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EVROSISTEM



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Foreword to the Financial Stability Review



The outlook for global economic growth is improving, but the euro area, of which Slovenia is part, is not in the best position: its recovery is dragging, and it is also facing a vaccine shortage and large economic gaps between different countries. The IMF's economic growth forecast for the euro area of 4.4% is thus almost 2 percentage points less than its global growth forecast, while its forecast for Slovenia is even lower at 3.7%. Our economic growth projections are also comparable to these figures. Euro area countries find themselves in different positions before the anticipated recovery. The year-on-year decline in economic activity in Slovenia stood at 4.5% in the final quarter of last year, close to that seen in the euro area overall, while the deflation rate in Slovenia was almost 1 percentage point deeper (the euro area recorded deflation of 0.3% in the final quarter).

Like the majority of euro area countries, Slovenia entered a third wave of the epidemic in March, which is increasing the uncertainty surrounding the economic outlook. The figures show that all sectors in Slovenia not being adversely affected by the containment measures are recovering, and that firms are largely

adapting to the adverse situation, and the structure of economic activity has also adjusted. Indications of the potential for growth in private consumption come from household savings, which are large and still rising. The situation on the labour market also remains stable, at least on aggregate. The future recovery will be heavily influenced by the duration of the epidemic and the progress in the vaccination level of the population.

As elsewhere, the economic difficulties are also having an impact on the performance of the banking sector in Slovenia. Although the financial markets in general no longer see the pandemic as the greatest risk to financial stability (the risk of inflation is now foremost, and it is thought it could be "higher than expected"), certain issues are coming to a head, at least in the euro area, and therefore also in Slovenia, if not actual difficulties for the banking sector. Amid the realisation of macroeconomic risk, high credit risk and elevated income are at the forefront.

Return on equity (ROE), which is a measure of bank performance on the income side, is significantly lower in the euro area, including Slovenia, than in the US. Some analysts are forecasting that banks in the US will see ROE pass 10% this year, or next year at the latest, while the forecast for banks in the euro area is significantly lower (around 5% in 2022). ROE in the Slovenian banking system was relatively high last year (just under 10% on aggregate), in fact the highest figure in the euro area, although the real picture was significantly worse than might be concluded from this figure. At least two aspects put this figure in a worse light: i) the banking system's earnings were more than 40% higher than they would otherwise have been in the absence of a one-off effect from the merger of two banks in September 2021, and ii) ROE would be approximately a third lower still, had the banks recorded impairment and provisioning costs at the level of the long-term average.

The net interest margin, which is usually the main determinant of bank performance, has declined sharply in Slovenia in recent years. Having returned to a level between 2.1% and 2.2% in the early months of 2015 following the difficult years of 2013 and 2014 (when it bottomed out at close to 1.7%), by February of this year it had fallen to 1.5%, its lowest figure since Slovenia achieved independence. The decline in the net interest margin picked up pace in 2020, as net interest income declined even as interest-bearing assets increased. Amid slowing growth in loans, the largest increase in bank assets, of a few tens of percent, was recorded by the most-liquid assets, most notably bank reserves at the central bank, which is also driving the margin down. It is also of no little significance that in 2020, as a result of the moratoria available to borrowers under the legal approach taken in Slovenia and also the regulatory relief offered by the European Banking Authority, banks were able to continue charging interest without disruption even on loans that might no longer be classed as performing once the temporary measures expire. By way of comparison, the average net interest margin in the euro area based on consolidated figures stood at 1.1% in the third quarter of last year, compared with 2.8% in the US for the same quarter. However, the net interest margin at small banks in

the euro area, which in terms of size are comparable to banks in Slovenia, is almost comparable to the net interest margin in the Slovenian banking system (it would be just over 0.2 percentage points lower than the figure in Slovenia according to the latest data). Despite their increased efforts, the banks are failing to compensate for the decline in interest income with non-interest income.

This brings us to the second aspect that needs to be highlighted, namely non-performing exposures. In recent years (since 2014) Slovenian banks have made exceptional progress in reducing non-performing exposures, which impacted the stability of the banking system in the previous financial crisis. Slovenian banks thus entered the new crisis with a lower NPE ratio than certain other euro area countries (Slovenia's NPE ratio of around 2% actually ranked it in the middle), but not with completely clean balance sheets, and with a legacy from past performance. Similarly to the euro area overall, Slovenia has also seen a significant increase in credit risk, and is fearful of the consequences of the economic downturn and the shutdown of certain sectors by the pandemic, which will be reflected in the banking sector with a lag. It was mainly SMEs that held legacy non-performing loans in the banking system (they accounted for 35.0% of all non-performing loans at the end of 2019). It is also this sector that is likely to suffer the worst consequences of the current downturn. The level of moratoria approved in Slovenia was double that in the EU overall according to the figures for September 2020, largely for loans to the sectors hit hardest by the pandemic. All the economic policy measures (whether fiscal policy, monetary policy, or regulatory and supervisory measures) did of course limit the transmission of the problems of the real sector into the banking sector, but now it is time to consider the banks' exit strategies when the crisis measures expire. When it comes to the expiry of moratoria over the coming months, it is necessary for the banks to take an individually-tailored approach to restructuring financial liabilities, and simultaneously recognising the increased risks on their balance sheets. The solutions are established, and are well-known from the period during and after the previous financial crisis.

The figures show the Slovenian banking system to be in good shape with regard to capitalisation and liquidity, despite the current crisis. Capital adequacy in Slovenia was slightly higher than the euro area average at the end of the third quarter of 2020, but declined in the final quarter, albeit not significantly. Liquidity is also very good according to all parameters. Despite the current crisis, or even because of it, this is an excellent starting point for consideration of the medium-term and long-term challenges facing the banking sector in Slovenia and further afield. The last decade has brought structural changes to the banking system balance sheet in Europe and across the world. These changes were particularly pronounced in Slovenia, so that the current balance between individual elements of bank balance sheets is out of kilter with the traditional idea of financial intermediation that we are used to. It would be sensible to have a clear strategy for doing business in the new normal. This deliberation should be set in a broader context, and alongside the usual questions with regard to future demand for banking products, target customer groups, digitalisation, etc., it should also relate to employee competencies at all levels, the search for competitive advantage in the banking market, and an assessment of the ability to secure additional capital from existing owners if this proves to be necessary. Only such a well-considered strategy can guarantee the long-term viability of the banking system, to ensure that the economy as a whole is properly supported.

Primož Dolenc,
Deputy-Governor



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EXECUTIVE SUMMARY

The systemic risks to financial stability remain elevated a year after the outbreak of the Covid-19 pandemic. Macroeconomic risk remains high, although it began to decline as a result of the improved outlook for the recovery from the crisis in the final quarter of 2020. Credit risk also became elevated in the first quarter of 2021, as the gradual expiry of the extensive government measures to support businesses and households will make the deterioration in the quality of the banking system's credit portfolio evident, including in an increase in non-performing exposures. This will bring an end to the period of several years of successful reduction in NPEs, which will begin to rise again. After three years of net release, the banks recorded a net increase in impairments and provisions. The conditions for generating income in the banking system worsened further in 2020, growth in bank lending having slowed sharply. Income risk therefore remains elevated, with a trend of increase.

The banks' resilience to systemic risks was high in 2020, but has deteriorated in the solvency and profitability segments, and is now medium. The gradual expiry of the government measures is expected to see the quality of the credit portfolio deteriorate in 2021 and the following years, which might also begin to reduce the banks' capital ratios. There is also considerable variation in the level of resilience at individual banks, given the differences in the structure and quality of their credit portfolios and in their capital surpluses. Despite the difficult situation, the banking system nevertheless operated at a profit in 2020, much of which was driven by one-off events, although the expectation is that the downward pressure on bank profitability will increase in the future. The banking system's resilience in the liquidity segment is still assessed as high.

Key risks to the banking system

One year after the outbreak of the Covid-19 pandemic, macroeconomic risk remains high, although it has been declining as a result of the improved outlook for the recovery from the crisis in the final quarter of 2020. After an improvement in the summer, the epidemiological situation in Slovenia and around the world deteriorated again in the final quarter of last year, but the development and rollout of the vaccines brought an improvement in the outlook for the recovery from the health and economic crisis. Slovenia's economy contracted by 5.5% last year, the largest decline since the global financial crisis, but the figure was significantly less than expected, and less than the euro area average. The temporary stabilisation of the epidemiological situation, the lifting of certain containment measures and the increased optimism surrounding the recovery from the crisis partly revived economic activity in the first quarter of 2021, but the outlook for future growth in the exposed parts of the economy remains uncertain amid a renewed deterioration in the epidemiological situation and the advent of a third wave. The situation on the labour market remains stable given the economic situation, thanks to the support measures. Consumer prices fell in the final quarter of last year, and inflation remained very weak in the first quarter of this year. The additional fiscal measures to support businesses and households saw the general government position worsen, but by less than in the first half of last year. Amid the considerable ongoing uncertainty, domestic and international institutions are forecasting a solid recovery in 2021 and 2022, although GDP growth will partly be driven by a base effect, while the pre-crisis level of GDP will only be regained in 2022.

Credit risk has increased, and is assessed as high, primarily on account of expectations of a deterioration in the credit portfolio following the expiry of the government's loan moratorium measures. The government measures, and the flexible treatment of credit risk reactivated in December 2020, which is examined in one of the boxes, have to date held down non-performing exposures (NPEs) at the banks, but NPEs can be expected to increase when the measures expire. Amid the measures offered by the government and by supervisory institutions, NPEs continued to decline even after the outbreak of the pandemic, but the decline came to a halt at the end of 2020. The banks must regularly and promptly identify customers who, despite the measures, will be unable to make regular debt repayments after the support measures expire. The elevated credit risk in 2020 was reflected in increased transitions to Stage 2 (increased credit risk), particularly in the non-financial corporations (NFCs) portfolio. The main increase in transitions was in sectors that were mostly shut down by the pandemic in 2020. The stock of exposures with increased credit risk also increased in the household portfolio in the final months of 2020. The transition rates to default status are not yet reflecting the increase in credit risk caused by the containment measures. After three years of net release of impairments and provisions, the banking system saw positive impairment and provisioning costs in 2020, most notably in the performing part of the credit portfolio. Thanks to the support measures,

impairments and provisions remained low compared with past values, and the banks again recorded a net release in the early months of 2021. With the pandemic still in progress, and the loan moratorium measure and the favourable regulatory treatment of moratoria and other measures to alleviate the impact of the epidemic expected to expire, NPEs could increase at the banks, bringing an end to the years of successful reduction in NPEs.

Income risk remains elevated, as the conditions for generating income in the banking system worsened further in 2020. Growth in net interest income has been negative again since April of last year, while the gap by which net interest trails the previous year is increasing, driven by lower returns on assets and the decline in credit activity. Net non-interest income in 2020 was up significantly on the previous year, but only as a result of an effect from the merger of two banks; otherwise it would have declined. Since the outbreak of the pandemic the banks have also seen a slight decline in net fees and commission, the most important component of non-interest income. The banks have relatively good control of operating costs for now. Growth in loans to the non-banking sector slowed sharply in 2020, as the economy struggled under the containment measures imposed to curb the spread of Covid-19, before entering negative territory in 2021. Year-on-year growth in consumer loans and year-on-year growth in loans to NFCs were both negative at the end of the year, but growth in housing loans remained positive. According to the BLS, credit activity was affected by reduced demand, and by the tightening of credit standards and terms at banks.

Table: Banka Slovenije risk dashboard for the Slovenian financial system

Risk and resilience dashboard								
	Q4 2018	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Trend of change
Systemic risks								
Macroeconomic risk	High	High	Very High	Very High	Very High	Very High	Very High	Down
Credit risk	High	High	Medium	Medium	Medium	Medium	Very High	Right
Income risk	High	Medium	Medium	Medium	Medium	Medium	Medium	Up
Risk inherent in leasing companies	High	High	High	Medium	Medium	Medium	Medium	Right
Risk inherent in real estate market	Medium	Medium	Medium	Medium	High	High	High	Right
Funding risk	High	High	High	High	High	High	High	Right
Interest rate risk	High	High	High	High	High	High	High	Right
Resilience to systemic risks								
Banking system: solvency and profitability	High	High	High	High	High	High	High	Right
Banking system: liquidity	High	High	High	High	High	High	High	Down
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.¹

This Financial Stability Review sees a change to the treatment of income risk, which now focuses on the risk to the generation of (net) income, while profitability is addressed together with solvency in the section on the banking system's resilience to systemic risks. The relative importance of impairments and provisions in the disposal of gross income is now solely addressed in the section on credit risk. The changes are methodologically driven, to eliminate duplication in the treatment of risks under income risk and credit risk. The commentary on the profitability of the banking system is given under the broader section on solvency and profitability, where the impact on the resilience of the banking system from developments in profitability is assessed.

Source: Banka Slovenije

¹ For more on the systemic risks and resilience of the banking system, see the appendix.

The risks inherent in the real estate market are assessed as moderate, and are expected to remain so. Residential real estate prices have risen sharply in recent years, but growth was more moderate towards the end of 2020, in part because of the Covid-19 pandemic and the fall in the number of real estate transactions during the first wave. The indicators of housing price alignment with fundamentals suggest that residential real estate prices are close to their long-term averages. Growth in housing loans is also moderate, in line with the slower dynamics in residential real estate prices. The stock of loans for purposes related to commercial real estate increased in 2020. The Covid-19 pandemic nevertheless hit the commercial real estate market hard, particularly in the worst-affected sectors. Grounds for optimism in the real estate market can now be seen on the supply side, namely in construction: in the second half of the year there was a significant rise in the number of issued building permits for residential and non-residential buildings. The banks' exposure to the construction and real estate activities sectors remains low.

Funding risk remains moderate; as a result of the decline in consumption and, in part, the financial assistance from the government, there was a sharp increase in household deposits, one of the key sources of funding for Slovenian banks. NFCs' placements at banks also increased sharply, most likely driven by the desire to ensure sufficient liquidity for current operations amid the uncertainty. The maturity mismatch between assets and liabilities is large, owing to the still-rising stock of sight deposits. A sudden major switching of deposits between banks or major withdrawal from the banking system could reduce the stability of bank funding, but our assessment is that their good liquidity position would allow the banks to absorb the negative effects that this would generate. The introduction of custody fees (negative interest rates) on household deposits at banks could lead to minor switching of deposits between banks. Some 1.1% of customers held deposits in excess of EUR 100,000 in the banking system in 2020. Their total deposits amounted to EUR 4.9 billion, or almost 23% of total personal deposits in the banking system.

In recent years the banks have also faced certain other risks that are coming increasingly to the fore and present a new, longer-term challenge to the banking system: climate risks and cyber risks. Assessments of climate risk are accompanied by high uncertainty, given the wide range of climate scenarios. EU regulations address definitions of data sustainability and availability, which will be key to the reliable assessment of climate risks. Sustainability legislation is introducing a number of disclosure requirements, with the aim of increasing data availability and transparency. The central banks monitoring climate risks mostly find them to be manageable for now. Given the increasing digitalisation of operations, recent years have seen a rise in the number of cyber incidents and attacks on the financial system. Activities over the coming years will therefore target improvements in the supervisory framework, analysis of cyber risk, the development of tools for analysing cyber risk, and the formulation of macroeconomic policy to mitigate cyber risks at the international level.

Resilience of the banking system

The banking system came into the economic downturn with a sound capital position, and has remained in this position for almost a year following the outbreak of the pandemic. It recorded relatively high profit in 2020. The expiry of the government measures is expected to see the quality of the credit portfolio deteriorate, which will also begin to reduce the banks' capital ratios. The banking system's resilience to the high credit risk and elevated income risk has therefore deteriorated in the solvency and profitability segment, and is now medium. There are considerable differences in resilience between individual banks. The pressure on capital adequacy will be felt above all by the banks with lower capital surpluses and the banks with larger exposure to the sectors hit hardest in the crisis. The banking system's total capital ratio declined in the final quarter of 2020 as a result of declines at several banks, while the majority of banks saw an improvement in their common equity Tier 1 capital ratios. The banks further strengthened their regulatory capital in 2020 via the retention of earnings from the previous financial year, and the issuance of subordinated debt securities. Given the crisis, pre-tax profit was relatively high in 2020 at EUR 472 million, down only a fifth on the previous year. The relatively small decline in profit was primarily attributable to the effects of the merger of two banks; otherwise pre-tax profit would have been down almost a half. The pressure on bank profitability is expected to further increase.

The banking system's liquidity position remained sound in 2020, despite the adverse economic situation. The capacity to absorb the adverse consequences of any realisation of funding risk is high at the level of the banking system, but there are considerable differences between individual banks. The banks with smaller liquidity surpluses would probably find it harder to face these consequences, which makes it even more important to diligently monitor the liquidity position of these banks. If the epidemiological picture and the

economic situation fail to improve as anticipated, the banks could see a deterioration in their liquidity positions.

Households and non-financial corporations

The financial position of households remained relatively stable in the second half of 2020, thanks in part to government measures in the labour market. Households reduced their expenditures, as a result of shutdowns that prevented spending and on precautionary grounds, and growth in disposable income also slowed. Year-on-year growth in gross saving remained robust, but primarily in the form of deposits; growth in investments stagnated. There is still the risk of an increase in household financial liabilities, given the uncertainty in the economy and the labour market, but the household sector's resilience remains relatively high amid the support from government measures. In the event of a slower macroeconomic recovery, and a merely gradual improvement on the labour market, this vulnerability might be reflected mainly at households with below-average earnings. More than half of new consumer loans were being approved for these households before the binding macroeconomic measure for household lending was adopted.

NFCs further reduced their indebtedness during the Covid-19 pandemic, while numerous firms took the opportunity to apply for loan moratoria, particularly in the sectors hit harder by the crisis. In contrast to the euro area overall, there was a decline in bank financing, despite the borrowing opportunities for bridging financial difficulties available under the emergency laws. A third of the loan moratoria approved for NFCs expired in 2020, while the majority of the liabilities deferred by NFCs will fall due for payment in the first half of 2021. Less-profitable NFCs, with lower initial liquidity and lower debt servicing capacity showed greater propensity to claim a loan moratorium. The non-financial indicators of the position of NFCs, which usually deteriorate during times of crisis, are not displaying any adverse trends, again thanks to government measures aimed at preventing the closure of firms with viable business models.

Non-bank financial institutions

The systemic risks inherent in the performance of leasing companies remain elevated. The Covid-19 pandemic brought a sharp decline in leasing companies' new business in 2020, particularly in the real estate leasing and NFCs portfolios. Profit also declined. Arrears of more than 90 days have already increased in individual segments, although they declined on aggregate as a result of the ongoing sale/withdrawal of real estate business from leasing companies' portfolios.

The insurance sector saw growth in premium in 2020 in the general insurance and health insurance segments. The increased volatility on the financial markets and the decline in economic activity brought a reduction in life insurance premium. The claims ratio was improved by the health insurance segment, while profitability was worsened. The decline in net profit was attributable to the adverse situation on the financial markets and the persistence of the low interest rate environment, which is raising the expense of securing long-term returns for insurance with an embedded guarantee, and an increase in insurance technical provisions on account of the adverse business conditions. The two reinsurance corporations recorded an aggregate loss in 2020, as a result of an increase in loss events, a decline in income from investments and an increase in impairment expenses on investments, and a sharp increase in mathematical provisions.

In 2020 the domestic mutual funds recorded their largest net inflows of the last ten years, despite the Covid-19 pandemic. NFCs again increased their holdings of mutual funds, having mainly made net withdrawals in recent years. The quick recovery on the stock markets saw the average unit prices of almost all types of mutual fund regain or exceed their pre-pandemic levels. The high growth on the stock markets further widened the discrepancy between the rise in share prices and firms' performance indicators, which raises questions over the stability of the quick recovery. Market risk remains the key risk for mutual funds, while their resilience remains good.

Macroprudential policy for the banking system and leasing companies

Macroprudential policy aims to identify, monitor and assess systemic risks to financial stability for the purpose of safeguarding the stability of the entire financial system, which includes strengthening the resilience of the financial system, and preventing and mitigating the build-up of systemic risks, thereby ensuring a sustained contribution to economic growth from the financial sector. There was no change in the second half of 2020 to the Banka Slovenije macroprudential policy toolkit, which encompasses the macroprudential restriction of profit distributions by banks and leasing companies, macroprudential restrictions on household lending, the countercyclical capital buffer, the O-SII buffer, a macroprudential

liquidity measure (the GLTDF) and macroprudential caps on deposit interest rates. When the official epidemic was declared, the option of discounting a temporary decline in income was reactivated for the measures restricting household lending, and in 2021 a change was made to the measure restricting profit distributions by banks.

In April 2020 Banka Slovenije temporarily restricted profit distributions by banks and savings bank during the Covid-19 pandemic, and in February 2021 it extended and modified the macroprudential measure in accordance with Recommendations ESRB/2020/7 and ESRB/2020/15 and Recommendation OFS/2021/1. The measure now allows an exemption for banks whose profit in the first quarter of 2021 is positive. Unless there is a major change in risks, the measure will be in force until September 2021. The purpose of the measure is to retain capital at banks so that the banking system is better able to withstand potential losses caused by the Covid-19 pandemic, and to continue supplying credit to businesses and households. The DSGE model confirms that the measure mitigated the decline in credit activity, and consequently also reduced the decline in GDP.

We have also conducted detailed analysis of the binding macroprudential restrictions on household lending introduced in 2019, which aimed to reduce excess growth in consumer loans and to put minimum credit standards in place. We find that growth in consumer loans slowed sharply after the introduction of the macroprudential measure, particularly after the outbreak of the pandemic, while growth in housing loans was broadly unchanged and remains moderate. It is difficult to distinguish the impact on credit growth from the pandemic and from the macroprudential restrictions, but based on the experience of other countries it can be concluded that the pandemic significantly reduced new consumer loans, while consumption was driven down sharply by the containment measures and the fall in consumer confidence.² The banking system is upholding the macroprudential restrictions overall, but according to surveys they remain the least important reason for the rejection of loan applications. The level of deviations from the cap on DSTI is significantly lower than the during the period when recommendations alone were in place, and deviations from the cap on maturity are also at a low level. Credit standards at origination, as measured by the averages for LTV, DSTI and maturity, did not change significantly during 2020. Based on newly obtained data on the structure of non-performing loans and moratoria for households, we find that the measures have introduced adequate minimum credit standards. This can be concluded from the lower frequency of moratoria and non-performing status among loans that comply with the cap on DSTI. The moratorium frequency is also lower for consumer loans that comply with the cap on maturity. LTV does not have any impact on the frequency of moratoria and non-performing status, which is to be expected, given that the measure reduces loss given default, but does not reduce probability of default.

² For more, see the sections on macroeconomic risk and households.

1 KEY RISKS TO THE BANKING SYSTEM

1.1 Macroeconomic risk

The global economy continues on its path of gradual, uneven and still-uncertain recovery. The development and rollout of a number of different vaccines have brought a sharp improvement in the outlook for the recovery from the global health and economic crisis. There is also strong support coming from economic policy measures, most notably in the US. With the recent deterioration in the epidemiological picture, macroeconomic risk remains high in many countries, including Slovenia, although it is easing as the number of positive factors rises, and is displaying a trend of decline. The euro area is expecting a solid recovery this year, which will be uneven across different countries and sectors, while countries also find themselves in very different starting positions. Slovenia's economy contracted by 5.5% last year, the largest decline since the global financial crisis, but significantly less severe than expected, and smaller than the euro area average. The temporary stabilisation of the epidemiological situation, the lifting of certain containment measures and the increased optimism surrounding the recovery from the crisis partly revived economic activity in the first quarter of 2021. However, the outlook for future growth in the exposed parts of the economy remains uncertain amid a renewed deterioration in the epidemiological situation and the advent of a third wave. The situation on the labour market remains stable compared with the economic situation, an indication of the effectiveness of the support measures. Consumer prices fell again in the final quarter of last year as the situation worsened, and inflation remained very weak in the first quarter of this year. The new fiscal measures to support businesses and households saw the general government position worsen further, but by less than in the first half of last year. Amid the presence of considerable uncertainty, domestic and international institutions are forecasting a solid recovery this year and next year, although GDP growth will partly be driven by a base effect, while the pre-crisis level of GDP will only be regained in 2022.

International environment

As the Covid-19 pandemic persists, the global economy is continuing on its path of gradual, uneven and still highly uncertain recovery. The development and rollout of a number of different vaccines, and the strong support from economic policy measures have brought a sharp improvement in the outlook for the recovery from the global health and economic crisis. Given the deterioration in the epidemiological situation in many countries driven by the renewed spread of the virus and the advent of new strains, there is still huge uncertainty surrounding how long the pandemic will last. The functioning of their economies and the progress of the economic recovery will thus remain unavoidably linked, via the various containment measures imposed by governments. While a more sizeable recovery is being seen in global industrial production and merchandise trade, which by the end of 2020 had passed their pre-pandemic levels, the recovery in services and services trade remains more constrained. The geographical unevenness of the recovery is already evident. It will remain most pronounced in countries and regions hit less hard by the pandemic, and those where fiscal and monetary policy measures are more extensive.

Figure 1.1: GDP growth in major global economies, and forecasts for 2021 and 2022

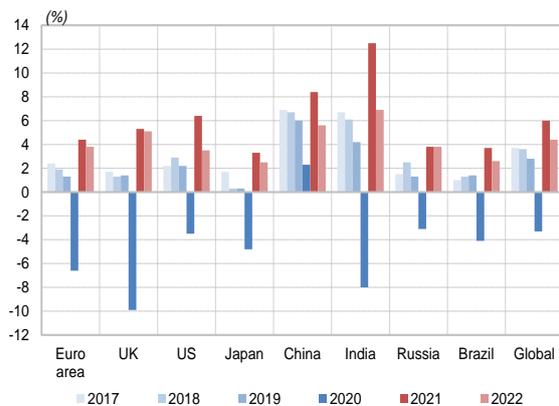
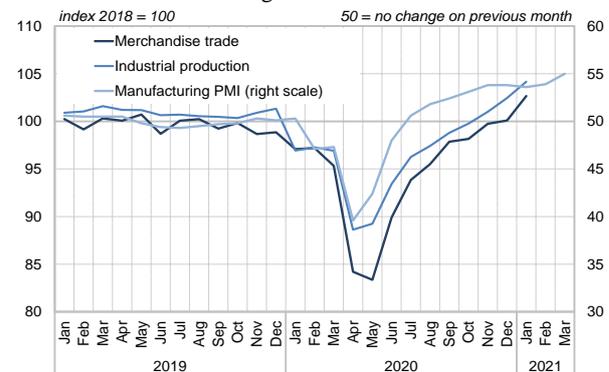


Figure 1.2: Global merchandise trade, global industrial production and JPMorgan PMIGlobal merchandise trade, global industrial production and JPMorgan PMI



Note: The data for 2021 and 2022 in the left figure is the IMF forecasts. The data in the right figure is seasonally adjusted. The data for industrial production does not include construction. A PMI of more than 50 represents expansion with regard to the previous month, while a value of less than 50 represents contraction.

Sources: IMF (April 2021), CPB Netherlands Bureau for Economic Policy Analysis, IHS Markit

With the recent deterioration in the epidemiological picture, macroeconomic risk remains high in many countries, including Slovenia, although it is easing as the number of positive factors rises. Having slowed to 2.8% even in 2019, global economic growth in 2020 was estimated at -3.5% by the IMF in January of this year, a better performance than expected in the middle of last year. For 2021 the IMF is forecasting a faster recovery, having raised its growth forecast to 5.5%, while leaving its forecast for 2022 unchanged at 4.2%. International institutions are forecasting a strong recovery in the major global economies this year, which is likely to be extremely uneven across different countries, depending on their access to health services, the effectiveness of measures to support the economy, the spill-over of recovery effects from other countries, and the structural issues with which the country entered the crisis.

Figure 1.3: GDP growth in selected euro area countries by quarter

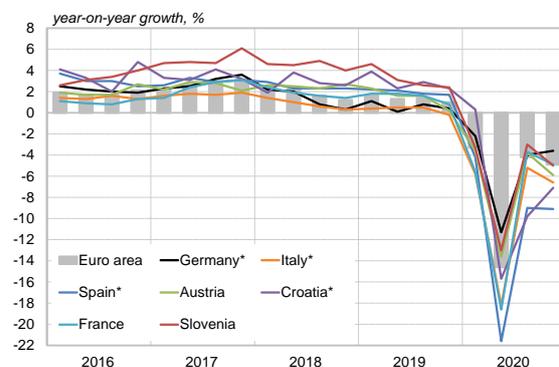
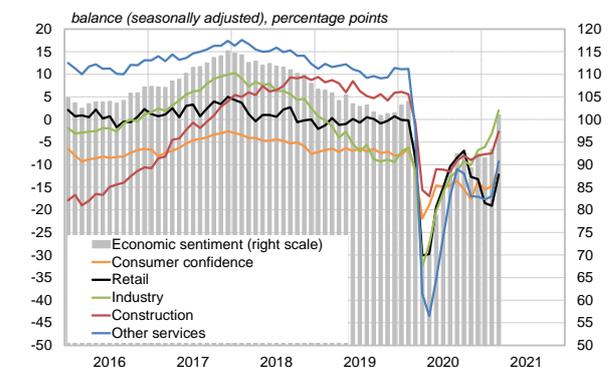


Figure 1.4: Confidence indicators in the euro area



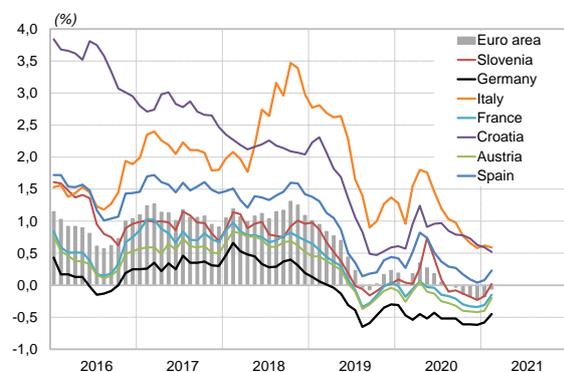
Note: GDP growth data in the left figure are seasonally adjusted and calendar-adjusted. Provisional data for Germany, Spain and Croatia. Confidence indicators in the right figure are expressed in the form of an average balance. The balance is the difference between the proportions of positive answers and negative answers.

Sources: Eurostat, European Commission

A recovery is also expected in the euro area, although it will be uneven across different countries and sectors. According to the European Commission's latest forecasts, it has been further delayed, which means that the restoring of the pre-crisis growth path will be a longer process. According to the European Commission, the economic contraction in the euro area in 2020 was estimated at 6.8%, less than previously forecast, while growth of 3.8% is forecast for 2021 and 2022. GDP is forecast to regain its pre-crisis level in the middle of 2022. The nature of the containment measures is reflected in the varying pace of recovery in individual sectors. In the wake of the extension and tightening of the containment measures, there was a renewed decline in the confidence indicators in retail and other services at the end of 2020, although the situation improved somewhat in the first quarter of this year. With greater resilience to the containment measures, industry is continuing to recover strongly, and the confidence indicator has now surpassed its pre-

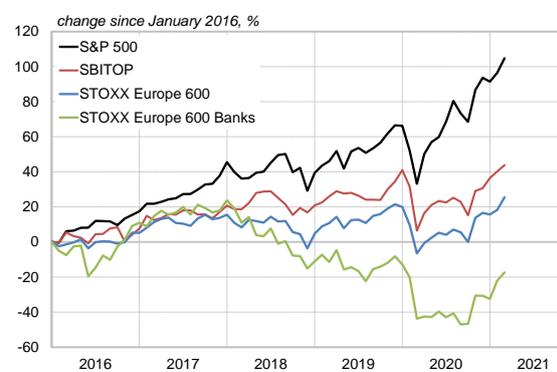
crisis level. The recovery is continuing in construction, while the consumer confidence, retail confidence and services confidence indicators have also improved. By March the economic sentiment had regained its long-term average level, but the renewed downturn in the epidemiological situation is likely to curtail the positive trends in the economy.

Figure 1.5: Required yield on 10-year government bonds



Sources: European Commission, Investing, Ljubljana Stock Exchange

Figure 1.6: Change in stock market indices



The required yields on government bonds of euro area countries rose slightly at the beginning of the year, but remained close to their record lows, as did the spreads over the German benchmark. The low cost of heavy government borrowing was additionally supported by ECB monetary policy measures, through the extension of the pandemic emergency purchase programme (PEPP), the expansion of its envelope, and the extension of the period during which the maturing principal payments will be reinvested. The favourable terms of the targeted longer-term refinancing operations (TLTRO-III) have also been extended, as were the measures providing relief from collateral requirements and the additional monetary policy measures announced for this year. Alongside loose monetary policy, the required yields and the spreads were also driven down by other measures put in place at EU level.³ Spreads on corporate bonds have also fallen in recent months, reaching their pre-pandemic levels. With the continuation of the strong support from various policies, the financing conditions remain favourable for the continuation of the economic recovery, despite pressure from the financial markets to raise government borrowing costs.

The renewed tightening of containment measures in many countries in 2020 only briefly interrupted the rise in the financial markets. News of the development and rollout of effective vaccines, additional stimulus measures of fiscal and monetary policy, and the ongoing recovery in industrial production have since driven a steep rise in the stock markets. This was particularly pronounced in the US, where the S&P 500 far surpassed its pre-pandemic level, and from its low of March 2020 rose with a rapid pace, which continued in the early part of this year. After a fall in October, the extension of the existing ECB measures, the introduction of new ones, and the adoption of measures at EU level, European stock markets also rose more quickly, and the rise was joined by bank shares, which had shown no signs of recovery during the summer of 2020. The financial markets remain more volatile than usual, despite the stabilisation following the outbreak of the pandemic.

Economic situation in Slovenia

With the gradual improvement in the epidemiological situation, the lifting of some containment measures, and the increased optimism surrounding the recovery from the crisis, economic activity began to recover in early 2021. Economic activity had fallen significantly in the final quarter of 2020 after a pronounced deterioration in the epidemiological situation and the tightening of the containment measures. The decline was much smaller than in the spring, as it was primarily services that were affected, but there was no sign of any major adverse impact on the progress of the recovery in industry and construction. Given the uneven impact on different sectors from the containment measures, divergence in the pace of recovery in different sectors began to appear at the turn of the year. The situation is continuing to improve in manufacturing, which is being reflected in a significant increase in the confidence indicator, which had passed its pre-crisis level by the end of the year, and strengthened further in the early part of this year. There

³ The multiannual financial framework 2021 to 2027, the NextGenerationEU instrument, the Recovery and Resilience Facility.

has also been a significant improvement in the situation in construction. Meanwhile the dynamics are less promising in services and among consumers, with a decline in confidence at the end of last year followed by renewed strengthening in the first quarter of this year, and retail confidence has only partly recovered after a second major decline. The containment measures hit the service sector much harder, meaning that the recovery will also be pushed even further into the future, and continues to depend primarily on the evolution of the epidemiological situation and the type of response to it.

Figure 1.7: Composite indicator of economic activity and real GDP

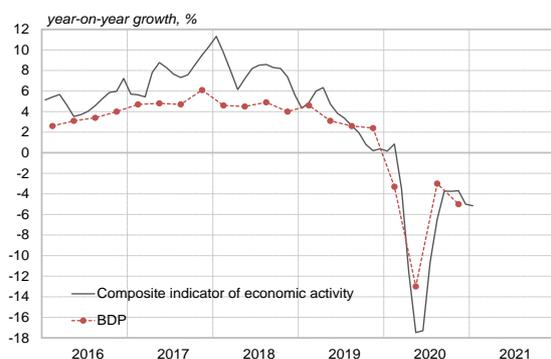
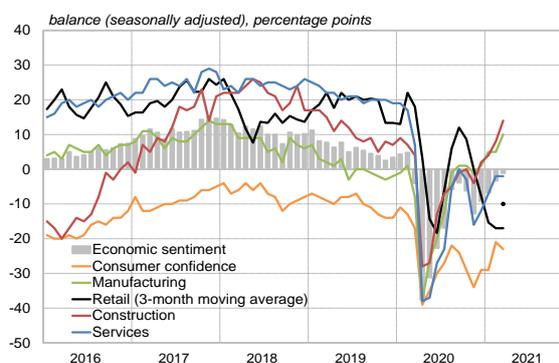


Figure 1.8: Confidence indicators and economic sentiment indicator



Note: The composite indicator of economic activity (left figure) encompasses the real index of turnover in services and trade, the real index of industrial production, and the real index of the amount of construction put in place. The aforementioned indicators are weighted by each sector's proportion of the total value-added of all the sectors. The data in the left figure is seasonally adjusted, while the GDP data is also calendar-adjusted. The confidence indicators (right figure) are expressed in the form of the average balance, which is the difference between the proportions of positive answers and negative answers. Given its volatility, the data for retail is presented as a three-month moving average, where the dot represents the latest actual data point.

Sources: SORS, Banka Slovenije calculations

The tightening of the containment measures saw the year-on-year decline in GDP reach 4.5% in the final quarter of last year, more than in the previous quarter but less than in the second quarter. The restrictions applying to numerous services brought a sharp decline in household spending, as a result of which private consumption again made a significant negative contribution to GDP growth. The recovery in foreign demand strengthened merchandise exports, which amid a weaker increase in imports meant that net exports made a positive contribution to GDP growth. The improved outlook led firms to build up inventories again, while investment remained somewhat muted, albeit less so than expected. Alongside the positive contribution by net exports, the build-up of inventories and the increase in gross investment, another factor preventing an even larger decline in GDP was the increase in government consumption. Following the economic contraction of 5.5% in 2020, the largest since the global financial crisis but much smaller than expected, domestic and international institutions are forecasting a solid recovery for 2021 and 2022, albeit with considerable uncertainty. The forecasts range from 3.1% to 4.7% for this year, and from 3.5% to 5.2% for 2022, where the highest forecasts for this year are also the most recent.⁴

⁴ Banka Slovenije, December 2020 (2021: 3.1 %, 2022: 4.5 %, 2023: 3.1 %), IMAD, March 2021 (2021: 4.6 %, 2022: 4.4 %, 2023: 3.3 %), European Commission, February 2021 (2021: 4.7 %, 2022: 5.2 %), IMF, March 2021 (2021: 3.7 %, 2022: 4.5 %), OECD, December 2020 (2021: 3.4 %, 2022: 3.5 %).

Figure 1.9: GDP growth and contributions to GDP growth

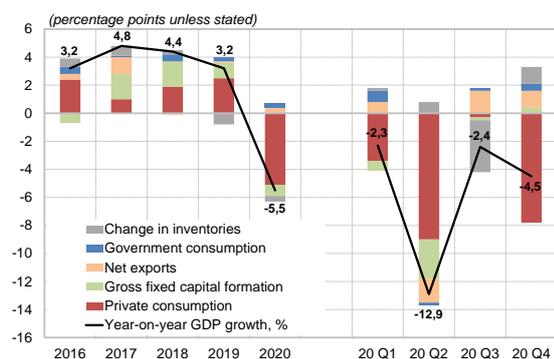
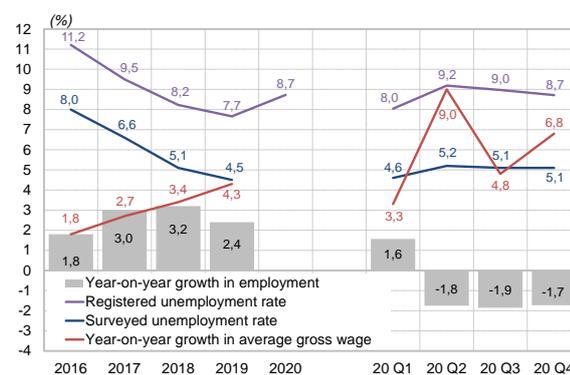


Figure 1.10: Growth in employment, unemployment rate and growth in gross wages



Note: The employment growth figures in the right figure are seasonally adjusted and calendar-adjusted. The employment figures are from the national accounts, while the gross wage figures are from monthly statistics. As a result of the measures put in place in connection with the Covid-19 epidemic, there was a break in the time series of the data on wages, with greater variability in the average gross wage in the period after the adoption of the measures, which is also reflected in the monthly rates of growth.

Sources: SORS, Banka Slovenije calculations

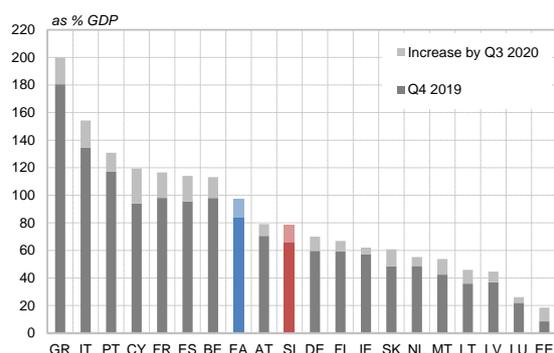
The economic downturn also brought a downturn on the labour market at the end of 2020, albeit to a lesser extent than at the outbreak of the pandemic, and within the bounds of the usual seasonal fluctuations. The job preservation measures are still playing a vital role in maintaining stability on the labour market, while at the same time there has been no major fall in the supply of vacancies. Year-on-year growth in employment was negative again in the final quarter of last year at -1.7%, but the contraction in employment was smaller than in the two previous quarters, while firms' future employment expectations remain positive. After a small fall to 5.1% in the third quarter of last year, the surveyed unemployment rate remained at that level in the final quarter. The number of registered unemployed followed the seasonal trend, with a rise in January after the expiry of temporary employment contracts, but it was nevertheless larger than in the same period of previous years. The emergency measures drove up gross wages in mostly public services,⁵ which in turn saw positive growth in the aggregate gross wage in the final quarter of last year. Despite the relative stability on the labour market, there is great risk of a fall in employment as a result of the potential expiry of the job preservation measures, and the weaker financial position of certain firms.

Consumer prices fell again in the final quarter of last year amid the economic downturn, and inflation remained very weak in the first quarter of this year. Year-on-year inflation as measured by the HICP was negative in the final quarter of last year, and came very close to the fall in prices seen at the outbreak of the pandemic. It again deviated sharply from inflation in the euro area overall. The deflation continued to be mostly driven by the year-on-year fall in energy prices, while services prices made a positive contribution to inflation, although it declined when the containment measures were tightened. The contribution made by food prices also declined. Deflation continued this year, reaching 1.1% in February, widening the gap with the euro area overall, where inflation was positive at 0.9%.⁶ Inflation was positive in March, albeit amounted only to 0.1%. The reversal was attributable to current growth in energy prices and a strong base effect. The containment measures, and the resulting weak domestic demand, are continuing to curtail the recovery of core inflation.

⁵ The sectors of public administration and defence, compulsory social security, education, and human health and social work activities according to the SKD 2008.

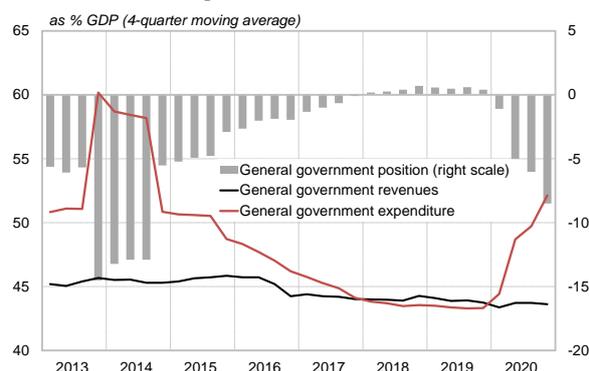
⁶ The renewed inflation in the euro area overall was largely attributable to the expiry of the VAT rate cut and a new carbon tax in Germany.

Figure 1.11: Public debt in euro area countries



Sources: ECB (SDW), SORS

Figure 1.12: General government revenues, expenditures and position



The new fiscal measures to support businesses and households further worsened the general government position in the second half of the year, but by significantly less than in the first half of last year. The general government deficit amounted to 8.4% of GDP last year, and will be large again this year amid the ongoing epidemic and support measures. The large deficit drove a sharp increase in government debt, which reached 80.8% of GDP by the end of 2020. Its rise is expected to slow this year, with the smaller deficit and the gradual recovery of the economy. Despite the large increase in public debt, Slovenia remains below the euro area average in terms of indebtedness, and its borrowing costs are highly favourable at the same time. Last year Moody's raised Slovenia's credit rating to A3 with a stable outlook, which it attributed to the improvement in the public debt burden and the low funding costs relative to peers, and to the significant improvement in the health of the banking system and the completion of the privatisation of the largest banks in the country. S&P and Fitch left their ratings for Slovenia unchanged, and maintained a stable outlook.

Table 1.1: Slovenia's sovereign credit ratings at the major rating agencies

Agency	Rating	Outlook	Last change
S&P Global Ratings	AA-	stable	June 2019
Moody's Investors Service	A3	stable	October 2020
Fitch Ratings	A	stable	July 2019

Source: Ministry of Finance

The estimated probability of a crisis in the next 12 months for Slovenia⁷ is lower than the signalling threshold, despite its high level at the outbreak of the pandemic⁸ in April of last year.⁹ The probability of a crisis according to the early warning model remains below the majority of euro area countries. In contrast to previous systemic crisis events, such as the global financial crisis in 2008 and the euro area debt crisis in 2013, the DSTI and the spreads on Slovenian government bonds are not major risk factors. Apart from a brief surge in early April 2020, neither the stock market nor the consumer confidence indicator are forecasting risks. There was a moderate increase in risk, as indicated by the yield curve gradient.

⁷ The early warning model follows the ECB's approach from June 2020. 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 rate 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. Data on share prices, the gradient of the yield curve and government bond spreads is daily. The sample includes 18 euro area countries plus Denmark, Sweden and the UK. The sampling period covers 1 October 2004 to 4 March 2021. The identification and dating of systemic financial crises are based on a public database of financial crises.

⁸ By early March 2021 the probability of a crisis in the next 12 months was estimated at approximately 8% by the early warning model, while the mean probability of a crisis in the next 12 months is currently estimated at approximately 16% for the European sample.

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.

Figure 1.13: Probability of a financial crisis in the next 12 months in Slovenia, with contributory factors

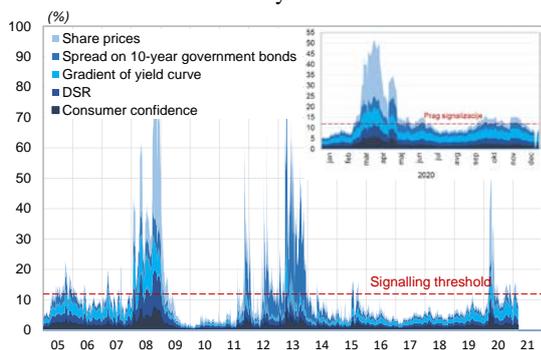
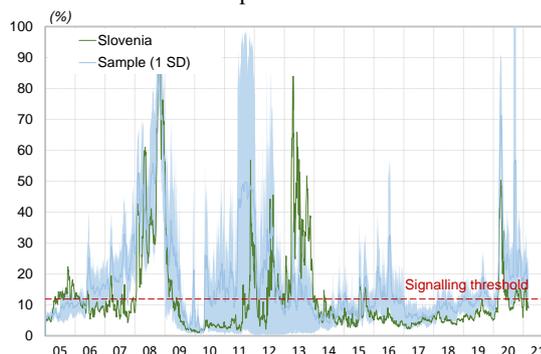


Figure 1.14: Probability of a financial crisis in the next 12 months in Slovenia and in countries in the sample



Note: The left figure illustrates the estimated probability of a crisis in the next 12 months for Slovenia, over the entire sampling period, decomposed by contributory factors. In the right figure the light blue area illustrates the probability in countries captured in the sample that fall within one standard deviation of the mean (almost two-thirds of the sample). The latest data is from 4 March 2021.

Source: Banka Slovenije

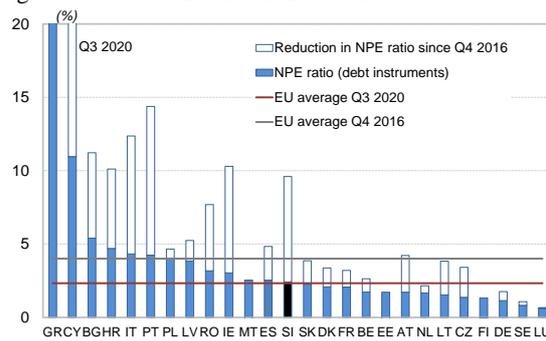
1.2 Credit risk

The increase in credit risk at the banks driven by the Covid-19 pandemic was not reflected in a rise in non-performing exposures (NPEs) in 2020, thanks primarily to the measures put in place by the government and by supervisory institutions. The banks mostly continued to reduce their NPEs last year, while amid the support measures the anticipated realisation of credit risk was postponed until after their expiry. Effective credit risk management at the banks requires them to regularly and promptly identify debtors who, despite the measures put in place, will be unable to make regular debt repayments after the support measures expire. The decline in NPEs came to a halt towards the end of the year. Other credit risk indicators began revealing changes in the quality of the credit portfolio immediately at the outbreak of the pandemic. The reclassification of customers to the stage with increased credit risk began to pick up pace, and impairments and provisions in the performing segment of the portfolio also began to rise. The option of a moratorium was largely taken up by NFCs in the hardest-hit sectors, but some will nevertheless not be viable after the measures expire. The banks are already indicating which segments of the portfolio present the highest risk, through the current as-yet modest increases in NPEs but the extensive reclassification of assets between credit risk stages. The majority of the liabilities of NFCs and households covered by a moratorium will fall due in the first half of this year, which in a situation where the pandemic is still ongoing and the less-stringent treatment of deferred debt repayments is expected to end will lead to an increase in NPEs at the banks. Our assessment is that credit risk has risen since 2020, and is high.

Non-performing exposures at banks

Despite the adverse situation, the banks continued to see a decline in their NPEs over most of 2020, thanks to the measures put in place by the government and by supervisory institutions. Higher numbers of defaults at the banks caused by the Covid-19 pandemic were prevented by the immediate action taken by the government and by supervisory institutions, which mitigated or deferred the transfer of increased credit risk into a increase in NPEs. The banks continued to reduce their legacy NPEs in 2020. According to the latest figures, over the last four years the Slovenian banking system has recorded one of the largest reductions in the NPE ratio, and has succeeded in reducing it to the level of the EU average.

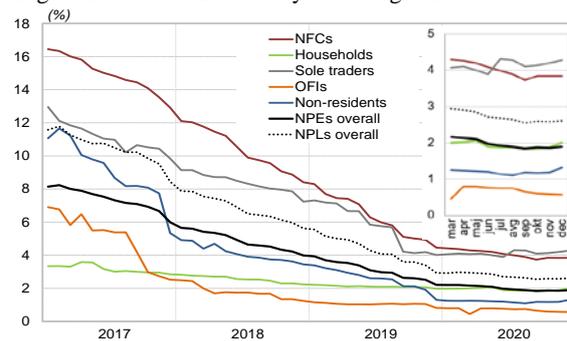
Figure 1.15: NPE ratios in EU countries



Note: The data for NPE ratios in EU countries is at the consolidated level. The capture of NPEs in these comparisons is narrower than in the figures for the Slovenian banking system in the remainder of this section: only exposures from debt instruments are captured, which primarily reduces the denominator and consequently increases the NPE ratio. The figures for Greece and Cyprus are off the scale of the y-axis.

Sources: ECB (SDW), Banka Slovenije

Figure 1.16: NPE ratios by client segment



The decline in the NPE ratio came to a halt in the final quarter of 2020. NPEs at the level of the banking system declined by EUR 120 million over the first three quarters of the year, before increasing by EUR 43 million in the final quarter. The NPE ratio reached its low of 1.8% in September, but had increased to 1.9% by December. The current trends are slightly unclear, owing to the banks changing over to a new approach to disclosing interest on NPEs¹⁰ in the final quarter of last year, which increased both the numerator and the denominator of the NPE ratio, which resulted in a rise in the ratio. Given the bank reporting, this effect is impossible to eliminate¹¹ at lower levels of aggregation. An assessment can nevertheless be made that the increase in NPEs occurred in the segments of the bank portfolio hit hardest by the pandemic.

Bank survey figures confirm the increase in new NPEs in the second half of 2020. The inflow of new NPEs in the first half of the year was equivalent to just under 10% of the stock of NPEs at the end of the previous year. The banks employed various approaches to consistently reduce them: despite the adverse situation, a portion of the NPEs (6.4% of the stock) was also repaid during this period, in part or in full. The inflow of new NPEs in the second half of the year was significantly larger, and equivalent to 26.6% of the stock of NPEs at the end of June 2020. The various approaches to reducing NPEs meant that the stock of NPEs nevertheless remained broadly unchanged at the end of the year. Similarly to previous years, the inflow of new NPEs in 2020 was again larger in relative terms in the household portfolio than in the NFCs portfolio (see figures in the appendix), but they were also being more consistently reduced via sale and write-off and via cash repayments.

¹⁰ In 2020 banks changed over to a new way of disclosing interest on credit-impaired financial assets in accordance with the interpretation of the IFRS Interpretations Committee (IFRIC) of March 2019, and the application of that interpretation to a specific case of 22 July 2019, which can be found online at <https://www.ifrs.org/news-and-events/2019/07/ifrs-9-webinar-curing-of-a-credit-impaired-financial-asset/>. As a result of the changeover, there were increases of EUR 66.7 million in gross exposure, EUR 58.8 million in impairment allowances and EUR 7.9 million in adjustments to fair value for credit risk as at 31 December 2020.

¹¹ From reporting by monetary financial institutions it is not possible to distinguish the banks that had partly or fully applied the new approach in the past, while certain banks avoided a major increase in NPEs from this methodological change by writing off the interest in part or in full. On the basis of additional reporting by banks during the changeover to the new approach to disclosing interest on NPEs, the impact on the NPE ratio at the total portfolio level was estimated to be a rise of 0.1 percentage points; in the absence of this change, the NPE ratio would have amounted to 1.8% at the end of 2020.

Figure 1.17: Approaches to reduction and changes in NPEs, first half of 2020

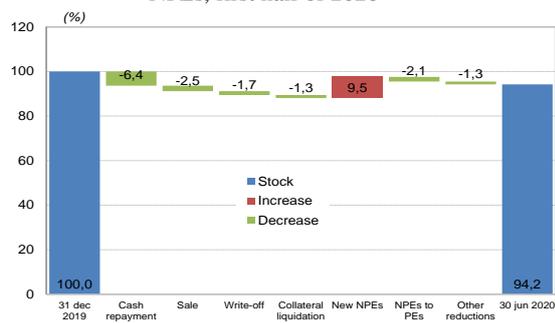
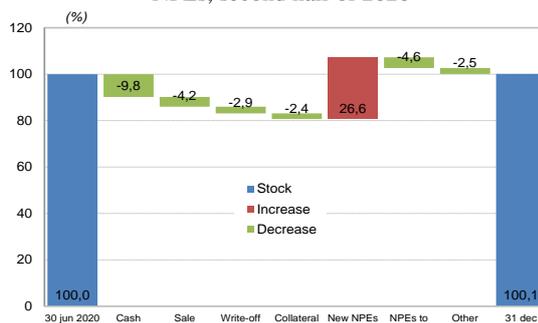


Figure 1.18: Approaches to reduction and changes in NPEs, second half of 2020



Note: The values illustrate changes relative to the initial stock of NPEs in December 2019 (left figure) and June 2020 (right figure).
Sources: Half-yearly NPE reporting by banks, Banka Slovenije

The magnitude of the impact of the pandemic on the sectors hit hardest by the containment measures will be revealed after the support measures expire. For some NFCs the support measures will prove to be insufficient, in that despite the measures they will be unable to adapt to the changes caused by the pandemic in 2020 and beyond. The total stock of loans covered by a moratorium or approved because of the pandemic had reached 6.0% of the banking system’s total exposure by the end of 2020,¹² where the vast majority (5.6% of total exposure) related to loan moratoria, and only a small part to liquidity loans for overcoming the impact of the pandemic. The share of Covid-related loans reached 15.4% of total bank exposure in the NFCs portfolio (loans covered by a moratorium accounting for fully 14.0%), while the share of loans covered by a moratorium was lower in the household portfolio at 4.4%.

Figure 1.19: Share of total exposure accounted for by Covid-related exposure, in the NFCs portfolio by sector, and in the household portfolio by loan type

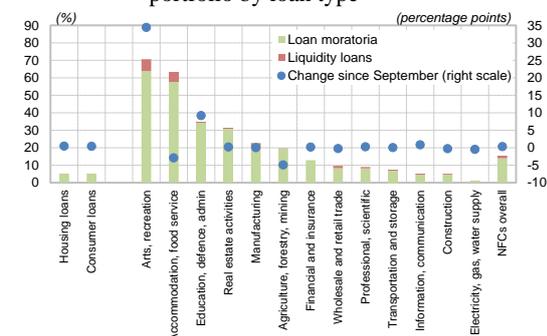
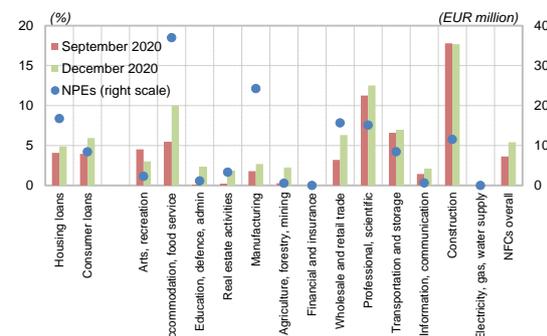


Figure 1.20: NPE ratio for Covid-related exposure, in the NFCs portfolio by sector, and in the household portfolio by loan type



Note: Includes all exposures covered by a moratorium or approved because of the Covid-19 pandemic (under the emergency laws or independently of them), even if the measures have expired in the interim.
Source: Banka Slovenije

The stock of exposure for which NFCs have had a moratorium approved increased slightly further in the final quarter of 2020, particularly in services.¹³ The share of Covid-related loans increased sharply in the arts, entertainment and recreation sector, where it almost doubled in the final quarter of 2020 to 70.6% of the banks’ exposure to these NFCs. The figure also remains high for NFCs in the sector of accommodation and food service activities at 63.3%, although it had declined by 3 percentage points compared with three months earlier. These developments were attributable to new moratoria approved in the autumn of 2020, and to the expiry and initial repayment of moratoria approved in the first wave of the epidemic. Amid an increase in the stock of loans covered by a moratorium, the decline in the share of Covid-related loans in

¹² The shares of loans covered by a moratorium or approved because of the Covid-19 pandemic stated in this section are calculated from exposure data (for both the numerator and the denominator). Tables 6.1 and 6.2, which provide additional information on loans covered by a moratorium or approved during the pandemic, disclose the ratio of such loans to total loans in the sector or portfolio. The figures in the appendix are therefore higher, mainly because the denominator in the calculation is lower. Other differences derive from the capture of individual sectors and portfolios: only NFCs in Slovenia are captured in this section, while the tables in the appendix also include non-resident NFCs (and other entities).

¹³ For more on moratoria approved for NFCs, see the section on NFCs.

accommodation and food service activities was attributable to an increase in the banks' exposure to the sector.

Even before the moratoria expire and before any identification of borrowers' arrears in the repayment of liabilities, the banks must assess the financial position and probability of default of individual customers, and as necessary must reclassify exposures for which a moratorium has been approved as non-performing. The NPE ratio for loans covered by a moratorium and loans approved to address liquidity difficulties related to the pandemic increased from 3.6% in September to 5.4% in December, the stock of such exposures reaching EUR 120 million. The NPE ratio for loans to NFCs in accommodation and food service activities covered by a moratorium almost doubled over this period to 10%, and also increased in the majority of other sectors. The persistence of the pandemic is increasing the likelihood of some performing exposures transitioning to non-performing status. Around a third of the loan moratoria approved in 2020 have already expired, while just over 40% of the moratoria will expire in the first half of 2021, at which time increased transitioning of these exposures to non-performing status can be expected.

Of the NFCs that had at least one loan at banks defined as non-performing, a third had also applied for support in the form of the refund of wage compensation under the furlough scheme or the short-time work scheme. Under the emergency laws NFCs had the possibility of obtaining support in the form of refunds of wage compensation for furloughed workers and employees on short-time work. NFCs that applied for support between March 2020 and mid-February 2021 (the furlough scheme or the short-time work scheme) were slightly more indebted (according to the debt-to-assets ratio) than NFCs that did not apply for support, and their debt servicing capacity (ratio of net financial debt to EBITDA) was also slightly smaller. The share of total exposure in a particular sector accounted for by exposure to NFCs that received support under the furlough scheme or the short-time work scheme was highest in the sectors of arts, entertainment and recreation, accommodation and food service activities, and transportation and storage. As measured by bank exposure, more than a third of firms that received support under the furlough scheme and the short-time work scheme also had a loan moratorium approved.

Figure 1.21: Number of recipients of support under the furlough scheme and the short-time work scheme according to performance status and moratorium status, by sector

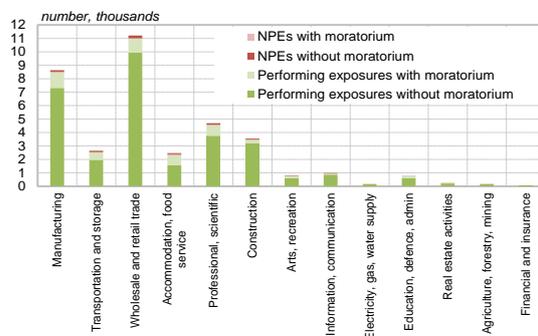
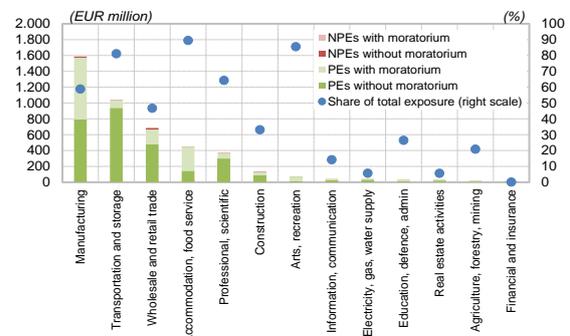


Figure 1.22: Exposures to recipients of support under the furlough scheme and the short-time work scheme according to performance status and moratorium status, by sector



Note: The percentages in the right figure represent the share of total exposure in a particular sector accounted for by exposure to NFCs that received support under the furlough scheme or the short-time work scheme.

Sources: AJPES, FURS, Banka Slovenije

The banks' exposure to recipients of monthly basic income (MBI) is not large, and the stock of NPEs to this customer segment is also small. Between March and May 2020 MBI was received by just over 50 thousand recipients, of whom around 32 thousand were bank customers¹⁴ at the end of the year, with a total credit liability of EUR 228 million and NPEs of EUR 6.7 million, equivalent to an NPE ratio of 3.0%. The sectors with the highest share of defaulters were accommodation and food service activities (an NPE ratio of 4.9%), transportation (4.6%) and arts, entertainment and recreation (5.1%), which with the exception of transportation were lower figures than in the portfolio of NFCs in these sectors. However, this customer segment does have a larger share of exposure for which a moratorium has been approved: almost 24% of exposure to recipients of MBI was covered by a moratorium as at the end of the year, in the total amount of EUR 54.5 million. The NPE ratio for the loans covered by a moratorium was similar to that for total exposure to recipients of MBI at 3.2%, or EUR 1.7 million. The sectors of arts, entertainment and recreation and

¹⁴ Does not include customers without a registration number, as these are reported on a collective basis.

transportation were prominent in this debtor segment too, with NPE ratios of 7.1% and 13.2% respectively. The portfolio of recipients of MBI is relatively small from the perspective of total bank exposure, but accounts for a large share of the harder-hit exposures.

Figure 1.23: Bank exposure to recipients of monthly basic income

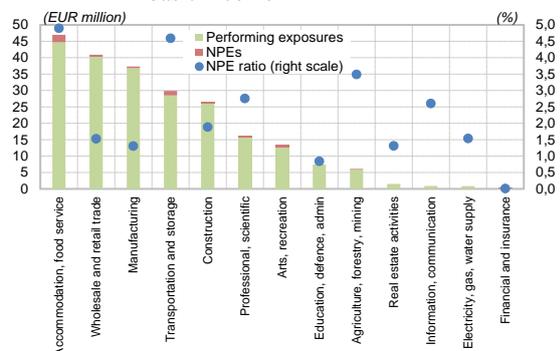
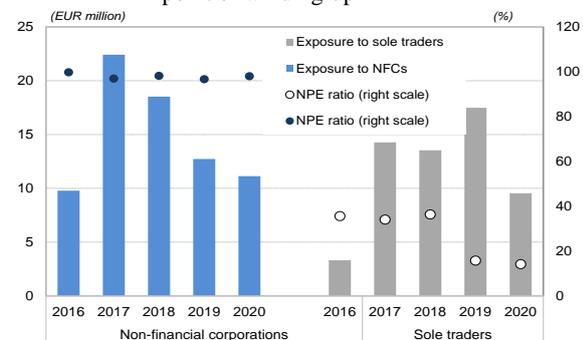


Figure 1.24: Bank exposure to NFCs and sole traders at point of winding-up



Sources: AJPES, FURS, Banka Slovenije

Bank exposure to NFCs that ceased trading as going concerns in 2020 was smaller than in previous years, primarily on account of the smaller number of business closures during the year. The majority of the banks' claims against defunct NFCs had been reclassified as non-performing even before their closure. In the month before deletion from the business register, 98% of the banks' claims against defunct NFCs (those with debt to banks) were classed as non-performing, a similar share to previous years. The figure for sole traders was significantly lower: over the last two years merely around 15% of claims against defunct businesses were classed as non-performing before closure, compared with an average of 35% between 2016 and 2018. Before the expiry of the support measures it will be difficult to determine how many active firms would have ceased operating in the absence of the measures, but it is certain that some firms will succeed in surviving the crisis thanks to the support measures. The loan moratoria and other support measures prevented the closure of firms in the most vulnerable sectors, but also merely postponed closure in some cases.

Credit risk stages¹⁵

The elevated credit risk in 2020 was reflected in increased transitions to the stage with the increased credit risk (stage 2).¹⁶ While the one-year default rates (Stage 3 under the IFRS) were actually lower than in 2019, there was a sharp increase in transitions from Stage 1 to Stage 2 (increased credit risk). The share of classified claims in the NFCs portfolio that migrated from Stage 1 to Stage 2 increased from 4.3% in 2019 to 9.7% in the final quarter of the year, an indication of the build-up of credit risk.

¹⁵ Banks classify financial assets into three credit risk stages. Stage 1 and Stage 2 consist of exposures to non-defaulters. Financial assets whose credit risk has increased significantly since the recognition date are classified under Stage 2. The defaulters category (Stage 3) consists of all exposures that are defined as exposures in default.

¹⁶ The unit of observation for calculating the one-year transition rates of exposures between individual credit risk stages is the commercial bank-customer-contract-date. In the analysis, we include classified claims with a positive amortised cost and were in a particular credit risk stage at the start of the observation period. For the end of the period, we use the final data available for the contract during the year. Exposure in both the numerator and the denominator means gross on-balance-sheet and off-balance-sheet exposure (without application of conversion factors) from the start of the observation period *T*.

Figure 1.25: Share of exposures classified as Stage 2 by customer segment

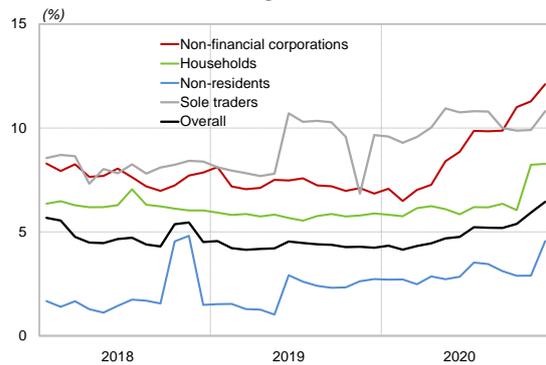
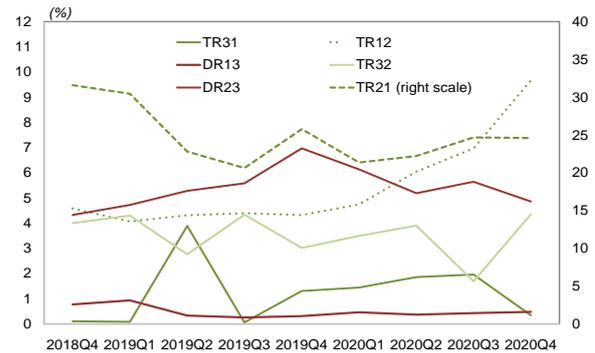


Figure 1.26: Transition rates between credit risk stages for NFCs



Note: The labels in the key in the right figure refer to the transition rates (TR) between credit risk stages (1, 2 and 3). The unit of observation for calculating the transition rates between individual credit risk stages is the commercial bank-contract-date. In the analysis, we include classified claims with a positive amortised cost and were in a particular credit risk stage at the start of the observation period. For the end of the period, we use the final data available for the contract during the year.

Source: Banka Slovenije

The increase in exposures in the stage with increased credit risk was most pronounced in sectors that were prevented from operating for much of 2020 because of the pandemic. The increase was evident from the very outbreak of the pandemic. At the level of the total portfolio, the share accounted for by Stage 2 had increased to 6.5% by the end of 2020, up from 4.2% at the end of 2019. The highest share and largest increase were in the NFCs portfolio, where the figure stood at 12.2%, up from 6.8% at the end of 2019. In 12 sectors (of the total of 80 sectors with a two-digit code) the share accounted for by Stage 2 exceeded 20%, with a total exposure of EUR 2.3 billion. The most notable high-risk sector according to this indicator is NFCsaccommodation and food service activities, where almost 48% of exposures are classified as Stage 2 under the IFRS. Another notable sector is arts, recreation and entertainment, whose operations were severely curtailed last year, where the share accounted for by Stage 2 increased to just over 45%. The NPE ratios in these sectors declined over most of the year, but in the final quarter increased by more than in other sectors: it was up 2.9 percentage points in accommodation and food service activities at 10.3%, and up 0.4 percentage points in arts, recreation and entertainment at 7.1%. The increase in NPEs in other sectors, if any, was significantly smaller.

Figure 1.27: Share of exposures to NFCs classified as Stage 2 by sector

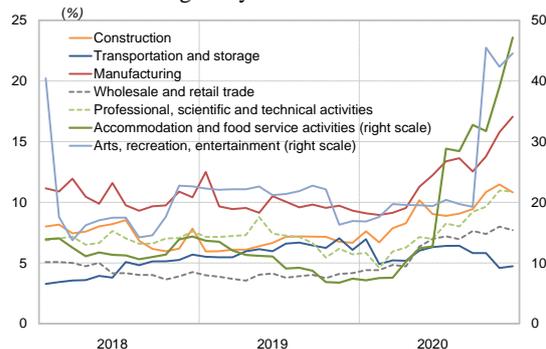
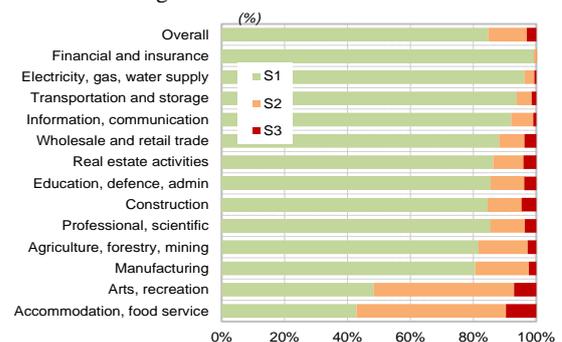


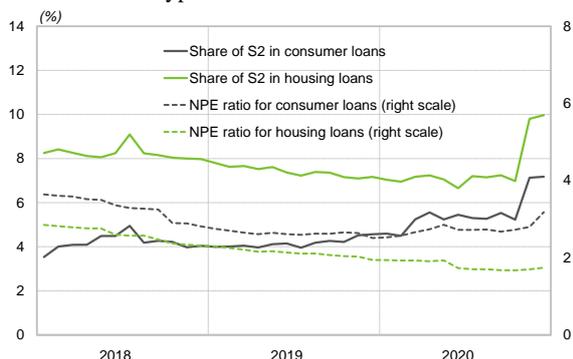
Figure 1.28: Breakdown of NFCs portfolio by credit risk stage



Source: Banka Slovenije

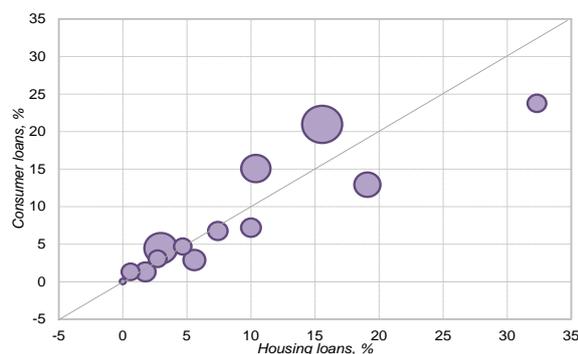
The stock of exposures in stage 2 also increased in the household portfolio in the final months of 2020. Some 8.3% of exposures to households were classified as Stage 2 at the end of 2020, up 2.4 percentage points on a year earlier. The share was higher for housing loans (10.0%) than for consumer loans (7.2%), although the quality of the consumer loans portfolio as measured by the NPE ratio was lower than that of the housing loans portfolio. Some 3.2% of consumer loans were non-performing as at December 2020, compared with 1.7% of housing loans. The gap between the NPE ratios in the two portfolios widened from its narrowest point in March 2019 (0.4 percentage points) to 1.5 percentage points in December 2020. Although there are considerable differences between the banks in the share of household loans classified as Stage 2, higher shares for housing loans are generally correlated with higher shares for consumer loans. There is also a discernible link between a bank's higher exposure to the household sector, and higher shares of its portfolio classified as Stage 2.

Figure 1.29: NPE ratios and share of exposures classified as Stage 2 by household loan type



Note: The size of the circle in the right figure represents the share of the bank's total exposure accounted for by housing loans and consumer loans.
Source: Banka Slovenije

Figure 1.30: Share of exposures classified as Stage 2 at individual banks by household loan type



Credit risk parameters

The default rates are not yet reflecting the increase in credit risk caused by the containment measures. The exposure-weighted one-year default rates to default status under the EBA definition of non-performing exposures¹⁷ in the final quarter of 2020 stood at approximately 1% for the NFCs portfolio and 3% for the sole traders portfolio. The one-year default rates (DRs) in December 2020 remained at their very low level from the end of 2019. This is to be expected, as there is usually a lag before arrears of more than 90 days and bankruptcies begin to rise, while numerous firms are still taking advantage of subsidised short-time work, the furlough scheme, loan moratoria that are/were subject to less-stringent regulatory treatment, and other government measures. With regard to historical GDP growth rates and default rates, it could be concluded that there will potentially be a rise in DR in the future, following a period of negative GDP growth, which will on the other hand certainly be mitigated by the emergency measures, and by the differences in the make-up of the portfolio compared with the previous financial crisis.

Figure 1.31: Exposure-weighted default rates by corporate size

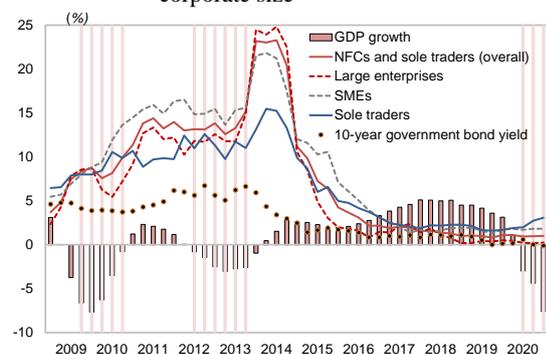
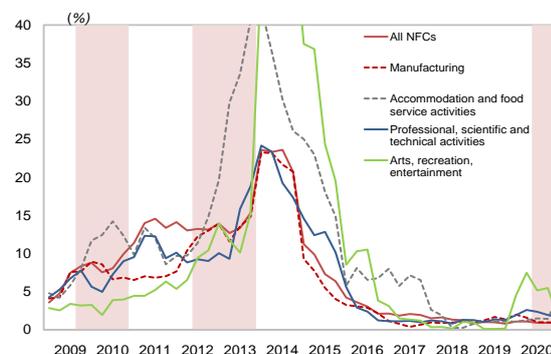


Figure 1.32: Exposure-weighted default rates by sector



Note: The EBA definition applies solely to recent years for which the data is available. In previous years we used the definition of arrears of more than 90 days or a D or E rating (which is stricter). The red shaded areas represent periods of negative year-on-year economic growth. The y-axis in the figure is limited to a maximum DR of 40%.
Source: Banka Slovenije

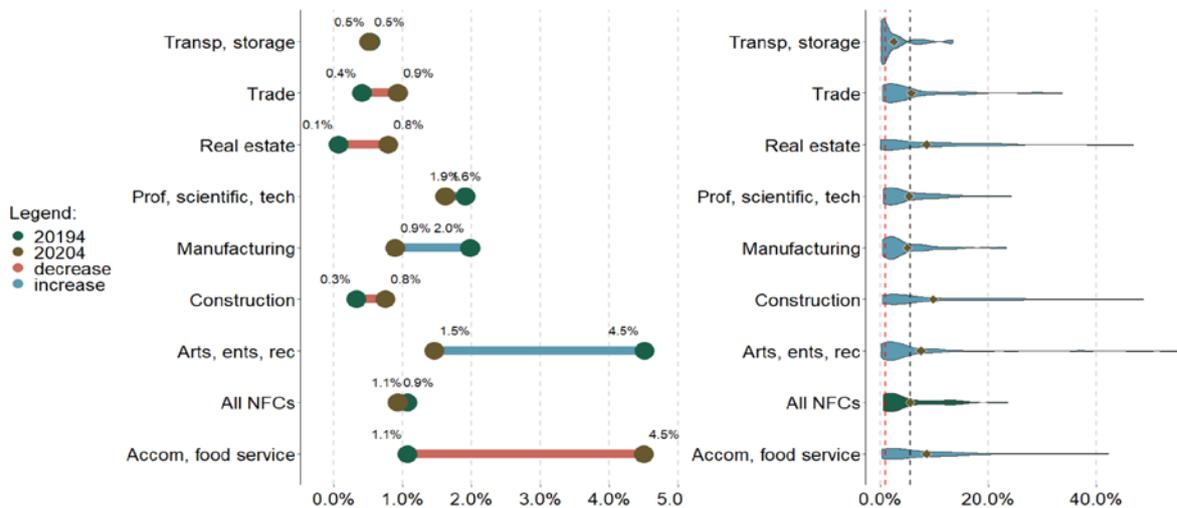
DRs increased in the sectors of accommodation and food service activities, arts, entertainment and recreation, and other services, and in agriculture, forestry and fishing, which alongside sectors such as construction, real estate activities and wholesale and retail trade have historically been more cyclical.

The sectors are in a very favourable position in historical terms. Current DRs are low, and below the historical average. A trend of deterioration between Q4 2019 and Q4 2020 is primarily evident in

¹⁷ Defaulters are defined according to the EBA definition of NPEs at the customer level, or by arrears of more than 90 days or a credit rating of D or E (which is stricter) when the data based on the EBA definition is not available. See also the previous note.

accommodation and food service activities (and also in agriculture, forestry and fishing, which is not illustrated in the figure), but there was an improvement in certain other sectors.¹⁸

Figure 1.33: Changes in DR between Q4 2019 and Q4 2020, and over the entire time series



Note: Time series from Q1 2001. The right graph illustrates the average (gold diamond) and density of distribution across individual sectors. The thickness of the area in the right graph represents the density of realisation at that value. The red dotted line represents the current DR (Q4 2020) for firms, which stands at approximately 1%. The black dotted line represents the historical average DR for firms.

Source: Banka Slovenije

Probability of default (PD) is higher for customers that have higher share of moratoria. The banks' estimates of PD for customers with a moratorium and customers without a moratorium reveal that in the majority of sectors customers with a moratorium were assessed as higher-risk than customers without a moratorium in September 2020. It is interesting that in the majority of sectors these customers were also assigned higher PDs at the end of 2019, an indication that the moratorium option was taken up by higher-risk customers. Over the first nine months of 2020 the banks also saw a larger rise in the PDs of customers who took up a moratorium than those of customers who did not in the majority of sectors.

Impairments and provisions, and coverage of performing and non-performing exposures by impairments and provisions¹⁹ and by collateral

After three years of net releases, the banking system saw positive impairment and provisioning costs in 2020. Thanks to the government support measures (moratoria, guarantees), net impairments and provisions remained low last year, compared with historical values²⁰ and also with regard to international accounting standards. Impairments and provisions can be expected to increase in the future, which will also be driven in part by international accounting standards as the moratoria expire.²¹

¹⁸ The time series of exposure-weighted default rates are rather volatile in smaller sectors. Large exposures in the arts, recreation and entertainment sector were classed as non-performing even in 2019, as a result of which there was an improvement in 2020. The time series of non-exposure-weighted default rates for the arts, recreation and entertainment sector is more stable, and illustrates the rise in DR between Q4 2019 and Q4 2020.

¹⁹ The term "impairments" is used in this section as an abbreviation of "impairments and provisions", and refers to allowances, value adjustments and provisions for credit losses that were recorded by banks in accordance with IFRS 9.

²⁰ Impairments and provisions accounted for 23% of the disposal of gross income 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.

²¹ Under IFRS 9, the expectation is for the reclassification of an exposure from Stage 1 to Stage 2 in the event of a significant increase in credit risk, and to Stage 3 in the event of default. 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 impairments and provisions for credit losses. These impairments and provisions will be based on: (a) re-estimation of the credit parameters to include the latest macroeconomic forecasts, and (b) the conversion of 12-month expected credit losses to lifetime expected credit losses (as a result of reclassification from Stage 1 to Stage 2 or 3).

Figure 1.34: Ratio of impairment and provisioning costs to balance sheet total, quartile distribution at end of period

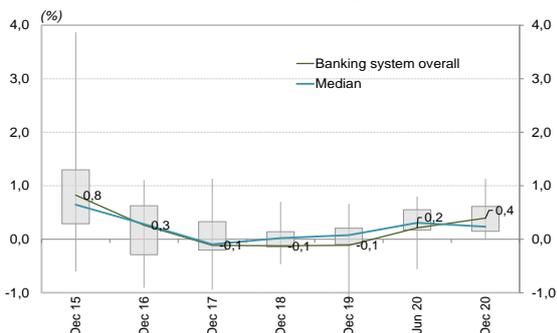
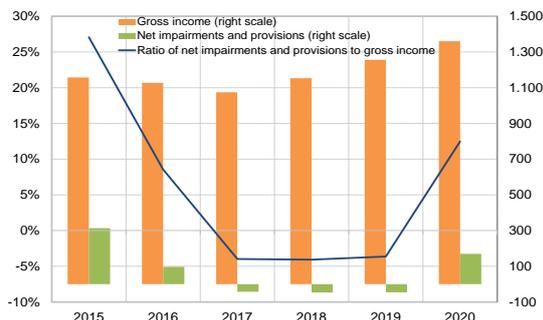


Figure 1.35: Gross income and net impairment and provisions



Note: 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.

Source: Banka Slovenije

At the outbreak of the pandemic the banks began increasing impairments and provisions in the performing part of the portfolio, while coverage of the non-performing part also increased over most of 2020. After increasing over the first eight months of the year, coverage of NPEs by impairments fluctuated over the final months of the year under the influence of several factors: methodological and institutional changes²² on one hand, and the impact of coverage by impairments on those exposures transitioning to or from non-performing status²³ on the other. At certain banks a decline in impairments was driven by consideration of the autumn’s more favourable macroeconomic forecast compared with those of the spring. Despite the described dynamics during the year, coverage of total NPEs by impairments at the end of 2020 thus remained the same as in December 2019, at 50.3%.²⁴

The stock of impairments created for performing exposures also increased, amid increased transitioning to the stage with increased credit risk. Impairments on the performing part of the portfolio increased across 2020, and in all customer segments. The coverage of the performing portfolio by impairments consequently rose from a stable 0.5% in 2018 and 2019 to 0.7% in June 2020, and remained at this level in December. The increases in impairments and coverage of the performing part of the portfolio by impairments were largest in the segments of sole traders, NFCs and households, particularly consumer loans. Larger transitions to NPEs are also expected in these portfolio segments in 2021 as a result of the pandemic.

Figure 1.36: Coverage of performing exposures by impairments by selected customer segment

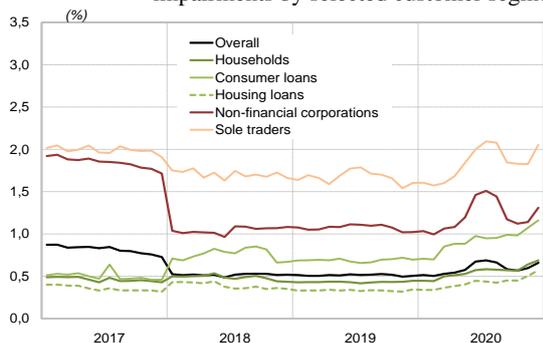
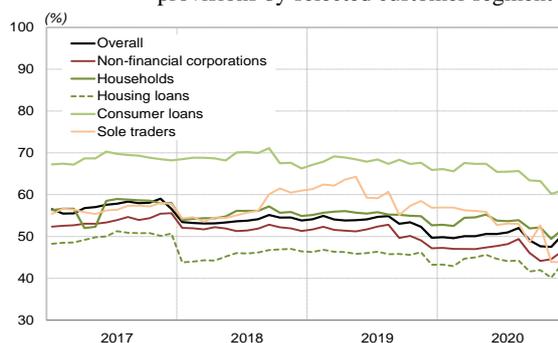


Figure 1.37: Coverage of NPEs by impairments and provisions by selected customer segment



Source: Banka Slovenije

When it comes to the impact on bank earnings and capital from the realisation of credit risk, an important indicator is overall coverage of NPEs by impairments, provisions and collateral. Overall

²² The methodological changes in the reporting of excluded interest on NPEs during all months of the final quarter of 2020 contributed to an increase in coverage during those months, while the merger of two banks in September led to a reduction.

²³ Sales and write-offs of NPEs, which are usually higher at the end of the year, reduce the coverage of the remaining NPEs by impairments, as it is generally claims with above-average or full coverage by impairments that are removed from the portfolio. Transitions of performing exposures to NPEs can also reduce average coverage of NPEs by impairments, if their coverage at default was below-average.

²⁴ If methodological changes in the disclosure of interest on NPEs are eliminated, coverage by impairments and provisions would stand at 47.2% at the end of 2020.

coverage of NPEs at the level of the total portfolio stood at 88.2% at the end of the year, down 1.5 percentage points on the stable 12-month figure between September 2019 and August 2020. Overall coverage at the end of the year was similar in the NFCs and household portfolios, at 89.3% and 89.0% respectively, both segments having seen a decline in the final months of the year, which was slightly larger in the household portfolio.

There are considerable differences between portfolios and economic sectors in the coverage of NPEs by impairments and collateral and in the share of uncovered NPEs. The share of NPEs in the NFCs portfolio that were not covered by impairments or by collateral amounted to 10.7% at the end of the year, but with large variation between sectors: from 43% in information and communication, to just 2% in arts, recreation and entertainment. The share of uncovered NPEs was low even in the higher-risk sector of accommodation and food service activities at 3.8% at the end of 2020, but significantly higher in the sole traders portfolio at 24.4%. The share of uncovered NPEs in the household portfolio stood at 11.0%, but with considerable differences in the levels and the trends between consumer loans and housing loans.

Figure 1.38: Coverage of NPEs by impairments and collateral by selected customer segment

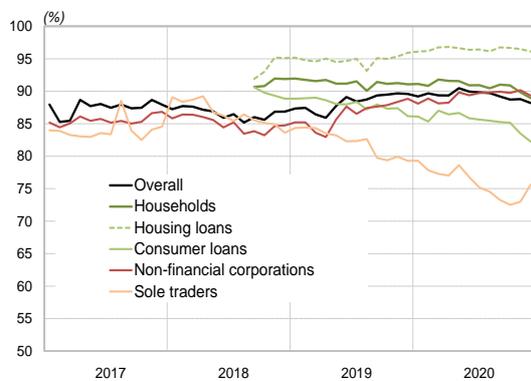
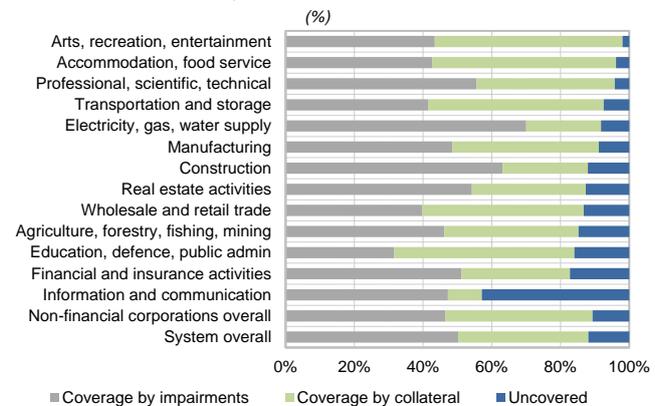


Figure 1.39: Breakdown of coverage of NPEs by impairments and collateral across different sectors, end of 2020



Note: In the left figure overall coverage before September 2018 does not include households, for which data on collateral is only available after that date. In both figures the collateral in an individual operation is taken into account up to a maximum of the unimpaired value of the non-performing exposure.

Source: Banka Slovenije

Non-performing housing loans remain well-covered by impairments and collateral, while coverage of consumer loans is deteriorating. Coverage of housing loans is provided more by collateral than by impairments. Given the prevalence of coverage by real estate collateral in the housing loans portfolio, and the maintenance or increase in its value, collateral provides the majority of the overall coverage for housing loans. The reverse is the case for consumer loans, where NPEs are predominantly covered by impairments, and significantly less by collateral. This is also attributable to the approval of unsecured consumer loans in the period before the entry into force of the macroprudential measure for household lending. The decline in the coverage of NPEs by impairments in this portfolio also indicates the inadequate creation of impairments when the loans still had performing status, even though the higher probability of transitioning to default status should have been identified on the grounds of the weak credit standards at their approval and given the expected slowdown in economic growth even before the pandemic.

Figure 1.40: Coverage of NPEs by impairments and collateral for housing loans

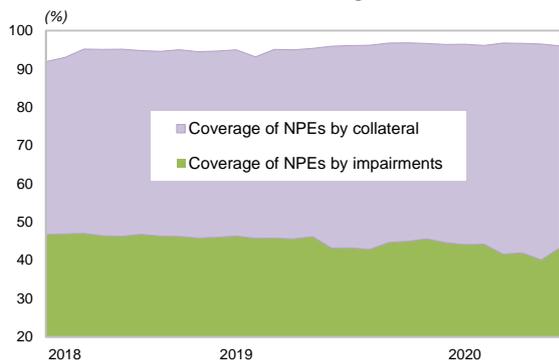
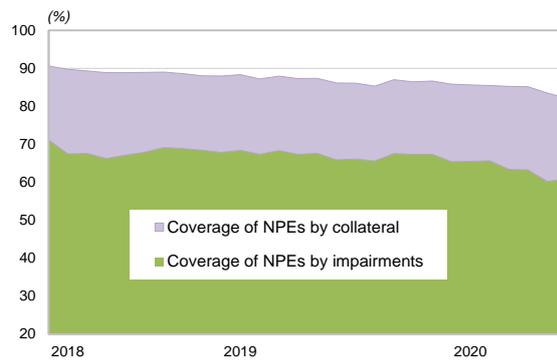


Figure 1.41: Coverage of NPEs by impairments and collateral for consumer loans



Source: Banka Slovenije

Box 1.1: Current changes in regulations in the area of credit risk as a response to the Covid-19 pandemic since October 2020

As a result of the second wave of the Covid-19 pandemic and the related containment measures in EU Member States, the EBA Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the Covid-19 crisis were reactivated on 2 December 2020 (the original guidelines had been applied until the end of September 2020). The guidelines put in place more flexible regulatory treatment of legislative and non-legislative moratoria introduced because of the Covid-19 pandemic that meet the conditions for general payment moratoria set out in the guidelines. Under the revised guidelines, which may also be applied (retroactively) to moratoria entered into between 1 October and 2 December 2020, the moratorium must be approved by 31 March 2021, and the total duration of all payment holidays should not exceed nine months. A moratorium of this type may be treated in accordance with the guidelines, and does not require automatic reclassification as a forborne exposure (performing or non-performing) in accordance with the definition of forbearance set out in Article 47b of the CRR. The *Report on the implementation of selected Covid-19 policies*,²⁵ which was published on the EBA website and is regularly updated, includes answers to FAQs in connection with the application of the guidelines on moratoria.

On the basis of the revised EBA guidelines on moratoria, Banka Slovenije issued a new regulation on the application of the guidelines, which was published in the Official Gazette of the Republic of Slovenia, No. 189/20 of 15 December 2020. Having regard for the national emergency legislation, i.e. the Emergency Deferral of Borrowers’ Liabilities Act (the ZIUOPOK), via the regulation on the application of the guidelines Banka Slovenije set out a partial derogation from the guidelines, in that less significant banks (under Banka Slovenije supervision) could apply a period of 12 months as the maximum duration of payment holidays under moratoria entered into after 30 September 2020 (and not nine months as stipulated by the guidelines). The currently applicable emergency law (the Act on Emergency Measures to Assist in Mitigating the Consequences of the Second Wave of the Covid-19 Epidemic or ZIUOPDVE, which has been in force since 30 December 2020) largely follows the EBA guidelines on moratoria.

1.3 Income risk²⁶

The conditions for generating income in the banking system worsened in 2020. Growth in net interest income has been negative again since April of last year, while the gap by which net interest trails the previous year is increasing, as a result of declining returns on assets and, in addition in 2020, the decline in credit activity. Net non-interest income last year was up sharply on the previous year, but only as a result of an effect from

²⁵ https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2021/962557/Report%20on%20the%20implementation%20of%20selected%20COVID-19%20policies.pdf

²⁶This Financial Stability Review sees a change to the treatment of income risk, which now focuses on the risk to the generation of (net) income, while profitability is addressed together with solvency in the section on the banking system’s resilience to systemic risks. The relative importance of impairments and provisions in the disposal of gross income is now solely addressed in the section on credit risk. The changes are methodologically driven, to eliminate duplication in the treatment of risks under income risk and credit risk. The commentary on the profitability of the banking system is given under the broader section in Solvency and profitability, where the impact on the resilience of the banking system from developments in profitability is assessed.

the merger of two banks; otherwise it would have declined. Since the outbreak of the pandemic the banks have also seen a slight decline in net fees and commission, the most important component of non-interest income. The banks have relatively good control of operating costs. Amid the worsening trends in the generation of income, and relative lack of change in costs, income rise is assessed as elevated, and is expected to continue deepening.

Net interest margin and net non-interest margin

The net interest margin is maintaining its trend of decline, although the decline in 2020 was larger than in the previous years. The decline in interest income and the relatively high growth in the balance sheet total and interest-bearing assets reduced the net interest margin in 2020 to 1.57%, is lowest figure of the last six years.²⁷ While the decline in asset interest rates has been driving down the net interest margin for some time now, in 2020 it was also affected by the worsening asset structure in terms of return: amid the sharp decline in growth in loans and the simultaneous increase in low-yielding assets this process intensified last year.

Figure 1.42: Net interest margin and commission margin in the banking system

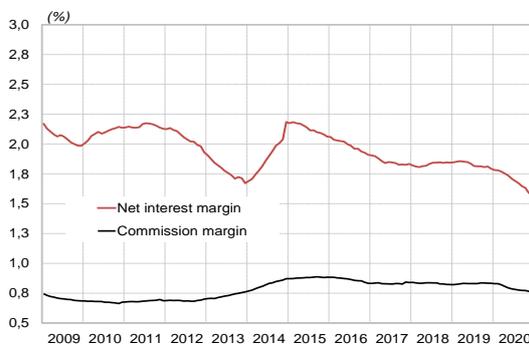
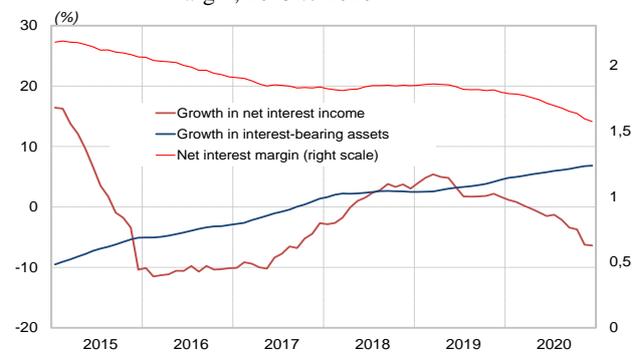


Figure 1.43: Year-on-year growth in net interest income and interest-bearing assets, and net interest margin, 2015 to 2020



Note: In the left figure the 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: Banka Slovenije

The decline in net interest income and faster growth in interest-bearing assets are reducing the net interest margin. The change in net interest income relative to the same period of the previous year entered negative territory in the second quarter of 2020, the rate increased to 6.4% by the end of the year. Growth in interest-bearing assets increased, driven by the increase in the balance sheet total, i.e. the large inflow from the non-banking sector, primarily sight deposits. At the same time interest-bearing assets increasingly shifted towards more-liquid and lower-yielding assets, as evidenced above all in an increase in the banks' claims against the central bank, which accounted for almost a fifth of on-balance-sheet assets by the end of the year.²⁸ The median net interest margin declined to 1.71 in 2020, down 0.16 percentage points on the previous year, while the distribution of the net interest margin slightly widened. The differences increased slightly as the margin fell. The distribution of net interest margin across the banks has widened slightly in recent years, which suggests that some banks are maintaining relatively high values, while others are seeing a decline.²⁹

Price effects prevailed over quantity effects in 2020, and contributed to the decline in net interest. The slowdown in lending activity at banks in Slovenia was a factor in the sharp decline in the contribution to net interest by quantity effects, which nevertheless remained positive. By contrast, the negative contribution by price effects strengthened sharply.³⁰ In all years lending activity was the largest factor in quantity effects,

²⁷ After declining in previous years, the net interest margin (calculated over the preceding 12 months) was relatively stable between mid-2017 and mid-2019, before beginning a slightly faster decline, which picked up pace in 2020.

²⁸ There were great variations in year-on-year rates of growth in various forms of interest-bearing assets last year; interest-bearing assets increased by 6.84% on aggregate last year (comparison of annual averages), loans to the non-banking sector by 3.0%, securities by 1.4%, and other forms of interest-bearing assets, such as claims against the central bank and claims against banks, by fully 30.8%.

²⁹ At the end of 2020, the middle 50% of the banks were located in the range of 1.42% to 2.16%, compared with a range of 1.75% to 2.10% at the end of 2018.

³⁰ 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.

while the negative contribution from price effects was evenly distributed between loans and securities. Growth in interest income thus slowed to stand at -4.6% at the end of the year, while growth in loans to the non-banking sector stood at -1.9%. The strong trend of decline in interest income from securities seen over several years also continued; this income accounts for a smaller and smaller share of the banks' interest income.³¹ The effects on the liability side, i.e. from interest expenses, are significantly smaller than those on the asset side, i.e. from income. The ratio of interest income to interest expenses has increased sharply over recent years, primarily as a result of a decline in expenses. The rising level of sight deposits is increasing the positive price effects, while changes in wholesale funding and other sources of funding acted to reduce net interest.

Figure 1.44: Contribution made by quantity effects and price effects to the change in net interest income, and net interest margin

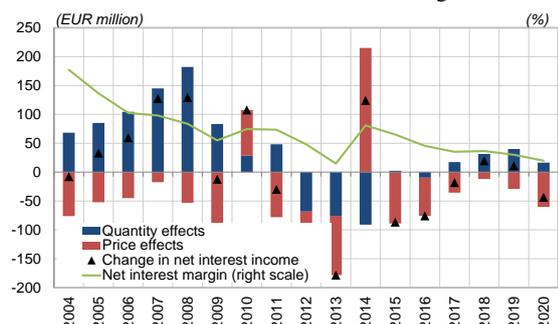
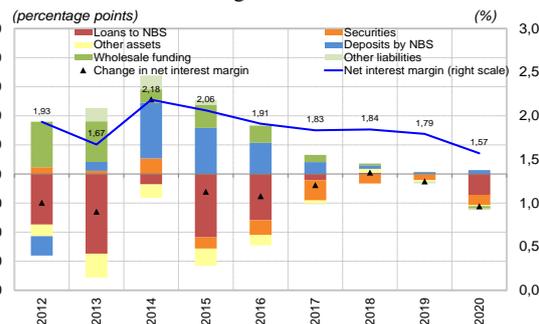


Figure 1.45: Contributions of interest-bearing asset and liability instruments to change in net interest margin



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: Banka Slovenije

The decline in the net interest margin is increasingly becoming a sustained process. The decline is being driven by several factors on the income side: declining returns on bank investments, including loans, a sharp decline in growth in loans in 2020, and a rapid increase in highly liquid low-yielding assets and claims against the central bank. Banks in Slovenia, similarly to banks in other countries, have begun to respond to the situation of an increased inflow of deposits and a decline in the LTD ratio by introducing custody fees, through which they will try to compensate for the decline in income.³² In examining the developments in (net) interest income, it should be noted that in 2020 banks were able to keep charging interest without disruption thanks to the loan moratoria allowed under the ZIUPOK and the EBA guidelines.³³ After the moratoria expire, the potential loan defaults will put additional downward pressure on interest income.³⁴ The figures for 2020 show that the decline in growth in loans to the non-banking sector correlated relatively strongly with the decline in the banks' (net) interest income (see Figure 1.44).

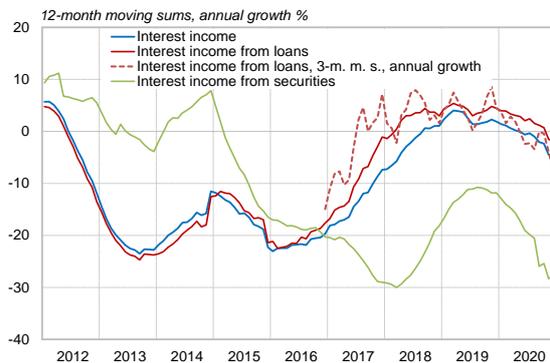
³¹ The breakdown of interest income in 2020 showed banks generating 86.6% of their total income from loans to the non-banking sector, 8% from securities, and the remainder from other interest-bearing assets.

³² For more, see the box entitled *Analysis of household deposits in the wake of the announcement of custody fees by certain banks*.

³³ See the Emergency Deferral of Borrowers' Liabilities Act (ZIUPOK), and the EBA guidelines, available at <https://eba.europa.eu/eba-publishes-guidelines-treatment-public-and-private-moratoria-light-covid-19-measures>.

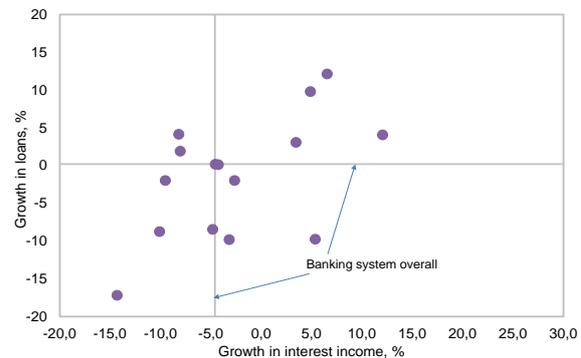
³⁴ See also analysis of moratoria in the section on credit risk.

Figure 1.46: Growth in interest income by type



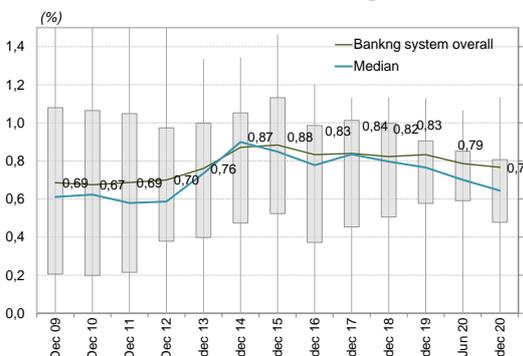
Source: Banka Slovenije

Figure 1.47: Year-on-year growth in interest income and loans at individual banks in Slovenia, 2020



Non-interest income at the level of the banking system increased sharply in 2020, but only as a result of a one-off effect from the merger of two banks. The net non-interest margin at the level of the banking system, which was above-average even in 2019 (at 1.43%), increased sharply in 2020, but only as a result of the aforementioned effect from the merger of two large banks in early September,³⁵ which raised the margin calculated relative to the balance sheet total to a high 1.68%. Even in June the margin had been comparable to the average of previous years, at 1.15% measured over the preceding 12 months. Last year's non-interest income would have been down a tenth on the high non-interest income seen in 2019, which had been driven by the strong economy, and by factors such as dividend payments, revaluations of shares and banks' claims against corporates, and the sale of assets. There was considerable volatility in non-interest income in previous years, and hence in gross income, net income and pre-tax profit; this was attributable to the general economic situation, and to other one-off factors at large banks (revaluation of financial assets, dividends, mergers).

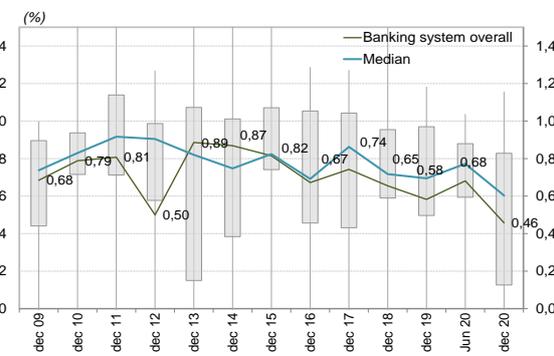
Figure 1.48: Net commission margin, quartile distribution, at end of period



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

Source: Banka Slovenije

Figure 1.49: Ratio of net fees and commission to non-interest income



Following the outbreak of the pandemic, net fees and commission increasingly began to trail that recorded in the same period of the previous year, although the gap had gradually narrowed by the end of the year. Amid the parallel high growth in bank assets, the net commission margin consequently fell to its lowest level of recent years, at 0.77%. The decline in the net commission margin has been driven by high growth in the balance sheet total, and a decline in net fees and commission. After a relatively successful 2019, in which the banks increased their net fees and commission, as of the outbreak of the pandemic net fees and commission increasingly began to trail that recorded in the same period of the previous year, although the gap narrowed between June and the end of the year. The figures from recent years show that banks in

³⁵ The one-off effect of the merger of the two banks was reflected last year in an increase in non-interest income, gross income, net income and pre-tax profit in the banking system. Net non-interest income increased by 25.7% last year (compared with a fall of 9.6% excluding the one-off effect), gross income by 8.3% (compared with a fall of 7.9%), and net income by 17.3% (compared with a fall of 19.7%), while pre-tax profit declined by 20.3% (compared with a fall of 54.4%).

Slovenia, similarly to those elsewhere in Europe,³⁶ have failed to cover the decline in the net interest margin with the net commission margin.

Factors in the disposal of gross income

The banks had relatively good control of their operating costs last year. There was an improvement in both main indicators, i.e. the ratio of operating costs to the balance sheet total and the ratio of operating costs to gross income (CIR), primarily as a result of the increases in the balance sheet total and in gross income. Growth in operating costs was just 1.3% last year. This moderate increase was mainly attributable to methodological reclassifications; otherwise last year’s operating costs would have been down around 3% on the previous year.³⁷ Labour costs, which account for more than half of total operating costs, declined by 3.6% last year. The ratio of operating costs to the balance sheet total declined by 0.1 percentage points to 1.67%. Net income, i.e. gross income minus operating costs, increased sharply last year, as a result of the aforementioned increase in non-interest income and gross income. Last year’s CIR was one of the lowest figures of recent years (52.8%), but would have amounted to 62% in the absence of a one-off effect.

Figure 1.50: Growth in operating costs, labour costs and balance sheet total

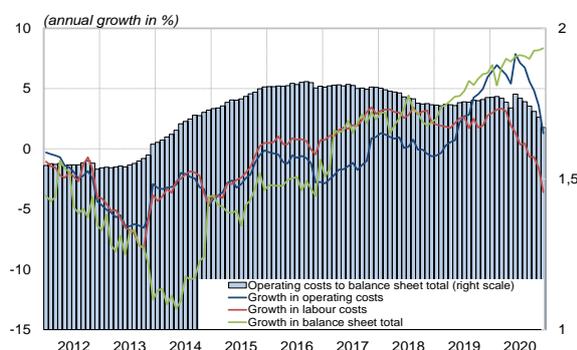


Figure 1.51: Cost-to-income ratio (CIR), including the CIR excluding the effect of the merger of two banks in 2020



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: Banka Slovenije, ECB

Box 1.2: Credit activity, demand for loans and credit standards

Growth in loans to the non-banking sector slowed sharply in 2020, as the economic situation worsened and uncertainty increased. Year-on-year growth in consumer loans and year-on-year growth in loans to NFCs were both negative at the end of the year, while growth in housing loans remained positive, despite the worse economic situation and the increased uncertainty. According to the Bank Lending Survey (BLS),³⁸ credit activity was affected by reduced demand, and also by the tightening of credit standards and terms at banks as a result of the increased uncertainty brought by Covid-19. Credit activity in the household sector was mainly affected by the reduced demand for consumer loans and the ongoing tightening of credit standards. Demand for housing loans increased slightly in the second half of the year. Large enterprises and SMEs alike saw increased tightening of credit standards and terms, while demand declined slightly in the second half of the year.

Credit activity

Growth in loans to the non-banking sector slowed sharply last year, driven by the worsening of the economic situation under the containment measures imposed to curb the spread of Covid-19, and the increased uncertainty, and stood at just 0.2% in December. Year-on-year growth in loans to households

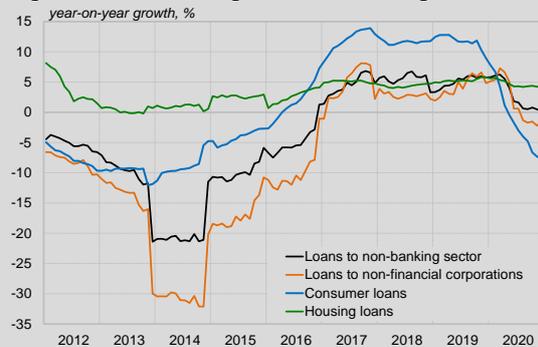
³⁶ For certain indicators relating to the generation and disposal of income and bank profitability, data for the Slovenian banking system was compared with selected countries (EU28) in the October 2020 issue of the Financial Stability Review. Because the data for the whole of the previous year for the aforementioned comparison is available in June, a comparison of certain indicators is again expected to be illustrated in the next issue of the Financial Stability Review.

³⁷ The banks’ costs in connection with payments into the resolution fund and the deposit guarantee scheme have been classed as operating costs as of June of last year, having previously been deducted from net non-interest income.

³⁸ The BLS for Slovenia covers four reporting banks, who accounted for 60.3% of the banking system in terms of the balance sheet total at the end of 2020, and for 49.9% of loans to NFCs, 64.7% of housing loans and 60.4% of consumer loans (calculated on the basis of data reported to Banka Slovenije on an individual basis).

also declined sharply, to end the year at 0.1%. The largest slowdown was recorded by consumer loans: slower growth was already evident after the introduction of binding macroprudential restrictions on household lending in November 2019,³⁹ and rates slowed further after the outbreak of the pandemic. The stock of consumer loans has been contracting since May of last year, the year-on-year contraction reaching -7.8% by the end of the year. By contrast year-on-year growth in housing loans remained relatively stable, despite the adverse economic situation and the increased uncertainty; it was down 1 percentage point on the previous year on average, and ended the year at 4.1%.

Figure 1.52: Lending to the non-banking sector



Source: Banka Slovenije

Year-on-year growth in loans to NFCs slowed sharply in 2020, and entered negative territory in the second half of the year. It stood at -1.2% in December. Year-on-year growth in loans to firms in most sectors had become negative by December. One notable exception was accommodation and food service activities, where growth had strengthened most by the end of the year, which meant that the sector made the largest positive contribution to aggregate growth in loans. December also saw positive growth in the electricity supply and water supply sectors, and in the construction sector. The most pronounced move from growth to decline was seen in June, in the wholesale and retail trade sector. Year-on-year growth in loans to SMEs declined in 2020, and was negative from April. Growth in loans to medium-size enterprises was negative and lowest in absolute terms, while growth in loans to small enterprises had turned positive by the end of the year. Year-on-year growth in loans to micro enterprises remained positive throughout the year. Growth in loans to large enterprises also slowed sharply: the year-on-year rate was above 7% between March and May, while year-on-year contraction in loans averaged more than 4% in the final quarter.

Figure 1.53: Contributions to credit growth by sector

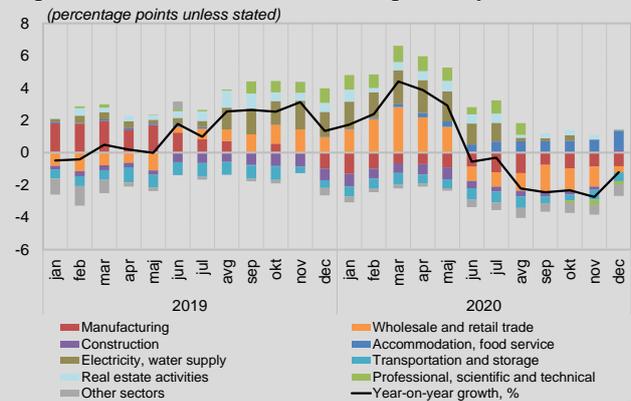
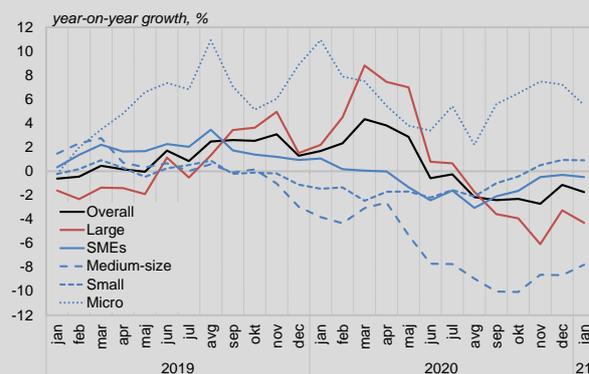
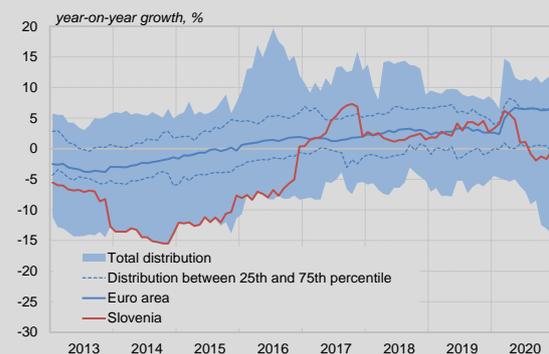


Figure 1.54: Growth in loans to non financial corporations by corporate size



Source: Banka Slovenije

Figure 1.55: Comparison of growth in loans to NFCs between Slovenia and the euro area



Growth in loans to NFCs and growth in consumer loans in Slovenia were among the lowest in the euro area in the second half of last year. The distribution of growth in loans to NFCs across countries widened in 2020, while the increase in the euro area average was driven by higher growth in loans to NFCs in certain large economies (France, Italy, Spain). Alongside Slovenia, six other euro area countries saw negative year-

³⁹ For more, see the box entitled *Macroprudential restrictions on household lending after the introduction of binding measures*.

on-year growth at the end of 2020. Year-on-year growth in loans to households in Slovenia has been below the euro area average since May of last year, albeit solely as a result of the slowdown in growth in consumer loans. The contraction in consumer loans in the second half of the year was one of the largest in the euro area; 11 euro area countries also saw a contraction. In addition to the impact of the pandemic in the general depression of consumption and the decline in consumer confidence,⁴⁰ the contraction was attributable to the macroprudential restriction on household lending and to a base effect caused by the high growth in previous years. Growth in housing loans in the second half of the year followed a similar trajectory to the euro area average (4.3%).

Figure 1.56: Comparison of growth in housing loans between Slovenia and the euro area

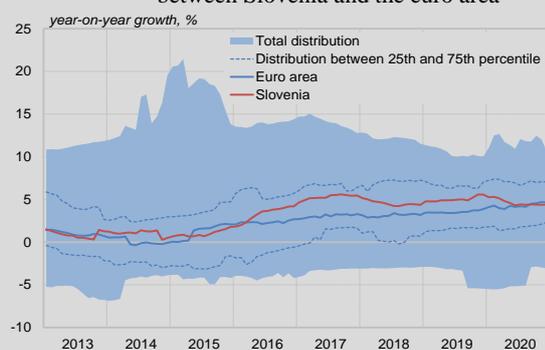
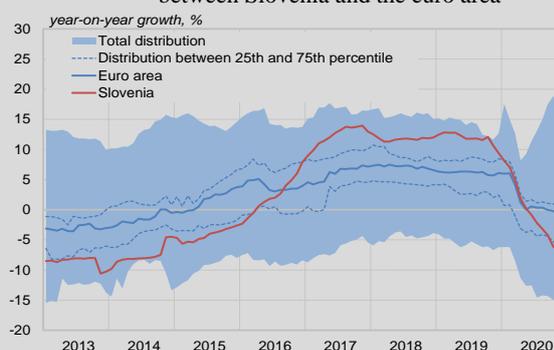


Figure 1.57: Comparison of growth in consumer loans between Slovenia and the euro area



Sources: ECB (SDW), Banka Slovenije, Banka Slovenije calculations

Demand for bank loans

Corporate demand for loans was still increasing in the first half of 2020 according to the BLS, but declined slightly in the second half of the year.⁴¹ Demand for loans declined at large enterprises and at SMEs, for short-term loans and long-term loans alike. The decline in corporate demand for loans in 2020 was confirmed by the survey on the access to finance of enterprises, where firms state that SMEs and also large enterprises reduced their number of applications for bank loans. A large number of banks reported a decline in demand for long-term loans in the BLS, although aggregate demand for loans did not decline further in the final quarter of 2020. The factors highlighted by banks as reducing corporate demand for loans were reduced demand for financing for mergers and acquisition, for corporate restructuring, and for gross fixed capital formation, as a result of the increased uncertainty.⁴² One of the factors that prevented an additional decline in demand in the second half of the year was the need for refinancing and debt restructuring. By contrast, firms state in the survey on the access to finance of enterprises that in recent years (including 2020) the net demand for all types of financing has increased mainly at SMEs, while declining at large enterprises.⁴³

⁴⁰ For more, see the sections on macroeconomic risk and households.

⁴¹ In the survey on the access to finance of enterprises, firms other than large enterprises reported increased need in recent years for all forms of financing, most notably bank financing (a presentation of the survey on the access to finance of enterprises in 2020, conducted by Banka Slovenije in conjunction with SID banka, can be found in Slovene at: <https://bankaslovenije.blob.core.windows.net/publication-files/rezultati-ankete-o-virih-financiranja-podjetij-2020.pdf>).

⁴² In a special survey conducted once a year by Banka Slovenije, the banks were reporting significant changes in trends in corporate demand for loans in the first half of 2020. In the survey the banks highlighted that the changes in the first half of the year were mostly related to the outbreak of the Covid-19 pandemic. Demand declined in the first half of 2020 (by 7.8%). 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. For more, see the October 2020 issue of the Financial Stability Review, available online at: https://bankaslovenije.blob.core.windows.net/publication-files/fsr-oktober-2020_ang.pdf.

⁴³ Presentation of the survey on the access to finance of enterprises in 2020, conducted by Banka Slovenije in conjunction with SID banka.

Figure 1.58: Demand for corporate loans

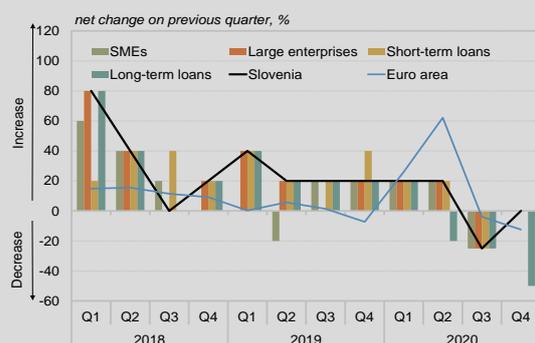


Figure 1.59: Demand for housing loans and consumer loans



Sources: BLS, Banka Slovenije

In the struggling economy, and following the significant decline in household demand for loans in the first half of 2020, demand improved slightly in the second half of the year. The main factors reducing household demand for loans cited by the banks were the government measures to alleviate the impact of the Covid-19 pandemic, and the decline in consumer confidence. Demand for housing loans in the second half of the year was higher than in the second quarter, while demand for consumer loans declined in the final quarter. During the improvement in the epidemiological picture and the economic situation in the third quarter, most banks reported an increase in demand for housing loans and consumer loans, driven by improvements in consumer confidence, the outlook on the residential real estate market, and increased financing of durables.

Supply of bank loans and credit standards at banks

According to the BLS,⁴⁴ credit standards and loan terms⁴⁵ worsened at the majority of banks in 2020. Access to bank loans deteriorated in the first quarter of 2020 in Slovenia, but not until the second half of the year in the euro area overall. Credit standards were tightened for large enterprises and SMEs, and slightly more for long-term loans than for short-term loans. The reasons cited by the banks in the survey were the increased uncertainty brought by the pronounced downturn in the economy and the economic outlook caused by the Covid-19 pandemic, the worsening situation in certain sectors, and the change in the acceptable level of risk⁴⁶ at the banks. Loan terms were also tightened, for large enterprises and SMEs alike, primarily via increased requirements for loan collateral, loan clauses,⁴⁷ the size of the loan or credit line, and an increased margin on high-risk loans.

The firms included in the survey on the access to finance of enterprises are of the opinion that access to bank loans deteriorated in 2020. Large enterprises were more successful than SMEs, albeit less successful than they were in 2019. Firms also assessed the terms of bank financing in 2020 as worse than 2019, highlighting the deterioration in the price terms of financing (the interest rate and other financing costs). Conversely, according to SORS survey figures, access to bank loans did not deteriorate in 2020. The share of firms in retail and construction that assessed access to bank loans as having deteriorated actually declined slightly compared with 2019.⁴⁸

⁴⁴ Credit standards are the internal guidelines and criteria according to which a bank approves a loan. New loans and loans for refinancing are taken into account. Credit standards are established before the actual negotiation of loan terms, and before the actual decision to approve or deny a loan. They define the required attributes of the borrower based on which a loan can be obtained.

⁴⁵ Loan terms refer to the terms of a loan that the bank is willing to approve, i.e. to the terms of the loan actually approved, as stated in the loan agreement concluded by the bank (the lender) and the borrower.

⁴⁶ Acceptable risk denotes the risk level acceptable to the bank and its loan policy, which may evolve as a result of changes in its underlying business strategy (supply-side factors).

⁴⁷ A clause is an agreement or provision in a loan agreement, particularly in a corporate loan agreement, through which the borrower undertakes to take or to continue taking certain action, and is therefore an integral component of the loan terms.

⁴⁸ The figures are available <https://pxweb.stat.si:443/SiStatData/sq/3570> and <https://pxweb.stat.si:443/SiStatData/sq/3569>.

Figure 1.60: Credit standards for corporate loans

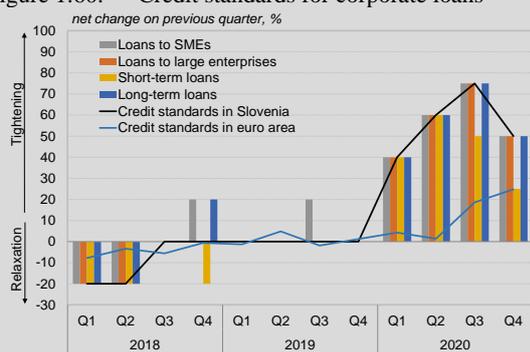
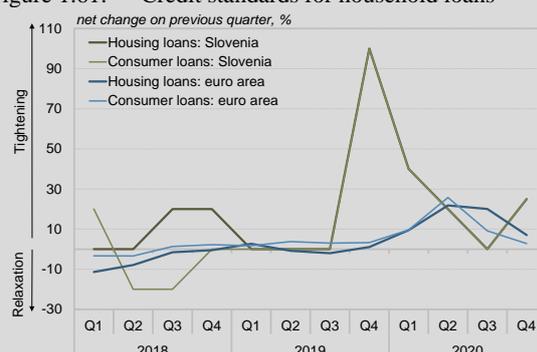


Figure 1.61: Credit standards for household loans



Sources: BLS, Banka Slovenije

The share of banks reporting an additional deterioration in credit standards and loan terms for household loans declined over the year. All banks reported a pronounced deterioration in the final quarter of 2019, as a result of the introduction of binding macroprudential measures. Credit standards for consumer loans and housing loans were tightened slightly further in 2020 because of the Covid-19 pandemic, but the share of the surveyed banks reporting an additional deterioration compared with previous quarters no longer exceeded 50%. The banks additionally highlighted that the tightening of credit standards for housing loans was driven by uncertainty on the real estate market, while for consumer loans they cited the deterioration in the creditworthiness of consumers. An even smaller number of banks reported a deterioration in loan terms for housing loans and consumer loans. The banks that highlighted a deterioration in loan terms mentioned LTV in connection with housing loans, and loan amount, required collateral and margin in connection with consumer loans.

1.4 Risks inherent in the real estate market

The risks inherent in the real estate market in Slovenia are assessed as moderate. They are also expected to remain so in the future. After rising sharply in recent years, residential real estate prices grew more moderately towards the end of 2020. The slowdown in growth was partly attributable to the general adverse impact on the Slovenian economy from the Covid-19 pandemic, and a fall in real estate transactions in the first wave of the pandemic in the spring. Housing loans have also been evolving in line with the more moderate growth in residential real estate prices: growth was more moderate towards the end of 2020. The stock of loans for purposes related to commercial real estate also increased relative to 2019, in a reversal of the trend in new loans for commercial real estate seen in previous years. The Covid-19 pandemic nevertheless hit the commercial real estate market hard, particularly in the sectors most exposed to the pandemic. Grounds for optimism in the real estate market can now be seen on the supply side, namely in construction: in the second half of the year there was a significant rise in the number of issued building permits for residential and non-residential buildings, and business trends in construction also improved at the end of 2020. The banks' exposure to the construction and real estate activities sectors remains low, at just around EUR 0.9 billion.

Developments on the residential real estate market

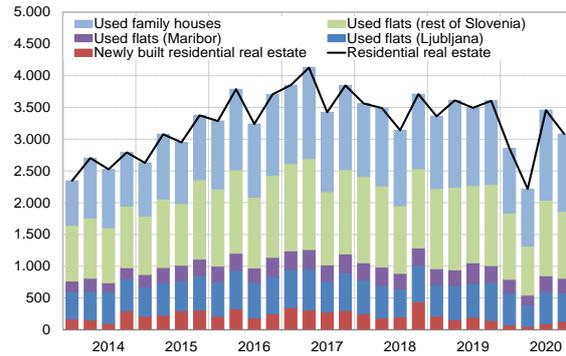
Residential real estate prices continued to rise towards the end of 2020, despite the crisis caused by the Covid-19 pandemic. Year-on-year growth in prices slowed slightly in the third quarter (to 3.3%), before increasing again in the final quarter to the levels seen at the beginning of the year (5.2%). The main impact of the first wave of the Covid-19 pandemic was a fall in the number of transactions in residential real estate, which in the third and final quarters regained its level of 2019. A trend of decline in the number of transactions in newly built residential real estate has also been evident over the last two years.

Figure 1.62: Residential real estate prices



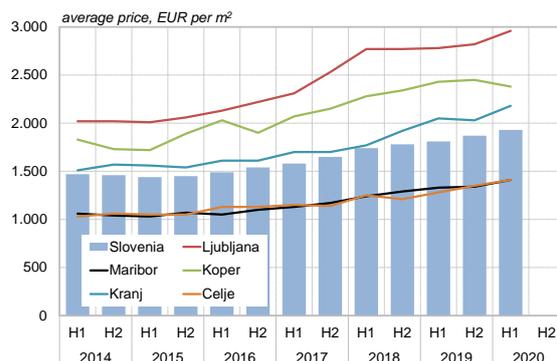
Source: SORS

Figure 1.63: Number of transactions in residential real estate



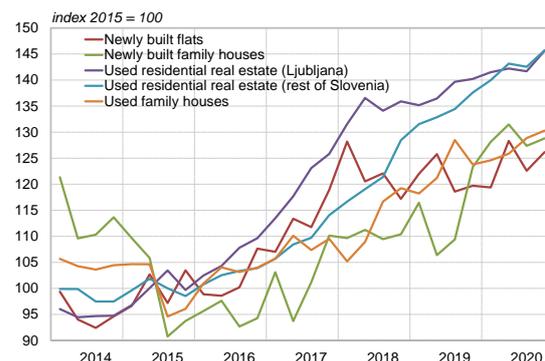
Residential real estate prices have been rising in recent years, irrespective of location and type of property. According to the SMARS figures, prices per square metre on the used residential real estate market rose in the first half of 2020, except in Koper. Ljubljana continued to record the highest prices per square metre. In terms of type of residential real estate, prices of family houses and used flats across Slovenia have risen most over the last three years. In contrast to prices of houses, prices of newly built and used flats in Ljubljana have slowed in the last three years. The rise in prices of family houses came to a halt at the end of 2020, but prices of flats rose slightly in the final quarter.

Figure 1.64: Average prices of used housing across Slovenia and in major towns



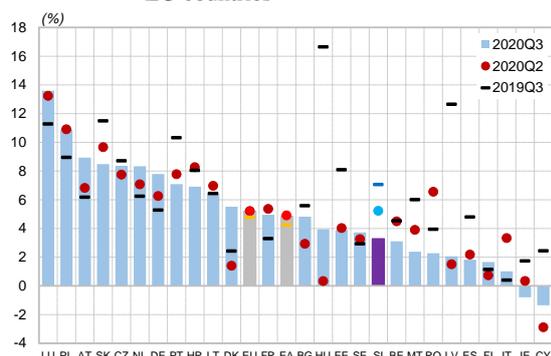
Sources: SMARS, SORS

Figure 1.65: Change in residential real estate prices according to type of property



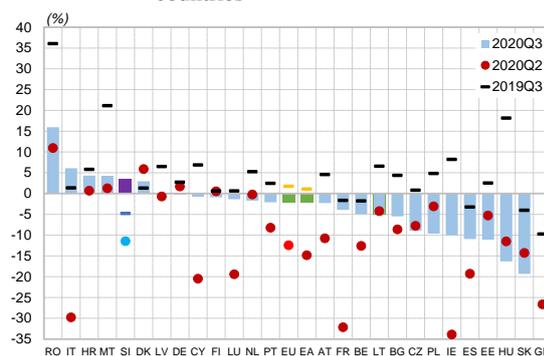
Price dynamics on the residential real estate market in Europe are relatively heterogeneous, although the high growth in prices despite the Covid-19 pandemic warns of an overheating real estate market in the majority of countries. Slovenia's year-on-year growth in residential real estate prices in the third quarter of 2020 (3.3%) ranks it below the euro area average (4.9%) and the EU average (5.2%). Similarly to price growth, year-on-year growth in construction output in the third quarter was also moderate in Slovenia (3.3%), but was at least positive in contrast to the majority of European countries. Year-on-year growth in construction output was negative in the euro area overall and the EU overall, at -2.2%.

Figure 1.66: Growth in residential real estate prices in EU countries



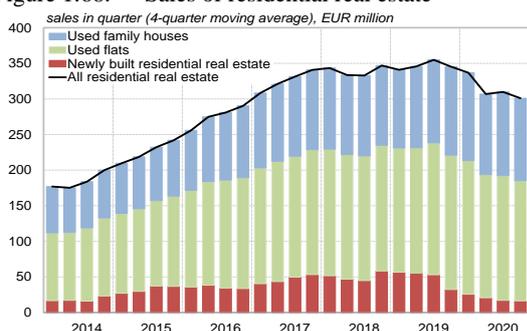
Source: Eurostat

Figure 1.67: Growth in construction output in EU countries



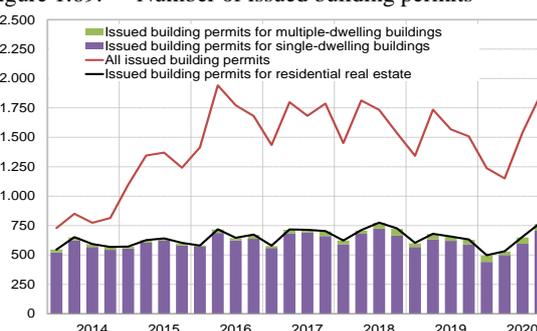
The slowdown in growth in real estate prices towards the end of 2020 can also be attributed to the fall in the number of transactions, which led to a significant decline in sales. The decline in sales in 2020 was primarily reflected in the newly built segment. By contrast, grounds for optimism on the real estate market come from the number of issued building permits (774 in the final quarter of 2020), which took the figure at the end of the year to its highest level since 2018 (775 in the third quarter of 2018), and the second-highest figure of the last ten years. It is also encouraging that the number of issued building permits for multiple-dwelling residential buildings increased in 2020 despite the Covid-19 pandemic, which over the medium term is indicative of the further revival of the residential real estate market.

Figure 1.68: Sales of residential real estate



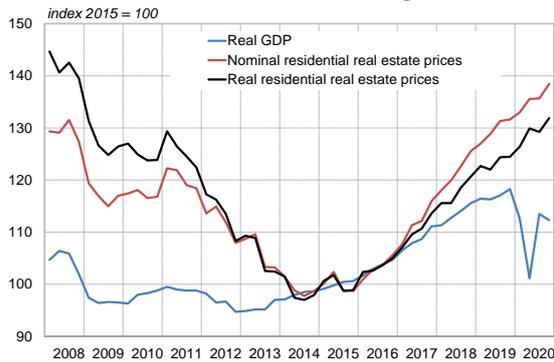
Source: SORS

Figure 1.69: Number of issued building permits



The trend of rising housing prices in Slovenia over the last five years reflects the general growth in GDP and in household disposable income, and the favourable borrowing terms on the bank lending market. However, the price dynamics of residential real estate did not respond particularly to the decline in GDP in 2020, other than through a slowdown in growth. This was partly because household resilience remains relatively high amid the support from the government measures, and housing loans grew at a moderate rate in 2020. The latest figures for construction show that average labour productivity in construction was falling even in 2019, and the Covid-19 pandemic accelerated that trend in the early part of 2020. The construction sector consequently saw a fall in employment during the first wave of the Covid-19 pandemic, which together with the growth in value-added in the second half of the year drove a renewed rise in production in the sector. By contrast, average labour productivity in the real estate activities sector has been declining for the last five years, as growth in value-added is not keeping up with growth in employment in the sector.

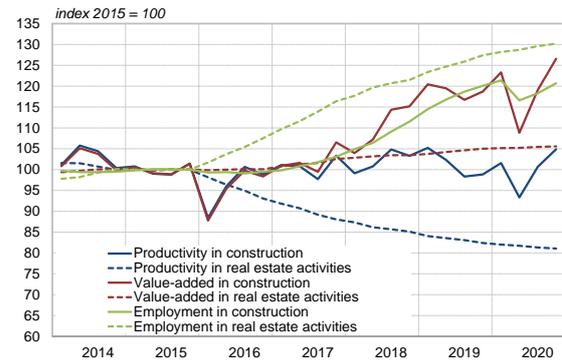
Figure 1.70: Change in real GDP and in nominal and real residential real estate prices



Note: Real residential real estate prices are calculated from nominal residential real estate prices and the HICP deflator. Productivity in construction is defined as average labour productivity relative to value-added.

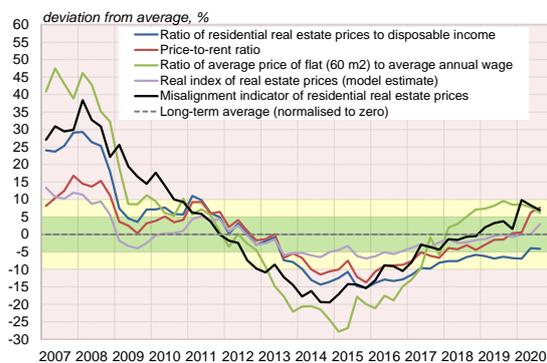
Source: SORS

Figure 1.71: Productivity, value-added and employment in construction



The indicators of housing price alignment with fundamentals mostly suggest that residential real estate prices are close to their long-term averages. It can thus be concluded that there are no signs yet of any overheating on the residential real estate market, as the ratio of residential real estate prices to disposable income and the model-estimated real index of real estate prices are close to their long-term averages, while the price-to-rent ratio and the ratio of the average price of a flat (60 m²) to the average annual wage suggest a slight overvaluation of residential real estate. Similar indications come from the more complex indicator of residential real estate overvaluation; the main drivers of the slight overvaluation are sub-components such as investments in residential real estate, lending capacity and the value of construction put in place.

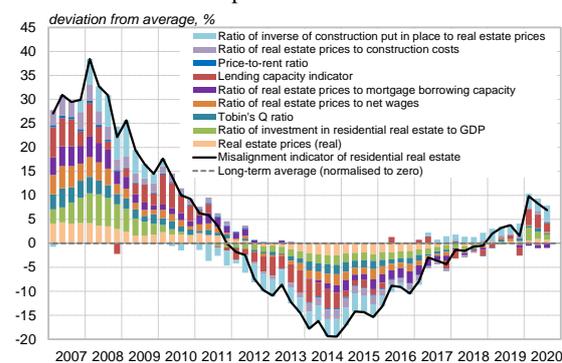
Figure 1.72: Various indicators of overvaluation of residential real estate



Note: The indicators of housing price alignment with fundamentals are normalised around their own long-term averages, which are assigned a value of zero. This provides for a simpler comparison between different indicators, while each indicator's deviation from the long-term average illustrates the overvaluation or undervaluation of residential real estate. The majority of indicators are calculated as the ratio of two different indices, while the calculation of the indicator of overvaluation of real estate follows the methodology set out by Lenarčič and Damjanović (Lenarčič, Č. and Damjanović, M. (2015), Slovene residential property prices misalignment with fundamentals, Banka Slovenije Discussion Papers), while the model-estimated real index of real estate prices follows the methodology that was described in details in the thematic section of the June 2019 issue of the Financial Stability Review. The thresholds of overvaluation are defined such that a deviation of more than 10% (red band) above or below the long-term average represents overvaluation or undervaluation of real estate, while a deviation of between 5% and 10% (yellow band) indicates slight overvaluation or slight undervaluation of real estate. The indicators are aligned with fundamentals if they lie in the green band, i.e. if the deviation from the long-term average is less than 5%. The indicators of overvaluation also differ in terms of observation period. The ratio of the average price of a flat (60 m²) to the average annual wage is taken from the period between Q2 1998 and Q3 2020. The indicator of overvaluation of real estate is taken from the period between Q1 2000 and Q3 2020. The model-estimated real index of real estate prices is taken from the period between Q4 2001 and Q3 2020. The ratio of real estate prices to disposable income and the price-to-rent ratio are taken from the period between Q1 2007 and Q3 2020.

Sources: Eurostat, SORS, SMARS, ECB (SDW)

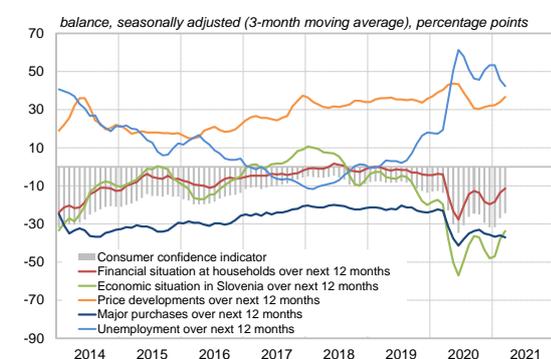
Figure 1.73: Indicator of overvaluation of real estate and subcomponents thereof



Supply and demand on the real estate market

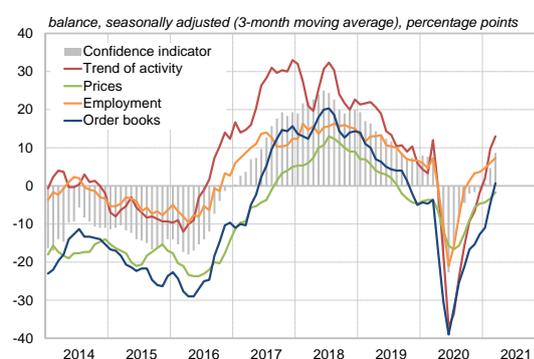
According to the BLS,⁴⁹ demand for residential real estate improved slightly in the second half of 2020, even though consumers generally remain less optimistic with regard to the future state of the economy. Despite the slight improvement during the summer months, the majority of consumer confidence indicators deteriorated again in the second wave of the Covid-19 pandemic in the autumn, although not to the same extent as during the first wave in the spring. Consumers remained most pessimistic in 2020 and early 2021 with regard to the state of the economy and unemployment in Slovenia over the next 12 months. They were less pessimistic in their expectations of price developments, although expectations of major purchases declined in early 2021. In contrast to the consumer indicators, there was no renewed deterioration in the confidence indicators in construction in the second half of 2020 and early 2021. All the sub-indicators of business trends in construction improved compared with the first wave of the Covid-19 pandemic. The optimism in construction is mainly evident in the increase in employment and in the amount of construction put in place, which was driven by the rise in the number of issued building permits, particularly in the second half of 2020. The optimism in construction could also be attributed to the still-favourable price dynamics on the residential real estate market, and the fall in material costs in construction.

Figure 1.74: Consumer confidence



Source: SORS

Figure 1.75: Business trends in construction

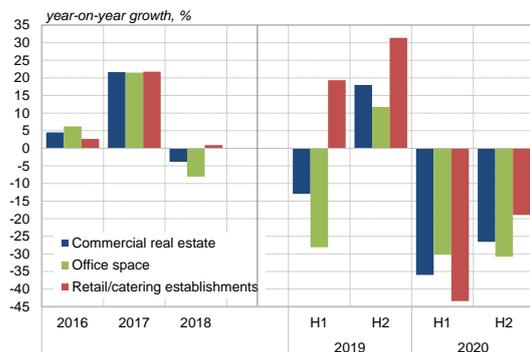


Developments on the commercial real estate market

The commercial real estate market saw a significant fall in transactions in 2020: they were down 31.1% in year-on-year terms. Because accommodation and food service activities was one of the sectors hit hardest by the Covid-19 pandemic, the number of transactions related to retail and catering establishments fell by 31.9%. The number of transactions in office space fell by only slightly less over the same period. The year-on-year decline in transactions amounted to 30.5%. Conversely, the number of issued building permits for non-residential buildings began to rise last year, particularly in the second half of the year, and coincided with a rise in the number of issued building permits for residential real estate. The number of issued building permits increased for all types of non-residential buildings. The largest rises were recorded by industrial buildings, hotels and restaurants, buildings of general social importance, and other buildings. Over the long term, the Covid-19 pandemic might have a segmented and sectoral impact on the structure and portfolio of commercial real estate, particularly in the form of a more flexible rental market. There is nevertheless an expectation that this year's dynamics on the commercial real estate market will be more under the influence of developments in the Slovenian economy as a whole; even amid the encouraging indicators from construction at the end of 2020, a significant proportion of the construction of commercial real estate is still intended for own use.

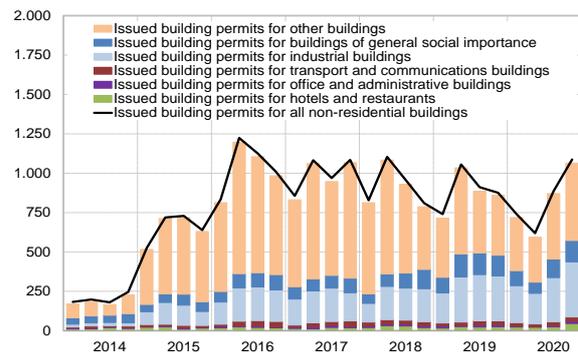
⁴⁹ For more on the results of the BLS, see the box entitled *Credit activity, demand for loans and credit standards* and in the appendix.

Figure 1.76: Transactions in commercial real estate



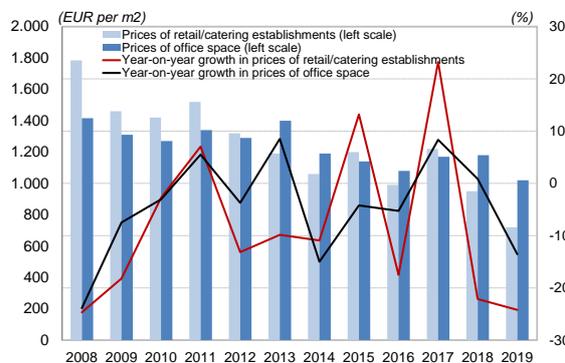
Sources: SMARS, SORS

Figure 1.77: Issued building permits for commercial real estate



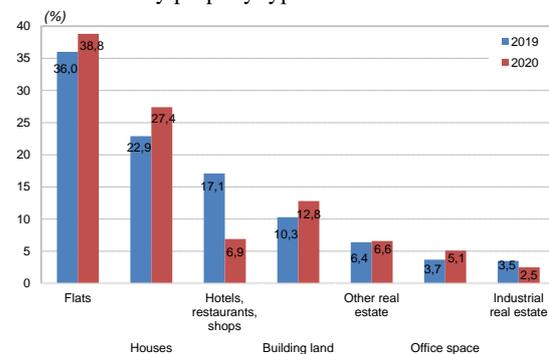
Price dynamics on the commercial real estate market in 2019 were most dependent on sales of office space and retail/catering establishments, while the number of transactions in connection with industrial real estate remained negligible, given that the majority of industrial construction is for own use. Commercial real estate prices were already being affected by the slowdown in the Slovenian economy in 2019: average prices of commercial real estate in 2019 were down 18.8% on 2018, as prices of office space fell by 13.6%, and prices of retail/catering establishments fell by 24.2%. It should be noted that the commercial real estate market in Slovenia remains small compared with the residential real estate market, and consequently is concentrated solely in the major retail centres and the central parts of the largest towns. The reliability of the data could also be called into question, in light of the Covid-19 pandemic and the consequent fall in the number of transactions in 2020. The market typically sees large price fluctuations, while the small number of commercial premises available for rent means that the rental market is extremely competitive.

Figure 1.78: Commercial real estate prices



Source: SMARS

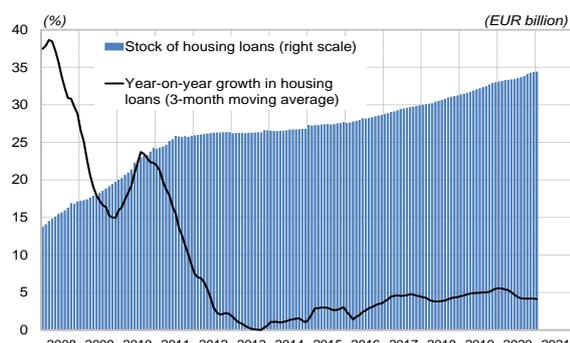
Figure 1.79: Breakdown of total sales (contract value) by property type



Real estate market and the banking system

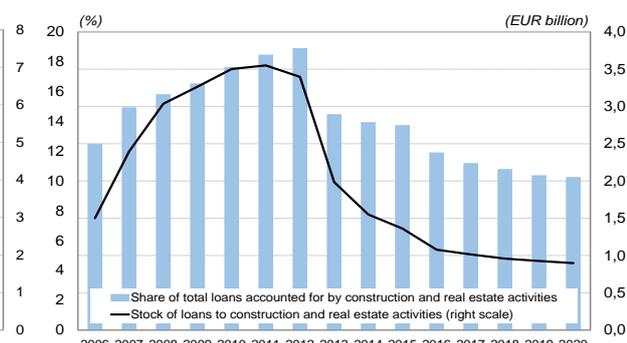
Despite the improvement in the majority of indicators in the construction sector, bank exposure to the sector remains relatively low. The stock of loans earmarked for the construction sector and the real estate activities sector amounted to EUR 0.9 billion at the end of 2020. The share of total loans to NFCs accounted for by construction and real estate activities at the end of 2020 conversely remained unchanged compared from a year earlier at 10.2%. Growth in housing loans remains moderate (a year-on-year rate of 4.2% in the final quarter of 2020), and reflects the dynamics in the majority of indicators on the residential real estate market. 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. The stock of housing loans amounted to almost EUR 6.9 billion at the end of 2020.

Figure 1.80: Stock of and growth in housing loans



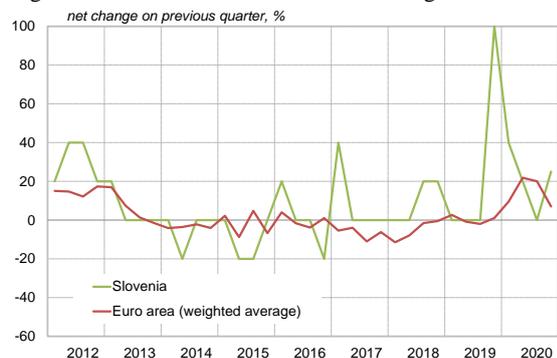
Source: Banka Slovenije

Figure 1.81: Stock of loans to the construction and real estate activities sectors



The pressure to further tighten credit standards on new housing loans reduced slightly in the second half of 2020 year compared with the first half of the year 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 is also not declining. The LTV for new housing loans in the final quarter of 2020 stood at 67.9%, unchanged from the third quarter.⁵⁰

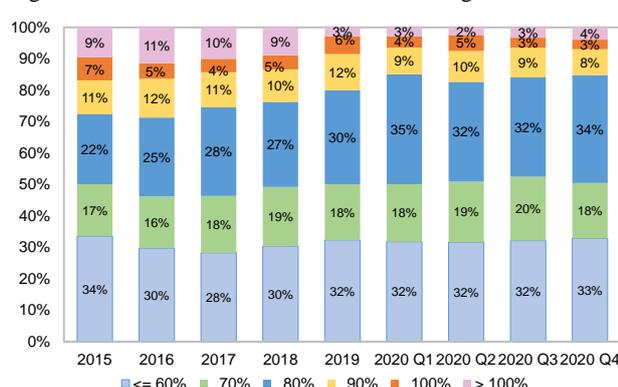
Figure 1.82: Credit standards for housing loans



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: Banka Slovenije, ECB (SDW)

Figure 1.83: Distribution of LTV for housing loans

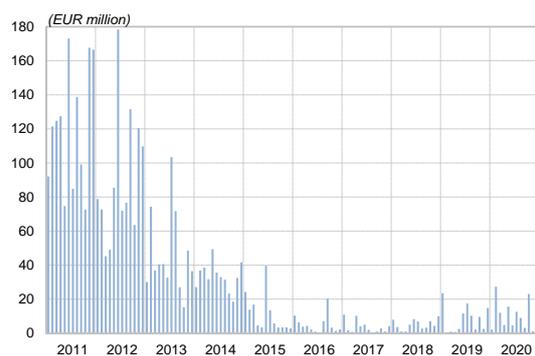


The stock of bank loans for commercial real estate increased slightly in 2020 relative to the previous year. The stock of loans for commercial real estate amounted to EUR 159 million in December 2020, up just over EUR 61 million in year-on-year terms. The increase was driven by a slight increase in new loans for commercial real estate over the year, which averaged EUR 10 million per month (compared with just EUR 8 million per month in 2019). The second wave of the Covid-19 pandemic in the autumn also had no major impact on this segment. 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. The majority of loans for commercial real estate are still variable-rate. Some 96% of all loans for commercial real estate were variable-rate at the end of 2020, and all loans were euro-denominated. In parallel with the increase in the stock of loans in 2020, there was also an increase in average loan maturity: more than half of loans for commercial real estate have an original maturity of more than three years.⁵¹

⁵⁰ The LTV relates to all loans secured by residential real estate collateral.

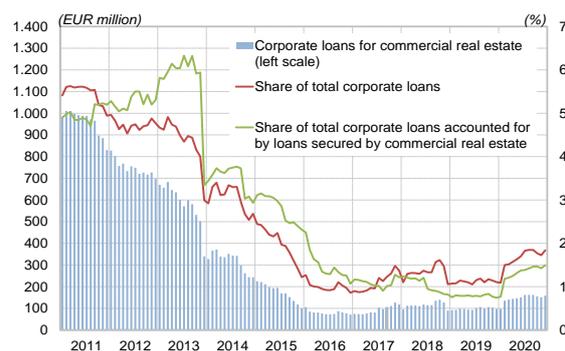
⁵¹ The average loan maturity is around five years.

Figure 1.84: New loans for commercial real estate



Source: Banka Slovenije

Figure 1.85: Stock of loans for commercial real estate



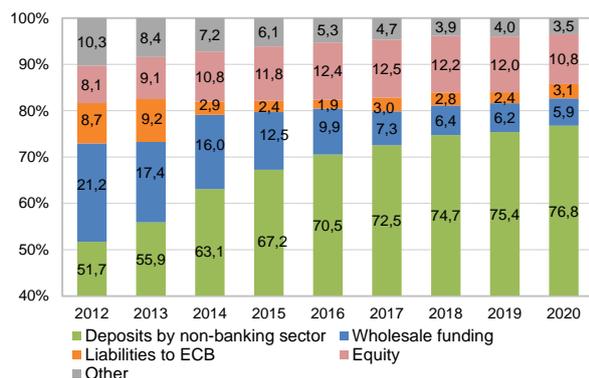
1.5 Funding risk

The official declaration of the Covid-19 pandemic and the resulting economic shock did not cause major instability in the funding of the banking system. On the contrary, as a result of the decline in consumption and, in part, the financial assistance from the government, there was a sharp increase in household deposits, one of the key sources of funding for Slovenian banks. NFCs' placements at banks also increased to record levels, most likely driven by the desire to ensure sufficient liquidity for current operations amid the uncertainty. Our assessment is that funding risk nevertheless remains moderate, given that the maturity mismatch between assets and liabilities remains large, owing to the still-rising stock of sight deposits. A sudden major switching of deposits between banks or major withdrawals from the banking system could reduce the stability of bank funding, but our assessment is that their good liquidity position would allow the banks to absorb the negative effects that this would generate. The introduction of custody fees (negative interest rates) on household deposits at banks could lead to minor switching of deposits between banks. Careful monitoring and potential adaptation to the state of competition in the future will also play a significant part in the stability of bank funding.

Bank funding

Deposits by the non-banking sector, most notably household deposits and deposits by NFCs, increased sharply after the declaration of the pandemic, while the banking system's reliance on other funding remained low. Deposits by the non-banking sector increased by 10.3% in 2020 to EUR 34.3 billion, equivalent to 76.9% of the banking system's total funding. The banks also paid down debt to banks in the rest of the world in 2020, while liabilities from issued debt securities increased, albeit only at certain banks. Our expectation is for a similar trend to continue in the future, as given the large liquidity surplus and their low lending the banks have no need for additional borrowing on the financial markets at less favourable prices. The banking system's low dependence on wholesale funding reduces the chances of the transmission of any adverse developments on the international financial markets to the funding of Slovenian banks. Despite the more favourable terms, Slovenian banks' participation in longer-term refinancing operations in the Eurosystem also remained modest. Liabilities to the Eurosystem increased by EUR 397 million in 2020 to EUR 1.4 billion, but their share of total funding on the banking system balance sheet remained low, at 3.1%.

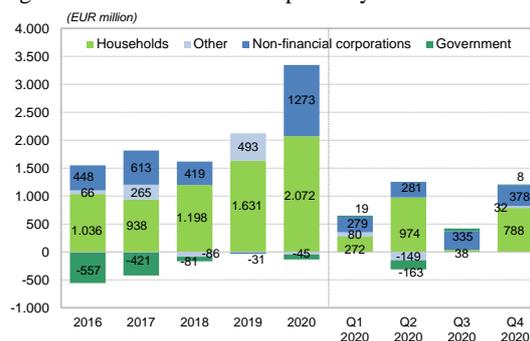
Figure 1.86: Structure of bank funding



Note: Wholesale funding comprises liabilities to banks in the rest of the world and issued debt securities.

Sources: Banka Slovenije, ECB

Figure 1.87: Increase in deposits by sector

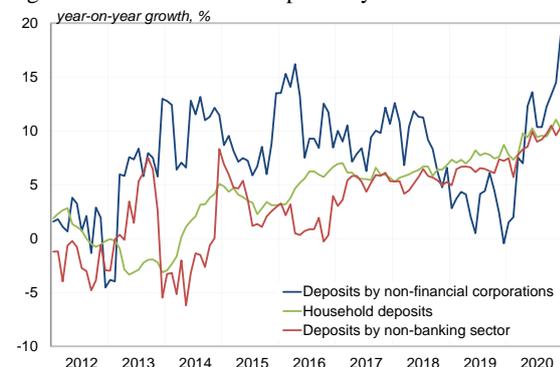


Household deposits increased most markedly during the spring and autumn waves of the pandemic, and remained the key source of funding for the banking system. Household deposits increased by 10.2% or EUR 2,072 million in 2020 to EUR 22.4 billion, half of the balance sheet total. The increase in deposits was particularly sharp in the second quarter and the final quarter, when opportunities to invest and spend were limited, given the deterioration in the epidemiological situation and the resulting shutdown of certain economic sectors. The rise in deposits in certain periods can also be attributed to seasonal effects, the payment of leave allowance in spring and bonuses at the end of the year, and, in part, the government assistance in the form of cash payments to alleviate the impact of the Covid-19 pandemic.

Deposits by NFCs underwent a record increase following the declaration of the Covid-19 pandemic. The stock of deposits by NFCs increased by 18.8% or EUR 1.3 billion in 2020 to EUR 8.0 billion, the largest annual increase in real and nominal terms since 1998. The pronounced increase in deposits by NFCs can be attributed to precautionary behaviour in the uncertain situation, and the need to ensure sufficient liquidity for current operations. To this end credit lines that had been previously approved were drawn down by certain NFCs as soon as the pandemic was declared, and the funds were left on bank accounts.

The expectation is that growth in household deposits and deposits by NFCs will slow when the emergency measures are lifted and the economy recovers. The gradual opening of all economic sectors will increase the opportunities to spend and to carry out postponed investments, which will lead to a reduction in households' savings. Furthermore, there could also be a downturn on the labour market after the government's job preservation measures expire, which will reduce the chances of new savings flowing into the banks. Households, and most likely NFCs too, will gradually earmark the savings for new investments or for investments that were postponed during the pandemic, and for their own liquidity needs. The NFCs that were hit hardest by the current economic crisis are also expected to reduce their holdings in accounts at banks.

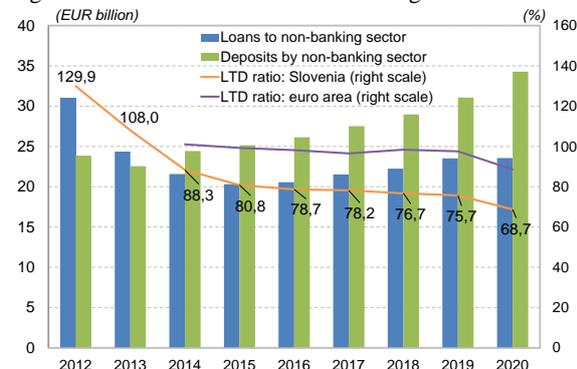
Figure 1.88: Growth in deposits by sector



Note: The right figure illustrates the LTD figures for the euro area on a consolidated basis; data is available for 2014 to September 2020.

Sources: Banka Slovenije, ECB (SDW)

Figure 1.89: LTD ratio for non-banking sector

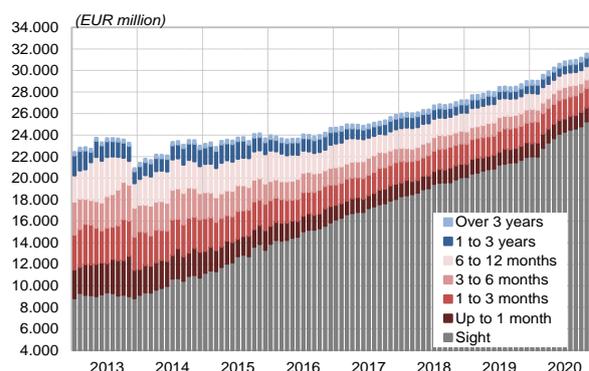


As a result of the high growth in deposits by the non-banking sector and the simultaneous decline in loans, the LTD ratio for the non-banking sector declined by more than in previous years. It stood at 68.7% in December, having declined by 7 percentage points over the course of the year. The low LTD ratio indicates that the banks could already finance all of their lending activity through deposits, and that their dependence on other forms of funding is low. Although the LTD ratio also declined in almost all other euro area countries as a result of an increase in deposits, Slovenia continues to be ranked among the countries with the lowest LTD ratios.⁵²

Deposit maturity and maturity gap between assets and liabilities

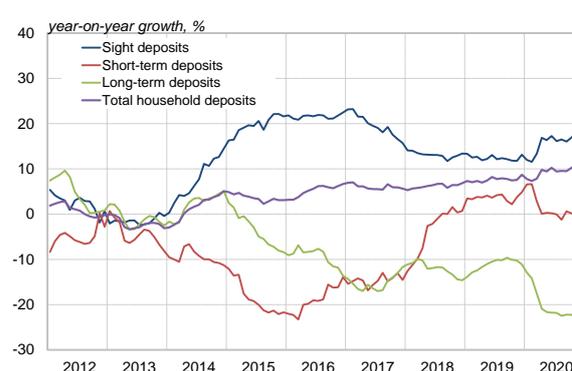
The uncertain situation caused by the Covid-19 pandemic and the low interest rates are deterring savers from fixing deposits at banks, as a result of which sight deposits have strengthened sharply, while fixed-term deposits have declined. The proportion of total deposits by the non-banking sector and total household deposits accounted for by sight deposits increased by 5 percentage points to record highs of 78.3% and 82.9% respectively. Short-term household deposits had been gradually increasing from the end of 2018, but began to decline again after the outbreak of the pandemic. The decline in long-term deposits also strengthened. In these uncertain times savers are even more cautious, and want to ensure that they are able to use their savings at banks immediately in the event of need. At the same time the build-up of sight deposits by certain savers is merely temporary, and with the gradually reopening of the economy they will be redirected into investments planned before the pandemic, and into spending. Given the uncertain situation, the proportion of sight deposits is expected to continue increasing. Future increases in sight deposits might also be driven by the introduction of custody fees at certain banks, particularly if the custody fees are introduced for sight deposits and fixed-term deposits alike. Otherwise the potential introduction of custody fees for sight deposits alone could encourage savers with large savings to fix their deposits.

Figure 1.90: Stock of deposits by the non-banking sector by residual maturity



Source: Banka Slovenije

Figure 1.91: Growth in household deposits by maturity



Box 1.3: Analysis of household deposits in the wake of the announcement of custody fees by certain banks⁵³

Banks charge fees for holding the savings of major savers such as NFCs, the government and OFIs, while some have already introduced custody fees for individual customer deposits, or are intending to introduce them in 2021. Household deposits at banks increased sharply during the Covid-19 pandemic. Savers are leaving their savings in accounts at banks, who amid the decline in lending are in turn mainly placing them with the central bank, where the large surplus is still being charged negative interest rates.

According to the banks' current announcements, custody fees will be introduced for savers with large savings. The individual banks that have decided to introduce fees for individual customer deposits⁵⁴ have

⁵² A comparison with euro area countries was made using the latest data for September 2020. Slovenia was ranked sixth among the countries with the lowest LTD ratios.

⁵³ Banka Slovenije published analysis in February 2020 entitled *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), in which Banka Slovenije staff examined the potential introduction of custody fees from the perspective of the behaviour of customers and banks.

announced that fees will only be charged to those individual customers whose total deposits exceed a predetermined limit. The announced limit varies from bank to bank, but is no lower than EUR 100,000 at any bank at the time of writing. Analysis of the latest data⁵⁵ revealed that only 1.1% of all individual banking customers who hold savings at banks have savings of more than EUR 100,000 at an individual bank. Their total deposits amounted to EUR 4.9 billion, or almost 22.6% of total individual customers` deposits in the banking system. The proportion of individual customers` deposits accounted for by holdings in excess of EUR 100,000 increased relative to 2019, as a result of the pronounced increase of household deposits at banks, which has already been examined in this section.

Figure 1.92: Breakdown of stock of individual customers` deposits by size of holdings

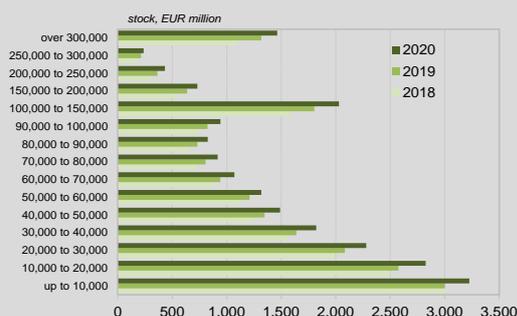


Figure 1.93: Breakdown of stock of deposits and number of individual customers by size of holdings



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

Source: Banka Slovenije

More than three-quarters of all individual customers` deposits in the banking system were covered by the bands up to EUR 100,000, while the breakdown across individual bands varies from bank to bank. The number of people with holdings of more than EUR 100,000 ranges from 0.8% to 3.0% of all customers of the individual bank. Given the variation in the stock of deposits above the aforementioned value and the number of customers whose holdings exceed it, the average value of deposits in excess of EUR 100,000 also varies from bank to bank; it averaged EUR 181,268 across the banking system. The average holding of deposits by an individual at the level of the banking system stood at EUR 9,069 in 2020, up more than EUR 1,000 on 2019.

⁵⁴ In this box the term "deposit" means all savings that an individual personal banking customer holds with an individual bank (current account balances, regular savings accounts, savings accounts, fixed-term deposits and other forms of saving).

⁵⁵ The analysis is based on data for 2018 and 2019, which the banks report to Banka Slovenije in accordance with the Regulation on the deposit guarantee scheme (Official Gazette of the Republic of Slovenia, Nos. 49/16, 27/17 and 139/20), and which covers eligible deposits of depositors as defined in Article 9 of the Deposit Guarantee Scheme Act (Official Gazette of the Republic of Slovenia, No. 27/16). The nomenclature for the forms of deposits used in the analysis complies with Appendix IV of the Regulation on the deposit guarantee scheme (Official Gazette of the Republic of Slovenia, Nos. 49/16, 27/17 and 139/20). The analysis does not distinguish between sight deposits and other types of deposit. According to the experience of custody fees in other countries, banks may introduce them either for all deposits, or for sight deposits alone.

Figure 1.94: Breakdown of stock of individual customers' deposits by size of holdings at individual banks in 2020

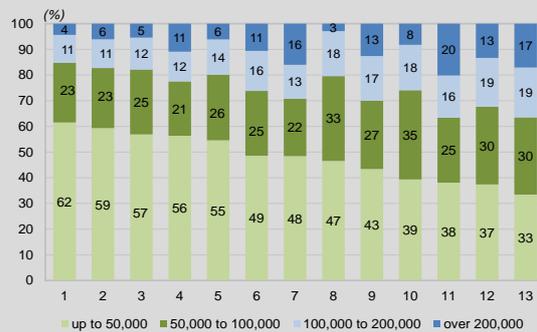
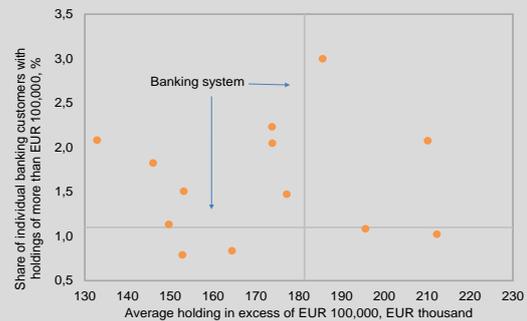


Figure 1.95: Share of individual customers with holdings of more than EUR 100,000 versus average holding in excess of EUR 100,000 in 2020



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

Source: Banka Slovenije

Savers are able to hold funds at banks in a variety of forms. More than half of the individual customers' savings in the banking system were in current accounts in 2019, the prevailing form of saving at the majority of banks. Certain banks are nevertheless notable for particular forms of saving, which is most likely the result of the better terms offered by the banks for these forms of saving. The banks that have the largest shares of individual banking customers with holdings of more than EUR 200,000 are notable for a higher level of savings in the form of deposits compared with other banks.

Figure 1.96: Breakdown of individual banking customers' savings in the banking system by form of saving



Source: Banka Slovenije

Figure 1.97: Breakdown of individual banking customers' savings at individual banks by form of saving in 2020



As in Slovenia, household deposits in other euro area countries also increased in the aftermath of the declaration of the Covid-19 pandemic. Last year's growth in household sight deposits in the Slovenian banking system of 16.7% outpaced the euro area average by 4 percentage points. Slovenia is one of the top five countries in the euro area in terms of the highest ratio of household deposits to the balance sheet total, with sight deposits dominating its household deposits. This means that Slovenia is more exposed to funding risk in the event of any instability in funding of this form than countries where the proportion of household sight deposits is high, but their ratio to the balance sheet total is lower.

Figure 1.98: Proportion of household deposits accounted for by sight deposits by euro area country

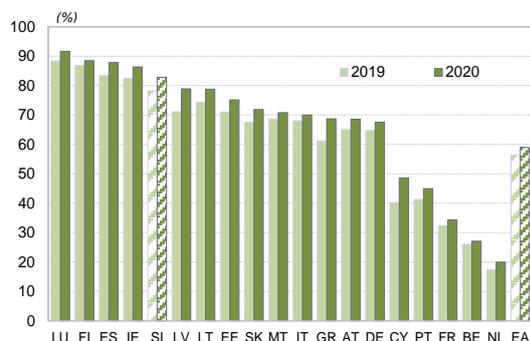
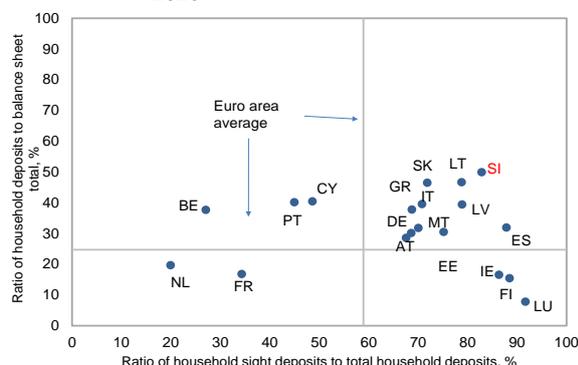


Figure 1.99: Proportion of household deposits accounted for by sight deposits versus ratio of household deposits to balance sheet total in individual euro area countries, December 2020



Sources: Banka Slovenije, ECB (SDW), euro area statistics, Banka Slovenije calculations

The maturity gap remains a potential source of instability in the funding of individual banks in the event of sudden major switching of deposits, although it is assessed that the likelihood of this risk being realised in the near future is low. In contrast to previous years, the maturity gap between assets and liabilities narrowed in 2020, but nevertheless remained relatively large. It declined by 4 months to 4.6 years, which is still almost 14 months more than in 2013, when the period of rapid growth in sight deposits began. The narrowing of the gap was driven mainly by the decline in short-term and long-term loans, while the growth in sight deposits continued. 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 realisation of funding risk did not occur in the economic shock caused by the Covid-19 pandemic, and deposits by the non-banking sector remained a stable source of bank funding. The introduction of custody fees for household accounts, which has been announced at certain banks, could lead to minor switching of savers' funds between banks. The banks are not expected to have any major issues, given their high liquidity surplus. In the future the banks' funding stability will depend heavily on their prompt response to market changes and the behaviour of competitor banks.

Figure 1.100: Weighted average maturity of assets and liabilities, and maturity gap

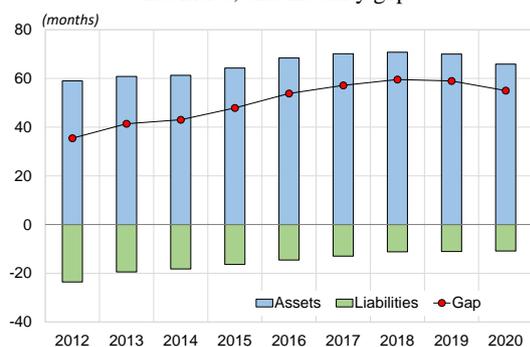
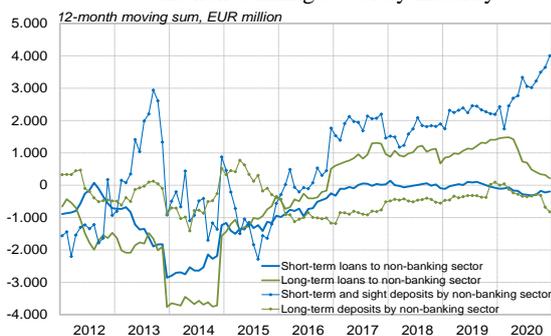


Figure 1.101: Net increases in deposits by and loans to the non-banking sector by maturity



Note: Loans to the non-banking sector solely include loans at amortised cost.
Source: Banka Slovenije

Box 1.4: Potential issuance of a digital euro and its impact on financial stability⁵⁶

In recent years more and more central banks have been examining the potential introduction of a central bank digital currency (CBDC)⁵⁷ and its impact on the performance of the banking sector, the execution of payment services, monetary policy and financial stability. In early 2021 the BIS⁵⁸ published report which revealing that the number of central banks exploring a CBDC had risen again compared with previous years. In October 2020 the ECB published a report on the possibility of issuing a digital euro.⁵⁹ The report on a digital euro addresses a number of potential scenarios that could prompt the Eurosystem into issuing a digital euro. From the perspective of financial stability, the important ones are a decline in the use of cash, and increased demand for global stablecoins or foreign CBDCs. Table 1.2 summarizes the scenarios that might prompt the Eurosystem to issue a digital euro, and the requirements that a digital euro would have to satisfy.

Table 1.2: Reasons for issuing a digital euro: potential scenarios and requirements for its implementation

Scenario	Implied requirements
The desire to increase digital efficiency	The digital euro should keep pace with state-of-the-art technology at all times in order to maintain usability, speed and cost effectiveness. The digital euro should support the digitalisation of the European economy and the strategic independence of the EU.
There is a significant decline in the role of cash as a means of payment	In response to a decline in the use of cash, the Eurosystem could introduce a digital euro as an additional form of public money. The digital euro would thus acquire cash-like features.
Digital money becomes a credible alternative as a medium of exchange and as a store of value in the euro area	The digital euro should have features that are at the technological frontier, and should provide functionalities that are an alternative to cryptocurrencies and CBDCs available on the market. This would increase the competitiveness of the digital euro compared with other cryptocurrencies (such as stablecoins).
An increase in the need for or benefits of digital currencies being used for monetary policy purposes	The digital euro should be remunerated at interest rates that the central bank can modify over time. In this way it could serve as a tool for improving the transmission of monetary policy.
A cyber incident, natural disaster, pandemic or other extreme event hinders the provision of payment services	The digital euro should be widely available and transacted via resilient infrastructure that is separate from existing payments infrastructure.
The desire to enhance the international role of the euro	The digital euro should be potentially accessible outside the euro area in a way that is consistent with the objectives of the Eurosystem and convenient to non-euro area residents (see point 3).
An increased focus on environmental risks	The design of the digital euro should achieve a reduction in the cost of the current payments ecosystem, and be based on technological solutions that minimise its ecological footprint (mitigation of environmental risks).

Sources: ECB,⁶⁰ Banka Slovenije

In the potential issuance of a digital euro it is also necessary to assess the effects and the risks relating to supervision of the digital euro in circulation. Here the main impact is on the banking sector, monetary policy and financial stability. The potential difficulties or inconsistencies in the issuance of a digital euro could also entail a risk to the reputation of the Eurosystem, could reduce the security and effectiveness of retail payments, and could adversely affect the cyber resilience of the wider financial sector. The digital euro should be designed so as to avoid potential undesirable consequences of its issuance, thereby limiting any adverse effects on monetary policy and financial stability, and on the provision of services by the banking sector. The excessive use of the digital euro as a form of investment could increase the risk of sudden large transferring from bank deposits to the digital euro.

The concrete design choices for the digital euro will depend on the legal basis for issuing the digital euro. EU primary law⁶¹ does not exclude the possibility of issuing the digital euro as legal tender, which would consequently require payees to accept it for payments. The distribution of the digital euro to end users and the execution of payment services with the digital euro could be outsourced, but would need to be subject to strict Eurosystem supervision.

⁵⁶ This paper is based on the report on a digital euro released by the ECB in October 2020.

⁵⁷ The [Banka Slovenije](https://www.bankaslovenije.si/en/evrosistem/evrosistem) website gives a definition of a CBDC: a digital form of fiat currency issued by central banks, with recognised status as legal tender. It represents a potential response to the challenges posed by digitalisation. It is complementary to cash, which grants households and industry universal access to a lawful means of payment in digital form.

⁵⁸ The report entitled *Impending arrival – a sequel to the survey on central bank digital currency* is available online at: <https://www.bis.org/publ/bppdf/bispap114.pdf> (published January 2021).

⁵⁹ The Report on a digital euro is available online at: https://www.ecb.europa.eu/pub/pdf/other/Report_on_a_digital_euro~4d7268b458.en.pdf (published October 2020).

⁶⁰ See footnote 56.

⁶¹ If the digital euro were to be issued as an instrument of monetary policy, similar to central bank reserves, and only accessible to central bank counterparties, then the Eurosystem could invoke, as the legal basis, Article 127(2) of the TFEU.

The potential issuance of a digital euro gives rise to the following risks to financial stability:

- In crisis situations, when savers have less confidence in the whole banking sector, liquid assets might be shifted very rapidly from commercial bank deposits to the digital euro. This could increase the risks in banking operations, and have an impact on the commercial banks' balance sheets. Here the key in the event of the introduction of a digital euro would be to maintain the intermediary role of the commercial banks in its distribution, for example stabilizing deposits by bundling them with additional services (such as payment services and loans).
- A decline in the (previously) stable source of funding (deposits) could drive structural changes in the banking sector. This would mean that the banks have to rely on more expensive market funding, which would hit their profitability. This would also make household and corporate lending more expensive. In the desire to compensate for higher financing costs and to maintain profitability, the banks might begin taking up greater risks.

The digital euro would have positive effects on financial stability. While the replacement of bank deposits by the digital euro could pose a risk to financial stability, the maturity of deposits in the banking system would be lower if banks replaced the withdrawn deposits with liabilities with longer maturities, which would mitigate financing risk. The digital euro could provide real-time information about the behaviour of depositors, and thus the risks to financial stability. With this information, the Eurosystem could take faster action in the event of increased risks to financial stability (e.g. through recommendations to national central banks). In particular the digital euro might be used as an alternative to cryptocurrencies or stablecoins, and prevent the large-scale flight of deposits into higher-risk forms of asset or non-bank money.

The realisation of any of the aforementioned scenarios poses additional risks to financial stability, even if the Eurosystem does not issue a digital euro. Relying on private non-bank money (such as electronic money or global stablecoins) poses serious challenges to financial stability, as it could have an adverse impact on the commercial banks' intermediary role. Financial institutions' exposure to alternative means of payment and their role in ecosystems could become a significant source of market risk, credit risk and operational risk. Should the Eurosystem not issue a digital euro, demand for global stablecoins and foreign CBDCs could be even greater. To mitigate the potential risks to financial stability, it is also vital to define what supervision of transactions in the digital euro outside the Eurosystem will be put in place, even before the digital euro is issued.

The report on a digital euro provides a basis for activity in the research phase of the digital euro project, which is expected to begin in June 2021. Before the actual project is initiated, it is necessary to carry out a practical examination that in particular includes technical feasibility and the ability to satisfy the requirements of potential users. In addition to conceptual analysis and practical experimentation by the Eurosystem, a proper communications strategy will be vital in satisfying the expectations of all prospective stakeholders in the digital euro. The introduction of a digital euro is above all a political decision. Even before the issuance of a digital euro, it is necessary above all to review and assess the extent to which supervised intermediaries and prospective users would favour a digital euro, and under what conditions they would be willing to use it.

1.6 Interest rate risk

There was no change in the banks' interest sensitivity overall in 2020, and interest rate risk thus remains moderate. The average repricing periods for asset and liability interest rates were stable, which meant that the repricing gap also remained stable. The cumulative interest rate gap up to one year declined relative to the previous year, but remained strongly positive, meaning that any rise in market interest rates in the one-year horizon would have a positive impact on the banks' net interest income. The average maturity shortened slightly for new household loans in 2020, but lengthened slightly for loans to NFCs. The proportion of new loans with a fixed interest rate declined in both portfolios. Interest rates on new long-term loans to the non-banking sector fell slightly further in 2020, thereby improving the financing conditions for all sectors of the economy.

Interest sensitivity

Despite the decline in lending to the non-banking sector, the pronounced growth in the banks' most-liquid assets, and the increased inflow of sight deposits, there was no significant change in the banks' interest sensitivity overall in 2020, and interest rate risk thus remains moderate. The proportion of total assets accounted for by loans to the non-banking sector declined in 2020, while the proportion accounted for by highly liquid assets, such as cash on hand, balances at the central bank and sight deposits at banks,

increased significantly. The average repricing period for asset interest rates was stable in 2020, and was unchanged from the previous year overall; it lengthened for loans to the non-banking sector, but was little changed for the most-liquid assets with short maturities. On the liability side, the proportion of liabilities to the non-banking sector continued to increase, particularly sight deposits, growth in which picked up further pace in 2020. The average repricing period for liability interest rates across the banking system nevertheless remained similar to 2019, or actually lengthened very slightly if the stability of the core component of sight deposits is taken into account. The repricing gap taking account of the stability of the core component of sight deposits thus remained negative, increasing slightly in absolute terms relative to 2019. In the event of a rise in market interest rates, asset interest rates would adjust faster than liability interest rates, and the impact on the banks' net interest income would be positive.

Figure 1.102: Comparison of repricing gaps including off-balance-sheet items

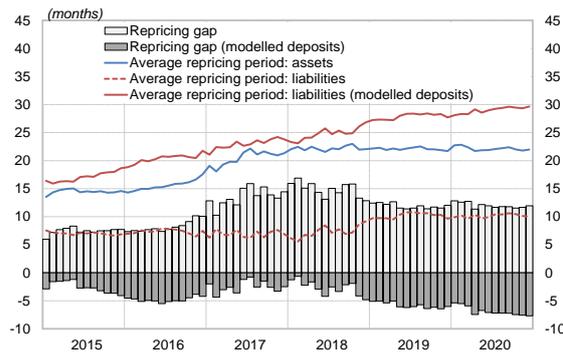
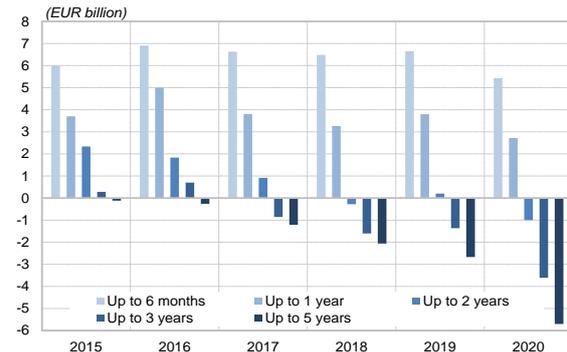


Figure 1.103: Cumulative interest rate gap



Note: The left figure takes account of a sight deposit stability of 89%⁶² with the allocation of the core component of sight deposits across intervals (modelled deposits), derivatives hedges, and amortisation schedules. The right figure takes account of a sight deposit stability of 89% with the allocation of the core component of sight deposits across intervals (modelled deposits).

Source: Banka Slovenije

The cumulative interest rate gap up to one year in 2020 declined relative to the previous year, but remained strongly positive. The stability of the core component of sight deposits and their distribution across longer maturity buckets is the main factor in the positive cumulative interest rate gap up to one year. Almost two-thirds of sight deposits have an effective maturity⁶³ of longer than one year, which means that in the event of a change in market interest rates this proportion would not be withdrawn within a year. Another significant factor in the positive cumulative interest rate gap up to one year was on the investment side, where two-thirds of assets have an average maturity of up to one year. The gap over the horizon up to two years has turned negative, while the negative gap over longer horizons increased further in absolute terms, primarily as a result of higher weights in the allocation of sight deposits across these intervals. Because the interest-sensitive position is that there are more interest-sensitive assets than liabilities in the horizon up to one year, in the event of a rise in market interest rates the banks' interest income would rise more than their expenses.

⁶² The stability of sight deposits is estimated by means of a model, which provides an estimate of the core component of sight deposits. The core 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.

⁶³ 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 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.

Figure 1.104: Breakdown of the banking system’s balance sheet: asset side

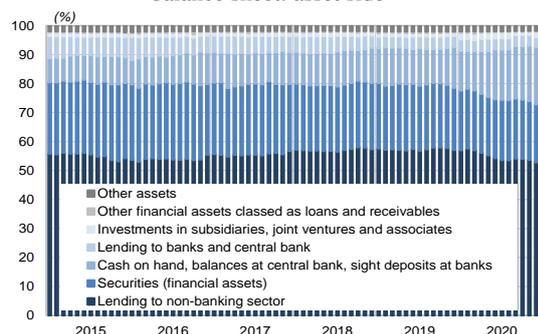
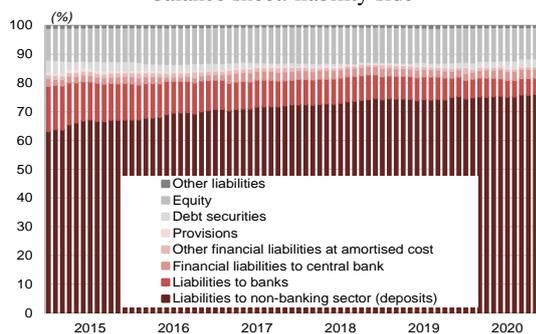


Figure 1.105: Breakdown of the banking system’s balance sheet: liability side



Source: Banka Slovenije

Developments in loan maturity, proportion of fixed-rate loans, and interest rates

The average maturity of new household loans shortened in 2020, while the proportion with a fixed interest rate declined. The average maturity of new fixed-rate housing loans passed 18 years in 2019, and lengthened further last year, while that of variable-rate loans shortened. Fixed-rate loans of long maturities are a factor in the increase in the banks’ interest sensitivity, and accounted for 47% of new housing loans in 2020. This maintained the proportion seen in 2019, while the proportion of the stock that they account for continues to increase. After the introduction of the binding macroprudential instrument capping the maximum maturity at seven years, the average maturity of new consumer loans began to shorten late in 2019, and remained below this level in 2020. From the perspective of the banks’ interest sensitivity, the shortening of the average maturity of new fixed-rate loans is important, as these loans expose banks to the risk of a change (rise) in market interest rates. Fixed-rate loans accounted for approximately two-thirds of all new consumer loans in 2020. This was a lower figure than in the previous year, but the proportion of the stock that they account for increased slightly further.

The average maturity of new loans to NFCs lengthened in 2020, while the proportion with a fixed interest rate declined. Banks entered into almost twice as many long-term loans than short-term loans with NFCs in 2020. It was only for the short-term loans that the average maturity lengthened compared with previous years. The proportion of fixed-rate loans peaked in recent years in 2019, and last year stood at 29%, down 7 percentage points on the previous year. Amid the changes in the economic situation caused by the Covid-19 crisis, the breakdown of loans to NFCs by type of remuneration did not change over the year. Fixed-rate loans accounted for just 14% of all long-term loans to NFCs in 2020, while their average maturity was again down on the previous year, and fell below six years. The small proportion of fixed-rate long-term loans and their shorter average maturity are helping to reduce the banks’ interest sensitivity. The continuation of the trends of a stable average maturity and slowing growth in the proportion of the stock accounted for by fixed-rate loans will mean that the lengthening of the average repricing period for asset interest rates driven by loans to the non-banking sector will diminish.

Figure 1.106: Average maturities of individual types of new long-term loan

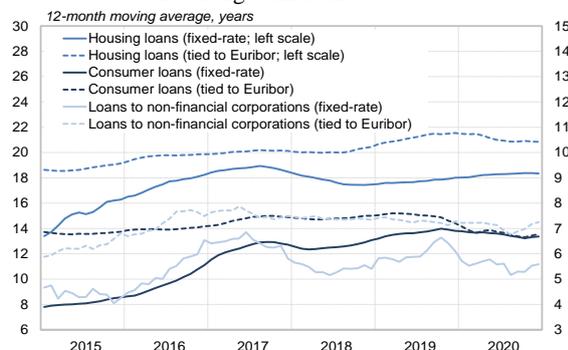
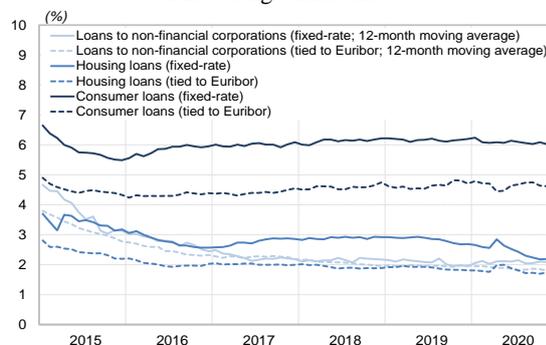


Figure 1.107: Average interest rates on individual types of new long-term loan



Note: In the left figure the maturity is calculated as a 12-month average. In the right figure the interest rate on loans to NFCs is calculated as a 12-month average.

Source: Banka Slovenije

Interest rates on new long-term loans to the non-banking sector fell slightly further in 2020. The financing conditions improved for all sectors of the economy, thanks to the extensive monetary policy stimulus and the maintenance of key interest rates at low levels. Last year saw an additional improvement in the financing conditions for housing loans with a contractual fixed interest rate, which averaged 2.2% at the end of the year, a record low. The gap with the average fixed interest rate on housing loans in the euro area also narrowed in 2020. The average variable interest rate on housing loans fell as well relative to 2019. Also, the financing conditions improved with regard to consumer loans. The average contractual fixed interest rate on consumer loans had fallen below 6.0% by the end of 2020 after three years above this mark, while there was no change in the average variable interest rate. Loans to NFCs, where long-term loans are mostly variable-rate, also enjoyed an improvement in the financing conditions. The contractual variable interest rate on long-term loans to NFCs averaged 1.8% last year, a record low.

Figure 1.108: Proportion of fixed-rate loans for individual types of new loan

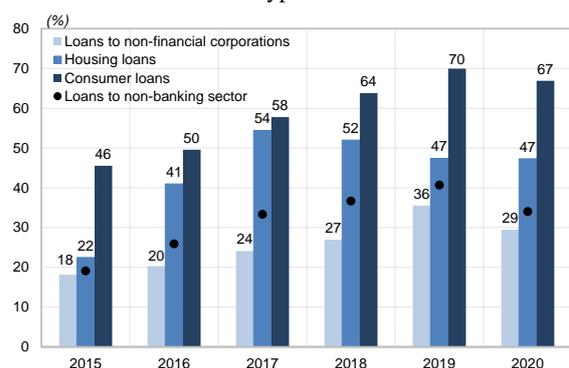
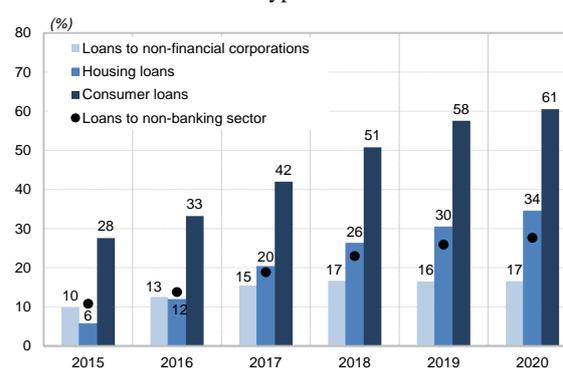


Figure 1.109: Proportion of fixed-rate loans for individual types of loan stock



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: Banka Slovenije

Box 1.5: Cyber risk⁶⁴ and its impact on financial stability

Given the increasing digitalisation of operations, recent years have seen a rise in the number of cyber incidents⁶⁵ and attacks on the financial system. Cyber security is becoming increasingly important to ensuring financial stability. The European Commission published its EU Cybersecurity Strategy⁶⁶ in December 2020, which reaffirms its leading role in the area of international norms and standards in cyberspace. The strategy will also strengthen cooperation with partners around the world to promote a global, open, stable and secure cyberspace. Cyber attacks on information systems and communications technology are rising worldwide, and the financial sector is increasingly exposed.

From the perspective of the financial stability, it is important that a cyber incident does not lead to the systemic event that causes an interruption to the operations of financial institutions, and consequently a financial loss and loss of confidence on the part of the public. Cyber risk can impact financial stability in the following ways:

- Long outages of an information system and the jeopardisation of data integrity⁶⁷ lead to a loss of confidence. If a cyber attack disrupts key operations for a length of time, which might for example entail loss of access to financial assets and the ability to settle liabilities, parties to transactions and market participants lose confidence in the financial system. This can have an onward adverse impact on the liquidity and solvency of the financial system.
- A cyber incident could lead to the non-functioning information system at an individual systemically important institution (e.g. system servers go down), which could also have an impact on financial stability. For such cases it is important that financial institutions put in place backup locations or outsource technological substitutes to external providers.

⁶⁴ Cyber risk can be defined as the combination of the probability of cyber incidents occurring and their potential impact on operations (taken from the [Cyber Lexicon](#), published by the Financial Stability Board).

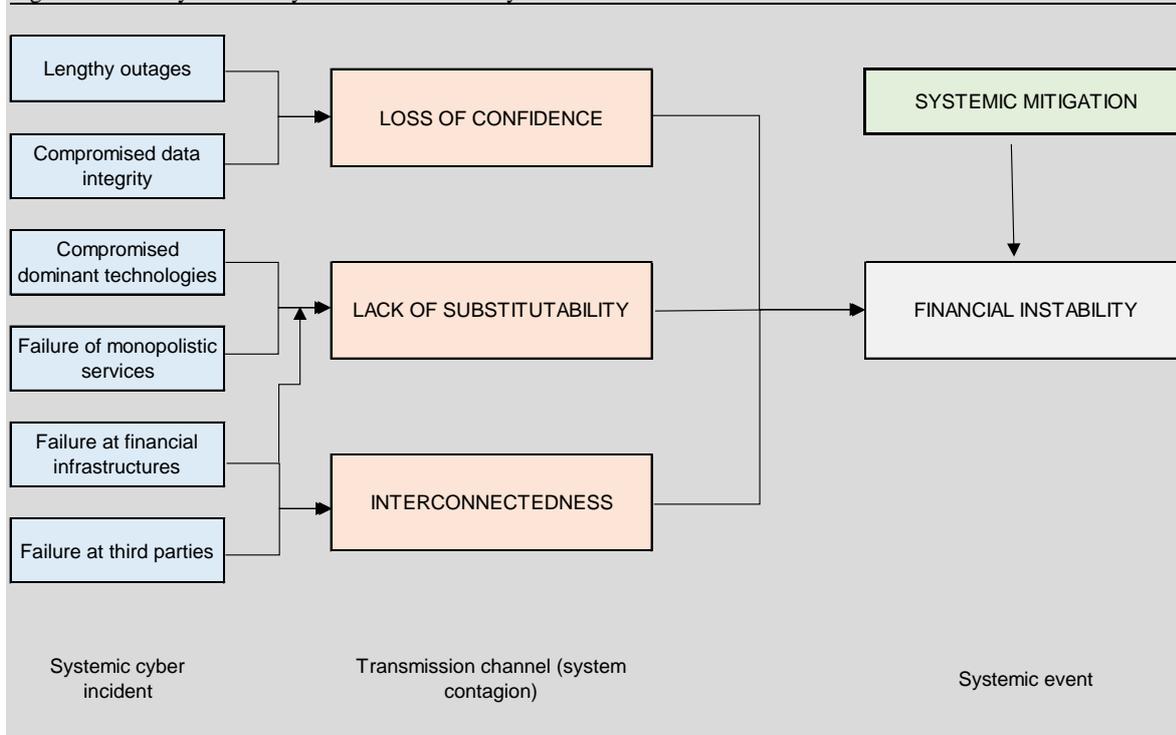
⁶⁵ Cyber incidents jeopardises the cyber security of an information system or the information that the system processes, stores or transmits, or breach security policy or procedure, whether resulting from malicious activity or not.

⁶⁶ For more on EU Cybersecurity Strategy, see https://ec.europa.eu/commission/presscorner/detail/en/IP_20_2391.

⁶⁷ Data integrity means that all data is accurate and complete.

- The interconnectedness inside the financial system and between various technologies can amplify the systemic risk⁶⁸ to financial stability originating in cyber attacks. Financial institutions operate through trading, settlement and clearing platforms, central banks and payment systems. An outage at one financial institution can cause interruptions to the operations of counterparties, and lead to the liquidity difficulties in the financial system. The main issue in technological interconnectedness is the providers of technological services (e.g. cloud services), who during cyber attacks can speed up the transmission of contagion in the financial system.

Figure 1.110: Cyber security and financial stability channels



Sources: IMF,⁶⁹ ESRB,⁷⁰ Banka Slovenije

Systemic mitigation of a cyber attack is the key to ensuring financial stability. This can be achieved with the help of targeted systemic risk analysis, the development and use of targeted tools for systemic cyber risk analysis,⁷¹ the formulation of macroprudential instruments for such risks, and adequate crisis management. The key to cyber resilience is for financial institutions and supervisors to strengthen their response function (the capacity to take action after the identification of a cyber incident), and also the recovery function (restoration of faulty systems and services). It is also important for the financial system to increase its cyber resilience⁷² by regularly testing the security of business processes, and using tools to identify systemic threats and the impact of cyber incidents on the operations of financial institutions.

In Cyber Risk and Financial Stability,⁷³ the IMF proposes the following three tools for easier identification of systemic cyber risks to the financial system:

- Cyber mapping (a qualitative tool) covers the key technologies, services, external service providers and their connections with financial sector institutions. At the conceptual level, mapping aims to highlight key financial and technological connections between financial institutions, firms and third-party technology and service providers. Cyber mapping provides an overview of financial institutions, and also the connections between financial institutions and other critical entities. This

⁶⁸ Systemic risk means the risk of disruptions in the financial system that could have serious effects on the market and the real sector (Article 2 of the Macroprudential Supervision of the Financial System Act).

⁶⁹ IMF, *Cyber Risk and Financial Stability: It's a Small World After All* (published December 2020).

⁷⁰ ESRB, *Systemic cyber risk* (published February 2020).

⁷¹ Examples of tools for analysing financial stability include cyber stress tests, cyber mapping, analysis of financial institutions' potential losses, identification of cyber vulnerabilities, and cyber attack impact thresholds.

⁷² Cyber resilience is the capacity of a financial institution to realise its mission statement through the anticipation and management of cyber risks, adaptation to cyber threats, and fast recovery from cyber incidents.

⁷³ See footnote 69.

information can be used for supervision and for cyber risk analysis to financial stability. The disadvantage of cyber mapping is that the more detailed it is, the more expensive and time-consuming it is.

- Quantitative analysis primarily relates to the estimation of the potential losses to financial institutions caused by cyber attacks. Estimating financial losses is made difficult by the limited availability and quality of the data. High-quality analysis therefore requires high-quality and availability data on financial institutions' losses as a result of cyber attacks, where high-quality data is vital for the further development of modelling techniques. Quantitative analysis could be combined with cyber mapping, to further clarify the source of financial institutions' potential losses as a result of cyber attacks.
- Cyber risk stress-testing relate primarily to an assessment of the impact of cyber attacks on liquidity (e.g. on the LCR) and on the capital position (e.g. the total capital ratio) of financial institutions. This testing primarily involves financial institutions and their supervisors, who estimate losses under the prescribed scenario.

Tools for identifying systemic cyber risks are still in the development phase, and are being adapted to supervisory changes. Information sharing in the area of cyber security is also important to ensuring financial stability. Information sharing can be divided into three areas: threat intelligence (includes risk analysis, indicators and threat assessments), incident reporting (assessment of a financial institution's management of a situation), and defence techniques (information on how an attack was prevented or contained). Because cyber attacks are a global phenomenon, and present significant challenges to law enforcement, especially at the international level, the principles of crisis management are important. In addition to communication, they encompass the coordination of activities, and proposals of how financial institutions and their supervisors should respond in the event of cyber attack.

Activities over the coming years are expected to target improvements in the supervisory framework, cyber risk analysis, the development of tools for cyber risk analysis, and the formulation of macroprudential policy to mitigate cyber risks at the international level. Ensuring cyber resilience also requires the regular testing and implementation of crisis scenarios for cases of a non-functioning financial system.

Box 1.6: Review of developments in tackling and regulating climate risks

Studies of physical and transition climate risks in the financial system and by financial system supervisory authorities are on the rise. Given their impact on a broad spectrum of stakeholders, climate risks have a systemic aspect, in particular via their impact on price stability or financial stability. Institutions responsible for ensuring financial stability and for supervising financial institutions have begun studying climate risks in depth in recent years.⁷⁴ The IMF includes climate risks in its programmes to assess the financial stability⁷⁵ of individual countries. Central banks are increasing their cooperation via the Network for Greening the Financial System,⁷⁶ and are implementing frameworks to monitor climate risks. The ECB includes climate risks in its financial stability reviews, while reporting on the carbon footprint of the non-monetary portfolio is foreseen in the course of the next two years.

The risk management aspect has been at the forefront of studies of climate risks to date. The risks can materialise primarily in the form of credit, market or operational risk. Credit risk can show for example as a decline in the value of real estate collateral in the case of physical risks, or as lower capacity to generate income in the case of elevated transition risks. Market risk can arise from sudden changes in the value of tradable assets, for example in a faster transition to a low-carbon economy, while operational risk can arise from temporary disruptions to the functioning of financial institutions during loss events related to physical risks. Climate risks in the banking system are in principle addressed preventively from a risk management perspective, while proactivity in encouraging sustainable development depends on the risk assessment for sustainable activities. This assessment can differ drastically for existing commercial technologies and processes, and new green ones. An additional aspect in accounting for climate risks is scenario analysis, which can contribute to a more proactive tackling of climate risks in the financial system, via the impact on activities' risk assessment.

⁷⁴ FSB, [The Implications of Climate Change for Financial Stability \(fsb.org\)](https://www.fsb.org/en/implications-of-climate-change-for-financial-stability); ESRB, [Positively green: measuring climate change risks to financial stability \(europa.eu\)](https://www.esrb.europa.eu/en/press/pr/2020/0910).

⁷⁵ The IMF has included climate risks in one in five of its financial stability assessment programmes over the last decade.

⁷⁶ Banka Slovenije joined the [Network for Greening the Financial System](https://www.nfgfs.com/) in October 2020.

Climate risks are long-term risks accompanied by high uncertainty, given the wide range of climate scenarios. The scale and interaction of physical and transition risks are crucial for this range. The scale of physical and transition risks depends on the frequency of natural disasters and the scale of their impact, and the envisaged timeline for the transition to a low-carbon economy. There is a considerable probability of a significant rise in global temperatures (by more than 3°C compared with the pre-industrial era). The Paris Agreement sets out the national contributions to the international community's efforts to limit the increase in temperature to less than 2°C, or to 1.5°C, while the European Commission's environmental target is carbon neutrality by 2050. The correlation between physical and transition risks can be positive, in the event of an unmanaged transition, or negative in the event of a timely transition that helps to mitigate climate change and consequently reduces physical risks.

Climate risk assessments are highly sensitive to the scenario assumptions. Under the baseline scenario, the costs of climate risks as expressed by the change in the value of assets under management are broadly manageable. The scenario assumptions, for example considering the non-linearity of physical risks, the discount rate, the pace of technological development and adoption of energy-efficient solutions across each sector, are of crucial importance. The ratio of the cumulative costs of physical risks to GDP ranges between 0.5% and 11% until 2050, and up to 25% by 2100.⁷⁷ The costs to the euro area banking system are manageable, and the change in the capital adequacy ratio depends on transition risk determinants (technological development or increased pollution costs). A key factor in the future regulatory development will be ensuring reliable climate risk assessments to the extent possible.

EU regulation addresses definitions of sustainability and data availability that is key to ensuring reliable assessments of climate risks. A key element in the EU sustainable finance legislation is the Taxonomy Regulation,⁷⁸ which defines sustainable economic activities and sets out the requirements for sustainability disclosures. Environmentally sustainable economic activities are required to contribute significantly to at least one of six environmental objectives defined with the regulation. The first two objectives relate to climate change (climate change mitigation and adaptation), while the remaining relate to other environmental areas (sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems). The technical criteria (taxonomy) for classifying individual economic activities will be adopted subsequently, tentatively by the end of this year.

The EU sustainable finance legislation introduces a number of disclosure requirements, with the purpose of increasing data availability and transparency. The Taxonomy Regulation requires that firms⁷⁹ which include information on sustainability in their management reports in accordance with the non-financial reporting directive, add information on the rate of alignment of their activities with the taxonomy to such disclosures. The share of activities aligned with the first two objectives should be disclosed as of January 2022, while alignment with the remaining four objectives should be disclosed as of January 2023. The sustainable finance disclosure regulation,⁸⁰ which requires financial corporations to disclose information on the inclusion of sustainability aspects of their operations and on the sustainability characteristics of their financial products, is also relevant. The majority of these requirements entered into force on 10 March 2021.

Several initiatives have emerged in the EU framework for sustainable finance, from legislation on the green bond standard to the share of assets earmarked for environmental projects. Further growth of the green bond market depends on the harmonisation of standards and the availability of environmental projects. An important element of the sustainability regulations is the green bond standard (under discussion), which envisages voluntary reporting on green bonds and the harmonisation of the verification of project sustainability. The green bond market has been growing fast in recent years, but remains small as a segment of the total bond market. Harmonising the green bond standard and expanding the list of environmental projects will contribute significantly to the growth of the green bond market. Green policy commitments such as the European green deal and the EU recovery and resilience facility will contribute significantly to expanding the set of projects. The funds earmarked for environmental projects within the recovery and resilience facility amount to EUR 249 billion, or 37% of the total funding for NextGenerationEU. The projected share in the EU multi-annual budget (the size of the budget is EUR 1,074.3 billion) of climate

⁷⁷ NGFS climate scenarios for central banks and supervisors.

⁷⁸ Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.

⁷⁹ Currently these are large enterprises that are public interest entities and have more than 500 employees.

⁸⁰ Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector (SFDR).

projects increased from 20% to a record high of 30%. The total share of environmental projects in the whole recovery budget (of EUR 1,824.3 billion) stands at 31.3%.

Climate risks are also addressed within the framework of European prudential banking legislation.

From the second half of next year large banks listed on an exchange will be required to include information about their exposure to ESG risks⁸¹ (environmental, social and governance risks) in their disclosures under the CRR, with an emphasis on climate risks. The ECB has published its Guide on climate-related and environmental risks, which sets out the supervisory expectations with regard to sustainability risks for significant institutions, and also recommends their proportionate application in the supervision of other banks. Discussions with regard to the approach on including climate risks in the SREP are also underway at the European level within the EBA.

Central banks are monitoring climate risks, and assess them as manageable for now. The ECB monitors bank exposure to climate-sensitive sectors in the euro area on the basis of the European definition of climate sensitivity.⁸² Exposure to climate-sensitive sectors in the euro area accounted for a third of the NFCs portfolio between 2015 and 2019, and there was no evidence of decarbonisation over this period via a reduction in exposure to these sectors. Estimated losses due to natural disasters amount to between 0.1% and 0.4% of GDP, with a smaller share of bank exposure in countries with elevated physical risks.⁸³ Exposure to climate-sensitive sectors is also moderate in Slovenia, although the assessment of climate sensitivity depends on the definition of climate-sensitive sectors used.⁸⁴ The ECB's first climate stress tests show the impact on capital adequacy in the euro area to be smaller in the event of elevated transition risks. The common equity Tier 1 capital ratio increases by 0.2 percentage points in the event of a technological shock, or declines by 0.4 percentage points in the event of a sharp rise in carbon prices by 2025.⁸⁵ Supervisory (micro) climate stress tests will be conducted at EU level in 2023.

⁸¹ The environmental (E) aspect covers climate change, resource management and waste management; the social (S) aspect covers development and concern for human capital, product safety and support for socially beneficial projects; the governance (G) aspect covers corporate governance, ethics and anti-corruption.

⁸² Battiston S., Mandel, A., Monasterolo, I., Schuetze, F. and Visentin, G. (2017) A climate stress-test of the financial system, *Nature Climate Change*, 7, pp. 283-288.

⁸³ [ECB, Financial Stability Review, November 2020.](#)

⁸⁴ [Report on climate risks in Slovenia 2020.](#)

⁸⁵ The technological shock of transition risks entails an increase in the use of renewables, while the change in environmental policy envisages a sharp rise in the global carbon price to USD 100.

2 RESILIENCE OF THE BANKING SYSTEM

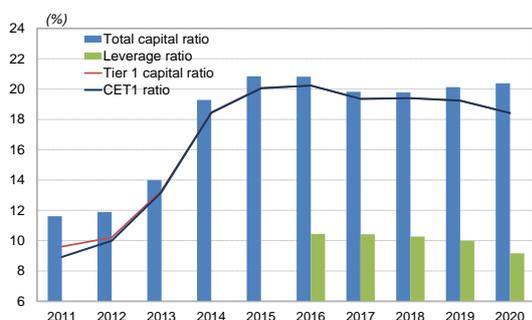
2.1 Solvency and profitability

Solvency

The banking system came into the economic downturn caused by the Covid-19 pandemic with a sound capital position, which remained in place for almost a year following the outbreak of the pandemic. The expiry of the measures put in place by the government and by supervisory institutions, and the anticipated consequent deterioration in the quality of the credit portfolio, is expected to reduce capital ratios. Our assessment is that the banking system's resilience to adverse effects that would arise from the anticipated realisation of high credit risk and elevated income risk has deteriorated in the solvency and profitability segment, and is now medium. It should be emphasised that there are considerable differences in resilience between individual banks. There will be a lag before the pressure on capital adequacy from losses and higher average risk weights is felt by the banks, particularly those with low capital surpluses and those more exposed to the sectors hit hardest by the crisis. The banking system's total capital ratio declined in the final quarter of 2020 as a result of declines at a number of banks, while the majority of banks saw an improvement in their common equity Tier 1 capital ratios. The banks strengthened their regulatory capital in 2020 via the retention of earnings from the previous financial year, and the issuance of subordinated debt securities. The expected decline in profitability will leave the banks less able to increase capital, thus strengthening resilience. Resilience could also be further reduced at those banks that decide to undertake profit distributions, which has been allowed under the revision of the macroprudential measure restricting profit distributions by banks.⁸⁶

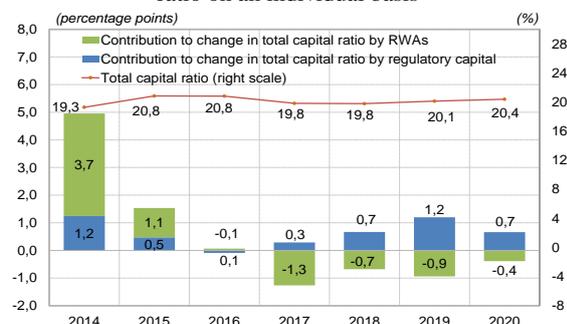
The banking system's total capital ratio on an individual basis increased in 2020, while the common equity Tier 1 capital ratio declined, both under the influence of the merger of a Slovenian bank and a foreign bank. The banking system's total capital ratio on an individual basis rose by 0.3 percentage points in 2020 to 20.4%, while the common equity Tier 1 capital ratio declined by 0.8 percentage points to 18.4%. The reason for the opposite movements in the indicators is that total regulatory capital increased by more than risk-weighted assets, as a result of an increase in Tier 2 capital, while common equity Tier 1 capital declined.

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



Source: Banka Slovenije

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



The common equity Tier 1 capital ratio on a consolidated basis remained above the euro area average despite its decline, while the total capital ratio was a little below the euro area average.⁸⁷ The total capital ratio declined by 0.3 percentage points to 18.3%, while the common equity Tier 1 capital ratio was down 1.1 percentage points at 16.7%, 0.8 percentage points below the EU average. The decline in both indicators was the result of the increase in regulatory capital being outpaced by the increase in risk-weighted assets, largely driven by two bank mergers. Slovenian banks primarily meet their capital requirements through common equity Tier 1 capital, as a result of which the difference between the total capital ratio and the common equity Tier 1 capital ratio is smaller than in the euro area overall. The proportion of Tier 2 capital doubled in 2020 as a result of the issuance of subordinated debt securities by certain banks, but at

⁸⁶ Regulation on the macroprudential restriction on profit distribution by banks (Official Gazette of the Republic of Slovenia, No. 21/21), published online in Slovene at https://www.uradni-list.si/_pdf/2021/Ur/u2021021.pdf.

⁸⁷ Data for the euro area average is only available up to the third quarter of 2020 inclusive.

8.8% of total regulatory capital it is still a quarter lower than the euro area average. In addition to the common equity Tier 1 capital ratio, the ratio of regulatory capital to the balance sheet total also remains above the EU average,⁸⁸ an indication of the greater robustness of banks in Slovenia compared with the majority of other EU Member States.

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

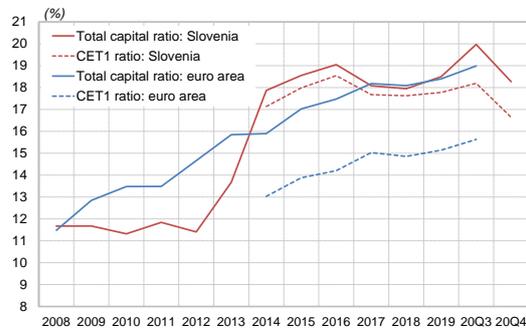
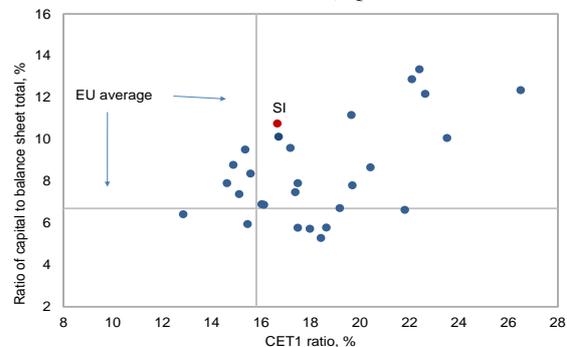


Figure 2.4: CET1 ratio and ratio of regulatory capital to total assets by EU Member State, consolidated basis, Q3 2020



Note: The latest data (December 2020) is taken into account for Slovenia in the right figure.

Sources: Banka Slovenije, ECB (SDW)

The economic downturn caused by the Covid-19 pandemic will affect the banks' capital ratios in various ways, with a lag. When the emergency measures expire, the quality of the credit portfolio can be expected to deteriorate, which will drive a decline in capital ratios via losses and higher risk weights. The anticipated decline in profitability (for more on profitability, see below) will give the banks less opportunity to strengthen capital, while potential operating losses will have a direct adverse impact on capital adequacy. The potential continuation of the decline in lending seen during the pandemic could have the opposite impact on capital adequacy, as it will drive a decline in risk-weighted assets.

Although the differences in capital adequacy ratios at individual banks diminished slightly, there remain differences in their surpluses over the total capital requirements.⁸⁹ The majority of banks improved their capital adequacy in 2020, including the small domestic banks and savings banks, who are no longer among the banks with the lowest capital adequacy ratios. Despite an increase in regulatory capital amid parallel growth in the balance sheet total, their leverage ratios remain the lowest, and are still well below the average in the banking system, which stood at 9.2% at the end of 2020. The capital surplus over the total capital requirement varies from bank to bank, not only because of differences in capital adequacy, but also because of differences in the Pillar 2 capital requirements and the size of the capital buffers. The capital surplus amounted to EUR 1,143 million at system level (see Figure 2.10), or 3.89% of risk-weighted assets. The largest capital surpluses relative to their own capital requirements are at the subsidiary banks under foreign ownership, which compared with other banks gives them great capacity to absorb the adverse impact of the pandemic. The banks with lower capital surpluses will find it harder to absorb the adverse effects of the economic shock. Greater downward pressure on capital adequacy is most likely to be seen at the banks with the highest exposure to the hardest-hit sectors, owing to losses and higher risk weights.

⁸⁸ Data for EU Member States is only available up to the third quarter of 2020 inclusive.

⁸⁹ The total capital requirement is the sum of capital requirements under Pillar 1 and Pillar 2, and all buffer requirements.

Figure 2.5: CET1 ratio and leverage ratio at individual banks, individual basis

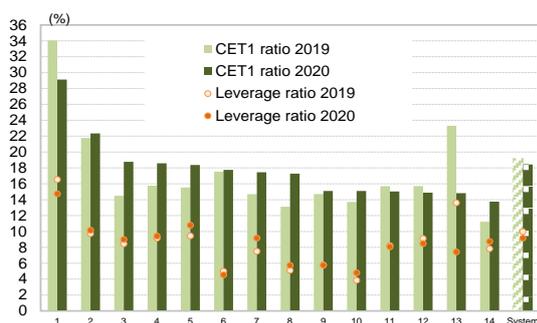
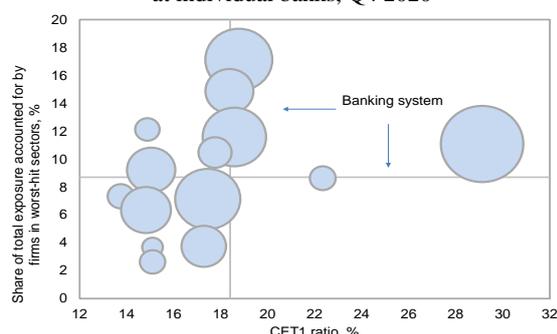


Figure 2.6: CET1 ratio on an individual basis versus exposure to NFCs in the worst-hit sectors at individual banks, Q4 2020



Note: The right figure includes exposures to NFCs in the following sectors: transportation; accommodation and food service activities; professional, scientific and technical activities; administrative and support service activities; arts. The size of the bubbles illustrates the surplus over the total capital requirement (OCR + P2G), which is calculated on consolidated data.

Source: Banka Slovenije

The banks strengthened their capital position by issuing subordinated debt instruments and retaining earnings from the previous financial year. The banking system's total regulatory capital on an individual basis increased by 3.2% in 2020 to EUR 4.9 billion, primarily as a result of the issuance of subordinated debt securities, which are included under Tier 2 capital. The increase in Tier 2 capital in recent years was only seen at certain banks, who are not only strengthening their capital positions, but are also providing eligible instruments to meet their MREL requirements. Tier 2 capital accounted for 9.6% of regulatory capital in the banking system at the end of 2020, having multiplied fivefold since 2018. Common equity Tier 1 capital ratio still accounts for the majority of regulatory capital, but it declined by 2.4% across the banking system to stand at EUR 4.2 billion, primarily as a result of the effects of the merger of two banks. In upholding the macroprudential instrument restricting profit distributions, banks increased their retained earnings from the previous year and other reserves, but these positive effects on regulatory capital and the common equity Tier 1 capital ratio did not outweigh the decline in common equity Tier 1 instruments caused by the aforementioned merger. Given the expected decline in profitability, and the potential partial profit distributions allowed by the changes to the macroprudential measure modelled on the changes in European regulations, the banks' resilience is likely to decline. Our estimate is that under the maximum possible profit distribution allowed by the aforementioned revision, the common equity Tier 1 capital ratio would decline by 0.2 percentage points to 18.2%.⁹⁰

Figure 2.7: Common equity Tier 1 capital structure, individual basis

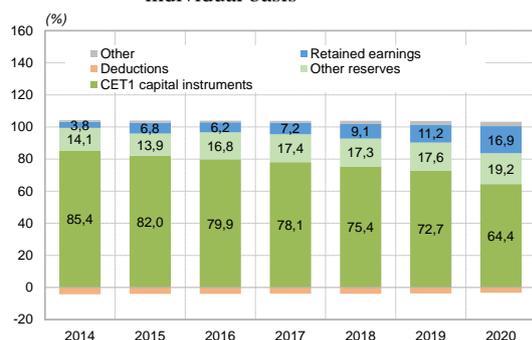
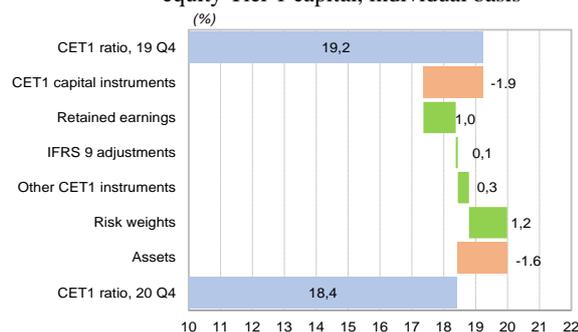


Figure 2.8: Decomposition of change in common equity Tier 1 capital, individual basis



Note: In the right figure the items that acted to reduce the common equity Tier 1 capital ratio are denoted by orange bars, while the items that acted to increase it are denoted by green bars.

Source: Banka Slovenije

Risk-weighted assets increased by 2% at system level in 2020, albeit primarily on account of the merger of two banks. This drove a rise in RWAs for credit risk and also in RWAs for market risk and operational risk, although the share of total RWAs accounted for by the latter remained low, at 12% on aggregate. RWAs for credit risk declined in particular at the banks that reduced lending to NFCs and households after the declaration of the Covid-19 pandemic. The share of RWAs for exposures in default and

⁹⁰ The estimate takes account of data for the end of 2020 (RWA, common equity Tier 1 capital) on an individual basis.

exposures associated with particularly high risk remained low (at 4.7%), but is most likely to increase in the future as a result of the anticipated deterioration in the quality of the credit portfolio. As a result of the increase in risk-free liquid assets in accounts at the central bank, the average risk weight⁹¹ declined by 3 percentage points in 2020 to 52%, which was a factor in the rise in the common equity Tier 1 capital ratio. The average risk weight of the Slovenian banking system thus remains well above the euro area average of 35%.⁹² The higher risk weight is primarily attributable to the use of the standardised approach in the assessment of credit risk, which gives fewer opportunities to reduce risk weights. The more conservative approach to risk assessment makes Slovenian banks more robust, and thus better-prepared to face the consequences of an economic shock.

Figure 2.9: Breakdown of risk-weighted assets for credit risk, and average risk weight, individual basis

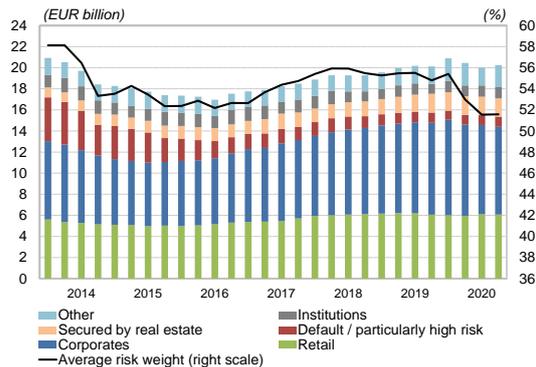
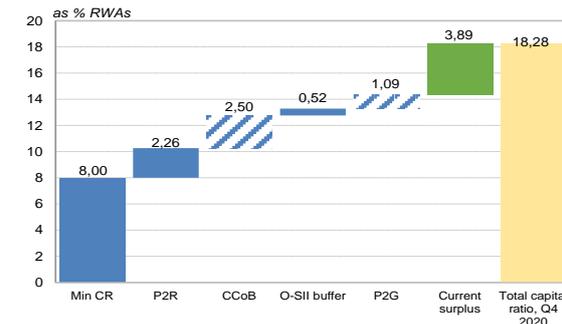


Figure 2.10: Breakdown of capital requirements, consolidated basis



Note: In the right figure the blue columns denote the components of capital requirements, the patterned columns denote the potential relaxation of capital requirements within the framework of the temporary measures of the ECB and Banka Slovenije, while the green column is the surplus.

Source: Banka Slovenije

Profitability

The anticipated increase in impairment and provisioning costs⁹³ and the parallel ongoing deterioration in the banks' ability to generate income⁹⁴ will reduce their profitability, and with it the possibility of strengthening regulatory capital and resilience. The banking system still recorded a relatively high profit last year, thanks in particular to one-off events. Given the crisis, pre-tax profit was relatively high in 2020 at EUR 472 million, down only a fifth on the previous year. Pre-tax ROE stood at 9.6%, down from 12.2% in the previous year. Pre-tax ROA declined to 1.10% in 2020, down from 1.48% in 2019, driven in part by the growth in the asset side of the balance sheet. The Slovenian banking system has realised high profits over the last two years, achieving an above-average ROE compared with other European countries. The relatively small gap by which last year's profit trailed that of the previous year was attributable to the merger of two banks; in the absence of this effect, profit would have been down more than a half on the previous year,⁹⁵ and ROE would have stood at just 5.5%.

⁹¹ The average risk weight is calculated as the ratio of RWAs to the balance sheet total on an individual basis.

⁹² According to the latest figures available (ECB SDW, September 2020), the average risk weight on a consolidated basis stood at 35% in the euro area overall, and 56% in Slovenia.

⁹³ For more, see the section on credit risk.

⁹⁴ For more, see the section on income risk.

⁹⁵ A footnote in the section on income risk states what the shortfall in the main income categories would otherwise be relative to the previous year.

Figure 2.11: Pre-tax ROE in the banking system, overall and quartile distribution, at end of period

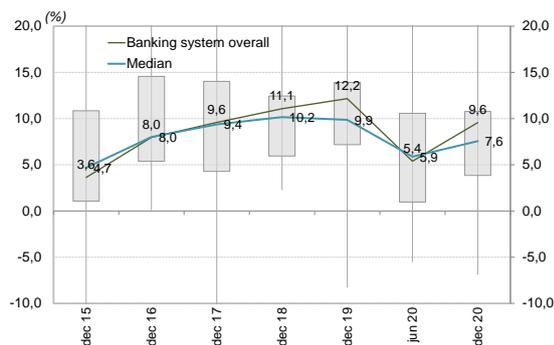
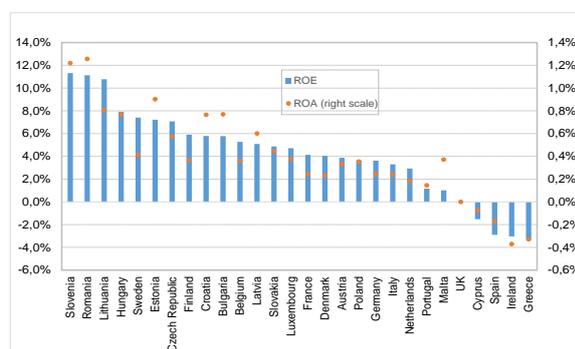


Figure 2.12: Comparison of ROE and ROA in EU Member States



Note: The left figure only illustrates values for the last five years. The figures for June 2020 are calculated for the preceding 12 months. In the right figure the values in both categories are taken from the third quarter of 2020 and annualised. The full-year data for the previous year is available in June of each year.

Sources: Banka Slovenije, ECB (consolidated banking data [SDW])

Given the lack of change in the trend of deterioration in the generation of income, and the relative stability of operating costs, the main factor in the size of the profit will be net impairments and provisions. The trend of net release of impairments and provisions, which drove up the banking system’s profitability for three years, reversed with the outbreak of the pandemic. Almost all credit institutions (15 of the 16 in Slovenia) recorded the net impairment and provisioning costs in 2020. Net impairments and provisions were the largest factor in the decline in profit relative to 2019. They accounted for 12.5% of the banks’ disposal of gross income. Had they been at their long-term average⁹⁶ of around a fifth, pre-tax ROE would be 3 percentage points lower than the realised figure at 6.6%, or just 3.4% in the absence of the effect of the merger. Another factor in the decline in profit relative to 2019 was the decline in net interest income, while the contribution made by operating costs was small at best, and was mostly attributable to a methodological change. The stable component of non-interest income (net fees and commission) is also not displaying a positive trend. Profitability is thus expected to decline in 2021, driven by several factors, most notably net impairments and provisions.

Figure 2.13: Pre-tax profit and impact of changes in components of generation and disposal of gross income, 2019 to 2020

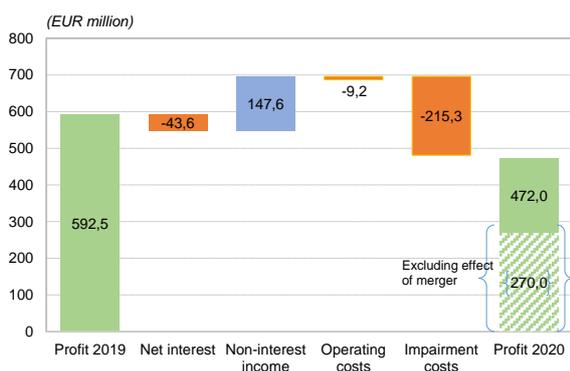
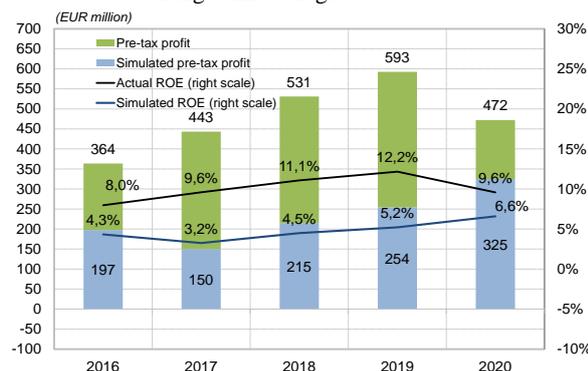


Figure 2.14: Actual bank profitability and simulated profitability with ratio of impairment and provisioning costs to gross income at its long-term average



Note: The final column in the left figure illustrates the banking system’s total profit and its profit excluding the effect of the merger of two banks in September 2020. The right figure shows what the banking system’s profit and ROE would be were the ratio of impairment and provisioning costs to gross income to be at its long-term average.

Source: Banka Slovenije

⁹⁶ Impairments and provisions accounted for 23% of the banks’ disposal of gross income between 1996 and the end of 2019. 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.

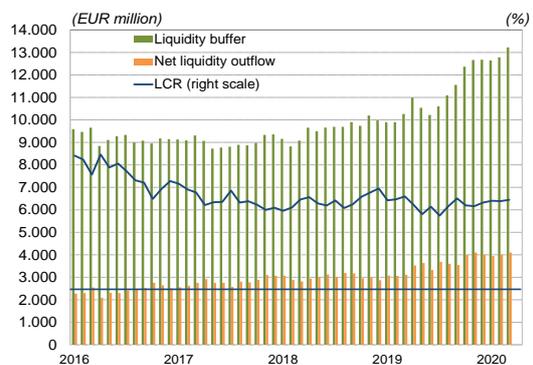
2.2 Liquidity

The banking system's liquidity position remained good, despite the deterioration in the epidemiological and economic situation in the autumn wave of the pandemic. The capacity to absorb the adverse consequences of any realisation of funding risk is high at the level of the banking system, but there remain considerable differences between individual banks. The banking system's liquidity position could deteriorate if the epidemiological picture and the economic situation fail to improve as anticipated.⁹⁷ Careful monitoring of this situation and diligent liquidity management are therefore particularly important at the banks with low liquidity surpluses.

The banking system's liquidity position improved further in 2020; the capacity to cover net liquidity outflows over a short-term stress period remained high. The liquidity coverage ratio (LCR) increased by 13 percentage points in 2020 to end the year at 325%, and remains more than three times higher than the regulatory requirement of 100%. The LCR improved over the first nine months of 2020⁹⁸ in more than two-thirds of EU Member States. Slovenia is ranked a high fourth in terms of its LCR. The liquidity surplus over the regulatory requirement increased by more than a fifth to EUR 9.3 billion, the largest figure of the last five years. The rise in the LCR in 2020 was driven by growth in the liquidity buffer outpacing growth in net liquidity outflows. The increase in household deposits and deposits by NFCs drove up net liquidity outflows, but also increased the liquidity buffer, as the funds from the inflow of deposits were mainly placed with the central bank.

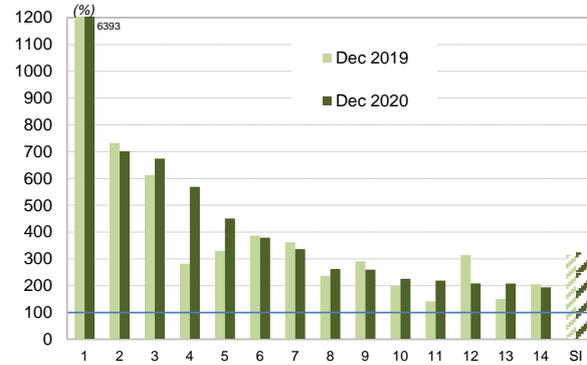
Although all banks exceed the regulatory requirement for the LCR, there remain considerable variations in their liquidity surpluses. More than half of the banks saw an improvement in the LCR, while almost all of them had an LCR that was more than double the regulatory requirement. It is the small domestic banks and savings banks above all that have a high capacity to cover net liquidity outflows over a short-term stress period, while the subsidiary banks under foreign ownership have LCRs that are lower than the system average. The lower LCRs at these banks might also reflect their approach to liquidity management: in the event of any additional liquidity needs, they expect support from their parent banks. Here there is a risk that in the event of its own liquidity difficulties the parent bank would be unable to provide support. The liquidity stress tests nevertheless show (for more, see below) that the survival period of the banks that would fail to withstand the adverse scenario would be long enough for the necessary action to be taken to improve their liquidity position.

Figure 2.15: LCR in the banking system



Note: The horizontal blue line denotes the minimum requirement for the LCR in accordance with the CRR (100%).
Source: Banka Slovenije

Figure 2.16: LCR at individual banks



Primary liquidity⁹⁹ increased to a record high, thereby increasing the capacity to absorb the adverse impact of the realisation of funding risk. The banking system's stock of primary liquidity increased by fully EUR 3.0 billion in 2020 to EUR 8.8 billion, thus reaching 19.8% of the balance sheet total, a record high. The high growth in the most liquid forms of asset is a consequence of the pronounced increase in household deposits and deposits by NFCs after the declaration of the Covid-19 pandemic, which amid the decline in lending activity were mainly placed with the central bank. The ratio of primary liquidity to the

⁹⁷ For more on the anticipated evolution of the economic situation, see the section on macroeconomic risk.

⁹⁸ Takes account of consolidated data available by September 2020, for the sake of comparability.

⁹⁹ Primary liquidity comprises cash on hand, balances at the central bank and sight deposits at banks.

balance sheet total increased in the majority of other euro area countries as it did in Slovenia. The smaller countries are notable for higher figures, and Slovenia ranks eighth in all, above the euro area average.

Figure 2.17: Primary and secondary liquidity

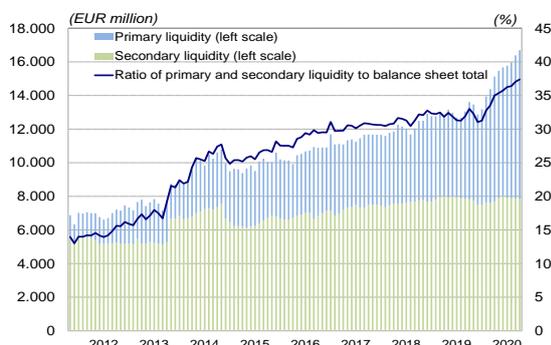
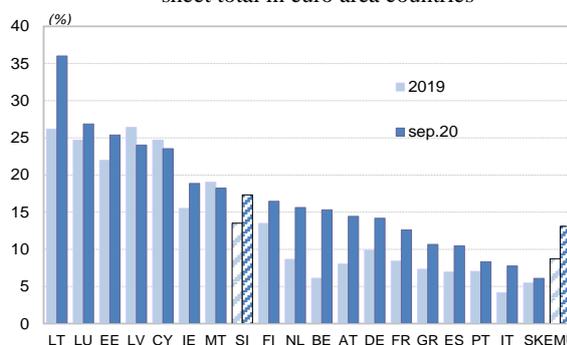


Figure 2.18: Ratio of primary liquidity to the balance sheet total in euro area countries



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.

Sources: Banka Slovenije, ECB (SDW)

The stock of secondary liquidity¹⁰⁰ increased by 0.5% in 2020 to EUR 7.9 billion. The ratio of secondary liquidity to the balance sheet total nevertheless declined to 17.6%, the balance sheet total having increased by more than secondary liquidity. Despite the slight decline, the aforementioned ratio remained more than a half higher than before the previous financial crisis of 2008. The banks increased their holdings of foreign marketable securities rated BBB or higher, particularly in the second half of 2020, while their holdings of Slovenian government securities declined. This reduced the holding of Slovenian government securities to 42.9% of total secondary liquidity and 7.6% of the balance sheet total, and concentration remains highest at the less significant banks.¹⁰¹

The proportion of the pool of eligible collateral at the Eurosystem that is free remained relatively high at the level of the banking system, and allows the banks to obtain additional funds in the event of liquidity needs. The figure declined by 6.3 percentage points in 2020 to 66%, but remained more than double the euro area average. The pool of eligible collateral increased by 15% in 2020 to EUR 4.0 billion, although the banks did not register all assets eligible as collateral in the pool. The stock of all assets eligible as collateral amounted to EUR 12.4 billion at the level of the banking system, but just 13.1% of these assets were mobilised, which allows the banks to obtain additional funding with the Eurosystem in the event of need. With the approval of more favourable terms for the targeted longer-term refinancing operations (TLTRO-III) and introduction of an additional pandemic emergency purchase programme (PEPP), the banks have at their disposal sufficient funding within the framework of the Eurosystem that is favourable in price terms, which could be used in the time of difficulty caused by the Covid-19 pandemic to finance the non-banking sector without disruption. Given their large liquidity surplus and the decline in credit activity, Slovenian banks' participation in the aforementioned operations has been modest to date. The banks had realised just 18% of the available borrowing in the TLTRO-III by the end of 2020.

¹⁰⁰ 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.

¹⁰¹ In line with the definition of the Single Supervisory Mechanism (SSM), the significant institutions comprise the three largest banks in Slovenia, which are under the ECB's direct supervision: <https://www.bankingsupervision.europa.eu/banking/list/html/index.en.html>. All other banks in the Slovenian banking system are classed as less significant institutions (LSIs).

Figure 2.19: Secondary liquidity

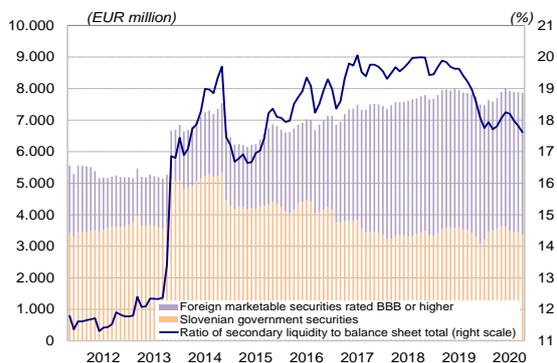
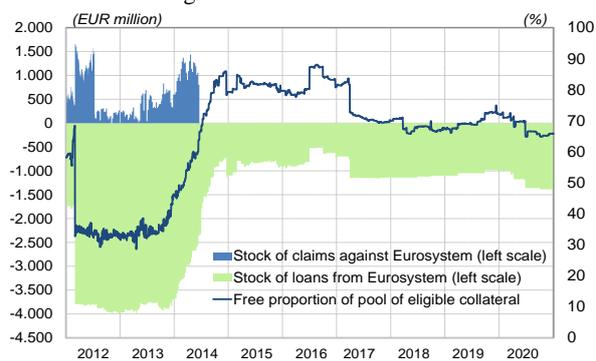


Figure 2.20: Banks' claims and liabilities vis-à-vis the Eurosystem, and proportion of the pool of eligible collateral that is free



Note: 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: Banka Slovenije

Individual banks could see a deterioration in their liquidity positions in the future, if the epidemiological picture and the economic situation fail to improve. The expiry of the emergency measures to alleviate the impact of the epidemic and the job preservation measures could see a downturn on the labour market, a rise in unemployment and a decline in household income, which will lead to the gradual spending of the funds that savers hold at the banks. A deterioration in liquidity could occur in the event of the sudden large-scale withdrawal of deposits from the system, or switching between banks. The banks with smaller liquidity surpluses would probably find it harder to face this, which makes it even more important to diligently monitor the liquidity position of these banks.

The results of the liquidity stress tests¹⁰² show that over the last year Slovenian banks and savings banks have become slightly more resilient to the shocks simulated in the scenarios. Under the baseline scenario, which represents the most likely course of events, all institutions pass the stress test. This means that the survival period is longer than six months, while the net position at the end of the stress period is profoundly positive. Under the more severe scenarios, which represent very challenging but still plausible situations, the stress test is failed by three (adverse scenario) or six (extreme scenario) of the 14 banks. The survival period nevertheless remains relatively long, and does not fall below four 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 optimising the liquidity position in costs terms and cover the liquidity position directly through ordinary cashflows.

¹⁰² In light of the importance of monitoring key risks at the level of individual banks and savings banks and at the level of the system overall, Banka Slovenije conducts liquidity stress tests, which are one of the most important tools for the quantitative monitoring of liquidity risk on a prospective basis. 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, presented in detail in the October issue of the Financial Stability Review, page 46) are based on previous liquidity crises, and were calibrated for all European countries by the ECB. The banks' results are evaluated through a survival period, and a normalised net liquidity position at the end of the six-month test horizon.

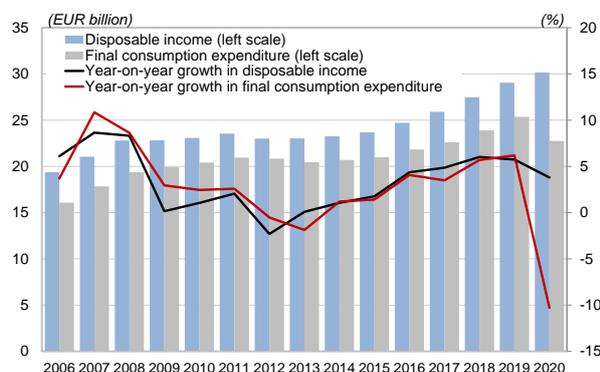
3 HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS

3.1 Households

Similarly to the first wave of the epidemic, the second wave in the second half of 2020 also had an impact on the household sector in Slovenia. The financial position of households remained relatively stable in the second half of 2020, thanks in part to the government support measures. Households nevertheless reduced their expenditure on precautionary grounds, and growth in disposable income also slowed. Year-on-year growth in gross saving consequently remained robust, albeit primarily in the form of deposits; growth in investments stagnated. The stock of the household sector’s liabilities remained practically unchanged in absolute terms, but deteriorated slightly as a ratio to GDP on account of the decline in the latter. Despite the stability, there is still the risk of an increase in household financial liabilities, given the uncertainty on the labour market and in the economy in general, but the household sector’s resilience remains relatively high amid the support from government measures. In the event of a slower macroeconomic recovery, amid the uncertainty on the labour market after the expiry of the government support measures, this vulnerability might be reflected mainly at households with below-average earnings. More than half of new consumer loans in the years before the adoption of the binding macroeconomic measure for household lending were approved for these households.

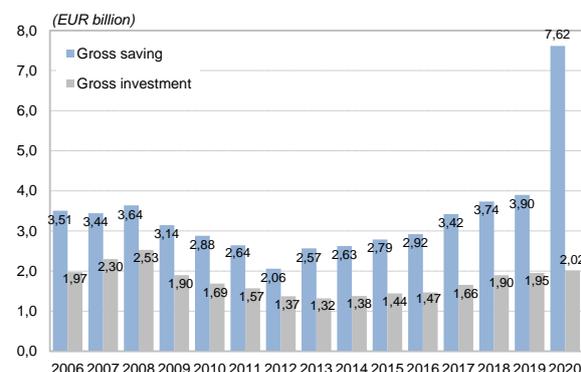
Following the outbreak of the second wave of the epidemic, household expenditure in 2020 was down 10.3% on 2019, while disposable income was up 3.8%. Given their precautionary behaviour and the shutdown of the economy, households continue to display a firm appetite for saving: gross household savings amounted to EUR 7.6 billion in 2020, up around EUR 3.7 billion on the previous year. Households’ precautionary behaviour is also being reflected in the wider saving-investment gap, gross investment having remained at a similar level to 2019. Should the persistence of the Covid-19 pandemic and a slower-than-expected rollout of the vaccine cause a further deterioration in the economy and a downturn on the labour market, household purchasing power might weaken in the future, thus increasing the pressure on consumption and investment, and not least the ability of indebted households to repay their financial liabilities.

Figure 3.1: Gross disposable income and final consumption expenditure



Source: SORS

Figure 3.2: Household saving and investment

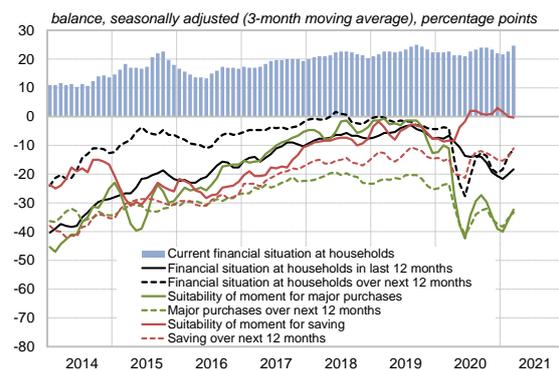


Despite the Covid-19 pandemic, the number of personal bankruptcies in 2020 was no higher than in previous years, and in fact followed the trend of decline seen in the last five years. There was also no rise in the number of recoveries in 2020, while the number of enforcements fell in 2020, similarly to the number of personal bankruptcies.¹⁰³ In early 2021 the government also extended the debt enforcement moratorium measure and the tax enforcement measure for three months. However, consumer surveys reveal a pronounced deterioration in expectations with regard to the financial situation of households, particularly at the outbreak of the first wave of the epidemic. The downturn was slightly less pronounced in the second wave of the

¹⁰³ Recoveries are defined as operations where the lender withdraws from the loan agreement for the underlying operation with the customer, and hands the underlying operation over to its legal department for recovery, or classifies the underlying operation as disputed claims. All judicial, tax and administrative enforcements in which a member of SISBON is the primary enforcer of the order are classed as enforcements.

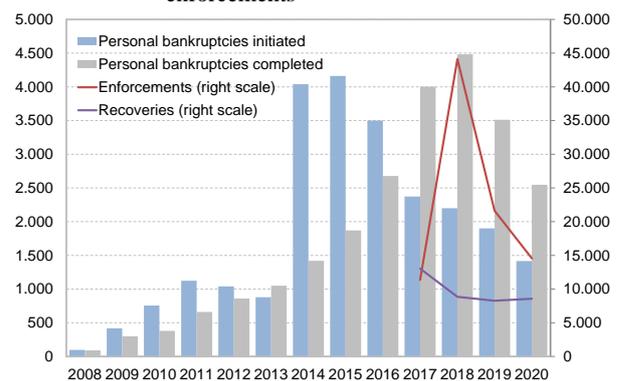
epidemic, and the indicators improved again at the beginning of 2021. Households also feel it to be a bad time to make major purchases, and increased their propensity to save, despite the extremely low interest rate environment. Consumers nevertheless assess the current financial situation as stable, partly on account of the government’s fiscal stimulus measures. The lower intensity of the second wave of the epidemic has also been reflected in a smaller number of moratorium applications and a decline in the exposure covered by applications from households. The stock of approved moratoria for household loans had reached EUR 521 million by the end of February 2021, with the monthly increase in approved loan moratoria averaging EUR 12 million over the second wave of the epidemic (October 2020 to February 2021). The largest monthly increases in approved moratoria for household loans came in April and May 2020 during the first wave of the epidemic, at EUR 196 million and EUR 184 million respectively.¹⁰⁴

Figure 3.3: Consumer assessment of the financial situation of households



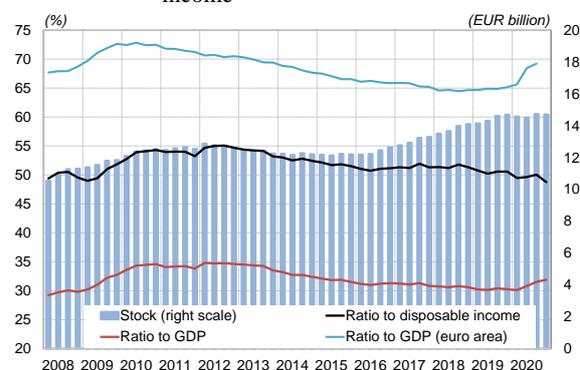
Sources: SORS, Supreme Court, SISBON

Figure 3.4: Number of personal bankruptcies initiated and completed and number of recoveries and enforcements



The ratios of household financial liabilities to GDP and to disposable income in Slovenia deteriorated slightly on aggregate in the final quarter of 2020, despite the stability of household financial liabilities in absolute terms. They increased slightly in the final quarter of 2020, from EUR 14.6 billion to EUR 14.7 billion. The evolution of the second wave of the epidemic raised the risk of an increase in household financial liabilities, particularly among more-indebted lower-income households and households where family members are employed in the hardest-hit sectors of the economy. Conversely, the pronounced increase in household saving is continuing to drive up household financial assets in year-on-year terms, most notably deposits (up EUR 2.3 billion) and equity (up EUR 750 million). The year-on-year growth in household financial assets in the final quarter of last year was also driven in part by holdings of currency, insurance and loans.

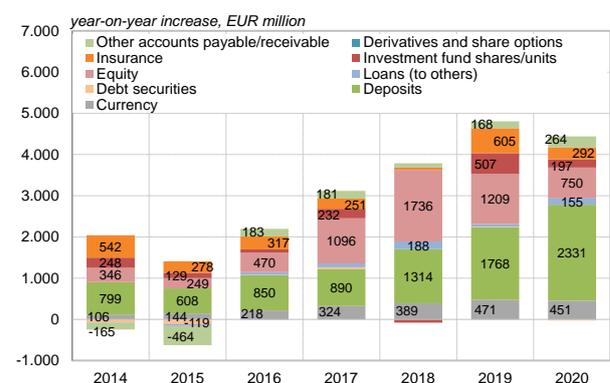
Figure 3.5: Household financial liabilities, absolute amount and as ratio to GDP and disposable income



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.

Sources: Banka Slovenije, SORS, Eurostat

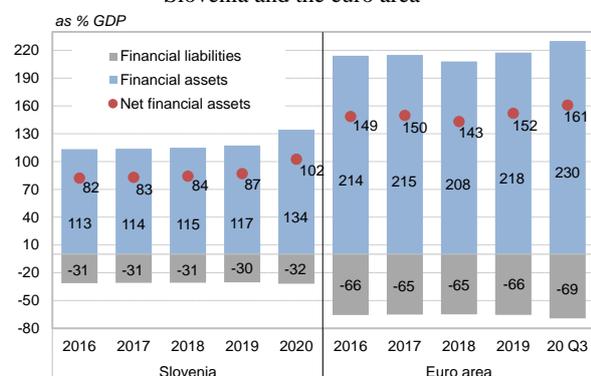
Figure 3.6: Breakdown of increase in household financial assets



¹⁰⁴ The values of moratoria approved for households refer to total loan stock. For more on loan moratoria on the basis of the Emergency Deferral of Borrowers’ Liabilities Act (ZIUOPOK), see the Banka Slovenije website (<https://www.bsi.si/en/media/1629/do-konca-februarja-skoraj-29000-vlog-za-odlog-obveznosti-kreditojemalcev-in-za-70-mio-evrov-odobrenih-posojil-z-jamstvom-drzave>).

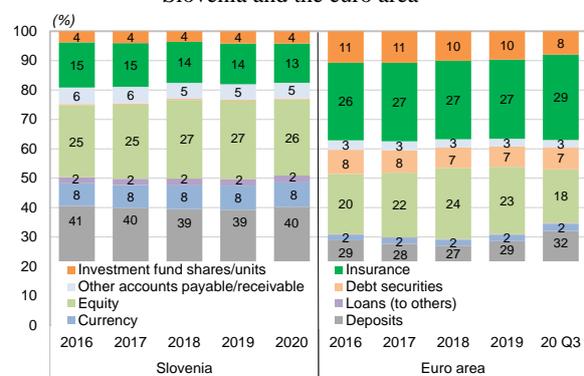
The average household in Slovenia differs considerably from the average household in the euro area, particularly in the ratios of financial assets and liabilities to GDP. The ratio of financial liabilities to GDP stood at around 32% in the final quarter of last year, significantly less than in the euro area overall, where it stood at 69% in the third quarter. The ratio of financial assets to GDP in Slovenia is also significantly less than in the euro area overall: financial assets amounted to 134% of GDP in the final quarter of last year in Slovenia (compared with 230% of GDP in the euro area overall), the former having increased compared with previous years while the latter declined. The detailed breakdown of Slovenian households' financial assets reveals the continuing prevalence of currency and deposits, which account for almost half of the total (48%). The proportion of household financial assets in Slovenia accounted for by equity and by various insurance schemes are also notable. The other forms of household financial assets are less important. The crisis triggered by the Covid-19 pandemic had no impact on the breakdown of Slovenian households' financial assets compared with previous years. The breakdown of household 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 household financial assets in the euro area overall remained stable in the final quarter of 2020, similarly to Slovenia.

Figure 3.7: Household financial assets and liabilities in Slovenia and the euro area



Sources: ECB (SDW), Banka Slovenije

Figure 3.8: Breakdown of household financial assets in Slovenia and the euro area



3.2 Non-financial corporations

NFCs further reduced their indebtedness during the Covid-19 pandemic. In contrast to the euro area overall, there was a decline in bank financing, despite the borrowing opportunities for bridging financial difficulties available under the emergency laws. The current net financial position of NFCs turned positive in the wake of an increase in their assets placed with banks. The non-financial indicators, which usually deteriorate during times of crisis, are not displaying any adverse trends, again thanks to government measures aimed at preventing the closure of firms with viable business models.

NFCs increased their assets and reduced their indebtedness in 2020. NFCs' total liabilities were still higher than their assets, which means that the sector's net financial position remains negative, albeit with a diminishing trend. The negative financial position of NFCs declined from 118% of GDP in 2012 to 85% of GDP in 2020. The decline was driven by current surpluses in investments over liabilities during this period, and this gap has been widening again over the last two years. In the recent past this also happened in the years of the recovery and resolution of the banking system, as a result of NFCs' rapid deleveraging with domestic banks, which they only partly replaced with borrowing in the rest of the world. The reopening of NFCs' positive current financial position picked up further pace after the outbreak of the pandemic, particularly in relation to Slovenian banks.

Figure 3.9: NFCs' net financial position, stocks and flows

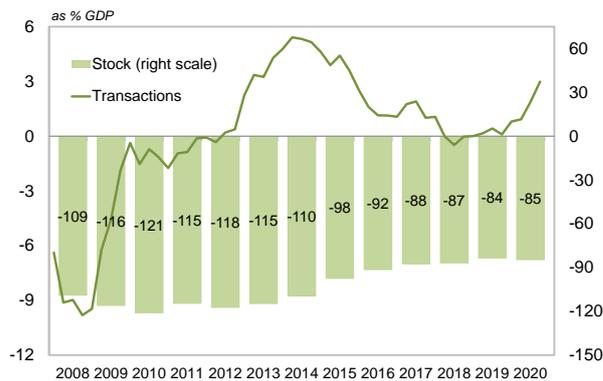
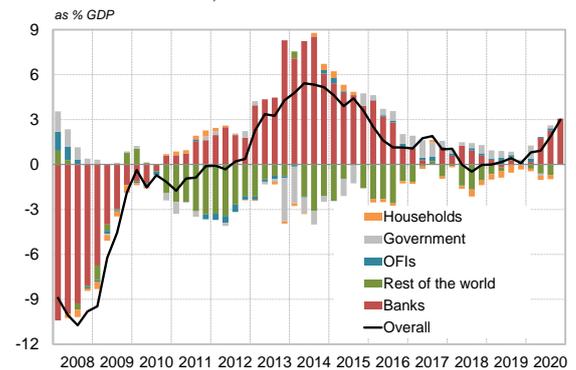


Figure 3.10: NFCs' net financial position by counterparty sector, flows



Note: The net financial position is the difference between the stock of financial assets and the stock of financial liabilities. The current net financial position is calculated in the same way, except that transactions (flows) in financial assets and liabilities are taken into account instead of stocks. Both are illustrated as a ratio to GDP. In the right figure a positive value denotes a positive contribution from the individual institutional sector to the increase in NFCs' net financial position (increase in net assets or decrease in net liabilities).

Source: Banka Slovenije

NFCs repaid loans over most of 2020, and simultaneously increased their deposits at Slovenian banks.

The proportion of NFCs' total financial assets accounted for by bank deposits had reached 15.8% by the end of 2020, up 2 percentage points on the end of 2019, while total holdings of currency and deposits accounted for 17.6% of their financial assets. Another factor in the opening of the current net financial position was the continuation of debt repayments in the rest of the world, and the actual financing of the rest of the world via loans.¹⁰⁵ A positive current net financial position, which is the result of all of the aforementioned flows, is not typical of NFCs, particularly in a time of crisis, when they need additional financing to bridge their liquidity needs.

Figure 3.11: Flows in NFCs' financial liabilities by instrument

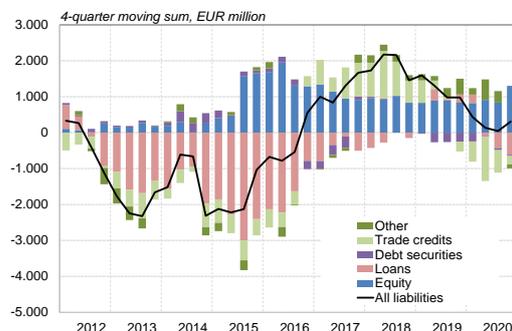
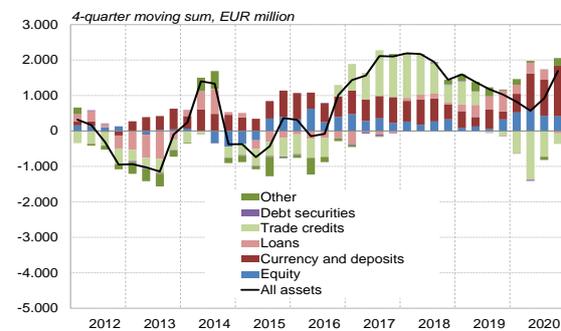


Figure 3.12: Flows in NFCs' financial assets by instrument



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

Source: Banka Slovenije

The decline in NFCs' debt financing in the contracting economy further reduced their leverage.

Leverage had fallen to 80.6% by the end of 2020, driven down by further growth in equity at NFCs in addition to the decline in debt. There was a combination of two favourable factors at work with regard to equity: an actual inflow of equity, and positive revaluations, which have been seen for several years now. The ratio of debt to GDP increased slightly in 2020 as GDP declined: it was up 1.2 percentage points at 87.0%. Compared with the euro area overall, Slovenian NFCs are less indebted in terms of the debt-to-equity ratio and the ratio of debt to GDP. Only Lithuania had a lower ratio of debt to GDP in the third quarter of 2020, while only Ireland and Estonia had lower debt-to-equity ratios.

¹⁰⁵ Within the framework of NFCs' financing via foreign loans, which has been declining for years, loans received from foreign owners had increased over the previous years, but this increase came to an end in 2020. Foreign owners of Slovenian NFCs were also among the recipients of the financing of the rest of the world via loans.

Figure 3.13: NFCs' debt ratios

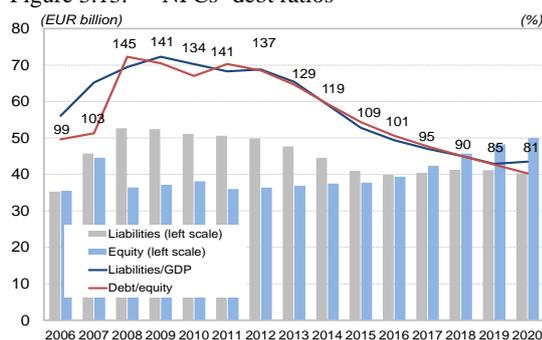
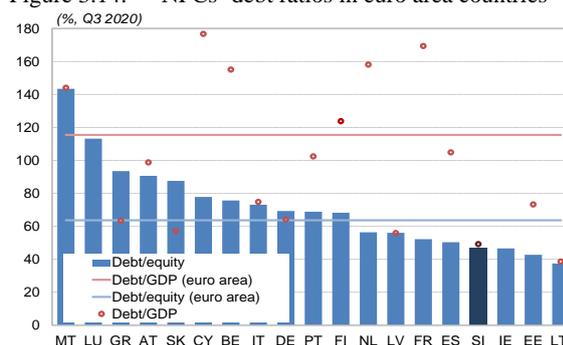


Figure 3.14: NFCs' debt ratios in euro area countries



Note: The left figure illustrates NFCs' liabilities excluding equity. In the right figure, where a comparison is made with the euro area, debt solely includes loans and debt securities. The figures for the ratio of financial debt to GDP for Luxembourg and Ireland lie outside the scale of the y-axis.

Source: Banka Slovenije

Financing at domestic banks was impacted in 2020 by the uncertainty surrounding the duration of the pandemic and the containment measures. NFCs partly postponed their investment plans, while their borrowing at banks was subjugated to their main objective, namely ensuring liquidity in a period of reduced operations or shutdown. The degree to which individual sectors were affected ranged from the total shutdown of numerous services, with a correspondingly harder hit, to sectors that were less affected and were able to continue in business relatively unscathed, most notably in industry and construction.¹⁰⁶ The option of a moratorium on bank loans was largely taken up by NFCs in the hardest-hit sectors.¹⁰⁷ NFCs were provided with additional financing via liquidity loans, which the banks approved to bridge the loss of liquidity caused by the pandemic; only a small proportion of these loans were approved with a government guarantee. The majority of liquidity loans and loan moratoria were approved for NFCs in the first wave of the epidemic. Following additional approvals in the second wave of the epidemic and the maturity of certain loans, the stock of loans to NFCs covered by a moratorium amounted to EUR 2.1 billion at the end of 2020, while the stock of pandemic-related liquidity loans amounted to EUR 172 million.¹⁰⁸

According to surveys of firms,¹⁰⁹ another factor in the decline in financing at banks is the slight reduction in access to bank resources in 2020. Although internal resources meant that the majority of firms had no need of bank financing, those that did need loans assessed access to bank loans as having deteriorated in 2020. Firms also expect access to bank loans to deteriorate in 2021, even though their ability to finance themselves with internal resources is also expected to decline given the adverse conditions for operating profitably during the pandemic. In addition to the general constraints on operations during the pandemic, the main limiting factor in business was low domestic demand, particularly in services.

Certain NFCs will be unable to remain in business after the support measures expire, which for the banking sector entails an increased risk of a rise in non-performing claims. Based on the number of NFCs that ceased trading in 2020, it is impossible to assess in which sectors there is greater probability of firms going out of business after the support measures expire. The number of NFCs that ceased trading did not rise in 2020, but their survival was one of the objectives of the government's emergency measures. The number of NFCs that closed in 2020 was down 23% on 2019, and the trend of decline was seen in all sectors. NFCs merely account for just over 20% of the total number of business entities that ceased trading. Sole traders are the vast majority, and enter and leave the market in large numbers even in years of economic boom. In the sectors of accommodation and food service activities, real estate activities, professional, scientific and technical activities, and in services in connection with entertainment, recreation and other personal services, the number of closures of NFCs has undergone a marked rise over the last three years. By contrast, the number of closures in wholesale and retail trade and in manufacturing remained relatively stable in 2020. Despite the rise in the number of NFCs leaving the market, there was no significant change in the number of going concerns in the segment in 2020, while the trend seen over several years of a rise in the numbers of sole traders leaving the market came to an end in 2020.

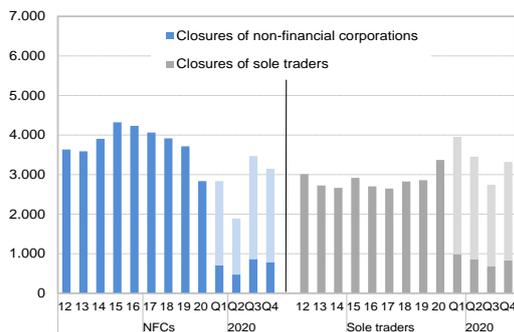
¹⁰⁶ See the January 2021 issue of Economic and Financial Developments (<https://bankaslovenije.blob.core.windows.net/publication-files/economic-and-financial-developments-january-2021.pdf>).

¹⁰⁷ For more, see the section on credit risk.

¹⁰⁸ More detailed information can be found in the [appendix](#).

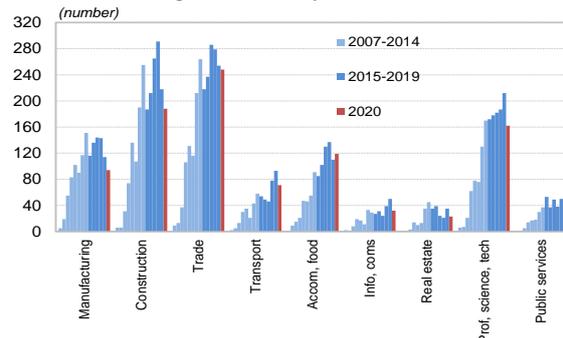
¹⁰⁹ Survey on access to finance of enterprises, available in Slovene at <https://www.bsi.si/publikacije/rezultati-anket/raziskava-o-dostopnosti-financnih-virov-za-podjetja>.

Figure 3.15: Number of closures of NFCs and sole traders



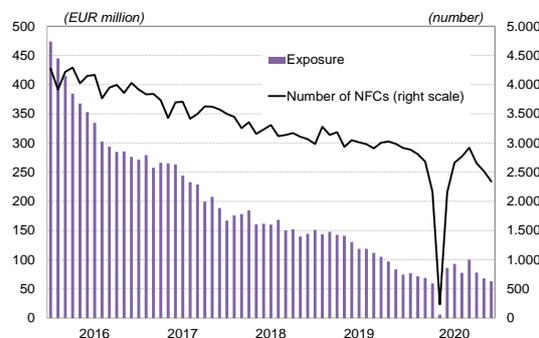
Note: In the left figure the light columns represent the annualised values for the quarterly figures in 2020.
Sources: Banka Slovenije, Supreme Court, AJPES

Figure 3.16: Number of bankruptcy proceedings initiated against NFCs by sector



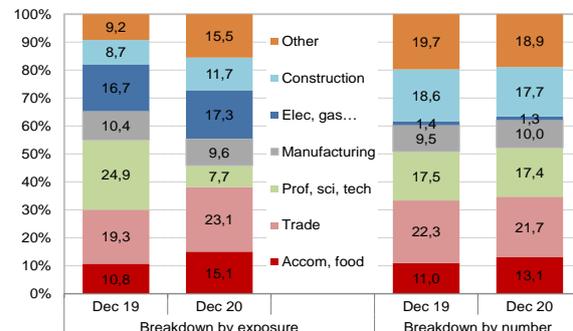
Thanks to the government support measures, other non-financial indicators of the situation in the NFCs sector, which usually reflect a decline in economic activity, remain favourable. The number of bankruptcy proceedings is in keeping with the previous year, partly thanks to the emergency measures¹¹⁰ in connection with the initiation of bankruptcy proceedings, and partly thanks to measures to alleviate the position of NFCs during the pandemic. The number of bankruptcies initiated in the hardest-hit sector (accommodation and food service activities) nevertheless rose in 2020. The number of blocked current accounts of NFCs is also broadly unchanged at the level of the NFCs sector, thanks to the emergency measure of the debt enforcement moratorium, other than a temporary rise in the summer months. However, NFCs in the accommodation and food service activities sector are also notable in terms of the number of blocked accounts: the share that the sector accounts for increased in terms of the total number of NFCs, and the total bank exposure.

Figure 3.17: Number of blocked transaction accounts of NFCs and bank exposure thereto



Note: The number of NFCs includes all NFCs with blocked transaction accounts, while the figure for bank exposure includes only those to which banks are exposed.
Sources: Banka Slovenije, AJPES

Figure 3.18: Breakdown of the number of blocked transaction accounts of NFCs and bank exposure thereto by sector



To assess the systemic risk to financial stability that might come from moratoria claimed by NFCs, it is important to understand what sort of NFCs have been approved for moratoria by the banks.¹¹¹ In the sectors of accommodation and food service activities and arts, recreation and entertainment, the largest shares of total sales revenues were recorded by firms that claimed a loan moratorium at banks (40% and 28% respectively, see left figure), while around 30% of the sales revenues in these sectors was generated by firms that held no debt to banks. The banks are most exposed (as measured by sale revenues) to the sectors of

¹¹⁰ The measures with regard to bankruptcy proceedings in cases when the firm's insolvency was attributable to the declaration of the epidemic under 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). The two measures were in place from the official declaration of the epidemic until 30 August 2020. Under Articles 56 and 57 of the ZIUPOPVDVE, the measures remain in place in the first half of 2021 in slightly modified form.

¹¹¹ Analysis at customer level is based on data for performing loans and purchased claims of NFCs (Sector S.11) and sole traders with a registration number as at 31 December 2020. Other products are excluded from the analysis. The definition of classified claims is used. The exposure value is taken to be the gross on-balance-sheet exposure; off-balance-sheet exposures are excluded from the analysis. Only unconsolidated bank data is taken into account. Covid-19 moratoria in accordance with the law are taken into account, including all moratoria up to 31 December 2020, even if they have expired.

electricity, gas, steam and air conditioning supply, and water supply and remediation activities (labelled “other activities” in the left figure), but just 2% of the revenues in these sectors were generated by firms with a loan moratorium. Focusing solely on firms that hold debt to banks (see right figure), the most notable sectors in terms of the share of exposure covered by a moratorium are arts, recreation and entertainment, and accommodation and food service activities, while manufacturing records the highest total exposure.

Figure 3.19: Breakdown of sales revenues in individual sectors according to whether the firms hold bank debt with or without a moratorium

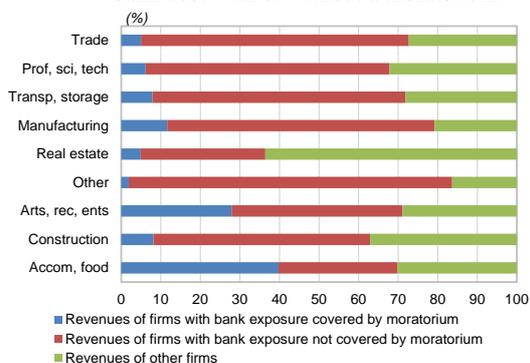
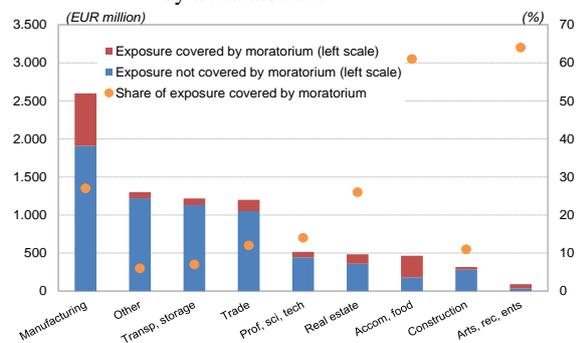


Figure 3.20: Breakdown of bank exposure in individual sectors according to whether it is covered by a moratorium



Note: In the left figure the exposures with a moratorium are measured relative to total sales revenues. The basis for the accounting indicators (AJ PES) is 31 December 2019. Together the red and green bars illustrate the share of firms (according to sales revenues) that hold bank credit exposures. The basis used in the right figure is customer/bank. A customer is deemed to hold a moratorium with a bank if it has at least one loan agreement covered by a moratorium.

Sources: Banka Slovenije, AJ PES

The differences between customers with a moratorium and customers that did not claim a moratorium are analysed below. At the end of 2020 there were higher levels of moratoria in the SMEs portfolio and the sole traders portfolio. The share of exposure covered by a moratorium is higher for loan agreements with longer maturities. Loan agreements with a moratorium also had higher coverage by impairments at the end of 2020, while there were more classified as Stage 2 (exposures with increased credit risk) than Stage 1.

According to the indebtedness, liquidity and profitability of the firms at the end of 2019, and according to the data on the credit ratings and the estimated probability of default (PD)¹¹² assigned by banks at the end of 2020, customers that at the end of 2019 were more-indebted or had worse liquidity had a higher share of exposure covered by a moratorium, and at the end of 2020 were assessed as higher-risk by the banks, as share of moratoria is higher in groups with higher PDs and lower credit ratings. The shares covered by a moratorium are not high in terms of the number of contracts, but are considerably higher in terms of exposure value.

¹¹² The PD estimates do not take account of PD estimates in portfolios where the banks calculate credit parameters in accordance with the IRB approach.

Figure 3.21: Share of total exposure covered by a moratorium, according to different variables (exposure, corporate size, maturity and coverage ratios)

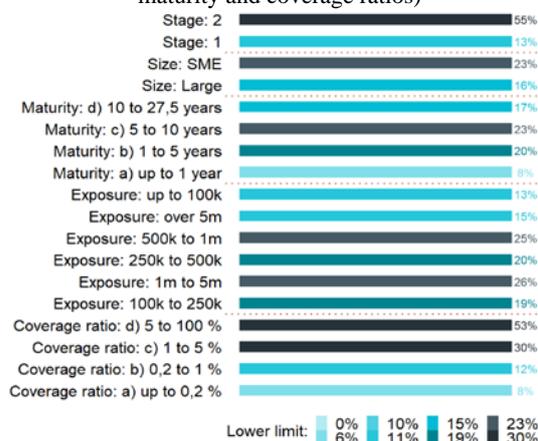
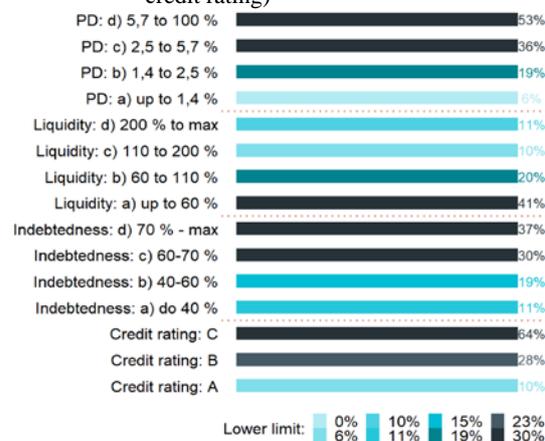


Figure 3.22: Share of total exposure covered by a moratorium, according to different variables (indebtedness, PD, liquidity, credit rating)



Note: Darker shades represent a higher share of moratoria. Left figure: the basis is the contract, and certain customers hold multiple contracts. The numerical variables are divided into four bands with approximately equal numbers of entries in the individual group (with the exception of maturity and exposure value). Right figure: the basis is the customer/bank, and a customer is deemed to hold a moratorium with a bank if it has at least one agreement covered by a moratorium. The numerical variables are divided into four bands with approximately equal numbers of entries in the individual group. Indebtedness is defined as the sum of current and non-current liabilities, divided by assets. Liquidity is defined as current assets minus inventories, divided by current liabilities.

Source: Banka Slovenije

It should be noted that not all firms were subject to the same containment measures or emergency measures; they differed significantly according to the firm's sector. Differences between sectors were evident even before (e.g. certain sectors had higher PD estimates even before the crisis), for which reason interpretation in the portfolio as a whole can be misleading. The findings are similar when the analysis is repeated at the level of firms in the sector of accommodation and food service activities, and in manufacturing, where firms are more heterogenous within the sector. The above findings only hold in part for the sector of arts, recreation and entertainment. The banks assessed customers with a moratorium as higher-risk than customers without a moratorium in September 2020, and in most sectors with higher PDs these customers were assessed as higher-risk even at the end of 2019. In the majority of sectors the banks saw a larger rise over the first nine months of 2020 in the PDs of customers who took up a moratorium than those of customers who did not.

The analysis¹¹³ also shows that less-profitable NFCs and NFCs with weaker initial liquidity showed greater propensity to claim a loan moratorium. NFCs in the sectors of manufacturing, construction, transportation, accommodation and food service activities, and real estate activities showed greater propensity to claim a moratorium than those from other sectors, while NFCs in the wholesale and retail trade sector did not opt for moratoria to a greater extent. Loan moratoria were more common among younger NFCs (up to ten years old) and among SMEs. SMEs that are exporters also showed greater propensity to claim a moratorium, while large enterprises that are exporters showed no evidence of this. This suggests that export-oriented NFCs (SMEs in particular) were hit harder by the crisis and did not have other assets to alleviate the impact of the decline in sales revenues on foreign markets (such as might be available to large export-oriented NFCs). The analysis also shows that it cannot be asserted that more-indebted NFCs showed greater propensity to claim a moratorium, but that there were fewer moratoria claimed by NFCs that were performing better immediately before the crisis and ended 2019 with higher profits (as measured by ROA). NFCs with lower debt servicing capacity (as measured by the ratio of net financial debt to EBITDA) showed greater propensity to apply for a moratorium.

¹¹³ The analysis included all NFCs (Sector S.11) that held loans with Slovenian banks as at January 2021. The data for loan moratoria was obtained from Banka Slovenije's credit register for December 2020. The indicators of indebtedness (ratio of debt [operating and financial liabilities] to assets), liquidity (ratio of cash to total assets), net financial debt to EBITDA, profitability (ROA) and exporter corporate size are calculated using AJ PES data for 2019. The analysis was conducted on the basis of a probit model, and compared NFCs with loans at Slovenian banks, irrespective of whether they had a moratorium. The results may change along the ungrade of the analysis. The detailed results are available in the appendix.

4 NON-BANK FINANCIAL INSTITUTIONS

4.1 Leasing companies

Leasing companies reported an exceptional decline in new business and earnings in 2020 as a result of the Covid-19 pandemic. They saw a pronounced decline in their new business with NFCs, while the decline in the household segment was slightly more muted. The significant decline in new business has already been reflected in a decline in the stock of equipment business. Arrears of more than 90 days have already increased in individual segments, although they declined on aggregate as a result of the ongoing sale/withdrawal of real estate business from leasing companies' portfolios. The systemic risks inherent in the performance of leasing companies remain elevated.

Leasing companies¹¹⁴ reported a major decline in new business in 2020 as a result of the Covid-19 pandemic. It declined most in the second quarter and the final quarter, driven by the containment measures, the decline in international trade and domestic economic activity, and precautionary behaviour by consumers during a time of increased uncertainty. New leasing business in 2020 amounted to EUR 867 billion, down 21.6% on the previous year. The largest decline in leasing companies' new business was in the NFCs segment, where business was down 29.5%, while leasing business with households declined by 12.5%. Households accounted for 53.7% of new business in 2020, the first time since 2015 that the figure had exceeded 50%. There has been no significant change over recent years in the breakdown of new business by leasing type: equipment leasing in the form of car leasing is the main source of new business, and accounted for 63.8% of the total in 2020. It was followed by leasing of commercial and goods vehicles with 21.8%, while real estate leasing recorded its lowest figure to date. Leasing business for new vehicles in 2020 was down sharply on the previous year, while leasing business for used vehicles remained at a comparable level.

Figure 4.1: New leasing business¹¹⁵

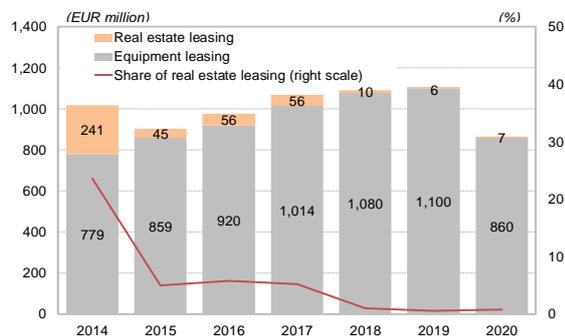
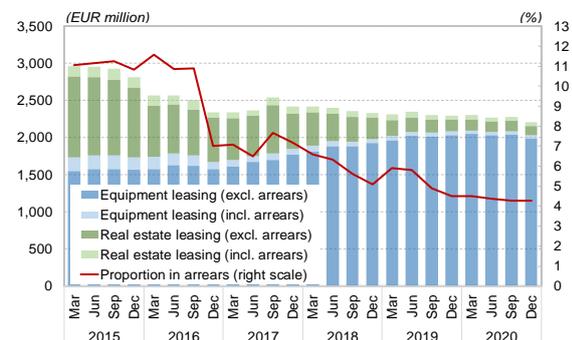


Figure 4.2: Stock of leasing business and proportion of arrears



Source: Banka Slovenije

The major decline in new business is already being reflected in a decline in the stock of equipment leasing, which has been a stable source of business in the period since the previous financial crisis. The stock of leasing business amounted to EUR 2.2 billion at the end of 2020, down 3.7% on the previous year. Leasing companies' withdrawal from real estate leasing is still driving down the stock of leasing business, although the impact is diminishing over the years. The stock of equipment leasing business declined by 2.2% over 2020, while the adverse impact of the Covid-19 pandemic was felt in this segment in the final quarter of the year. The stock of equipment leasing business with NFCs declined by 6.8% over 2020, most notably in the sectors of transportation and storage, wholesale and retail trade and repair of motor vehicles and motorcycles, and manufacturing. These sectors accounted for 53.6% of the total stock of leasing business with NFCs at the end of 2020. The stock of leasing business with households increased by 2% over 2020, despite the Covid-19 pandemic. The stock of vehicle leasing business, which accounts for the majority of

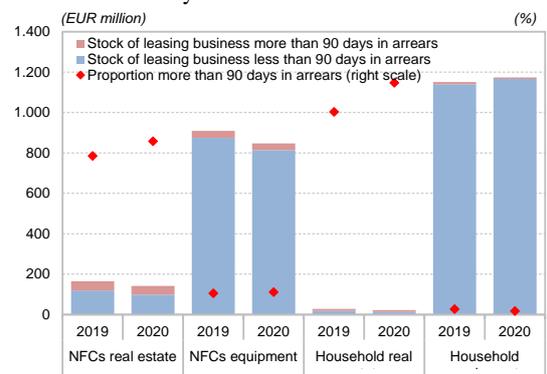
¹¹⁴ Three new leasing companies were added to the reporting population in 2020. They accounted for 7.3% of new leasing business in 2020, which reduced the impact of the decline in new leasing business over the period in question by 5.7 percentage points.

¹¹⁵ Leasing business is disclosed at financed value, excluding the financing of inventories.

business with households, remained broadly unchanged from the previous year, while other equipment leasing business increased (vessels, production equipment and machinery, other equipment).¹¹⁶

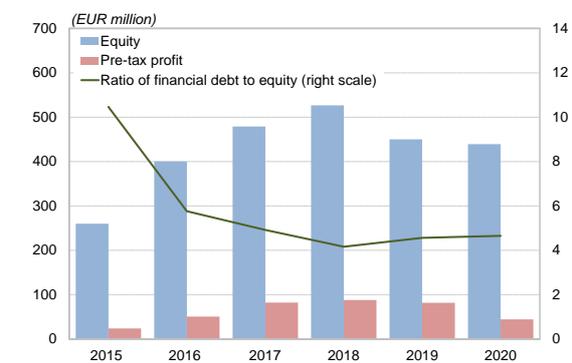
Arrears of more than 90 days declined in 2020, but the impact of the Covid-19 pandemic is already being reflected in an increase in arrears of more than 90 days in individual segments of equipment leasing. Despite the downturn in equipment leasing, the proportion of claims more than 90 days in arrears was down 0.2 percentage points on the previous year at 4.3%; real estate leasing is still prevalent in arrears, but its contribution is diminishing over the years. The decline in arrears of more than 90 days in equipment leasing business came to an end in the second half of the year. Arrears of more than 90 days in equipment leasing business with NFCs ended the year slightly up on the previous year, while arrears in the household segment had declined slightly. Numerous firms remain directly or indirectly reliant on government support and on fiscal and monetary policy measures. An additional increase in arrears of more than 90 days is therefore expected when the government support expires.

Figure 4.3: Stock and proportion of leasing business with NFCs and households more than 90 days in arrears



Source: Banka Slovenije

Figure 4.4: Changes in equity and earnings



Leasing companies' performance declined sharply in 2020, but they nevertheless ended the year in profit. Pre-tax profit amounted to EUR 44.5 million, down 45.6% on the previous year, driven largely by the decline in revenue from the reversal of impairments for finance leases, and an increase in impairment expenses. Total assets and equity declined by 2.7% and 2.4% respectively over the same period, while the ratio of financial debt to equity deteriorated by 0.1 percentage points to 4.7%.¹¹⁷

4.2 Insurers

The insurance sector again saw growth in premium in 2020, thanks to growth in the general insurance and health insurance segments. The increased volatility on the financial markets and the decline in economic activity brought a reduction in life insurance premium. The health insurance segment drove an improvement in the claims ratio, but a deterioration in profitability. The decline in net profit in 2020 was attributable to the adverse situation on the financial markets and the persistence of the low interest rate environment, which is raising the expense of securing long-term returns for insurance with an embedded guarantee, and an increase in insurance technical provisions on account of the adverse business conditions. The two reinsurance corporations recorded an aggregate loss in 2020, as a result of an increase in loss events, a decline in income from investments and an increase in impairment expenses on investments, and a sharp increase in mathematical provisions.

The insurance sector succeeded in maintaining positive growth in gross written premium in 2020. Growth slowed sharply at the insurance corporations, but the two reinsurance corporations succeeded in maintaining growth from the previous year. Owing to the adverse impact of the Covid-19 pandemic,

¹¹⁶ The inclusion of the new leasing companies in the reporting population had an impact on the stock of leasing business and on arrears of more than 90 days. Excluding the new leasing companies, the stock of leasing business would have declined by 7.1%, while the proportion of claims more than 90 days in arrears would have declined by slightly less.

¹¹⁷ For the sake of data comparability, the leasing companies that ceased reporting their statement of financial position and income statement figures in 2020 have been excluded from the analysis and illustrations, while the companies that began reporting in 2020 have been taken into account. Without the removal of the excluded reporting companies from 2019, leasing companies' total profit in 2020 would have declined by 64.2%, their total assets by 6.7%, and regulatory capital by 20.5%.

insurance corporations reported a decline relative to 2019 in gross written premium in the life insurance segment (in the amount of 3.8%), while growth in gross written premium slowed in the segments of general insurance (to 1.7%) and health insurance (to 7%). Life insurance was sharply impacted in the first three months of 2020 by the huge uncertainty on the financial markets, which was reflected in a decline in gross written premium for unit-linked life insurance, while the decline in gross written premium for traditional life insurance was the main factor adversely affecting the life insurance segment in the final quarter of the year. The main developments in general insurance were a slowdown in growth in land motor vehicle insurance and motor vehicle liability insurance (which together account for 48.7% of general insurance) by more than 7 percentage points to 1.7%, and an increase of 3.3% in fire and other natural forces insurance (which accounts for 23% of general insurance). Growth in gross written premium in the health insurance segment remained high in 2020, as a result of the rise in supplementary health insurance premiums carried out in the second half of 2019. The reinsurance corporations recorded their highest growth in gross written premium in fire and natural forces insurance, and in land motor vehicle insurance and motor vehicle liability insurance.

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

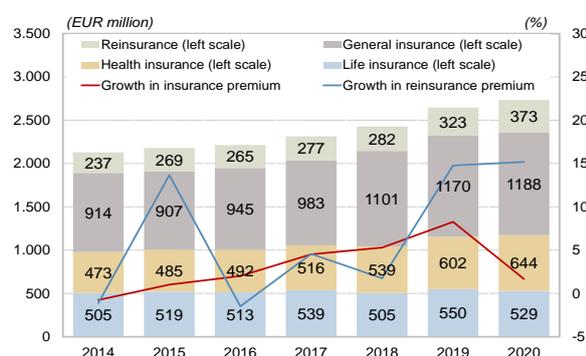
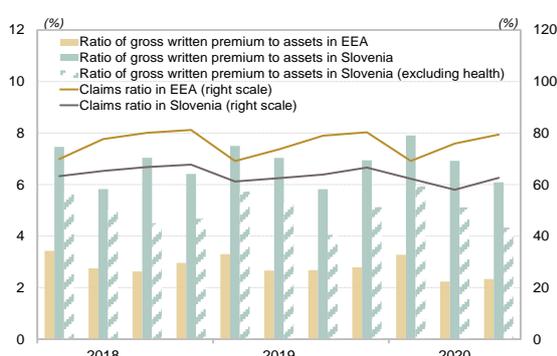


Figure 4.6: Ratio of gross written premium to total assets and claims ratio in Slovenia and the EEA



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. The right figure illustrates the data until Q3 2020, because the data for Q4 2020 for the EEA has not been released yet. The calculation of the claims ratio takes account of the cumulative data for gross claims paid and gross written premium at the end of each quarter.

Sources: ISA, EIOPA, Banka Slovenije, own calculations

Insurance corporations operating in Slovenia performed better over the first nine months of 2020¹¹⁸ than did on average in the EEA. Insurance corporations in Slovenia had higher growth in gross written premium and a better claims ratio, although the situation in Slovenia deteriorated relative to the EEA in the third quarter, when insurers recorded a further decline in gross written premium, which nevertheless amounted to 6.1% of assets, or 4.3% of assets if the health insurance segment is excluded.¹¹⁹

Insurance corporations reported an improvement in the claims ratio in 2020 compared with the previous year, while the adverse impact of the pandemic was mostly reflected in the life insurance segment. The claims ratio in 2020 was down 1.1 percentage points on the previous year for insurance corporations, and down 1.2 percentage points for the reinsurance corporations. Insurance corporations succeeded in improving the claims ratio thanks to a decline in claims under voluntary health insurance, where growth in gross written premium also recorded its record high. The claims ratio in general insurance remained unchanged, as claims and gross written premium recorded simultaneous increases. The claims ratio in life insurance increased by more than 3 percentage points, on account of an increase in claims under traditional life insurance and a more pronounced decline in gross written premium in unit-linked life insurance. Despite stable growth in gross written premium, the reinsurance corporations saw a slight deterioration in their claims ratio, as a result of an increase in insurance and reinsurance claims, various financial losses, and fire and natural forces reinsurance.

¹¹⁸ At the time of writing, the data for the EEA for Q4 2020 was not yet available.

¹¹⁹ Changes in prices of supplementary health insurance also had a significant impact on gross written premium in the health insurance segment in Slovenia, for which reason changes excluding this effect have also been shown.

Figure 4.7: Claims ratios for the main insurance classes

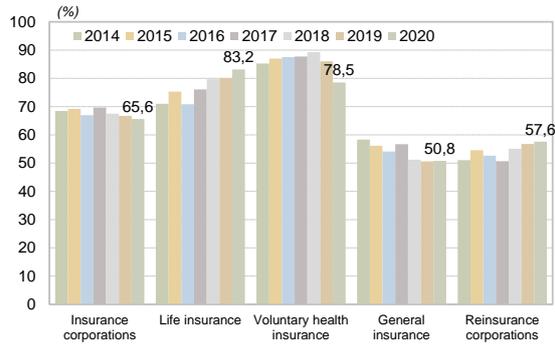
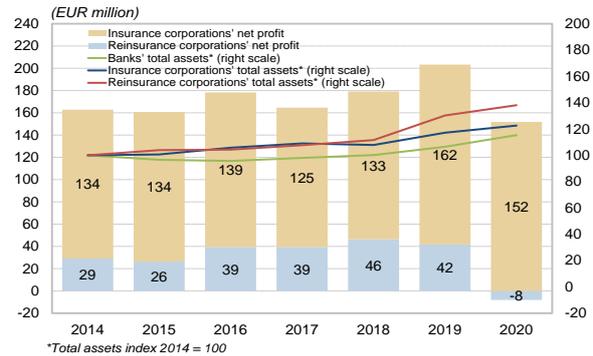


Figure 4.8: Insurers' net profit and total assets



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.

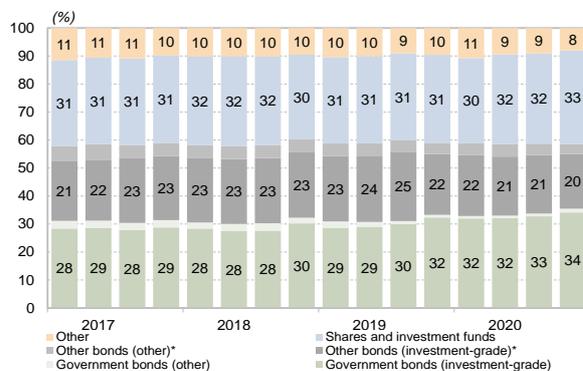
Right figure: *Total assets: index 2014 = 100.

Sources: ISA, Banka Slovenije

Insurance corporations' profitability deteriorated in 2020, and both reinsurance corporations recorded a negative operating result. Insurance corporations reported a 6.1% decline in profit compared with the previous year. The downturn in performance was attributable on the revenue side to a deterioration in the claims ratio in life insurance and a decline in income from investments as a result of the adverse situation on financial markets. The technical result and investment income in life insurance were down 16.6% on aggregate, while the technical result in non-life insurance (including health insurance) was up 20%. The main factors on the expense side were an increase in investment expenses driven by increased impairments of assets, and an increase in other insurance expenses. In the current business environment, the increase in insurance technical provisions also had an impact on the operating result. The reinsurance corporations ended the year with an aggregate loss of EUR 8 million. This was attributable to the high number of loss events, which increased claims expenses by 13.6%, a decline of 76.6% in investment income, and the increase in impairment expenses for assets, which more than doubled. Another factor in the loss was the sharp increase in mathematical provisions, as the reinsurance corporations are expecting to bear some of the costs of the shutdowns caused by the pandemic.

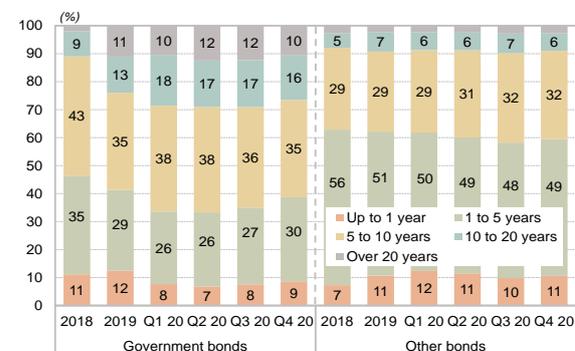
Market risks remain elevated because of Covid-19, while insurance sectors' asset structure remains stable. (Re)insurers increased their exposure to investment-grade government bonds (rated BBB- and higher) in 2020, mostly opting for government bonds rated higher than BBB+ or Baa1. To compensate for the reduced returns on assets of this type, insurers primarily opted for bonds of longer maturities, which was reflected in increased exposure to government bonds with a residual maturity of more than 10 years. Holdings of corporate bonds declined slightly, while the average residual maturity of corporate bonds in the portfolio lengthened. The proportion of assets held in other forms (real estate, currency, deposits and structured products) also declined, while the proportion accounted for by equities (shares and investment funds) increased.

Figure 4.9: Breakdown of (re)insurers' investments in securities by class



Sources: ISA, Banka Slovenije

Figure 4.10: Breakdown of (re)insurers' investments in securities by maturity



The capital adequacy of insurance corporations in Slovenia deteriorated slightly more as a result of the Covid-19 pandemic than did the average in the EEA. The deterioration occurred in the first quarter of 2020, when the financial markets saw a sharp increase in volatility. Stabilization of the situation on the financial markets over the remainder of the year brought a slight correction in insurance corporations' capital adequacy. The median capital adequacy as measured by solvency capital (SCR coverage ratio) at insurance corporations operating in Slovenia had improved to 190% by the end of the year (down 4 percentage points on the end of 2019), while in the EEA overall it did not fall below 200%, and stood at 215% at the end of the third quarter of 2020. Of the 14 insurance corporations in Slovenia, the number with an SCR coverage ratio of less than 200% increased from five in the previous year to seven last year. Capital adequacy as measured by the minimum consolidated capital requirement (MCR coverage ratio) in Slovenia fluctuated slightly more than in the EEA overall, but underwent a correction over the course of the year, and the median MCR coverage ratio ended the year several percentage points above its level of December 2019 (having increased to 607%). It was also above the average MCR coverage ratio in the EEA in the second and third quarters of 2020.

Figure 4.11: Capital adequacy in terms of SCR coverage ratio (insurance corporations)

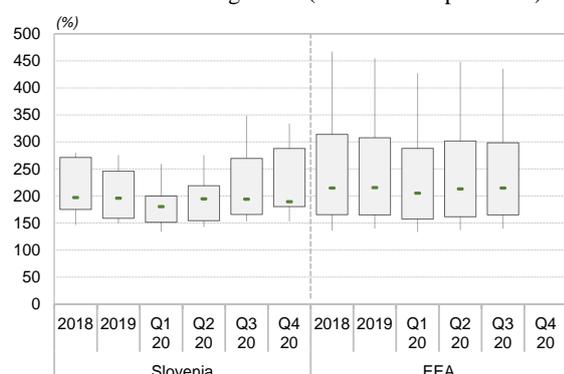
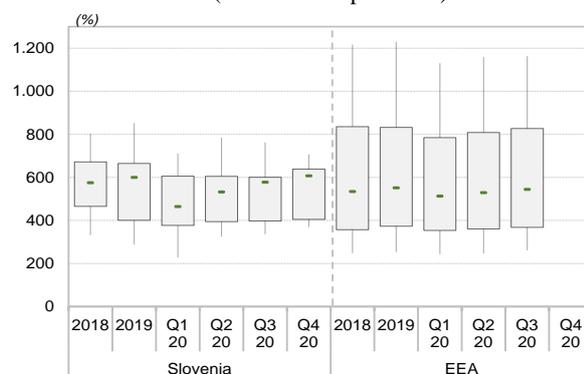


Figure 4.12: Capital adequacy in terms of MCR coverage ratio (insurance corporations)



Note: The 10th and 90th percentiles are taken as the upper and lower limits. The data for the EEA is illustrated until Q3 2020, as the data for Q4 2020 for the EEA has not been released yet.

Sources: EIOPA, ISA, Banka Slovenije

The Covid-19 pandemic impacted the insurance sector in several areas. The largest impact came from market risk, which was a factor in the decline in capital adequacy. It had been at a high level before the outbreak of the pandemic, which helped insurance corporations withstand the extreme pressure in the first quarter of 2020 relatively well. Despite the growth in gross written premium and the improvement in the claims ratio, the impact of the pandemic was also reflected in a decline in insurers' profitability. A downturn in the macroeconomic situation is usually reflected, with a lag, in gross written premium, which in the current situation might also worsen the performance of the insurance sector in 2021. Another factor that is adversely impacting insurers' profitability is the persistence of the extremely low interest rate environment, which is being reflected in a decline in investment income and declining demand for insurance products.

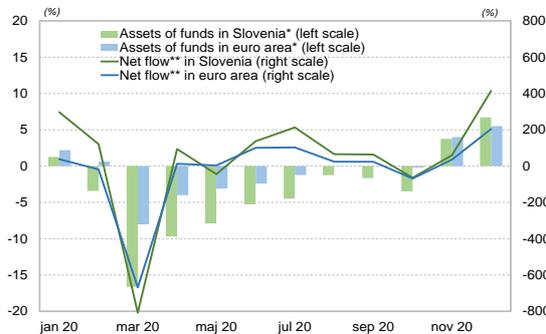
4.3 Mutual funds

In 2020 the domestic mutual funds recorded their largest net inflows of the last ten years, despite the Covid-19 pandemic. NFCs again increased their holdings of mutual funds, having mainly made net withdrawals in recent years. The quick recovery on the stock markets saw the average unit prices of almost all types of mutual fund regain or exceed their pre-pandemic levels. The high growth on the stock markets further widened the discrepancy between the rise in share prices and firms' performance indicators, which raises questions over the stability of the quick recovery. Market risk remains the key risk for mutual funds, while the resilience of the domestic mutual funds remains good.

The sharp fall in stock markets during the spring wave of the pandemic was followed by a quick recovery on the exchanges over the remainder of the year, which was also reflected in growth in the mutual funds' assets under management. The domestic mutual funds saw a larger fall in value than mutual funds in the euro area overall, given the former's greater exposure to shares. They accounted for more than 70% of their total assets at the end of 2020, compared with a figure of just over 30% in the euro area overall. The volatility on the financial markets has not yet returned to its pre-crisis level, and the divergence between growth in stock market indices and the performance indicators of public limited companies on the exchanges

remained high at the end of the year. The likelihood of another reversal on the exchanges is high, and thus market risk is elevated.

Figure 4.13: Changes in assets and net flow in assets, comparison between Slovenia and the euro area



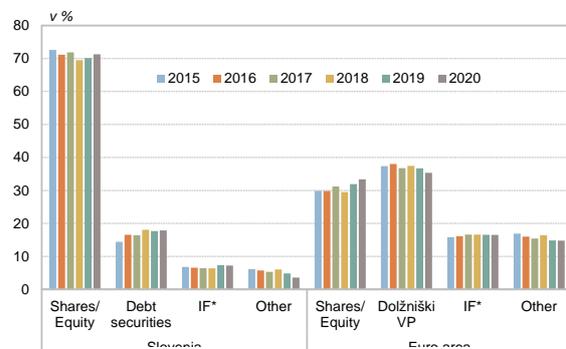
Notes: Money-market funds are not illustrated in the figures.

Left figure: *Change in stock compared with December 2019. **Change relative to monthly average in 2019.

Right figure: *Investment Fund shares/units.

Sources: ECB (SDW), Banka Slovenije, own calculations

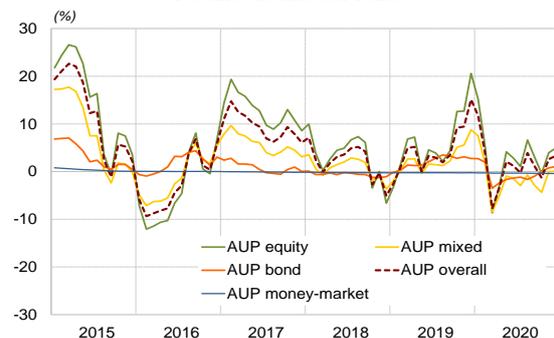
Figure 4.14: Breakdown of mutual funds' assets under management by class of security



The quick recovery on stock markets also had a favourable impact on net inflows into funds. Domestic and foreign mutual funds alike reported sharp net outflows after the declaration of the pandemic in March 2020: the domestic mutual funds saw the outflow of 1.8% of their assets held at the end of 2019, while in the euro area overall the outflow amounted to 1.9% of assets. Domestic and foreign mutual funds reported a net inflow of assets over the remaining months of the year.¹²⁰

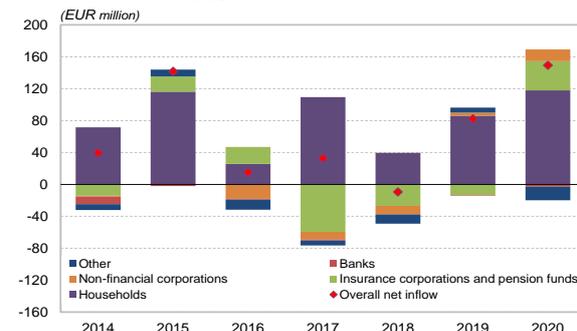
The liquidity difficulties encountered by larger money-market funds across the euro area and funds whose investment policies focus primarily on corporate bonds remained limited and short-lived. This was helped by the positive mood on stock exchanges, where by the end of 2020 share indices in particular had regained and occasionally even exceeded their pre-epidemic highs. This was also reflected in a rise in the average unit price (AUP) of domestic equity funds, while the AUP of mixed funds and bond funds remained unchanged or only slightly exceeded the level seen at the end of 2019. The domestic money-market funds saw a fall in their AUP in 2020.

Figure 4.15: Year-on-year change in average unit prices of domestic mutual funds



Sources: SMA, Banka Slovenije

Figure 4.16: Net inflows into mutual funds by investor sector



Investors tracked developments on the stock markets by increasing their net inflows into mutual funds in 2020. The domestic mutual funds recorded high net inflows of EUR 150 million in 2020, up 81.4% on 2019. There was also a slight change in the breakdown of these inflows. Alongside households, who are traditionally the largest net investors in mutual funds, NFCs and insurance corporations also increased their holdings in mutual funds. The majority of the net inflows from NFCs and insurance corporations came in July, November and December. NFCs directed the majority of their inflows into bond funds and money-

¹²⁰ The above analysis (comparison between domestic mutual funds and other mutual funds marketed in the euro area) did not take account of money-market funds, as these are not reported in the ECB SDW together with other statistics for the performance of mutual funds, but as part of the statistics for monetary financial institutions.

market funds (85.6% of EUR 15 million), while insurance corporations directed the majority of their inflows (87.6% of EUR 39 million) into equity funds, similarly to households. For NFCs and insurance corporations, investing in mutual funds is not their principal business activity, therefore it can be assumed that these inflows are more short-term oriented, which in the event of a reversal on the stock markets could additionally strengthen outflows from mutual funds. Conversely, net inflows from households amounted to a high¹²¹ EUR 118 million in 2020. Households recorded net inflows of EUR 44 million in January and February alone, well above average. Following the declaration of the pandemic, households recorded their largest net monthly outflows of recent years in the amount of almost EUR 20 million in March, but this was still less than the inflows of the previous two months. Over the remainder of the year households' monthly inflows averaged EUR 9 million, although December was notable for inflows of EUR 26 million.

The market situation was highly challenging in 2020, but the domestic mutual funds nevertheless had no major problems in maintaining their liquidity. According to the SMA, no mutual fund operated by a domestic management company imposed a freeze on withdrawals or a partial suspension, and no management company reported any difficulties with liquidity or asset valuations. Amid the elevated risks on the stock markets, the resilience of the domestic mutual funds remains relatively good.

¹²¹ Households' inflows into mutual funds were up 36.9% on 2019, while the increase in household deposits at banks was 10.2% over the same period. The increase in inflows into mutual funds in 2020 nevertheless amounted to just 5.7% of the increase in household deposits.

5 MACROPRUDENTIAL POLICY FOR THE BANKING SYSTEM AND LEASING COMPANIES

Macroprudential policy aims to identify, monitor and assess systemic risks to financial stability for the purpose of safeguarding the stability of the entire financial system, which includes strengthening the resilience of the financial system, and preventing and mitigating the build-up of systemic risks, thereby ensuring a sustained contribution to economic growth from the financial sector.¹²² There was no change in the second half of 2020 to the Banka Slovenije macroprudential policy toolkit, which encompasses macroprudential restrictions on profit distributions by banks (the measure was amended in February 2021) and by leasing companies, macroprudential restrictions on household lending, the countercyclical capital buffer, the O-SII buffer, a macroprudential liquidity measure (the GLTDF) and macroprudential caps on deposit interest rates. When the official epidemic was declared, the option of discounting a temporary decline in income was reactivated for the measures restricting household lending.

Box 5.1: Growth at risk (GaR) and macroprudential policy

The purpose of macroprudential policy is to mitigate the impact of systemic financial shocks on the real sector. The challenge in managing risks is that the underlying financial vulnerabilities cannot be observed directly, but can be mitigated when shocks that adversely impact the real sector occur. The development of a framework for assessing the impact of macroprudential policy in reducing the downside risk to GDP growth is an important component of Slovenia's broadly defined macroprudential stance.

By its very definition, growth at risk (GaR) seeks links between the macrofinancial conditions (variables) and the probability distribution of future growth in real GDP. One of the advantages of the GaR approach is that it takes account of the entire growth distribution, including risks of a slowdown and also (the lower risk of) an overheating economy. It also provides a framework for analysing key factors in future GDP growth and their relative significance, which changes along the probability distribution of growth and with regard to the projection horizon.

The probability distribution of economic growth obtained within the framework of GaR analysis is based on the prevailing macrofinancial conditions, but the results can differ significantly with regard to the choice of macrofinancial variables. It appears that numerous variables are potentially significant to explaining the dynamics in GDP growth, but their trajectories are not entirely independent, as they reflect similar macrofinancial phenomena. Empirical case studies of GaR analysis in other countries suggest that best practice is to partition three broad groupings, encompassing (i) financial conditions, (ii) macrofinancial vulnerabilities (e.g. leverage) and (iii) other (external) factors. Each of the partitions features a mass of potential variables that best capture the state and dynamics in the partition. The observation period for the analysis is from the second quarter of 2002 to the end of 2020.

Quantile regression was used to estimate future real GDP growth, where the explanatory variables are financial conditions, systemic risk, broad macroeconomic conditions and macroprudential policy. The two most important factors in the evolution of tail risk are the financial conditions index (FCI) and the systemic risk index (SRI), which are illustrated in the figures together with annual real GDP growth.

¹²² Article 2 of the Macroprudential Supervision of the Financial System Act (Official Gazette of the Republic of Slovenia, No. 100/2013).

Figure 5.1: Financial conditions index (FCI) and annual real GDP growth

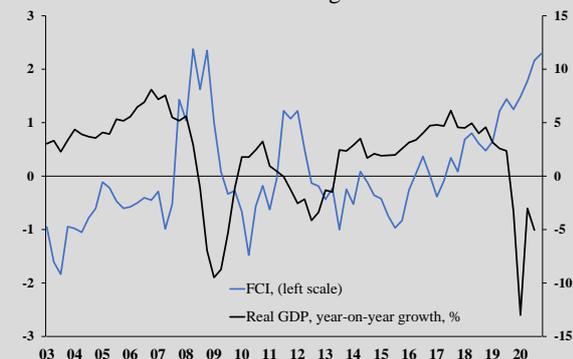
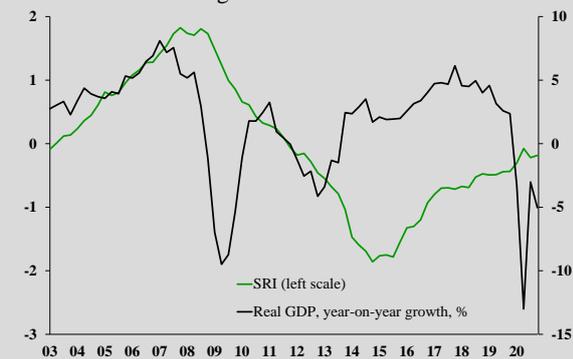


Figure 5.2: Systemic risk index (SRI) and annual real GDP growth

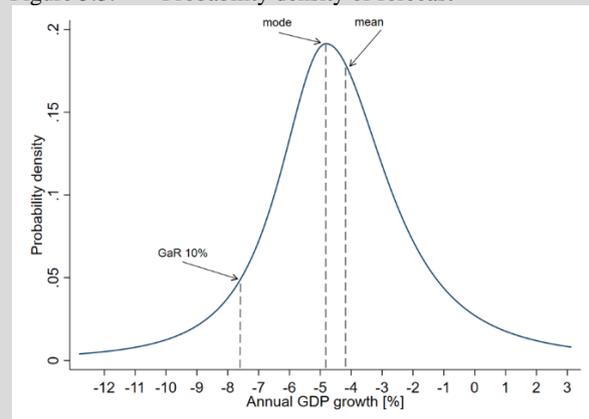


Note: Left figure: large declines in real GDP growth usually coincide with large increases in the FCI. The FCI reflects financial uncertainty phenomena with short-term effects. FCI: left scale; GDP growth: right scale. Right figure: the domestic systemic risk index (SRI) is negatively correlated with GDP growth, although compared with the latter it is less variable, as it captures differences in financial imbalances and vulnerabilities with medium-term consequences. The SRI is a composite index built from six early warning indicators. SRI: left scale; GDP growth: right scale.

Source: Banka Slovenije

Upon obtaining the estimates from the quantile regression, a conditional distribution of future GDP growth over the next four quarters was calculated by fitting a parametric t-skew distribution to the growth forecasts obtained on the basis of the quantile regression. A GaR of 10% corresponds to the value of GDP growth below which the area under the curve has a probability density of 0.1. Based on data from the analysed period, the GaR of 10% was estimated at -7.6%.¹²³

Figure 5.3: Probability density of forecast



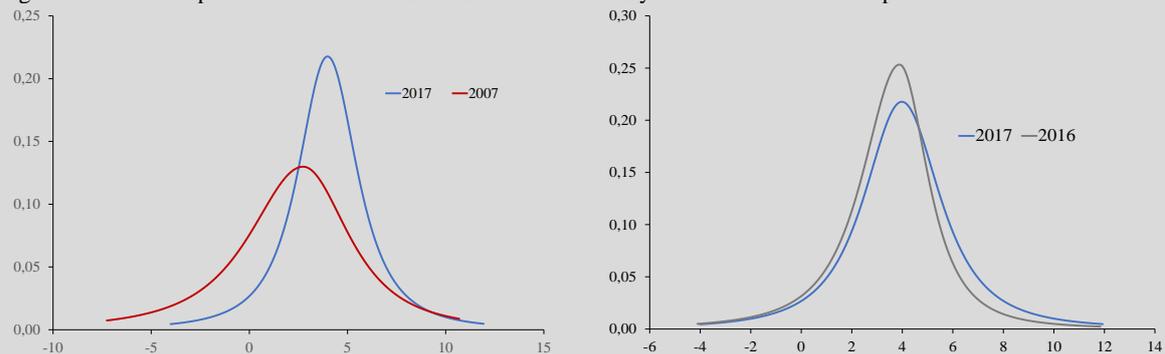
Source: Banka Slovenije

The time dynamics of the probability distribution of future GDP growth reveals that between recessions the distribution is skewed more to the left, while in periods of expansion it is skewed more to the right.¹²⁴ The skew over time in the conditional distribution of future GDP growth shows that the risk of negative growth changes much more profoundly over time than does the upside risk. In light of these findings we compare the skewness of the conditional distribution of Slovenian GDP growth between 2007 and 2017 and between 2016 and 2017. It is evident that the distributions in 2016 and 2017 (years of expansion) are more symmetrical, which corresponds to the predictions in the literature. By contrast, the left tail of the growth distribution in 2007 (pre-crisis period) is fatter and has a greater probability of recession (the area to the left of zero growth) compared with 2017.

¹²³ In other words, the estimated probability that GDP growth will be lower than -7.6% is less than 10%.

¹²⁴ See for example Adrian, T., Boyarchenko, N. and Giannone, D. (2019). Vulnerable growth. *American Economic Review*, 109 (4), pp. 1263-1289.

Figure 5.4: Comparison of skew of conditional distribution in years of recession and expansion



Source: Banka Slovenije

The GaR model can be a powerful tool for analysing financial stability, as it enables the dynamic quantification of macroprudential measures and their effects, and the time interactions over the short and medium terms. The advantage of the GaR approach to macroprudential policy is that it flexibly captures the nonlinear interaction between shocks, financial conditions, and economic outcomes predicted by theory, and offers support in the pursuit of macroprudential policy.¹²⁵ Recent studies have provided evidence of the positive effects of macroprudential policy on the left tail of the GDP growth distribution.¹²⁶ Analysis of this type should also be gradually included in the assessment of macroprudential policy in Slovenia.

Macroprudential restriction of profit distributions by banks

In light of the economic impact of the Covid-19 epidemic, and based on recommendation of the Financial Stability Board, in April 2020 Banka Slovenije introduced a temporary restriction on profit distributions by banks and savings banks. The aim of the measure was 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 applied to all banks and savings banks established in Slovenia.

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

Owing to the Covid-19 pandemic, the economic and financial uncertainty remains high in Slovenia and in most other EU Member States. Recommendations were therefore adopted at the level of the ESRB and the ECB in December of last year, extending restrictions on profit distributions at banks, with certain exemptions. Banka Slovenije followed the ESRB recommendations (ESRB/2020/7 and ESRB/2020/15), which are addressed to the relevant authorities of Member States. Slovenia's Financial Stability Board (OFS/2021/1)¹²⁷ issued a new recommendation again calling on supervisory authorities to impose a measure on supervised entities aimed at restricting or exercising caution in profit distributions. The macroprudential measure from 2020 temporarily restricting profit distributions by banks and savings banks during the adverse situation caused by the Covid-19 pandemic was consequently extended and adjusted by Banka Slovenije in February 2021.¹²⁸

The part of the measure that relates to payment of profits in the form of dividends, share buybacks or the use of profits for other purposes remains binding. Distributions are now exceptionally allowed, for banks whose profit in the first quarter of 2021 was positive. The distribution may in no instance exceed the lower of the following caps:

¹²⁵ Periods of low future growth rates in the tail of the distribution could be indicative of large downside risks, and the macroprudential stance could be loosened, and vice-versa.

¹²⁶ See for example Duprey, T. and Uebfeldt, A. (2020). Managing GDP Tail Risk, Staff Working Papers 20-3, Bank of Canada.

¹²⁷ [Recommendation OFS/2021/1 of 25 January 2021 on profit distributions by financial corporations.](#)

¹²⁸ Regulation on the macroprudential restriction on profit distribution by banks (Official Gazette of the Republic of Slovenia, No. 21/20).

- 15% of the bank's cumulative profit on an individual basis from the 2019 and 2020 financial years, or
- 20 basis points in terms of the bank's common equity Tier 1 capital ratio on an individual basis as at the end of 2020.

The measure therefore follows the ECB recommendation (ECB/2020/62), which is addressed to significant banks, and to national supervisory authorities with regard to the arrangements for less significant banks.

The restriction on the payment of variable remuneration to identified staff, which was part of the binding macroprudential measure in 2020, has been modified into a recommendation in 2021. The amounts of variable remuneration paid to identified staff did not have a systemically relevant impact on the capitalisation of the banking system. Nevertheless it is fitting for staff to share the fate of the economy and the bank at which they are employed, for which reason the measure was retained in the form of a recommendation.

Table 5.1 illustrates a simulation of dividend payments on the basis of the restrictions. Should all the banks pay dividends in the amount of 15% of the accumulated profit from 2019 and 2020, the total payment would amount to EUR 122 million. Should all the banks pay dividends in the amount of 20 basis points in terms of the common equity Tier 1 capital ratio, the total payment would amount to EUR 42.7 million. Because banks have to apply the lower of the aforementioned caps, the maximum amount that the banks could pay out is EUR 42.1 million. For the majority of banks, the criterion of 20 basis points in terms of the common equity Tier 1 capital ratio is the more restrictive.

Table 5.1: Simulation of profit distributions

Accumulated profit 2019 and 2020 (EUR million)	CET1 capital (EUR million)	Risk-weighted assets (EUR million)	Maximum payment based on accumulated profit (EUR million)	Maximum payment based on 20 basis points of CET1 ratio (EUR million)	Maximum payment on condition that banks meet both criteria (EUR million)
813,6	3.776,6	21.352,8	122,0	42,7	42,1

Note: The simulation only takes account of banks that were profitable in 2019 and 2020. SID banka is excluded from the simulation, as in accordance with the third paragraph of Article 4 of the Slovene Export and Development Bank Act (Official Gazette of the Republic of Slovenia, Nos. 56/08, 20/09 25/15 [ZBan-2] and 61/20 [ZDLGPE]) the bank is not allowed to use its distributable profit for distributions to shareholders. For one bank only its profit from 2020 is taken into account, because of the restrictions under the regulation. The calculations are made on the assumption that the banks' operating result would be positive in the first quarter of 2021.

Sources: Banka Slovenije, own calculations

The macroprudential measure is in force until the end of September 2021, but Banka Slovenije may rescind the measure early if the risks decline significantly, or extend the measure in the event of increasing risks.¹²⁹

Box 5.2: Assessment of the impact of measure to restrict bank dividend distributions using a DGSE model

This box examines a simulation of the impact of the measure to restrict bank dividend distributions on lending, investment and output. Two scenarios are taken into account. Under both scenarios the economy is hit by a shock that affects productivity and the risk level of lending to NFCs. There is no measure to restrict dividend distributions under the first scenario, while under the second it is introduced. Comparing the results allows an assessment to be made of the effectiveness of the measure in strengthening the financial intermediation function of the banking system and in stabilising the economy.

The model used is a dynamic stochastic general equilibrium (DGSE) model as developed by Clerc et al. (2015) and calibrated to the Slovenian economy. The model takes into account an important attribute of the advanced economy, that is the possibility of borrowers going bankrupt, which is alongside other reasons, a reason for the adoption of measures to regulate the capitalization of banks and their lending activity. The model includes optimisation of financial intermediaries (bankers) who allocate their funds (internal capital) together with deposits raised through households' savings to two types of lending activities, housing loans to households and corporate lending to NFCs. For all borrowers (including banks), external financing takes the form of non-contingent debt, which is subject to default risk as a result of the borrower's exposure to idiosyncratic and aggregate risk factors. Because there are three types of borrowers in the model and all of them can go default, it is called the 3D model (where D stands for default). Borrowers are secured by limited liability. Households and NFCs use the residential real estate and the NFCs capital, respectively, as collateral for the loan. Defaults are assumed to cause deadweight losses.

¹²⁹ For more information, see the Banka Slovenije [website](#).

The rationale for macroprudential policy arises from two key distortions associated with external financing. Both of these encourage banks to become overleveraged and to expose themselves to excessive credit risk. The first distortion stems from banks' limited liability and the existence of deposit insurance. Deposit insurance pushes banks to take on risk at the expense of the deposit insurance agency (DIA), which may result in cheaper and more abundant bank lending compared with the optimal amount when internalising the full costs of bank default (limited liability distortion/externality).

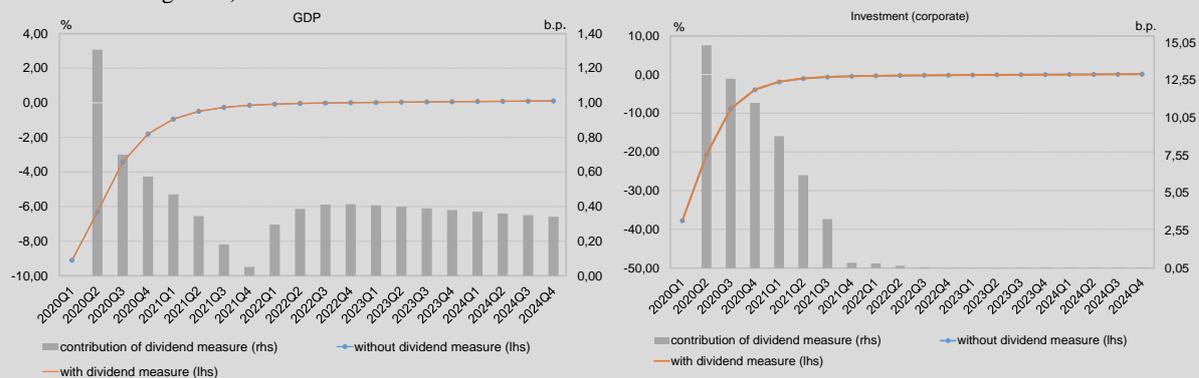
The second distortion arises due to our assumption that depositors suffer some transaction costs in the event of a bank bankruptcy despite the presence of deposit insurance. Banks therefore pay a deposit risk premium, which raises their funding costs when failure risk is high. Moreover, it is assumed that, given the lack of information and knowledge of the operations of banks, this risk premium is related to the system-wide default risk rather than the individual risk of the bank. This creates an incentive for banks to take on excessive risk, because their funding costs depend on system-wide choices rather than their own decisions (the bank funding cost distortion/externality). Leverage at banks is limited by the regulatory capital requirement. While this limit generally leads to a smaller stock of investments, the risk subsidisation associated with deposit insurance creates the potential for excessive supply of bank credit. The model is therefore suitable for analysing the effects of various forms of capital requirement, which are a central instrument of macroprudential policy. However, the model cannot be used to assess the impact of both monetary and fiscal measures at once.

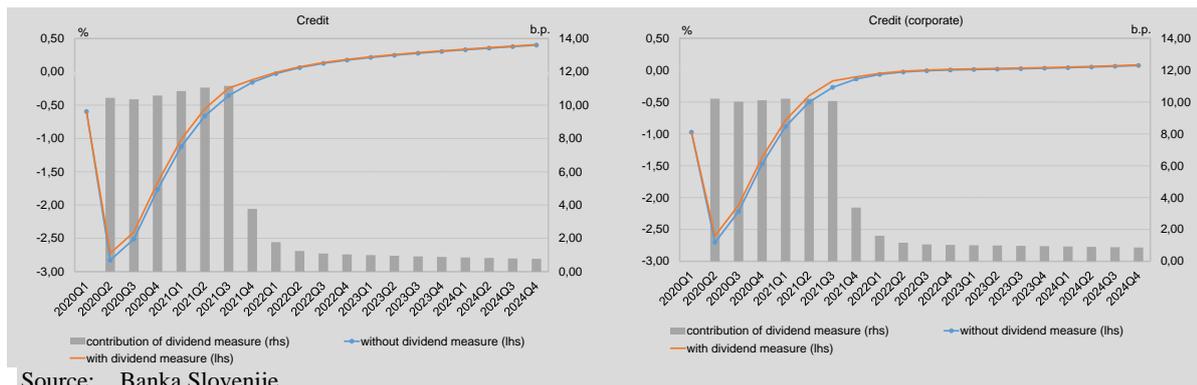
Results of the simulation

The impact of the pandemic on the economy is captured in the 3D model through two shocks. The first shock causes a decline in productivity, while the second causes an increase in the risk level of lending to NFCs. The shocks are calibrated to capture the decline in output in the first two quarters of 2020, followed by a gradual recovery. The decline in GDP and investment in the model are primarily the result of the shock to productivity, while the majority of the decline in lending can be explained by the increase in the risk level of the corporate sector. In the absence of the measure restricting dividend distributions by banks, the decline in lending would be larger. As household income declines, consumption and housing investment also fall. In the model, the decline in housing investment and capital investment reduces the price of housing and capital. Collateral values for loans therefore fall, which increases the banks' risk level and with it the risk premium for deposits.

Under the second scenario, the impact of the shock caused by the Covid-19 pandemic is mitigated by the measure restricting dividend distributions by banks. The assumption is that dividends are not paid between the second quarter of 2020 and the third quarter of 2021, while the measure is gradually released over the next six quarters. The measure drives an increase in the banks' capital, which in the model helps to mitigate the initial decline in lending. The measure also has a small but positive impact on NFCs' investment and on GDP.

Figure 5.5: Impact of the pandemic and the measure restricting dividend distributions by banks (quarterly real growth)





Macprudential restriction of profit distributions by leasing companies

Having adopted a macroprudential measure restricting profit distributions by banks and savings banks, Banka Slovenije also issued a recommendation extending similar guidance to leasing companies (a measure commensurate with the risks posed to the financial system by this segment of financial corporations).¹³⁰ Banka Slovenije recommends that leasing companies temporarily restrict the distribution of distributable profit and retained earnings generated in 2019 and 2020. Before the expiry of the recommendation, which is provisionally in force for one year, Banka Slovenije will examine whether its is sensible to extend it in accordance with Recommendation OFS/2021/1.

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.

In accordance with the principle of proportionality, 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. Leasing companies covered by the recommendation generated pre-tax profit of EUR 75 million in 2019, of which 28.1% was retained on the basis of the recommendation, 11% was retained in part, and 27.9% was distributed before the recommendation was issued. The majority of leasing companies reported that the profit generated in 2020 will be retained as necessary.

Macprudential restrictions on household lending

The macroprudential measures restricting household lending are preventing excessive credit growth and excessive leverage, and providing for minimum credit standards. The measures were introduced in 2016 in the form of a recommendation for housing lending, before being joined in 2018 by a restriction on consumer lending. They were partly modified into a binding form in November 2019.¹³¹ The measure capping the borrower’s debt-service-to-income ratio (DSTI) was made binding for all new household loans. The cap on maturity at seven years was also made binding for new consumer loans.¹³² The permitted exemptions allow the banks to approve some consumer loans with a maturity of up to ten years, and there are

¹³⁰ The macroprudential recommendation was issued pursuant to the first paragraph of Article 31 of the Banka Slovenije 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.

¹³¹ Regulation on macroprudential restrictions on household lending (Official Gazette of the Republic of Slovenia, No. 64/19).

¹³² 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.

also certain exemptions allowed for DSTI. In light of the Covid-19 pandemic, in May 2020 Banka Slovenije temporarily granted¹³³ greater flexibility in the calculation of DSTI.

Box 5.3: Macroprudential restrictions on household lending after the introduction of binding measures

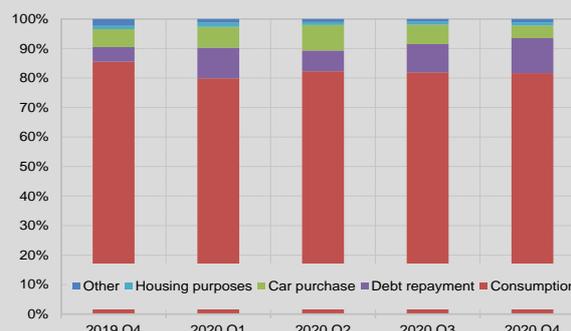
Evaluation of the binding macroprudential measures on household lending introduced on 1 November 2019 was made harder by the outbreak of the Covid-19 pandemic. Nevertheless our assessment is that, in line with the objective, the revision of the macroprudential measures in 2019 had an impact mainly on consumer loans. Their growth declined sharply during the epidemic, while the growth of housing loans remained, in line with predictions, virtually unchanged. The banks are following the measures, which is evidenced by the lower level of deviations from the prescribed parameters. We also found that the measures have been successful at identifying higher-risk loans that subsequently became non-performing, or for which the borrowers applied for a moratorium during the pandemic.

Before the introduction of the macroprudential measure, at the level of the banking system, EUR 114.6 million of new consumer loans were approved each month (average between January 2018 and October 2019). After the introduction of the macroprudential measure this declined to EUR 60.3 million (average between November 2019 and December 2020). Growth in housing loans¹³⁴ remained moderate and was hovering around 4% last year. The Covid-19 pandemic negatively impacted credit growth, although the size of the impact is hard to estimate. In 2020, the government issued multiple decrees that restricted the operations of certain activities and shops. Alongside the increased uncertainty, this curtailed consumption, which was a significant factor in reducing demand for consumer loans. Last year saw a marked increase in the share of loans earmarked for repayment of liabilities, while the proportion of loans earmarked for car purchase declined.

Figure 5.6: Year-on-year growth in consumer loans and housing loans



Figure 5.7: Breakdown of new consumer loans by purpose



Note: The rates in the left figure can differ from the rates disclosed in other publications. This is attributable to methodological factors. In the left figure above loans secured by residential real estate are treated as housing loans in, even if the banks reported them as consumer loans. Only the main categories of consumer loans purpose are illustrated in the right figure (the less common purposes are combined).

Source: Banka Slovenije

As a result of the introduction of binding macroprudential measures, the banks are no longer approving consumer loans with longer maturities. This is beginning to reflect in the average maturity of new consumer loan, which is falling. Following the introduction of the macroprudential measures, the banks approved fewer consumer loans with a maturity of more than seven years. While these loans accounted for more than 40% of newly approved loans in the third quarter of 2019, the figure averaged less than 6% in 2020. The proportion of new consumer loans with a maturity of between five and seven years increased markedly, averaging more than 50% over 2020. The proportion of consumer loans with a high DSTI also declined in 2020. The proportion of loans with a DSTI of more than 50% declined from 8.3% in 2019 to 2.4% last year, while the proportion with a DSTI of between 20% and 40% increased from 45.2% in 2019 to 52.6% last year. Compared with the EU countries, the Slovenian banking system is still notable for the second highest proportion of long-term consumer loans, as the macroprudential measures have not had a discernible impact on loan stocks thus far. While consumer loans with a maturity of more than five years account for 52% of all

¹³³ Regulation amending the Regulation on macroprudential restrictions on household lending (Official Gazette of the Republic of Slovenia, No. 75/20).

¹³⁴ Takes account of loans secured by residential real estate and loans with a housing purpose (purchase, construction or renovation of residential real estate).

consumer loans on average across the EU, the corresponding figure in Slovenia is more than 80%. Loans with longer maturities have lower annual repayments, which might reduce the borrowers' probability of default (PD).

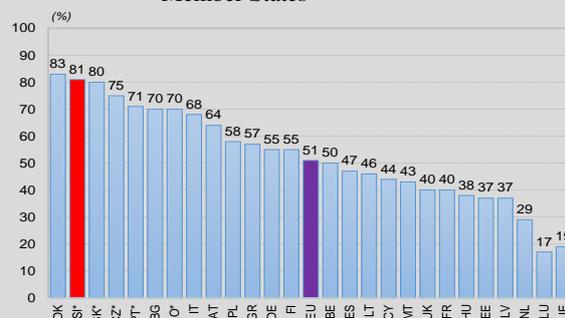
Figure 5.8: Breakdown of maturity of new consumer loans



Note: In the right figure the countries denoted by the asterisk have introduced macroprudential restrictions on the maturity of consumer loans. Figures for December 2020.

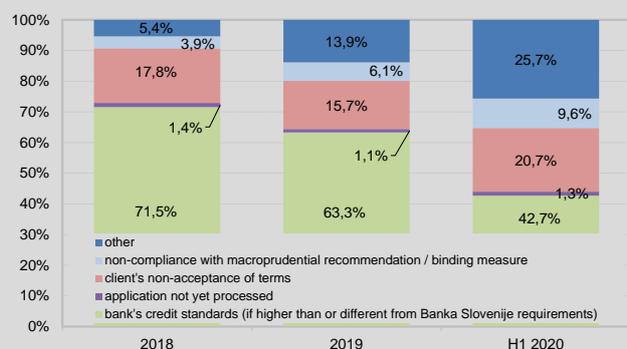
Sources: Banka Slovenije (left figure), ECB (SDW) (right figure)

Figure 5.9: Proportion of consumer loans with a maturity of more than five years in EU Member States



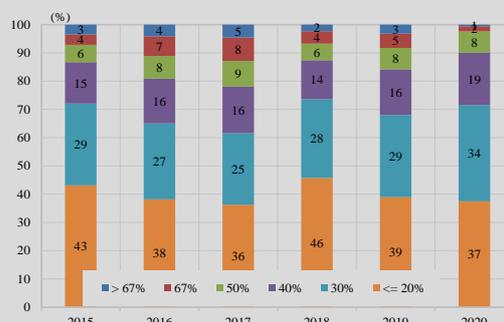
Large numbers of consumers might have seen a temporary reduction in their income because of the pandemic, but their long-term creditworthiness remained unchanged. Therefore, Banka Slovenije adjusted the macroprudential restriction regarding the ratio between the total debt servicing cost and the borrower's income (DSTI). In certain cases (when they have at least one piece of evidence of accounted and paid income that shows that the consumer's income is no longer being affected by the epidemic), banks may exclude months with lower income from the calculation of the consumer's income for months when the epidemic was officially declared. The adjustment to the macroprudential measure was adopted in May 2020, and remains in force during the epidemic declared in the autumn.

Figure 5.10: Reasons for rejection of household loans



Source: Banka Slovenije

Figure 5.11: Breakdown new consumer loans by DSTI



The data for loans approved in 2020 show that credit standards (as measured by the average LTV, DSTI and maturity values at origination) did not change significantly during the year. Generally speaking the macroprudential restrictions are being adhered to across the banking system. Immediately after the introduction of macroprudential measures, the level of deviations from the DSTI cap declined significantly. Deviations from the maturity cap in the consumer loans segment are also low.¹³⁵ The macroprudential restrictions allow for exceptions. These allow banks, under certain conditions,¹³⁶ to approve loans that do not comply with one of the binding macroprudential measures. An increase in the level of deviations of consumer loans from the maturity cap that occurred in the second half of 2020, which was likely attributable

¹³⁵ We will be able to make a more precise assessment of bank compliance with the macroprudential restrictions in the first half of 2021, given the need to adjust the regulatory reporting.

¹³⁶ Loans which count among the exceptions from the maturity cap, need to have maturity lower or equal to 120 months, and they must comply with the DSTI cap. Loans which count among the exceptions from the DSTI cap, must have the DSTI lower or equal to 67%. Additionally, the consumer must be left with monthly income of at least 76% of the gross minimum wage, irrespective of the DSTI. The amount is higher in case of dependent family members. Consumer loans which count among the DSTI cap exceptions must comply with the maturity cap.

to the more-frequent use of exceptions. Based on a survey about loan demand, which includes data from the first half of 2020, our assessment is that the macroprudential restrictions were among the less-important reasons for loan rejection.¹³⁷

Figure 5.12: Deviations from the DSTI cap and the recommendation regarding LTV for housing loans

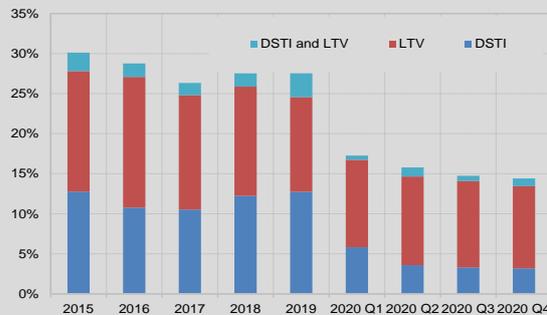
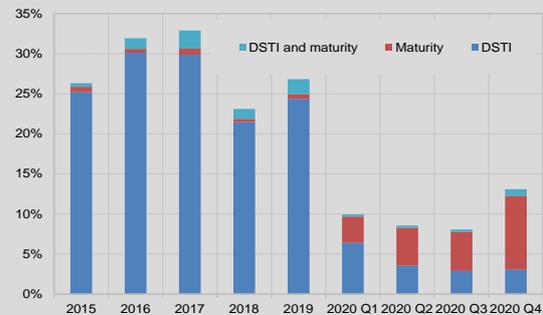


Figure 5.13: Deviations from the DSTI and maturity caps for consumer loans



Note: The data in the left figure for periods up to including Q3 2018 come from surveys. Deviations from the macroprudential measures are also simulated for the period before those measures were in force. The proportion of deviations from the LTV recommendation is expressed with regard to all housing loans (including those not secured by residential real estate). The data in the right figure for periods up to including Q3 2019 come from surveys. Deviations from the macroprudential measures are also simulated for the period before those measures were in force. As of 1 November 2019 the cap on maturity has been reduced from ten to seven years, although banks may still approve a certain level of loans with maturities between seven and ten years within the framework of exceptions.

Source: Banka Slovenije

In addition to its regular analysis, at the end of 2020 Banka Slovenije also conducted additional analysis of the effectiveness of the macroprudential measures based on newly obtained data on the structure of non-performing loans and moratoria for households. The initial assessments show that measures have enforced adequate minimum credit standards. Deviations from the DSTI cap are more common for loans where the moratorium has been approved than for loans where this was not the case. The same is true for deviations from the maturity cap in the consumer loans segment. The level of deviations from the maturity cap is higher among loans covered by a moratorium. The recommendation regarding LTV does not have a significant impact on the frequency of moratoria, which is to be expected, given that the measure reduces loss given default, but does not reduce probability of default.

Figure 5.14: Level of deviations from the DSTI cap for loans to households with and without a moratorium with respect to time of approval

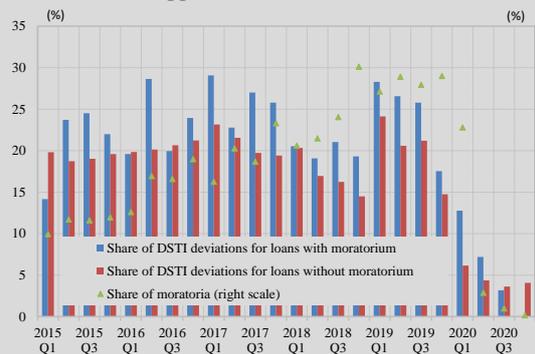
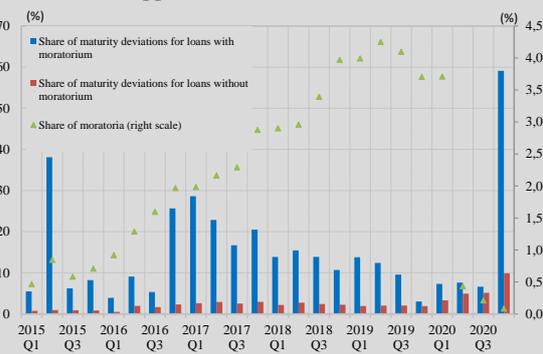


Figure 5.15: Level of deviations from the maturity cap for consumer loans with and without a moratorium with respect to time of approval



Note: The share of moratoria in the figures above may differ from data published elsewhere, as the analysis only includes loans issued after 31 December 2014 that remained on banks' balance sheets at least until 1 April 2020. The figure illustrate all moratoria approved in 2020, irrespective of whether they are still active.

Source: Banka Slovenije

The DSTI cap is tied to the level of the minimum wage which was raised from EUR 940.58 to EUR 1024.24 on 1 January 2021. Based on analysis which covers the borrowers who applied for a loan in 2020, Banka

¹³⁷ For more information about the results of the survey, see the October 2020 issue of the Financial Stability Review (pages 56 and 57).

Slovenije finds that a rise in the minimum wage will not have a significant impact on the creditworthiness of individuals. Assuming that the higher minimum wage would apply already from 1 January 2020, the average¹³⁸ DSTI cap for consumer loans would be reduced from 44% to 41%. For housing loans it would be reduced from 50% to 48%.¹³⁹ The majority of borrowers would have the capacity to raise a loan of the same amount even after a rise in the minimum wage. Under the old minimum wage, a new consumer loan would commit 58% of the borrower's available credit capacity on average, while under the higher minimum wage the figure would be 77%. For housing loans the gap would be smaller: a new housing loan would commit 66% of the borrower's remaining credit capacity before the rise in the minimum wage, and 68% after. Had the minimum wage stood at EUR 1,024.24 as of 1 January 2020, around 580 consumer loans (out of approximately 68,000) would not have been approved, equivalent to 0.4% of the total amount of consumer loans approved in 2020. In this situation 20 (out of approximately 15,000) housing loans would not have been approved, equivalent to 0.1% of the total amount of housing loans approved in 2020.

O-SII buffer

Banka Slovenije first identified other systemically important banks (O-SIIs) in 2015, when we defined a transition period for meeting the capital buffer, namely from 1 January 2019. During a review of the O-SII criteria in 2020 we identified one fewer bank as systemically important than in 2019. This year the number of identified O-SIIs has been affected by the merger of two O-SIIs into a single bank. There have also been certain changes in the criteria at a number of banks, and consequently a change in the level of the buffer rate.

The buffer for other systemically important banks (the O-SII buffer) 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 Banka Slovenije's Strategic Framework for Macroprudential Policy. In identifying O-SIIs Banka Slovenije mainly 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 criteria of 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 the Banka Slovenije should verify the fulfilment of O-SII criteria and the appropriateness of O-SII buffer rates. In identifying O-SIIs Banka Slovenije mostly followed the EBA Guidelines,¹⁴⁰ 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).

Six systemically important banks were identified in 2020. In a change from previous years, Abanka is no longer on the list of O-SIIs following its acquisition by NKBM. The O-SII buffer rates are illustrated in the table below. In the wake of changes in the indicator of systemic importance, the buffer rate for NKBM was raised in 2020 (to 0.50%), while the buffer rate for SID banka was lowered to 0.25%. NKBM is required to meet the buffer as of 1 January 2022. Each bank must meet the buffer at the highest level of consolidation in Slovenia, through common equity Tier 1 capital.

Table 5.2: Indicator of systemic importance and capital buffer rate for O-SIIs

Bank	Indicator of systemic importance	Buffer rate
NLB d.d.	3266	1.00%
Nova KBM d.d.	1675	0.50%
SID banka d.d.	1089	0.25%
SKB d.d.	602	0.25%
UniCredit banka Slovenija d.d.	581	0.25%
Banka Intesa Sanpaolo d.d.	563	0.25%

Note: NKBM is required to meet the buffer as of 1 January 2022.

Source: Banka Slovenije

¹³⁸ All averages are weighted.

¹³⁹ The analysis did not take account of possible dependent family members, or potential leasing liabilities.

¹⁴⁰ More information on the mandatory indicators for the identification of O-SIIs prescribed by the EBA can be found on the [Banka Slovenije website](#).

Countercyclical capital buffer

The countercyclical capital buffer is one of the principal macroprudential instruments set out within the framework of the Basel III arrangements.¹⁴¹ 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 systemic risks as a result of excessive growth in lending. Banka Slovenije introduced the countercyclical capital buffer in 2016, but it has remained at zero to date.

To assess cyclical systemic risks and to set the countercyclical capital buffer rate, Banka Slovenije monitors individual indicators and a composite indicator. Table 5.3 gives the values of the risk indicators in the final quarter of 2020 and the corresponding historical averages. 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. The credit-to-GDP gap was negative in the amount of 23.3% in the final quarter of 2020, while the ratio of credit to GDP stood at 64.6%. The credit gap reflects the low level of lending to the private non-banking sector compared with past levels. Annual growth in prices of used flats stood at 5.1% in the final quarter of 2020, in line with its average over the period of Q1 2001 to Q4 2020. Annual growth in lending to the domestic private non-financial sector stood at -0.36%, significantly below its average over the period of Q1 2001 to Q4 2020. The LTD ratio for the private non-banking sector is lower than it has been in the past (at 0.68). This indicates that lending is primarily being funded by customer deposits, which are a more stable source of funding. Return on equity stood at 9.7% in the third quarter of 2020. The ratio of credit to gross operating surplus, which is a measure of private-sector indebtedness and reflects the corporate sector's capacity to finance debts, remains low.

Table 5.3: Indicators for setting the buffer rate

Indicator	Average value 2000 - Q4 2020)*	(Q1 Value of indicator taken into account in decision on buffer rate)**
Credit-to-GDP gap for private non-banking sector	-9,1%	-23,3%
Annual growth in real estate prices (data since 2001)	5,2 %	5,1%
Annual growth in loans to domestic private non-financial sector	8,7%	-0,3%
LTD ratio for private non-banking sector	1,1	0,68
ROE	1,2%	9,7%
Ratio of credit to gross operating surplus	4,3	2,1

Notes: *The value is only used for orientation. Owing to data availability, the average value of the indicator of annual growth in real estate prices is calculated for the period of Q1 2001 to Q4 2020.

**The latest available indicator value is used (Q4 2020).

Sources: SORS, own calculations

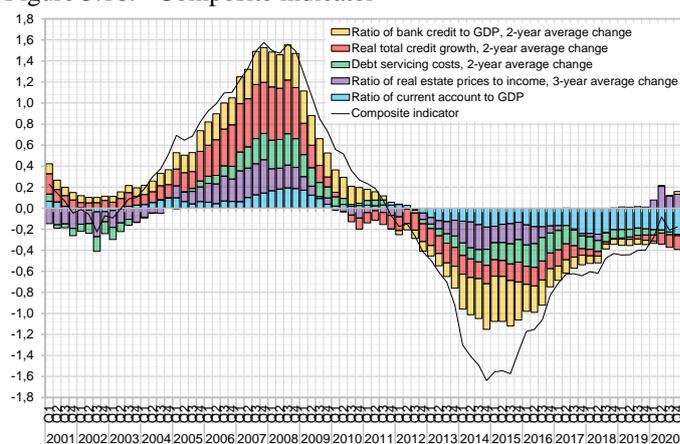
Figure 5.16 illustrates the value of the composite indicator in the final quarter of 2020, and the individual indicators' contributions to the composite indicator. The composite indicator rose slightly in the final quarter of 2020, but remained in negative territory, at -0.1773.¹⁴² The rise in the composite indicator was driven by the ratio of growth in residential real estate prices to net national disposable income. The decline in GDP in the final quarter of 2020 also brought an increase in the ratio of bank credit to GDP, thereby making a positive contribution to the composite indicator. The other indicators are still having a negative impact on the composite indicator, as they are below their threshold values.¹⁴³

¹⁴¹ BCBS (2010). Basel III: A global regulatory framework for more resilient banks and banking systems.

¹⁴² For more information on the countercyclical capital buffer, see the Banka Slovenije [website](#). A more detailed description of the make-up of the composite indicator can be found in the October 2020 issue of the Financial Stability Review, and in Lang et al. (Anticipating the bust: a new cyclical systemic risk indicator to assess the likelihood and severity of financial crises, ECB Occasional Paper 219, February 2019).

¹⁴³ A final decision on the countercyclical capital buffer rate for the final quarter of 2020 will be taken in May 2021.

Figure 5.16: Composite indicator



Source: Banka Slovenije

Banka Slovenije may set the countercyclical buffer rate between 0% and 2.5% of the total risk exposure amount, or even higher in exceptional cases. 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 relaxation. The release of the buffer is subject to a higher level of uncertainty, and requires a very high level of discretionary judgement.¹⁴⁴

In accordance with Recommendation ESRB/2015/1,¹⁴⁵ Banka Slovenije conducts an annual review of exposure to non-EEA countries. In this year's review Serbia was identified as a significant third country for the second consecutive time. The buffer rate set by the National Bank of Serbia is applied to it.

Macroprudential liquidity instruments

A macroprudential measure known as **gross loans to deposits flows (GLTDF)** 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. By preventing the banks' excessive reliance on unstable sources of funding, the measure plays a part in meeting the medium-term objective of the macroprudential liquidity measures, i.e. to mitigate and prevent excessive maturity mismatch and market illiquidity. The outbreak of the pandemic triggered a decline in loans (driven by demand-side and supply-side factors). 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

Banka Slovenije introduced a macroprudential instrument in March 2012 to limit deposit rates. 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, which was happening at the time it was introduced.

¹⁴⁴ 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 include Belgium, Denmark, France, Germany, Slovakia, Ireland, Norway, Sweden, Iceland, Lithuania and the UK. 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.

¹⁴⁵ Recommendation on recognising and setting countercyclical buffer rates for exposures to third countries (ESRB/2015/1).

6 APPENDIX

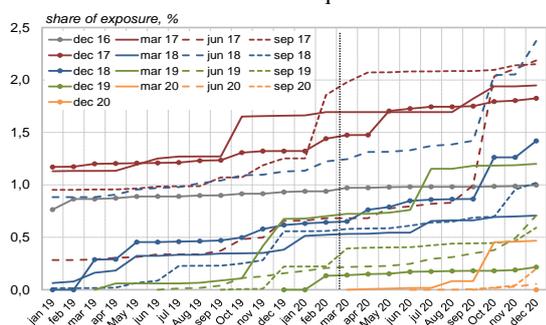
Summary

The following aspects of individual categories are monitored under the risk and resilience dashboard:

- Macroeconomic risk:
 - o Economic activity (GDP growth)
 - o Confidence indicators and economic sentiment indicator
 - o Price developments
 - o Labour market
 - o Public finances
- Credit risk:
 - o NPE indicators
 - o Breakdown of portfolio by credit risk stage
 - o Credit parameters (default rate [DR], probability of default [PD], transition rate [TR])
 - o Coverage of performing and non-performing exposures by impairments and provisions
 - o Coverage of non-performing exposures by impairments and provisions and by collateral
 - o Changes in impairments and provisions
- Income risk:
 - o Interest in, interest expenses and net interest margin
 - o Interest rates and loan dynamics
 - o Other non-interest costs
- Risk inherent in leasing companies:
 - o Growth in new leasing business and stock of leasing business
 - o Proportion of leasing business more than 90 days in arrears
 - o ROE and ROA
 - o Coverage of financial and operating liabilities by capital
- Risk inherent in the real estate market:
 - o Growth in prices, sales and loans for residential and commercial real estate
 - o Indicators of overvaluation of real estate
 - o Construction sector indicators
 - o LTV, LTC and DSTI
- Funding risk:
 - o Deposits by and loans to the non-banking sector
 - o Ratios of funding and liabilities to the balance sheet total
 - o LTD ratio and the residual maturity gap
- Interest rate risk:
 - o Repricing period
 - o Cumulative repricing gap
 - o Proportion of fixed-rate loans for new loans and loan stock
 - o Average maturity of new loans and loan stock
- Solvency and profitability:
 - o Capital ratios (total capital ratio, common equity Tier 1 capital ratio, Tier 2 capital ratio)
 - o Leverage ratios and other capital requirements
 - o Profit and contributions to profit by individual components
 - o ROA and ROE
- Liquidity:
 - o Liquidity coverage ratio (LCR) and second-grade liquidity ratio, ratio of liquid assets to the balance sheet total
 - o Ratios of secondary liquidity, securities holdings, other forms of assets and net financial assets to the balance sheet total

Credit risk

Figure 6.1: New contracts with NFCs entering NPE status in various quarters after conclusion



Note: The figures encompass new NPEs in contracts concluded since October 2016.
Source: Banka Slovenije

Figure 6.2: New contracts with NFCs entering NPE status, by sector of non-financial corporation

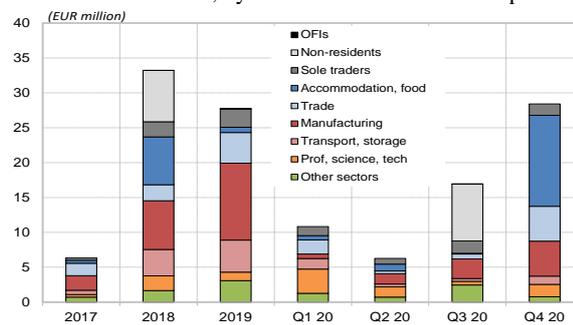


Figure 6.3: Approaches to reduction and changes in NPEs in the NFCs portfolio in 2020



Note: The values illustrate changes relative to the initial stock of NPEs in December 2019.
Sources: Half-yearly NPE reporting by banks, Banka Slovenije

Figure 6.4: Approaches to reduction and changes in NPEs in the household portfolio in 2020

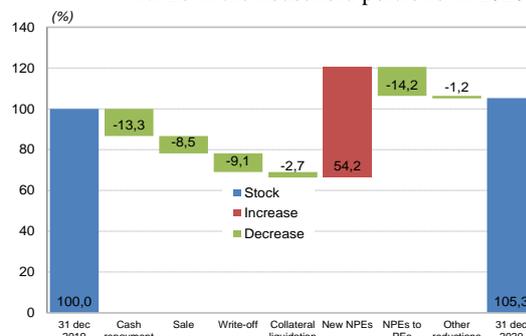


Table 6.1: Loans as at 31 December 2020 by institutional sector

Institutional sector	Total loans							
	Total loan stock (EUR million) (1)	Of which: loans covered by moratorium		Of which: loans covered by legislative moratorium		Of which: loans covered by bilateral moratorium		
		(EUR million) (2)	as % of total loan stock (3) = (2) / (1)	(EUR million) (4)	as % of total loan stock (5) = (4) / (1)	(EUR million) (6)	as % of total loan stock (7) = (6) / (1)	
Central bank and credit institutions	9.866	0	0,0	0	0,0	0	0,0	
Other financial institutions	1.627	10	0,6	10	0,6	0	0,0	
General government sector	1.608	1	0,0	1	0,0	0	0,0	
Non-financial corporations	10.117	2.090	20,7	1.744	17,2	346	3,4	
large enterprises	4.399	753	17,1	692	15,7	61	1,4	
MSMEs	5.717	1.337	23,4	1.052	18,4	285	5,0	
Households	11.018	597	5,4	573	5,2	23	0,2	
sole traders	601	102	16,9	82	13,7	20	3,2	
other households	10.418	495	4,8	491	4,7	4	0,0	
Overall	34.236	2.698	7,9	2.328	6,8	370	1,1	

Note: The on-balance-sheet exposures of banks, savings banks and bank branches are illustrated. Loans approved to borrowers in a particular institutional sector include loans approved to non-residents.
Source: Banka Slovenije

Table 6.2: Loans to NFCs as at 31 December 2020 by economic sector

Sector	Total loans											
	Total loan stock	Of which: loans covered by moratorium			Of which: loans covered by legislative moratorium			Of which: loans covered by bilateral moratorium			Of which: new loans approved in response to Covid-19 epidemic	
	(EUR million)	(EUR million)	as % of total loan stock	(EUR million)	as % of total loan stock	(EUR million)	as % of total loan stock	(EUR million)	as % of total loan stock	(EUR million)	as % of total loan stock	
(1)	(2)	(3) = (2) / (1)	(4)	(5) = (4) / (1)	(6)	(7) = (6) / (1)	(8)	(9) = (8) / (1)				
A Agriculture, forestry and fishing	61	5	8,9%	5	8,1%	1	0,8%	0	0,3%			
B Mining and quarrying	82	18	21,9%	8	9,8%	10	12,1%	0	0,1%			
C Manufacturing	2.819	787	27,9%	717	25,4%	70	2,5%	89	3,2%			
D Electricity, gas, steam and air conditioning supply	687	1	0,1%	1	0,1%	0	0,0%	0	0,0%			
E Water supply, sewerage, remediation	105	15	14,7%	13	12,1%	3	2,6%	0	0,3%			
F Construction	453	77	17,1%	48	10,5%	30	6,6%	7	1,4%			
G Wholesale and retail trade	1.720	209	12,2%	177	10,3%	33	1,9%	28	1,6%			
H Transportation and storage	1.306	113	8,7%	96	7,3%	18	1,4%	6	0,4%			
I Accommodation and food service activities	562	339	60,3%	329	58,6%	10	1,7%	28	4,9%			
J Information and communication	407	41	10,0%	35	8,6%	6	1,4%	3	0,8%			
K Financial and insurance activities	98	8	8,4%	8	8,1%	0	0,3%	0	0,0%			
L Real estate activities	727	203	27,9%	132	18,2%	70	9,6%	0	0,0%			
M Professional, scientific and technical activities	631	90	14,3%	67	10,6%	24	3,7%	6	1,0%			
N Administrative and support service activities	142	39	27,4%	21	14,9%	18	12,5%	4	2,5%			
O Public administration and defence, compulsory social security	1	1	77,5%	1	77,5%	0	0,0%	0	0,0%			
P Education	24	13	53,0%	6	23,2%	7	29,8%	0	0,2%			
Q Human health and social work activities	151	40	26,6%	23	15,5%	17	11,1%	0	0,3%			
R Arts, entertainment and recreation	122	82	67,3%	51	42,0%	31	25,4%	0	0,3%			
S Other service activities	17	8	45,6%	8	44,3%	0	1,3%	1	3,5%			
Overall	10.117	2.090	20,7%	1.744	17,2%	346	3,4%	172	1,7%			

Note: The on-balance-sheet exposures of banks, savings banks and bank branches are illustrated. Includes loans approved to non-residents.

Source: Banka Slovenije

Table 6.3: Transition rates between credit risk stages for corporates

	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020
DR13	0,008	0,009	0,003	0,003	0,003	0,005	0,004	0,004	0,005
DR23	0,043	0,047	0,053	0,056	0,070	0,061	0,052	0,056	0,049
TR12	0,046	0,041	0,043	0,044	0,043	0,047	0,060	0,070	0,097
TR21	0,316	0,305	0,228	0,206	0,258	0,214	0,222	0,247	0,246
TR31	0,001	0,001	0,039	0,001	0,013	0,014	0,019	0,020	0,003
TR32	0,040	0,043	0,028	0,043	0,030	0,035	0,039	0,017	0,044

Source: Banka Slovenije

Income risk

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



Source: Banka Slovenije

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

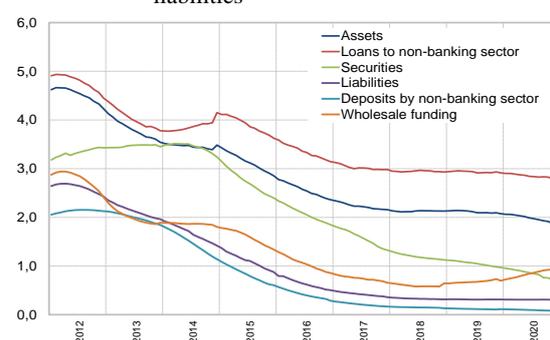
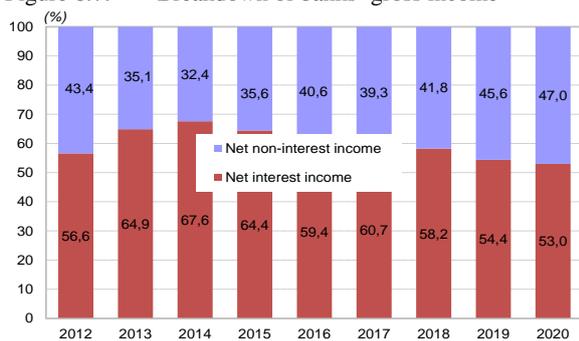


Figure 6.7: Breakdown of banks' gross income



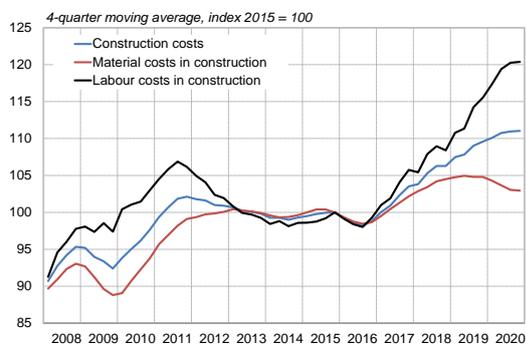
Source: Banka Slovenije

Figure 6.8: Breakdown of non-interest income



Risks inherent in the real estate market

Figure 6.9: Change in construction costs



Sources: SORS, ECB (SDW)

Figure 6.10: Demand for housing loans and demand factors

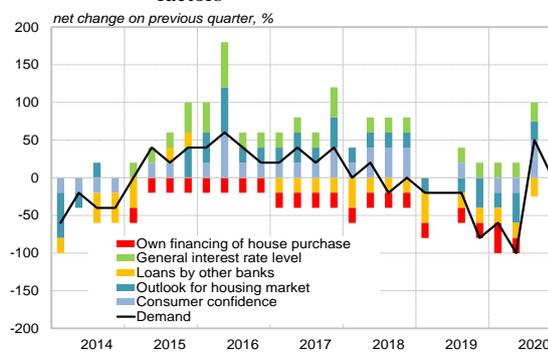
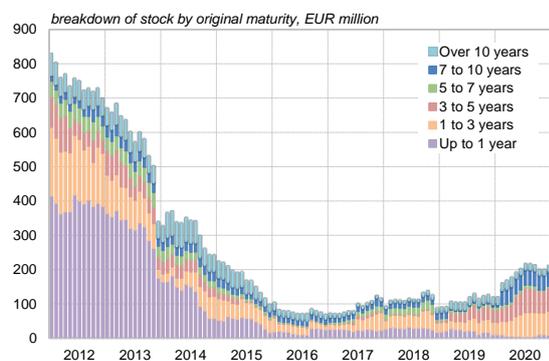
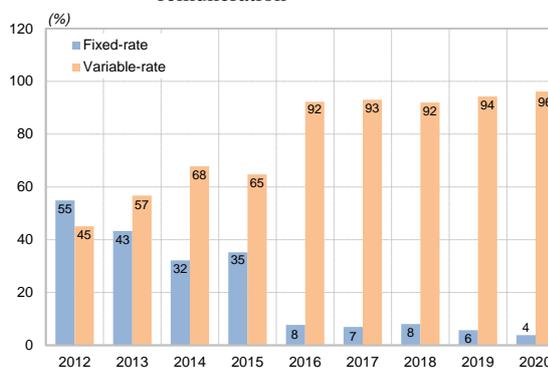


Figure 6.11: Breakdown of stock of loans for commercial real estate by maturity



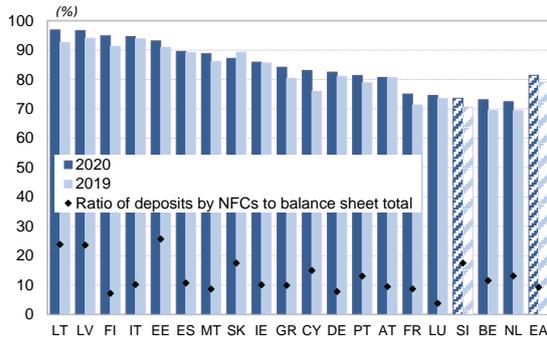
Source: Banka Slovenije

Figure 6.12: Breakdown of stock of loans for commercial real estate by type of remuneration



Funding risk

Figure 6.13: Sight deposits by NFCs across euro area countries



Note: EA denotes the euro area.
Sources: Banka Slovenije, euro area statistics, ECB (SDW)

Figure 6.14: Growth in deposits by NFCs in Slovenia and the euro area by maturity

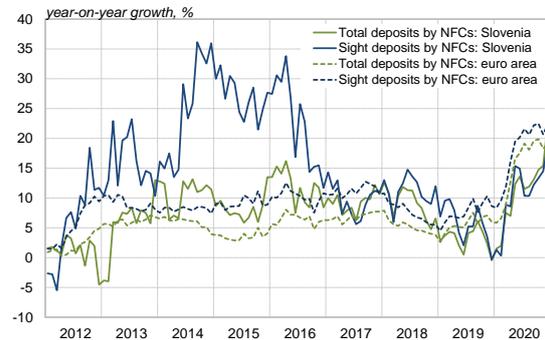
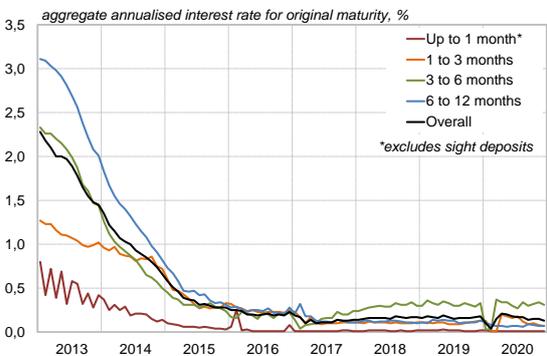
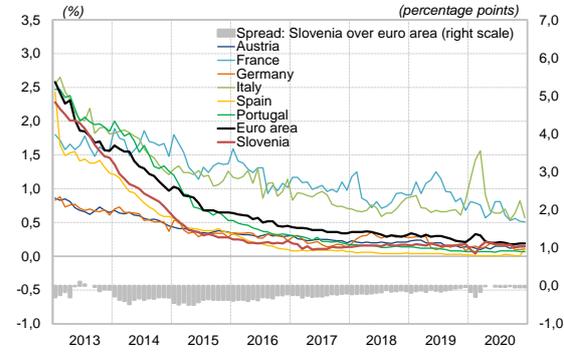


Figure 6.15: Interest rates on new short-term household deposits



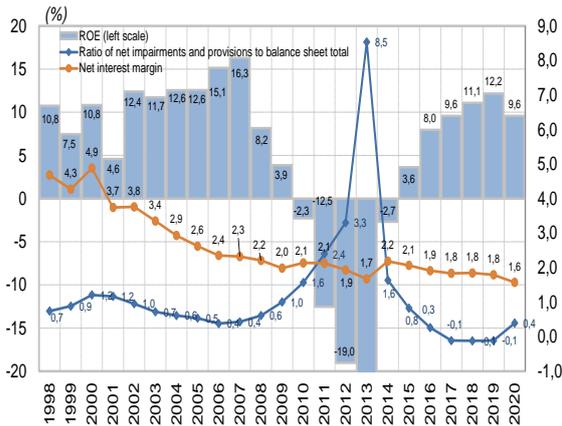
Sources: Banka Slovenije, ECB (SDW)

Figure 6.16: Interest rates on household deposits of up to one year



Bank profitability

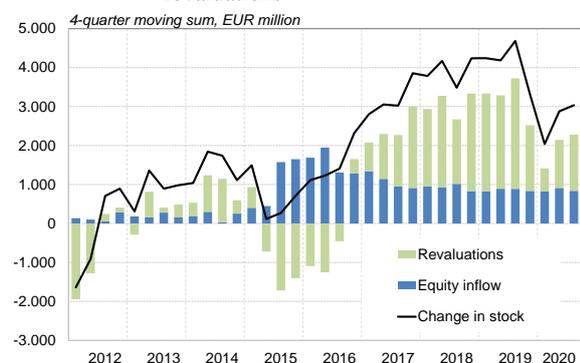
Figure 6.17: ROE, net interest margin, and ratio of net impairments and provisions to total assets



Note: Negative values for net impairments and provisions represent a net release.
Source: Banka Slovenije

Non-financial corporations

Figure 6.18: Change in capital of NFCs, and contributions by transactions and revaluations



Source: Banka Slovenije

Table 6.4: Probit estimates for NFCs with loans with Slovenian banks that have (not) claimed a moratorium

Estimate of probability for	Non-financial corporations with a moratorium
Dependent variable	1 if the non-financial corporation has been granted a moratorium; 0 if not
Independent variable	Coefficient (robust standard error)
Age 0-4	0.0949* (0.0485)
Age 5-9	0.1414*** (0.0421)
Age 10-14	0.0654 (0.0461)
Micro enterprises	-0.0162 (0.1272)
Small enterprises	0.3581*** (0.1308)
Medium-size enterprises	0.2743* (0.1407)
Manufacturing	0.1215** (0.0484)
Construction	-0.2907*** (0.0620)
Trade	0.0682 (0.0453)
Transportation and storage	0.2364*** (0.0652)
Accommodation and food service	1.6006*** (0.0665)
Real estate activities	0.3600*** (0.0959)
Small exporters	0.1854*** (0.0435)
Medium-size exporters	0.2137*** (0.0496)
Large exporters	-0.0037 (0.0524)
Debt-to-assets ratio	-0.0000 (0.0000)
ROA	0.0451 (0.0556)
Cash to total assets ratio	-0.0384*** (0.0021)
Constant	-1.5076*** (0.1306)
Log likelihood	-7844
Chi-square	1118***
Number of observations	20,762

Note: The analysis included all NFCs (Sector S.11) that held loans with Slovenian banks as at January 2020, with an added data point for whether they held a moratorium in December 2020. Their attributes were obtained on the basis of AJPES data for 2019. Indebtedness is defined as the ratio of operating liabilities plus financial liabilities to assets. Profitability is measured by ROA. A probit estimate is used, where 1 signifies that the NFC has had a moratorium approved, and 0 signifies that it has not. NFCs are divided into two groups: group 1 if they have had a moratorium approved, and group 0 if they have not. Analysis of determinants of the probability that NFCs have had a moratorium approved was conducted by examining the probability that the NFC will have a moratorium approved by means of an estimate of the binary probit regression function (parameters are estimated in the probit regression using the maximum probability method). The basis for the NFCs age is more than 14 years, the basis for size is large NFCs, the basis for export-oriented NFCs are not exporters, and the basis for sectors is A, B, D, E, J, K, M, N, O, P, Q, R and S.

*** p<0.01, ** p<0.05, * p<0.1.

Sources: Banka Slovenije, AJPES, Banka Slovenije calculations

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	Banka Slovenije
BSIs	Balance sheet items
CCoB	Capital conservation buffer
CCyB	Countercyclical capital buffer
CET1	Common equity Tier 1 capital
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
OFls	Other financial institutions
O-SIIs:	Other systemically important institutions
DSTI	Debt-service-to-income ratio
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
FURS	Financial Administration of the Republic of Slovenia
GSIIs	Global systemically important institutions
SMARS	Surveying and Mapping Authority of the Republic of Slovenia
HICP	Harmonised Index of Consumer Prices
IFs	Investment funds
KDD	Central Securities Clearing Corporation
TR	Turnover ratio
LGD	Loss given default
LTD	Loan-to-deposit ratio
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
PEPP	Pandemic emergency purchase programme
P2G	Pillar 2 guidance
ROE	Return on equity
RWAs	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
Tier 1	Tier 1 capital
Tier 2	Tier 2 capital
TLTRO	Targeted longer-term refinancing operation
AUP	Average unit price of a mutual fund
RWAs	Risk-weighted assets
MF	Mutual fund
ZBan-2	Banking Act
ZIUPOK	Emergency Deferral of Borrowers' Liabilities Act

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