7 | 3.7 | 3.6 | 6.4 | 6.2 | 6.0 | 7.0 | 6.1 | 3.1 | 4.7 | 2.1 | 11.6 | 2.5 |
| investment funds other than MMFs | 2,480 | 2,699 | 2,516 | 3,086 | 2,597 | 3.6 | 3.7 | 3.4 | 3.8 | 3.2 | 6.1 | 6.3 | 5.5 | 7.0 | 5.4 | 3.7 | 8.8 | -6.8 | 22.7 | -6.6 |
| other financial institutions | 5,088 | 5,077 | 5,486 | 5,611 | 5,527 | 7.3 | 7.0 | 7.3 | 6.9 | 6.7 | 12.6 | 11.8 | 12.0 | 12.8 | 11.5 | -3.2 | -0.2 | 8.1 | 2.3 | 0.3 |
| Total | 69,480 | 72,548 | 75,009 | 81,574 | 82,293 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 172.1 | 168.8 | 163.9 | 186.1 | 171.5 | 2.5 | 4.4 | 3.4 | 8.8 | 9.3 |

Source: Bank of Slovenia

**Abbreviations:**

| | |
|---|---|
| AJPES | Agency of the Republic of Slovenia for Public Legal Records and Related Services |
| SMA | Securities Market Agency |
| ISA | Insurance Supervision Agency |
| GDP | Gross domestic product |
| BLS | Bank Lending Survey |
| BoS | Bank of Slovenia |
| CCoB | Capital conservation buffer |
| CCyB | Countercyclical capital buffer |
| CRD | Capital Requirements Directive |
| CRR | Capital Requirements Regulation |
| OFIs | Other financial institutions |
| O-SIIs: | Other systemically important institutions |
| DSTI | Debt-service-to-income ratio |
| TARS | Tax Administration of the Republic of Slovenia |
| BAMC | Bank Assets Management Company |
| EBA | European Banking Authority |
| ECB | European Central Bank |
| SSM | Single Supervisory Mechanism |
| EMU | European Monetary Union (euro area) |
| ESRB | European Systemic Risk Board |
| 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 |
| Fed | Board of Governors of the Federal Reserve System |
| GSIIs | Global systemically important institutions |
| SMARS | Surveying and Mapping Authority of the Republic of Slovenia |
| HICP | Harmonised Index of Consumer Prices |
| IFs | Investment funds |
| CSCC | Central Securities Clearing Corporation |
| LGD | Loss given default |
| LTROs | Longer-term refinancing operations |
| LTV | Loan-to-value ratio |
| MCR | Minimum capital requirement |
| IMF | International Monetary Fund |
| SMEs | Small and medium-size enterprises |
| NFCs | Non-financial corporations |
| MROs | Main refinancing operations |
| PELTRO | Pandemic emergency long-term refinancing operation |
| P2G | Pillar 2 guidance |
| ROE | Return on equity |
| RWA | Risk-weighted assets |
| S&P | Standard and Poor’s |
| SBI TOP | Blue-chip index at Ljubljana Stock Exchange |
| SCR | Solvency capital requirement |
| SDW | Statistical Data Warehouse |
| SRB | Systemic risk buffer |
| SREP | Supervisory review and evaluation process |
| SORS | Statistical Office of the Republic of Slovenia |
| TLTRO | Targeted longer-term refinancing operation |
| AUP | Average unit price of a mutual fund |
| MF | Mutual fund |
| ZBan-2 | Banking Act |

**Figures and tables**

**Tables**



**Figures:**