

**BANKA
SLOVENIJE**

EVROSISTEM



**FINANCIAL
STABILITY REVIEW**

MAY 2022

Published by:
Banka Slovenije
Slovenska 35

1505 Ljubljana

Tel: +386 1 4719000
Fax: +386 1 2515516

The Financial Stability Review is based on figures and information available at the end of December 2021, unless explicitly stated otherwise.

Edited by: Dr Meta Ahtik, Aleš Kavrečič

Other contributions by:

Andreja Bandelj, Marko Bračković (UK), Vida Bukatarevič, Dr Jelena Ćirjaković, Domenica Di Virgilio (Italy), Dr Marija Drenkovska, Romana Jager, Aleš Kavrečič, Katarina Knapič Lapajne, Mitja Lavrič, Dr Črt Lenarčič, Goran Obradović, Aljoša Ortl, Selcuk Ozsahin (Switzerland), Borut Poljšak, Mark Požlep, Franc Remšak, Grega Torkar

The figures and text herein may only be used or published if the source is cited.

ISSN 1581-9760 (online version)

Foreword to the Financial Stability Review



Two things dominate this issue of the Financial Stability Review. First there is the Covid-19 pandemic, which for the last two years has determined the fate of people, economies and financial systems, but has now begun to gradually wane. Yet just as this was happening, we witnessed the event that is undoubtedly going to dominate the period ahead: the Russian military aggression in Ukraine. In the international environment, as in Slovenia itself, the risks to financial stability are elevated in general, while the intense international developments have slightly shifted the focus of these risks, which is also spreading to areas that previously had been the subject of less attention (e.g. cyber risk).

In financial rhetoric the common denominator of the epidemiological crisis and the current geopolitical tensions is surely uncertainty. How strong an impact uncertainty can have on the financial system was felt even during the first days of the Russian aggression: banks under Russian ownership faced a loss of confidence and a run on deposits because of the sanctions announced against Russia, which as the competent EU institutions coordinated their actions led to a decision to close one of the

banking groups operating in the EU. A different solution was imposed for the subsidiary in Slovenia and its customers: a decision was taken to resolve and sell the bank, which allowed it to reopen after two days of closure, and to grant all customers access to their funds. At the same time this decision preserved the stability of the financial system.

Uncertainty has been very much present in the macroeconomic environment over the last two and a half years. Following the gradual waning of the pandemic, extensive economic policy measures, and major adjustments by economic entities, the international economic environment improved sharply last year. Global economic growth exceeded 6%, while the euro area reached its pre-crisis level of GDP in the final quarter of last year. The economic situation was even better in Slovenia, as it reached its level of GDP from the end of 2019 in the third quarter of last year, and saw a rise of more than 8% in GDP across the year. If the expectation last autumn was that the risk to financial stability from the macroeconomic environment would gradually ease, the geopolitical tensions brought a major change to that assessment. The impact of the current situation is already evident: the outlook for global economic growth, including Slovenia, is worsening, and inflationary pressures are increasing. Economic growth will be lower than projected at the end of last year, and inflation will be higher and more sustained. In the future this will also determine economic policy decisions, which will have to be adjusted (in coordinated fashion) to the new situation.

In our broader environment we have seen one adverse trend for some time now: an uninterrupted rise in prices on the real estate market, which for several quarters has also been reflected in increased risk to the financial system. This is typical of practically all EU Member States, where year-on-year growth has been rising from year to year. Growth in residential real estate prices in EU Member States stood at less than 6% in the third quarter of 2020, but almost 10% in the same quarter of last year. The figures in Slovenia are even more concerning: residential real estate prices in the third quarter of last year were up more than 12% in year-on-year terms. The comparison with economic activity is interesting: real GDP in Slovenia has risen by just under 30% since 2015, while real residential real estate prices have risen by fully 50%. Despite the high growth in prices in 2021, the relative overvaluation of the real estate market, which has been driven primarily by a ten-year gap between supply and demand, is not among the highest in the EU, but it is nevertheless larger than it has been for a decade.

One other risk to the banking system is partly related to the real estate market: the large increase in fixed-rate lending, particularly in the housing loans segment, is increasing interest rate risk. In the risk dashboard of risks to the financial system, interest rate risk is now at an elevated level. The same is true of credit risk, where even as the pandemic effect wanes a future increase could be driven by the simultaneous realisation of risks on account of the current geopolitical situation. The European financial system in general and the Slovenian financial system in particular do not have significant direct exposure to the countries involved in

the war. The war is nevertheless having significant adverse consequences, which will be seen indirectly and with a lag in economies, at bank customers and thus at banks.

Economic policymakers are adapting to these demanding circumstances, in part through macroprudential policy. If during the pandemic we mainly strengthened the resilience of the financial system through measures that encouraged financial institutions to retain their profits in the system, the focus of macroprudential action in our broader environment is now on increasing the resilience of the financial system by raising various buffers and imposing restrictions on household lending. The countercyclical capital buffer, which aims to protect the banking system from potential losses caused by excessive lending activity, is now positive in almost half of the countries in the EEA. It remains at zero in Slovenia, as the risks for now are not broadly based, but a rise in the future cannot be ruled out. Since the transposition of the CRD V into national legislations, supervisors have been able to address more specific risks in banking systems with a new instrument in our toolkit of macroprudential measures, namely the sectoral systemic risk buffer, which banks in Slovenia will also have to meet as of next year.

Macroprudential restrictions on household lending in one form or another have been or will shortly be introduced in almost all EEA countries. These measures will be slightly modified in Slovenia in the summer. The modifications will in part address the aforementioned increase in risks caused by developments on the real estate market: the recommendation with regard to LTV was reduced, although this applies solely to borrowers not buying their primary residence. Conversely, while strengthening the resilience of the banking system via the introduction of a sectoral systemic risk buffer, we relaxed certain other restrictions in the area of household lending, and the recent adoption of a legal solution allowing government guarantees to back housing loans to young people was also taken into account.

This toolkit of active macroprudential measures that we have created is helping us to fulfil our mandate of protecting the stability of the financial system as a whole. They are helping to establish and maintain minimum standards for banking, and to ensure that there is an adequate capital buffer for specific risks. However, certain structural issues in the Slovenian banking system remain unresolved. They will have to be addressed by the banks or their owners themselves. The net interest margin in the banking system reached a new record low last year at just 1.41%, and the loss of this income cannot even be compensated for by the relatively favourable picture in the banks' non-interest business (i.e. fees and commission), where Slovenian banks are performing as well as any in Europe. Slovenian banks are also top performers in terms of ROE: Slovenia was one of only five countries in the EU where there was a net release of impairments and provisions over the first three quarters of last year. This puts the pre-tax profit of more than EUR 0.5 billion in a considerably different light: taking into account the long-term average of net impairments and provisions in gross income, the profit would have been nearly two thirds lower and the return on capital would only be a good third of generated.

The economic difficulties caused by geopolitical tensions, the sustained period of higher inflation, the rising threat of cyberattacks and the uncertainties on markets in various bank investment segments amid the general commitment to the green transformation are challenges that will continue to occupy banks and other institutions of the financial system in general.

Dr Primož Dolenc

CONTENTS

EXECUTIVE SUMMARY	1
1 KEY RISKS TO THE BANKING SYSTEM	5
1.1 Macroeconomic risk	5
1.2 Risk inherent in the real estate market	12
1.3 Funding risk	21
1.4 Interest rate risk	28
1.5 Credit risk	32
1.6 Income risk	44
2 RESILIENCE OF THE BANKING SYSTEM	53
2.1 Solvency and profitability	53
2.2 Liquidity	57
3 HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS	61
3.1 Households	61
3.2 Non-financial corporations	65
4 NON-BANK FINANCIAL INSTITUTIONS	74
4.1 Leasing companies	74
4.2 Insurers	75
4.3 Mutual funds	77
5 MACROPRUDENTIAL POLICY FOR THE BANKING SYSTEM AND LEASING COMPANIES	79
5.1 Current macroprudential policy guidance in EEA countries	79
5.2 Overview of macroprudential instruments in force in Slovenia	82
5.3 Upcoming changes to macroprudential instruments in Slovenia	91
6 APPENDIX	96

Boxes

Box 1.1	Deposit stability: simulation of deposit response to a rise in interest rates.....	23
Box 1.2	Deposit guarantee scheme	25
Box 1.3	Introduction of a digital euro and its impact on the banking system's funding risk	27
Box 1.4	Assessment of the sensitivity of the NFCs portfolio to the rise in energy prices.....	42
Box 1.5	Non-interest income	48
Box 3.1	Simulation of the impact of government emergency measures on corporate performance.....	70
Box 5.1	Establishment of the pan-European systemic cyber incident coordination framework (EU-SCICF)	81
Box 5.2	Impact of macroprudential measures on access to financial resources for households and individuals	86

EXECUTIVE SUMMARY

The systemic risks to financial stability in Slovenia have not changed significantly since our previous assessment. Given the diminishing economic impact of the pandemic, there was an expectation that certain risks would decline over the short term or at least over the medium term, but the Russian attack on Ukraine has brought a renewed rise in uncertainties. The most obvious reflection of the current tensions can be found in the assessment of macroeconomic risk, which otherwise would have declined to moderate, but instead remains elevated. Energy price inflation, disruptions to trade and declining confidence are all contributing to the ongoing downturn in the macroeconomic situation, and a further deterioration in the assessment over the course of one year cannot be ruled out. If the elevated macroeconomic risk is primarily attributable to external factors, the persistently elevated risk inherent in the real estate market is being driven mainly by domestic imbalances. We have responded to the increased growth in prices on the real estate market, which has recently been joined by strengthened housing lending, by making adjustments to our macroprudential measures. In April we took the decision to adjust the macroprudential measures aimed at curbing the transmission of risks from the real estate market into the banking system, and at strengthening the banking system's resilience to any realisation of these risks. Amid the rapid growth in fixed-rate long-term loans, housing loans in particular, the banks are also seeing a rise in interest sensitivity. By raising the level of interest rate risk, we are warning the banks that this risk must be properly managed. Income risk and credit risk have been elevated for quite some time now, and their medium-term outlook is being strongly affected by the potential consequences of the war in Ukraine.

Table 1 Banka Slovenije's risk and resilience dashboard for the Slovenian financial system

Risk and resilience dashboard							Trend of change
	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	
Systemic risk							
Macroeconomic risk	High	High	Elevated	Elevated	Elevated	Elevated	↑
Risk inherent in the real estate market	Elevated	Elevated	Elevated	Elevated	Elevated	Elevated	→
Funding risk in the banking system	Elevated	Elevated	Elevated	Elevated	Elevated	Elevated	↑
Interest rate risk in the banking system	Elevated	Elevated	Elevated	Elevated	Elevated	Elevated	→
Credit risk in the banking system	Elevated	High	High	Elevated	Elevated	Elevated	↑
Income risk in the banking system	Elevated	Elevated	Elevated	Elevated	Elevated	Elevated	→
Risk inherent in leasing companies	Elevated	Elevated	Elevated	Elevated	Elevated	Elevated	→
Resilience to systemic risks							
Solvency and profitability of the banking system	High	Elevated	Elevated	Elevated	Elevated	Elevated	↓
Liquidity of the banking system	High	High	High	High	High	High	↓

Colour code:

Risk	low	moderate	elevated	high
Resilience	high	medium	low	very low

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

Source: Banka Slovenije

Despite the strength of the domestic economy at the turn of the year, macroeconomic risk remains elevated amid the rise in uncertainties in connection with the war in Ukraine. The adverse impact on the economy from the pandemic was largely contained successfully, as firms adapted well and containment measures became less stringent. GDP increased by fully 8.1% in 2021, strongly out-performing the euro area average. The main drivers were private consumption and exports. Unemployment reached its lowest level since the

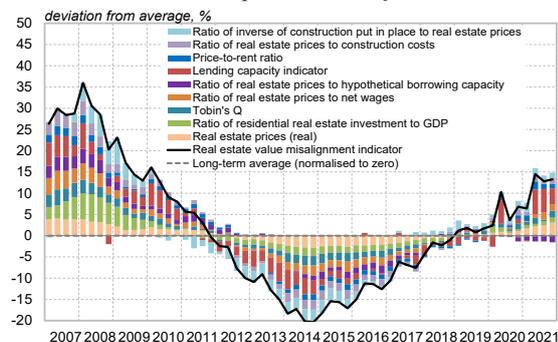
global financial and economic crisis, while the hiring of foreign workers is increasing amid shortages of qualified labour.

Consumer price inflation is strengthening, still driven largely by high energy price inflation, but it is becoming more broadly based as inflation spreads to other consumer prices. Given the impact of the war in Ukraine, we expect rising price pressures and lower year-on-year economic growth, indications of which came as early as March with a deterioration in business trends in manufacturing. The war in Ukraine has increased the uncertainty surrounding future economic growth, while further threats to growth come from outbreaks of new coronavirus variants, and the ongoing disruptions to supply chains. The build-up of uncertainty means that macroeconomic risk remains elevated, with a simultaneous deterioration in expectations over the horizon of one year.

The risk inherent in the Slovenian real estate market remains elevated, although the expectations over the horizon of up to one year are neutral. The growth in house prices rose sharply in 2021, taking prices past their previous record highs from 2008 in nominal and real terms. Our assessment is that Slovenian residential real estate is relatively overvalued, and further rises in real estate prices could increase this overvaluation even more (see Figure 1). While year-on-year growth in housing loans was moderate over the first half of last year, it then strengthened significantly. This is also increasing the banking system's vulnerability to a potential correction in residential real estate prices. The stock of loans to firms in the sectors of construction and real estate activities contracted sharply after the global financial crisis, but the importance of housing loans on bank balance sheets has increased significantly over the last decade.

Banka Slovenije therefore took the decision at the end of April of this year to introduce additional macroprudential measures. These changes aim to curb the transmission of risks from the real estate market to the banking system, and to increase its resilience in the event of any realisation of risks. At the same time we are warning that our measures will have limited reach, and can solely have an effect on credit-supported demand for real estate. They cannot influence the general situation on the real estate market. The supply side has a major influence on developments in the real estate market, with Slovenia having seen a lack of housing investment for several decades now. The rising number of building permits issued for residential buildings (including those with multiple dwellings) suggests that the imbalance between the supply of and demand for real estate might be slightly reduced over the medium term, but the current geopolitical tensions are bringing a sharp rise in construction costs, which could constrain the adjustment in supply, rather than simply make it more expensive.

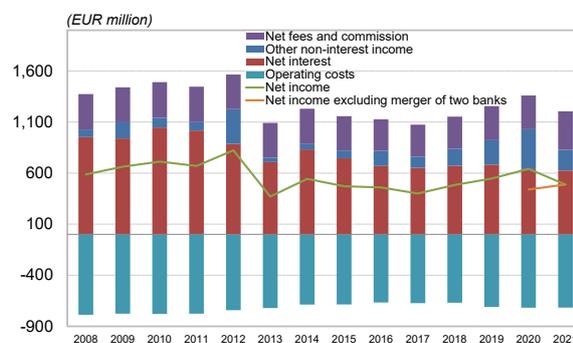
Figure 1 Indicator of overvaluation of real estate and components thereof



Note: In the left figure 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.

Sources: Banka Slovenije, Eurostat, SORS, SMARS, ECB SDW

Figure 2 Net interest income



Income risk also remains elevated, as the conditions for generating income in the banking system are uncertain, despite the positive developments in certain income categories in 2021. Growth in net interest income remained negative, but the decline in net interest income relative to the previous year gradually diminished (see Figure 2), and the decline in the net interest margin also slowed. The banks are continuing to compensate for the decline in interest income by increasing non-interest income, fees and commission in particular. Operating costs remain stable. The conditions for generating income are and are becoming more uncertain, even after the pandemic's impact on the economy has waned. Bank performance will be significantly affected over the next year by developments in the war in Ukraine, and the potential final decision by the Constitutional Court with regard to the temporary staying of the implementation of the law

governing loans in Swiss francs. The adverse impact of the entry into force of the aforementioned law could be reflected in a decline in income at individual banks.

Credit risk remains elevated, despite a decline in non-performing exposures (NPEs). NPEs declined further in December overall, while the largest decline in NPEs between 2019 and 2021 was recorded by the non-financial corporations (NFCs) segment. Signs of a deterioration in asset quality have begun to be seen in certain segments of the bank portfolio following the pandemic crisis, which is primarily evident in the form of renewed reclassification of exposures to the stage with increased credit risk in certain services, in the consumer loans portfolio and, in the final months of last year, in manufacturing (see Figure 3). A deterioration in credit risk indicators is also evident among exposures for which moratoria were approved during the pandemic, which now account for just 3.8% of the banking system's total exposure. Coverage of NPEs by impairments is high and still increasing, although the banks are reducing coverage by impairments in the performing parts of the portfolio. A further economic downturn caused by the war in Ukraine could be reflected particularly strongly in sectors that are directly or indirectly most heavily dependent on the countries involved in the war, and on foreign trade in general. The assessment of credit risk therefore remains elevated, with a rising trend.

Figure 3 Share of Stage 2 exposures by selected customer segment

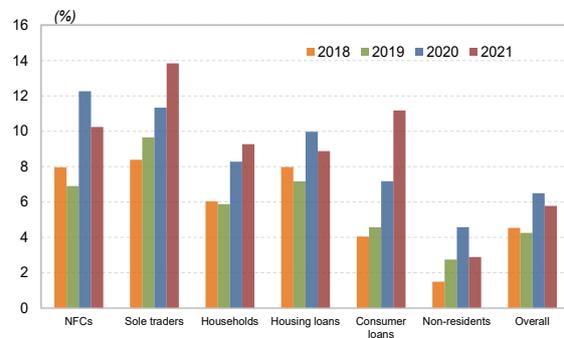
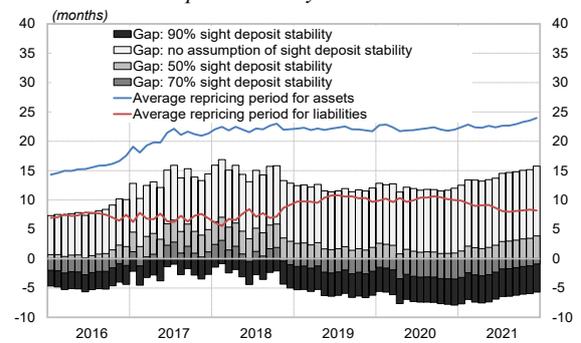


Figure 4 Repricing gap including off-balance-sheet items and various assumptions for sight deposit stability



Note: The right figure takes account of sight deposit stability with various assumptions for stability and the allocation of the core component of sight deposits across intervals, derivatives hedges, and amortisation schedules.

Source: Banka Slovenije

Given the increase in banks' interest sensitivity in the second half of 2021, the assessment of interest rate risk was raised to elevated, with a stable outlook over the horizon of one year. The repricing gap widened, driven primarily by the lengthening of the repricing period on the asset side (see Figure 4). Amid the increase in fixed-rate lending, particularly in the fast-growing segment of housing loans, there was a sharp increase in the average repricing period on the asset side relative to earlier periods. The average repricing period on the liability side stabilised however. The traditional assumption of the relatively high stability of the core component of sight deposits means that in the event of a rise in interest rates, the majority of these deposits would not be withdrawn and remuneration would therefore remain unchanged, and the impact on net interest income in the banking system would be positive. In the event of a decline in deposit stability, and further widening of the repricing gap, a rise in interest rates might lead to a decline in net interest income. We are therefore warning that it is vital for the banks to properly protect themselves against interest rate risk, either through appropriate hedging instruments or through caution in the approval of fixed-rate loans.

Our assessment is that the banking system's resilience from the perspective of solvency and profitability remains medium, but it could deteriorate. The adverse impact of the Covid-19 pandemic and the war in Ukraine could in the future lead to a downturn in the quality of the credit portfolio and reduce the ability to generate profit, which would consequently lead to a deterioration in capital ratios. The eventual entry into force of the law regulating loans in Swiss francs could also lead to a deterioration in the profitability (by increasing impairments and provisions, or by reducing income) and the capital position of individual banks. Here we should again emphasise that there are considerable differences between the banks in the level of their capital surpluses and their ability to cover adverse effects, exposure to which also varies from bank to bank.

The banking system's liquidity remained high in 2021, despite a slight deterioration in certain indicators. The ongoing strong growth in deposits by the non-banking sector and the acquisition of additional funding in TLTRO-III tenders, particularly in the first half of 2021, have strengthened primary liquidity. The banks have not fully replaced maturing Slovenian government securities with new securities, which has reduced

secondary liquidity. There remain considerable variations between the banks in their ability to cover the potential consequences of the realisation of funding risk amid sudden stress events, for example in the form of a major withdrawal of deposits by the non-banking sector, which are the banks' main source of funding. Diligent liquidity management and careful monitoring of competition in the sector and the current geopolitical situation therefore remain vital, particularly for banks with smaller liquidity surpluses.

In general the financial position of households and the corporate sector remained good in 2021. Households saw further growth in disposable income on aggregate, which in contrast to 2020 was also expressed in high growth in final consumption. Given the improving economy in Slovenia and the relaxation of containment measures, households saved less than in 2020, while NFCs also increased their financial assets through growth in borrowing. Household lending, particularly for housing purchase, also strengthened as interest rates remained low. The average indebtedness of Slovenian households is lower than the European average, although the existing debt is spread across a small number of indebted households; this means that certain indebted households, particularly those with low incomes, have an above-average debt servicing burden. The sound financial position of NFCs was a major factor in their resilience during the pandemic, and constraints on financing ceased to be one of the key limiting factors in their business even before the outbreak of the war. The uncertain macroeconomic circumstances in connection with the war in Ukraine and the rising constraints on business in certain parts of the world as a result of Covid-19 outbreaks could be reflected this year in a decline in the corporate sector's resilience, with adverse consequences for the stability of the financial system.

Last year's strong economic growth was also reflected positively in the performance of the non-bank financial sector. The performance of leasing companies returned to its pre-pandemic level in certain segments, while the proportion of leasing business in arrears declined further and remained highly concentrated. With an increase in gross written premium and an improvement in the claims ratio, the insurance sector saw a sharp increase in profitability and an improvement in capital adequacy. Mutual funds recorded high growth in assets under management thanks to positive developments on stock exchanges and above-average net inflows, particularly into equity funds and mixed funds. Our assessment is that the build-up of uncertainties in connection with the war in Ukraine, the ongoing disruptions to supply chains, and the inflationary pressures will also have an adverse impact on this year's performance of the non-bank financial sector.

Banka Slovenije currently has three packages of macroprudential instruments in place that focus on preventing and mitigating systemic risks and strengthening the resilience of the banking system. These currently encompass macroprudential restrictions on household lending, the countercyclical capital buffer (which is currently zero), and the O-SII buffer. The macroprudential restrictions on profit distributions by banks and leasing companies expired in the second half of last year, as did the measure restricting the ratio between the annual change in lending to the non-banking sector and the annual change in deposits by the non-banking sector (GLTDF), which prevented excessive maturity mismatching and illiquidity.

In April of this year we took the decision to slightly adjust our macroprudential policy and the measures in place, thereby responding to the increased risks inherent in the real estate market. In addition we opted to make certain changes to existing measures. The changes to the macroprudential restrictions on household lending enter into force on 1 July 2022, while 1 January 2023 sees the introduction of the sectoral systemic risk buffer, a new measure in our macroprudential toolkit following the entry into force of the ZBan-3.

The new Regulation on macroprudential restrictions on consumer lending follows the existing restrictions, but slightly improves access to loans for natural persons, while the tightening of the LTV recommendation addresses the growing risks inherent in the real estate market. The new regulation also abolishes the macroprudential restrictions on loans backed by government guarantee.

The introduction of the sectoral systemic risk buffer aims to strengthen the banks' resilience to the risks inherent in the domestic real estate market, and will simultaneously address the increase in risks caused by the relaxation of the macroprudential restrictions on consumer lending. The aforementioned risks could lead to increased losses in the banking sector, and consequently to increased demand for capital, and therefore the timely build-up of buffers is of vital importance. The instrument will apply to all banks, who will have to meet it at the highest level of consolidation in Slovenia.

1 KEY RISKS TO THE BANKING SYSTEM

1.1 Macroeconomic risk

Despite the largest wave of Covid-19 cases and the disruptions to supply chains, domestic economic conditions at the end of last year and the early part of this year were favourable, but the outbreak of the war in Ukraine has increased the uncertainty surrounding growth prospects. Slovenia passed its pre-pandemic level of GDP as early as the third quarter of last year, with new waves of the pandemic having a limited adverse impact on economic activity thanks to the successful adaptations made by firms. The majority of containment measures were then abolished in February of this year. The economic sentiment indicator was still high in the early part of this year, but fell significantly after the outbreak of the war in Ukraine, although it remained high in year-on-year terms. Domestic and foreign demand remained robust, but firms have already lowered their expectations of order books, exports and output. While their expectations of higher selling prices remained pronounced, firms have continued to cite shortages of skilled labour and raw materials as limiting factors. GDP in the final quarter of 2021 was up fully 10.4% in year-on-year terms, amid a large base effect, but the quarterly rate of growth was also high, and strongly outperformed the euro area average. The main drivers were private consumption and exports. Consumer price inflation rose significantly, still driven largely by high energy price inflation, but it is becoming more broadly based as inflation spreads to other consumer prices. It stood at 7.4% in April as measured by the HICP, similar to the euro area average. The workforce in employment has reached its highest level to date, while the number of unemployed is at its lowest level since the global financial and economic crisis. Hiring of foreign workers is increasing amid the shortage of qualified domestic labour. Growth in the average gross wage slowed in 2021 under the influence of wage normalisation in the public sector as epidemic-related wage bonuses were withdrawn. Developments in public finances are improving as the economy recovers and expenditure to alleviate the impact of the epidemic declines. Despite the general government deficit, which is slowly declining, the ratio of public debt to GDP declined in 2021 amid high economic growth. Borrowing conditions worsened over the first three months of this year amid the general rise in required yields on government bonds, but the government has retained a high level of investor confidence with no change in its sovereign credit ratings. The latest growth forecasts for the Slovenian economy are lower than in previous months, primarily in reflection of Russia's aggression against Ukraine. The global economy is also facing a weaker economic outlook and an increase in downside risks to economic growth compared with before the war in Ukraine, while further threats to growth come from outbreaks of new coronavirus variants, and the ongoing disruptions to supply chains. Euro area GDP in the final quarter of last year reached its pre-pandemic level, although a slowdown in growth means that the GDP of major euro area economies is yet to do so, while the war has slightly slowed growth further.

International environment

Following the economic recovery and the waning of the pandemic, the global economy is facing growing risks to future growth amid macroeconomic imbalances and the outbreak of the war in Ukraine. Thanks to the adaptations made by businesses, government measures to assist the economy and ever-improving management of the epidemiological situation, many countries saw a great rebound in economic activity in 2021, but there was also a sharp increase in macroeconomic imbalances. Given the exceptional size of the fiscal and monetary policy measures, governments face record debt levels and the challenge of rising inflation. With an increased likelihood of higher future interest rates, and given the high levels of debt, the outlook for future growth is uncertain, which is particularly true of developing countries and certain highly indebted advanced economies. The improvement in the epidemiological situation and the resulting relaxation of containment measures brought a recovery in services, but the disruptions to supply chains have remained, which has curtailed growth in manufacturing. The Russian military aggression against Ukraine brought a sharp increase in geopolitical risks. Sanctions in other areas¹ are now being stepped up against Russia, alongside financial restrictions. Numerous firms have ceased doing business with Russia, and many with units in Russia have pulled out of the market. Trading in Russian energy is also expected to decline sharply, and certain countries have imposed embargoes. This is all sharply raising the risk of disruptions to energy supply, and is increasing the upward pressure on energy prices (see Figure 1.1).

¹ Transport, energy, defence, commodities and other goods, media, diplomatic sanctions, sanctions targeting particular individuals. Belarus is also a target of sanctions, alongside Russia.

Alongside energy prices, the outbreak of the war has also raised prices of certain food commodities and other commodities. The outlook for global economic growth has thus worsened considerably.

The macroeconomic risk inherent in the international environment was displaying a trend of decline during the global economic recovery, but has risen again with the outbreak of the war in Ukraine. The economic growth outlook had been worsening slightly even before the outbreak of the war, on account of the disruptions to supply chains, the withdrawal of measures to alleviate the impact of the pandemic, the resurgence of cases of more transmissible coronavirus variants, and high price pressures. The global economy recovered strongly in 2021, with growth of 6.1%.² High growth was also forecast for 2022, but the latest projections are slightly worse than before.³ The IMF is forecasting economic growth of 3.6% in 2022, while World Bank is forecasting growth of 4.1%.⁴ Growth in 2023 is forecast to hold at 3.6% (IMF) or to slow to 3.2% (World Bank). Indicators of economic activity for the global economy suggested a downturn in the economic situation at the beginning of this year, primarily as a result of a decline in activity in services, but the situation normalised in February and the expansion continued. JPMorgan's global PMI rose again in February to above its pre-pandemic level, and held at similar levels in March. The realisation of the economic projections is subject to major uncertainty and to downside risks.

Figure 1.1 Oil prices and euro exchange rate

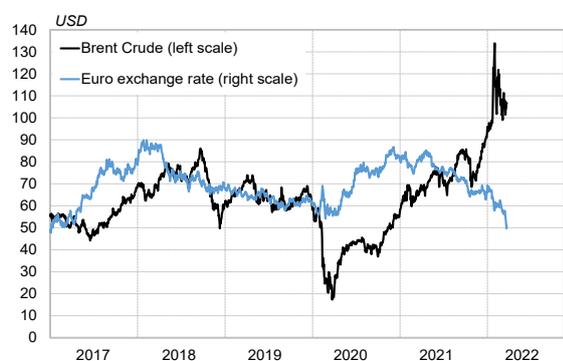
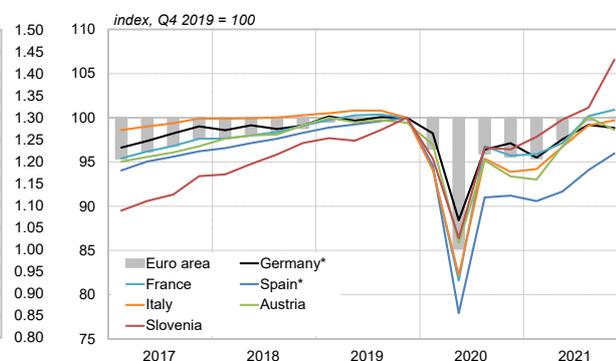


Figure 1.2 GDP growth in selected euro area countries by quarter



Note: Data in the left figure is up to 29 April 2022 inclusive. The GDP data in the right figure is seasonally adjusted and calendar-adjusted. Provisional figures for Germany and Spain.

Sources: Bloomberg, ECB, Eurostat

The deterioration in the epidemiological situation meant that the euro area saw sluggish economic growth late last year and in the early part of this year, and the outlook for future growth has become highly uncertain because of the outbreak of the war in Ukraine. Year-on-year GDP growth in the final quarter of 2021 stood at 4.6% amid a large base effect, but GDP was up only 0.3% on the previous quarter. Annual growth in 2021 amounted to 5.3%. The euro area economy as a whole hit its pre-pandemic level of GDP in the final quarter of last year, although some of the major economies such as Germany, Italy and Spain are yet to reach that mark (see Figure 1.2). Despite the sharp increase in uncertainty with the outbreak of the war in Ukraine, and amid the buoyant labour market and the waning adverse effect of the pandemic and the related bottlenecks in supply chains, the ECB is forecasting relatively solid economic growth over the following quarters. In its March macroeconomic projections it cut the GDP growth forecast for this year by 0.5 percentage points to 3.7%, and forecast growth of 2.5% and 2.3% under the adverse and severe scenarios respectively.⁵

² IMF, April 2022 (2021: 6.1%, 2022: 3.6%, 2023: 3.6%), World Bank, January 2022 (2021: 5.5%, 2022: 4.1%, 2023: 3.2%).

³ IMF, January 2022 (2021: 5.9%, 2022: 4.4%, 2023: 3.8%), World Bank, June 2021 (2021: 5.6%, 2022: 4.3%, 2023: 3.1%).

⁴ The World Bank forecast does not yet reflect the war in Ukraine.

⁵ ECB, March 2022 (2021: 5.4%; baseline scenario: 2022: 3.7%, 2023: 2.8%, 2024: 1.6%; adverse scenario: 2022: 2.5%, 2023: 2.7%, 2024: 2.1%; severe scenario: 2022: 2.3%, 2023: 2.3%, 2024: 1.9%); ECB, December 2021 (2021: 5.1%, 2022: 4.2%, 2023: 2.9%, 2024: 1.6%).

Figure 1.3 IHS Markit PMI for the euro area

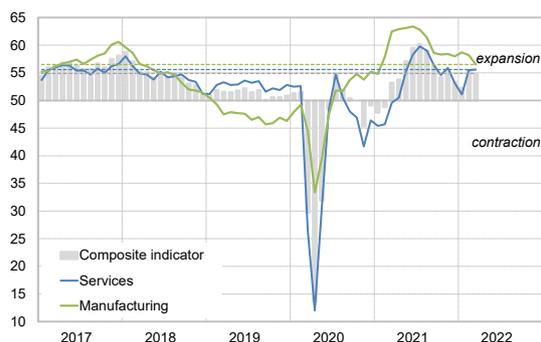
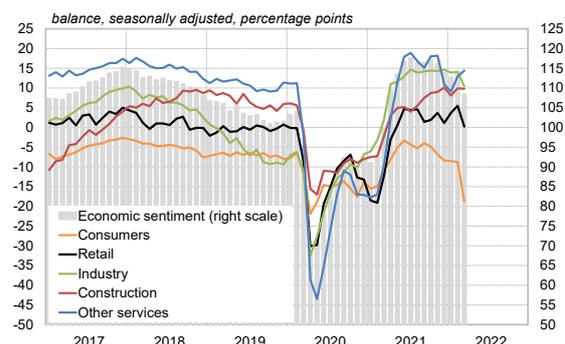


Figure 1.4 Confidence indicators in the euro area



Note: A PMI of more than 50 represents expansion with regard to the previous month, while a value of less than 50 represents contraction. Confidence indicators are expressed in the form of an average balance. The balance is the difference between the proportions of positive answers and negative answers.

Sources: IHS Markit, European Commission

At the beginning of the year high-frequency indicators were suggesting a significant slowdown in growth in the euro area amid the worsening epidemiological situation. Given the rapid spread of a more transmissible coronavirus variant and the introduction and persistence of containment measures, the slowdown was more evident in services. The supply chain bottlenecks and the shortages of semiconductors and certain raw materials continued, which further curtailed growth in manufacturing amid the high energy prices and labour shortages. The improvement in the epidemiological situation saw the business conditions in services normalise in February, which brought a sharp increase in IHS Markit’s composite PMI for the euro area (see Figure 1.3). The economic sentiment indicator remained high in February, well above its pre-pandemic average, but worsened in March in the rising uncertainty caused by the war in Ukraine (see Figure 1.4). The sole indicator to increase in March was the services confidence indicator, while the construction confidence indicator remained unchanged but high, and the manufacturing and retail confidence indicators declined. The consumer confidence indicator suffered a sharp decline, as consumer purchasing power was increasingly hit by high inflation, which reached 7.5% in the euro area in March, with a wide range across individual countries (see Figure 1.10). High energy price inflation means that inflationary pressures will also be present in the future.

Figure 1.5 Required yield on 10-year government bonds

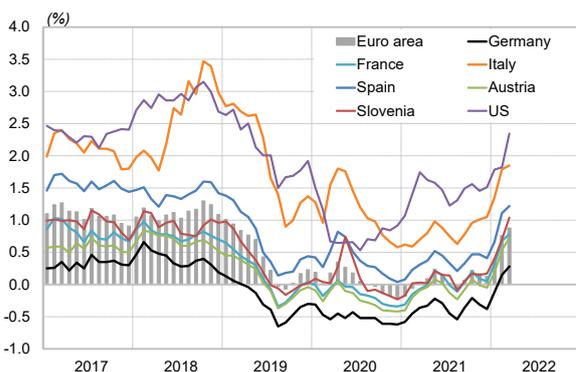
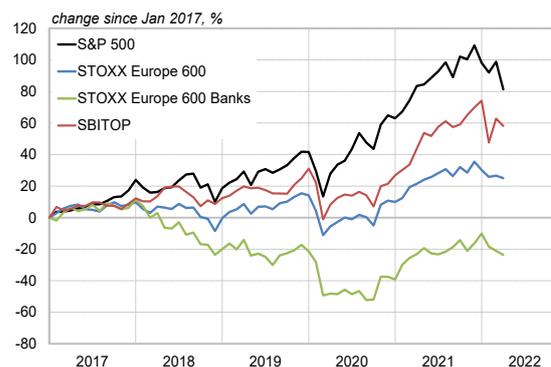


Figure 1.6 Change in stock market indices



Note: Data in the right figure is up to 29 April 2022 inclusive.

Sources: European Commission, Investing, Ljubljana Stock Exchange

Financing conditions in the euro area deteriorated amid rising inflationary pressures. The required yields on euro area government bonds rose in the early part of this year, albeit without any significant fragmentation for now (see Figure 1.5). Given the ongoing rise in prices in major advanced economies, the monetary policy stance moved into gradual tightening, although it still remained highly accommodative. In the US the Fed took the decision in January of this year to scale back net asset purchases, before making the first of a series of interest rate hikes, in the amount of 0.25 percentage points in March. Changes were also announced in March by the ECB, which will gradually scale back the asset purchase programme (APP) over the second quarter, before calibrating purchases in the third quarter according to the data and the current economic outlook. If the inflation outlook for the next two years does not weaken, the ECB will end its net

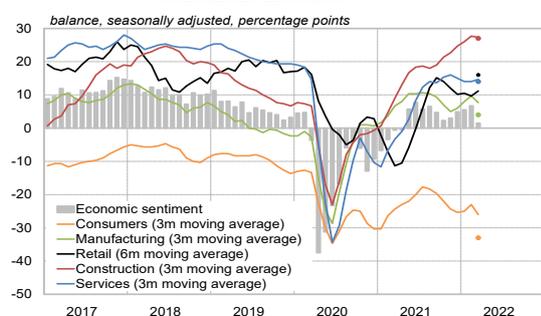
purchases under the APP in the third quarter; otherwise it will adjust the envelope and duration. It also intends to continue reinvesting the full principal of maturing securities purchased under the programme. The ECB's key interest rates remain unchanged for now, with gradual adjustments set to begin after the end of the APP. The ECB ended net purchases under the pandemic emergency purchase programme (PEPP) at the end of March of this year. The special terms applying to the third series of targeted longer-term refinancing operations (TLTRO III) are expected to expire in June of this year.

Stock markets fell coming into 2022, and then again at the outbreak of the war in Ukraine, amid a sharp increase in volatility. The US saw an exceptional rise in stock markets, with only occasional corrections, between March 2020 and December of last year, when the S&P 500 hit its record high (see Figure 1.6). In January financial markets responded to the change in US monetary policy, which will be tightened faster than previously expected, and saw increased volatility and a fall in the S&P 500. Although not comparable to the rise in the US, European shares also enjoyed a strong rise after the beginning of the pandemic, hitting record highs in December. European stock markets also suffered a fall in January amid the change in US monetary policy, the strong winter wave of the pandemic, and other macroeconomic uncertainties and risks. The outbreak of the war in Ukraine in late February brought increased uncertainty in the financial markets and a sharp rise in volatility, particularly on European stock exchanges. There was also a fall in stock market indices, which then rose again in March. European bank share prices surpassed their pre-crisis levels in the final quarter of last year, before falling in the early part of this year in line with the rest of the market. The euro has been gradually sliding against the US dollar since the halfway point of last year. It continued to slide following the tightening of US monetary policy and in particular the outbreak of the war in Ukraine, leaving the euro at USD 1.05 at the end of April (see Figure 1.1).

Economic situation in Slovenia

Judging by the economic sentiment indicator, sentiment in the domestic economy over the first two months of the year remained above its pre-pandemic level, but deteriorated in March following the outbreak of the war in Ukraine and the rise in uncertainty, although it remained better than a year earlier (see Figure 1.7). Services confidence and consumer confidence rose in the early part of the year as the containment measures were being relaxed. The lifting of the majority of containment measures in late February brought the expected further increase in activity in contact-intensive services. Various mobility indicators⁶ are at levels that mostly correspond to the pre-pandemic period, an indication that public life has mostly returned to normal. Certain high-frequency indicators also suggest that consumption remained strong in the first quarter. The manufacturing confidence indicators fell in March, given the uncertainty brought by the war in Ukraine. Firms reported declines in orders, export expectations and output expectations, while there was a sharp increase in price expectations. Firms continued to cite shortages of skilled labour and raw materials as limiting factors, while current domestic and foreign demand remained robust. The construction confidence indicator remained high, with an increase in the amount of construction put in place, larger order books, and expectations of higher prices. The main limiting factors remain high material costs and a shortage of skilled labour (for more, see subsection 1.2). Retail confidence increased, with firms expecting higher selling prices in the future, but consumer confidence fell sharply in March. The sentiment in the economy over the upcoming period will be significantly impacted by the increased uncertainty caused by the war in Ukraine and its consequences.

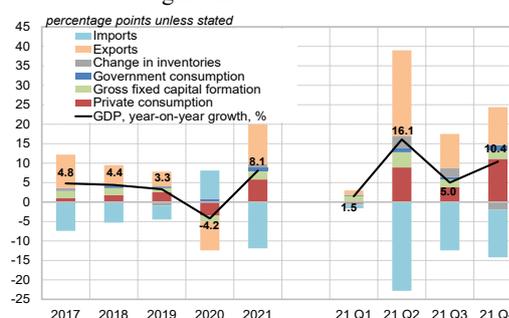
Figure 1.7 Confidence indicators and economic sentiment indicator



Note: The confidence indicators in the left figure are illustrated as three- or six-month moving averages (other than the economic sentiment indicator). The spots denote the latest figures (March 2022).

Sources: SORS, Banka Slovenije calculations

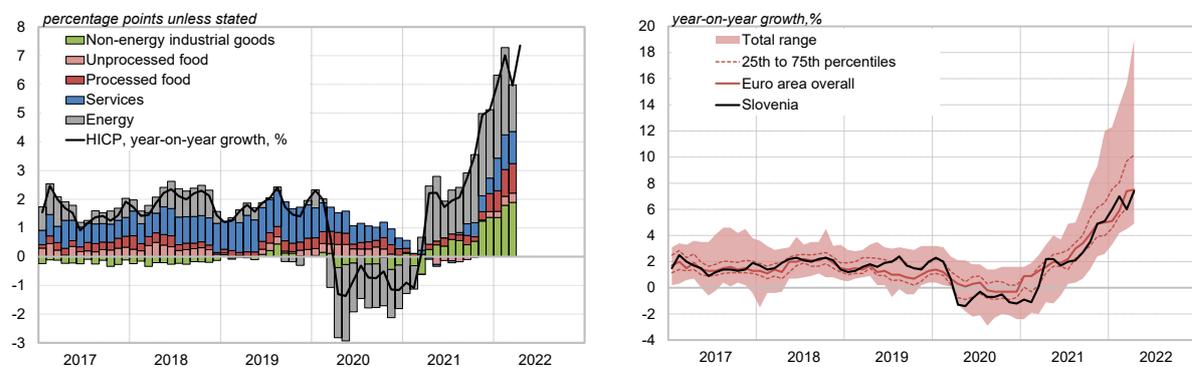
Figure 1.8 GDP growth and contributions to GDP growth



⁶ Mobility indicators reported by Google since the outbreak of the pandemic.

Despite the deterioration in the epidemiological situation and the imposition of more-stringent containment measures, economic growth in the final quarter of last year was high, and strongly exceeded expectations. The domestic economy successfully adapted to the adverse health situation, and activity increased despite the largest wave of coronavirus cases so far. GDP in the final quarter of 2021 was up fully 10.4% in year-on-year terms (see Figure 1.8), in part as a result of the low base from the decline in activity in the final quarter of the previous year. The quarterly rate of growth⁷ was also high (5.4%), and up significantly on the previous quarter. Growth thus picked up sharply in the final quarter, and outpaced year-on-year growth in the euro area by 5.1 percentage points. Amid strong domestic and foreign demand, the growth was driven by domestic consumption and exports alike, but imports also strengthened notably, which meant that the trade balance was in deficit. In the early part of this year the economic outlook for the remainder of the year was significantly better than had been predicted last year. The outbreak of the war in Ukraine in late February brought a sharp increase in geopolitical risks, which was followed by a moderate downturn in the economic sentiment and the outlook for economic growth as sanctions against Russia were stepped up. The probability that the highly favourable forecasts made by various institutions and released before the outbreak of the war will be realised has thus diminished. The April projections for Slovenia by the IMF and the IMAD, which already reflect the projected effects of the war, are forecasting GDP growth of 3.7% and 4.2% respectively in 2022, and 3.0% in 2023.⁸

Figure 1.9 Inflation (HICP) and components of inflation Figure 1.10 Inflation (HICP) across the euro area



Note: The figures for March are Eurostat estimates.
Sources: Eurostat, Banka Slovenije calculations

Year-on-year consumer price inflation as measured by the HICP rose to 7.4% in April, having stood slightly lower in March at 6.0% thanks to the government measures to mitigate the rise in energy prices. It continues to be driven largely by high energy price inflation, but other consumer price categories are also rising as inflation becomes more broadly based (see Figure 1.9). The sustained rise in energy prices and other commodity prices on global markets is raising the production costs of industrial goods and food production costs, which is increasingly being reflected in higher growth in prices of products within these categories, and also in a rise in their contributions to headline inflation. Year-on-year inflation in Slovenia was mostly lower than the euro area average in the second half of last year, but is now approximately in line with it according to the latest figures (see Figure 1.10). All euro area countries have seen a rapid rise in consumer price inflation, but there are significant differences between them. The war in Ukraine and the sanctions against Russia sharply increased the price pressures on energy, other commodities and food, and have also increased the accompanying price expectations.

⁷ According to seasonally adjusted and calendar-adjusted figures.

⁸ IMAD, April 2022 (2022: 4.2%, 2023: 3.0%); IMF, April 2022 (2022: 3.7%, 2023: 3.0%); European Commission, February 2022 (2022: 3.8%, 2023: 3.6%); Banka Slovenije, December 2021 (2022: 4.0%, 2023: 3.3%, 2024: 2.6%), OECD, December 2021 (2022: 5.4%, 2023: 3.2%).

Figure 1.11 Unemployment and number of valid work permits for foreign nationals

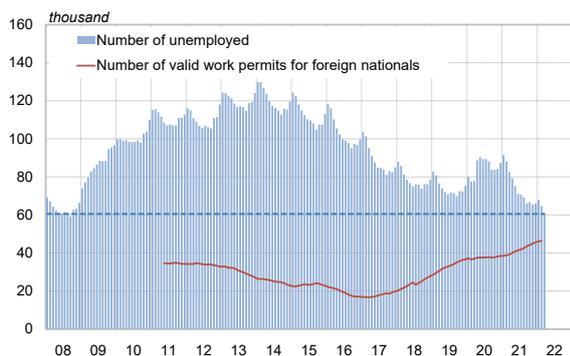
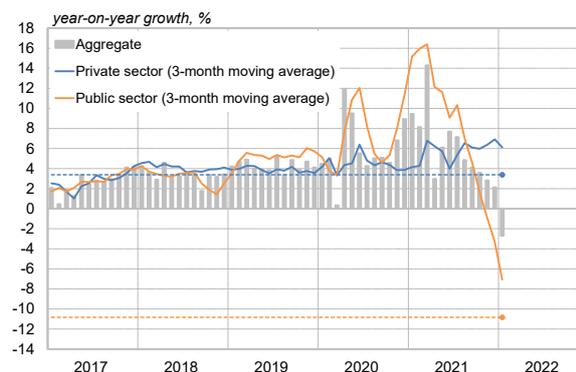


Figure 1.12 Growth in gross wages



Note: Changes in legislation and statistical record-keeping mean that the left figure only gives data for the number of valid work permits as of April 2011. The dashed line represents the most recent unemployment figure. The series for year-on-year growth in the average gross wage in the public sector and the private sector are illustrated as three-month moving averages in the right figure. The dots denote the latest figures (January 2022), while the dashed lines show their level.

Sources: Employment Service, SORS, Banka Slovenije calculations

In the labour market the workforce in employment has reached a record high, but demand for workers is still increasing. With the domestic pool diminishing, firms are increasingly hiring foreign workers. Year-on-year growth in the workforce in employment reached 3.1% in January, its highest level since the first quarter of 2019, with the majority of sectors recording positive growth. There was a particularly noteworthy figure of 14.5% in accommodation and food service activities, where business conditions have mostly normalised, although the figure was primarily attributable to the very low base caused by the stringent containment measures a year earlier. Construction was also notable for its high year-on-year growth in the workforce in employment, with a figure of 8.4% in January. Meanwhile unemployment hit its lowest level since the global financial and economic crisis, in line with the strong economy (see Figure 1.11). The rate stood at 4.2%⁹ in January, one of the lowest figures in the euro area, and 2.6 percentage points less than the euro area average. The adverse effects of the labour shortage, the rising structural imbalances and wage pressures are being reduced by the intensive hiring of foreign nationals, with a 20% year-on-year rise in the number of valid work permits during the first two months of this year (see Figure 1.11). Year-on-year growth in the average gross wage slowed over the course of 2021, hitting its low in December (see Figure 1.12). The trend was primarily driven by wage normalisation in the public sector as pandemic-related wage bonuses were withdrawn, while average growth in the private sector increased. The average gross wage in January was down 2.7% in year-on-year terms, amid a year-on-year decline in the public sector and a slowdown in growth in the private sector.

Figure 1.13 General government revenues, expenditures and position

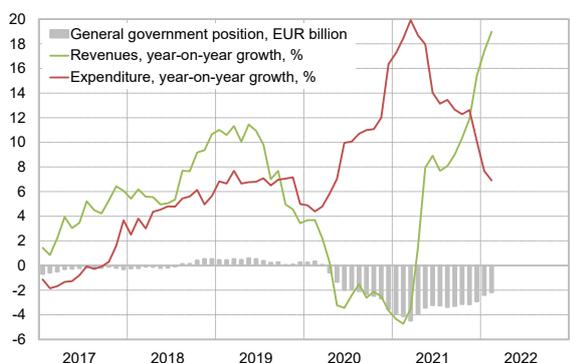
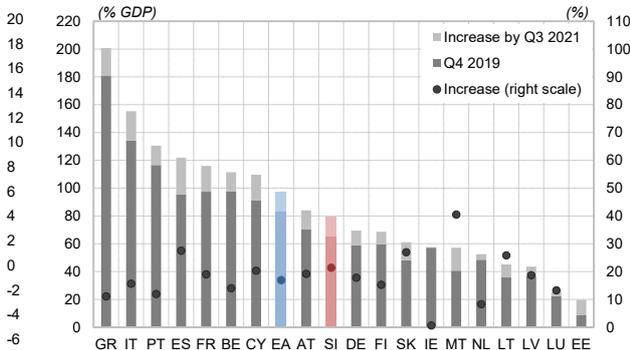


Figure 1.14 Public debt in euro area countries and increase relative to the final quarter of 2019



Note: The data for general government position in the left figure is illustrated as 12-month moving sums, while the growth in revenues and expenditures is illustrated as the year-on-year change in 12-month moving sums. The figure of 129% for Estonia (EE) is not illustrated in the right figure.

Sources: Ministry of Finance, SORS, ECB SDW, Banka Slovenije calculations

⁹ Harmonised unemployment rate.

Public finances are improving with strong economic activity, as growth in revenues outpaces growth in expenditure and the deficit narrows. Year-on-year growth in general government expenditure slowed sharply over the course of last year as expenditure to alleviate the impact of the pandemic was reduced (see Figure 1.13). The general government deficit amounted to EUR 2.9 billion or 5.6 % of GDP last year, EUR 0.6 billion less than in the previous year, but the new government measures put in place this year¹⁰ will slow the further reduction of the deficit. Despite the deficit, the ratio of public debt to GDP ended 2021 at 74.7%, down 5.1 percentage points on the previous year amid the strong economic recovery. The increase relative to the pre-pandemic level was larger than the euro area average, but the ratio remained below the euro area average (see Figure 1.14). As in other countries, the rise in required yields on government bonds brought a slight deterioration in the terms of future borrowing in the early part of the year, although for Slovenia they remained favourable when compared over several years (see Figure 1.5). The major rating agencies confirmed their existing ratings for Slovenia in 2021, and also left the outlook unchanged,¹¹ which means that the country continues to enjoy a high degree of trust from investors on international capital markets.

Figure 1.15 Probability of a financial crisis in the next 12 months in Slovenia, with contributory factors

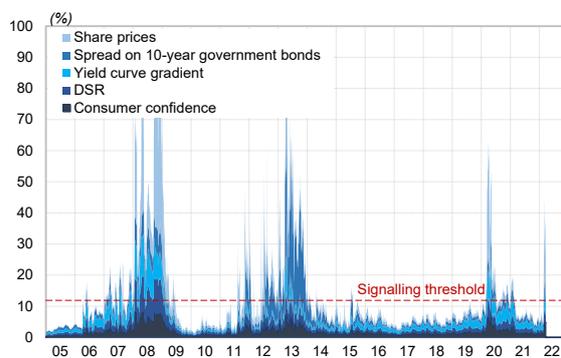
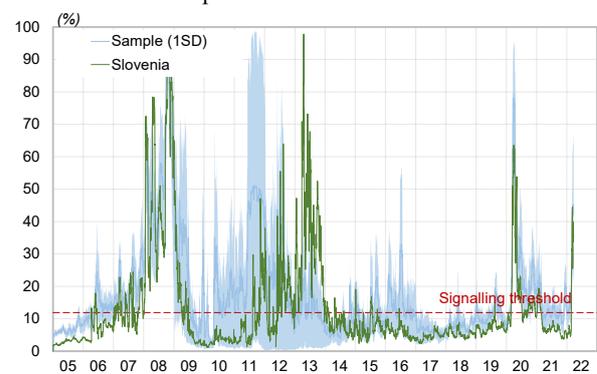


Figure 1.16 Probability of a financial crisis in the next 12 months in Slovenia and in countries in the sample



Note: The left figure illustrates the probability of a crisis in Slovenia in the next 12 months, 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). Latest data: 22 March 2022.

Source: Banka Slovenije

The probability of a systemic crisis in the next 12 months estimated by means of a real-time early warning model¹² persisted below the signalling threshold for Slovenia until mid-February.¹³ After the risks to financial stability that were present in the early phase of the pandemic had eased, the outbreak of the war on 24 February brought a sudden increase in systemic risk in Slovenia and in the euro area, taking it to its highest level since the outbreak of the pandemic (see Figure 1.16). The majority of the increase in risks in Slovenia were related to developments on the stock market, where the stock market index fell by 15% between mid-February and mid-March (see Figure 1.15). This was followed by a recovery, but the market remained below its level of mid-February. It should be noted that the microprudential and macroprudential frameworks in Slovenia and the euro area overall have improved considerably since the global financial crisis of 2008 and the euro area debt crisis of 2011 to 2014. While risks measured by model provide a certain reference, it is also necessary to take account of the availability of various tools at policymakers' disposal. The availability of these tools can mean that systemic risks are lower than suggested by a model that relies on data from the past, when the aforementioned tools were not yet available.

¹⁰ The unscheduled pension increase, the long-term care act, changes in the area of personal income tax, the digital inclusion promotion act, temporary measures in connection with high energy prices.

¹¹ S&P: AA-, stable outlook; Fitch: A, stable outlook; Moody's: A3, stable outlook.

¹² The signalling 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.

¹³ The probability of a crisis is estimated by means of a logistic early warning model. 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 and Sweden. The sample covers the period of January 2004 to March 2022. The identification and dating of systemic financial crises are based on the ECB/ESRB public database of financial crises.

1.2 Risk inherent in the real estate market

The risk to financial stability inherent in the Slovenian real estate market remains elevated, for which reason Banka Slovenije took the decision in April of this year to modify its macroprudential measures.¹⁴ Residential real estate prices rose sharply in 2021, and surpassed the previous record rates seen in 2008. Year-on-year growth in house prices stood at 15.7% in the final quarter of the year, compared with the moderate figure of 4.6% recorded in 2020. The majority of European countries saw high year-on-year growth in residential real estate prices: the rate averaged 8.8% in the euro area in the third quarter of 2021. Slovenian residential real estate became relatively overvalued last year, and further rises in real estate prices could further increase this overvaluation. The overvaluation of residential real estate in Slovenia is not among the highest in the EU, despite the high inflation seen in 2021. Growth in housing loans also strengthened in the second half of 2021, the year-on-year rate hitting 9.1% in December. The banks are currently maintaining credit standards for housing loans at a stable level, which was largely attributable to the binding macroprudential restrictions on household lending imposed in 2019. The LTV for new housing loans stood at 63% in the final quarter of 2021, down slightly on 2020. The stock of loans to NFCs in the sectors of construction and real estate activities declined sharply between the end of the last global financial crisis and the end of 2021, to reach EUR 1 billion, thereby reducing the vulnerability of the banking system from this perspective. Conversely the importance of bank loans to households, including housing loans, has increased sharply over the last decade, and from this perspective the vulnerability of the banking system to any correction on the residential real estate market is in the household loans segment greater than in 2008. The imbalance between the supply of and demand for real estate could ease over the medium term, as the number of building permits issued for residential buildings rose again in the second half of 2021, although the rapid rise in material and labour costs might curtail this in the future. As a result of the war in Ukraine and the rise in geopolitical tensions, there can be an expectation of further price rises, and shortages of energy, other raw materials, equipment and labour in construction. This could further raise construction costs, which might spill over into even higher residential real estate prices. The commercial real estate price also saw an increase in the second half of 2021: prices in the final quarter were up 10.3% in year-on-year terms. The commercial real estate market in Slovenia is small, and focuses on office space and catering and retail establishments in major retail centres and in the centres of the largest towns and cities. The commercial real estate market typically sees large fluctuations in prices and volume.

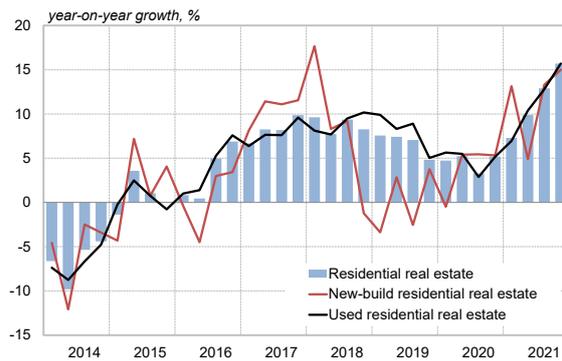
Developments on the residential real estate market

House prices have now passed their previous peak of 2008 in nominal and real terms. House prices rose sharply in 2021, and surpassed the previous record rates seen in 2008. Year-on-year growth in house prices stood at 15.7% in the final quarter of 2021, compared with the moderate figure of 4.6% recorded in 2020. The rise in prices was evident in new-build and used housing alike: their prices were up 15.0% and 15.7% respectively in year-on-year terms in the final quarter of last year (see **Napaka! Vira sklicevanja ni bilo mogoče najti**).¹⁵ Residential real estate prices in the final quarter of 2021 were up 21.8% in nominal terms on their peak of 2008, and up 3.7% in real terms. House prices have been rising since 2015, most likely in connection with the rise in household income, favourable loan terms on the banking market, and the subdued level of real estate prices following the global financial crisis. Amid the recovery of the Slovenian economy in 2021 from the crisis caused by the Covid-19 pandemic, growth in real estate prices strengthened sharply, and outpaced growth in GDP (see Figure 1.18).

¹⁴ For more on the macroprudential measures, see the section on macroprudential policy for the banking system and leasing companies.

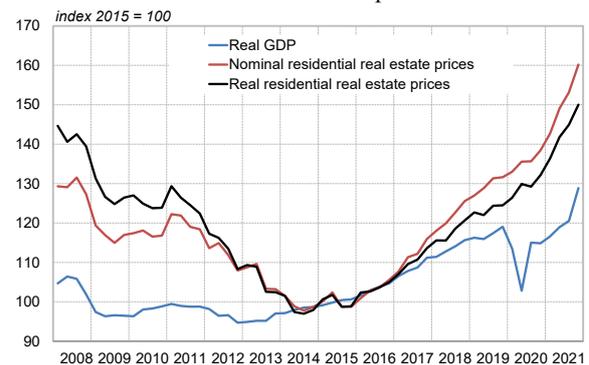
¹⁵ According to the SORS, the data for 2021 will be further revised and will be released when the data for the first quarter of this year is released in June of this year. The data will be revised because of the subsequent notification of a large number of sales of new-build housing in 2021.

Figure 1.17 Residential real estate prices



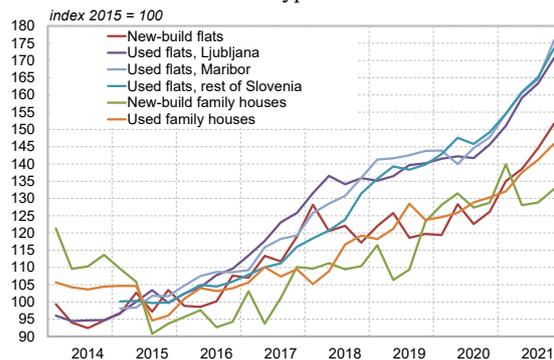
Note: Real residential real estate prices are calculated from nominal residential real estate prices and the HICP deflator.
Source: SORS

Figure 1.18 Change in real GDP, and real and nominal residential real estate prices



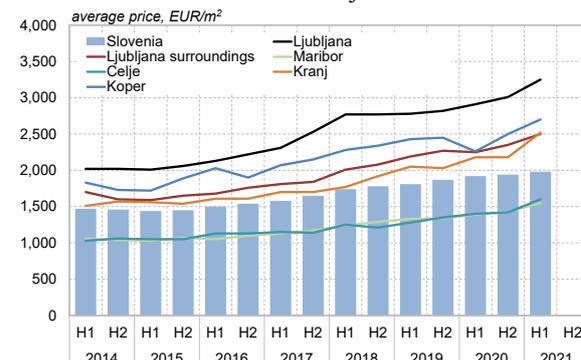
House prices rose in all larger towns and cities in Slovenia, and also in the rest of the country. Growth in house prices strengthened in the final quarter of 2021 for all types of residential real estate other than family houses, new-built in particular (see Figure 1.19). The average price of used housing per square metre remains highest in Ljubljana and on the coast, with figures of EUR 3,250 per m² and EUR 2,700 per m² respectively in the first half of last year, while the largest year-on-year rises in the same period were seen in Kranj and Celje (see Figure 1.20).

Figure 1.19 Change in residential real estate prices by location and type



Note: The data for Koper for the first half of 2021 in the right figure is estimated for the coast (coast excluding Koper, and Koper).
Sources: SMARS, SORS

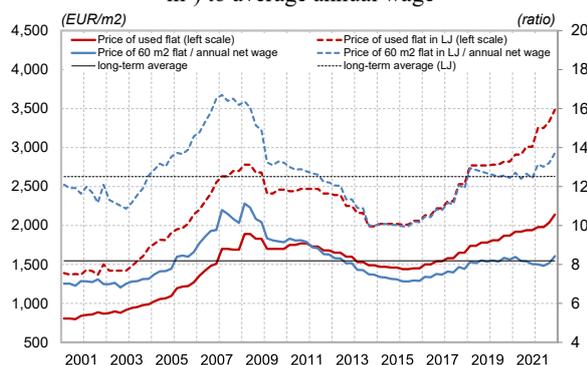
Figure 1.20 Average prices of used housing across Slovenia and in major towns



The ratio of the average price of a used flat in Ljubljana (60 m²) and the average net annual wage has fluctuated around its long-term average since 2018, and slightly exceeded it in 2021. The ratio of the average price of a used flat in Ljubljana (60 m²) and the average net annual wage stood at around 13.7 in the final quarter of 2021, compared with a figure of around 8.2 for Slovenia overall (see Figure 1.21). The gap between the two indicators was widest in 2007, when it needed around 6 average net annual wages more to buy a used flat in Ljubljana (60 m²) than in Slovenia overall, and was narrowest in 2013 at around 3 average annual net wages. The dynamics in average prices per square metre of used flats in Slovenia and in Ljubljana were similar over time, while the gap between average price levels in Slovenia and in Ljubljana has widened slightly in the last three years.

The gap between the average interest rate on long-term deposits and the rental yield on real estate has widened slightly in recent years, which might be a factor in rising real estate prices in the future. The rental yield on real estate increased between 2010 and 2015, when real estate prices fell (see Figure 1.22). Rental yields began to fall, with a lag, in the period of low interest rates since 2014, with growth in real estate prices outpacing growth in rents, most notably during the Covid-19 pandemic, when the latter fell. This could be attributable in part to a lack of safer but higher-yielding alternative investments compared with long-term deposit rates.

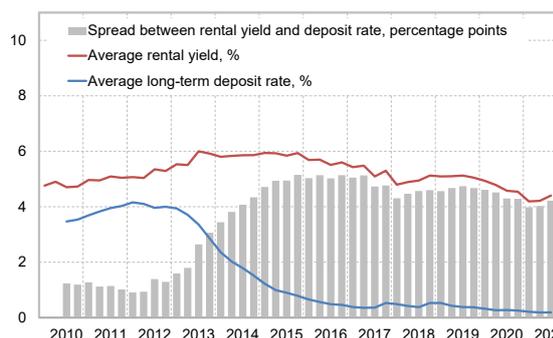
Figure 1.21 Ratio of average price of a used flat (60 m²) to average annual wage



Note: In the left figure the average price per square metre of residential real estate in Slovenia and in Ljubljana for the last two quarters was calculated from the growth rate on the basis of the SORS index for used flats in Ljubljana and in the rest of Slovenia. The SMARS data is used up to the first half of 2021. In the right figure rental yield is calculated as follows: $(\text{annual gross rental income} / \text{price of real estate}) * 100 = ((\text{monthly rent per square metre} * 12) / \text{average price per square metre of real estate}) * 100$.

Sources: SMARS, SORS, Slonep

Figure 1.22 Rental yield

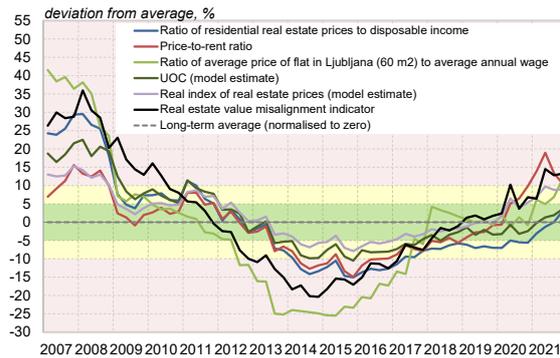


House prices have caught up with and overtaken their fundamentals over the last two years: by the final quarter of 2021 all indicators of housing overvaluation were suggesting that prices had become relatively overvalued,¹⁶ and continued growth in real estate prices could further increase the overvaluation (see Figure 1.23). The composite indicator of overvaluation of real estate¹⁷ suggests a maximum overvaluation of around 13%, with all components of the indicator contributing to the overvaluation, with the sole exception of the ratio between real estate prices and hypothetical borrowing capacity (see Figure 1.24). Overvaluation of slightly more than 10% is indicated by the average price of a used flat in Ljubljana (60 m²) and the average annual wage and by the price-to-rent ratio, which declined in the second half of 2021. By contrast, the ratio of prices to disposable income is still close to its long-term average, and only began indicating overvaluation in the final quarter of 2021, income (i.e. aggregate disposable income) having increased alongside the growth in residential real estate prices.

¹⁶ The indicators of overvaluation illustrate the relative overvaluation of real estate, and not absolute overvaluation. When this text refers to “overvaluation”, it means in the sense of relative overvaluation. Relative overvaluation means that the dynamics in residential real estate prices are compared with the long-term dynamics in another particular fundamental or fundamentals, which in most cases have the nature of income (e.g. GDP, disposable income), prices (e.g. general inflation, rents) or costs (e.g. construction costs, interest rates on housing loans). The advantage in calculating relative overvaluation rather than absolute overvaluation is that relative overvaluation can be assigned a specific reference point (the fundamental in the numerator). With absolute overvaluation there is no reference point; instead it is the subjective perspective of the buyer or vendor that is important. Absolute overvaluation from the perspective of the buyer can differ considerably from that from the perspective of the vendor.

¹⁷ The majority of indicators are calculated as the ratio of two different indices, while the calculation of the composite 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 detail in the thematic section of the June 2019 issue of the Financial Stability Review. The UOC (unobserved components methodology) is based on the methodology of isolating cyclical and one-off components from the trends in a particular time series (the calculation follows the methodology of Rünstler and Vlekke, 2018). The difference between the actual data and the smoothed UOC time series represents the deviation in real estate prices from their long-term average. 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 UOC indicator is taken from the period between Q1 1996 and Q3 2021. The ratio of the average price of a flat (60 m²) in Ljubljana to the average annual wage is taken from the period between Q1 2000 and Q3 2021. The indicator of overvaluation of real estate is also taken from the period between Q1 2000 and Q3 2021. The model-estimated real index of real estate prices is taken from the period between Q4 2001 and Q3 2021. 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 2021.

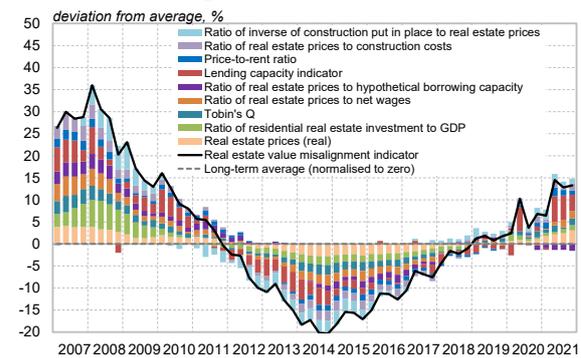
Figure 1.23 Various indicators of overvaluation of residential real estate



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.

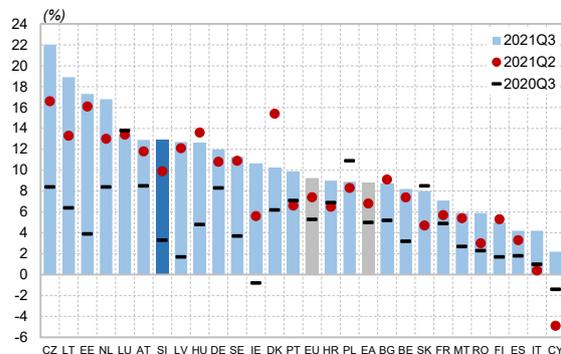
Sources: Eurostat, SORS, SMARS, ECB SDW

Figure 1.24 Indicator of overvaluation of real estate and components thereof



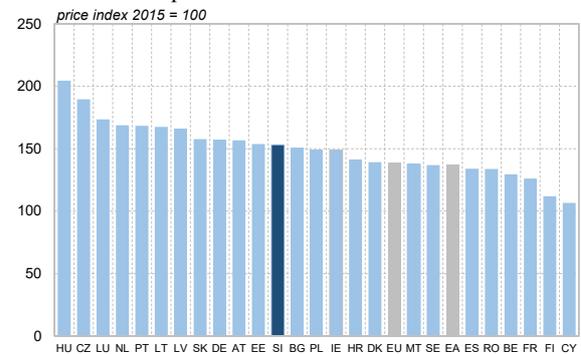
The majority of EU Member States saw high growth in house prices in 2021. Year-on-year growth in house prices in the euro area averaged 8.8% in the third quarter of 2021 (see Figure 1.25). Growth in prices on the Slovenian residential real estate market was thus outpacing the euro area average in the third quarter. Similarly to Slovenia, year-on-year growth in residential real estate prices also rose sharply in certain other EU Member States, including the Baltics, Czechia and certain major EU economies such as Germany, Austria and the Netherlands, where year-on-year growth exceeded 12% in the third quarter. The rise in house prices between 2015 and the third quarter of 2021 in Slovenia outpaced the euro area and the EU overall (see Figure 1.26). By contrast, the rise in house prices in Slovenia between 2008 and the third quarter of 2021 was less than the euro area average. Italy recorded the smallest rise in prices over this period in the EU, while Austria recorded the largest (see Figure 1.27).

Figure 1.25 Year-on-year growth in residential real estate prices in EU Member States



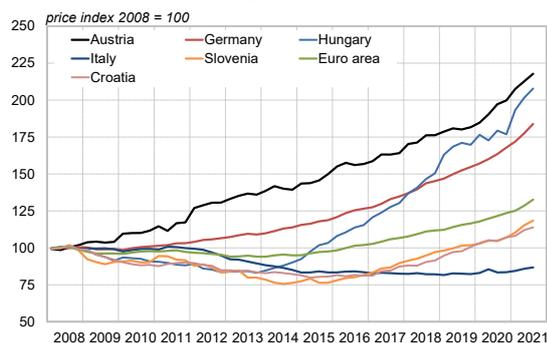
Source: Eurostat

Figure 1.26 Change in residential real estate prices in EU Member States between 2015 and third quarter of 2021



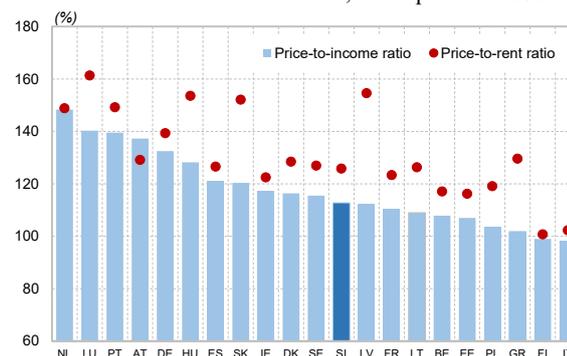
The greatest overvaluation of residential real estate in the EU is seen in the Netherlands, Luxembourg, Portugal and Austria. The overvaluation of residential real estate in Slovenia according to the price-to-income and the price-to-rent ratio is not among the highest in the EU, despite the high rise in house prices seen in 2021 (see Figure 1.28).

Figure 1.27 Change in residential real estate prices in selected EU Member States



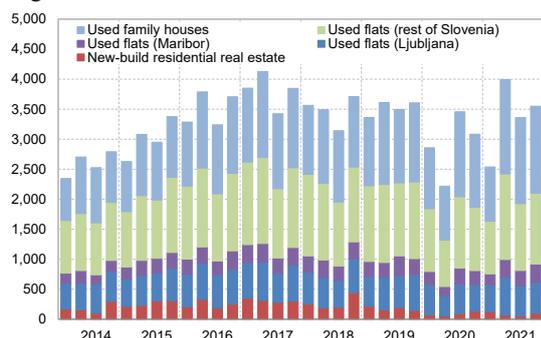
Sources: Eurostat, ECB, OECD

Figure 1.28 Indicators of housing overvaluation in EU Member States, third quarter of 2021



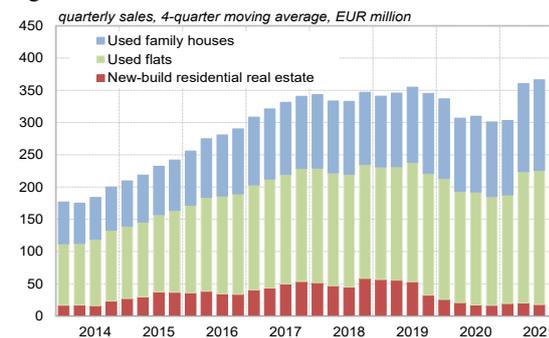
After declining with the outbreak of the Covid-19 pandemic, the volume of residential real estate sales was up significantly in year-on-year terms in the second half of the year thanks to a rise in the number of sales, reaching its highest value of the last eight years (see Figure 1.30). The total number of sales stood at 13,440 in 2021, up 16% on 2020, although it was slightly lower than between 2016 and 2019. After falling in the preceding period, the share of the total number of sales accounted for by new-built housing declined further in 2021, and remains extremely low compared with the number of sales of used housing (2.7% in the final quarter of 2021) (see Figure 1.29).¹⁸ The share of the total value of sales accounted for by new-built housing is slightly higher (4.2% in the final quarter of 2021), although this too is down significantly on previous years. The rise in residential real estate prices in the second half of 2021 also drove a year-on-year increase in the value of residential real estate sales, in the amount of 25%.

Figure 1.29 Number of sales of residential real estate



Note: In both figures the columns represent the total number/value of sales of residential real estate.
Source: SORS

Figure 1.30 Sales of residential real estate



Supply and demand on the real estate market

With the projected increase in the supply of new-built housing, the imbalance between supply and demand seen on the residential real estate market might diminish slightly over the medium term. The construction sector saw a sharp rise in employment in the second half of 2021, and the real estate activities sector also saw a slight rise in employment, while value-added of the two sectors remained robust (see Figure 1.31). The decline in productivity in real estate activities consequently came to an end in 2021, while productivity in construction fell below the level seen in 2015. In terms of reducing the imbalance between supply and demand on the residential real estate market it is encouraging that the number of issued building permits remained unchanged from 2020 in the first half of the year, and then exceeded it in the second half of the year. The rise over the last three years in the number of building permits issued for multi-dwelling buildings is also encouraging for the medium term. They accounted for 9% of all building permits issued for residential real estate in the second half of 2021 (see Figure 1.32), compared with a figure of just 4% between 2014 and 2019.

¹⁸ As stated earlier, the data will be revised because of the subsequent notification of a large number of sales of new-built housing in 2021.

Figure 1.31 Productivity, value-added and employment in construction

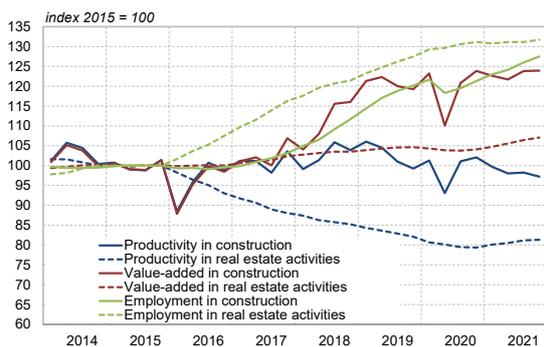
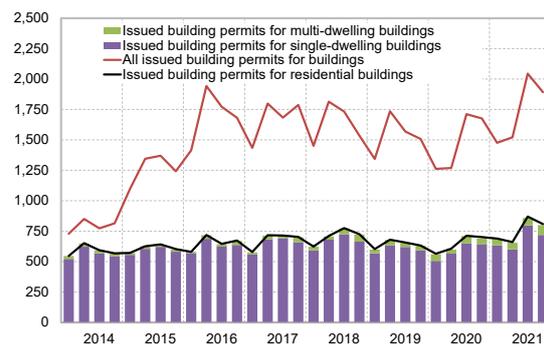


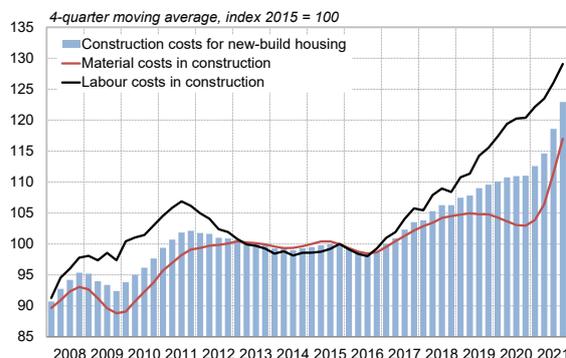
Figure 1.32 Number of issued building permits



Note: Productivity in construction is defined as average labour productivity relative to value-added.
Source: SORS

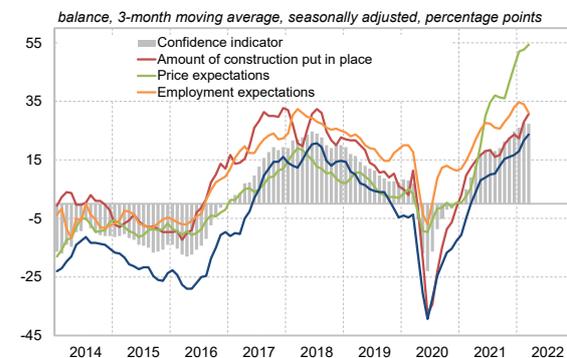
The limiting factors on the supply side are being evidenced in a rise in construction costs, for labour and material alike. The war in Ukraine and the rise in geopolitical tensions can also be expected to bring further price rises and shortages of energy, other raw materials, equipment and labour in construction, and disruptions to supply chains. This could further raise construction costs, which might spill over into even higher residential real estate prices. The second half of last year saw a rapid rise in material costs in construction in line with the rise in global commodity prices, while growth in labour costs has also been high in recent years as a result of increased hiring in construction (see Figure 1.33). In the second half of last year construction firms expressed their greatest optimism with regard to order books, the amount of construction put in place, and employment expectations, but were also expecting a rise in prices in the future. The construction confidence indicator had by then already reached its level of 2018 (see Figure 1.34). It then rose slightly further over the first three months of 2022, as a result of a sharp rise in expectations of future price rises, although employment expectations declined slightly.

Figure 1.33 Construction costs for new-build housing



Source: SORS

Figure 1.34 Business trends in construction

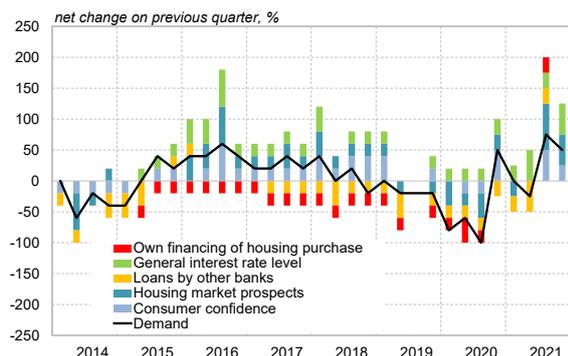


Consumer confidence weakened again in the second half of 2021, even as consumer expectations of major purchases remained unchanged and demand for loans increased.¹⁹ This also brought an increase in demand for housing loans, which was attributable to several factors, most notably the general interest rate level,²⁰ the outlook for the housing market, and consumer confidence (see Figure 1.35). One limiting factor on the supply side was the (persistently) low ratio of gross investment in housing to GDP, which stood at 2.2% in 2021, compared with the 5.6% in the EU overall (see Figure 1.36), and was a significant factor in the imbalance between supply of and demand for real estate in Slovenia.

¹⁹ See the figure illustrating consumer opinion in the section on households.

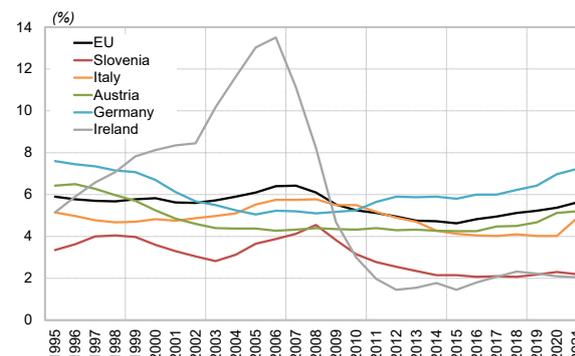
²⁰ For more on developments in interest rates on housing loans, see the section on interest rate risk.

Figure 1.35 Demand for housing loans and demand factors



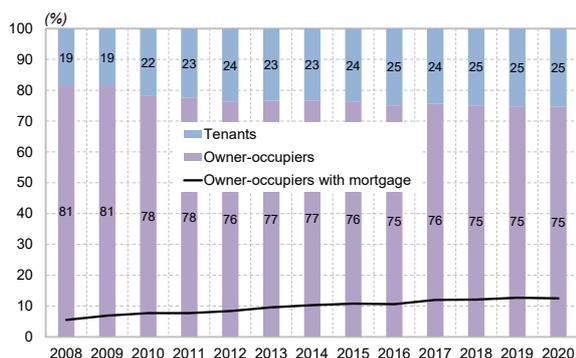
Note: The data in the left figure relates to the Bank Lending Survey (BLS).²¹
Sources: ECB SDW, Eurostat

Figure 1.36 Ratio of gross investment in housing to GDP in EU Member States



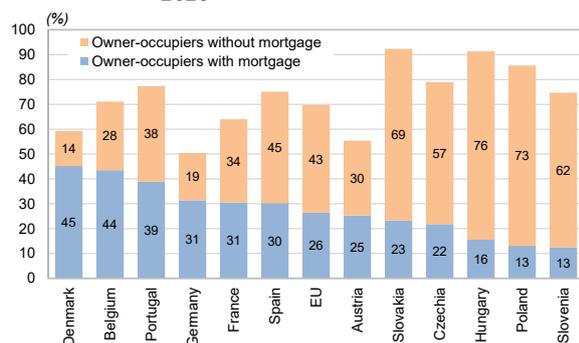
The rate of owner occupation is relatively high in Slovenia, while the proportion of real estate owners with a mortgage is among the lowest in the EU. Owner-occupiers held 75% of all housing in Slovenia in 2020 (see Figure 1.37). The gradual development of the rental market in Slovenia over the years has seen a slight decline in the rate of owner occupation, which nevertheless remains 5 percentage points above the euro area average of 70%. The proportion of real estate owners with a mortgage has risen slightly in Slovenia over the last ten years, but remains low at 12.5%, well below the EU average of 26.4% (see Figure 1.38).

Figure 1.37 Breakdown of owner-occupiers and tenants in Slovenia



Source: Eurostat

Figure 1.38 Owner-occupiers with and without a mortgage as proportion of total population, 2020

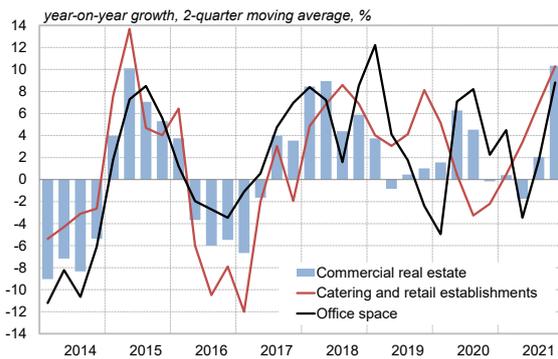


Developments on the commercial real estate market

Prices on the commercial real estate market were up significantly in the final quarter of 2021, by 10.3% in year-on-year terms, with retail and catering establishments and office space both recording price rises. Year-on-year growth in prices of retail and catering establishments strengthened to 10.3% by the final quarter of 2021, while prices of office space fell in the second quarter before rising again as the year-on-year rate strengthened from 1.8% in the third quarter to 8.8% in the final quarter (see Figure 1.39). The commercial real estate market in Slovenia is small, and focuses on office space and catering and retail establishments in major retail centres and in the centres of the largest towns and cities. High volatility in prices and volume is therefore typical of the commercial real estate market, while the rental market is highly competitive because of the small number of commercial premises aimed at the market. The number of issued building permits in the second half of 2021 was up significantly on the first half of the year, but a larger share of the construction of commercial real estate was intended for own use (see Figure 1.40).

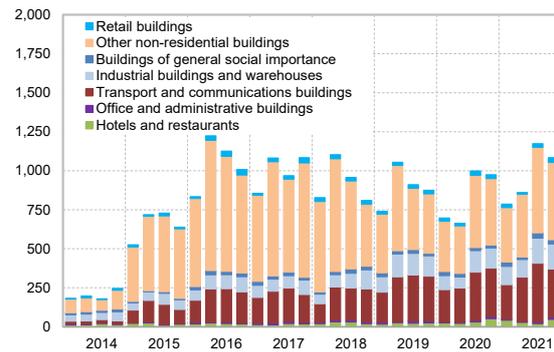
²¹ For more, see [Bank Lending Survey \(BLS\) \(europa.eu\)](http://europa.eu).

Figure 1.39 Commercial real estate prices



Source: SORS

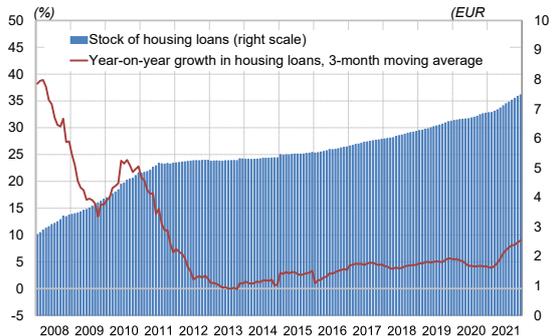
Figure 1.40 Issued building permits for non-residential real estate



Real estate market and the banking system

Having remained moderate in the first half of 2021 (at 4.8%), growth in housing loans strengthened sharply in the second half of the year, the year-on-year rate hitting 9.1% in December. The share of the total stock of housing loans accounted for by new housing loans declined in the second half of 2021 to end the year at 2.3% (see Figure 1.41). The share of new loans and the share of the stock of loans accounted for by fixed-rate loans both rose.²² The stock of housing loans increased sharply in the second half of 2021 to end the year at EUR 7.4 billion, equivalent to 29.4% of the stock of loans to the non-banking sector, while the average monthly figure for new loans also increased over this period to EUR 184 million (see Figure 1.42).

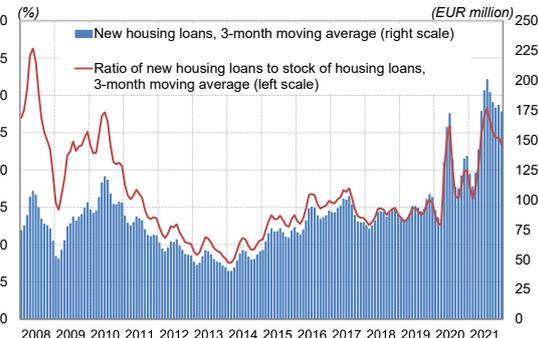
Figure 1.41 Stock of and growth in housing loans



Note: In the right figure new loans also include existing loans for which a moratorium was approved after the outbreak of the pandemic on the basis of emergency legislation to alleviate the impact of the pandemic. They peaked in the second quarter of 2020.

Source: Banka Slovenije

Figure 1.42 New housing loans, and share of total stock of housing loans accounted for by new housing loans



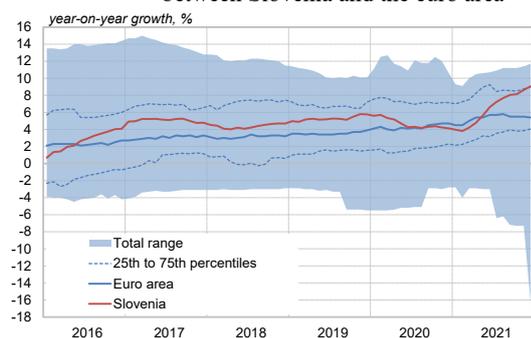
The importance of bank loans to households, including housing loans, has increased sharply over the last decade. This means that the vulnerability of the banking system to a potential correction on the residential real estate market in the household loans segment might be greater than in 2008. Housing loans accounted for 29.4% of the total stock of loans to the non-banking sector in December 2021, compared with around 10% in December 2008.²³ Here it should be noted that this figure was also driven upwards by the decline of more than a half in loans to NFCs over this period.

After picking up pace in the second half of 2021, growth in housing loans in Slovenia overtook growth in housing loans in the euro area overall, and reached the 75th percentile of the distribution of growth in euro area countries (see Figure 1.43). Growth in housing loans averaged 5.4% in Slovenia between 2019 and 2021, and slightly less in the euro area overall (4.4%). The ratio of housing loan stock to GDP has increased slightly over the last three years, but is still significantly lower than in the euro area overall (see Figure 3.13), in part because of the high rate of owner occupation in Slovenia (see Figure 1.37).

²² For more on developments in interest rates on housing loans, see the section on interest rate risk.

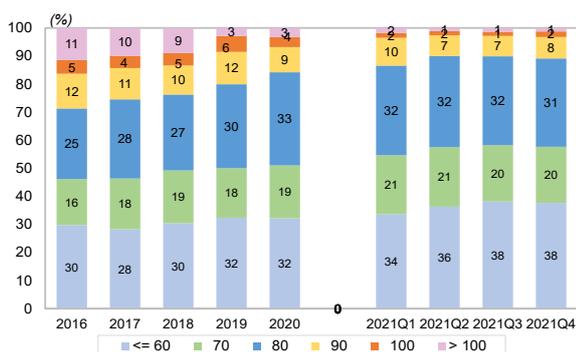
²³ The figure relates to bank balance sheet data, i.e. the ratio of the net value of bank loans to households (individuals and sole traders) to the total of all bank loans to the non-banking sector.

Figure 1.43 Comparison of growth in housing loans between Slovenia and the euro area



Sources: Banka Slovenije, ECB SDW, Banka Slovenije calculations

Figure 1.44 Distribution of LTV for housing loans



The banks are currently maintaining credit standards for housing loans at a stable level (see Table 5.5). The LTV for new housing loans stood at 63.4% in the final quarter of 2021, down 4.2 percentage points on the figure of 67.6% recorded at the end of 2020. There was also a decline in the share of housing loans with an LTV of more than 80%, which stood at 11% in the final quarter of 2021 (see Figure 1.44), down from 20% in 2019 and just under 16% in 2020. According to the BLS, the credit standards for housing loans in 2021 were mostly maintained at the same level as in the previous quarter (see Figure 1.45).

Figure 1.45 Credit standards for housing loans

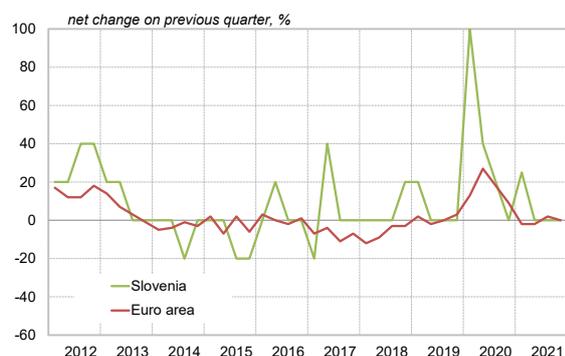
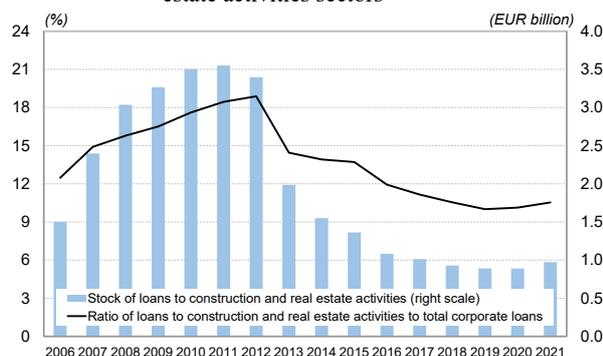


Figure 1.46 Stock of loans to the construction and real estate activities sectors



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.

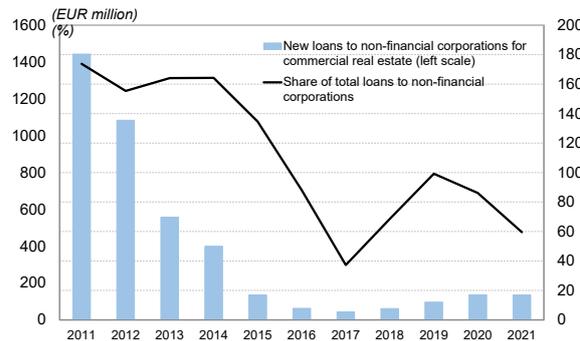
Sources: Banka Slovenije, ECB SDW

The stock of loans to NFCs in the sectors of construction and real estate activities declined sharply from its peak of EUR 3.5 billion in 2011 to reach EUR 0.97 billion by the end of 2021. The banks' reduced exposure to the real estate market via corporate loans means that this exposure segment's vulnerability to sudden corrections on the real estate market is also lower. The banks' risk of contagion from construction into other sectors is currently lower than a decade ago. Despite an improvement in the majority of indicators in construction, the share of total bank loans to NFCs accounted for by the sectors of construction and real estate activities only increased slightly, to 10.6%. Exposure to construction and real estate activities accounted for 10.0% of total loans to NFCs at the end of 2019 before the pandemic (see Figure 1.46), compared with its peak of around 19% in 2012.

Growth in loans to NFCs for the purchase of commercial real estate in December 2021 was higher in year-on-year terms, but nevertheless remained moderate. The stock of such loans amounted to EUR 228 million in December 2021, up around EUR 79 million in year-on-year terms (see Figure 1.47). New loans for commercial real estate in the second half of 2021 were up almost a half on the first half of the year. New loans²⁴ amounted to EUR 136 million in 2021, virtually unchanged from the previous year (see Figure 1.48). NFCs' reduced demand for loans for purchasing commercial real estate is also a reflection of their reduced need for bank resources over the last six years.

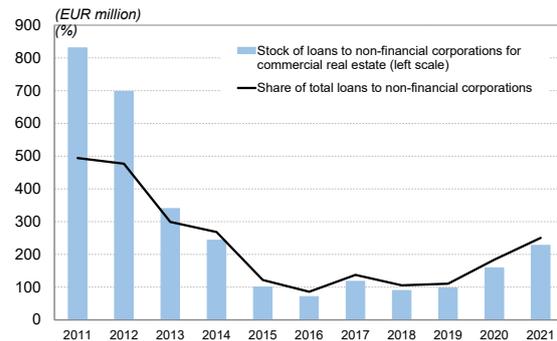
²⁴ The ratio of new loans for commercial real estate to total loans to NFCs for commercial real estate was more than 100% between 2011 and 2015; almost half of the loans in 2012 and 2013 were approved with a tenor of up to one year, which meant that their share of the stock was also high. The share has declined in recent years, as the share of loans with a tenor of up to one year also declined, while the share with a tenor of one to three years increased.

Figure 1.47 New loans to NFCs for commercial real estate, and their share of total loans to NFCs for commercial real estate



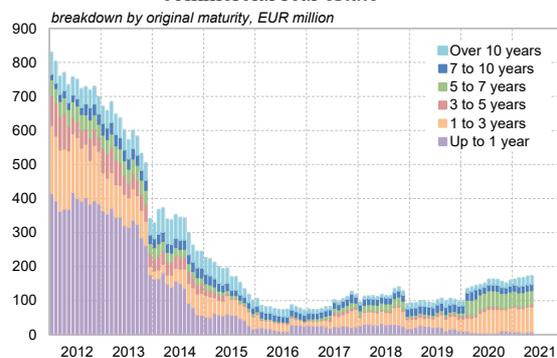
Source: Banka Slovenije

Figure 1.48 Stock of loans to NFCs for commercial real estate



The majority of loans for commercial real estate are still variable-rate. While 97% of all loans for commercial real estate were variable-rate at the end of June 2021, the figure had fallen to 93% by the end of the year (see Figure 1.50); all loans were euro-denominated. Some 43% of loans for commercial real estate had a loan tenor of up to five years at the end of 2021 (see Figure 1.49).

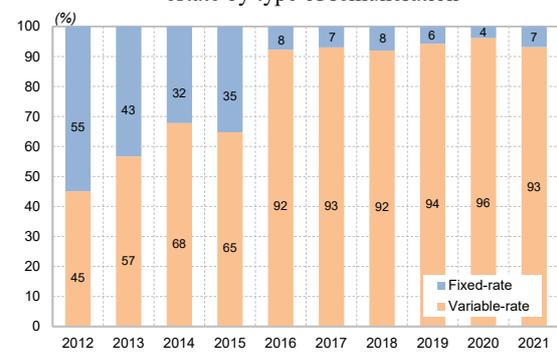
Figure 1.49 Distribution of tenor for loans for commercial real estate



Note: The data in the right figure refers to the stock of loans for commercial real estate.

Source: Banka Slovenije

Figure 1.50 Breakdown of loans for commercial real estate by type of remuneration



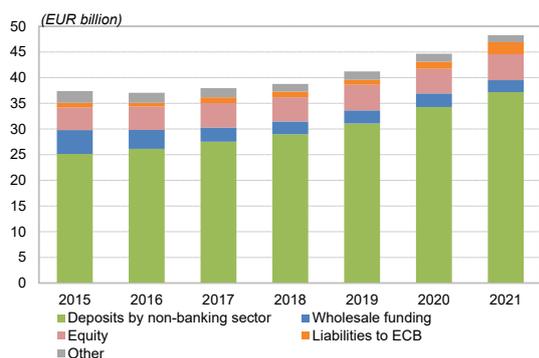
1.3 Funding risk

Deposits by the non-banking sector again increased sharply in 2021, i.e. for the second consecutive year of the pandemic, although the rate of growth began to slow over the course of the year as the economic situation gradually normalised and private consumption increased. This was attributable to a slowdown in growth in deposits by households and NFCs, who most likely earmarked more of their available funds for increased spending and for financing new or deferred investments, and slightly less for saving at banks. Given the low interest rates and the persistent uncertainty surrounding the evolution of the pandemic, savers increased their freely available funds in bank accounts and did not opt for fixed-term deposits, which further strengthened the record proportion of sight deposits. As a result of the simultaneous increase in the banks' liquid assets in accounts at the central bank, there was no change in the maturity mismatch, but it remained relatively large, as a result of which funding risk is still assessed as moderate. Hypothetically, a sudden large withdrawal of deposits from the banking system or large-scale switching between banks could worsen their funding stability. Following the quick solution for one Slovenian bank that was temporarily suspended after the outbreak of the war in Ukraine, deposits by the non-banking sector remained a stable source of funding for the banking system. The likelihood of an outflow of certain deposits from banks nevertheless increased on account of the international tensions, the increased possibility of unpredictable events, and the related effects. A decline in deposits in the future might also be driven by continuing high inflation, which will likely encourage savers, particularly those with large savings, to move their money into higher-yielding alternative investments. The introduction of a digital euro might also act to reduce deposits in the coming years. The decline in deposits might also be reflected in a change in the structure of bank funding, which would require banks to make certain adjustments, particularly to meet liquidity requirements.

Bank funding

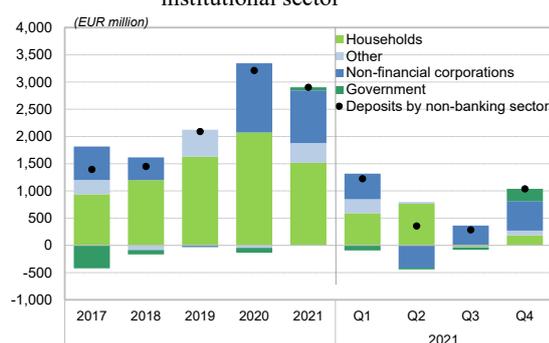
Deposits by the non-banking sector increased sharply in 2021, as in the previous year, but the rate of growth slowed over the course of the year. The stock of deposits by the non-banking sector increased by 8.5% or EUR 2.9 billion (see Figure 1.52), just a tenth less than the increase in 2020, when they began to increase profoundly following the declaration of the pandemic and amid the stringent containment measures. The high inflow of deposits into the banking system seen mainly in the first and final quarters of last year was driven primarily by deposits by households and NFCs. The ratio of deposits by the non-banking sector to the balance sheet total strengthened to 77.1%, well above the euro area average (41.2%). In terms of this indicator, Slovenia ranks highest among euro area countries in terms of the importance of deposits by the non-banking sector as a source of bank funding.

Figure 1.51 Stock and structure of bank funding



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

Figure 1.52 Change in stock of deposits by institutional sector



The banking system's dependence on other sources of funding remained low (see Figure 1.51). The ratio of wholesale funding to the balance sheet total had declined to 4.8% by the end of 2021, bank funding thus remaining less exposed to potential contagion from foreign financial markets. The banks reduced their dependence on wholesale funding by paying down debt to banks in the rest of the world; debt securities were only issued by a few banks. Our expectation is that the trend of decline in wholesale funding will continue in the future, except at those banks that will try to meet the minimum requirement for own funds and eligible liabilities (MREL) in part with wholesale funding. Liabilities to the Eurosystem increased as a result of certain banks' participation in tenders for longer-term refinancing operations (TLTRO-III), but the proportion of total funding that they account for nevertheless remained low at 4.9%.

Figure 1.53 Growth in deposits by institutional sector

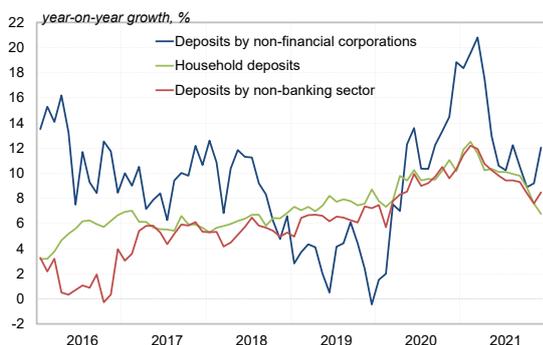
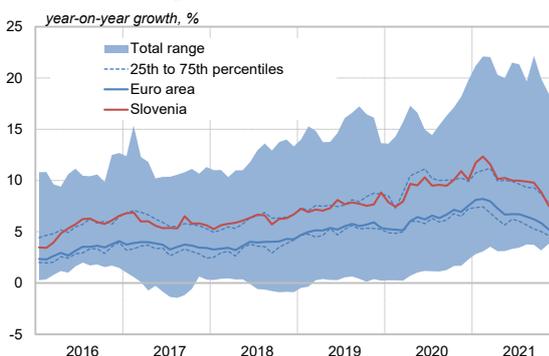


Figure 1.54 Comparison of growth in household deposits between Slovenia and the euro area



Sources: Banka Slovenije, ECB SDW, own calculations

The sharp rise in household deposits seen in the first half of last year slowed markedly over the remainder of the year. The slowdown in growth in household deposits is most likely attributable to the increase in private consumption and use of funds to make major purchases and investments that were more difficult to make during the worst of the epidemiological situation and curtailed spending opportunities. In addition, the abolition of measures to alleviate the impact of the pandemic means that households are no longer receiving government financial support. This probably forced the households hit worst in the

epidemiological crisis to spend their savings. Certain savers directed some of their savings into alternative investments²⁵ instead of banks (e.g. mutual funds, real estate, pension savings), encouraged by low interest rates and the introduction of custody fees by several banks. Despite the slowdown in growth in household deposits (see Figure 1.53), they increased by 6.8% or EUR 1.5 billion over the course of the year to reach EUR 23.9 billion, slightly less than the increase in 2019, i.e. before the pandemic. Similarly to Slovenia, year-on-year growth in household deposits also slowed in most other euro area countries, and averaged 5.0% across the euro area at the end of 2021 (see Figure 1.54).

Our expectation is for growth in household deposits to slow further in the future. The gradual improvement in the epidemiological situation and the increased spending will continue to hold the increase in household deposits to below the levels seen by the banks during the first two years of the pandemic (2020 and 2021). Even in the event of a deterioration in the epidemiological situation, the intensity of the build-up of deposits at banks will most likely be less than in the initial phase of the pandemic, when opportunities to spend were limited and there was huge uncertainty surrounding the evolution and management of the pandemic. Higher inflation²⁶ could be another driver of a smaller inflow of household deposits, or even a partial withdrawal of savings from banks. Alongside the minimal interest rates or even the custody fees for certain positive account balances, inflation reduces the real value of and return on savings, which can motivate savers, particularly those with large savings, to move their money into higher-yielding alternative investments. Given the traditionally cautious behaviour of Slovenian savers in managing their savings, our assessment is that a sudden major withdrawal of deposits in response to inflationary pressures is unlikely for now.

Box 1.1 *Deposit stability: simulation of deposit response to a rise in interest rates*²⁷

For Slovenian banks deposits have long represented a significant source of funding, from the perspective of the stock of funding, and also from the perspective of stability, and their importance has increased further in recent years in particular. Given the extremely low interest rates, changes in the breakdown of deposits could potentially have influenced a change in the function of deposit demand, which could in turn affect the actual stability of deposits. The fall in interest rates shortened the average maturity of deposits, thereby increasing the share of short-term deposits with a maturity of up to two years, which are included in the M2 monetary aggregate under the ECB definition. The shortening of average deposit maturity entails an increased probability of liquidity shifting into alternative investments.

The box examines the existence of a cointegration relationship between short-term deposits, GDP and the interest rate benchmark (the 3-month EURIBOR in this instance). The analysis shows that this cointegration relationship remains stable, irrespective of whether the period of extremely low interest rates is included in the calculation. Short-term deposits are thus positively correlated with GDP over the long term, and negatively correlated with interest rates (see Table 1.1). The negative relationship between interest rates and short-term deposits reflects the higher opportunity cost of holding liquid assets when interest rates are higher. Similar results were obtained when deposits of all maturities were taken into account.

Table 1.1 Cointegration equation between deposits, GDP and interest rate benchmark

Sample of observations	Equation for short-term deposits	Equation for all deposits
Q1 1999 to Q4 2019	$d2_t = 1.096y_t - 0.023i_t$ (0.001) (0.003)	$d_t = 0.86y_t - 0.05i_t$ (0.123) (0.006)
Q1 1999 to Q4 2014	$d2_t = 1.095y_t - 0.020i_t$ (0.002) (0.005)	$d_t = 0.99y_t - 0.05i_t$ (0.122) (0.005)

Notes: The data on deposits with a maturity of up to two years ($d2_t$), deposits of all maturities, i.e. total deposits (d_t) and GDP (y_t) are expressed at real values and are additionally log-transformed. The nominal interest rate benchmark is represented by i_t . The standard errors in the estimated coefficients are given in parentheses. The data input into the model is quarterly.

The next step of the analysis is estimating the VECM and simulating the response of deposits to the normalisation of interest rates. The simulations show that a gradual rise in interest rates of 25 basis points (i.e. 0.25 percentage points) over each of the next 20 quarters (i.e. to an interest rate of 5%) reduces the stock of short-term deposits by 5% over the first 12 quarters, by 10% over 20 quarters and by fully 14% over 40 quarters (see Figure 1.55). Despite the assumption of a large interest rate shock, the decline in deposits is

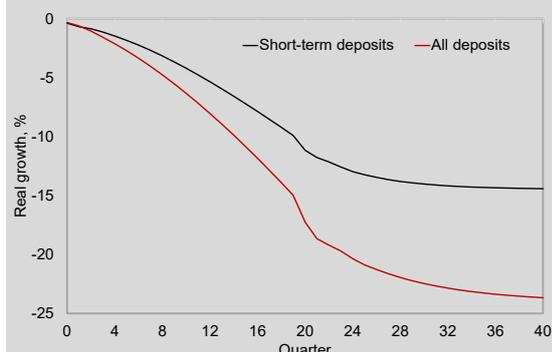
²⁵ For more, see the sections on mutual funds and households.

²⁶ For more on developments in inflation, see the section on macroeconomic risk.

²⁷ For more, see: Di Virgilio, D. (2022). Stability of deposits in different interest rate regimes. Banka Slovenije Working Papers 2/2022, available at https://bankaslovenije.blob.core.windows.net/publication-files/wp_2_22.pdf.

smooth over the medium term, and it is predicted that in this case banks could replace the deposit funding with other forms of funding.

Figure 1.55 Simulation of interest rate normalisation and deposit response



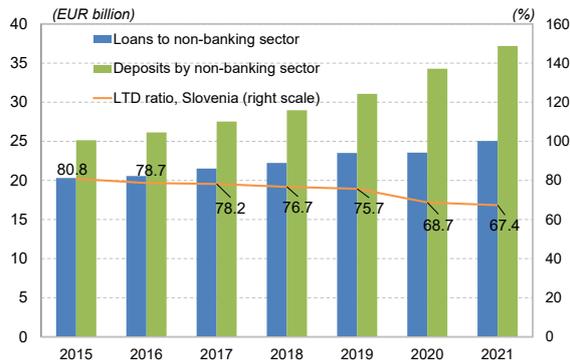
Source: Banka Slovenije

Growth in deposits by NFCs remained relatively high in 2021, despite slowing. The stock of deposits by NFCs increased by 12.0% or EUR 967 million to EUR 8.9 billion, almost a fifth of the banking system's total funding. Similarly to previous years, the monthly changes in these deposits remained highly volatile, most likely as a result of firms' differing liquidity needs during current operations. Our expectation is for growth in deposits by NFCs to slow further in the future. NFCs will continue to realise investments postponed during the pandemic and new investment, where their bank deposits represent a significant additional source of financing.

The major downturn in the international situation caused by the war in Ukraine has slightly increased the probability of deposit withdrawals by households and NFCs. Immediately after the outbreak of Russia's military aggression against Ukraine one of the banks in Slovenia suffered a run on deposits by households and NFCs, who transferred some of their savings to other banks or (to a lesser extent) withdrew them entirely from the banking system, which meant that it was necessary to suspend its operations and find an appropriate solution to ensure the continued operation of the bank and to maintain financial stability. After a two-day closure, the bank obtained a new owner in early March, and it was able to continue in business without disruption. Although the bank suffered certain additional withdrawals of deposits after its reopening, its operations quickly normalised, which also stabilised the general conditions on the Slovenian banking market. Following the quick and successful rescue of the bank, deposits by the non-banking sector remained a stable source of funding for the banking system. Savers retained or even strengthened their confidence in the banking system, and there was no withdrawal of deposits at a system level. The probability of deposit withdrawals is nevertheless greater than before the Russian aggression against Ukraine, given the uncertain future development of the geopolitical situation and the potential for unpredictable developments that could affect the functioning of the financial system (e.g. cyberattacks). The possibility of the risk of deposit withdrawals being realised is relatively high, given the prevalence of sight deposits (see below), which allow savers to make immediate withdrawals from banks.

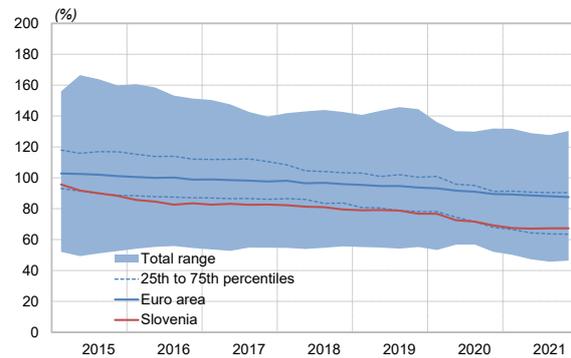
The decline in the LTD ratio for the non-banking sector slowed slightly as growth in loans revived. Despite rising lending activity, the increase in loans to the non-banking sector in 2021 was just half of the increase in deposits by the non-banking sector, which reduced the LTD ratio by 1.4 percentage points to 67.4% (see Figure 1.56). The banks were therefore able to finance their entire lending activity through deposits alone, and thus remained independent of other sources of funding. The low LTD ratio also means that the banks did not succeed in directing the entire inflow of deposits into lending, and therefore continued to build up liquid assets in accounts at the central bank in particular. With growth in deposits outpacing growth in loans, the LTD ratio in the euro area overall also declined in 2021 to 87%, with almost two-thirds of the countries recording a decline. At the end of 2021 six countries had an LTD ratio lower than Slovenia, which moved slightly above the 25th percentile of LTDs in the euro area (see Figure 1.57).

Figure 1.56 LTD ratio for non-banking sector



Note: The right figure illustrates consolidated data.
Sources: Banka Slovenije, ECB SDW

Figure 1.57 Comparison of LTD ratio for non-banking sector between Slovenia and the euro area

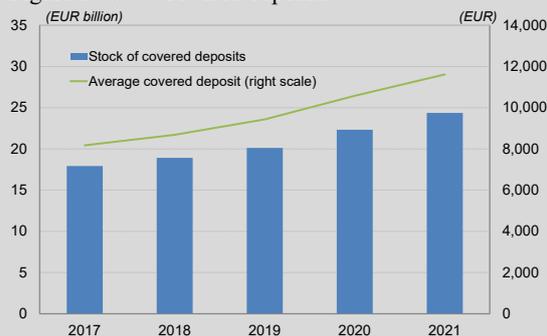


Box 1.2 Deposit guarantee scheme

Pursuant to the Deposit Guarantee Scheme Act²⁸ (the ZSJV), the deposits of depositors at any bank or savings bank that is a member of Slovenia's deposit guarantee scheme are covered up to a sum of EUR 100,000, irrespective of the depositor's residence. In the case of sole traders and other individuals independently pursuing registered business activities, they are considered individuals who use the same tax number for private purposes and business purposes, and under the law may only hold a single account for both purposes. In the case of separate deposits, all the deposits are combined and treated as the deposit of a single depositor.

All banks and savings banks established in Slovenia are members of the deposit guarantee scheme. Deposits at banks from EEA countries that provide banking services in Slovenia via a branch or directly are covered by the deposit guarantee scheme in the country in which the bank is established. The calculation of the amount of a covered deposit of a particular individual or legal entity takes account of the entity's total receivables in euros and foreign currencies at an individual bank or savings bank on the cut-off date for calculating the guarantee cover. This includes receivables on the basis of contracts for current accounts, savings accounts, cash deposits and other positive account balances. Until 31 December 2023, the deadline period for paying covered deposits at banks and savings banks established in Slovenia is a maximum of ten business days, counted from the day that Banka Slovenije announces that the deposits of a particular bank are unavailable. Payment of the covered deposits is made at a bank designated for this purpose by Banka Slovenije. The deadline period will be reduced to seven business days as of 1 January 2024.

Figure 1.58 Covered deposits



Source: Banka Slovenije

The following are not classed as deposits covered by the guarantee: (1) deposits in bearer form, including deposits for which the bank has not obtained the necessary information for the identification of the actual beneficial owner by the cut-off date for calculating the guarantee cover, (2) deposits made by banks and investment firms and other financial institutions, on their own behalf and for own account, (3) deposits by

²⁸ Deposit Guarantee Scheme Act (Official Gazette of the Republic of Slovenia, Nos. 27/16 and 17/22).

insurance corporations, reinsurance corporations and insurance holding companies, (4) deposits by collective investment undertakings, including collective investment undertakings of the closed-end type, (5) deposits by pension funds and pension companies, (6) deposits by governments and central banks, and deposits by entities that are direct or indirect users of the state budget, and (7) deposits by local authorities and deposits by direct and indirect users of the budgets of local authorities.

In the wake of the sharp increase in deposits by households and NFCs, there was also an increase in the stock of covered deposits (see Figure 1.58). Covered deposits at members of the deposit guarantee scheme in Slovenia amounted to EUR 24.4 billion as at 31 December 2021, with an average value of EUR 11,616. There was no significant change over the last five years in the share of total eligible deposits that was covered by the guarantee, which stood at 73.5% at the end of 2021.

Deposit maturity and maturity gap between assets and liabilities

Given the low interest rates and the uncertainty surrounding the evolution of the pandemic, savers remained reluctant to fix their savings, which meant that sight deposits again strengthened sharply in 2021. Deposits by households and NFCs remain the most stable source of bank funding, as they have been traditionally. The proportion of total deposits by the non-banking sector and total household deposits accounted for by sight deposits increased to record highs of 82.5% and 86.8% respectively (see Figure 1.59). Short-term and long-term deposits declined, similarly to the previous year. Household deposits and household sight deposits also increased in most other euro area countries in 2021. Slovenia nevertheless remains one of the countries where the ratio of deposits by households and NFCs to the balance sheet total is highest, with a prevalence of sight deposits (see Figure 1.60). Given their high dependence on deposits by households and NFCs, Slovenian banks are more exposed to the risk of potential instability in this funding than banks in countries where (sight) deposits by households and NFCs account for a lower share of funding. Our expectation is that the trend of increase in sight deposits will continue in the future. Given the unpredictable evolution of the pandemic and the geopolitical situation, savers with freely available funds in bank accounts are still ensuring that they are able to make immediate use of them. A large rise in interest rates on deposits, which might encourage savers to fix their assets, is unlikely to occur over the short term.

Figure 1.59 Breakdown of stock of deposits by the non-banking sector by residual maturity

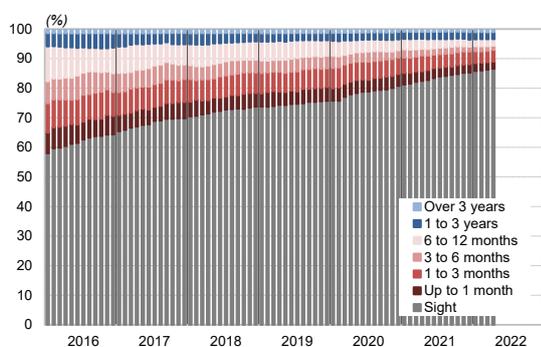
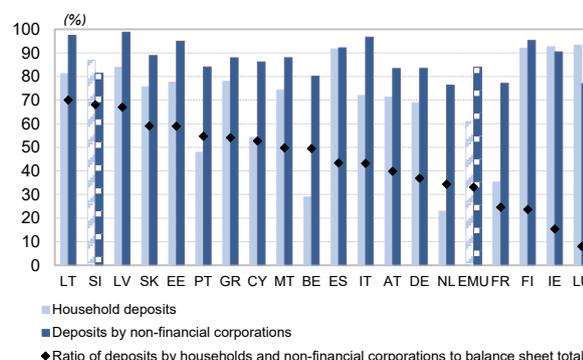


Figure 1.60 Proportion of deposits accounted for by sight deposits by euro area country, December 2021



Note: The right figure illustrates consolidated data, in order of the ratio of deposits by households and NFCs to the balance sheet total.

Sources: Banka Slovenije, ECB SDW, own calculations

The maturity gap between bank assets and liabilities remained large but unchanged in 2021, and therefore still constitutes a source of potential instability in the funding of the banking system. The revival of lending activity saw an increase in long-term loans (see Figure 1.62), but it did not exceed the large annual increase in liquid assets held in accounts at the central bank, which reduced the weighted average maturity of assets. At the same time the renewed pronounced annual increase in sight deposits²⁹ increased the weighted average maturity of liabilities. This left the maturity gap unchanged from the previous year at 4.6 years, up 14 months on 2013, i.e. before the onset of the rapid growth in sight deposits (see Figure 1.61). The risk inherent in the maturity mismatch could be realised in the event of a sudden large-scale switching of deposits by the non-banking sector between banks, or by deposit withdrawals from the banking system.

²⁹ The calculation takes account of the average maturity of the individual maturity bucket restated on a monthly basis, which is multiplied by the weighted stock of assets or liabilities in the individual maturity bucket. For sight deposits the time taken into account is one day, expressed in months (0.0328).

Despite the pandemic, deposits remained a stable source of funding, and this risk has not been realised. The potential rise in inflation and introduction of custody fees for personal savings by the remaining banks could encourage savers, particularly those with large savings, to partly withdraw their savings from banks. Although high liquidity means that the majority of the banks should not have any difficulty in covering the withdrawals, any sudden major outflow could reduce funding stability, particularly at banks with low liquidity surpluses. As stated earlier, the increased likelihood of potential outflows comes from sudden stress events, which might for example occur as an indirect consequence of the war in Ukraine.

Figure 1.61 Weighted average maturity of assets and liabilities, and maturity gap

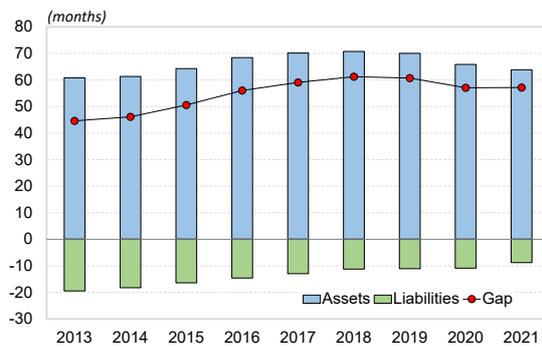
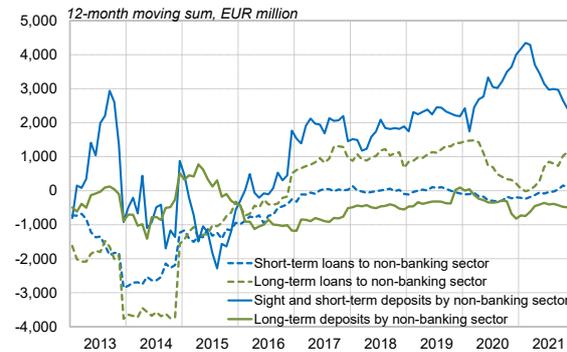


Figure 1.62 Net increases in deposits by and loans to the non-banking sector by maturity



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

Box 1.3 Introduction of a digital euro and its impact on the banking system's funding risk

The potential introduction of a digital euro would be reflected in changes in bank funding. Deposits by the non-banking sector represent an important source of funding for banks, so we expect that the introduction of a digital euro might have an impact on the banking sector's balance sheet structure, profitability and liquidity. Even if primarily intended for transactions, as a potential new form of future investment a digital euro could encourage savers to convert their deposits currently held at banks into receivables against the central bank. This could increase banks' funding costs. A digital euro will change banking, and banks' role as intermediaries on the market. Following the introduction of a digital euro, banks will have to deal with changes in the structure of their funding. They will have three funding options available to them: (i) long-term market funding, (ii) funding from the central bank, and (iii) the maintenance of deposit funding via a change (rise) in interest rates on deposits with the aim of stopping their withdrawal.

Deposits by the non-banking sector account for a large share of funding in the Slovenian banking system (around 77%), and so our estimate is that in the event of a decline in deposits, banks will have to at least partly compensate with long-term market funding. There will be an increase in funding from other banks and depositors, and from the ECB. The switch in sources of funding will enable banks to mitigate the decline in liquidity ratios (such as the LCR and NSFR) that would otherwise follow withdrawals of bank deposits. Banks will have to manage their funding costs during the withdrawal of deposits. How they set about doing so will depend on the structure of their balance sheets, their business models and their risk appetites. They will also have to comply with the aforementioned liquidity requirements.

The introduction of the digital euro might could reduce deposits by the non-banking sector. The decline in deposits by the non-banking sector could amount to between 5% and 40% under various scenarios, equivalent to between 2% and 15% of the banks' total liabilities to the non-banking sector (between EUR 744 million and EUR 5,578 million). Given the surplus deposits attracted in recent years, the withdrawal of up to 10% of deposits (4% of total liabilities) seems manageable from the perspective of financial stability. The withdrawal of 10% to 15% of deposits would likely have a moderate impact on financial stability, particularly if the interbank market succeeds in reallocating surplus liquidity. The withdrawal of more than 20% of deposits could increase funding risk, and would require the banks to increase liquidity in order to meet regulatory requirements (see Figure 1.63). In the event of a larger withdrawal of deposits, banks would have to obtain financial assets from the central bank or other banks on the international market to meet the LCR and the NSFR requirements (see Figure 1.64).

Figure 1.63 Impact of deposit withdrawals on LCR, December 2021

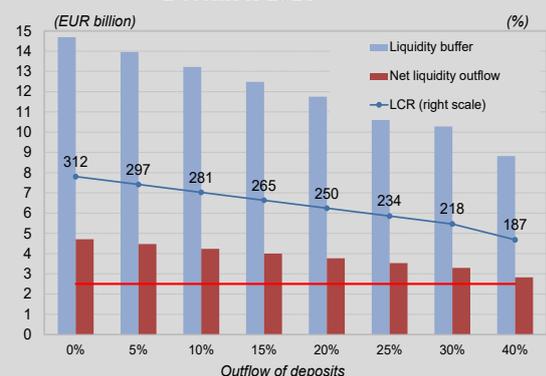
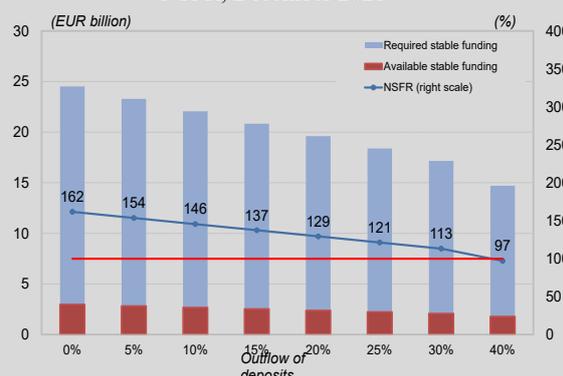


Figure 1.64 Impact of deposit withdrawals on NSFR, December 2021



Notes: The figures are based on the scenario of utilisation of total liquidity and a breach of the regulatory minimum as a result of deposit withdrawals. This is a scenario that would sharply increase funding risk for the Slovenian banking system in the event of a major withdrawal of deposits.

Source: Banka Slovenije

The simulations of deposit withdrawals that have an impact on the LCR and NSFR and on funding were made on the basis of four scenarios: (i) banks will not use their liquidity buffers, (ii) banks are willing to utilise half of their current liquidity buffers, (iii) banks are willing to fully use the liquidity buffer in excess of the regulatory minimum, and (iv) banks are willing to use their liquidity in full, i.e. to breach the regulatory minimum. On the basis of the scenario that envisages banks using their liquidity in full, the impact of various scenarios of deposit withdrawal on the liquidity ratios (LCR, NSFR) and alternative sources of funding was assessed (see Table 1.2). Banks are currently facing surplus liquidity on the market, which means that a certain level of deposit withdrawals would actually suit them (e.g. up to 10%), although the expectation is nevertheless that banks would increase their financial liabilities to the central bank and to foreign banks over the longer term.

Table 1.2 Scenario of full liquidity utilisation and breach of regulatory minimum

	0%	5%	10%	15%	20%	30%	40%
Liquidity coverage ratio (LCR)	312	297	281	265	250	218	187
Net stable funding ratio (NSFR)	162	154	146	137	129	113	97
Loan-to-deposit ratio (LTD)	67	69	71	73	76	81	85
Liabilities to foreign banks, stock, EUR million	2,344	2,450	2,500	2,540	2,622	2,788	2,856
Financial liabilities to central bank, stock, EUR million	1,066	1,100	1,159	1,232	1,289	1,332	1,527

Notes: The values for the coloured indicators are determined on the basis of expert judgment.

Source: Banka Slovenije

The table presents a scenario that assumes that banks utilising their entire liquidity to be able to ensure stable funding. The higher the level of deposit withdrawals, the more banks will have to rely on wholesale funding and funding by the central bank. The LCR and the NSFR will also decline under this scenario, which could have an impact on the stability of the banking system.

1.4 Interest rate risk

Amid the increase in lending to the non-banking sector, the large rise in fixed-rate loans has brought a significant increase in banks' interest sensitivity, thereby also increasing interest rate risk. A sharp rise in fixed-rate loans was especially prominent in the housing loans segment, where the share of new loans with a fixed interest rate in 2021 was up almost a half. There was no significant change in the average maturities across individual customer segments, but the large volume of fixed-rate housing loans caused the average repricing period for loans to lengthen considerably. This also lengthened the aggregate average repricing period for assets, which could not even be neutralised by the ongoing high growth in the most liquid assets. Conversely, the increase in liabilities to the non-banking sector slowed, while sight deposits continued to increase sharply. After shortening in the first half of 2021, the aggregate average repricing period for liabilities nevertheless stabilised in the second half of the year. The repricing gap widened, driven primarily by the lengthening of the repricing period on the asset side. Under the assumption of relatively high stability in the core component of sight deposits, the gap remains negative, although it has declined considerably in absolute terms over the last year. As the repricing gap continues to widen, the positive impact on net interest

income from a rise in market interest rates becomes more uncertain. Exposure to interest rate risk varies from bank to bank with some already using derivatives hedging, which will continue to be important in the future, alongside caution in the approval of fixed-rate loans.

Interest sensitivity

The rise in fixed-rate lending, the high growth in housing loans and the ongoing growth in sight deposits led to a significant increase in banks' interest sensitivity in the second half of last year, thereby also increasing interest rate risk.³⁰ Banks' increased lending activity in the second half of the year was driven in the household segment by a year-on-year increase in growth in housing loans, while growth in loans to NFCs strengthened sharply in the final quarter. This drove a faster increase in loans to the non-banking sector among investments on bank balance sheets. Having declined significantly since the end of 2019, the proportion of total assets accounted for by loans to the non-banking sector had risen to 52% by the end of 2021 (see Figure 1.65). Year-on-year growth in highly liquid assets, such as cash on hand, balances at the central bank and sight deposits at banks, remained relatively high at the end of the year, although the rate had declined sharply over the course of the year, and they accounted for 24% of total assets in December, a record high figure. Holdings of securities declined in the second half of the year, and the figure of 17% for the proportion of total assets that they account for was the lowest of the last few years. The high growth in fixed-rate loans, most notably fixed-rate housing loans, which are the loans to the non-banking sector with the longest maturities, significantly lengthened the average repricing period for loans to the non-banking sector relative to previous periods (see Figure 1.68). This also lengthened the aggregate average repricing period for assets, despite the large increase in the most liquid assets, whose maturities are very short (see Figure 1.67).

Figure 1.65 Breakdown of banking system's assets

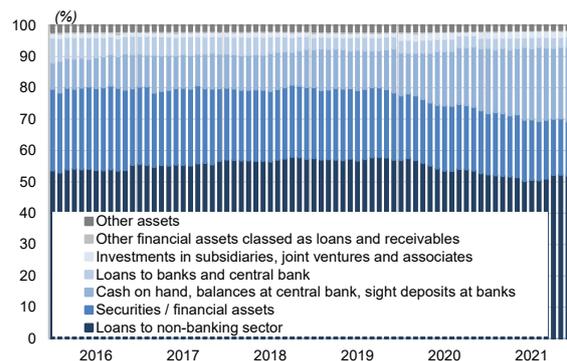
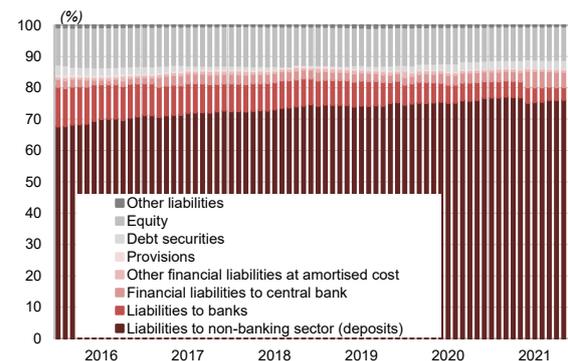


Figure 1.66 Breakdown of banking system's liabilities



Note: The banking system's assets were broken down as follows in December 2021: loans to non-banking sector 52.4%, cash in hand, balances at the central bank and sight deposits at banks 23.4%, securities (financial assets) 17.5%, loans to banks and the central bank 3.0%, investments in subsidiaries, joint ventures and associates 2.0%, other assets 1.8%. The banking system's liabilities were broken down as follows in December 2021: liabilities to the non-banking sector (deposits by the non-banking sector) 76.5%, equity 10.5%, financial liabilities to the central bank 4.8%, liabilities to banks 3.4%, other liabilities 4.8%. Rounding errors mean that the figures for individual assets or liabilities do not necessarily sum to 100%.

Source: Banka Slovenije

The increase in liabilities to the non-banking sector slowed in the second half of 2021, and they accounted for 77% of the banking system's total liabilities in December (see Figure 1.66). Sight deposits continued to increase sharply, and accounted for 82.5% of the banking system's total deposits at the end of the year. Having shortened over the course of last year, the average repricing period for deposits by the non-banking sector lengthened slightly at the end of the year (see Figure 1.68). The average repricing period for wholesale funding also lengthened, while the average repricing period for securities shortened. After shortening in the first half of 2021, the aggregate average repricing period for liabilities stabilised in the second half of the year (see Figure 1.67). This widened the repricing gap, primarily on account of the lengthening of the repricing period on the asset side, although the high stability³¹ of the core component of sight deposits, which would mostly not be withdrawn even in the event of a rise in market interest rates, also

³⁰ Interest rate risk comes from the maturity mismatch between assets and liabilities that have a fixed interest rate, and from the repricing gap between assets and liabilities.

³¹ The effective maturity and stability of sight deposits are 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. See also Box 1.1.

needs to be taken into account when determining the gap. Under the assumption of high stability in the core component of sight deposits³² (90% stability), which represents a realistic assessment of the core component under normal market conditions, the gap remains negative, although it has declined considerably in absolute terms over the last year (see Figure 1.67). The gap is insignificant under the assumption of 70% stability, while assumptions of lower stability lead to a rise in market interest rates having a negative impact on net interest income, as liability interest rates adjust faster than asset interest rates. As the repricing gap continues to widen, the positive impact on net interest income from a rise in market interest rates becomes more uncertain.

Figure 1.67 Comparison of repricing gaps, taking into account off-balance-sheet items and various assumptions for the stability of sight deposits

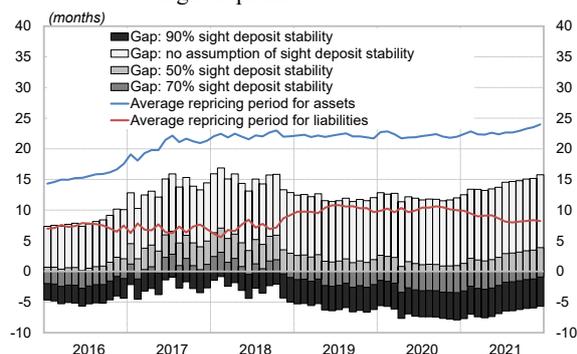
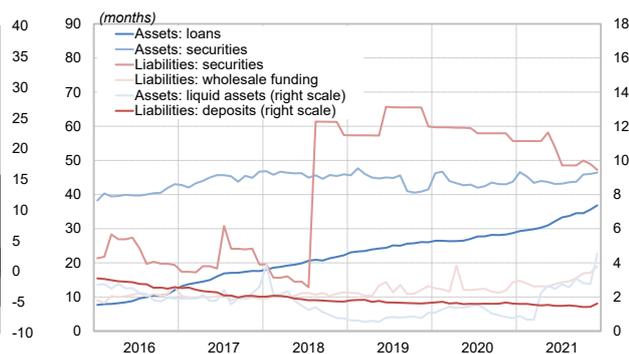


Figure 1.68 Repricing periods for individual balance sheet items



Note: The left figure takes account of sight deposit stability with various assumptions for stability and the allocation of the core component of sight deposits across intervals, derivatives hedges, and amortisation schedules.

Source: Banka Slovenije

An increase in interest rate risk is also indicated by the cumulative interest gap, which in the second half of the year halved in the horizon of up to one year. Given the high stability of sight deposits, in the calculation of the cumulative interest gap they are allocated across longer maturity buckets. In December 2021 the horizon of up to one year accounted merely for approximately 38% of all sight deposits, and 48% of the banking system's total liabilities. Meanwhile the horizon of up to one year accounted for 60% of the banking system's total assets, well above the figure for liabilities. A positive impact on net interest income in the event of a rise in market interest rates is thereby maintained in the horizon of up to one year, but the ongoing dynamics in the narrowing of the gap are making this impact increasingly uncertain. Further evidence of this comes from the longer horizons, where the negative cumulative interest gap increased further in absolute terms. The impact on net interest income from any rise in market interest rates would be negative in these horizons.

Dynamics of changes in loan maturity, share of fixed-rate loans, and interest rates

A major factor in the increase in banks' interest sensitivity was the increase in lending activity in the second half of 2021, and the accompanying rise in the share of fixed-rate loans. The majority of credit growth in the household sector came from fixed-rate housing loans, whose average maturity continued to fluctuate around 18 years in the second half of the year, while consumer loans contracted in year-on-year terms. The average maturity of fixed-rate consumer loans was stable at just over six years (see Figure 1.69).³³ The average maturity of new fixed-rate household loans has lengthened by almost three years since the end of 2019, and stood at just under 15 years in December 2021, largely on account of the increase in fixed-rate housing loans. Around 60% of housing loans were fixed-rate even at the beginning of 2021, but by the end of the year the figure was fast approaching 90% (see Figure 1.71). Similarly in the consumer loans segment, where the share of fixed-rate loans had been relatively stable at 70% since the beginning of 2019, the figure rose to almost 90% in 2021 (see Figure 1.72). The aforementioned changes were also visibly reflected in the

³² The stability of sight deposits is estimated by means of a model, which provides an estimate of the core component of sight deposits, and allocates it across longer maturity buckets. The core component is the part of sight deposits whose interest rates are highly unlikely to change even in the event of a change in market interest rates. Four different assumptions regarding the stability of the core component of sight deposits are presented: no assumption of stability, 50% stability, 70% stability and 90% stability (in previous issues of the Financial Stability Review it was solely a model estimate with 89% stability that was presented).

³³ The data for the average maturity of housing loans and consumer loans has been obtained by means of a different data capture methodology, which means that the data on average maturity differs slightly from that reported in the April 2021 issue of the Financial Stability Review, and earlier issues.

loan stocks, where fixed-rate loans accounted for 45% of all housing loans in December 2021 (up from 35% in December 2020), and 66% of all consumer loans (up from 61% in December 2020).

In the wake of the significant increase in lending to NFCs, the average maturity of new fixed-rate loans to NFCs shortened in the second half of last year, while the share of fixed-rate loans increased slightly. Despite the shortening, average maturity was still in excess of six years, and remained longer than in the previous year (see Figure 1.69). Banks continued to finance NFCs mainly via long-term loans, which accounted for just under 70% of the total loans to this sector. The proportion of new loans to NFCs with a fixed interest rate increased in the second half of the year, to just under a third. This raised the proportion of the loan stock with a fixed interest rate to 21% in December 2021 (up from 17% in December 2020), raising the interest sensitivity of the NFCs portfolio. Fixed-rate loans continued to account for a higher proportion of new long-term loans, which have a greater impact than short-term loans on the interest sensitivity of the portfolio, in the second half of the year. Similarly to the first half of the year and 2021 as a whole, they accounted for approximately a quarter of total long-term loans to NFCs (up from 16% in 2020).

The faster growth in the share of fixed-rate loans in the household and NFCs sectors alike is increasing the pace of the lengthening of the average repricing period for assets. The banks' sensitivity to potential changes in market interest rates and their exposure to interest rate risk are increasing, and the role of adequate hedging of this exposure is consequently becoming more and more important. Exposure to interest rate risk varies from bank to bank, and some banks are already using derivatives hedges. The use of such instruments will also be important in the future, as will caution in the approval of fixed-rate loans, particularly at banks with greater exposure to these loans.

Figure 1.69 Average maturities of individual types of new long-term loan

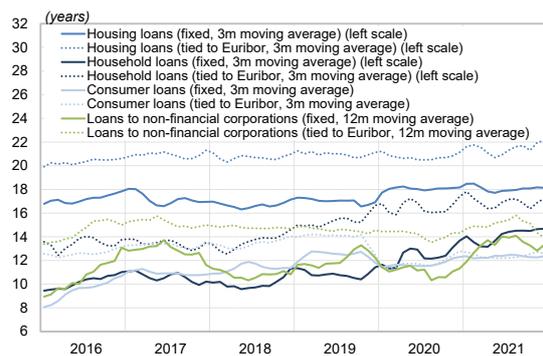
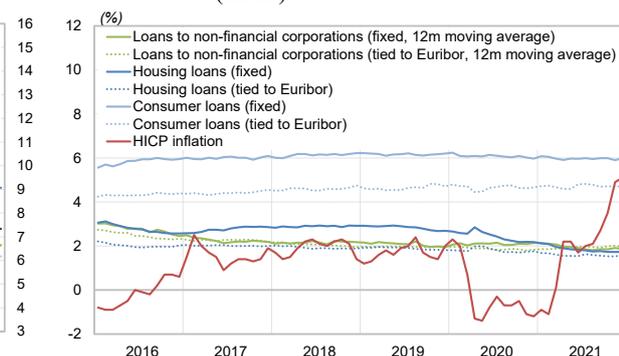


Figure 1.70 Average interest rates on individual types of new long-term loan, and annual inflation (HICP)



Note: The average maturities for housing loans and consumer loans in the left figure are illustrated as three-month moving averages, while the maturities for corporate loans are given as 12-month moving averages. The data for housing loans and consumer loans has been obtained by means of a different data capture methodology, which means that the data series differ slightly from those given in the April 2021 issue of the Financial Stability Review and earlier issues. In the right figure the interest rate on corporate loans is illustrated as a 12-month moving average.

Source: Banka Slovenije

Financing conditions for the non-banking sector remained favourable in the second half of last year, with interest rates at historically low levels overall, and negative real interest rates amid high consumer price inflation. The greatest improvement in financing conditions was again seen in financing for the purchase of residential real estate, with the average contractual fixed interest rate at 1.7% in December 2021, having declined by 0.1 percentage points in the second half of the year (see Figure 1.70). The spread with the euro area average also narrowed by 0.1 percentage points, leaving interest rates in Slovenia 0.4 percentage points higher than in the euro area overall in December. Interest rates on variable-rate loans remained at similar levels compared to the first half of the year, at an average of 1.6%, as the spread with the euro area average also held stable. There was no significant change in the financing conditions for consumer loans in the second half of last year. The majority of consumer loans were concluded with a fixed interest rate, the contractual fixed rate averaging 6.0% (see Figure 1.70). The spread with the euro area average widened slightly in the second half of the year, but remained below 1 percentage point. Despite the increase in fixed-rate lending, variable-rate loans remain the prevailing form of financing for NFCs. Both forms of remuneration display great variability in average contractual interest rates, but the trend is stable over a six-month average. Variable and fixed contractual interest rates averaged around 2.0% (see Figure 1.70). Financing conditions in all sectors thus remain extremely favourable, and the high consumer price inflation led to negative real interest rates, thereby increasing the likelihood of a future rise in nominal interest rates.

Figure 1.71 Breakdown of new housing loans by type of remuneration

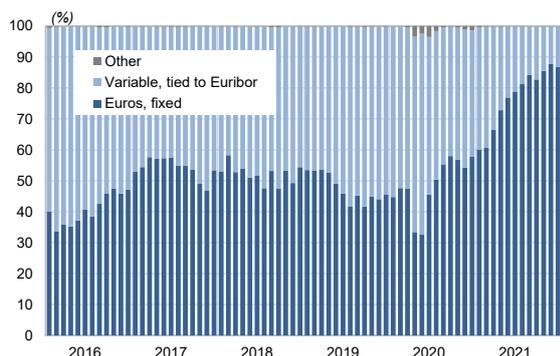
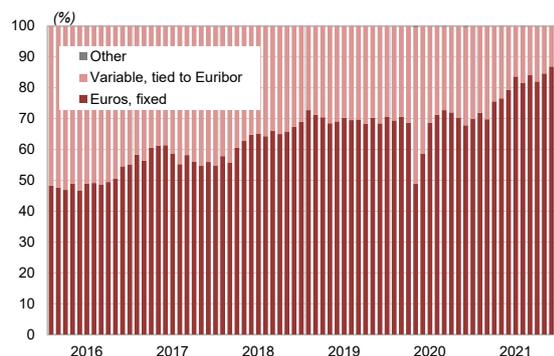


Figure 1.72 Breakdown of new consumer loans by type of remuneration



Note: Variable-rate loans comprise loans concluded with a variable interest rate (tied to the EURIBOR) or with an interest rate fixed for less than one year (even if it is fixed for the entire term to maturity). Fixed-rate loans comprise loans concluded with an interest rate fixed for a period of more than one year. Other loans comprise loans concluded without a reference interest rate, loans tied to the LIBOR, and loans concluded in Swiss francs. Loans with a combined interest rate for a maturity period of more than one year account for a negligible share, and are not included under fixed-rate loans.

Source: Banka Slovenije

1.5 Credit risk

Signs of a deterioration in asset quality began to be seen in certain segments of banks' portfolio. In certain service sectors there was a renewed increase in exposures being reclassified to the stage with increased credit risk (Stage 2 under the IFRS). Reclassifications were also evident in the manufacturing portfolio and in the household loans portfolio in the final months of 2021. The quality of exposures for which moratoria were approved during the pandemic has been deteriorating according to several indicators, although their importance is diminishing following the expiry of the moratoria and the beginning of repayment. Coverage of NPEs by impairments is relatively good, with a trend of increase, but coverage of the total portfolio by impairments is declining. The banks are reducing coverage of performing exposures by impairments, which is also the case for sectors where exposures are being reclassified as higher-risk. Given the likely continuation of economic strife caused by the war in Ukraine, the downturn in the global macroeconomic situation, which began to be seen even last year following the resurgence of the pandemic, could be strongly reflected in credit risk in the NFCs and non-residents portfolios in particular. The assessment of credit risk therefore remains elevated, with a rising trend.

Non-performing exposures at banks

The Slovenian banking system continued to see a decline in NPEs over the two years of the pandemic. The ability to claim benefits on the basis of the emergency measures mostly expired in the first half of last year, and the loan moratoria at banks had almost entirely expired by the end of the year. These measures helped to keep the NPE ratio at banks low, in conjunction with the favourable impact of the macroeconomic environment over the majority of the year, and the lifting of the containment measures, despite the gradual nature of the progress. Given the low levels already reached, the decline in the stock of NPEs and the NPE ratio in 2021 was slower than in previous years, and came to a halt at the level of the total portfolio in the majority of the second half of the year. The NPE ratio declined to 1.2% in December, after remaining unchanged for four months.

Figure 1.73 NPE ratios for selected portfolio segments

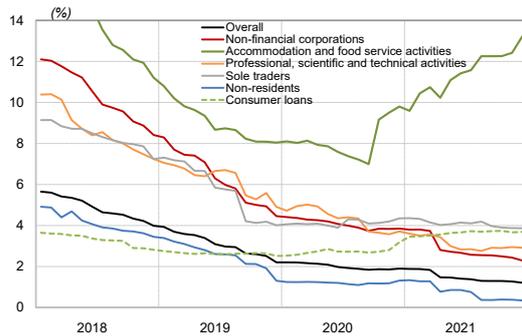
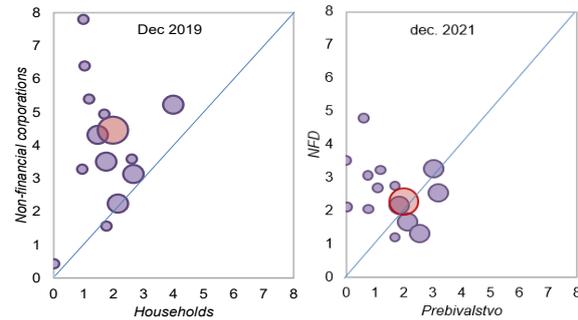


Figure 1.74 Change in NPE ratios in NFCs and household portfolios at individual banks over the course of the pandemic



Note: Non-residents in the left figure means the non-resident non-banking sector alone, and excludes foreign financial institutions. The size of the circles in the right figure denotes the total NPEs at the bank. The red circle denotes the banking system overall.

Sources: ECB SDW, Banka Slovenije

The changes in NPE ratios over the second half of the year were relatively small in the majority of the portfolio, and were generally in the direction of a decline, although ongoing increases were seen in a small part of the portfolio (see Figure 1.73). The NPE ratio in the NFCs portfolio had declined to 2.3% by December.³⁴ The sole sector where the emergency measures were unable to prevent an increase in NPEs was accommodation and food service activities. NPEs in the aforementioned sector rose even after the partial lifting of containment measures, and had reached 13.2% by December. The only other notable increase in NPEs, albeit gentle, was recorded by professional, scientific and technical activities, where the NPE ratio stood at a low 2.9% at the end of the year. All other sectors maintained a trend of decline in NPEs. After rising in the first half of the year, the NPE ratio in the consumer loans portfolio stabilised at 3.7% in the second half.

The asset quality relationship between the NFCs portfolio and the household portfolio as measured by the NPE ratio has shifted significantly over the last two years. The NPE ratio in the NFCs portfolio halved over this period (from 4.5% to 2.3%), while the NPE ratio in the household portfolio remained unchanged at 2.0% (see Figure 1.74). The stock of NPEs in the NFCs portfolio was three times larger than that in the household portfolio at the end of 2019, but was only 1.5 times larger two years later, even while the ratio of exposures between the two portfolios remained unchanged. The quality of the NFCs portfolio was worse than that of the household portfolio at the majority of banks at the beginning of the pandemic, but two years later the household portfolio was lower in quality than the NFCs portfolio, particularly at the large banks. This trend was attributable in part to the weakening standards on household loans leading up to 2019, and in part to the pandemic, during which the emergency measures failed to provide equal protection to all categories of borrower.

Figure 1.75 Approaches to reduction and changes in NPEs in the NFCs portfolio in 2021

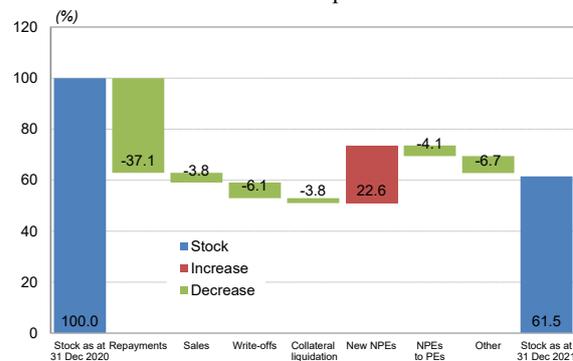
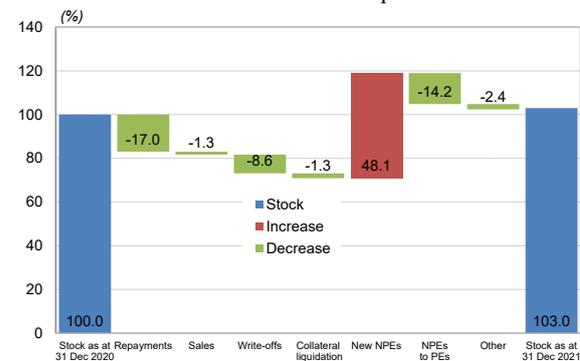


Figure 1.76 Approaches to reduction and changes in NPEs in the household portfolio in 2021



Note: The values illustrate percentage changes relative to the initial stock of NPEs in December 2020.

Sources: Half-yearly NPE reporting by banks, Banka Slovenije

³⁴ The majority of the decline in 2021 came from the one-off large debt repayment by a single firm in April, which reduced the NPE ratio by 0.4 percentage points.

Bank survey data indicates that the inflow of new NPEs in 2021 was again larger in relative terms in the household portfolio than in the NFCs portfolio. The total inflow of new NPEs in the NFCs portfolio was equivalent to 22.6% of the stock of NPEs in the portfolio at the end of the previous year (see Figure 1.75), while the equivalent figure in the household portfolio was 48.1% (see Figure 1.76). The relative inflows of new NPEs in the two portfolios were similar in the first year of the pandemic. Despite the difficult economic conditions, the decline in NPEs in the NFCs portfolio was largely attributable to the partial or full repayment of non-performing claims, which exceeded the total of write-offs, sales and collateral liquidation. The most important approaches to reducing NPEs in the household portfolio were repayments and reclassifications to performing status. As in 2020, the inflow of new NPEs in the household portfolio was not fully absorbed by these and other approaches to reduction, and consequently the stock of NPEs increased over both years. The stock of NPEs in the household portfolio amounted to EUR 233 million at the end of 2021, up EUR 14 million since the outbreak of the pandemic. EUR 53 million of claims against households were also written off or sold over this two-year period.

Figure 1.77 Default rate by corporate size

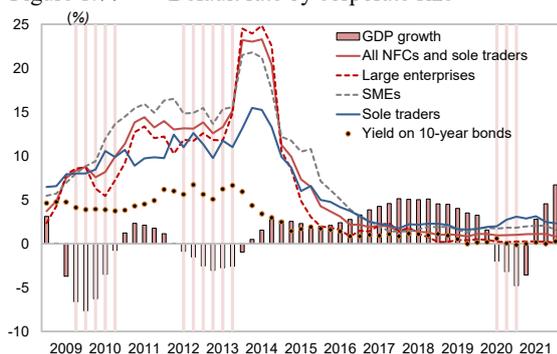
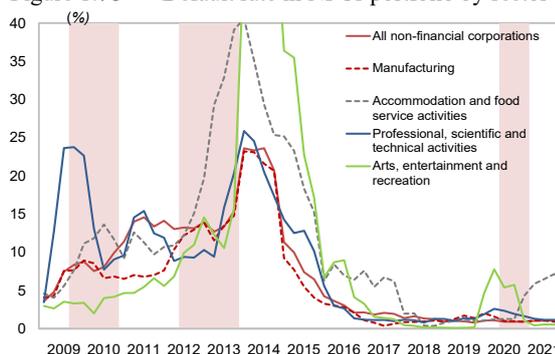


Figure 1.78 Default rate in NFCs portfolio by sector



Note: The figures illustrate the exposure-weighted one-year default rates (DR) under the EBA definition of non-performing exposures. The EBA definition has been in place since 2016, since which this data has been available; the definition of arrears of more than 90 days and/or downgrading to D or E ratings was used for previous years. The red shaded areas represent periods of negative economic growth.

Source: Banka Slovenije

The default rates confirm the deterioration of the accommodation and food service activities portfolio in 2021, and the stability of the portfolio in other sectors. The one-year default rates in the NFCs portfolio stood at just under 1% in the final quarter of 2021, having held at very low levels since the end of 2019 (see Figure 1.77). The default rate of 5% in accommodation and food service activities is significantly higher than the average, but began to slow discernibly towards the end of the year compared with previous quarters (see Figure 1.78). The default rates for SMEs are above-average, and the default rates for sole traders are even more so. Both categories saw default rates slow towards the end of the year. Compared with previous periods of negative economic growth, when arrears in repayment and bankruptcies began to be seen shortly after the onset of the recovery, on this occasion the trend is more favourable. It should be noted that certain support measures remained in force until September 2021, and might still have been having a favourable impact on corporate performance.

The ongoing war in Ukraine poses an additional risk to Slovenian banks, whose indirect effects are still unpredictable. Slovenian banks' direct exposure to customers from Russia, Ukraine and Belarus is small, and accounted for just 0.2% of the banking system's total exposure at the end of the year. Even at the banks with greater exposure, the relative burden is not significant. The potential impact on firms with direct trading, financial and ownership links with the aforementioned countries is greater, as are the indirect effects on production and supply chains. NFCs doing business with Russia and Ukraine held just over EUR 400 million in outstanding receivables from trade credits at the end of 2021 (see also the section on NFCs). The banks held a total exposure of EUR 570 million to the 20 firms with the largest receivables from trade credits at the end of the year, where the size of the exposure was not correlated with the size of the receivables vis-à-vis Russia and Ukraine (exposure was relatively small at certain firms). A larger exposure to these firms does not entail greater credit risk for a bank in Slovenia, if turnover with the aforementioned countries does not constitute a large share of the firm's revenues. The indirect effects of the war deriving from interactions between firms will probably be larger, as a result of the sanctions imposed, and also as a result of the destruction of the economy.

The quality of the banks' exposure to the foreign non-banking sector improved sharply over the course of 2021, but the current situation means that credit risk in this segment of the portfolio is elevated. The NPE ratio in this portfolio declined from 2.2% at the end of 2020 to 0.6% at the end of 2021 (see Figure

1.73). The majority of the portfolio (64% in December) consists of holdings of securities, which are classified as performing in their entirety. The banks have increased their exposure via loans to foreign NFCs by 18.0% over the last year, but the portfolio saw an even sharper decline in the NPE ratio, from 7.7% to 1.9%. Similarly to Slovenian firms with business and ownership links to the rest of the world, the risk inherent in these assets depends on their inclusion in trade with the war-hit countries.

Credit risk stages³⁵

The reclassification of bank exposures between credit risk stages (under IFRS 9) reveals still other parts of the portfolio where asset quality has deteriorated. While the banks recorded a net reclassification of exposures back to Stage 1 (with lower credit risk, hereinafter: S1) in the first half of the year, the trend came to an end in the second half of the year and reversed towards the end of the year. The share of exposures classed as Stage 2 (S2) had increased to 5.8% by December, having reached a minimum of 5.4% between July and October (see Figure 1.79).

Similar trends in the share of S2 exposures during the pandemic were seen in the banking systems of the majority of EU Member States (see Figure 1.80). An increase in the first year of the pandemic was followed in 2021 with reclassifications back to S1. With regard to a renewed rise in the share of S2 exposures in the second half of the year as seen in the Slovenian banking system, there is not yet sufficient data for the EU (only data up to the third quarter of 2021 was available at the time of writing). In terms of the share of S2 exposures in the total loan portfolio, Slovenia has one of the lowest figures (6.3%, compared with the EU average of 8.7%).

Figure 1.79 Share of S2 exposures by selected customer segment

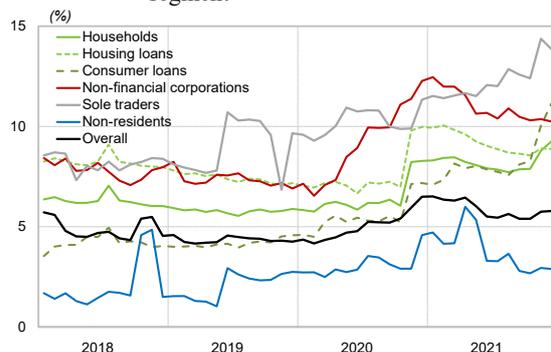
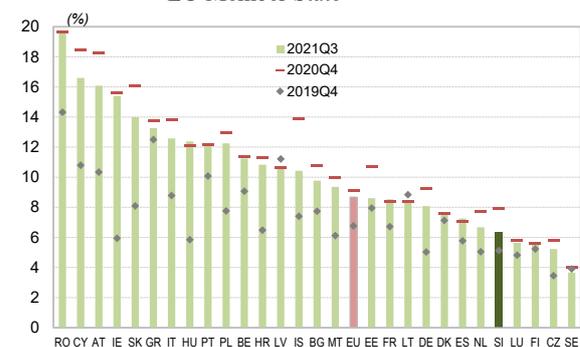


Figure 1.80 Share of S2 exposures in loan portfolio by EU Member State



Note: For data availability reasons the right figure illustrates the share of S2 exposures in the loan portfolio, and not in total exposure as is customary in this section.

Sources: Banka Slovenije, EBA

A key factor in the change in the dynamics of the share of S2 exposures in recent months has been the reclassification of exposures between credit risk stages in the household portfolio. The share of S2 exposures in the consumer loans portfolio had increased to 11.2% by December 2021, and a pronounced increase was also seen in the portfolio of other non-housing exposures (overdrafts and credit cards), which reached 8.3%. The housing loans portfolio also saw a smaller increase. The rise in NPEs in the households portfolio with moratoria (see Figure 1.84), which mostly expired during 2021, is indicative of their higher credit risk. However, in loans reclassified to S2 prevail loans, which were not subject to a moratorium, which is indicative of other reasons for being assessed by banks as an increased credit risk.

The share of S2 exposures continued to decline in the NFCs portfolio, albeit with differing trends in different sectors because of the unequal business conditions over the course of the pandemic and its indirect impact on the macroeconomic situation. The transition rates between credit risk stages in the second half of the year were lower than the highs recorded during the pandemic: by the end of 2020 the banks had seen a large increase in the transition rate of exposures from S1 to S2, but the reverse transition

³⁵ Under IFRS 9, banks classify financial assets measured at amortised cost or at fair value through other comprehensive income (equity) and off-balance-sheet exposures into three credit risk stages for the purpose of creating impairments and allowances. Stages 1 and 2 consist of exposures that are not in default. Stage 2 consists of exposures where there has been a significant increase in credit risk since initial recognition. Stage 3 consists of exposures in default. For the purposes of this report, exposures that are defined as defaulted upon initial recognition, i.e. purchased or originated credit-impaired financial assets (POCI), are also classified as Stage 3. Under IFRS 9, financial assets measured at fair value through profit or loss are not subject to this reclassification.

rate (S2 to S1) then increased over the next two quarters (see Figure 1.82). The net effect of the transitions in 2021 was a decline in the share of S2 exposures in the NFCs portfolio to 10.2% by the end of the year, down from 12.3% at the end of 2020 (see Figure 1.81). Asset quality quality as measured by this indicator worsened continually in the sectors of accommodation and food service activities and arts, entertainment and recreation, which had almost identical figures of 55% at the end of the year. The trend of decline in the share of S2 exposures reversed in professional, scientific and technical activities and in transportation in the second half of the year, and also in manufacturing in the final two months of the year. The share of S2 exposures also ended the year up in year-on-year terms in wholesale and retail trade, having displayed a more variable dynamic over the course of the year. The changes in the dynamics of this indicator across different sectors most likely reflect the increased uncertainty with regard to credit risk as of the second half of the year, amid the resurgence of the pandemic, ongoing disruptions to supply chains and shortages of skilled labour, and consequently a deterioration in the economic sentiment and confidence across the economy and society.

Figure 1.81 Share of S2 exposures to NFCs by sector

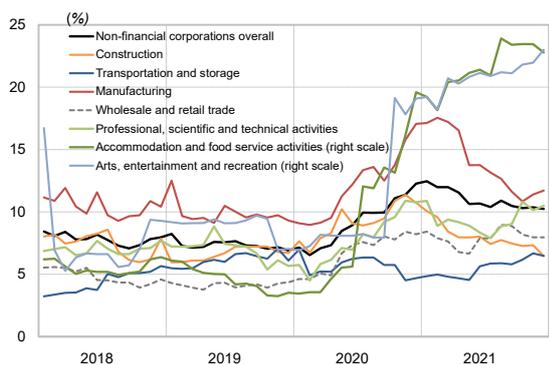
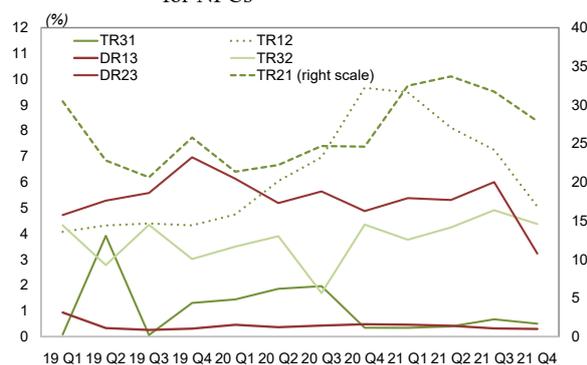


Figure 1.82 Transition rates between credit risk stages for NFCs



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

Source: Banka Slovenije

Exposures subject to a moratorium

In contrast to the declining trend in NPEs in the total portfolio, the NPE ratios for exposures for which a moratorium was approved during the pandemic have continued to rise. Exposures subject to a moratorium amounted to EUR 2 billion at the end of 2021, or 3.8% of the banking system's total exposure. The NPE ratio for exposures to NFCs for which a moratorium was approved during the pandemic had increased to 8.1% by December 2021, up from 6.1% a year earlier (see Figure 1.83). The stock rose rapidly until March 2021, when it reached EUR 138 million, before beginning to decline. The stock of exposures for which a moratorium was approved during the pandemic declined by 20% in the second half of 2021, either as a result of the reduction of the deferred debt after its maturity, or as a result of the reduction of NPEs for exposures subject to a moratorium through active approaches by banks (write-offs, sales). The remaining (and new) NPEs for exposures subject to a moratorium thus constitute a higher share than at the time of their peak in March 2021. The sectors notable for a larger deterioration in the portfolio of exposures subject to a moratorium are accommodation and food service activities, professional, scientific and technical activities, and construction (see Figure 1.84). A deterioration in quality is also evident in household exposures subject to a moratorium, in both the housing loans and consumer loans portfolios. These portfolio segments saw an increase in the stock of NPEs and the NPE ratio, the latter rising to 13.7% in the consumer loans portfolio and 9.8% in the housing loans portfolio.

Figure 1.83 NPEs for exposures subject to a moratorium in the NFCs and household portfolios

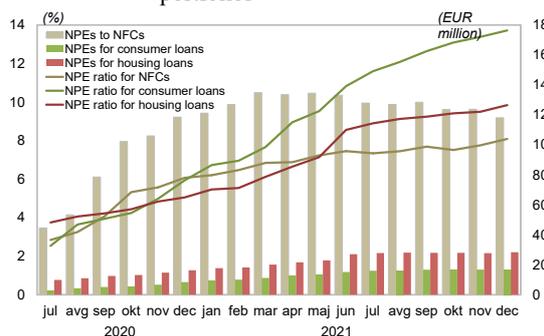
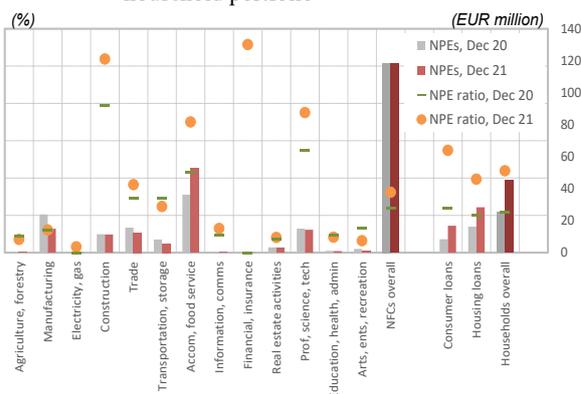


Figure 1.84 NPEs for exposures subject to a moratorium in the NFCs portfolio by sector and the household portfolio



Note: Exposures subject to a moratorium include all exposures for which a moratorium was approved during the pandemic, irrespective of whether the moratorium has already expired or is still active.

Source: Banka Slovenije

The higher credit risk of exposures subject to a moratorium is also reflected in higher shares of S2 exposures compared with exposures without moratoria. The share of S2 exposures in the exposures in the household and NFCs portfolios for which a moratorium was approved during the pandemic is fully three times higher than in the total household and NFCs portfolios (see Figure 1.86). These relationships vary by sector: the most notable are accommodation and food service activities and arts, entertainment and recreation, where the share of S2 exposures in the exposures subject to a moratorium and in the total portfolio do not differ significantly, which indicates that the banks assess these sectors as a significantly higher risk, irrespective of whether the exposures have been subject to a moratorium or not. The aforementioned sectors are also notable for the highest share of exposures subject to a moratorium, at more than 50% in December. Following the end of the period envisaged for the approval of moratoria under the emergency laws, the level of bilateral moratoria increased in these sectors. By December they accounted for 22% of the total stock of exposures subject to a moratorium in accommodation and food service activities, the highest figure in the NFCs portfolio. The level of bilateral moratoria in arts, entertainment and recreation was slightly lower, but it was only in the final quarter of the year that the majority (almost 60%) of the approved moratoria expired in this sector (which has the highest level of approved moratoria in the stock of exposures at the end of 2021). Given the ongoing restrictions on business and the possibility of further containment measures in light of the continuation of the pandemic, there is a likelihood of further approvals of bilateral moratoria.

Figure 1.85 Share of legislative and bilateral moratoria in the NFCs portfolio by sector and in the household portfolio

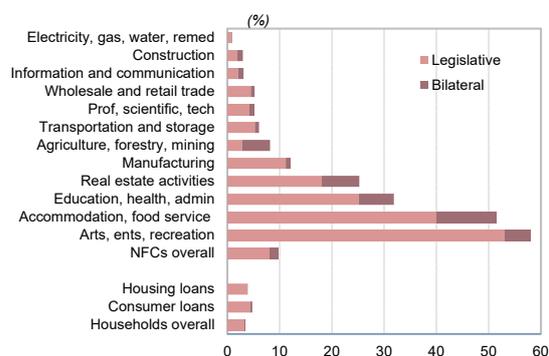
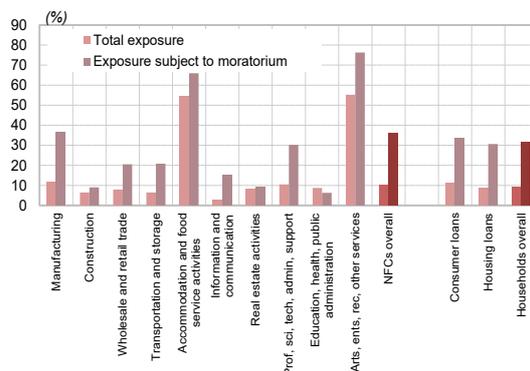


Figure 1.86 Share of S2 exposures in the NFCs and household portfolios relative to total exposures and exposures subject to a moratorium



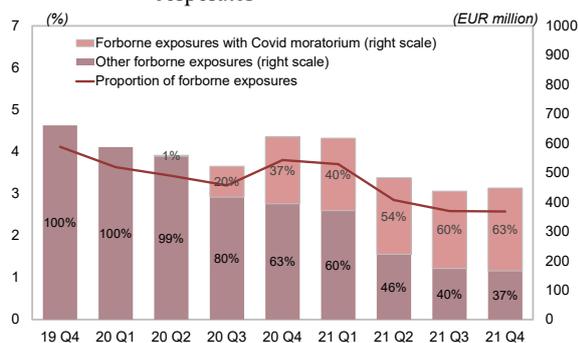
Note: Exposures subject to a moratorium include all exposures for which a moratorium was approved during the pandemic, irrespective of whether the moratorium has already expired or is still active.

Source: Banka Slovenije

Forborne exposures

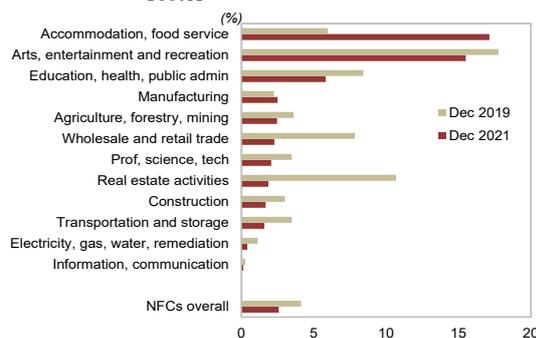
Forborne exposures do not account for a large proportion of the banking system’s portfolio: the figure stood at 1.1% at the end of 2021. The proportion of forborne exposures in the total portfolio increased slightly during the first year of the pandemic, but supervisory institutions’ mitigation measures meant that the increase was significantly less than it would otherwise have been according to the definition alone.³⁶ The stock and the proportion of forborne exposures both declined in 2021, although the decline slowed in the second half of the year: the proportion stood at 2.6% in the NFCs portfolio at the end of the year (see Figure 1.87), and 1.0% in the household portfolio.

Figure 1.87 Breakdown of forborne exposures to corporates



Note: Includes NFCs and sole traders.
Source: Banka Slovenije

Figure 1.88 Forborne exposures to corporates by sector



Exposures for which a moratorium was approved during the pandemic account for an increasing proportion of forborne exposures. The figure is 63% in the NFCs portfolio, and 59% in the household portfolio. The figures in both portfolios increased in 2021, when the moratoria mostly began to expire. Other forborne exposures were declining rapidly at that time, particularly in the NFCs portfolio (see Figure 1.87), in part because of a reduction in NPEs,³⁷ and in part because of the good economic climate. The proportion of forborne exposures increased sharply during the pandemic in accommodation and food service activities (see Figure 1.88), as banks reclassified exposures as forborne despite the more flexible approach to the treatment of moratoria,³⁸ which otherwise required the individual assessment of increased credit risk for the individual customer. In other sectors where the proportion of forborne exposures was already high before the pandemic (i.e. independently of the subsequent increase in credit risk), the reduction was related to the usual decline in NPEs.

³⁶ Forborne exposures are exposures to which measures defined in Article 47b of the CRR, such as a change in repayment terms or partial or full debt refinancing, have been applied, whereby the measures would not have been applied had the debtor not had difficulties in meeting its financial obligations. The EBA’s guidelines of April 2020 on legislative and non-legislative moratoria on loan repayments applied in light of the Covid-19 crisis, later revised in December 2020, allowed more flexible regulatory treatment of these moratoria, which did not require automatic reclassification of the exposures to forborne exposures (performing or non-performing) in accordance with the aforementioned definition of forbearance (for more details on the guidelines, see Box 1.3 in the October 2020 issue of the FSR and Box 1.1 in the April 2021 issue of the FSR).

³⁷ Forborne exposures may be classed as performing or non-performing exposures: less than half of forborne exposures were classed as S3 at the end of 2021.

³⁸ The EBA’s guidelines of April 2020 on legislative and non-legislative moratoria on loan repayments applied in light of the Covid-19 crisis and the revised guidelines of December 2020 put in place more flexible regulatory treatment of these moratoria. 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.

Figure 1.89 Forborne exposures in the housing loans portfolio

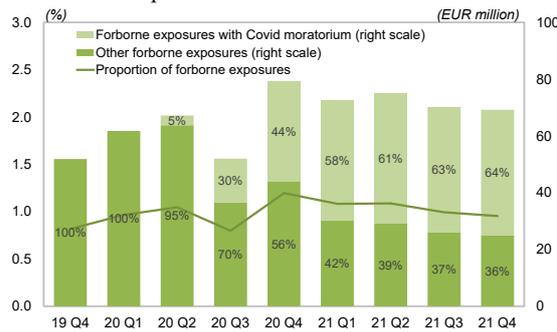
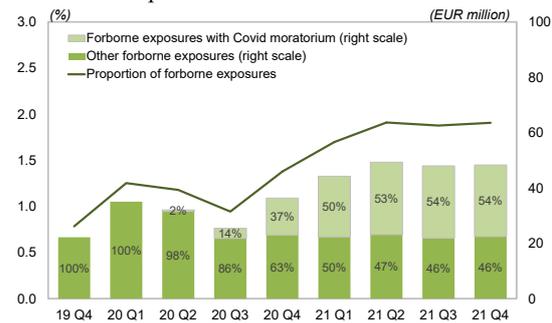


Figure 1.90 Forborne exposures in the consumer loans portfolio



Source: Banka Slovenije

The developments in forborne exposures reveal a deterioration in asset quality in 2021 in the consumer loans portfolio, and an improvement in the housing loans portfolio. The proportion (and stock) of forborne exposures doubled in the consumer loans portfolio between the third quarter of 2020 and the second quarter of 2021, from 0.9% to 1.9%, before the increase came to an end in the second half of the year (see Figure 1.89). The housing loans portfolio displayed a trend of decline in the proportion of forborne exposures, which was also lower, and ended the year at 1.0% (see Figure 1.90). The breakdown of forborne exposures with regard to Covid-19 moratoria also differs: by the end of the year, they accounted for almost two-thirds of all forborne loans in the housing loans portfolio, and just over a half in the consumer loans portfolio. The increase in forbearance in the household loans portfolio, as in the NFCs portfolio, is further evidence of the lower quality of the exposures that were subject to a moratorium.

Bank credit standards and demand for loans according to the BLS

According to the Bank Lending Survey,³⁹ credit standards in Slovenia remained unchanged in the second half of 2021 for household loans and loans to NFCs alike. The majority of the reporting banks were no longer assessing that the general economic situation would have a negative impact on the tightening of standards, as it had in the previous year for example. In the NFCs portfolio this was the case for the short-term and long-term loan segments, and for large enterprises and SMEs alike (see Figure 1.91). The banks also reported no change in standards for household loans, whether housing loans or consumer loans (see Figure 1.92). Similarly, the euro area overall also typically saw virtually no change in credit standards according to the BLS.

Borrower creditworthiness stood out slightly as a factor of tightening credit standards in the final quarter of 2021 (industry or firm-specific situation and outlook, which was cited by three of the ten banks). A fifth of the banks reported a slight relaxation in lending conditions (primarily margins, competitive pressures). The factors acting to tighten credit standards for housing loans were the general economic situation and housing market prospects, while competition from other banks acted to relax credit standards. The only relaxation in lending conditions over the first three quarters of the year came in margins on average loans, and the lending conditions then tightened in the final quarter. There were no major changes in the lending conditions for consumer loans; in the second quarter of the year half of the reporting banks cited reduced margins on average loans and competitive pressures as factors in the relaxation of lending conditions.

³⁹ As of 2022 a total of ten credit institutions report for Slovenia in the BLS, with the first data for the final quarter of last year. This is six more banks than previously. They accounted for 84.1% of the banking system in terms of the balance sheet total at the end of December 2021 (compared with 60.5% in June), and for 79.1% of loans to NFCs (up from 51.1%), 90.4% of housing loans (up from 64.5%), and 79.7% of consumer loans (up from 60.4%). The shares are calculated on the basis of data reported to Banka Slovenije on an individual basis.

Figure 1.91 Credit standards for loans to NFCs

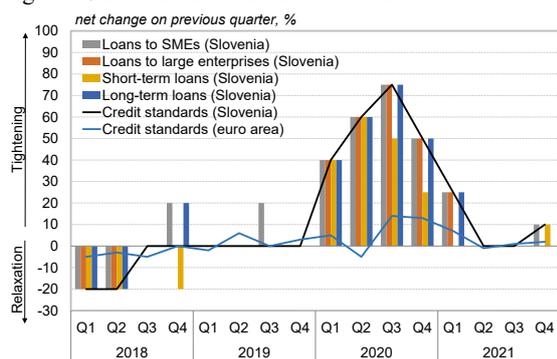
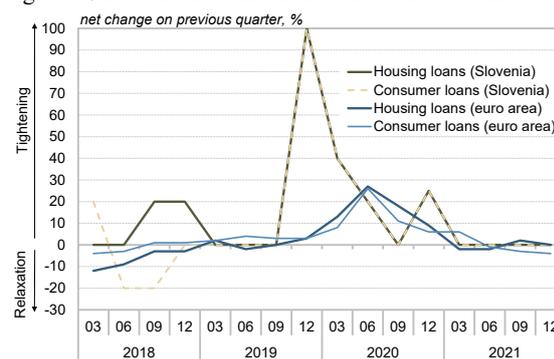


Figure 1.92 Credit standards for household loans



Sources: BLS, Banka Slovenije

The BLS for 2021 reveals that corporate demand for loans increased in the second and final quarters, while household demand increased in the second and third quarters in particular. A decline in demand was particularly evident at NFCs in the first quarter of last year, and less so at households. This was followed in the second quarter by an increase in demand at households and NFCs, which was less and less intensive in the following quarters. Demand at NFCs ticked up slightly in the final quarter. Four of the ten banks reported an increase in demand. The main factors cited at the end of the year as increasing demand were inventories and working capital, mostly by SMEs.

There was a notable increase in demand for housing loans in Slovenia in the first quarter, which then gradually declined. Only a fifth of the reporting banks cited a net increase at the end of the year. A similar trend was evident in consumer loans. The relative increase in demand diminished in the third quarter, and no bank reported an increase in demand at the end of the year. The main factors acting to increase demand last year were the housing market prospects, the general level of interest rates and, for consumer loans, spending on durables. The pace of bank lending activity increased last year for housing loans, but year-on-year growth in consumer loans remained negative last year (see Figure 6.9 and Figure 6.10 in the appendix).

Impairments and provisions, and coverage by impairments and provisions and by collateral

The Slovenian banking system again recorded a net release of impairments and provisions in 2021 (see Figure 1.93). Only four other banking systems in the EU recorded a net release of impairments and provisions over the first three quarters of last year alongside the Slovenian banking system. The data on impairments for the majority of financial assets⁴⁰ that was available by the third quarter of last year indicates a decline in their ratio to the balance sheet total in European banking systems, while a mere five countries saw a net release (see Figure 1.94). The Slovenian banking system recorded a net release of impairments and provisions last year, for the fourth time in five years (the exception was the first year of the Covid-19 pandemic), which was a major factor in its above-average profitability.⁴¹

Figure 1.93 Net impairments and provisions, gross income, and ratio of net impairments to gross income

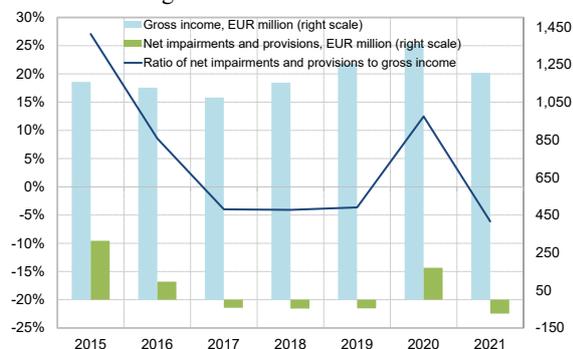
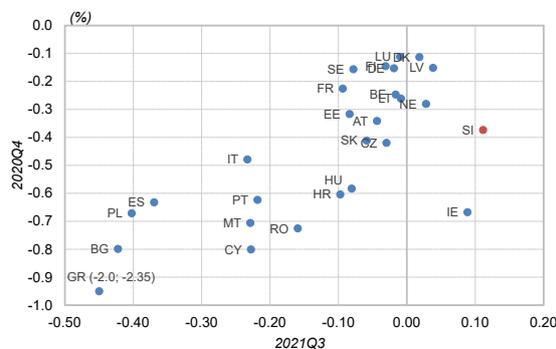


Figure 1.94 Ratio of net impairments to balance sheet total in EU Member States



⁴⁰ Impairments of financial assets accounted for 90% of aggregate impairment and provisioning costs last year (EU average), and 93% in Slovenia. The data in the commentary for the first three quarters of last year relates to impairments of financial assets not measured at fair value, which account for the largest component of impairments.

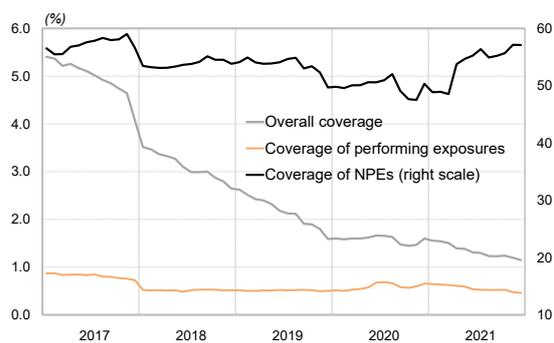
⁴¹ For more, see the section on solvency and profitability.

Note: Negative values in the left figure represent the net release of impairments and provisions. The right figure illustrates impairments of financial assets not measured at fair value through profit or loss. The values up to the third quarter of 2021 are restated on an annual basis. Positive values denote a net release of impairments.

Sources: Banka Slovenije, ECB SDW (CBD)

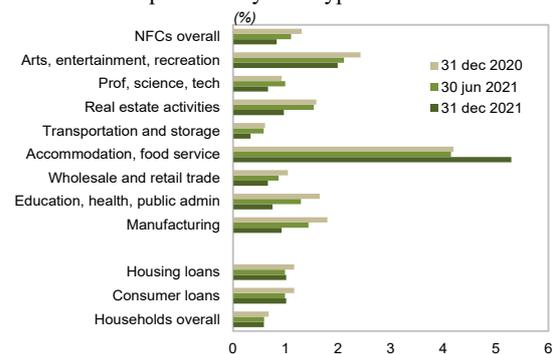
Coverage of NPEs by impairments and provisions increased in 2021, while coverage of performing exposures declined further. Coverage of NPEs by impairments and provisions stood at 57.1% at the end of the year, up 6.8 percentage points on a year earlier (see Figure 1.95).⁴² The decline in NPEs in 2019 and 2020 was accompanied by a decline in coverage as a result of sales and write-offs of NPEs that had previously had above-average or full impairment. Coverage by impairments and provisions increased in all customer segments in 2021 and in the majority of sectors in the NFCs portfolio, despite the simultaneous decline in NPE ratios, which is indicative of the more conservative approach to the creation of impairments taken by the banks in 2021.

Figure 1.95 Coverage of performing and non-performing exposures by impairments and provisions



Source: Banka Slovenije

Figure 1.96 Coverage of performing exposures by impairments and provisions in the NFCs portfolio by sector and in the household portfolio by loan type



After the increased creation of impairments and provisions for performing exposures in 2020, the banks reduced them in 2021. Coverage of performing exposures by impairments and provisions declined in all portfolio segments in 2021, with the exception of accommodation and food service activities (see Figure 1.96). Coverage of the total portfolio declined from 0.66% to 0.46%, ending the year lower than it had been at the outbreak of the pandemic (0.50%). Credit risk as measured by the share of S2 exposures (which remain performing exposures) increased significantly as a result of the pandemic. Coverage by impairments declined in the first half of 2021 simultaneously with the decline in the share of S2 exposures, but also declined after the share of S2 exposures had begun to rise in numerous sectors. The exception was accommodation and food service activities, where coverage by impairments and provisions increased sharply in the second half of the year. An increase was also evident in the housing loans and consumer loans portfolios towards the end of the year, simultaneously with increased reclassification from S1 to S2.

Figure 1.97 Coverage of NPEs by impairments, provisions and collateral by selected customer segment

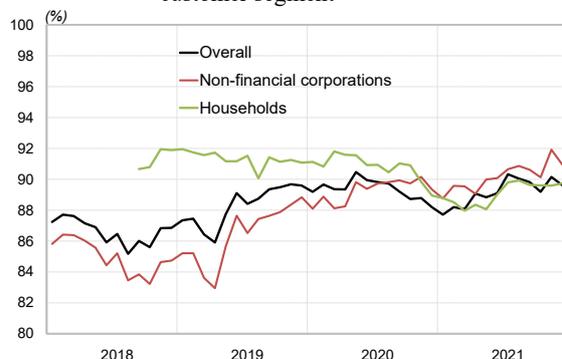
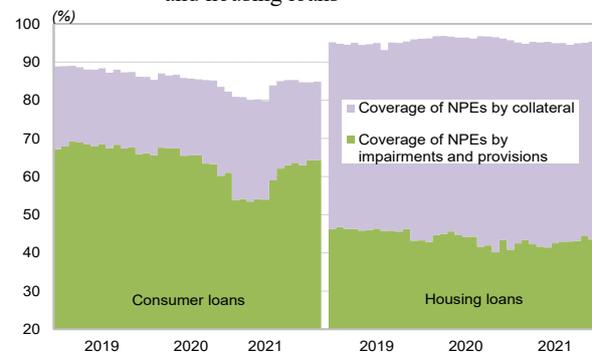


Figure 1.98 Coverage of NPEs by impairments, provisions and collateral for consumer loans and housing loans



⁴² Part of the reduction was attributable to a debt repayment by the new owner of a large enterprise that had previously had non-performing status.

Note: In the left figure overall coverage by impairments, provisions and collateral 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. The increase of 5 percentage points in coverage by impairments and provisions (and consequently in overall coverage by impairments, provisions and collateral) for consumer loans in June 2021 is the result of a large increase in coverage in that month at one particular bank.

Source: Banka Slovenije

Overall coverage of NPEs by impairments, provisions and collateral also increased. Overall coverage reached 91.0% in the NFCs portfolio, and 89.7% in the household portfolio (see Figure 1.97). Despite a slight decline in 2021, it remains highest in the housing loans portfolio at 95.3%, while after a large decline in the early part of the year in the consumer loans portfolio it had recovered to 84.9% by December, up 2.6 percentage points in year-on-year terms (see Figure 1.98). Given the greater importance of collateral received in the approval of housing loans, the relative importance of impairments is significantly less than for consumer loans.

Box 1.4 *Assessment of the sensitivity of the NFCs portfolio to the rise in energy prices*

In light of the rise in energy prices seen over the last year, the sensitivity of bank portfolios to the changes in energy costs that might be suffered by NFCs was examined. Certain NFCs have become vulnerable to a rise in energy prices. Higher energy prices pose a risk of a decline in net revenues, and thus difficulties in the repayment of credit obligations. For banks this entails an increase in credit risk, and also in potential losses on this account. The formulation of the scenarios also took account of the indebtedness of the firms alongside a rise in energy costs. Firms that were assessed as performing by banks at the end of 2021 were designated as transitioning to non-performing status when they disclose losses after exceeding the indebtedness limit and suffering a hypothetical rise in energy costs. The scenarios took account of rises in energy costs of 100%, 250% and 500% relative to the energy costs disclosed by the firms in 2020. The indebtedness limits were assumed to be a debt-to-EBITDA ratio of 6, 5 or 4. The data on energy costs and the other requisite financial data for the firms was obtained from the AJPES database on a cut-off date of 31 December 2020. The banking system's exposure to corporates was taken to be on-balance-sheet and off-balance-sheet exposures to NFCs as at 31 December 2021. The portfolio exposure taken into account in the analysis amounted to EUR 13.8 billion.⁴³ The banking system's total exposure as at 31 December 2021 amounted to EUR 52.9 billion. Of this, EUR 641.5 million was classed as non-performing, and the NPE ratio was 1.2%.

The assumptions for a firm transitioning to default status and its exposure being classed as non-performing were: the firm was classed as performing at the end of 2021; it would realise a loss in the event of a rise in costs;⁴⁴ its debt was higher than the limit set by the debt-to-EBITDA ratio; there is no price elasticity in producer prices, which means that passing costs onto the firm's customers and the impact that this would have on demand for its products were not taken into account in the analysis; the rise in costs is directly dependent on the rise in energy prices on the market, and does not take account of the actual proportion of energy costs accounted for by energy prices (e.g. no austerity, fees rise by the same percentage); the effect of 2020, when the closing accounts were drawn up, is not excluded, as a different base year could give a different result. For the needs of this sensitivity analysis, additional requisite impairments and provisions were allocated to exposures to firms that transitioned to default status as a result of the scenario. These were calculated as the difference between the new impairments and provisions, and those created before the application of the scenario. The determination of the new level of impairments and provisions took account of the coverage by impairments and provisions in Stage 3, at the level of the individual bank, and the individual sector (first level, denoted by the letter of the sector).

It is not only the size of the shock that affects the transition of firms to default status in the analysis, but also the requirement for financial soundness (a debt-to-EBITDA ratio as close as possible to zero). This effect was analysed in the scenario of a rise in energy costs of 100%. The largest inflow of new NPEs is brought by the first band of the debt-to-EBITDA ratio (>10),⁴⁵ in the amount of EUR 1.3 billion (see Figure 1.99), while setting the ratio to 0.5 would reclassify a further EUR 2.4 billion to non-performing exposures, or EUR 3.7 billion in total. The largest inflow of NPEs for an individual value of the debt-to-EBITDA ratio is brought when it is set to 1, which is highly rigorous. In general it can be said that for a fixed rise in energy costs, the

⁴³ Non-financial corporations that did not have all the requisite financial data in the AJPES database were excluded.

⁴⁴ The new financial result was calculated by the following equation: $Result_1 = Result_0 - \Delta energy\ costs + finance\ expenses\ from\ financial\ liabilities_0$. In addition to the rise in energy costs, firms were granted an allowance in the amount of their financial liabilities, as in the event of a loss determined in this way firms would have greater difficulty in settling their financial liabilities to banks, and are therefore more likely to be reclassified as defaulters.

⁴⁵ If debt-to-EBITDA ratios of more than 10 were to be included in the analysis, the impact of this band would be allocated across these higher ratios.

impact of each additional step of tightening the debt-to-EBITDA ratio by 1 results in the reclassification of a growing sum of exposures as non-performing. The largest contribution to additional NPEs from an individual sector (see Figure 1.100) comes from manufacturing (C), which broadly holds over the full range of the debt-to-EBITDA ratio. It was followed by electricity, gas, steam and air conditioning supply (D), whose NPEs increase significantly at more rigorous settings of the debt-to-EBITDA ratio, namely between 0.5 and 4, which means that debt does not play the dominant role in the repayment of bank liabilities in the sector. For transportation and storage (H) the critical debt-to-EBITDA ratio is between 4 and 5, while for accommodation and food service activities (I) it is more than 9, which means that this sector contains more-indebted firms that find it harder to withstand additional energy costs.

Figure 1.99 Increases in NPEs versus debt-to-EBITDA ratio at a rise in energy costs of 100%

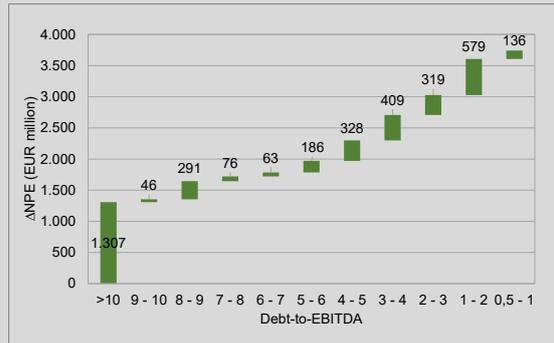
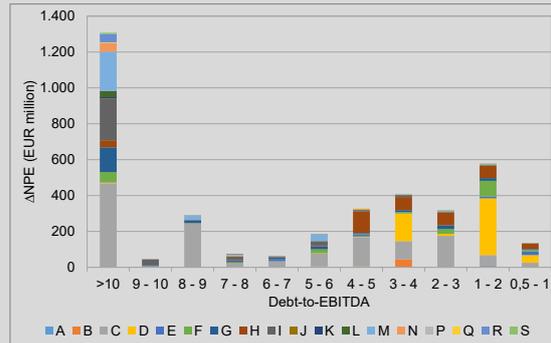


Figure 1.100 Inflow of NPEs versus debt-to-EBITDA ratio at a rise in energy costs of 100% by sector



Note: The sectors (right figure) are as follows: A: agriculture, forestry and fishing; B: mining and quarrying; C: manufacturing; D: electricity, gas, steam and air conditioning supply; E: water supply, sewerage, waste management and remediation activities; F: construction; G: wholesale and retail trade, repair of motor vehicles and motorcycles; H: transportation and storage; I: accommodation and food service activities; J: information and communication; K: financial and insurance activities; L: real estate activities; M: professional, scientific and technical activities; N: administrative and support service activities; O: public administration and defence, compulsory social security; P: education; Q: human health and social work activities; R: arts, entertainment and recreation; S: other service activities.

Source: Banka Slovenije

The largest impact on the amount of the additional new NPEs and the additional requisite impairments and provisions comes from the shock, while the impact of the size of the applied shock diminishes as the shock gets bigger. From this it can be concluded that the rise in energy prices has the greatest impact on vulnerable firms, which are identified by the shock in the first instance, while the additional firms that transition to default status diminish in number as the shock increases. This argues that it is important to use the applied scenario to identify the more-vulnerable segment of the portfolio, rather than just the size of the additional loss, which in the event of the actual realisation of the shock might differ considerably from the prediction. The effect of financial indebtedness (the debt-to-EBITDA ratio at various values) shows that the reclassification of firms and their exposures as non-performing is not linear, but it is the case that the financially sounder firms transition to default status later, and that the financial soundness requirement needs to be set with a debt-to-EBITDA ratio of at least 5 (or more than 4) for such firms to transition to default status.

The table below (see Table 1.3) illustrates the results of additional NPEs, impairments and provisions, the impact on the total capital ratio (TCR) under various shocks at the level of the banking system.

Table 1.3 Change in NPEs, impairments and provisions and total capital ratio under various scenarios

Scenario	debt-to-EBITDA ratio	NPEs (EUR million)	ΔNPE (SC _x - SC ₀ ; EUR million)	NPE ratio	Impairments and provisions (EUR million)	ΔTCR (TCR(0) - TCR(SC _x))
SC ₀	No restriction	642	-	1.20%	600	
SC _{100%}	>6	2,421	1,780	4.58%	1,514	1.72 p.p.
SC _{100%}	>5	2,607	1,966	4.93%	1,617	2.14 p.p.
SC _{100%}	>4	2,935	2,294	5.55%	1,791	2.85 p.p.
SC _{250%}	>6	2,731	2,089	5.16%	1,707	2.51 p.p.
SC _{250%}	>5	3,596	2,954	6.80%	2,303	4.94 p.p.

SC_250%	>4	4,064	3,423	7.68%	2,549	5.95 p.p.
SC_500%	>6	3,017	2,376	5.70%	1,887	3.24 p.p.
SC_500%	>5	3,988	3,347	7.54%	2,564	6.01 p.p.
SC_500%	>4	4,571	3,930	8.64%	2,864	7.23 p.p.

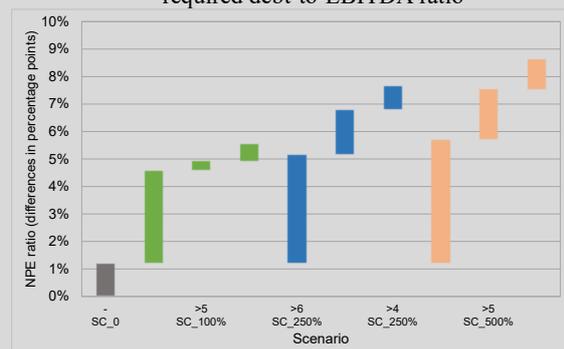
*Note: The total capital ratio (TCR) is an estimate for 31 December 2021 on an individual basis.

**Note: SC_0 denotes the initial state.

Source: Banka Slovenije

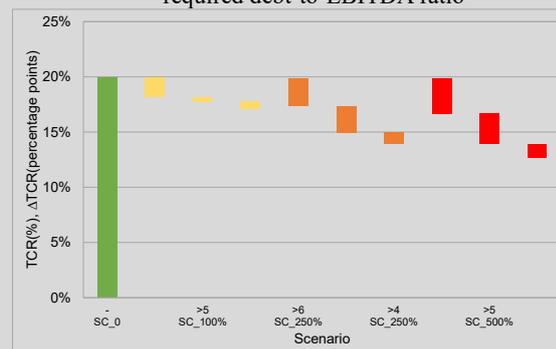
Under a rise in energy costs of 100% and a debt-to-EBITDA ratio of more than 6, the NPE ratio at system level would increase from 1.20% to 4.58%, equivalent to an increase in NPEs from EUR 641.5 million to EUR 2.42 billion. Impairments of financial assets would increase to EUR 1.51 billion, while the total capital ratio would decline by 1.72 percentage points to 18.18%. Under a rise in energy costs of 100% and a debt-to-EBITDA ratio of more than 4, the NPE ratio at system level would increase to 5.55% and NPEs to EUR 2.94 billion, while the total capital ratio would decline to 17.05%. Were energy costs to rise by 250%, depending on the debt-to-EBITDA ratio NPEs would increase to between EUR 2.73 billion and EUR 4.06 billion, impairments and provisions would increase to between EUR 1.71 billion and EUR 2.55 billion, and the total capital ratio would decline by between 2.51 and 5.95 percentage points. Under a rise in energy costs of 500%, depending on the debt-to-EBITDA ratio NPEs would increase to between EUR 3.02 billion and EUR 4.57 billion, impairments and provisions would increase to between EUR 1.89 billion and EUR 2.84 billion, and the total capital ratio would decline by between 3.24 and 7.23 percentage points (see Figure 1.101 and Figure 1.102).

Figure 1.101 Increase in NPE ratio under various scenarios of the rise in costs and the required debt-to-EBITDA ratio



Source: Banka Slovenije

Figure 1.102 Impact on total capital ratio under various scenarios of the rise in costs and the required debt-to-EBITDA ratio



Source: Banka Slovenije

1.6 Income risk

The developments in income categories had improved slightly further by the end of last year, but the conditions for generating income in the banking system remain uncertain, and the risk to the stable generation of income is relatively high given the current situation and outlook in the international environment and consequently in the macro environment. Growth in net interest income remained negative last year, although the decline in net interest income on the previous year diminished as lending growth rose thanks to improved quantity effects, which were unable to fully compensate for several years of negative price effects. The changes in net interest income are relatively small, and are only having a limited and gradual impact on bank income. The decline in the net interest margin slowed last year; it stood at 1.41% in December. The year-on-year comparison shows that were the one-off effects from the previous year (in connection with the merger of two banks) to be excluded, last year's non-interest income in the Slovenian banking system would have exceeded that of the previous year, and same is true of gross income and net income. The banks gave greater attention last year to generating non-interest income, which was primarily reflected in growth in net fees and commission, which was up 14.4% over the year. In the low interest rate environment of recent years, when conditions for generating net interest have been difficult, the banks have focused more on generating net non-interest income. Last year's increase in aggregate net non-interest income was also largely attributable to dividend income at one bank.

Gross income and net income

While gross income and net income were still down on the previous year in the first half of last year, the developments improved in the second half of the year (see Figure 1.103). A one-off effect from the merger of two banks in September 2020 has a major impact on the year-on-year comparisons in 2021. There was a decline of 11.3% in gross income across the banking system, but in the absence of that effect there would have been an increase of 4.1%. Net income, i.e. gross income less operating costs, was down 23.8% last year, but would have been up 11.1% on 2020 had the one-off effect been excluded. Income and cost categories were nevertheless only a lesser factor in the increase in profit relative to the previous year.⁴⁶

The positive trends in income generation continued in the first two months of this year, which was reflected in renewed positive growth in net interest, an increase in non-interest income, the maintenance of relatively high growth in net fees and commission, and a consequent increase in gross income and net income.

The entry into force of the Act on the Mitigation and Allocation of Currency Risk Between Lenders and Borrowers in Swiss Francs (the ZOPVTKK)⁴⁷ could have an adverse impact on the banking system's income, although implementation of the law was stayed by the Constitutional Court in early March of this year.⁴⁸ The law's adverse effects would be reflected in the income statement upon its entry into force, and in the wake of provisioning for this purpose. The war in Ukraine and the associated risks in the macro and international environments also need to be highlighted in connection with potential risks that in the future might have an impact on income statement categories (e.g. an impact on interest income and non-interest income as a result of reduced lending, the creation of net impairments).

Net interest margin and net non-interest margin

The net interest margin declined further last year, but at a slower pace in the second half of the year in particular. The decline in the net interest margin (see Figure 1.104) was still being driven by a decline in net interest rates and high growth in interest-bearing assets, again mainly in the form of highly liquid assets. Although the net interest margin hit its lowest value of the last seven years in December of last year, its decline slowed, as a result of the gradual increase in lending to the non-banking sector.⁴⁹ The decline in the margin was still being driven by several simultaneous factors last year: the decline in yield on assets caused by the long period of low interest rates, the large proportion of low or even negatively remunerated assets (particularly in the form of claims against the central bank), and the relatively low average growth in loans still being seen last year.⁵⁰ The banks have sharply reduced their interest expenses in recent years, via a reduction in interest rates and also as a result of the pronounced increase in sight deposits, and therefore it would be difficult to strengthen net interest flows on the liability side of the balance sheet. Last year the decline in the net interest margin was again driven mainly on the asset side (see Figure 1.106).

⁴⁶ See the section on profitability and solvency, which examines the differences in the amount of pre-tax profit in 2021 and 2022, which can be explained by changes in income and cost categories and by net impairments and provisions.

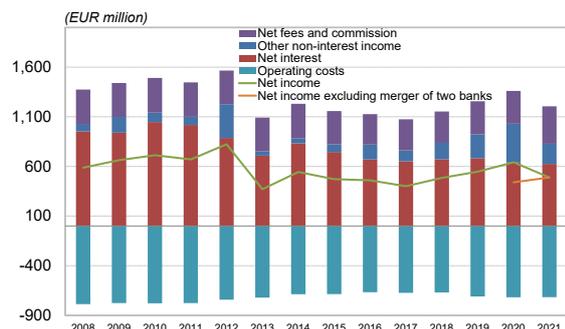
⁴⁷ Official Gazette of the Republic of Slovenia, No. 17/22.

⁴⁸ For details, see the [Constitutional Court Order \(U-I-64/22-9 and U-I-64/22-11\)](#) staying the Act on the Mitigation and Allocation of Currency Risk Between Lenders and Borrowers in Swiss Francs (ZOPVTKK).

⁴⁹ For example, the net interest margin declined by 0.22 percentage points in 2020 to 1.57%, and then to 1.41% in 2021. While the decline in the first half of last year was still comparable to the pace of the decline in the previous year, it slowed further in the second half of the year. The net interest margin declined by only 0.06 percentage points over that period.

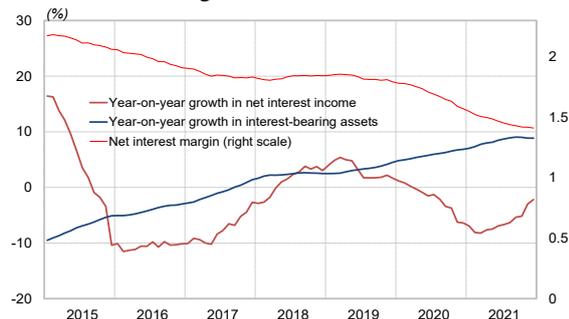
⁵⁰ Loans to the non-banking sector in 2021 were up only 1.9% on average on the previous year (average stock compared with average stock in the previous year), while holdings of securities were up 1.1%, and claims against the central bank, which constitute the majority of other (interest-bearing) assets, increased by 45.7%.

Figure 1.103 Net interest income



Note: In the right figure the margin is calculated for a moving 12-month period.
Source: Banka Slovenije

Figure 1.104 Year-on-year growth in net interest and interest-bearing assets, and net interest margin



The gap between growth in interest-bearing assets and growth in net interest income began to narrow in the second quarter of last year. The decline in net interest income slowed last year, and the negative growth turned positive again in the early months of this year. The year-on-year decline in net interest had slowed to 2.2% by December of last year, while growth in interest-bearing assets was still recording a high 8.9%. Last year's largest increase on the asset side was in the most liquid assets, namely claims against the central bank, which accounted for an average of more than 23% of the banks' total interest-bearing assets. The banks' high excess reserves were attributable to the significant increase in sight deposits and also, in part, to June's borrowing from the ECB. Last year saw a moderate increase in the average stock of loans to the non-banking sector, of less than 2%. The increase in claims against the central bank slowed markedly in the second half of the year, and was just a fifth of that recorded in the first half of the year. As of February of this year net interest over the preceding 12 months was no longer down on a year earlier, while net interest over the first two months of the year was up in year-on-year terms.

The decline in net interest income in 2021 continued to be driven by price effects on the asset side, which were only partly compensated for by quantity effects (see Figure 1.105). The main factor increasing interest income in 2021 was the positive quantity effects from loans, although positive quantity effects were evident in all three main asset classes, while price effects, mostly from loans, acted in the opposite direction. Price effects and quantity effects on the liability side were almost in balance. The former, most notably from liabilities to the ECB and deposits, acted to increase net interest income, while the latter, related in part to the maintenance of excess reserves at banks, acted to reduce it.⁵¹

Figure 1.105 Contribution made by quantity effects and price effects to change in net interest income

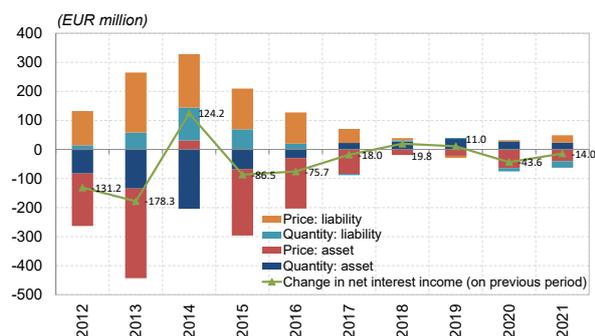
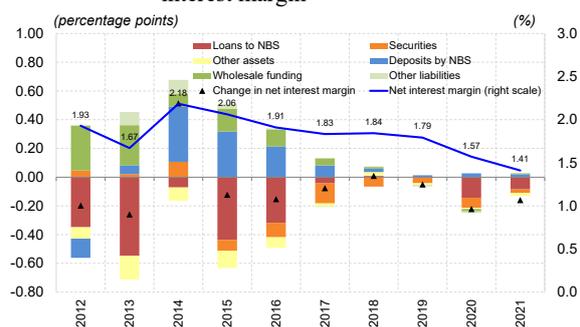


Figure 1.106 Contributions of interest-bearing asset and liability instruments to change in net interest margin



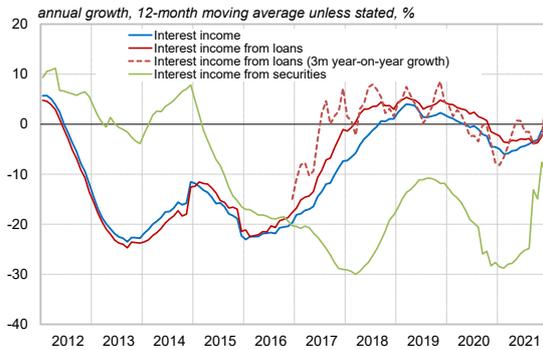
Note: The figures take account of the 12-month moving total of interest income/expenses, while the net interest margin is calculated for the same period.
Source: Banka Slovenije

The gradual improvement in developments in net interest income in the second half of last year and the early months of this year is attributable to the increased growth in loans. The change in net interest was relatively small last year. The future short-term and medium-term developments will depend most on

⁵¹ See the October 2021 issue of the Financial Stability Review.

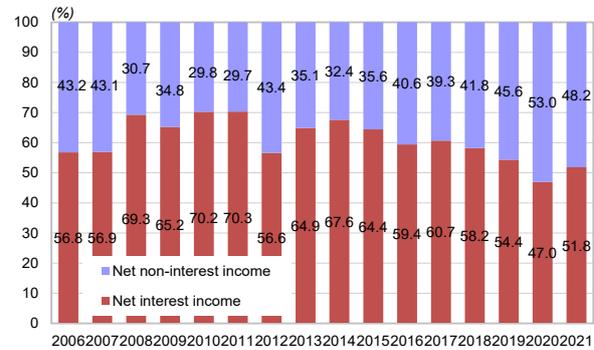
developments in loans to the non-banking sector. The Slovenian banking system generates more than half of its gross income through net interest (see Figure 1.108).⁵² After lending activity began to increase again last year, the future dynamics will mainly be determined by the stock of loans and the stable growth in loans to the non-banking sector. Even in the event of a decline in lending activity, developments in net interest can still be expected to stabilise over the following months.⁵³ Although the banks have recently tried to compensate for their curtailed net interest income through various forms of non-interest income, including custody fees,⁵⁴ net interest still accounts for the largest and most stable portion of bank income.

Figure 1.107 Changes in interest income by type



Source: Banka Slovenije

Figure 1.108 Breakdown of gross income into net interest income and net non-interest income



The developments in the banking system’s non-interest income improved in 2021, as a result of an increase in net fees and commission, an increase in other non-interest income, and dividend payments at the end of the year. Non-interest income in 2021 was down on the previous year in nominal terms, on account of the large one-off effect of the merger of two banks in September 2020, which increased non-interest income at that time. If the one-off effect is excluded, non-interest income in 2021 would have been up 11.9% on 2020. The net non-interest margin at system level, which had reached a high level over the two preceding years, primarily as a result of various one-off effects and other factors, had declined to 1.24% by the end of 2021. Non-interest income and the non-interest margin have shown considerable fluctuations over the majority of recent years (see Figure 1.110), which is attributable to various factors, e.g. revaluations of financial assets, fluctuations in dividend payments, and other one-off factors (see also Box 1.5). The increase in net non-interest income in the second half of last year was also attributable to a significant increase in dividend income, although the increase was driven primarily by one bank.

The banks’ income from net fees and commission increased with the improvement in the economic situation, and as a result of their policies in this area. It was up 14.4% in 2021, and maintained this high growth in the early part of this year. The net commission margin consequently remains stable, with a relatively persistent trend of increase: it had risen to 0.81% by December 2021 (see Figure 1.109).

⁵² Net interest income has accounted for 61% of the banks’ gross income over the last 15 years, and for just under 60% over the last ten years.

⁵³ The quarterly developments suggest that developments in (net) interest income have improved markedly since the final quarter of last year as a result of developments in loan growth. The year-on-year comparison of quarterly flows shows that growth in interest income on loans stood at 4.5% in December of last year, and 5.1% in February of this year, while similarly year-on-year growth in net interest over the last three-month period has been positive since November of last year, and reached 3% in February. Growth in interest income thus corresponds to growth in loans, where growth over comparable periods (three-monthly average) increased from 3.3% in October of last year to 6.6% in February of this year.

⁵⁴ See the December 2021 issue of the Monthly report on bank performance with commentary, and the October 2021 issue of the Financial Stability Review.

Figure 1.109 Year-on-year growth in net fees and commission and balance sheet total, and net commission margin

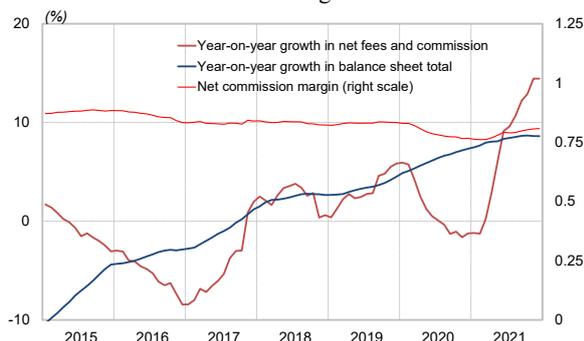
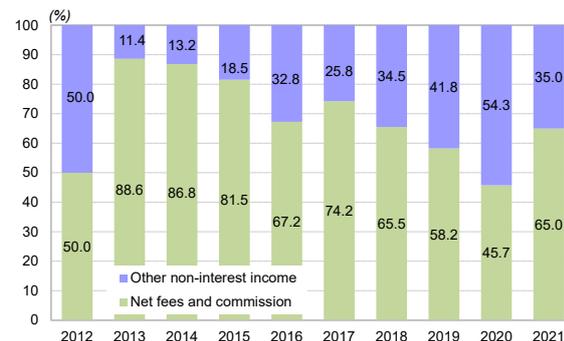


Figure 1.110 Breakdown of non-interest income



Note: In the left figure the net commission margin is calculated for the preceding 12 months.

Source: Banka Slovenije

Box 1.5 Non-interest income

Net fees and commission

In the low interest rate environment the banks are focusing more attention on generating net non-interest income. Recently the banks have been relatively active in this area, and are increasing net non-interest income to compensate for the stagnation in net interest income, whose share of total income has declined in recent years. The share of gross income accounted for by the most important and most stable source of net non-interest income, i.e. net fees and commission, has remained at the level of 28% over recent years, when extraordinary operating revenues are discounted.⁵⁵ Last year the figure rose to 33%, as a result of a smaller increase in other net non-interest income.

Fee and commission income from payment services is the most important category of fee and commission income. The share of total fee and commission income accounted for by payment services has averaged 76% over recent years (see Figure 1.111). Income from managing current accounts has been raised in recent years by the introduction of service packages. This commercial policy on the part of the banks led to a decline in income in certain other items in connection with payment transactions, e.g. income from executed payments, income from ATM operations. Another factor in the increase in fee and commission income is custody fees, which already accounted for more than 3.5% of total fee and commission income last year.

Figure 1.111 Breakdown of fee and commission income: fee and commission income from payment services

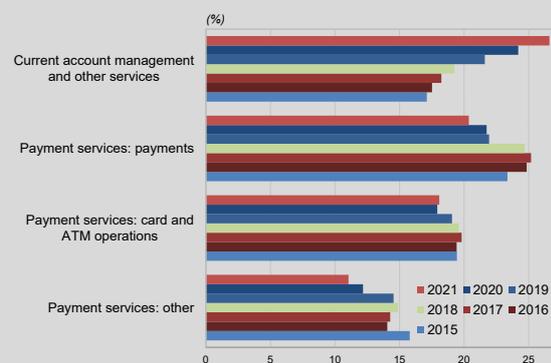
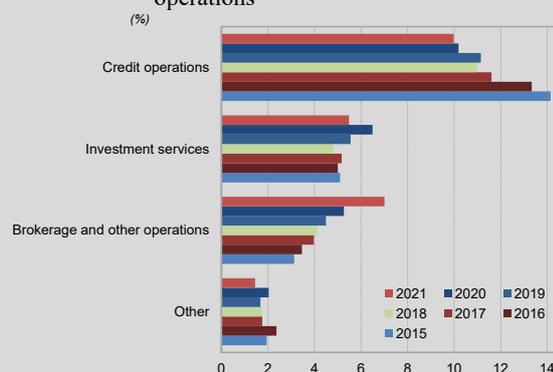


Figure 1.112 Breakdown of fee and commission income: fee and commission income from credit operations, from investment services, and from brokerage and other operations



Note: In addition to fee and commission income from payment services, the item “Current account management and other services” also includes income from credit assessment services and other mutually recognised financial services. The banks that recognise custody fees as fee and commission income have begun to report income from custody fees differently as of the end of 2021. The portion of custody fees relating to other deposits (not exclusively to current accounts) began to be reported in the item “Fee and commission income from credit assessment services and other mutually recognised financial services”.

⁵⁵ Extraordinary operating revenues include the items negative goodwill and net gains/losses on non-current assets held for sale and associated liabilities.

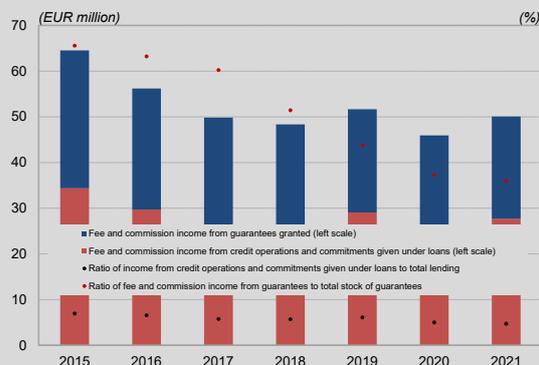
services” instead of in the item “Current account management”. This income is disclosed under the item “Current account management” for the purpose of ensuring consistent time series.

Source: Banka Slovenije

The fee and commission income from credit operations has been in decline in recent years, and now constitutes around 10% of total fee and commission income (see Figure 1.112). Income from credit operations can be divided into fee and commission income from credit operations and from commitments given under credit, and income from issued guarantees (see Figure 1.113). The decline in income from credit operations and from commitments given under credit was attributable to a decline in credit operations. Examples of bank charges that are not a component of the effective interest rate are monthly loan administration costs, loan prepayment charges, and notary fees for vacating receipts. The stock of issued guarantees has increased in recent years. It can therefore be concluded that the decline in income from guarantees is mostly related to a fall in the price that the banks can charge for this service. This is attributable to the decline in the credit risk premium as a result of the favourable macroeconomic environment, and stiffer competition, with non-banking entities such as insurance corporations also offering this service.

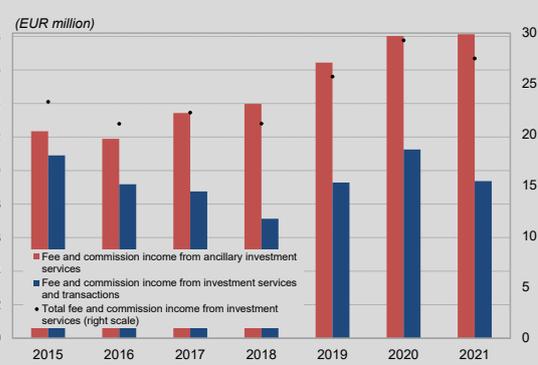
Fee and commission income from investment services accounts for around 5.5% of all fee and commission income. Three banks are responsible for approximately 80% of this income. Fee and commission income from investment services can be divided into income from investment services and transactions, and income from ancillary investment services. The main item of stable income from ancillary investment services is income from the management of clients’ accounts of dematerialised securities and from custody services under the ZTFI. Growth in this income was driven by the transfer of securities from registry accounts at KDD to accounts at KDD system members, some of which are banks. Fee and commission income from investment services and transactions is a little more volatile. The year-on-year change in this income component was also the largest factor in the decline in total fee and commission income from investment services (see Figure 1.114). The decline was primarily attributable to a decline in realised fee and commission income (of approximately EUR 1 million) from initial or subsequent offerings of unstructured financial instruments without a firm commitment basis.

Figure 1.113 Fee and commission income from credit operations



Source: Banka Slovenije

Figure 1.114 Breakdown of fee and commission income from investment services



The banks are also very active in providing brokerage services, and are increasing their income from this source. It accounted for as much as 7% of total fee and commission income last year. The two most significant items of income from brokerage services are from sale of insurance policies and from collective investment. In addition, the banks are also active in brokerage and credit servicing operations on behalf of third parties and in fiduciary operations. Other income,⁵⁶ which accounted for about 1.4% of total fee and commission income last year, is not significant. The majority of other income consists of income from pension fund management.

The largest component of fee and commission expenses is expenses for payment services (which last year accounted for approximately 84% of total fee and commission expenses). The banks succeeded in improving the ratio of income to expenses in the fee and commissions category from 3.7 to 4 last year.

Other non-commission non-interest income, other than extraordinary operating revenues

⁵⁶ It includes fee and commission income from safekeeping and rental of safe deposit boxes, from custody and administrative services in connection with collective investment, etc.

Dividend income is one of the most important items of other non-commission non-interest income. The banks realise the majority of their dividend income from investments in subsidiaries, associates and joint ventures. Dividend income averaged almost EUR 70 million over 2017 and 2018 (see Figure 1.115). It increased further in 2019 and amounted to EUR 96 million. With the onset of the epidemiological crisis dividend income plummeted to EUR 27 million in 2020. It strengthened again in 2021 in line with the general economic situation (see Figure 1.116) and almost recovered to its pre-crisis level.

Revaluations of financial assets mandatorily at fair value through profit or loss that are not held for trading are included under the item net gain/loss from assets mandatorily at fair value through profit or loss not held for trading. These financial assets appeared on bank balance sheets following the introduction of IFRS 9. These gains also peaked in 2019, as a result of the strong economy. The recovery in this income in 2021 relative to the previous year was driven by a major repayment of claims. The corresponding net gain amounted to EUR 41.8 million last year. Loans measured at fair value were no longer material at the end of 2021. Securities mandatorily at fair value through profit or loss not held for trading have been retained on bank balance sheets, and gains or losses can be expected from their revaluation in the future. These financial assets accounted for EUR 14 million of the increase in pre-tax profit last year.

Figure 1.115 Main items of non-commission non-interest income other than extraordinary operating revenues

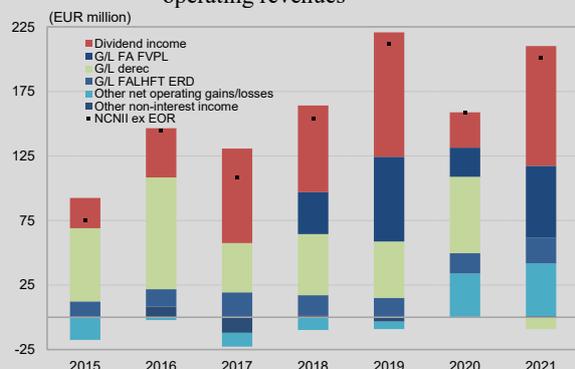
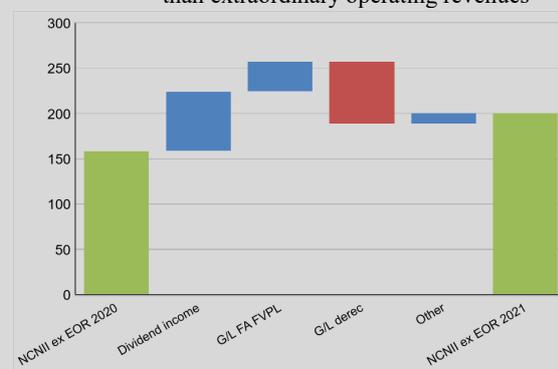


Figure 1.116 Decomposition of changes in other non-commission non-interest income, other than extraordinary operating revenues



Note: Abbreviations used in the figures:

NCNII ex EOR: other non-commission non-interest income, other than extraordinary operating revenues

G/L FA FVPL: net gains/losses on financial assets mandatorily at fair value through profit and loss not held for trading

G/L derec: net gains/losses on derecognition of financial assets and liabilities not measured at fair value through profit and loss

G/L FALHFT ERD: net gains/losses on financial assets and liabilities held for trading and on exchange rate differences

Source: Banka Slovenije

Another important component of non-interest income is net gains/losses on derecognition of financial assets and liabilities not measured at fair value through profit or loss.⁵⁷ This item averaged around EUR 50 million between 2018 and 2020.⁵⁸ Last year the banks recorded a net loss of EUR 9.8 million in this item. This income category also includes a special item for the accounting recognition of loans⁵⁹ where the government covers first losses. In practice this means that the negative revaluation of loans is primarily covered by a reduction in liabilities from government deposits, and the recognition of gains on financial liabilities measured at amortised cost. When the loan funds operate profitably over the subsequent periods, the liability to the government is increased, and losses are recognised under financial liabilities measured at amortised cost. This was the case in 2019 and 2020. Last year's developments in connection with loans of this type were more favourable. Consequently a net loss on financial liabilities measured at amortised cost was recognised in the amount of EUR 12.3 million.

Due to changes in accounting policies, as of June 2020 costs in connection with contributions to the resolution fund and the deposit guarantee scheme are no longer recognised by the banks under other

⁵⁷ As of 2018 this income category has consisted of realised gain/losses on derecognition of debt securities and loans measured at amortised cost and through other comprehensive income (i.e. the difference between the selling price and the carrying amount of the financial assets).

⁵⁸ Prior to 1 January 2018 the time series comprised: realised gains/losses on derecognition of available-for-sale shares and participating interests, debt securities, loans and other financial assets; realised gains/losses on held-to-maturity financial assets; realised gains/losses on financial liabilities measured at amortised cost.

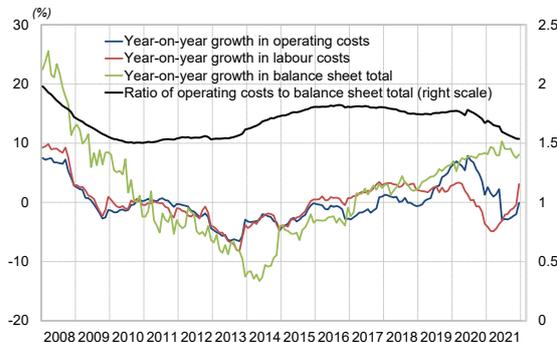
⁵⁹ Until 31 December 2017 the majority of these transactions were recognised in items of gains/losses on change in fair value of financial liabilities measured at fair value through profit or loss (deposits and loans received), which in Figure 1.115 is included under the item "Other NII".

operating expenses, but under operating costs. Consequently, the aggregate value under the items of other net operating gains/losses, which until the adoption of this accounting change was slightly negative, is now positive, and amounted to nearly EUR 41 million last year. The majority of net gains/losses on financial assets and liabilities held for trading consists of net gains/losses on the purchase and sale of foreign currencies.

Operating costs

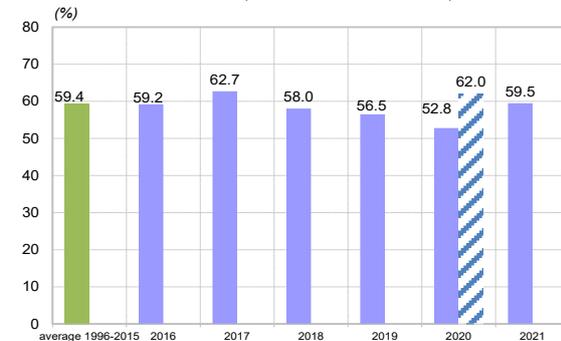
Operating costs were broadly unchanged in 2021. In the wake of the growth in the balance sheet total, which averaged 8.1%, the ratio of operating costs to the balance sheet total declined to 1.54% (see Figure 1.117). The ratio of operating costs to gross income in the banking system (the CIR) in 2021 was up on the previous year, as a result of the decline in gross income relative to 2020, when gross income was heavily affected by one-off factors from the merger of two banks. The CIR stood at 59.5% last year, and was otherwise comparable to its long-term average (see Figure 1.118). Operating costs last year were down in year-on-year terms (by 0.2%). Labour costs, which account for more than half of operating costs, were up very slightly last year. Having declined in year-on-year terms between the second half of 2020 and April 2021, they were up 1.3% in year-on-year terms by November, and 3% by the end of the year. The low growth and decline in labour costs can be attributed in part to the changes in working methods during the Covid-19 crisis.

Figure 1.117 Operating costs, labour costs and balance sheet total



Note: The right-hand-side CIR for 2020 in the right figure excludes the effect of the merger of two banks.
Source: Banka Slovenije

Figure 1.118 The ratio between operating costs and gross income (Cost-to-income ratio)



Comparison of income indicators with EU Member States

Similarly to previous years, the income indicators for the Slovenian banking system are comparable to those in EU Member States, at banks of similar size.⁶⁰ When compared with banks of similar size, Slovenian banks recorded a slightly higher net interest margin and net commission margin in 2021, and a slightly lower ratio of operating costs to the balance sheet total and a lower CIR. According to the latest annualised data for the third quarter of 2021, at 1.65% the net interest margin was slightly above the EU median (1.40%), and just over 0.1 percentage points higher than the figure for banks of comparable size in the EU.⁶¹ The net interest margin has been declining in EU Member States in recent years. On this occasion the Slovenian banking system again stood out for its non-interest margin and commission margin: at 1.18% the former exceeded the EU median (0.84%) and the figure at banks of comparable size (1.09%), while the same is true of the latter, which stood at 0.87%, compared with the EU median of 0.64% and the figure at banks of comparable size (0.82%). The major deviation among the cost indicators was recorded by the ratio of operating costs to the balance sheet total. At 1.63% it exceeded the EU median (1.30%), but was lower than the figure at banks of comparable size (1.70%). The CIR of 57.3% was comparable to the EU median (55.4%), and less than the figure at banks of comparable size (64.8%).

⁶⁰ The values compared relate to the third quarter of 2021 (ECB SDW), and are annualised. Certain comparisons for 2020 are illustrated in the October 2021 issue of the Financial Stability Review (pp. 97-98).

⁶¹ These figures differ slightly from figures based on (individual) balance sheets, on account of the different data source.

Figure 1.119 Net interest margin in Slovenia and EU Member States in 2021 (to third quarter)

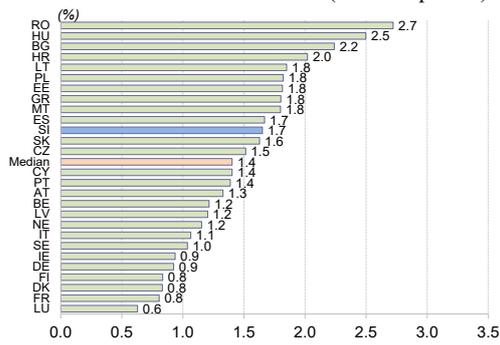
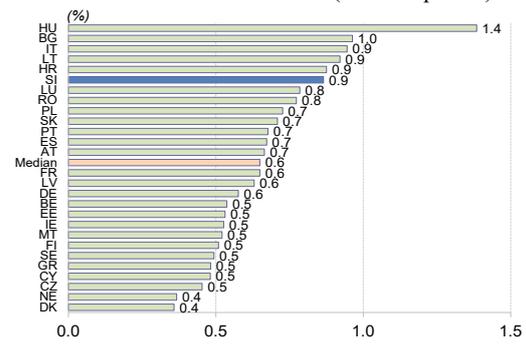


Figure 1.120 Net commission margin in Slovenia and EU Member States in 2021 (to third quarter)



Note: The indicators are calculated on the basis of the ECB SDW's consolidated banking data. This data differs slightly from the figures based on balance sheets on an individual basis. The margins for the first three quarters of 2021 are restated on an annual basis.

Source: Banka Slovenije

2 RESILIENCE OF THE BANKING SYSTEM

2.1 Solvency and profitability

The banking system as a whole retained a sound capital position, but it could deteriorate in the future. Declines in capital ratios were mainly seen at banks where strengthening lending to NFCs and households meant that the increase in risk-weighted assets outpaced the increase in regulatory capital. The adverse impact of the Covid-19 pandemic and the war in Ukraine could in the future lead to a downturn in the quality of the credit portfolio and reduce the ability to generate profit, which would consequently lead to a deterioration in capital ratios. The potential entry into force of the ZOPVTKK and the provisioning for the purposes of the aforementioned law might also lead to a deterioration in the capital position of individual banks. Our assessment is that the banking system's resilience to systemic risks in the area of solvency and profitability remains medium, but it could deteriorate. Here we should reiterate that there are still considerable differences between the banks in the level of their capital surpluses and their ability to cover adverse effects. Given the uncertainty surrounding the sustainability of the high profitability that would allow the banks to maintain or strengthen their capital adequacy, careful assessment of capital adequacy will be vital, particularly at banks with smaller capital surpluses.

Solvency

The banking system's total capital ratio declined slightly on an individual basis in 2021, but rose on a consolidated basis. Given the gradual strengthening of lending to NFCs and households, risk-weighted assets (RWA) increased by more than regulatory capital, which the banks raised primarily through retained earnings. The total capital ratio on an individual basis consequently declined by 0.3 percentage points to 20.1%, while the common equity Tier 1 capital ratio (CET1 ratio) declined by 0.1 percentage points to 18.3% (see Figure 2.1). In the wake of a minimal increase of 0.1 percentage points to 18.4%, the total capital ratio on a consolidated basis remained below the euro area average (19.1%).⁶² The CET1 ratio rose by 0.2 percentage points to 16.9%, and remained above the euro area average (15.8%), but below the median value of individual euro area countries (see Figure 2.2).

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

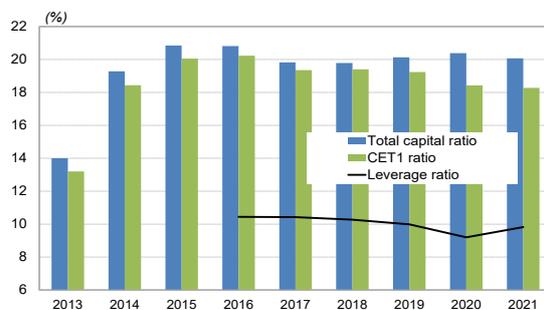
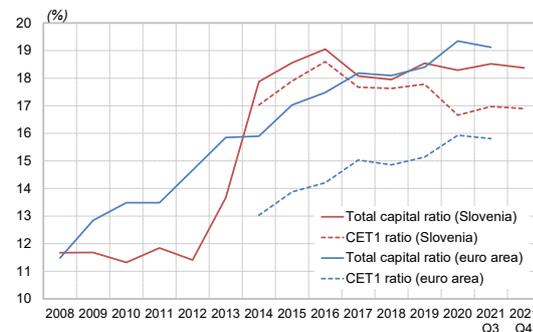


Figure 2.2 Capital ratios compared with the euro area, consolidated basis



Sources: Banka Slovenije, ECB SDW

As a result of the simultaneous growth in regulatory capital and RWA, the Slovenian banking system's capital ratios have increased by less over the long term than the euro area averages. Since the significant rise in the banking system's total capital ratio in 2014, in which the recovery and resolution of individual banks played a major role, there had been little change in the figure by the third quarter of 2021. It had risen by 0.6 percentage points, while the euro area average rose by 3.2 percentage points over the same period. The reason is that Slovenia is one of the countries with high growth in regulatory capital (see Figure 2.3) over the aforementioned period (in the amount of 37%), but at the same time it is notable for the highest growth in RWA (32%), well in excess of the rise in the euro area average (6.2%). In addition to the merger of individual banks, one of the main factors in the higher growth in RWA is the prevailing use of the standardised approach for the assessment of credit risk. This approach is used to estimate 83% of RWA, while the euro area average figure is almost a half lower. In the wake of the increase in risk-free liquid assets

⁶² At the time of writing the latest data available for the euro area was for the third quarter of 2021.

in accounts at the central bank, the average risk weight of the Slovenian banking system declined to 55% in 2021, but was still 20 percentage points higher than the euro area average (see Figure 2.8). That the average risk weight of the Slovenian banking system is higher than the euro area average does not necessarily entail lower asset quality, but is instead an indication of the greater robustness of Slovenian banks, who are better prepared to face the consequences of potential economic shocks.

Figure 2.3 Change in regulatory capital and RWA between the end of 2014 and September 2021 by euro area country, consolidated basis

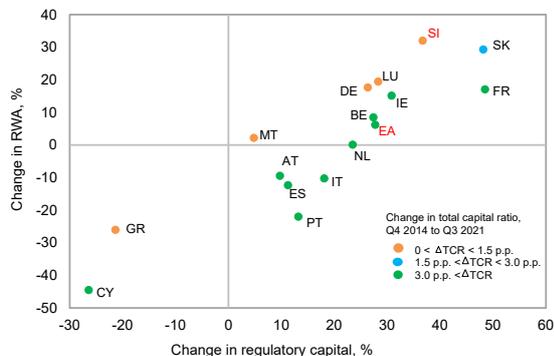
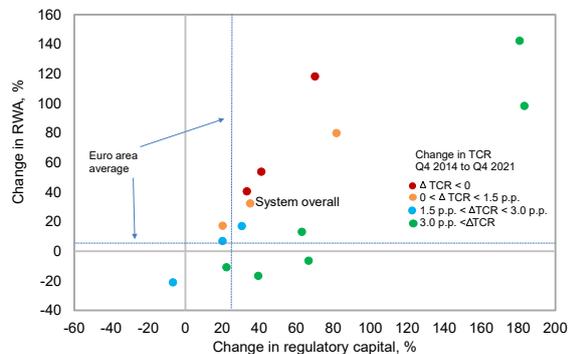


Figure 2.4 Change in regulatory capital and RWA between the end of 2014 and September 2021 by bank, consolidated basis



Note: The left figure includes those euro area countries for which all the requisite data is available.

Sources: Banka Slovenije, ECB SDW, own calculations

The majority of Slovenian banks have improved their capital adequacy since 2014, but there remain considerable variations from bank to bank in the capital surpluses above overall capital requirements, and thus in their resilience to systemic risks. Half of the banks saw a decline in capital ratios in 2021 (see Figure 2.5), particularly those that strengthened lending and thus saw a higher increase in RWA than in regulatory capital. Over the longer term (2014 to September 2021) the majority of the banks saw an increase in their total capital ratio (see Figure 2.4), which was higher than the euro area average (3.2 percentage points) at almost half of the banks. Their number includes small banks and savings banks, but their leverage ratios are still well below the system average (9.3%). The differences in resilience between the banks arise from their differing asset structures, and consequently from their differing capital surpluses over the defined capital requirement. At almost three-quarters of the banks, who together account for 88% of the banking system's balance sheet total, the capital surplus over the overall capital requirement⁶³ was larger than 3 percentage points (see Figure 2.6). This surplus amounted to 5 percentage points or EUR 1.5 billion at system level. Careful assessment of the capital adequacy of individual banks, particularly those with smaller capital surpluses, will be vital in the future given the uncertainty surrounding the sustainability of the high profitability that would allow the banks to maintain or strengthen their capital adequacy. Should the banks continue strengthening their lending activity without simultaneously increasing their regulatory capital as appropriate, capital adequacy could decline in the future, and with it resilience to risk.

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

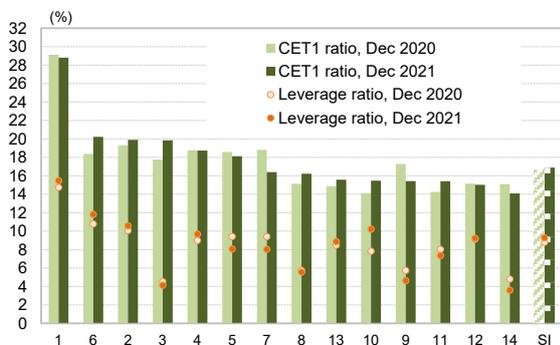
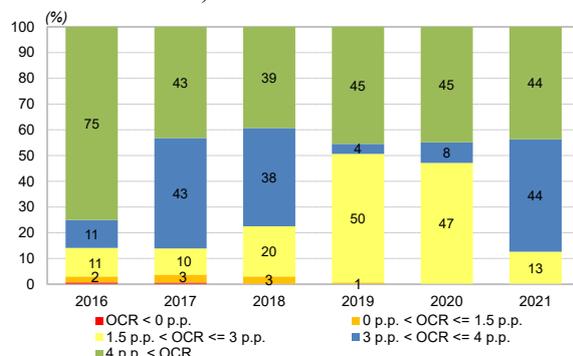


Figure 2.6 Breakdown of balance sheet total in terms of capital surplus over OCR (excluding P2G)



Note: The overall capital requirement (OCR) in the right figure encompasses the Pillar 1 and Pillar 2 capital requirements and the capital buffers, but not the Pillar 2 guidance.

⁶³ The overall capital requirement encompasses the Pillar 1 and Pillar 2 capital requirements and the capital buffers, but not the Pillar 2 guidance.

Source: Banka Slovenije

The banks increased their regulatory capital last year primarily through retained earnings from the previous year. Regulatory capital on a consolidated basis increased by 3.6% in 2021 to EUR 5.6 billion, driven by an increase in common equity Tier 1 capital. The majority of banks increased their common equity Tier 1 capital through retained earnings from the previous financial year (see Figure 2.7), although one bank also undertook a recapitalisation. Despite the issuance of a Tier 2 capital instrument at one bank, the share of total regulatory capital accounted for by Tier 2 capital at system level declined to 7.9%, almost a third lower than euro area average. Issuing eligible Tier 2 instruments does not only strengthen a bank's resilience, it also allows it to meet the minimum requirement for own funds and eligible liabilities (MREL). The banks will have to meet an additional MREL requirement as of 1 January 2024. Not all banks have met the MREL target to date, but our assessment is that they will not have difficulty in meeting these requirements by the prescribed deadlines.

The entry into force of the ZOPVTKK and the potential provisioning for the purposes of this law might have an adverse impact on regulatory capital and consequently on capital adequacy. Although the realisation of the requirements of the aforementioned law is highly uncertain, our assessment is that the capital adequacy of the banking system would not be significantly weakened. The main adverse effects would be felt by the banks that in the past were most active in lending in Swiss francs in the household segment, and banks with smaller capital surpluses would have greater difficulty in dealing with them. The banks would have to absorb the adverse effects of any implementation of the law through their capital surpluses or, in the event of a shortfall, via recapitalisation or the issuance of capital instruments.

Figure 2.7 Decomposition of change in CET1 ratio, consolidated basis

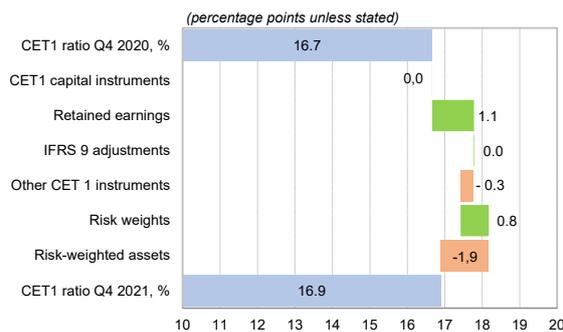
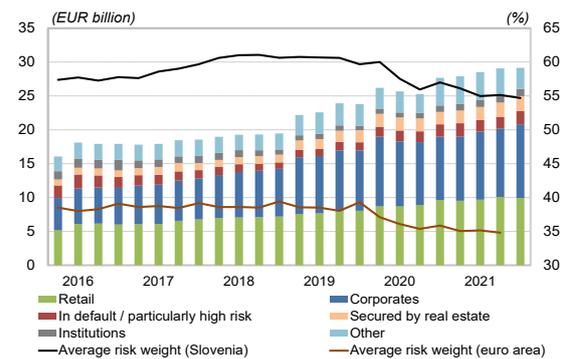


Figure 2.8 Breakdown of risk-weighted assets for credit exposure, consolidated basis



Note: In the left figure the items that acted to reduce the CET1 ratio are denoted by orange bars, while the items that acted to increase it are denoted by green bars.

Source: Banka Slovenije

The recent increase in RWA is not attributable to the realisation of high credit risk, but rather in the main to an increase in lending to NFCs and households.⁶⁴ The banking system's RWA on a consolidated basis increased by 3.1% in 2021 to end the year at EUR 30.3 billion. The main increase was in RWA for exposures to corporates and retail exposures, which together account for 63% of total RWA. Strengthening housing loans brought an increase of 13% in RWA for exposures secured by real estate collateral, which allow banks to apply lower risk weights. Despite the increase, the share of total RWA that they account for remained low, at 6.5%. The equivalent figure also remained low for RWA for exposures in default and exposures associated with particularly high risk, as the high credit risk resulting from the Covid-19 pandemic is so far yet to be realised. Individual segments of the credit portfolio are nevertheless showing a deterioration in quality,⁶⁵ which could further worsen in the future in the NFCs and non-residents portfolios as a result of the adverse effects of the war in Ukraine. RWA could consequently increase through higher risk weights, which would have an adverse impact on capital adequacy.

⁶⁴ RWA can be changed by changes in the stock of exposure (e.g. as a result of increased lending or a contraction in investment activity, a takeover of another bank), or by changes in the risk weights set out by the CRR, which depend on the risk level of the particular exposure. A deterioration in the quality of the credit portfolio can also raise risk weights, and consequently increase RWA.

⁶⁵ For more, see the section on credit risk.

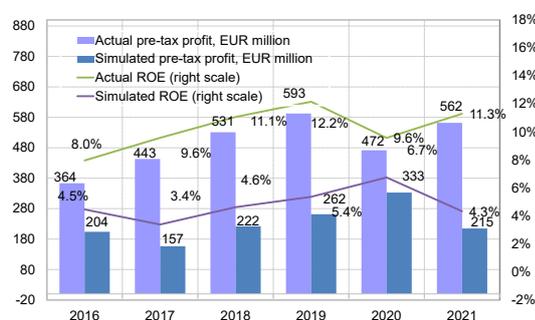
Profitability

The Slovenian banking system's pre-tax profit amounted to EUR 562 million in 2021, up a fifth on 2020. The relatively high profit was attributable to the improvement in the economic situation and outlook, which last year was reflected mainly in the net release of impairments and provisions, and also slightly in a gradual improvement in income developments. Last year's increase in profit, which strongly exceeded that of the previous year, was therefore driven to a lesser extent by an increase in income,⁶⁶ and was primarily attributable to the net release of impairments and provisions (EUR 73.6 million in total), which was seen at the majority of the banks (11 out of 16). The banks had created impairments and provisions in the net amount of EUR 169.6 million in 2020 (see Figure 2.9). Pre-tax ROE at system level stood at 11.3% (compared with 9.6% in 2020), while ROA stood at 1.20% (2020: 1.10%). Had the ratio of impairment and provisioning costs to gross income been at its long-term average, pre-tax profit would merely have been just over a third of that actually observed (see Figure 2.10).

Figure 2.9 The impact of changes in components of generation and use of gross income on the change in pre-tax profit, 2020 to 2021



Figure 2.10 Actual bank profitability and simulated profitability with ratio of impairment and provisioning costs to gross income at its long-term average



Note: The simulated profit and ROE reflect the long-term average of the ratio of net impairments and provisions to gross income. This takes into account that impairments and provisions accounted for 22.7% of the banks' disposal of gross income between 1996 and 2020, where 2012, 2013, and 2014, when impairment and provisioning costs were far above average, are excluded. Similarly excluded are 2017, 2018 and 2019, when the banks recorded a net release of impairments and provisions. Net impairments and provisions accounted for 12.5% of the disposal of gross income in 2020. The net release of impairments and provisions accounted for 6.1% of the banks' gross income in 2021, and 15.1% of net income.

Source: Banka Slovenije

Last year's high profit in the banking system has allowed it to maintain its capital resilience, but the profit was mainly attributable to factors that cannot sustainably contribute to high profitability over the long term. Despite the slight improvement in income developments, last year's high profitability was primarily attributable to the banks' greater optimism in their expectations and assessments of credit risk; these can only be temporary factors in profitability.⁶⁷ At the end of last year and in the early part of the year (before Russia's attack on Ukraine), amid the high economic growth and the gradual increase in lending the banks were already seeing a current increase in net interest income, high growth in the most stable component of non-interest income, i.e. net fees and commission, and relatively good control of operating costs. The continuation of these developments could (at least partly) provide some compensation for the renewed creation of impairments and provisions. The net release of impairments and provisions is more the exception than the rule over the long term. More potential uncertainty and adverse effects on profit and profitability might also come from the implementation of the aforementioned ZOPVTKK, which has been stayed for now.

⁶⁶ See the section on income risk, which addresses the generation of income by the banks, and their operating costs.

⁶⁷ Last year's net release of impairments and provisions was the fourth such net release in the last five years in the Slovenian banking system.

Figure 2.11 ROE in the EU in 2021 (to third quarter)

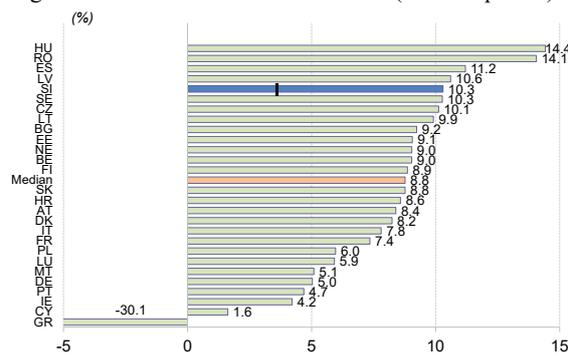
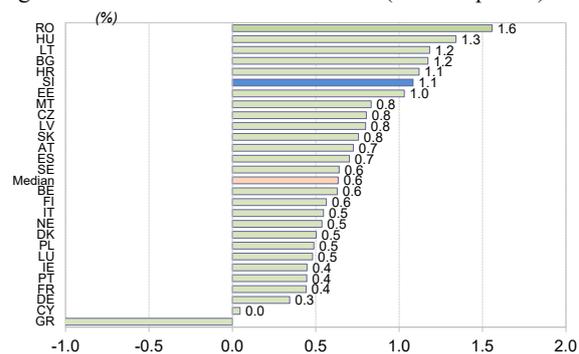


Figure 2.12 ROA in the EU in 2021 (to third quarter)



Note: The indicators are calculated on the basis of the ECB SDW's consolidated banking data. This data differs slightly from the figures based on balance sheets on an individual basis. Post-tax ROE over the first three quarters of 2021 is restated on an annual basis. The line on the bar for Slovenia in the left figure denotes the simulated pre-tax ROE over the first three quarters of 2021 in the Slovenian banking system on the basis of individual data from banks had the ratio of net impairments and provisions to gross income been at its long-term average.

Sources: Banka Slovenije, ECB SDW

In terms of the ROE over the first three quarters of 2021, the Slovenian banking system again ranked among those EU banking systems with the highest returns. ROE in the Slovenian banking system over the first three quarters of 2021 stood at 10.3% (according to the ECB's consolidated banking data), and exceeded the EU median (8.8%) and the EU and euro area averages according to comparable data to the end of the third quarter of 7.2% and 7.0% respectively. The same is true of banks of comparable size, i.e. small banks, whose ROE over the comparable period was 6.3% in the EU and 6.2% in euro area overall. The gap between ROE in Slovenia and in the EU overall had narrowed from more than 9 percentage points to around 3 percentage points by the end of the third quarter of 2021, as a result of an increase in ROE in the EU overall. The Slovenian banking system was also ranked highly in terms of ROA: its figure of 1.08% was above the EU median (0.63%) and the ROA at banks of comparable size in the EU (0.67%). The Slovenian banking system was ranked in the top quarter of EU Member States (see Figure 2.11). The aforementioned net release of impairments and provisions was a factor in the above-average ROE in 2021.

2.2 Liquidity

The banking system's liquidity remained high in 2021, despite a slight deterioration in certain indicators. The surplus over the requirements for the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR) is indicative of the banking system's high resilience to systemic risks. Primary liquidity⁶⁸ strengthened sharply, as the banks were unable to fully direct the large inflow of deposits by households and NFCs into lending or other higher-yielding assets. Here it should be reiterated that there remain considerable variations between the banks in their ability to cover the potential consequences of the realisation of funding risk amid sudden stress events that might trigger a major withdrawal of bank deposits. Diligent liquidity management and careful monitoring of competition in the sector and the current geopolitical situation therefore remain vital, particularly for banks with smaller liquidity surpluses.

Despite a gentle decline in the LCR, the capacity to cover net liquidity outflows over a short-term stress period remained high at system level. The LCR declined by around 13 percentage points in 2021 to end the year at 312% (see Figure 2.13). It thus remained above the regulatory requirement (100%), and the liquidity surplus amounted to EUR 10.0 billion. The pronounced increase in liquid assets in accounts at the central bank has increased the size of the liquidity buffer, albeit by less than the increase in net liquidity outflows, which led to a decline in the LCR. The LCR rose slightly in the majority of euro area countries in the last 12-month period according to the latest data⁶⁹ (see Figure 2.14). Slovenia nevertheless still ranks among the countries with high capacity to cover net liquidity outflows over the short term.

⁶⁸ Primary liquidity comprises cash on hand, balances at the central bank and sight deposits at banks.

⁶⁹ Data up to the third quarter of 2021 inclusive was available at the time of writing (ECB SDW).

Figure 2.13 LCR

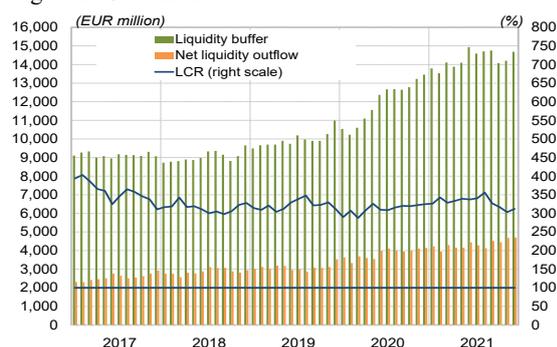
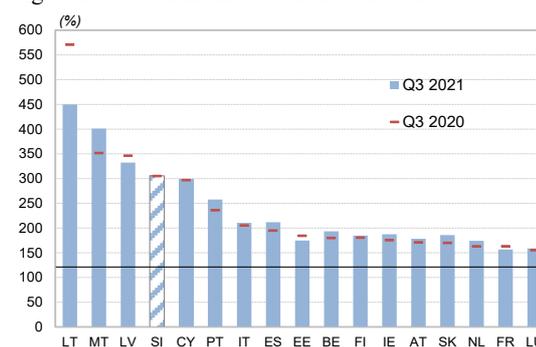


Figure 2.14 LCR in euro area countries



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

Sources: Banka Slovenije, ECB SDW

The banking system has good capacity to finance its liabilities over a one-year period. In addition to meeting the LCR requirements, which aim to ensure sufficient liquidity to cover liabilities over a one-month period, the banks have had to meet the requirement with regard to the net stable funding ratio (NSFR) as of June 2021. This is 100%, where meeting the requirement is a guarantee of the capacity to finance liabilities over a one-year period. The NSFR at system level increased by 5.2 percentage points in 2021 to end the year at 161.7%, which means that the banking system’s available stable funding exceeded its required stable funding over a period of one year at normal times and during times of stress by 61.7% or EUR 15.1 billion (see Figure 2.15).

Although all banks exceeded the LCR and NSFR requirements, there remain considerable differences between them in terms of their resilience to systemic risks (see Figure 2.16). Half of the banks saw a decline in their LCR in 2021, but it was nevertheless more than double the requirement at the majority. By contrast, the rise in available stable funding drove an increase in the NSFR at the majority of the banks, and the surplus over the requirement was more than 50% at two-thirds of the banks. It should be reiterated that diligent liquidity management and careful monitoring of competition in the sector are vital, particularly at banks with smaller liquidity surpluses, which in the event of any realisation of risk would find it harder to deal with the consequences. The smaller liquidity surpluses are mainly seen at subsidiary banks under foreign ownership, which is most likely attributable in part to the liquidity management approach and the expectation that the parent banks will assist them in the event of liquidity difficulties. Here there is a risk of this assistance not being forthcoming if the parent banks also face liquidity difficulties. The liquidity stress tests nevertheless show that the banks that would fail to withstand the adverse scenario would have enough time to take action to improve their liquidity position.

Banka Slovenije has been monitoring the liquidity position of Slovenian banks since the outbreak of the epidemic, including by means of liquidity stress tests. The scenarios used 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. The findings show the liquidity position of Slovenian banks and savings banks to have remained sound at the end of 2021, having improved relative to the previous year. Despite the crisis, Slovenian banks and savings banks saw their liquidity surpluses improve last year relative to the end of 2020 under all scenarios. At the end of 2021 they remained resilient to shocks and other adverse effects that might be caused by deposits by the non-banking sector being switched between banks or withdrawn from the banking system altogether.⁷⁰

⁷⁰ These findings do not take account of extremely large external shocks and the consequences thereof, over which an individual bank that would find itself in difficulties as a result of a shock would have no influence.

Figure 2.15 NSFR

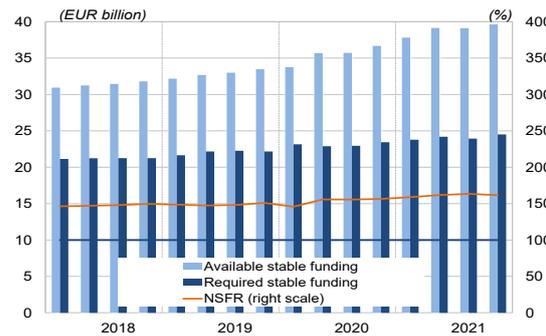
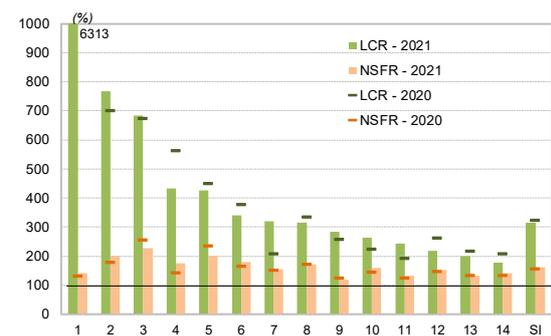


Figure 2.16 LCR and NSFR at individual banks



Note: The horizontal line in both figures denotes the minimum requirement for the LCR and the NSFR in accordance with the CRR (100%). For the sake of clarity, one bank is not illustrated in the right figure: its LCR in 2020 was 6,313%.

Source: Banka Slovenije

The increase in primary liquidity is a major factor in the strengthening of the banks' resilience to systemic risks. It increased by 30.3% or EUR 2.6 billion in 2021 to end the year at a record EUR 11.5 billion, equivalent to 23.8% of the balance sheet total (see Figure 2.17). The majority of the increase was generated in the first part of the year as a result of high monthly inflows of deposits by the non-banking sector, and the funding obtained by certain banks at TLTRO-III tenders. The slowdown in growth in deposits and the increase in lending to the non-banking sector slowed the increase in liquid assets in accounts at the central bank in the second half of last year. Future developments in primary liquidity will depend on the inflow of deposits by the non-banking sector and the banks' success in directing this funding into planned lending or other assets. Similarly to Slovenia, primary liquidity also strengthened in other euro area countries in 2021, although growth was slightly slower than in the first year of the pandemic (2020). The ratio of primary liquidity to the balance sheet total had increased to 16.9% in the euro area overall by the end of the third quarter of 2021 (see Figure 2.18).

Figure 2.17 Primary and secondary liquidity

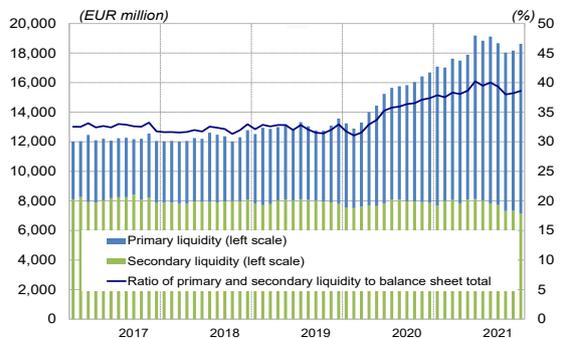
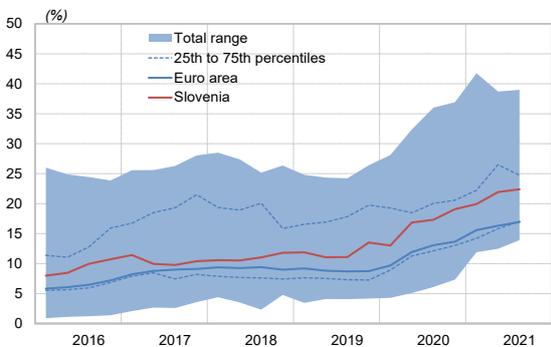


Figure 2.18 Ratio of primary liquidity to the balance sheet total in Slovenia and other euro area countries



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

Source: Banka Slovenije

Secondary liquidity⁷¹ declined as Slovenian government securities matured. The stock of secondary liquidity declined by 9.3% in 2021 to end the year at EUR 7.1 billion, its ratio to the balance sheet total thereby declining to 14.8% (see Figure 2.19). It has been gradually declining since 2019, in part as a result of the rising growth in the balance sheet total. The decline in secondary liquidity was attributable to a decline in holdings of Slovenian government securities, which the banks have mostly not replaced at maturity through purchases of new securities. In the quest for better returns, the banks are focusing mainly on purchases of foreign marketable securities rated BBB and higher. This reduced the concentration of secondary liquidity more than in previous years: the proportion of secondary liquidity accounted for by Slovenian government securities declined by 7.3 percentage points to 38.8%, while the proportion accounted for by foreign marketable securities rated BBB and higher increased.

⁷¹ Secondary liquidity is calculated as the sum of Slovenian government securities and foreign marketable securities rated BBB or higher.

After declining sharply in June 2021, the proportion of the pool of eligible collateral for Eurosystem operations that is free was broadly unchanged until the end of the year, although the stock of unencumbered eligible collateral that the banks could add to the pool remained large. The proportion of free eligible collateral for Eurosystem operations declined by 23 percentage points in 2021 to end the year at 43.1% (see Figure 2.20), but nevertheless remained almost double the euro area average. The decline was caused by the participation of certain Slovenian banks in TLTRO-III tenders in the Eurosystem. This increased the stock of TLTRO-III funding held in the banking system by EUR 979 million to EUR 2,363 million. This is just a third of the total available funding that the banks could obtain in these operations, which is much a lower utilisation rate than the euro area average of 82%. The banks registered less than half of the total eligible collateral held on their balance sheets, which amounted to EUR 8.9 billion at system level at the end of 2021, in the pool of eligible collateral for Eurosystem operations. Almost three-quarters of this collateral is unencumbered, which allows the banks to obtain additional liquidity in the Eurosystem at favourable cost should the need arise in the future.

Figure 2.19 Breakdown of secondary liquidity

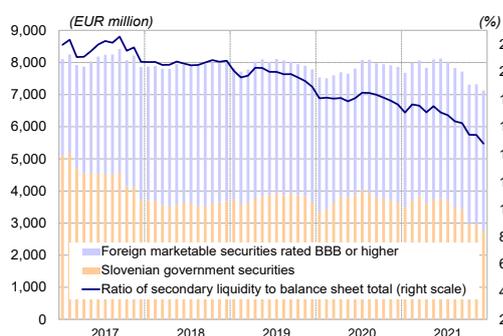
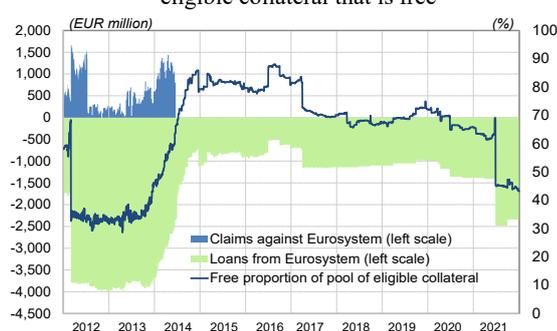


Figure 2.20 Banks' claims and liabilities vis-à-vis the Eurosystem, and proportion of the pool of eligible collateral that is free



Source: Banka Slovenije

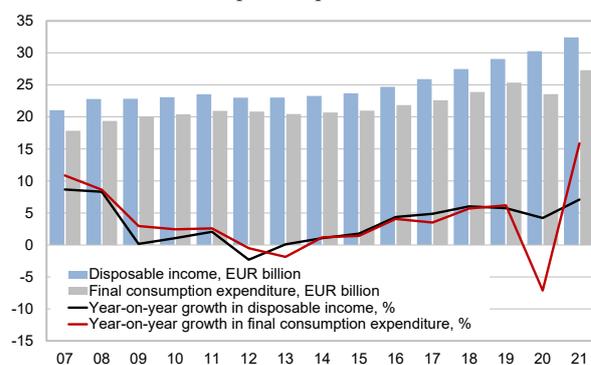
3 HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS

3.1 Households

The financial position of Slovenian households is stable and good overall. Households saw further growth in disposable income, which was also expressed in high growth in final consumption. Given the improving economy in Slovenia and the relaxation of containment measures, households saved less and spent more than in 2020. Despite the improvement in the financial position, survey indicators suggest that in 2022 consumers have become more pessimistic regarding the future and continuing inflation. Wages are continuing to rise in nominal terms, but more and more consumers are feeling the impact of inflation. High inflation is already affecting real wage growth, which is reducing household purchasing power. Slovenian households remain less indebted than households in the euro area overall, and the ratios of household debt to GDP and to disposable income declined further. Households' financial assets increased. Despite the lower average indebtedness of Slovenian households, the existing debt is spread across a small number of indebted households, which means that certain households have an above-average debt servicing burden. The increase in financial assets was driven by increases in holdings of equity and investment fund shares/units, and deposits. The breakdown of Slovenian households' financial assets reveals the continuing prevalence of currency and deposits, which account for almost half of the total. With interest rates low, household lending strengthened, particularly in the form of housing loans, as high inflation has had an impact on real interest rates, and on household behaviour in encouraging a switch from bank deposits into other asset classes.

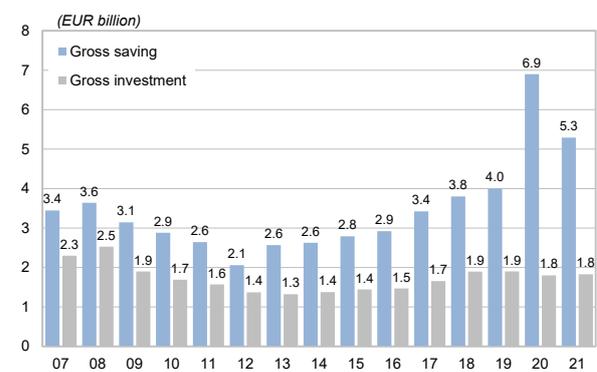
Disposable income continued to rise in 2021 amid the buoyant labour market. Gross household disposable income in 2021 was up 7.1% on the previous year (see Figure 3.1). The rise in disposable income and the relaxation of the containment measures were also reflected in fast growth in household final consumption, which in 2021 was up 15.9% on the previous year. It should be noted that final consumption was low in 2020, and actually fell compared to 2019. The savings built up during the pandemic were directed into consumption, with households saving less in 2021 (see Figure 3.2). With the increase in consumption outpacing the increase in disposable income, households earmarked less of their disposable income for saving. Having hit a record level in 2020 (22.8%), the household saving rate declined by 6.5 percentage points in 2021 to 16.3%. The saving-investment gap narrowed slightly, but remains wide, gross investment in 2021 having remained at a similar level to the previous year.

Figure 3.1 Gross disposable income and final consumption expenditure



Source: SORS

Figure 3.2 Household saving and investment

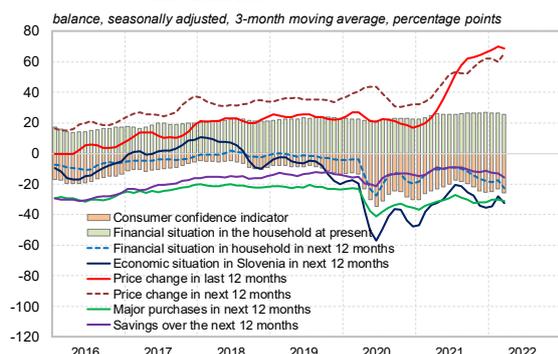


Survey indicators of consumer opinion declined sharply in March of this year, with Slovenian consumers particularly pessimistic about the future and about inflation.⁷² The consumer confidence indicator in December 2021 had been up 5 percentage points in year-on-year terms, but fell sharply in March of this year after the outbreak of the war in Ukraine (see Figure 3.3). All four components of the indicator were down in year-on-year terms in March: expectations of the financial situation in the household, expectations of the general economic situation in the country, the current financial situation in the household, and expectations of major purchases. Consumer mood was down sharply in monthly terms. The consumer confidence indicator declined by 12 percentage points in March of this year, the largest monthly decline since

⁷² Survey data obtained by the SORS. The data is based on the consumer opinion survey conducted between 1 and 16 March 2022, with 885 respondents.

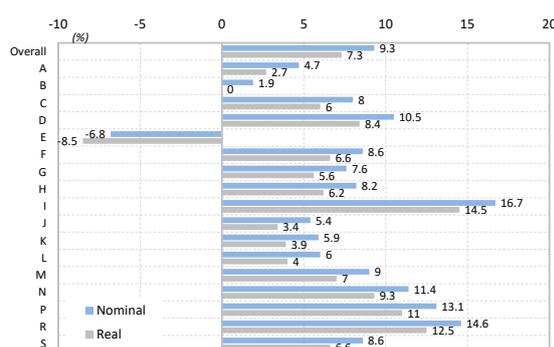
April 2020, when a mood of pessimism prevailed in Slovenia because of the pandemic. Consumer expectations of further price increases recorded the most pronounced increase. The indicator of price trends over the last 12 months has been increasing since the beginning of 2021, but in March of this year it reached its highest level since records began in March 1996. Employees are however experiencing a rise in wages: the average net monthly wage in 2021 was up 9.3% on 2020 in nominal terms, and up 7.3% in real terms (see Figure 3.4). All sectors other than water supply, sewerage, waste management and remediation activities recorded nominal growth in the net monthly wage. Inflation began to have an impact on household purchasing power: the average net wage in the final quarter of 2021 was up 0.9% on average in the previous quarter in nominal terms, but was down 0.5% in real terms.

Figure 3.3 Consumer confidence indicators and assessment of financial situation of households



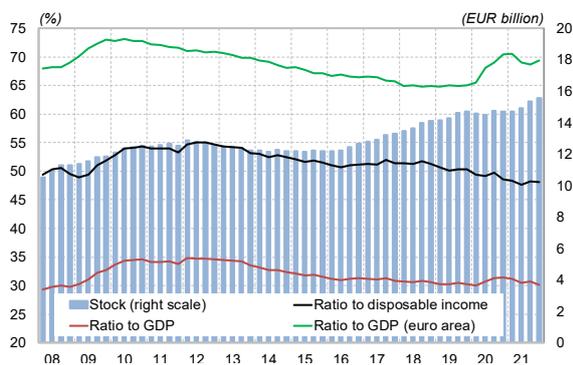
Source: SORS

Figure 3.4 Year-on-year growth in average net monthly wage of employees at registered natural persons by SKD 2008 sector



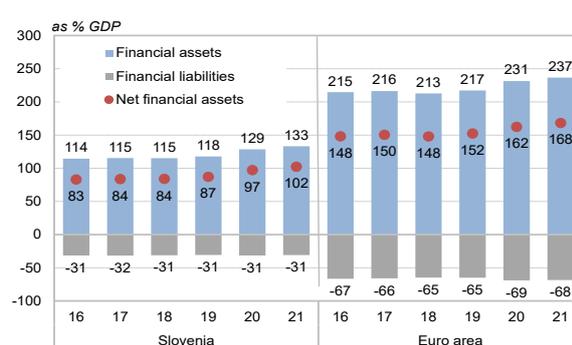
Slovenian households remain much less indebted than in the euro area overall, but also have significantly less wealth. Household financial liabilities increased by EUR 887 million in 2021 to end the year at EUR 15.6 billion (see Figure 3.5). Loans accounted for almost 90% of total liabilities, and were up EUR 722 million at EUR 13.7 billion, of which 84% were with banks and 10% were with other financial intermediaries. Thanks to the general rise in income, the ratio of household financial liabilities to GDP and the ratio to disposable income were down 1.4 percentage points and 0.5 percentage points over the year at 30.1% and 48.1% respectively. The average household in Slovenia differs considerably from the average household in the euro area, both in dynamics and in the ratios of financial assets and liabilities to GDP (see Figure 3.6). Although the ratio of household financial assets to GDP is increasing in Slovenia, it is considerably less than in the euro area overall: the figure stood at 133% in Slovenia at the end of 2021 (compared with 237% in the euro area overall).

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



Sources: Banka Slovenije, SORS, Eurostat

Figure 3.6 Household financial assets and liabilities in Slovenia and the euro area



Slovenian households are continuing to see an increase in their financial assets, where deposits are prevalent. Household financial assets increased by EUR 6.4 billion in 2021 to end the year at EUR 68.7 billion (see Figure 3.7). The increase in financial assets was driven by increases in holdings of equity and investment fund shares/units, and deposits. Deposits increased by EUR 1.7 billion to end the year at EUR 26.4 billion, of which 91% were held at domestic banks, where sight deposits accounted for 79% of the total. Their holdings of equity amounted to EUR 21.4 billion, primarily in NFCs (62%), the rest of the world (19%)

and investment funds (13%), and were up EUR 2.7 billion, of which EUR 869 million was as a result of transactions. In the breakdown of Slovenian households' financial assets there is still a prevalence of currency and deposits, which account for almost half of the total (see Figure 3.8). The proportion accounted for by equity is also notable. The breakdown of household financial assets in Slovenia differs considerably from that in the euro area overall. Currency and deposits are also prevalent in the euro area, but the proportion that they account for is much lower, and more assets are held in the form of life insurance and pension insurance, and investment fund shares/units, and significantly less in the form of equity.

Figure 3.7 Breakdown of increase in household financial assets

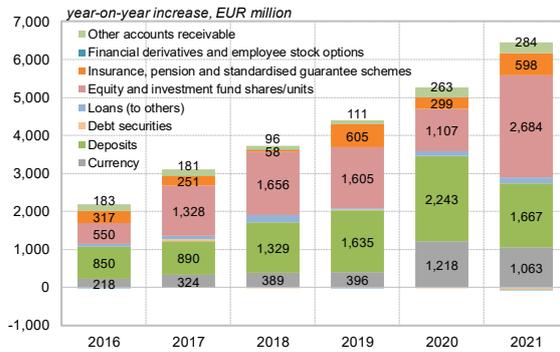
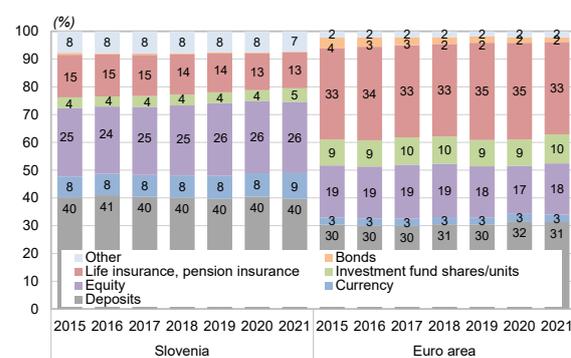


Figure 3.8 Breakdown of household financial assets in Slovenia and the euro area



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

Sources: ECB SDW, Banka Slovenije

The average indebtedness of households in Slovenia is lower than in the majority of European countries, but it also has one of the lowest shares of indebted households, which means that the debt is spread across a small number of households. According to data from the HCFS,⁷³ which was last conducted for 2017, Slovenian households lie below the EU average in terms of gross annual income, alongside countries such as Greece, Portugal, Estonia, Slovakia and Poland. The position of households in the bottom quintile is particularly bad: only two countries have lower gross household income. Slovenia is one of the countries where the average annual income in the two oldest age groups is significantly lower (also in relative terms) than other European countries, which is indicative of the relatively high socioeconomic vulnerability of these groups. Slovenia also has one of the lowest shares of indebted households, which means that the existing debt is spread across a small number of households. The indebtedness of households in Slovenia with non-mortgage debt, i.e. primarily in the form of consumer loans, is close to the average of the countries included in the survey. The proportion of debt accounted for by non-mortgage loans is consequently second-highest in Slovenia (after Croatia), in part because of the above-average rate of owner occupation (see Figure 1.37). The burden faced by the households with highest income is significantly less than in other countries when compared with the burden faced by the households with the lowest income, even though the former is also close to the average of the countries included in the survey. Debt servicing is a bigger issue for households in Slovenia, as only four countries have a higher DSTI for households with mortgage debt.

Household lending

Lending to households in Slovenia by banks and other lenders strengthened in 2021. Growth in consumer loans in Slovenia was above the 75th percentile in the euro area in 2016. Given the persistently high growth, the macroprudential recommendation was extended to consumer loans in 2018, and a binding macroprudential measure was introduced in 2019.⁷⁴ Following the introduction of the measure, growth in consumer loans began to fall, reaching its low at the end of 2020 and the early part of 2021. The fall in growth in consumer loans in Slovenia and in other euro area countries was given even greater impetus by the pandemic and the containment measures (see Figure 3.9). Household lending strengthened again in 2021. Housing loan approvals were at a record level of EUR 1,862 million (of which 15% or EUR 296 million was

⁷³ Household Finance and Consumption Survey: The latest aggregate data available from the HCFS database is for 2017. In the HCFS aggregate gross household income is calculated as the sum of all income from employment, self-employment, pensions, social transfers, maintenance, rents, and financial and other investments. Methodological limitations mean that it is sensible to view the international comparisons with a degree of caution.

⁷⁴ For more, see Section 5. Macroprudential policy for the banking system and leasing companies.

for refinancing existing loans).⁷⁵ This was also reflected in high growth⁷⁶ in housing loans, which stood at 8.2% at the end of the year (see the section on risk inherent in the real estate market).⁷⁷ Credit growth in the consumer loans segment is still negative, but the rate of decline slowed from 8.6% in February of last year to 3.5% at the end of the year.⁷⁸ Amid last year's increase in new consumer loans, where the banks approved an average of EUR 66 million of consumer loans each month, the year-on-year contraction in the stock of consumer loans continued to be driven by repayments of loans approved during the period of above-average consumer lending. A total of EUR 792 million of consumer loans were approved last year (of which just under 9% were for refinancing of existing loans), up 18% on 2020. The non-banking sector⁷⁹ also increased its consumer lending in 2021 (see Figure 3.10) and approved loans in the amount of EUR 110 million, up 16% on the previous year. The number of new loan operations was up 22% at 7,400. The average non-banking consumer loan in 2021 was for EUR 1,500, down slightly on the previous year.

Figure 3.9 Comparison of growth in consumer loans between Slovenia and the euro area

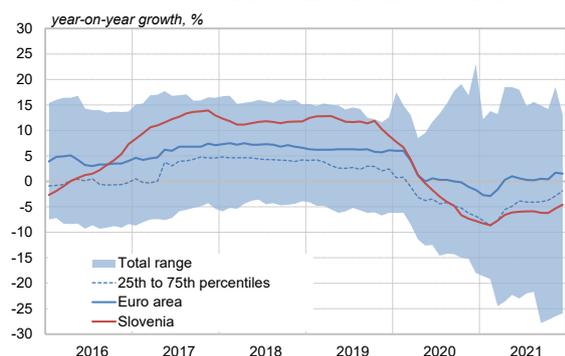
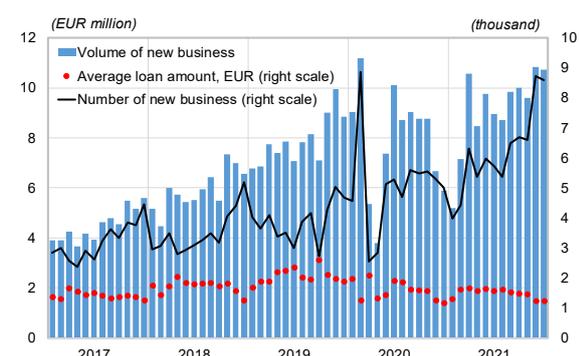


Figure 3.10 New consumer loans by the non-banking sector



Sources: ECB SDW, SISBON

The ratio of consumer loans to GDP in Slovenia stands at 5%, equal to the euro area median (see Figure 3.11). Slovenian banks' exposure to consumer loans as a ratio to GDP is at the same level as the euro area median. The ratio of consumer loans to GDP has declined by 0.9 percentage points over the last three years in Slovenia, and by 0.2 percentage points in the euro area overall. The ratio of exposure to consumer loans to the balance sheet total in the banking system is 5.3%, significantly above the euro area median (see Figure 3.12). This figure has declined by 1.4 percentage points over the last three years in Slovenia, and by 0.3 percentage points in the euro area overall.

Figure 3.11 Ratio of consumer loans to GDP

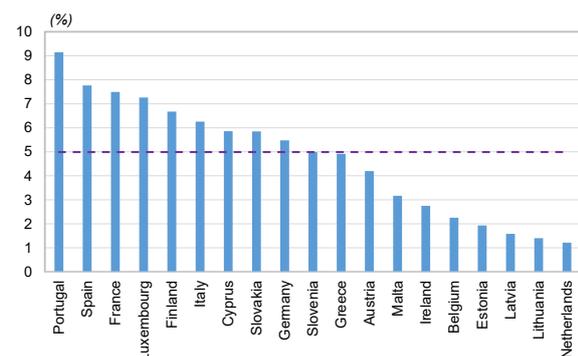
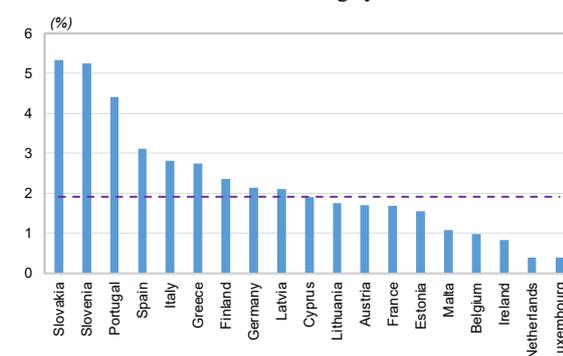


Figure 3.12 Ratio of consumer loans to balance sheet total in the banking system



Note: Data for the final quarter of 2021. The purple dashed line denotes the euro area median.

⁷⁵ The macroprudential definition of housing loans is used. Consumer loans secured by residential real estate are classed as housing loans. The figure may therefore differ from those presented in other publications and elsewhere in this publication.

⁷⁶ The rates of credit growth cited in this paragraph may differ from the rates published elsewhere (including Figure 3.9 and Figure 3.10). The differences arise because of differences in the definition of housing loans and consumer loans. In this instance the macroprudential definitions are used. All loans secured by residential real estate and all loans for the purchase, construction or renovation of residential real estate (irrespective of purpose) are classed as housing loans, while all other household loans are classed as consumer loans.

⁷⁷ Year-on-year growth in loans stood at 10.1% in March 2022 (latest available data at time of writing).

⁷⁸ Year-on-year growth in loans stood at -2.3% in March 2022 (latest available data at time of writing).

⁷⁹ For more on consumer lending by the non-banking sector, see Section 5.2.

Source: ECB SDW

The ratio of housing loans to GDP in Slovenia is lower than in the euro area overall. The ratio of housing loans to GDP stands at 14.4% in Slovenia, significantly below the euro area median of 37.4% (see Figure 3.13). The ratio of housing loans to GDP has increased by 0.8 percentage points over the last three years in Slovenia, and by 3 percentage points in the euro area overall. The low ratio of housing loans to GDP is attributable to the high rate of owner occupation. The ratio of exposure to housing loans to the balance sheet total in the banking system is 15.2%, the same as the euro area median (see Figure 3.14). This figure has declined by 0.2 percentage points over the last three years in Slovenia, and by 0.6 percentage points in the euro area overall.

Figure 3.13 Ratio of housing loans to GDP

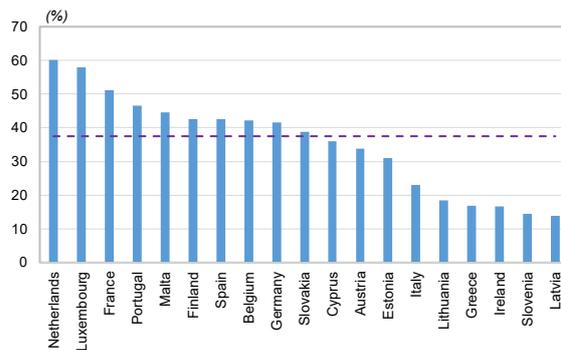
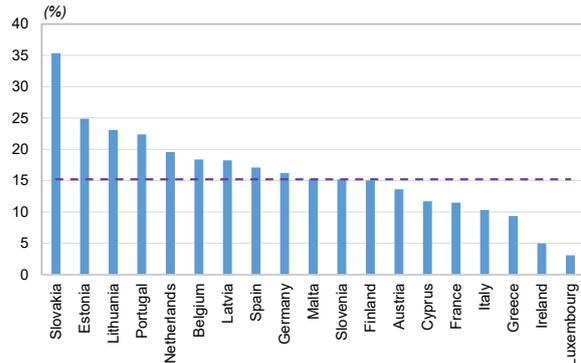


Figure 3.14 Ratio of housing loans to balance sheet total in the banking system



Note: Data for the final quarter of 2021. The purple dashed line denotes the euro area median.
Source: ECB SDW

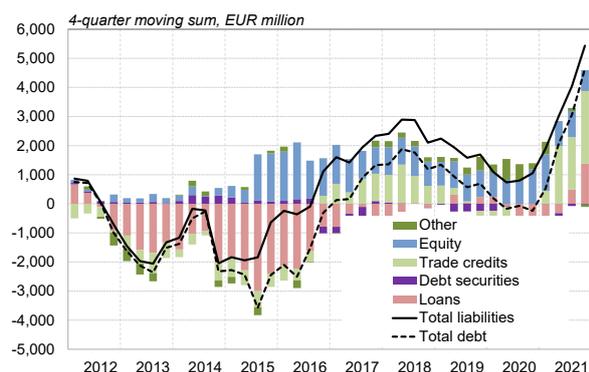
3.2 Non-financial corporations

The economic recovery has brought an increase in borrowing by NFCs, particularly via trade credits, but also via loans in the final quarter of last year. The trend of increase in business-to-business financing between domestic and foreign NFCs has also strengthened. Leverage increased slightly in 2021, but indebtedness remains a low burden given the low interest rates and the deleveraging achieved in previous years. Given the persistently high share of debt with variable interest rates, the risk of an increase in the debt servicing burden remains present. In parallel with the rise in their borrowing, NFCs also increased their holdings of financial assets, via trade credits granted and via loans, particularly to parent undertakings in the rest of the world. Currency and deposits are growing slightly more slowly than in the first year of the pandemic, but their size means that they constitute a significant source of companies self-financing. Access to financing ceased to be one of the key limiting factors in their business even before the outbreak of the war. The sound financial position of NFCs going into the pandemic has been a major factor in their resilience over the last two years. The government emergency measures also played a major role in maintaining the solvency of firms in the worst-hit sectors. The largest holdings of receivables from countries involved in the war in Ukraine are in the form of trade credits, but they do not account for a large proportion of NFCs' total receivables. In the current uncertainty surrounding the war and the ongoing pandemic, the main factors to the fore relate to global constraints on supply chains and the rises in energy prices and other commodity prices. In the event of a long period of uncertainty, the corporate sector might see a decline in its resilience, with an adverse impact on the stability of the financial system.

Financing and indebtedness of NFCs

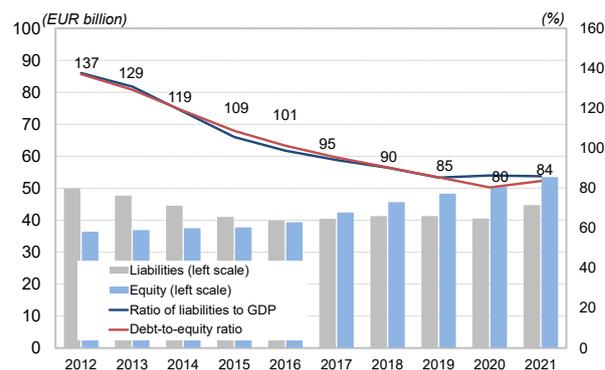
After a long period of decline, NFCs saw a renewed increase in their leverage in 2021. In the first year of the pandemic the economic contraction was reflected in a sharp decline in the financing of NFCs, and an additional decline in leverage. The revival of economic activity in 2021 brought a resurgence in borrowing by NFCs, particularly in the form of trade credits. Financing via loans also began to increase, having declined during the first year of the pandemic at domestic and foreign creditors alike. After declining for nine years, NFCs' leverage increased by 4 percentage points in 2021 to end the year at 84%. Equity also continued to increase in parallel, as a result of an inflow of capital, but also as a result of revaluations (see Figure 6.11 in the appendix). The ratio of NFCs' debt to GDP stood at 86%, up slightly on its pre-pandemic level, with the minor fluctuations over the last two years mainly attributable to the major changes in GDP over this period.

Figure 3.15 Flows in NFCs' financial liabilities by instrument



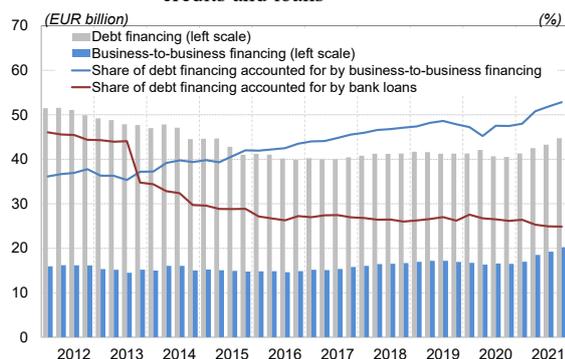
Source: Banka Slovenije

Figure 3.16 NFCs' debt ratios



The importance of business-to-business financing in the financing of NFCs rose again in 2021. The share of total debt liabilities accounted for by loans and trade credits between NFCs, from Slovenia and also from the rest of the world, reached 45.3% at the end of 2021, up 13.4 percentage points since 2013, when it started its rise. The increase was driven mainly by business-to-business financing via trade credits. As the only segment of foreign loans that has been rising in recent years, loans from foreign firms gained additional impetus in 2021, while indebtedness at foreign banks and international institutions is declining. As a result of growth in loans from foreign owners, aggregate loans from the rest of the world have also increased in the last year after a long period of decline. NFCs in Slovenia are also financing themselves from unaffiliated firms in the rest of the world; the volume is smaller, but with a rising trend.

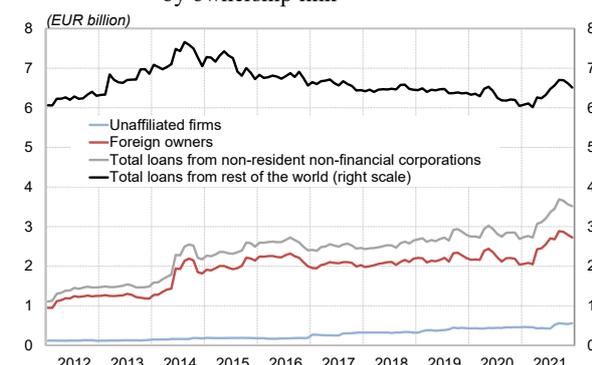
Figure 3.17 Business-to-business financing: trade credits and loans



Note: In the left figure business-to-business financing includes all loans between firms, and trade credits received from Slovenian and foreign firms alike.

Source: Banka Slovenije

Figure 3.18 Loans to NFCs from the rest of the world by ownership link

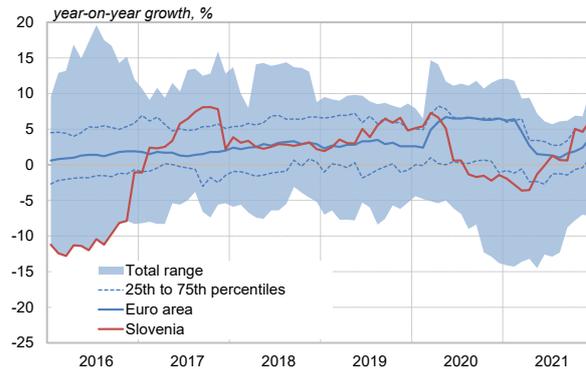


Financing at domestic banks

Domestic banks continued to decline in importance in 2021 as a source of financing for NFCs.⁸⁰ Borrowing at domestic banks did pick up slightly in the final quarter of last year, but more slowly than other forms of borrowing. Judging by the survey on the access to finance of enterprises, dependence on bank financing also diminished as a result of increased reliance on internal resources and reduced demand for bank loans. Access to bank financing has been consistently declining in importance as a limiting factor for firms, while the shortage of qualified labour and foreign demand rose in importance during the pandemic.

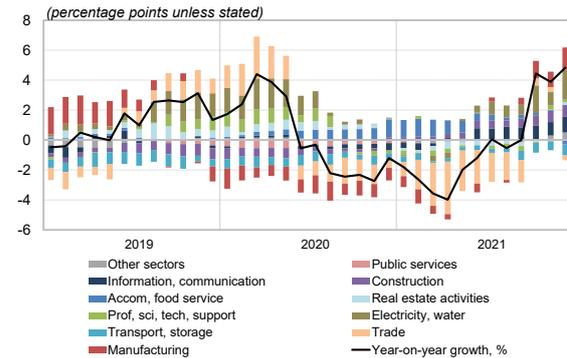
⁸⁰ The share of NFCs' debt financing accounted for by loans from domestic banks had reached 21.3% by the end of 2021, down just over 20 percentage points over the preceding ten years (see Figure 3.17), although the transfer of loans to the BAMC in 2013 and 2014 accounted for approximately half of this decline.

Figure 3.19 Growth in bank loans to NFCs in Slovenia and the euro area



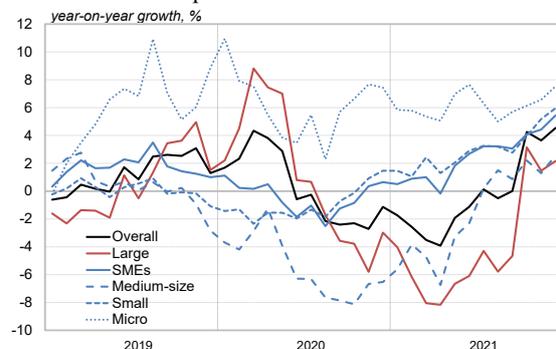
Sources: Banka Slovenije, ECB SDW, Banka Slovenije calculations

Figure 3.20 Contributions to growth in loans to NFCs by sector



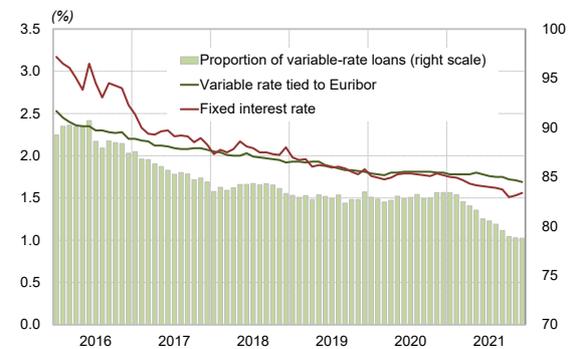
After almost a year of contraction, growth in loans to NFCs re-entered positive territory in the second half of 2021. Year-on-year growth rose sharply in October, primarily as a result of the approval of major loans to two firms, and had strengthened further to 6.3% by December. Growth in December would have stood at 2.9% without the loans to the two aforementioned firms. In October the total stock of loans to NFCs surpassed its pre-pandemic level, while the year-on-year rate of growth outpaced growth in the euro area overall for the first time since falling at the outbreak of the pandemic (see Figure 3.19). The majority of sectors saw a revival in lending activity, but the largest positive contributions to aggregate year-on-year growth in loans to NFCs came from the sectors of electricity and water supply, manufacturing, information and communication, and construction. The contribution by accommodation and food service activities declined over the course of the year, and the contribution by wholesale and retail trade turned positive again, while the contribution by transportation and storage remained negative (see Figure 3.20). In terms of loan purpose, most lending was for financing working capital and investments in fixed assets, while growth rose in all corporate size categories, year-on-year growth in loans to large enterprises having turned positive again in October (see Figure 3.21).

Figure 3.21 Growth in bank loans to NFCs by corporate size



Source: Banka Slovenije

Figure 3.22 Interest rates on the stock of loans to NFCs

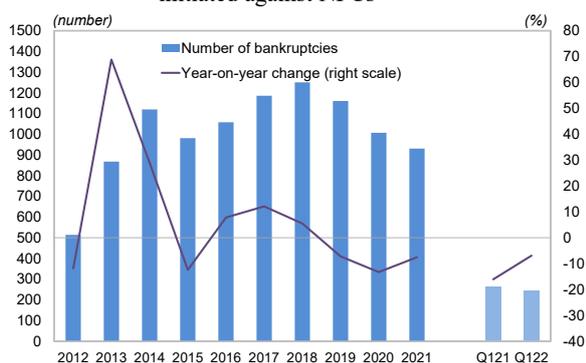


Interest rates on corporate borrowing at banks remained low in 2021, which might additionally encourage firms to borrow amid rising inflation. The fixed interest rate on long-term loans to non-financial corporations declined further (see Figure 1.70), while the proportion of long-term loans with a fixed interest rate increased from 14% in the previous year to 25%. Interest rates on the stock of bank loans declined for both types of remuneration (see Figure 3.22), to less than 1.6% for fixed-rate loans and to 1.7% for variable-rate loans. The lower interest rates on outstanding debt at banks and the relatively low leverage of non-financial corporations entail a decline in the debt servicing burden. At the same time there remains the risk of an increase in the debt servicing burden, given the persistently high share of debt with variable interest rates. This stood at a still-high 79% at the end of 2021, despite declining by 4 percentage points over the course of the year. The average maturity of non-financial corporations' outstanding variable-rate debt stood at 5.9 years at the end of 2021, slightly more than the figure of 5.4 years for fixed-rate debt. Amid rising inflation, the low interest rates might additionally encourage non-financial corporations to borrow and to increase their leverage, whose current low average level entails a good basis for creditworthiness assessments.

Bankruptcies of NFCs

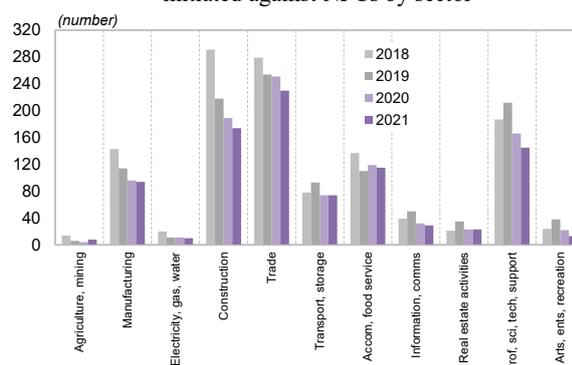
The number of bankruptcies initiated at NFCs declined again in 2021. The moratorium on the initiation of bankruptcy proceedings in response to the pandemic and the containment measures had expired by the end of September.⁸¹ All moratoria approved on the basis of the emergency laws had also expired by the end of 2021, the majority expiring in the first half of the year. There was no rise in the number of bankruptcy proceedings initiated after these measures expired. After falling by 13.3% in 2020, the number of bankruptcy proceedings initiated at NFCs declined by a further 7.5% last year. The only rises were seen in accommodation and food service activities in 2020, and in agriculture, forestry and fishing in 2021. The first quarter of 2022 also saw no change to the trend in the number of bankruptcies. There were expectations of a rise in bankruptcies in the European environment in connection with the expiry of the support measures, albeit after a lag during which it would be seen which firms were unable to resume profitable business after the withdrawal of economic policy support.

Figure 3.23 Number of bankruptcy proceedings initiated against NFCs



Sources: Banka Slovenije, Supreme Court, AJPES

Figure 3.24 Number of bankruptcy proceedings initiated against NFCs by sector



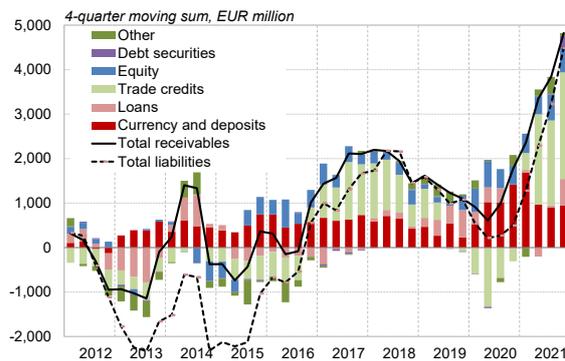
Non-financial corporations' financial assets

Similarly to the liability side, flows in NFCs' financial assets also strengthened in 2021. Their flow of financial assets has exceeded their flow of liabilities since 2013, including the two years of the pandemic. Consequently NFCs' net debt, i.e. their net financial position⁸² (see Figure 6.12 in the appendix), declined from its peak of 121% of GDP in 2011 to 80% of GDP at the end of 2021. NFCs saw the greatest strengthening in their positive net financial position in loans (see Figure 3.26), as a result of the rapid debt repayments at domestic banks in the period to 2015, and also as a result of the rapid deleveraging in the rest of the world between 2015 and 2020 (see Figure 3.18) in parallel with growth in loans granted to the rest of the world (see Figure 3.27). In their financing of the rest of the world via loans, NFCs have focused mainly on foreign parent undertakings, while the financing of Slovenian firms in the rest of the world is declining.

⁸¹ 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 ZIUPOPDVE, the measures remained in place in modified form until March 2021, and were then extended until 30 September 2021 with two changes.

⁸² According to the financial accounts definition, the net financial position is the difference between the stock of liabilities and the stock of financial assets.

Figure 3.25 Flows in NFCs' financial assets by instrument

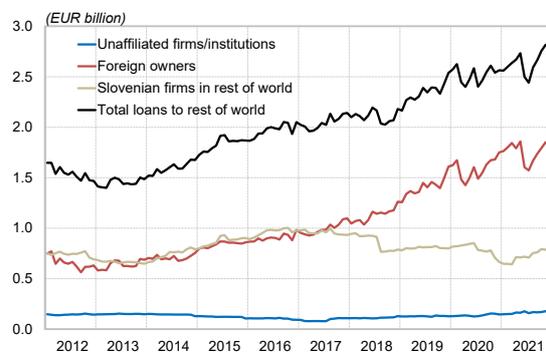


Source: Banka Slovenije

Similarly to the liability side, NFCs saw a sharp increase in trade credits on the asset side in 2021. Lending via trade credits is directly correlated with growth in trade in merchandise and services and with economic growth. NFCs' receivables from trade credits granted amounted to EUR 16.2 billion at the end of 2021, EUR 8.0 billion of which was vis-à-vis debtors in the rest of the world. Trade credits granted to Russia, Ukraine and Belarus account for 6.6% of total trade credits to the rest of the world. NFCs' receivables from loans granted to entities in the aforementioned countries are significantly smaller, and Slovenian NFCs' liabilities to creditors in these countries are also low.

The increase in deposits by NFCs was slightly smaller than in 2020. Deposits accounted for 17.7% of NFCs' total financial assets at the end of 2021. The slower increase in deposits might be a reflection of their use for financing current needs, the servicing of debt previously covered by a moratorium, or investment that was postponed during the first year of the pandemic.

Figure 3.27 Loans granted to the rest of the world by ownership link to debtor



Source: Banka Slovenije

The sound financial position of NFCs has been a major factor in their greater resilience over the two years of the pandemic. Their low indebtedness and good liquidity position, thanks in part to the economic policy support measures (see Box 3.1), were a major help in overcoming their liquidity difficulties and in the faster economic recovery after the majority of containment measures had been lifted. The disruptions to supply chains and consequent rise in prices of products and services showed that the pandemic will have far-reaching consequences in addition to its short-term impact, which will require adaptations in the corporate sector. Given the downturn in the macroeconomic environment caused by the new geopolitical circumstances, the worsening access to energy (see Box 1.4) and other commodities related to the sanctions against Russia, and the associated high inflation, will reduce the resilience of the economy if they last for a lengthy period, with adverse consequences for the stability of the financial sector.

Figure 3.26 Slovenian NFCs' net position in loans according to debtor/creditor institutional sector

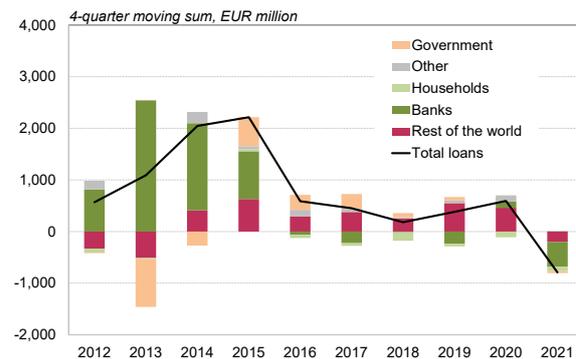
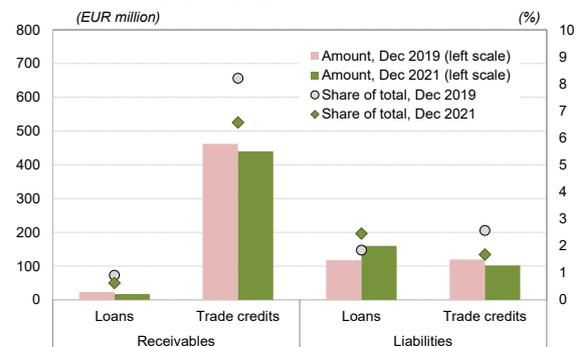


Figure 3.28 NFCs' receivables and liabilities vis-à-vis Russia, Ukraine and Belarus from loans and trade credits



Box 3.1 *Simulation of the impact of government emergency measures on corporate performance*⁸³

Despite the magnitude of the Covid-19 pandemic, there was no significant aggregate deterioration in the performance indicators of banks and corporates, in part thanks to the broad scope of the government emergency measures. The emergency measures account for a relatively small share of the accounting items of net operating revenues and cash in the case of NFCs overall, but an extremely large share in individual sectors hit hardest by the pandemic, most notably accommodation and food service activities, where vouchers were the dominant influence. GDP contracted by 4.2% in 2020, less than at the time of the global financial crisis for example, when the contraction amounted to 7.9%, but still a significant amount. Conversely, the overall corporate default rate (DR) did not rise as sharply as during the global financial crisis, when the increase was evident even in the first year of the crisis, and later only escalated further. For now the relatively favourable dynamics in aggregate credit indicators are likely attributable to a considerable extent to the effectiveness of the emergency measures quickly put in place by governments and central banks. This box focuses on analysis of the direct short-term impact of the emergency measures on corporate performance. It should also be noted that corporates went into the crisis in significantly better shape than going into the global financial crisis. Given the highly selective nature of the containment measures, the heterogeneity of the shocks across sectors is extremely large. The most intensive containment measures were seen in the sectors of accommodation and food service activities (I), administrative and support service activities (N) and arts, entertainment and recreation and other service activities (RST).

The analysis includes data on the value of the emergency measures and the payments covered by a moratorium at banks⁸⁴ from various sources, which in certain cases were allocated at the firm level on the basis of the assumptions.⁸⁵ The value of the analysed emergency measures amounted to almost EUR 3.3 billion in 2020. The analysis was most concerned with the pass-through of the measures at corporate level, and therefore the focus was on the EUR 1.8 billion of measures for which there is sufficient high-quality data available and that are directly relevant to the assessment of corporate performance. A large part of the measures were aimed at the current functioning of public services, sole traders and pensioners, or their pass-through into corporate performance was less directly relevant or very difficult to assess. Measures aimed at corporates and taken into account in the subsequent analysis, in the total amount of EUR 857 million, are denoted by the dark green (see Figure 3.29).⁸⁶ The light green denotes EUR 968 million of measures⁸⁷ that

⁸³ These are measures introduced by laws. Some of the measures were covered by the government budget, while for others (e.g. moratoria on bank loans) the burden fell on private entities. Estimating the hypothetical impact of the deduction of emergency measures is highly uncertain, and is contingent on numerous assumptions. This analysis is therefore only a simulation, which is largely dependent on the accuracy of the assumptions for the pass-through of emergency measures into accounting items. The analysis simply assumes the deduction of the emergency measures. In reality, in the event of the non-existence or the refund of the emergency measures, firms would adapt their operations, thereby altering several mutually related accounting items, which have many interactions between them.

⁸⁴ The estimate of the value of firms' payments covered by a moratorium at banks was made on the basis of regular reporting by monetary financial institutions, using data at the level of individual contracts for 31 December 2019, 31 December 2020 and 30 June 2021. Because the reporting to the data source is continually upgraded, in the beginning there was no need for banks to report the total duration of approved moratoria or the expiry date of the final approved moratorium. Certain assumptions were therefore necessary in the calculation of operations where there was no extension of the maturity of the underlying operation as a result of the utilisation of the moratorium. The estimate is based on the calculation of the estimated share in 2020 and 2021, when the exposure was covered by a moratorium. On the basis of this information the next step is calculating the deferred loan instalments using an annuity formula. Legislative and bilateral Covid-19 moratoria were both taken into account in the analysis of moratoria. Legislative moratoria were created by Slovenia's emergency laws, namely the Emergency Deferral of Borrowers' Liabilities Act (the ZIUPOK; Official Gazette of the Republic of Slovenia, No. 36/20), and later the Act on Emergency Measures to Assist in Mitigating the Consequences of the Second Wave of the Covid-19 Epidemic (the ZIUPOPVE), which allowed for the approval of moratoria until the end of March 2021.

⁸⁵ The data on the value of emergency measures in the labour market was obtained from the Employment Service on 10 September 2021. The data is at firm level, and encompasses the furlough scheme, the short-time work scheme (SURE) and wage compensation for quarantine. The estimate of redeemed holiday vouchers and 21 vouchers (bon21) was made on the basis of an article on the 24ur portal from 21 December 2021. The information was given at the level of specific sectors. On the basis of the article we were able to approximately distinguish between holiday vouchers, which were ascribed in full to accommodation services, 21 vouchers (bon21) redeemed in accommodation and food service activities, and 21 vouchers (bon21) redeemed elsewhere. The vouchers were ascribed to individual firms in the aforementioned sectors with regard to their share of total revenues in the sector. The article (in Slovene) can be found at <https://www.24ur.com/novice/slovenija/bo-vlada-vendarle-podaljsala-veljavnost-turistcnih-bonov-to-lahko-naredi-tudi-nadpisni-seji.html> (published December 2021). Data on the value of other emergency measures was published on the website of the Fiscal Council of the Republic of Slovenia. This data is available only at the aggregate level, and certain assumptions were therefore necessary to transfer it to the firm level. The data was taken from 3 December 2021, with the exception of tax deferral items (7 September 2021) and guarantees, SID moratoria and liquidity (6 April 2021). This data encompasses the value of basic income payments, solidarity bonuses, payments in the public sector, contributions (social security, sick pay, and pension and disability insurance), reimbursements of fixed costs, crisis bonus payments, subsidisation of the minimum wage, etc.

⁸⁶ These are measures for which data is available at the level of contracts, customers or sectors, for which the estimate is therefore more accurate. These measures encompass moratoria at banks, the Employment Service's labour market measures, and holiday vouchers.

are both relevant to and taken into account in the assessment of corporate performance, but whose allocation across firms is more uncertain. For those only aggregate data is available, and was allocated at the firm level with regard to the distribution of the share of total Employment Service measures paid to the individual firm.⁸⁸ The light gold denotes direct assistance for sole traders, pensioners and the public sector in the amount of EUR 935 million, which was of less immediate relevance to our analysis and was not included in it.⁸⁹ The indirect effects of this assistance are nevertheless seen in the maintenance of private consumption. Also excluded are EUR 516 million of measures to improve liquidity (denoted by gold), because their impact would be difficult to assess.

Figure 3.29 Decomposition of government emergency measures for 2020 (left) and 2021 (right) included in the analysis



Sources: Banka Slovenije, Fiscal Council, Employment Service of Slovenia, 24ur.com

The value of the analysed emergency measures amounted to almost EUR 2.8 billion in 2021. The analysis then focused on measures in the total approximate amount of EUR 644 million for which there is sufficient high-quality data available and that are directly relevant to the assessment of corporate performance (denoted by dark green). This category includes also the 21 voucher payments in 2021 (bon21).⁹⁰

The impact of the emergency measures on corporate performance was simulated by means of the pass-through into accounting items at firms in the AJPES database. The relative share of emergency measures in the accounting items of cash and net sales revenue are illustrated. For example, the assumption for bank moratoria⁹¹ was that in the event of their refund/absence there would be a decrease in cash. The labour market measures (Employment Service measures, ES) and the contributions (social security, pensions, sick pay) are largely non-refundable. They are illustrated in relative terms in net sales revenue. The assumption again was that in the event of their refund/absence there would be a decrease in cash (the one-off refund of support is assumed).⁹² The impact of tax deferrals is similar to the impact of loan moratoria.⁹³ The

⁸⁷ These measures encompass social security contributions for furloughed employees, contributions for pension and disability insurance, sick pay covered in full by the Health Insurance Institute (HII), tax deferrals and instalments, and unsubmitted and unpaid tax prepayments.

⁸⁸ This is a strong assumption, as these measures were aimed at all employees, and not just those on furlough or on short-time work. The support was obtained by those who could prove that the moratorium would help them, and that there had been a loss of the ability to earn income, for which reason the estimate was linked to the Employment Service measures, where the support was contingent on the inability to work on business grounds as a result of the pandemic.

⁸⁹ This includes for example basic income, social security contributions for sole traders, measures for the current functioning of public services, employee bonuses, protective equipment, funding for the HII, and solidarity bonuses. These measures are not part of this analysis, which focuses solely on corporates.

⁹⁰ Similarly to 2020, the analysis did not include EUR 1.7 billion of support for sole traders, pensioners, the public sector and other measures (denoted by light gold) of less immediate relevance. It also excludes EUR 409 million of other measures (denoted by gold) that would otherwise be relevant to the assessment of corporate performance, but for which sufficiently detailed data for its allocation across firms was not available.

⁹¹ The assumption was that all moratoria should be treated as if there was an extension to the maturity of the loan. That certain firms agreed solely to a moratorium on principal but continued making interest payments was ignored.

⁹² Certain firms have to refund the payments, but this was not taken into account in the analysis.

assumption for the impact of vouchers was that it is evident through net sales revenue alone. Estimating the impact on cash would be highly complicated, as costs arise in connection with utilisation that would have been lower in the event of non-utilisation. It is worth emphasising that there is a potential for partial double counting, as certain revenues would likely have been realised even without the vouchers.

The below analysis focused on the portfolio of NFCs that have exposure at a commercial bank, excluding sole traders and freelance professionals. It covers the portfolio of classified claims, i.e. total on-balance-sheet and off-balance-sheet exposure (without consideration of conversion factors) that is no more than 90 days in arrears and is rated A, B or C (non-defaulters). Only on-balance-sheet exposure was taken into account, and all firms that do not report financial statements were excluded. In the end the exposure value for the portfolio of NFCs included in the analysis amounted to around EUR 8.1 billion as at the end of 2020.

Table 3.1 illustrates the estimated value of the measures relevant to the analysed portfolio. Only the lower part of the illustrated table was used, where the measures were associated with individual customers of the banks.⁹⁴ From the perspective of contributions and tax deferrals, where there is no data at firm level, the assumption was for the same reduction in portfolio coverage as under the Employment Service measures. The assumption for vouchers was that the value of the measures is proportional to total sales revenue. The ratio of total revenues in the sector of accommodation and food service activities (I) to the total revenues in that part of accommodation and food service activities that has bank exposure and is included in the analysis was taken into account. The value of the emergency measures was also reduced by this ratio.

Table 3.1 Decomposition of value of measures included in the analysis

Total reported/calculated, EUR million:

year	bank moratoria	ES measures	contributions	tax deferrals	holiday vouchers	21 vouchers (bon21)
Total measures 2020	261	468	578	390	128	0
Total measures 2021	184	245	0	0	123	108

Measures included in this analysis in the limited portfolio, EUR million:

year	bank moratoria	ES measures	contributions	tax deferrals	holiday vouchers	21 vouchers (bon21)
2020 measures tied to 31 Dec 2020	216	296	366	247	112	0
2021 measures tied to 31 Dec 2020	146	133	0	0	108	81

Sources: Banka Slovenije, Fiscal Council, Employment Service of Slovenia, 24ur.com, own calculations

Following the pass-through of the impact of the emergency measures into accounting items and indicators, their share of the items and in the financial ratios can be illustrated. If net operating revenues in 2020 are compared with 2019, it can be seen that they deteriorated in the portfolio of non-defaulters (see Figure 3.30). It should be noted that many corporates became defaulters in 2020, which is not covered here.

The impact of the Employment Service measures and contributions is illustrated first. The impact of the emergency measures on operating revenues was relatively small for all corporates (see Figure 3.30 (left)).⁹⁵ If the measures from 2020 are deducted from the total revenues in 2020, they would be 0.9% lower, while further deduction of the measures from 2021 results in an aggregate decline of just 1.1%. The impact in accommodation and food service activities is significantly larger at 13.7% in 2020 and 19.0% in 2020 and 2021 in aggregate (see Figure 3.30 (middle)).

Because the impact of the vouchers on the operating revenues of accommodation services and also in accommodation and food service activities as a whole is very large, it is illustrated for the entire sector

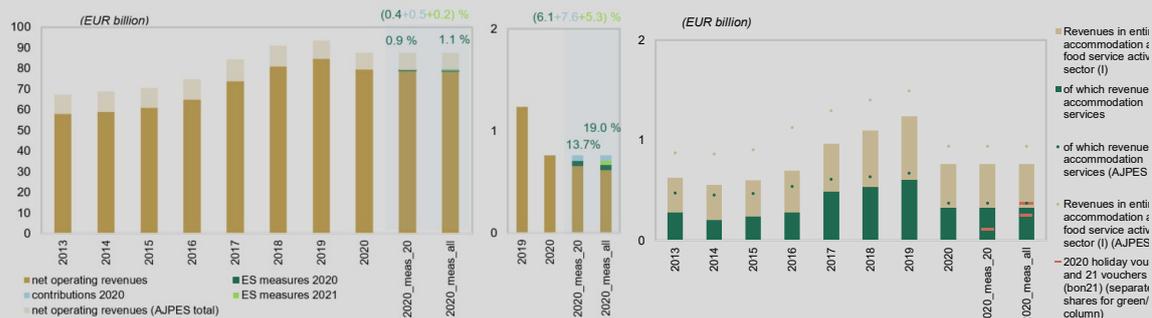
⁹³ From the perspective of tax deferrals, the law in question (PPK6) does not provide for the write-off of tax liabilities, but solely their deferral.

⁹⁴ The analysis included 37% less Employment Service measures than the total of these measures cited in the upper section of the table (2020 measures tied to 31 December 2020). This was attributable to several factors, e.g. that the portfolio of sole traders was excluded, that not all NFCs are customers of (Slovenian) commercial banks, that only non-defaulters were included, and that firms who do not compile financial reports were excluded. It should be noted that the analysis does not take account of a significant share of the positive impact of the measures on sole traders. Exposures of less than EUR 500 are also not covered.

⁹⁵ The net sales revenue of all non-financial corporates and not just those that are non-defaulters at banks (which is included in the analysis) are illustrated in the left chart in light gold. This gives a sense of the proportion of corporates that are covered by the analysis from the perspective of total net revenue. The measures are not illustrated here.

of accommodation and food service activities (I) in the right chart (see Figure 3.30 (right)). The sector can be divided into accommodation services (the green part of the column) and other food service activities (the light gold part). The impact of vouchers on individual activities is also distinguished, and is illustrated with red lines. Vouchers from 2020 accounted for 34.3% of total revenues in accommodation services (green) in 2020 (red band, first from the left). Adding the vouchers from 2021 and relativising them to accounting items for the end of 2020, the impact is even larger, and amounts to fully 77.3% for accommodation services (lower red band, second from the left). The 21 vouchers (bon21) accounted for 10.1% (upper red band, third from the left) in other food service activities (light gold column).

Figure 3.30 Impact of Employment Service measures on operating revenues of non-financial corporates overall (left) and non-financial corporates in accommodation and food service activities (I) (middle), and impact of vouchers on operating revenues in accommodation services and dynamics in sales revenues in accommodation services (part of sector I) and in entire sector of accommodation and food service activities (I) (right)



Note: The column labelled 2020 represents the net operating revenues of non-financial corporates included in the analysis as at 31 December 2020, i.e. actual reporting with the captured impact of the Covid-19 pandemic and emergency measures in 2020. The column labelled 2020_meas_20 represents the same metric as at 31 December 2020, but with an illustration of the share of emergency measures from 2020, if it is assumed that they are deducted from accounting items recorded as at 31 December 2020. The column labelled 2020_meas_all represents the value from 2020, but with an illustration of the share of emergency measures from both 2020 and 2021, if their favourable impact on accounting items recorded by non-financial corporates as at 31 December 2020 is deducted. It should be noted that containment measures and business conditions in 2021 were quite different from those in 2020, which has an impact on the closing financial statements for 2021, and thus the second illustration is more of an informative nature. The values above the left and middle charts relate to the shares of individual contributions as coloured in the legend.

Sources: Banka Slovenije, AJ PES, Fiscal Council, Employment Service of Slovenia, 24ur.com, own calculations

The measures have a large impact on cash at NFCs.⁹⁶ This is illustrated in the appendix (see Figure 6.13). It should be noted that this item is highly volatile, and that firms also hold assets in other forms. Interestingly aggregate holdings of cash at NFCs increased sharply in 2020.⁹⁷ Deducting the measures would return cash to its level of 2019.

The impact of all measures on net operating revenues at NFCs included in the analysis is restated for each sector in the appendix (see Figure 6.14). The largest share is seen in the sectors of accommodation and food service activities and arts, entertainment and recreation and other service activities, and partly in travel agency activities and administrative and support service activities.

⁹⁶ The assumption was that all emergency measures other than vouchers have an impact on cash.

⁹⁷ The estimates are therefore only approximate, as the initial holdings of cash as at 31 December 2020 would likely be significantly different/lower in the absence of support.

4 NON-BANK FINANCIAL INSTITUTIONS

4.1 Leasing companies

Leasing companies recorded an increase in the financed value of new business in 2021. Households remain the main source of new business, mainly for cars. The stock of business increased, and the proportion of leasing business more than 90 days in arrears declined further. Arrears in individual segments of business with NFCs, which had begun to build up at the end of 2020, began declining again in the first half of last year. The performance of leasing companies improved relative to the previous year. The increase in leasing business and the strengthening of resilience were reflected in a rise in the balance sheet total and capital of leasing companies. The risks inherent in the performance of leasing companies remain moderate for now. A slowdown in economic growth, a rise in borrowing costs, and a decline in real household income could cause a downturn in the performance of leasing companies in the future. High inflation might also encourage households to undertake additional borrowing and spending with the aim of avoiding the anticipated rise in prices of goods and services.

Leasing companies recorded an increase in the financed value of new business in 2021.⁹⁸ New leasing business amounted to EUR 1.1 billion, up EUR 275.6 million or 31.8% on 2020 (see Figure 4.1). The high growth was attributable to a base effect from 2020, when new leasing business declined by 21.6% relative to 2019. New leasing business with NFCs amounted to EUR 537.4 million and new leasing business with households amounted to EUR 601.8 million, up 35.1% and 29.2% respectively on 2020. The breakdown of new business remains similar to previous years: the majority (84.4%) of leasing business was for the purchase of new or used vehicles. The average financed value in new equipment leasing business with NFCs stood at EUR 34.9 thousand, up 9.2% in year-on-year terms, while the figure for business with households was EUR 8.2 thousand, up 13.1% in year-on-year terms. The largest component of equipment leasing business was concluded with a maturity of between one and five years.

Figure 4.1 New leasing business

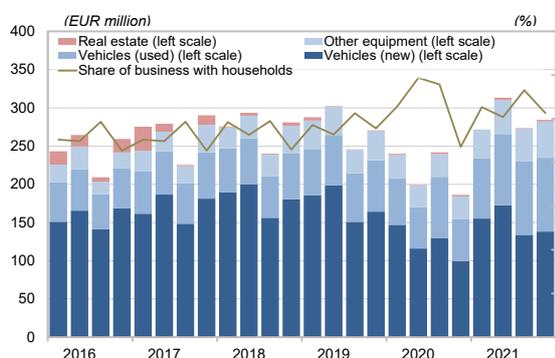


Figure 4.2 Stock of leasing business and proportion of arrears



Source: Banka Slovenije

Increased demand for vehicle leasing is being reflected positively in the total stock of leasing business. The stock of leasing business increased by 8.2% in 2021 to end the year at EUR 2.4 billion (see Figure 4.2). The stock of equipment leasing business, which accounts for the majority of leasing business, increased by 11.5% in 2021 to end the year at EUR 2.2 billion. The largest increases were in the stock of other equipment leasing business and leasing business for commercial and heavy goods vehicles (30.1% and 17.6% respectively). The largest components of the stock are car leasing business (57.4% of the total) and commercial and heavy goods vehicle leasing business (27.3%). The stock of equipment leasing business with NFCs was up 14.4% in year-on-year terms at EUR 971.2 million, and was driven by used commercial and heavy goods vehicles. The stock of equipment leasing business with households stood at EUR 1.3 billion at

⁹⁸ Leasing business is disclosed at financed value, excluding the financing of inventories. Leasing companies began withdrawing from real estate business after the global financial and economic crisis, and in recent years it has mainly consisted of the rescheduling of existing business. Under the Consumer Credit Act (the ZPotK-2), which has been in force since 2 March 2017, financial institutions that were providing finance leasing services for real estate on the basis of an authorisation from the ministry prior to the entry into force of the aforementioned law until 30 June 2017 were required to submit an application by 1 July 2017 for an authorisation to provide finance leasing services for real estate. They were unable to continue providing the aforementioned services until the relevant authorisation was granted.

the end of 2021, or 58.2% of all equipment leasing business. It was up 9.4% in year-on-year terms, driven by an increase in the stock of used vehicle leasing business and other equipment leasing business. Car leasing accounts for the largest proportion of leasing business with households (79.7% of the total).

The proportion of business more than 90 days in arrears declined further in 2021. Having come to the fore in the late part of 2020 and the early part of 2021, the debt servicing difficulties faced by NFCs proved to be temporary: the proportion of business more than 90 days in arrears declined further over the course of 2021, while the proportion of business with households more than 90 days in arrears also continued to decline (see Figure 4.3). The proportion of business in arrears declined by 0.5 percentage points in 2021 to end the year at 3.9%. This was attributable to a decline in arrears in equipment leasing, and an increase in the stock of equipment leasing business. The concentration of arrears of more than 90 days remains high: three leasing companies accounted for 90% of the total arrears, while the proportion of the total stock of leasing business that they account for was just 32.4%. The proportion of business more than 90 days in arrears declined relative to the previous year in all sectors other than information and communication, where it increased by 1.6 percentage points to 6.5%. The largest proportion of business more than 90 days in arrears is in the sector of professional, scientific and technical activities.

Figure 4.3 Proportion of leasing business with NFCs and households more than 90 days in arrears

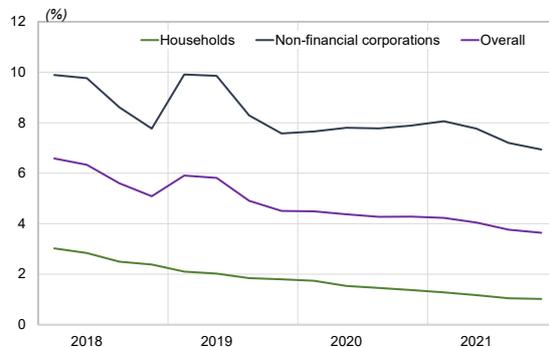
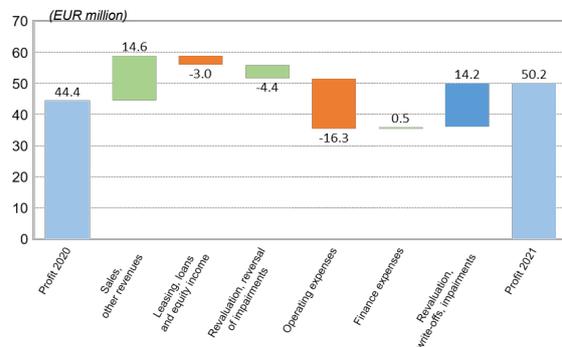


Figure 4.4 Impact of income statement components on total profit



Source: Banka Slovenije

Leasing companies saw their profit increase in 2021. Total pre-tax profit was up 12.9% in year-on-year terms at EUR 50.2 million (see Figure 4.4). The rise in profit was driven by an increase in sales revenue in parallel with a limited rise in costs of services and labour costs, and a decline in impairments and write-offs from operating leasing. The increase in leasing business and the strengthening of resilience continued to be reflected in a rise in the balance sheet total and equity of leasing companies. Leasing companies' balance sheet total stood at EUR 2.48 billion at the end of last year, up EUR 111 million on the previous year. Leasing companies' equity increased by 9.5% to EUR 481 million. In the wake of the simultaneous decline in financial liabilities, the debt-to-equity ratio also declined slightly to 4.3. Leasing companies' performance is gradually returning to its level before the pandemic. Arrears of more than 90 days are continuing to decline, which is having a favourable impact on the systemic risks inherent in the performance of leasing companies. The performance of leasing companies will primarily be affected in the future by households' ability to pay, which is declining as a result of high inflation. High inflation might also encourage households to undertake additional borrowing and spending with the aim of avoiding the anticipated rise in prices of goods and services.

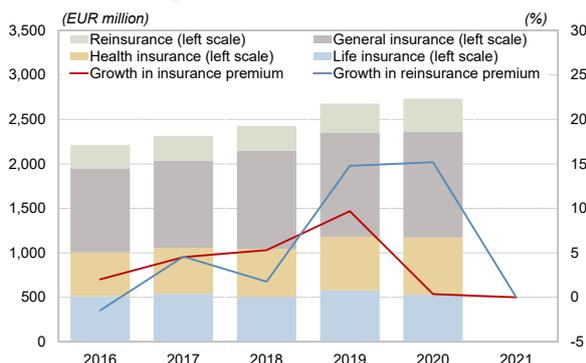
4.2 Insurers

Insurers' gross written premium again increased slightly in 2021, albeit driven primarily by general insurance. The claims ratio improved in general insurance and life insurance, but deteriorated in the health insurance segment. The profitability of insurance corporations and reinsurance corporations improved strongly in 2021, and improvements were also seen in their capital adequacy.

Gross written premium in the insurance sector in 2021 was higher than in the previous year, with the growth driven primarily by general insurance. Gross written premium amounted to EUR 2.4 billion at insurance corporations and EUR 392 million at reinsurance corporations, up 1.8% and 5.3% respectively on the previous year (see figure 4.5). The growth in gross written premium was driven primarily by general insurance, while in the life insurance segment it remained at its level of the previous year, and in the health

insurance segment it declined slightly. Last year's growth in gross written premium in general insurance was primarily attributable to an increase in real estate insurance against fire and other natural disasters, and motor vehicle insurance other than car liability insurance, which accounted for the largest proportions of general insurance (alongside health insurance), at 16.3% and 17.7% of the total respectively, while there was also an increase in credit and guarantee insurance. The growth in gross written premium in the life insurance segment was driven by unit-linked life insurance, while gross written premium for life insurance with a profit-sharing plan declined. The two reinsurance corporations saw their largest increases in gross written premium in the area of insurance/reinsurance against fire and other natural disasters, employee liability insurance, and life insurance/reinsurance, but there was also an increase in credit and guarantee insurance/reinsurance.

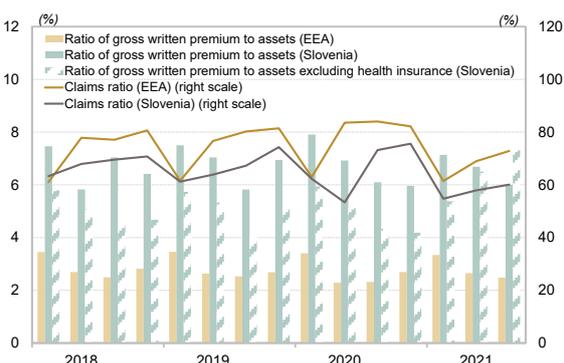
Figure 4.5 Gross written premium and annual growth by type of insurance



Note: The data for gross written premium and the claims ratio is based on aggregate statistical reports until 2017 inclusive, and on Solvency II reporting after 2017. The data for the EEA is available to the third quarter of 2021 inclusive. 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.

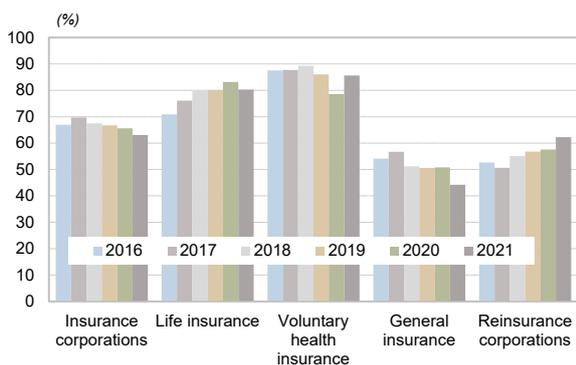
Sources: ISA, EIOPA, Banka Slovenije, own calculations

Figure 4.6 Ratio of gross written premium to total assets and claims ratio



The ratio of gross written premium to total assets declined over the first three quarters of 2021 at insurance corporations in Slovenia and in the EEA overall. Growth in gross written premium at insurance corporations was higher in Slovenia in the third quarter of the year than in the EEA overall, but both rates had slowed relative to the first quarter. The claims ratio at insurance corporations in Slovenia was also better than in the EEA overall. The ratio of gross written premium to total assets at insurance corporations stood at 6.0% in Slovenia, compared with 2.5% in the EEA overall (see figure 4.6).⁹⁹

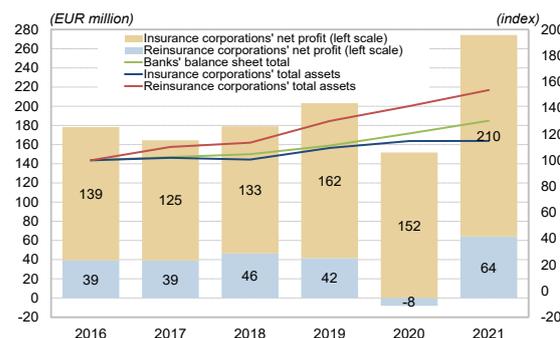
Figure 4.7 Claims ratios for the main insurance classes



Note: The data to 2016 is based on aggregate data from the financial statements, while the subsequent data is based on Solvency II reports. The exception is the data for profit, which is based on aggregated data. The total assets data is indexed in the right figure (2016 = 100).

Sources: ISA, Banka Slovenije

Figure 4.8 Insurers' net profit and total assets



Insurance corporations saw their claims ratio improve slightly in year-on-year terms in 2021, while the claims ratio of the reinsurance corporations deteriorated again. Insurance corporations' claims ratio

⁹⁹ 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.

improved by 2.6 percentage points in year-on-year terms to 63.0% (see Figure 4.7). The claims ratio in general insurance improved by 6.6 percentage points to 44.2% amid a decline in claims and a simultaneous increase in gross written premium, while the claims ratio in life insurance improved by 3.5 percentage points to 80.3% as a result of a larger decrease in claims than in gross written premium. The claims ratio in the health insurance segment increased by 7.1 percentage points to 85.6%, a significant deterioration on the 2020 figure of 78.5%, which was attributable to a decline in gross claims as a result of the Covid-19 pandemic. The reinsurance corporations' claims ratio deteriorated by 4.7 percentage points in 2021 to 62.3%.

The profitability of insurance corporations and reinsurance corporations in 2021 improved strongly relative to the previous year. Insurance corporations saw profits rise by 38.5% in year-on-year terms, while the reinsurance corporations returned to profitability with profits of EUR 64 million following their loss of EUR 8 million in the previous year (see Figure 4.8). Insurance corporations saw their profit increase in year-on-year terms in the segments of general insurance (21.9%) and life insurance (80.6%), while profit in the health insurance segment increased by 0.9%. The growth in profit in the general insurance and life insurance segments was driven by an improvement in the claims ratio, while the ongoing low interest rate environment had a negative impact on returns on assets (other than returns on the assets of life insurance policyholders who assume the investment risk) because of a decline in net interest income. The two reinsurance corporations increased their profit in 2021 thanks to an improvement in the technical result in general insurance and an increase in income on assets (increased income from dividends and other profit distributions at undertakings in the group). Insurance corporations' total assets at the end of 2021 were unchanged from a year earlier, while the reinsurance corporations' total assets were up 8.7%.

Insurers in Slovenia maintained good capital adequacy in 2021, with a slight improvement on the previous year. The median SCR coverage ratio at insurance corporations operating in Slovenia stood at 205.9% at the end of 2021, up fully 16.4 percentage points on the end of 2020. The median SCR coverage ratio rose over the first three quarters of the year, before declining in the final quarter, albeit primarily as a result of a decline in the SCR coverage ratio at smaller insurance corporations. Of the 13 insurance corporations in Slovenia, the number with an SCR coverage ratio of less than 200% fell from seven to four in 2021 (see figure 4.9). The median MCR coverage ratio in Slovenia had increased to 651.4% by the end of 2021, thereby exceeding its pre-pandemic peak (see figure 4.10).

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

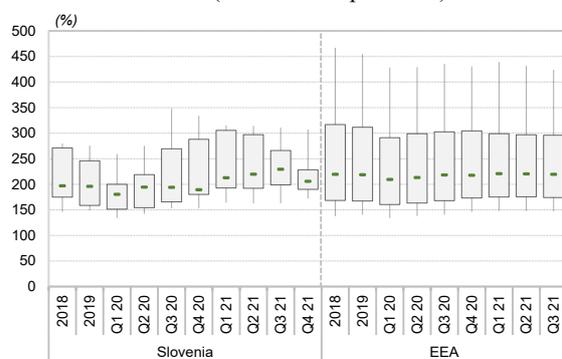
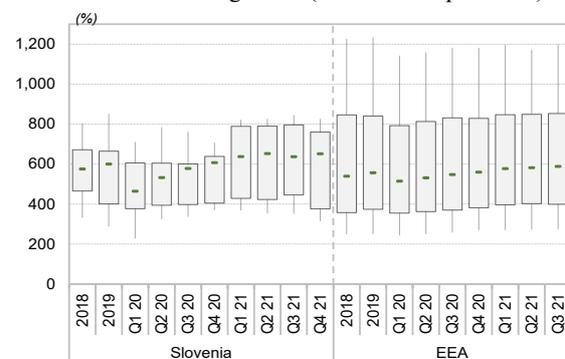


Figure 4.10 Capital adequacy in terms of MCR coverage ratio (insurance corporations)



Note: The 10th and 90th percentiles are taken as the upper and lower limits. The data for the EEA is available to the third quarter of 2021 inclusive.

Sources: EIOPA, ISA, Banka Slovenije

4.3 Mutual funds

The domestic mutual funds recorded high growth in assets under management in 2021. Net inflows into mutual funds were above-average, with equity funds recording the largest inflows. The domestic mutual funds hold most of their assets in equity and investment fund shares/units, which exposes them to market risk. The domestic mutual funds' equity investments mostly focus on the US. Their exposure to public limited companies in Russia and Ukraine is low.

The mutual funds' assets under management increased in 2021 as a result of increased inflows and high growth in stock indices. The domestic mutual funds' assets under management amounted to EUR 4.3 billion at the end of 2021, up 36.1% in year-on-year terms (see Figure 4.11). The assets under management of investment funds in the euro area overall increased by 17.4% to EUR 17.6 trillion. The domestic mutual

funds' high exposure to equities was a factor in their growth outpacing the euro area average, thanks to revaluations. Net inflows in the domestic mutual funds increased sharply in 2021 (see Figure 4.12). The average monthly net inflow amounted to EUR 6.9 million in 2019, EUR 12.5 million in 2020 and EUR 38.3 million in 2021. The largest net inflows in 2021 were recorded by equity funds (62.1% of the total) and mixed funds (35.2%), while money-market funds recorded net withdrawals.

Figure 4.11 Domestic mutual funds' assets under management, and comparison of growth in Slovenia and the euro area overall

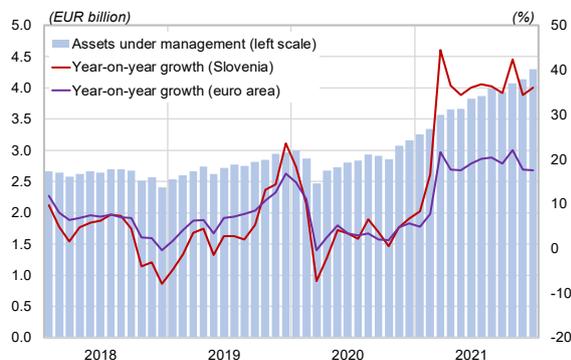
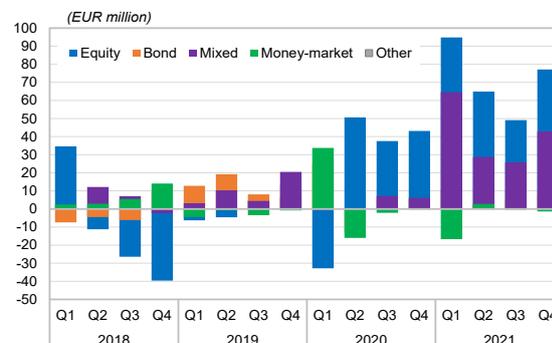


Figure 4.12 Net inflows into mutual funds by fund type



Notes: The left figure excludes money-market funds.
Sources: ECB SDW, Banka Slovenije

Households sharply increased their investments in domestic mutual funds in 2021. Net inflows into mutual funds amounted to EUR 459.4 million in 2021, three times those in the previous year (see Figure 4.13). Households recorded net inflows of EUR 344.1 million, mostly into equity funds (69.6% of the total) and mixed funds (31.3%). There was also a sharp increase (EUR 79.2 million) in insurance corporations' holdings of mutual funds, the majority of which went into mixed funds (57.6%) and equity funds (29.3%). Having mainly made withdrawals from mutual funds leading up to 2019, NFCs recorded a positive net inflow in that year, and in 2021 the net inflow amounted to EUR 22.7 million, mostly into equity funds.

Figure 4.13 Net inflows into mutual funds by investor sector

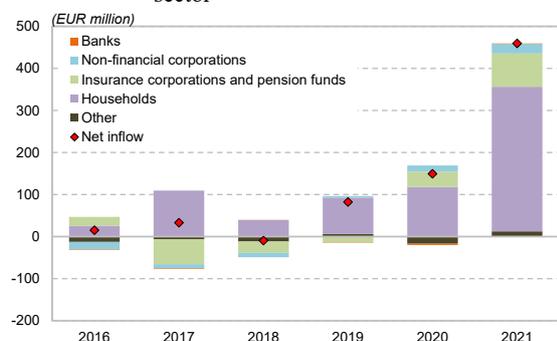
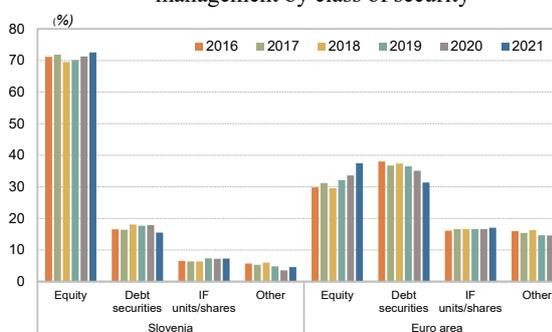


Figure 4.14 Breakdown of mutual funds' assets under management by class of security



Sources: ECB SDW, SMA, Banka Slovenije

The domestic mutual funds hold most of their assets in equity and investment fund shares/units. Compared with the euro area overall, where a significantly higher proportion of assets is held in debt securities, the domestic mutual funds are more exposed to market risk (see Figure 4.14). There has been a discernible trend of increase in the proportion of assets held in equity and investment fund shares/units, and a decline in the proportion held in debt securities at the domestic mutual funds and in the euro area overall. The outbreak of the war in Ukraine saw stock markets fall in early 2022 (see Figure 1.6), which brought a decline in the domestic mutual funds' assets under management. Stock markets have recovered since the initial fall, and currently no adverse impact on the liquidity of mutual funds is evident. Our expectation is that withdrawals from mutual funds will be limited and short-term in nature, and there will not be serious pressure on mutual fund liquidity. The domestic mutual funds' equity holdings have their largest exposure to public limited companies in the US (47.9%) and in euro area countries (20.3%). Public limited companies in Russia and Ukraine account for only 1.3% of total equity exposure. Holdings of debt securities account for 16.3% of the domestic mutual funds' assets under management, and mainly focus on euro area countries (70.8% of the total).

5 MACROPRUDENTIAL POLICY FOR THE BANKING SYSTEM AND LEASING COMPANIES

Macroprudential policy is used to identify, monitor and assess systemic risks to financial stability with the aim of safeguarding the stability of the entire financial system. It includes measures that aim to strengthen the resilience of the financial system and to prevent and reduce the build-up of systemic risks, thereby ensuring the financial sector's sustainable contribution to economic growth. The area of macroprudential policy has seen lively developments in 2022: in addition to regulatory changes that have been planned for several years now within the framework of European institutions, most notably because of developments on real estate markets, certain countries have decided to tighten their own macroprudential policy. Changes to macroprudential policy are also envisaged in Slovenia.

5.1 Current macroprudential policy guidance in EEA countries

Developments in the area of macroprudential policy have been relatively active at EU level over the last year. The European Commission opened discussions with other European institutions (EBA, ESRB and ECB) with regard to changes to macroprudential legislation in the EU. Given the increase in the risks inherent in real estate markets in Europe, national macroprudential authorities have also been highly active in the direction of tightening macroprudential policy, and have begun to raise their countercyclical capital buffers, and to introduce sectoral system risk buffers (the legal basis for this was transposed into national legislation by the CRD V) and other macroprudential measures such as restrictions on household lending. We also anticipate greater activity over the coming years to address new risks such as climate risks and cyber risks. Box 5.1 examines the announced establishment of a pan-European systemic cyber incident coordination framework, which was recommended by the ESRB with the aim of preventing any failure in resolving systemic cyber incidents.

At the end of 2021, within the framework of its regular review of macroprudential legislation, the European Commission called on European institutions (EBA, ESRB, ECB) to provide advice with regard to the functioning of the existing legislative framework in the area of macroprudential policy.¹⁰⁰ Banka Slovenije was also involved in shaping this advice through its commentary. The European Commission is seeking to use the advice from the participating European institutions to obtain qualitative and quantitative insight into the functioning of European macroprudential policy with the aim of improving the regulatory framework for macroprudential policy in the EU. The responses drawn up by the European institutions by the end of March encompass an assessment of the concept and functioning of capital buffers, an assessment of missing or unnecessary macroprudential instruments, the impact of macroprudential policy on the EU's internal market, and an assessment of whether global risks are adequately addressed within the existing legislation. The European Commission will use the responses from the European institutions to assess whether legislative changes are needed in the area of macroprudential policy. Should the European Commission assess that changes are necessary, the proposed legislative changes will be presented to the Council of the EU and the European Parliament at the end of the year.

In light of the increased risks, particularly those inherent in developments on real estate markets in Europe (EEA countries), more and more countries are opting to tighten macroprudential policy in the form of restrictions of household lending and the activation of various capital buffers. Bulgaria will gradually raise its countercyclical capital buffer from 0.5% to 1.5% by the end of the year, and Denmark will raise its buffer from zero to 2%. A similar process is underway in Czechia and Norway, which will raise their countercyclical capital buffers to 2.5% by April 2023. One-off rises in the countercyclical capital buffer from zero were also opted for by Germany (0.75% as of 1 February 2023), Romania (0.5% as of 17 October 2022), Croatia (0.5% as of 31 March 2023), Estonia (1% as of 7 December 2022), Sweden (2% as of 29 September 2022) and Iceland (2% as of 29 September 2022). Because the countercyclical capital buffer addresses broadly defined cyclical systemic risks, including excessive credit growth, to address the risks inherent in the real estate market Lithuania decided in 2021 to introduce a sectoral systemic risk buffer of 2% for exposures to household loans secured by real estate.¹⁰¹ The introduction of a sectoral systemic risk buffer of 2% for

¹⁰⁰ For more, see [20210630 CfA macropru review.pdf \(europa.eu\)](#).

¹⁰¹ For more, see: [Notification by Bank of Lithuania on Systemic Risk Buffer \(SyRB\) \(europa.eu\)](#).

exposures to household loans secured by real estate has also been announced by Germany.¹⁰² Belgium has decided to introduce a sectoral systemic risk buffer in the amount of 9% to replace the implementation of Article 458 of the CRR for exposures calculated under the IRB approach.¹⁰³ Table 5.1 below presents the macroprudential measures in force in each European country.¹⁰⁴

Table 5.1 Macroprudential instruments in European countries

Country	Countercyclical capital buffer		Sectoral systemic risk buffer associated with real estate risk		Other capital measures		Restrictions on lending
	Rate	Date of introduction	Rate	Date of introduction	Application of Article 124/164 of CRR to exposures secured by residential real	Application of Article 458 of CRR for risks inherent in real estate market	Type of measure****
Austria	0%	01.01.2016					Cap on maturity, DSTI, LTV
Belgium	0%	01.04.2020	9%*	01.05.2022		X***	LTV
Bulgaria	1.5%	01.01.2023					
Cyprus	0%	01.01.2016					DSTI, LTV
Czechia	2.5%	01.04.2023					Cap on maturity, DTI, DSTI, LTV, loan amortisation
Denmark	2%	31.12.2022					LTV, LTI
Estonia	1%	07.12.2022				X	Cap on maturity, DSTI, LTV
Finland	0%	16.03.2015					LTC
France	0%	01.04.2020					Cap on maturity, DSTI
Greece	0%	01.01.2016					
Croatia	0.5%	31.03.2022			X**		
Ireland	0%	01.04.2020					LTV, LTI
Iceland	2%	29.09.2022					DSTI, LTV
Italy	0%	01.01.2016					
Latvia	0%	01.02.2016					Cap on maturity, DSTI, LTV, LTI
Lichtenstein	0%	01.07.2019			X		LTV, loan amortisation
Lithuania	0%	01.04.2020	2%	01.07.2022			Cap on maturity, DSTI, LTV
Luxembourg	0.5%	01.01.2021					LTV
Hungary	0%	01.01.2016					DSTI, LTV
Malta	0%	01.01.2016			X		Cap on maturity, DSTI, LTV
Germany	0.75%	01.02.2023	2%	01.02.2023			
Netherlands	0%	01.01.2016					Cap on maturity, LTV
Norway	2.5%	31.03.2023				X**	LTV, DTI, loan amortisation, exemptions from caps
Poland	0%	01.01.2016			X**		Cap on maturity, DSTI, LTV
Portugal	0%	01.01.2016					Cap on maturity, DSTI, LTV
Romania	0.5%	17.10.2022					Cap on maturity, DSTI, LTV
Slovakia	1%	01.08.2020					Cap on maturity, DTI, loan amortisation
Slovenia	0%	01.01.2016			X		Cap on maturity, DSTI, LTV
Spain	0%	01.01.2016					
Sweden	1%	29.09.2022				X	LTV, loan amortisation

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

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

*** The measure will be active until 30 April 2022, and from 1 May 2022 will be replaced by the sectoral systemic risk buffer.

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

Source: ESRB

The ESRB, which regularly assesses vulnerability on the real estate market in EEA countries, is also warning of the risks inherent in the dynamics on real estate markets.¹⁰⁵ The ESRB issues warnings and recommendations to countries based on the results of this analysis. The ESRB generally first issues a warning, in which it draws attention to the risks or vulnerabilities inherent in the real estate market of the country in question. If the risks continue to increase, the ESRB may also issue a recommendation, in which it proposes a toolkit of macroprudential measures to address the identified risks and vulnerabilities. The ESRB

¹⁰² [Financial Stability Committee - German Financial Stability Committee welcomes the Federal Financial Supervisory Authority's announced package of macroprudential measures \(afs-bund.de\).](#)

¹⁰³ [EBA issues Opinion on new measure introduced by the National Bank of Belgium to address macroprudential risk | European Banking Authority \(europa.eu\)](#)

¹⁰⁴ For more on macroprudential measures in Europe, see: [National Policy \(europa.eu\)](#).

¹⁰⁵ European Economic Area.

issued warnings to five countries on the basis of the results of its most recent analysis from 2022¹⁰⁶ (Bulgaria, Croatia, Hungary, Lichtenstein and Slovakia.) It issued a recommendation with regard to addressing real estate risks to two other countries (Austria and Germany.)¹⁰⁷ Slovenia was ranked among the countries with medium risk, but was not subject to any warnings or recommendations from the ESRB, which assessed its existing macroprudential measures to be appropriate¹⁰⁸ and sufficient¹⁰⁹ for addressing risks in the real estate market. In its assessment of Slovenia's macroprudential measures the ESRB writes that while private sector indebtedness is assessed as being low by international comparison, if there were to be an excessive pick-up in credit as the recovery unfolds and if house price growth were to increase, the macroprudential authorities might consider introducing a sectoral systemic risk buffer. The ESRB additionally states that the macroprudential authorities in Slovenia need to continue monitoring the developments in lending standards for new loans, and to consider the introduction of legally binding LTV limits if the recommended limits were not carefully followed.¹¹⁰ The ESRB analysis was conducted on data available up to November 2021, since when the risks and vulnerabilities inherent in the Slovenian real estate market have increased. We have therefore decided to introduce a sectoral systemic risk buffer in line with the ESRB guidance (see Section 5.3).

Box 5.1 *Establishment of the pan-European systemic cyber incident coordination framework (EU-SCICF)*

The constantly evolving of cyber risk landscape and recent increase in cyber incidents are indicators of a growing threat to financial stability within the European Union.¹¹¹ This is important reason that European (macroprudential) institutions are focusing increased attention on incident prevention. They are developing instruments to reduce the likelihood of a cyber incident triggering a systemic cyber crisis and endangering financial stability. In its report, which relates to the reduction of systemic cyber risk,¹¹² with the aim of preventing a failure of coordination in the response to systemic cyber incidents the ESRB's cyber security working group recommended the establishment of a pan-European systemic cyber incident coordination framework (EU-SCICF).¹¹³ The aim of the EU-SCICF is to enable effective communication and coordination between supervisory authorities and other authorities involved in resolving systemic crises. The successful resolution of cyber incidents needs coordination at all levels (national, international and European). To reduce the risk of a failure of coordination, financial system supervisors need to increase their preparedness for a systemic cyber crisis by improving their communication and coordination capacity at EU level.

The key principles that European supervisory authorities need to uphold so that there are no coordination errors are: (i) a common understanding of the situation, (ii) prompt coordination between financial supervisors, (iii) proper communication with the public and the media (the fast spread of cyber incidents may lead a loss of confidence in the functioning of the financial system) and (iv) regular testing and upgrade of the framework (regular testing ensures that the framework is always fit for purpose and that it improves preparedness to address cyber incidents).

Based on the analysis and findings, the ESRB's cyber security working group drew up three recommendations addressed to European supervisory authorities:¹¹⁴

- **Establishment of the EU-SCICF** → European supervisory authorities should start preparations for the development of the EU-SCICF, and should additionally conduct a mapping and subsequent analysis of current legal and other operational barriers to the effective development of the EU-SCICF.

¹⁰⁶

https://www.esrb.europa.eu/pub/pdf/reports/esrb.report220211_vulnerabilities_eea_countries~27e571112b.en.pdf?cb8132dc3e0f0f53a4fce3292a690bd6.

¹⁰⁷ ESRB issues new warnings and recommendations on medium-term residential real estate vulnerabilities (europa.eu). The report relates to data available up to November 2021, which means that the analysis excludes data from the last two quarters.

¹⁰⁸ A measure is deemed appropriate when it is able to address the identified risks.

¹⁰⁹ A measure is deemed sufficient when its benefits are greater than its costs, and the measure mitigates risks.

¹¹⁰ Taken from Vulnerabilities in the residential real estate sectors of the EEA countries (europa.eu) p. 124.

¹¹¹ The number of cyber incidents reported to the ECB in 2020 was up 54% on 2019.

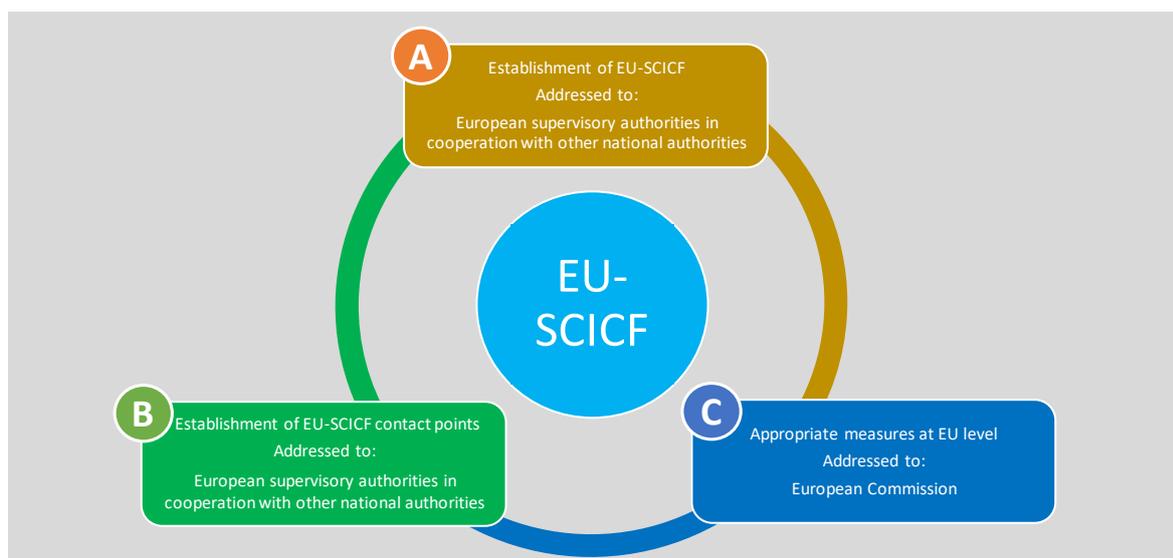
¹¹² The ESRB report entitled *Mitigating systemic cyber risk* can be found at <https://www.esrb.europa.eu/pub/pdf/reports/esrb.SystemiCyberRisk.220127~b6655fa027.en.pdf?bd2b11e760cff336f84c983133dd23dc> (published January 2022).

¹¹³ EU-SCICF is short for pan-European systemic cyber incident coordination framework.

¹¹⁴ The ESRB recommendations for the EU-SCICF can be found at [Recommendation of the European Systemic Risk Board of 2 December 2021 on a pan-European systemic cyber incident coordination framework for relevant authorities \(ESRB/2021/7\) \(europa.eu\)](#) (published January 2022).

- **Establishment of EU-SCICF contact points** → The establishment of points of contact between European supervisory authorities, Member States and the ECB for the purpose of informing about cyber incidents.
- **Appropriate measures at EU level** → Based on the results of the analysis carried out in accordance with the recommendation for the establishment of the EU-SCICF, the European Commission should consider the appropriate measures needed to ensure effective coordination of responses to systemic cyber incidents.

Figure 5.1 ESRB recommendation for the establishment of the EU-SCICF



Sources: ESRB, Banka Slovenije

The EU-SCICF should not aim to replace existing frameworks, but to **bridge any coordination and communication gaps** between financial institutions and other key actors at international level. The EU-SCICF should only be activated during systemic cyber crises. It will be introduced by the end of 2025, and the national macroprudential authorities will participate in it.

5.2 Overview of macroprudential instruments in force in Slovenia

Banka Slovenije's macroprudential measures currently encompasses macroprudential restrictions on household lending, the countercyclical capital buffer, and the O-SII buffer. Certain changes to the macroprudential restrictions on household lending enter into force on 1 July 2022, while 1 January 2023 sees the introduction of two sectoral systemic risk buffers. The macroprudential restrictions on profit distributions by banks and leasing companies expired in September of last year, while the GLTDF measure, which prevented excessive maturity mismatch and illiquidity, expired in October.

Simulations of creditworthiness for 2018 indicate that if the restrictions on lending had been put in place in 2018, the number of uncreditworthy individuals would have increased. Another finding is that all households would have had access to financial resources, and on average they would merely have utilised a smaller part of their creditworthiness. The restrictions on household lending apply solely to bank lending, for which reason before the introduction of the measure there was a risk of a sharp increase in household lending at other consumer credit providers or in other forms of (non-)bank borrowing. Our finding is that non-bank providers succeeded in compensating for only some of the decline in lending at bank providers. The total volume of consumer loans approved by non-bank providers at a quarterly level does not entail any systemic risk for now. The average amount of a lending operation remains low. The importance of banks in the financing of personal consumption via finance leasing increased during the pandemic: their new finance leasing business did not decline in 2020, as was the case for bank loans, consumer lending by the non-banking sector, and leasing companies' business. The leasing companies did not see a discernible increase in new business with households following the introduction of the macroprudential restrictions. Borrowing at foreign banks has been declining for several consecutive quarters now, and households did not increase their use of overdrafts or borrowing via payment and credit cards following the introduction of the

macroprudential restrictions. Certain banks have recently observed an increase in products that have the nature of credit, but are not subject to the macroprudential restrictions. Our assessment is that the approval of these products is often an attempt to evade the macroprudential restrictions, for which reason Banka Slovenije has intensified its supervision of these operations, and will take additional measures as necessary.

Banka Slovenije currently makes use of three packages of macroprudential instruments to prevent and mitigate systemic risks. These are summarised in Table 5.2. They are described in detail on the Banka Slovenije website.

Table 5.2 Macroprudential instruments

MACROPRUDENTIAL INSTRUMENT	YEAR OF INTRODUCTION	MACROPRUDENTIAL POLICY INTERMEDIATE OBJECTIVE	VALIDITY	DESCRIPTION	ASSESSMENT OF ATTAINMENT OF OBJECTIVE
Macroprudential restrictions on household lending	2016*/2018**/2019***/2020****/2022*****	to mitigate and prevent excessive credit growth and excessive leverage	no limit	to limit growth in consumer loans and housing loans and to establish minimum credit standards for new household loans	growth in consumer loans is no longer excessive, and credit standards have improved in the approval of consumer loans and housing loans
Countercyclical capital buffer	2016	to mitigate and prevent excessive credit growth and excessive leverage	no limit	to protect the banking system against potential losses when these would come from an increase in risks in the system as a result of excessive growth in lending, thereby directly increasing the resilience of the banking system and preventing excessive growth in lending	the buffer rate remains at zero, given the state of the credit cycle and financial cycle
O-SII buffer	2016	to limit the systemic impact of misaligned incentives with a view to reducing moral hazard	no limit	to increase the resilience of O-SIIs and consequently the entire banking system	higher resilience as a result of higher requirements for common equity Tier 1 capital, which for now are not binding on the banks
Sectoral systemic risk buffers	2022*****	(a) to mitigate and prevent excessive credit growth and excessive leverage (b) to limit direct and indirect exposure concentrations	no limit	to slow and limit excessive growth in housing loans, and to increase the resilience of the banking system amid an increase in exposure in defined lending segments	/

Notes: * Earlier in 2016 Banka Slovenije had introduced a recommendation with regard to LTV and DSTI for housing loans.
 ** In 2018 it expanded the macroprudential recommendation to consumer loans, to which a cap on maturity also applied alongside the cap on DSTI.
 *** The caps on DSTI and maturity became binding in 2019.
 **** In response to the Covid-19 pandemic, adjustments were made to the cap on DSTI in 2020, allowing the banks under certain conditions to exclude the temporary loss of income during the pandemic when calculating DSTI.
 ***** Additional changes to the existing restrictions on household lending enter into force on 1 July 2022 (for more, see Section 5.2).
 ***** Two sectoral systemic risk buffers were introduced in 2022, and enter into force on 1 January 2023 (for more, see Section 5.3).

Source: Banka Slovenije

Countercyclical capital buffer

The countercyclical capital buffer has been set at zero since its introduction in 2016. The countercyclical capital buffer is one of the principal macroprudential instruments set out within the framework of the Basel III¹¹⁵ arrangements. The purpose of the countercyclical capital buffer instrument is to protect the banking system against potential losses when these are related to an increase in risks in the system as a result of excessive growth in lending.

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 third quarter of 2021 and the corresponding historical averages. The table shows that the credit-to-GDP gap is negative (in the amount of 23.2%), whereby the ratio of credit to GDP stands at 60.2%. The credit gap reflects the low level of lending to the private non-banking sector compared with past levels (see Figure 5.3). The low level of lending means that systemic risks are not originating in excessive credit growth. Annual growth in prices of used flats stood at 14.7% in the third quarter of 2021, more than the average over the period of Q1 2001 to Q3 2021. Annual growth in lending to the domestic private non-financial sector stood at 1.67%, significantly below its average over the period of Q1 2000 to Q3 2021. The LTD ratio for the private non-banking sector is lower than it has been in the past (at 0.66). This indicates that lending is primarily

¹¹⁵ BCBS (2010). Basel III: A global regulatory framework for more resilient banks and banking systems.

being funded by customer deposits, which are a more stable source of funding. Return on equity stood at 8.7% in the third quarter of 2021. 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

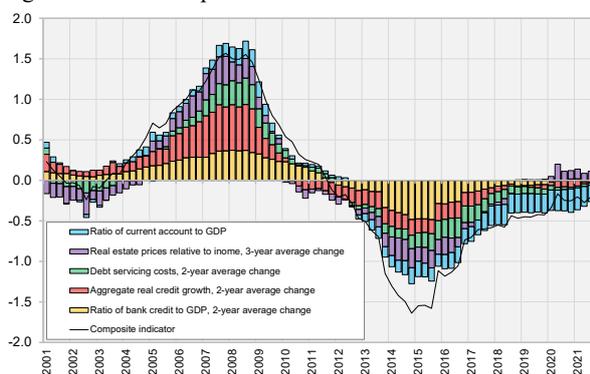
Indicator	Average value (Q1 2000 to Q3 2021)*	Value of indicator taken into account in decision on buffer**
Private-sector credit-to-GDP gap	-9.7%	-23.2%
Annual growth in real estate prices (available since 2001)	5.4%	14.7%
Annual growth in lending to domestic private non-financial sector	8.2%	1.67%
LTD ratio for private non-banking sector	1.12	0.66
Return on equity	1.4%	8.7%
Ratio of credit to gross operating surplus	4.3	1.9

Note: * Value serves merely for orientation purposes. 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 Q3 2021. ** The latest available indicator value is used (Q3 2021).

Sources: SORS, own calculations

Figure 5.2 illustrates the value of the composite indicator in the third quarter of 2021, and the individual indicators' contributions to the composite indicator. The composite indicator rose slightly in the third quarter of 2021, but remained in negative territory, at -0.2050.¹¹⁶

Figure 5.2 Composite indicator



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

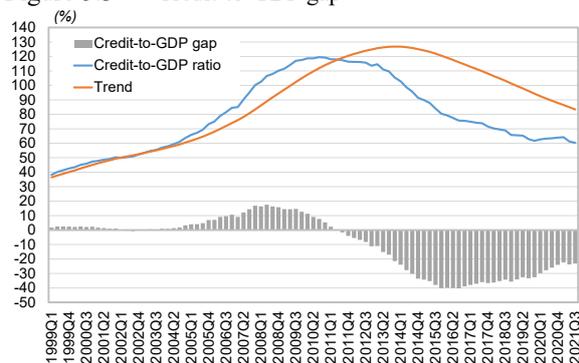
Source: Banka Slovenije

Cyclical systemic risks are increasing mainly because of the high growth in residential real estate prices. Despite a gradual increase from its low of 2014 and 2015, the composite indicator is still negative. Figure 5.1 shows that the rise in the composite indicator over the last four quarters has been driven primarily by the ratio of growth in residential real estate prices to income. As stated, the credit-to-GDP gap remains negative, while the credit-to-GDP ratio is low and stable. Credit growth in the third quarter of 2021 was not broadly based: annual growth in lending to the domestic private non-financial sector stood at 1.67%, significantly below its long-term average.¹¹⁷ The high credit growth is being driven primarily by housing

¹¹⁶ 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 2019, February 2019).

¹¹⁷ Annual growth in lending to the domestic private non-financial sector strengthened to 4% in the final quarter of 2021, which does not alter the risk assessment or the need to activate the countercyclical capital buffer.

Figure 5.3 Credit-to-GDP gap



loans, but the high year-on-year growth in residential real estate prices is also increasing the risks inherent in the real estate market. **Instead of the activation of the countercyclical capital buffer, a systemic risk buffer has been implemented for the purposes of strengthening the resilience of the banking sector.** If cyclical systemic risks continue to rise, the main factor is not growth in real estate prices alone, and credit growth becomes more broadly based, there will be a need to activate the countercyclical capital buffer. In the event of the activation of the countercyclical capital buffer, the new rate will begin to apply 12 months after its announcement. In extraordinary circumstances, a new buffer rate may also be applied less than 12 months after the announcement of the change.

O-SII buffer

The buffer for other systemically important banks (the O-SII buffer), which is set out in accordance with the ZBan-3, 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 designating O-SIIs we largely follow the EBA guidelines¹¹⁸. 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.

Banka Slovenije first identified O-SIIs in 2015, when we defined a phasing-in period for meeting the capital buffer, namely from 1 January 2019. Eight banks were identified in 2015 and 2016 taking into account the systemic importance score that combines all of the described criteria, where the threshold was 350 basis points. With the threshold being raised to 500 basis points in 2017, seven banks were identified over the next two years, and six banks have been identified as such in the last two years.

The buffer rate for the identified O-SIIs is defined by the Regulation on the determination of the capital buffer for other systemically important institutions.¹¹⁹ The ZBan-3 stipulates that at least once a year the Banka Slovenije should verify the fulfilment of OSII criteria and the appropriateness of O-SII buffer rates. Each bank must meet the O-SII buffer at the highest level of consolidation in Slovenia, through common equity Tier 1 capital.

In 2021, we identified six systemically important banks. At the same time, there have been some changes in the values of the criteria for some banks. NLB and SID banka saw their indicators of systemic importance rise, while the other banks saw a slight decline. Following the change in its indicator of systemic importance in 2021, NLB was placed in the historically highest bracket, which corresponds to a buffer rate of 1.25%. The bank is required to meet its higher capital requirement as of 1 January 2023.

Table 5.4 Indicator of systemic importance and capital buffer rate for O-SIIs

Bank	Indicator of systemic importance	Buffer rate
NLB d.d.	3,439	1.25%
Nova KBM d.d.	1,591	0.50%
SID banka d.d.	1,148	0.25%
SKB d.d.	575	0.25%
Banka Intesa Sanpaolo d.d.	535	0.25%
UniCredit banka Slovenija d.d.	524	0.25%

Note: NLB is required to meet the buffer as of 1 January 2023.

Source: Banka Slovenije

Macroprudential restrictions on household lending

The Regulation on macroprudential restrictions on household lending (Official Gazette of the Republic of Slovenia, Nos. 64/19 and 75/20) put in place minimum credit standards for housing and consumer loans. The measure was introduced in 2019 with the intermediate objective of preventing excessive credit growth and excessive leverage.¹²⁰ Our observation is that the characteristics of new loans approved in 2021,

¹¹⁸ 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).

¹¹⁹ 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).

¹²⁰ More analyses with regard to the attainment of objectives and effects of macroprudential restrictions on household lending can be found in the April 2021 issue of the Financial Stability Review (pp. 76-80), the October 2021 issue of the Financial Stability Review (pp. 77-79) and the Banka Slovenije Annual Report 2020 (pp. 70-72).

whether housing loans or consumer loans, remained largely unchanged from previous quarters (see Table 5.5).

Table 5.5 Average values of selected parameters for housing and consumer loans, and level of deviations from macroprudential instruments

Weighted average (level of deviations)*	2019***	2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021
Housing loans						
LTV	67.7% (20.0%)	67.6% (15.7%)	65.1% (13.4%)	63.5% (10.0%)	62.8% (10.1%)	63.4% (10.8%)
DSTI	32.1% (15.7%)	29.9% (4.5%)	30.7% (9.7%)	30.8% (3.1%)	31.4% (3.7%)	31.3% (4.0%)
Maturity, years	19.1	19.3	19.2	18.6	18.7	18.6
Consumer loans						
DSTI	26.4% (21.8%)	24.6% (4.3%)	25.8% (11.7%)	25.4% (4.7%)	26.0% (4.0%)	26.1% (4.2%)
Maturity, years**	6.5 (2.3%)	5.9 (5.8%)	6.1 (10.2%)	6.2 (10.0%)	6.2 (10.3%)	6.2 (10.2%)

Note: The level of deviations from the cap on DSTI in the first quarter of 2021 was higher because of the rise in the minimum wage. A similar effect can be expected in the first quarter of 2022.

Source: Banka Slovenije

The banks are abiding by the macroprudential restrictions, as the level of deviations from the caps on DSTI and on maturity (for consumer loans) is low and within the scope of allowed for deviations (10% for DSTI and 15% for maturity).¹²¹ The fact that credit standards remained stable, despite the significant increase in new housing loans, is an indication that the restrictions are effective. The existing regulation will be replaced by a new Regulation on macroprudential restrictions on consumer lending from 1 July 2022. Two sectoral systemic risk buffers will also be introduced in connection with these changes. The two changes are described below (see Section 5.3).

Box 5.2 *Impact of macroprudential measures on access to financial resources for households and individuals*

Assessment of the creditworthiness of Slovenian households and individuals in 2018

To assess the impact of the introduction of the macroprudential restrictions on household lending on creditworthiness it is first necessary to estimate the share of uncreditworthy persons before the measures were put in place. It should be noted that the analysis also includes individuals and households who do not need loans or who do not apply for loans for various reasons. Therefore we illustrate entirely hypothetical or theoretical creditworthiness. This simulation was conducted on a sample of combined data from the SILC survey and the SISBON database for 2018. A precise estimate of the number of uncreditworthy persons is impossible, as credit standards varied considerably across banks in 2018, but the share of creditworthy individuals and households can nevertheless be estimated under certain assumptions. On the basis of a review of the lending policies of certain banks it can be assumed that for an individual borrower the sum required for the maintenance of one child is EUR 100, while a sum of EUR 200 is applied for two or more children (for all dependent persons). The threshold for creditworthiness is set at 76% of the gross minimum wage in 2018 (EUR 640), which is broadly in line with the policies of the commercial banks at that time.

The simulation of the creditworthiness of individuals in 2018 reveals that had the macroprudential restrictions been applied in 2018, creditworthiness would have declined in particular for individuals in the second, third and fourth income quintiles (see Table 5.6 and Table 5.7). The simulated number of uncreditworthy persons before the introduction of the measure is 421 thousand, and would rise by 25% to

¹²¹ The limit of allowed exemptions is actually calculated with regard to transactions that comply with all the binding macroprudential measures, but for low levels it can be approximated on the basis of the total amount of approved loans.

526 thousand in the wake of the introduction of the measure.¹²² The number of uncreditworthy households would rise from 95 thousand to 132 thousand (by 39%) in the wake of the introduction of the measure.

Table 5.6 Share of uncreditworthy individuals by income quintile

	No measure	With the measure
1	100%	100%
2	40%	53%
3	5%	19%
4	2%	7%
5	0%	2%
Average	29%	36%

Sources: Banka Slovenije, SORS

Table 5.7 Share of uncreditworthy households by income quintile

	No measure	With the measure
1	38%	44%
2	3%	13%
3	1%	4%
4	0%	1%
5	0%	0%
Average	8%	12%

Sources: Banka Slovenije, SORS

Our simulations based on the data from 2018 (see Table 5.9) show if the measure had been in force at that time all households would have had access to financial resources, and on average they would have utilised a smaller share of their creditworthiness. Under the assumption of the introduction of the measure in 2018, the potential, actual and marginal creditworthiness for individuals in various income quintiles were calculated (see Table 5.8). Again the finding is the creditworthiness would be highly dependent on income. Persons in the first quintile would be uncreditworthy, and then creditworthiness gradually increases. Looking at actual indebtedness in the sample of indebted persons alone, it is found that individuals in the first quintile are more indebted on average than is allowed by the measure, and consequently their average marginal creditworthiness is zero.

Table 5.8 Potential, actual and marginal indebtedness of individuals by income quintile (EUR)

	Potential	Actual	Marginal
1	0	1,949	0
2	3,867	3,371	2,772
3	20,097	5,613	14,288
4	46,980	10,368	32,088
5	118,115	17,923	89,248
Average	37,812	7,845	27,679

Note: The values are calculated for all persons in the sample (indebted and debt-free).

Sources: Banka Slovenije, SORS

Table 5.9 Potential, actual and marginal indebtedness of households by income quintile (EUR)

	Potential	Actual	Marginal
1	16,138	4,470	11,884
2	43,165	12,477	30,548
3	73,545	22,372	48,943
4	123,386	26,413	86,639
5	241,013	31,674	188,169
Average	99,449	19,481	73,237

Note: The values are calculated for all households in the sample (indebted and debt-free).

Sources: Banka Slovenije, SORS

On the basis of the above analysis it can be concluded that in 2018 the share of individuals and households in Slovenia that were uncreditworthy according to the bank credit standards applicable at the time was not negligible. The introduction of the macroprudential restrictions would have slightly increased that share. All individuals in the lowest income quintile and just over half of those in the second quintile would have been uncreditworthy. The impact would be smaller at the level of households: just under half of the households in the lowest income quintile and around 13% of households in the second income quintile would have been uncreditworthy.

Analysis of loans approved in 2018

The loans actually approved to individuals, which are captured by the EU-SILC, were also analysed. It can be assumed that the majority of individuals (or households) who would find it harder to repay a loan are aware of that, and therefore would not apply for loans or would have no demand for a loan, while at the same time

¹²² The simulation assumes that the calibration of the measure would be the same as in the Regulation on macroprudential restrictions on household lending (Official Gazette of the Republic of Slovenia, Nos. 64/19 and 75/20), which was adopted in 2019.

banks would have refused uncreditworthy applicants (of their own accord) even before the introduction of binding macroprudential restrictions. The stock of housing loans in 2018 (i.e. before the introduction of the measure) approved to persons with income below 76% of the gross minimum wage was negligible. There were fewer than five such transactions in the SILC sample, for which reason the data on their exact flow and attributes is confidential (see Table 5.10). The information obtained from the banks within the framework of supervisory activities by Banka Slovenije also shows that in 2018 banks did not approve housing loans to persons with income lower than the net minimum wage (EUR 638 in 2018, approximately equal to 76% of the gross minimum wage, which then stood at EUR 641). The banks did approve a small number of housing loans to persons who because of dependent family members would not have been creditworthy in 2018 had the binding cap on DSTI applied then. A total of 6.1% of all new housing loans in terms of loan amount were approved to such persons.¹²³

Table 5.10 Attributes of new housing loans approved in 2018 by type of borrower

	Total number of borrowers	Number of borrowers in SILC	Total loan amount in sample, EUR
All borrowers	14,440	159	10,165,959
Borrowers with income less than minimum wage	C	C	C
Uncreditworthy borrowers	689 (4.8%)	10 (6.3%)	624,633 (6.1%)

Notes: C: statistically confidential information (less than five units). The numbers in the first column were obtained by weighting the data for persons included in the EU-SILC sample, and represent an estimate of the number of borrowers with specific attributes for the entire population.

Sources: Banka Slovenije, SORS

The share of consumer loans approved in 2018 to persons with income below 76% of the gross minimum wage was small (see Table 5.11). They accounted for 3.6% of the total.¹²⁴ The results are as expected, given that it is known that certain banks were willing to lend to borrowers with income less than minimum wage. The banks also approved consumer loans to persons who because of dependent family members would not have been creditworthy in 2018 had the binding cap on DSTI applied. A total of 9.3% of all new consumer loans in terms of loan amount were approved to such persons.¹²⁵ Under the assumption that the structure of loan demand remained the same in later years, it can be concluded that the macroprudential restrictions did not significantly interfere with the market for housing and consumer loans.

Table 5.11 Attributes of new consumer loans approved in 2018 by type of borrower

	Total number of borrowers	Number of borrowers in SILC	Total loan amount in sample, EUR
All borrowers	123,788	1,430	15,856,341
Borrowers with income less than minimum wage	11,674 (9.4%)	135 (9.4%)	564,128 (3.6%)
Uncreditworthy borrowers	12,122 (9.8%)	158 (11.0%)	1,481,500 (9.3%)

Notes: The numbers in the first column were obtained by weighting the data for persons included in the EU-SILC sample, and represent an estimate of the number of borrowers with specific attributes for the entire population.

Sources: Banka Slovenije, SORS

Evolution of macroprudential restrictions on household lending

The introduction of the macroprudential restrictions on household lending increased the risk of a sharp increase in household lending at other consumer credit providers or in other forms borrowing.

The macroprudential restrictions apply solely to bank lending and not other entities such as lenders that have obtained an authorisation to provide consumer credit from the Ministry of Economic Development and Technology. They also do not apply to alternative banking and non-banking products, such as personal overdrafts, credit card limits and leasing debt.¹²⁶ Borrowers still have at their disposal alternative sources of financing that in some cases are more favourable than bank loans. The macroprudential supervision

¹²³ 6.3% in terms of number.

¹²⁴ 9.4% in terms of number.

¹²⁵ 11.0% in terms of number.

¹²⁶ Not all non-bank entities that have obtained an authorisation to provide consumer credit from the MEDT in accordance with the Central Credit Register Act (Official Gazette of the Republic of Slovenia, No. 77/16) are required to report in SISBON, but the database does contain data for entities who approve a significant proportion of consumer loans. For more information about the SISBON system and the list of entities included in the credit register, see <https://sisbon.si/o-sistemu-sisbon/>. The list of entities that hold an MEDT authorisation to provide consumer credit can be found online at <https://www.gov.si/teme/potrosnisko-kreditiranje/>.

framework in Slovenia is deficient, as it fails to include non-bank lenders. Attention was drawn to this in 2021 within the framework of Slovenia's Financial Stability Board, which sent the government a proposal for regulating macroprudential supervision of non-bank consumer credit providers.¹²⁷

The almost simultaneous outbreak of the pandemic means that assessing the degree to which the non-banking sector succeeded in compensating for the decline in bank lending associated with the introduction of the macroprudential restrictions is very difficult. At a time when the pandemic was yet to make a notable impact (the final quarter of 2019 and the first quarter of 2020),¹²⁸ the increase in lending at non-bank providers succeeded in compensating merely for just over 5% of the decline in lending at bank providers. Before the introduction of the macroprudential restrictions, the banking sector approved an average EUR 339.2 million of consumer loans each quarter between the first quarter of 2018 and the third quarter of 2019 (see Figure 5.4). After the introduction of the restrictions and the outbreak of the pandemic, the average volume of consumer loans approved each quarter by the banks between the third quarter of 2019 and the final quarter of 2021 was EUR 218.9 million, a decline of 35%. Over the same period the non-banking sector¹²⁹ increased its average sum of approved consumer loans from EUR 19.1 million to EUR 21.9 million, an increase of 14.5%, but this covers only a small part of the decline in bank lending.¹³⁰ The pandemic and the containment measures had a larger impact on banking than on the performance of the non-banking sector. New consumer loans at banks in the first quarter of 2020 were down 40.7% in year-on-year terms, while at non-bank providers there was an increase in lending of 6.2%.¹³¹ It was not until the second quarter of 2020 that the non-banking sector saw a year-on-year decline in new consumer loans, in the amount of 17.8%. The equivalent figure at banks was 62.9%.

Figure 5.4 Breakdown of new consumer loans by the banking and non-banking sectors (value)

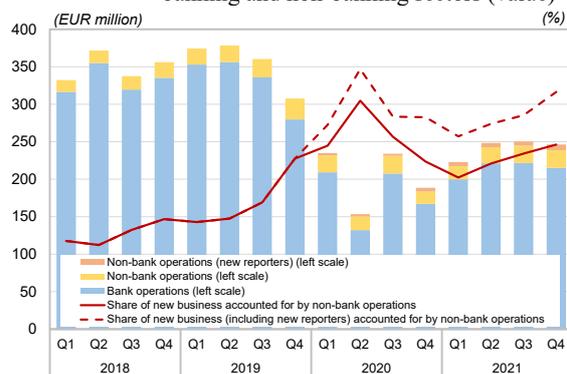
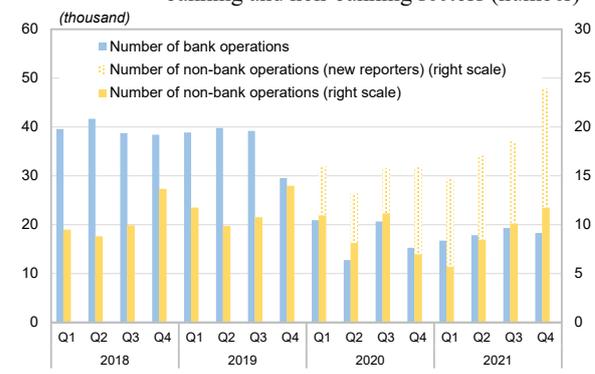


Figure 5.5 Breakdown of new consumer loans by the banking and non-banking sectors (number)



Note: In addition to consumer credit, the non-banking sector offers other forms of borrowing such as instalment purchase. Certain non-bank entities that report to the SISBON database are owned by banks or banking groups.
Source: SISBON

The non-banking sector does not play a major role in consumer lending. The share of consumer loans approved by the non-banking sector did increase before the introduction of the macroprudential restrictions (see Figure 5.4), but since the introduction of the macroprudential restrictions it has only increased by 2.3 percentage points.¹³² It jumped to 12.2% following the introduction of the restrictions as a result of the sharp decline in new consumer loans at banks (or to 13.9% if new reporters are included), but after the recovery of bank lending it declined again and currently stands at around 9% (or 12% if new reporters are included). Similar conclusions can be drawn from the number of consumer loans approved by bank and non-bank

¹²⁷ For more information (in Slovene), see https://bankaslovenije.blob.core.windows.net/publication-files/letno_porocilo_ofs_junij_2021.pdf (pp. 18-19).

¹²⁸ The final quarter of 2019 includes the month of October 2019, when lending in the banking sector was extremely high after the announcement of the introduction of the restrictions, but before their implementation.

¹²⁹ Non-bank entities that report to the SISBON database. Non-bank entities in the SISBON database include Bonafin ena d.o.o., Eko sklad, Porsche leasing d.o.o., SKB leasing d.o.o., SKB leasing selected d.o.o. and Summit leasing Slovenija d.o.o. These providers account for 80% of all consumer credit recorded by the MEDT, where it should be noted that reporting to the MEDT also captures leasing business and other forms of lending, which cannot be excluded. The MEDT recorded EUR 531.6 million of lending in 2019 (including leasing business and moratoria), up 8.2% on the previous year. The figure stood at EUR 479.3 million in 2020, down 9.8% on 2019. The 2021 data is not yet available.

¹³⁰ Including new reporters, the average sum of approved consumer loans increased by 37.3% to EUR 26.2 million. These entities had been lending previously, but not included in the SISBON reporting until the first quarter of 2020. Following their inclusion in the SISBON reporting, the share of all business by the non-banking sector accounted for by the new reporters stood at 12.7%, but had risen to 32.7% by the final quarter of 2021.

¹³¹ Or 19.7% if new reporters are included.

¹³² The figure applies to a stable sample of reporters.

providers (see Figure 5.5). The number of bank operations began to fall after the introduction of the restrictions, and the decline in business was given further impetus by the pandemic, which hit the banking sector harder than the non-banking sector. The average amount of a consumer loan increased sharply at bank providers over the observation period, but remained at similar levels to the past at non-bank providers (see Figure 3.10). It can be concluded that non-bank lending increased slightly over the observation period, but the total amount of consumer loans approved by the non-banking sector each quarter does not pose a systemic risk for now, and the average amount of a non-bank operation remains low and is not increasing.

The importance of banks in financing personal consumption via finance leases increased during the Covid-19 pandemic (see Figure 5.6).¹³³ New finance leasing business did not decline in 2020, as was the case for bank loans, consumer lending by the non-banking sector, and leasing companies' business. New leasing business with households increased by 10.1% in 2020, while the stock of leasing business with households increased by 11.5% to EUR 338.6 million. New business increased again in 2021 by 3.4%, with the approval of EUR 161.3 million of finance leasing business with households, while the stock of leasing business with households increased by 21.7% to EUR 412.1 million. Given the even more pronounced increase in business with NFCs, the increase in business with households cannot be attributed to the introduction of the macroprudential measures. The leasing companies too did not see a discernible increase in new business with households (see Figure 5.7). Leasing companies' new business with households was down 12.4% in 2020, while the stock of leasing business with households increased by 1.4% relative to 2019. New business then increased by 29.2% in 2021, with the approval of EUR 601.8 million of leasing business with households, while the stock of leasing business with households increased by 9.4% to EUR 1.3 billion.

Figure 5.6 Banks' new finance leasing business with households

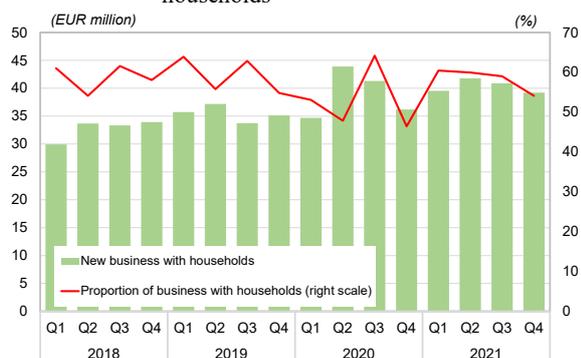
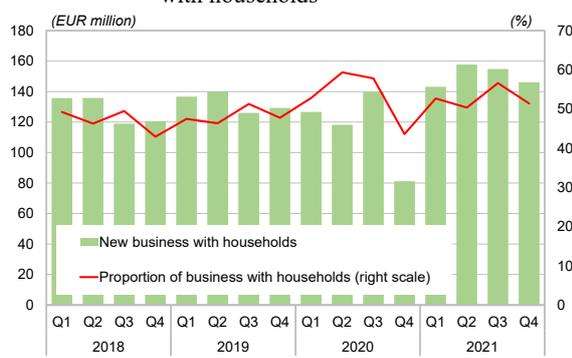


Figure 5.7 Leasing companies' new leasing business with households



Source: Banka Slovenije

Household borrowing at foreign banks is declining. The stock of bank loans to households in Slovenia from euro area countries has been falling for several years now (see Figure 5.8). Households in Slovenia hold their largest loans from banks in Austria and Italy. The share of the total stock of household loans accounted for by banks from euro area countries declined from 3.3% in the first quarter of 2018 to 2.2% in the final quarter of 2021. Households did not increase their use of overdrafts or borrowing via payment and credit cards following the introduction of the macroprudential restrictions (see Figure 5.9). The total stock of overdrafts and borrowing via payment and credit cards shows a similar trend to banking operations. The use of overdrafts declined following the outbreak of the pandemic, before gradually recovering. Because households saved heavily during the pandemic, the need for overdrafts and borrowing via payment and credit cards was also reduced.

¹³³ The banks' direct presence in the finance leasing market is low. Three banks offer finance leasing directly, the majority of which is equipment leasing. The majority of banks offer finance leasing through subsidiaries. Some of these also provide consumer credit.

Figure 5.8 Bank loans to households in Slovenia from euro area countries

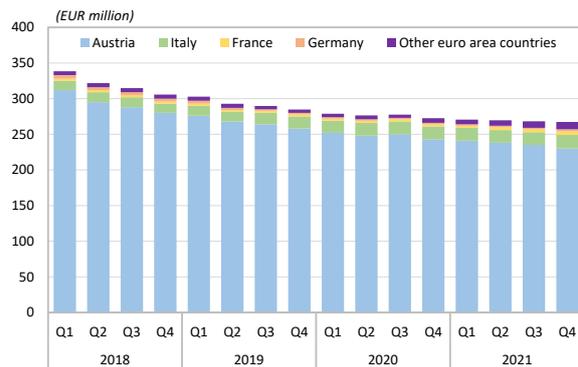
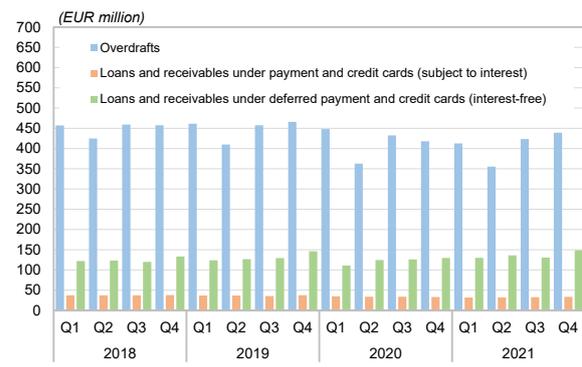


Figure 5.9 Overdrafts and borrowing via payment and credit cards



Sources: ECB SDW, Banka Slovenije

For certain banks we have recently observed an increase in products that have the nature of credit, but are not subject of the macroprudential restrictions. One widespread product is the so-called shrinking overdraft, where the consumer is approved a high overdraft limit, e.g. EUR 5,000, which is then reduced every month by a previously agreed sum, such as EUR 50. The maturity of these products can be very long, e.g. more than seven years. Our assessment is that the approval of these products is often an attempt to evade the macroprudential restrictions, for which reason Banka Slovenije has intensified its supervision of these products, and will take additional measures as necessary.

A potential risk is also posed by digital banks (e.g. Revolut and N26), which are registered outside Slovenia and have been providing consumer credit in certain countries. According to public data, a larger number of Slovenian citizens have accounts with these banks. Should these entities begin providing consumer credit in Slovenia, Banka Slovenije would study the possibility of requesting reciprocal application of macroprudential restrictions on lending.

5.3 Upcoming changes to macroprudential instruments in Slovenia

Banka Slovenije is making changes to the macroprudential restrictions on household lending on 1 July 2022, while 1 January 2023 sees the entry into force of a sectoral systemic risk buffer. The purpose of the changes to the macroprudential restrictions on household lending is to improve loan accessibility for retail customers, and to address the risks inherent in the real estate market. The risks inherent in the real estate market and in the relaxation of restrictions on lending will also be addressed by the introduction of a sectoral systemic risk buffer.

Macroprudential restrictions on consumer lending

Banka Slovenije adopted the Regulation on macroprudential restrictions on consumer lending¹³⁴ on 28 April to modify and replace the Regulation on macroprudential restrictions on household lending (Official Gazette of the Republic of Slovenia, Nos. 64/19 and 75/20). The new regulation substantively follows the existing macroprudential restrictions on household lending, but brings a number of changes that will improve loan accessibility for retail customers, and will also address the growing risk inherent in the real estate market (see Section 1.2 Risk inherent in the real estate market).

The conditions for approving allowed deviations from the cap on DSTI are changing. To date also for allowed deviations the consumer should be left with at least 76% of the gross minimum wage plus the amount for maintained family members after debt servicing costs have been met. Under the new approach this restriction on exemptions is abolished, but the condition that the DSTI may not exceed 67% still remains. The additional risks that will arise from these adjustments to the conditions for approving allowed deviations are being addressed by the introduction of two sectoral systemic risk buffers.¹³⁵

¹³⁴ The regulation is expected to be published in the Official Gazette of the Republic of Slovenia on 6 May 2022.

¹³⁵ These are new instruments introduced into Slovenian legislation by the new Banking Act (Official Gazette of the Republic of Slovenia, Nos. 92/21 and 123/21 [ZBNIP]), which entered into force on 23 June 2021.

Given the increased risks inherent in the real estate market, driven by the high growth in residential real estate prices, which are now in the zone of overvaluation (see Figure 1.23), and the high growth in housing loans, the recommendation with regard to LTV is also being modified. The recommended LTV is being reduced from 80% to 70%, except for buyers of their primary residence, i.e. where the real estate collateral is the subject of purchase, construction or renovation, and is also where the consumer will have their permanent residence. Had the modified recommendation been introduced in 2021, it would have applied to approximately 30% of new business (see Figure 5.11) in the amount of EUR 382 million. Of these, 8% (EUR 30 million) were loans with an LTV of more than 80%, and 36% (EUR 138 million) were loans with an LTV of more than 70% (see Figure 5.10). Had the updated recommendation for LTV been in force in 2021, it would have additionally restricted EUR 108 million of housing loans for buyers not purchasing a primary residence (8.2% of the total amount of housing loans secured by real estate collateral, or 5.8% of total housing loans). Although the amount of affected business is not negligible, our assessment is that the impact of tightening the LTV recommendation on new housing loans is limited, as certain borrowers are able to adjust the amount of the loan for which they are applying downwards. This reduces the risk to the banking system.

Figure 5.10 Share of new housing loans for primary residence

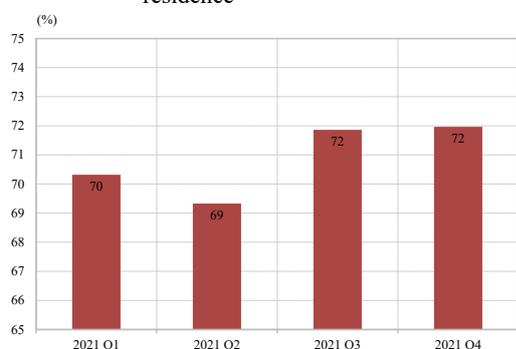
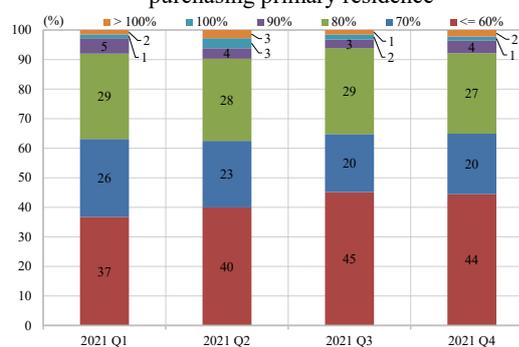


Figure 5.11 Distribution of LTV for buyers not purchasing primary residence



Note: The left figure takes account solely of loans for the purchase, construction and renovation of residential real estate secured by residential real estate. The right figure takes account solely of loans for the purchase, construction and renovation of residential real estate that is not intended as the primary residence.

Source: Banka Slovenije

Bridge loans secured by financial instruments (also known as lombard loans) are excluded from the cap on DSTI. These operations are currently subject to a cap on maturity of three years, and a cap on LTC, which may not exceed 70%. Certain other restrictions also apply to the approval of such loans, and our expectation is that they their volume will be small.

The restrictions deriving from the Regulation on macroprudential restrictions on consumer lending will not apply to credit agreements for residential real estate backed by a Slovenian government guarantee, which in order to calculate capital requirements for credit risk are treated as exposures to the Republic of Slovenia in accordance with the fourth paragraph of Article 114 of Regulation (EU) No 575/2013. In practice this means that the loans approved under the Housing Guarantee Scheme for Young Persons Act (Official Gazette of the Republic of Slovenia, No. 54/22) are excluded from the macroprudential restrictions.

An alternative approach to calculating creditworthiness is being introduced for those working as sole traders with standardised business expenses and who apply for loans as consumers. Under the rules in force to date, which follow the tax legislation, up to 20% of their revenues from business activities minus tax and social security contributions may be included in their income. Under the new approach the bank may assess income on the basis of actual revenues and expenses stated in the financial statements (insofar as they are available) minus taxes and social security contributions.¹³⁶

The new regulation also changes the approach to calculating the quota of allowed deviations. This will be calculated with regard to loans that comply with the macroprudential restrictions and were approved in the previous quarter (not the current quarter as is the case now). This change will simplify the application of deviations, as the banks will know at the beginning of the quarter what amount deviations may be approved during the quarter.

¹³⁶ Analysis by the Ministry of Finance for 2014 and 2015 showed that between 34% and 39% of sole traders who kept business ledgers claimed standardised business expenses.

Sectoral systemic risk buffers

Another change in the macroprudential policy toolkit is the introduction of the sectoral systemic risk buffer. On 28 April 2022 the Governing Board implemented the systemic risk buffer for all banks and savings banks, which the banks are required to maintain from 1 January 2023. According to our assessments, the additional capital requirements will amount to around 10% of the banks' earnings¹³⁷ in 2021 and the building up of the capital would not pose a difficulty for banks.

The key changes introduced to the macroprudential capital buffers by the CRD V¹³⁸ and its transposition into the Slovenian legislative framework of the ZBan-3 were described in the October 2021 issue of the Financial Stability Review.¹³⁹ The largest changes in the area of macroprudential instruments concern the systemic risk buffer (SyRB), whose new role is not only managing systemic risks in the broader sense (a buffer for all exposures of all banks or individual groups of banks), but also makes it a targeted instrument for managing risks in specific sectors or subsectors (as sectoral systemic risk buffer). A sectoral systemic risk buffer may be introduced for one or more subsets of exposures as set out in the ZBan-3.

Two sectors of exposures were identified where the requirement to maintain a systemic risk buffer is being introduced. Table 5.12 gives the exposure subsets defined pursuant to Article 247 of the ZBan-3, the EBA guidelines,¹⁴⁰ and the regulation on the application of the guidelines,¹⁴¹ and the corresponding buffer rates. A buffer rate of 1.0% is set for all retail exposures to natural persons secured by residential real estate, and a buffer rate of 0.5% is set for all other exposures to natural persons other than the aforementioned.

All banks must maintain a sectoral systemic risk buffer, through common equity Tier 1 capital at the highest level of consolidation in Slovenia. A phase-in period for meeting the buffer requirement has been set until 1 January 2023 .

Table 5.12 Sectoral exposures for which a systemic risk buffer is being introduced, and buffer rates

	Sectoral exposures	Buffer rate
(a)	all retail exposures to natural persons secured by residential real estate	1.0%
(b)	all exposures to natural persons other than those referred to in the previous case	0.5%

Note: Banks are required to meet the capital requirements as of 1 January 2023.

Source: Banka Slovenije

The introduction of the sectoral systemic risk buffer is in accordance with the intermediate objectives defined in the Strategic framework for macroprudential policy, and namely “to mitigate and prevent excessive credit growth and excessive leverage”, and “to limit direct and indirect exposure concentrations”. While the new instrument does not address the risks covered by Article 241 ZBan-3 (i.e. Article 131 CRD) that define the use of O-SII and G-SII buffers, it does address risks that are likely to cause severe negative consequences to the financial system and the real economy. The sectoral systemic risk buffer does not address broader cyclical risk, as defined in Article 232 of the ZBan-3 (and Article 130 of the CRD), which defines the use of the countercyclical capital buffer, although the cyclical aspect of the risk inherent in the real estate market is part of broader cyclical risk.

The macroprudential instrument was introduced with the aim of strengthening the banks' resilience to the risks inherent in the persistence or appearance of the following vulnerabilities in the financial system:

- *Risks inherent in the dynamics in real estate prices.* The risks to financial stability inherent in the Slovenian real estate market are elevated, as explained in Section 1.2.
- *Risks inherent in increased household lending.* The share of loans to household has increased sharply over the last decade. For more on the risks inherent in the household sector, see Sections 1.5 Credit risk and 3.1 Households.

¹³⁷ Unaudited earnings.

¹³⁸ Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (CRD), unofficial consolidated version of 1 January 2022 (OJ L 176, 27 June 2013, p. 338).

¹³⁹ For more, see Box 5.2 Changes in prudential requirements under the CRR2 and adjustments to macroprudential instruments in the ZBan-3 in the October 2021 issue of the Financial Stability Review.

¹⁴⁰ Guidelines on the appropriate subsets of sectoral exposures to which competent or designated authorities may apply a systemic risk buffer in accordance with Article 133(5)(f) of Directive 2013/36/EU.

¹⁴¹ Regulation on the application of the Guidelines on the appropriate subsets of sectoral exposures to which competent or designated authorities may apply a systemic risk buffer in accordance with Article 133(5)(f) of Directive 2013/36/EU (Official Gazette of the Republic of Slovenia, No. 100/21).

- *Risks inherent in the low interest rate environment.*¹⁴² The extended low interest rate environment has increased the overall vulnerability of banks (and other financial intermediaries) through declining returns on bank investments in recent years. For many years, banks have seen declining net interest incomes and net interest margins. This has a negative impact on banks' traditional business models. For more on the risks inherent in the low interest rate environment, see Sections 1.4 Interest rate risk and 1.6 Income risk.
- *Risks inherent in the relaxation of macroprudential restrictions on consumer lending.* With the relaxation of the limit on allowed deviations from the cap on DSTI, there is an expectation that deviations will be applied more frequently.¹⁴³ Given the fierce competition between banks and the high level of surplus liquidity, there is a risk of a decline in credit standards within the framework of the newly allowed deviations. Our assessment is that it is possible that credit standards will approach the levels seen before the introduction of the binding measures (significantly lower than today's levels).

The aforementioned elevated risks in an adverse scenario may lead to higher losses of the banking sector and increased needs for additional capital. The timely build-up of buffers is therefore important. In the event of an adverse shock, there may be an increase in the defaults share and disorderly payments in the consumers portfolios. In an adverse economic scenario the sectoral systemic risk buffer may be released, which could deter any further contraction in credit to the economy. The cyclical component of the buffer therefore allows to respond to a possible system-wide crisis.

Calibration of the instrument

The sectoral systemic risk buffer for retail exposures secured by residential real estate addresses the aforementioned risks inherent in the real estate market, risks inherent in the low interest rate environment and risks inherent in the adjustment of the conditions for allowed deviations from the cap on DSTI for housing loans. For consumer loans this risk is addressed by the sectoral systemic risk buffer for exposures to natural persons other than those secured by residential real estate.

The additional capital requirements imposed by the relaxation of the macroprudential restrictions were estimated on basis of a historical simulation.¹⁴⁴ The state of allowed deviations from the cap on DSTI as at the end of 2021 was simulated, under the assumption that the banks would fully utilise their quotas of allowed deviations, and the relaxed conditions for approving deviations from the cap on DSTI would have applied as of 1 November 2019. At the level of the banking system the allowed deviations from the cap on DSTI would amount to EUR 286 million for housing loans and EUR 112 million for consumer loans at the end of 2021. The actual stock of deviations at the end of 2021 was negligible for housing loans and consumer loans, and therefore it can be assumed that the banks' nominal exposure as a result of the relaxation of the deviations would be EUR 389 million larger at the end of 2021.

A one-off shock is applied to the entire portfolio of allowed deviations on 1 January 2022. The impact is modelled by applying various scenarios of probability of default (it ranges from 5% to 25%) and loss given default (it ranges from 20% to 50%) to the portfolio. The losses that would occur at portfolio level are reduced by the cumulative interest on the portfolio of allowed deviations in the total amount of EUR 16 million. The difference represents the loss from allowed deviations. This is equal to the amount of additional capital that would be required at the level of the banking system on account of the relaxation of the conditions for deviations from the cap on DSTI.

On the basis of the above analysis it was found that the introduction of the two sectoral systemic risk buffers at a rate of 0.5% (the lowest possible buffer rates¹⁴⁵) would provide for sufficient capital even in the most conservative case. The analysis is conducted on historical data, but it is assessed that even in the event of increased lending such as that seen in 2022, and consequently a higher quota of allowed deviations, a 0.5% sectoral systemic risk buffer rate is sufficient to address the risk of the increased application of allowed deviations from the cap on DSTI.

¹⁴² ESRB (2021), *Lower for longer – macroprudential policy issues arising from the low interest rate environment*, Joint Task Force of ESRB Advisory Technical Committee (ATC), ESRB Advisory Scientific Committee (ASC), and ESCB Financial Stability Committee (FSC).

¹⁴³ There can also be an expectation of increased utilisation of exemptions on the grounds of a decline in the approval of shrinking overdrafts, given that the annual letter to banks stated that these operations do not uphold the spirit of the macroprudential restrictions.

¹⁴⁴ The simulation contains a number of simplifications, and thus does not necessarily reflect the impact of the shock on the banks' accounting items.

¹⁴⁵ Article 247 of the ZBan-3 prescribes that the systemic risk buffer rate be set in steps of 0.5 percentage points or multiples of that value.

The sectoral systemic risk buffer for retail exposures secured by residential real estate also addresses the risks inherent to the real estate market. Imbalances are currently being observed there, which are being reflected in increased risks and vulnerabilities (see Section 1.2). In line with the ESRB guidance (see the end of Section 5.1), we have set a higher capital buffer rate for retail exposures secured by residential real estate. The calibration of the buffer also takes into account that the flexibility under Article 124 of the CRR has been applied since 2016. Thus, a more favourable risk weight of 35% may be applied to those exposures secured by residential real estate where the LTV is lower than 60% (not 80% as prescribed by the CRR). Additionally, the calibration takes into account the existing macroprudential restrictions on household lending, which have successfully introduced minimum credit standards for new household loans. Based on the above, and having regard for the rising economic uncertainty caused by the war in Ukraine, a decision was made to set an overall buffer rate of 1.0% for exposures secured by residential real estate, where half of the rate is attributable to the relaxation of deviations, as described in the first paragraph above, and half addresses the elevated risks on the real estate market. We continue to carefully monitor the developments on the real estate market, and stand ready to adjust its measures to the identified risks to financial stability.

Assessment of the impact of the instrument

A *DSGE Three Layers of Default*¹⁴⁶ (hereinafter: 3D DSGE) model calibrated for the Slovenian economy was used to assess the impact of the measure. Based on the results, we expect that, despite somewhat stricter lending conditions in the short term, the measure will positively contribute to GDP growth, banks' resilience and lending in the long term (see Table 5.13). The larger stock of loans is reflected over the long term in an increase in capital investment and housing investment. Furthermore, the decline in probability of default at banks reduces their external funding costs.

Table 5.13 Assessment of short-term and long-term impact of the introduction of sectoral systemic risk buffer for retail exposures secured by residential real estate

Variables	Short-term impact*	Long-term impact**
Interest rates on household loans, %***	0.34	0.00
Interest rates on loans to NFCs, %***	0.47	0.00
Change in household loans, %	-1.42	0.07
Change in loans to NFCs, %	-0.57	0.06
Change in GDP, %	-0.05	0.04
Change in probability of default, percentage points***	0.00	-0.20

Notes: * Short-term impact relates to the impact of the introduction of the instrument in the first quarter after introduction.
 ** Long-term impact relates to the impact of the introduction of the instrument when the model converges on a stable state.
 *** The percentage changes in variables are expressed on an annual basis.

Source: Banka Slovenije

On the basis of the modelled behaviour of the main macroeconomic and financial variables in the case of general banking risks, which include a price correction on the real estate market, we expect that the introduction of the sectoral systemic risk buffer would have a mitigating effect evident in all of the variables. The introduction of buffers at this point will not incur significant costs on the real economy, but would have positive (albeit small) long-term buffering effects in the event of a negative shock to the macrofinancial environment.

¹⁴⁶ Capital regulation in a macroeconomic model with three layers of default (europa.eu).

6 APPENDIX

Table 6.1 Risk and resilience dashboard (description of risks, resilience and factors)

Risk and resilience dashboard	Description	Indicators
Macroeconomic risk	Macroeconomic risk is the risk of weak economic growth, economic stagnation or a decline in economic activity.	There are several main indicators for monitoring, and their individual significance depends on the risk level that the individual indicator indicates, and on the area from which the risk comes. The main indicators are GDP growth, economic sentiment and confidence indicators, indicators of price developments, indicators of developments on the labour market, indicators of the fiscal position, and indicators of individual areas for the international environment.
Risk inherent in the real estate market	The risk inherent in the real estate market primarily relates to high rates of growth in real estate prices, which increase the banking sector's exposure, and also the possibility of a large negative revaluation of real estate collateral during a crisis.	Growth in prices, sales and loans for residential and commercial real estate, indicators of real estate overvaluation, construction sector indicators, LTV, LTC and DSTI.
Funding risk	Funding risk is the risk of the potential instability of funding or the sudden outflow of individual classes of funding from the banking system, and depends on the maturity of the funding.	Funding structure, developments in deposits by the non-banking sector, particularly household deposits and deposits by non-financial corporations, LTD, changes in the maturity breakdown of deposits by the non-banking sector, residual maturity gap between assets and liabilities.
Interest rate risk	Interest rate risk is the risk of investment losses as a result of changes in interest rates, and comes from the maturity mismatch between assets and liabilities that have a fixed interest rate, and from the repricing gap between assets and liabilities.	The main indicator for monitoring interest rate risk is the repricing gap between asset and liability interest rates, where the most important factor for liability interest rates is the assumption about the stable component of sight deposits. Other indicators are: the average repricing period for asset interest rates, the average repricing period for liability interest rates, the share of new loans and existing loans accounted for by fixed-rate loans, and the average maturity of new loans and existing loans.
Credit risk	Credit risk is the risk of loss resulting from the failure of a debtor to settle their liabilities to the creditor, and comes from the debtor's inability to meet their financial liabilities by the agreed deadline, which may be temporary (illiquidity) or permanent (insolvency).	The main indicators are NPE ratios, the breakdown of exposures into credit risk stages, credit parameters (default rates, probabilities of default, transition rates), and coverage of NPEs and performing exposures by impairments, provisions and collateral. Moratoria and arrears in settlement of past-due instalments previously subject to a moratorium are also significant indicators in the current pandemic.
Income risk	Income risk is the risk to the generation of adequate income by banks, and is based on developments in components of income generation and cost control.	The main indicators follow the generation and disposal of income, to the point of net income: net interest margin, net non-interest margin, net commission margin, gross income, developments in operating costs, CIR, developments in net income.
Risk inherent in leasing companies	The risk inherent in leasing companies is the risk of the generation of operating losses caused by a decline in turnover, the build-up of arrears of more than 90 days, and the potential spillover of adverse consequences into other sectors.	New business, stock of business, arrears of more than 90 days, other performance indicators of leasing companies (ROE, ROA, debt-to-equity ratio).
Solvency and profitability of the banking system	Resilience from the perspective of the capital position is the ability to absorb adverse effects or losses that would occur during a stress event, while from the perspective of profitability it is a sustainable source of capital adequacy.	Total capital ratio and CET1 ratio (both ratios on an individual and a consolidated basis), leverage ratio, capital surplus over the overall capital requirement (as a percentage of RWA), contribution of individual components to the change in the total capital ratio and CET1 ratio, ROE, ROA, ratio of impairment and provisioning costs to gross income and ratio of impairment and provisioning costs to net income.
Liquidity of the banking system	Resilience from the perspective of liquidity is the ability to repay all due liabilities, and the ability to absorb the adverse effects that would follow in the event of the realisation of funding risk.	LCR, developments in the ratio of primary and secondary liquidity to the balance sheet total, proportion of the pool of eligible collateral at the Eurosystem that is free.

Source: Banka Slovenije

Table 6.2 Slovenian banking system balance sheet for selected time snapshots (2004 to 2021)

	Stock, EUR million unless stated								Increase, EUR million			Year-on-year growth, %	
	2004	Breakdown (%)	2008	Breakdown (%)	2013	2020	2021	Breakdown (%)	2019	2020	2021	Dec 2020	Dec 2021
Assets													
Cash on hand and balance at central bank	592	2.5	1,250	2.6	2,452	8,825	11,495	23.8	1,070	3,042	2,671	52.6	30.3
Loans to banks	2,156	9.1	4,101	8.6	3,986	1,492	1,544	3.2	-5	-100	52	-6.3	3.5
Loans to non-banking sector	12,947	54.4	33,718	70.3	24,359	23,561	25,048	51.9	1,283	42	1,487	0.2	6.3
of which to non-financial corporations	8,147	34.2	20,260	42.3	11,508	8,750	9,302	19.3	407	-127	551	-1.4	6.3
of which to households	3,262	13.7	7,558	15.8	8,467	10,712	11,263	23.3	625	9	552	0.1	5.1
Financial assets / securities	7,013	29.4	7,307	15.2	8,318	8,958	8,355	17.3	-32	120	-603	1.4	-6.7
Other	1,112	4.7	1,572	3.3	1,229	1,815	1,812	3.8	120	335	-2	22.6	-0.1
Equity and liabilities													
Financial liabilities to Eurosystem	0	0.0	1,229	2.6	3,727	1,380	2,344	4.9	-109	397	964	40.4	69.9
Liabilities to banks	4,719	19.8	18,168	37.9	7,729	2,378	1,715	3.6	-372	-443	-663	-15.7	-27.9
of which to domestic banks	435	1.8	2,065	4.3	2,381	799	649	1.3	-2	-57	-150	-6.6	-18.8
of which to foreign banks	4,254	17.9	16,098	33.6	5,348	1,579	1,066	2.2	-370	-386	-513	-19.6	-32.5
Liabilities to non-banking sector (deposits)	14,906	62.6	20,883	43.6	22,550	34,281	37,185	77.1	2,091	3,212	2,904	10.3	8.5
of which to non-financial corporations	2,667	11.2	3,728	7.8	4,196	8,031	8,998	18.6	-31	1,273	967	18.8	12.0
of which to households	9,904	41.6	13,407	28.0	14,365	22,437	23,953	49.6	1,631	2,072	1,516	10.2	6.8
Debt securities	973	4.1	1,276	2.7	1,657	1,058	1,250	2.6	452	458	191	76.3	18.1
Provisions	0	0.0	176	0.4	306	186	155	0.3	-16	-2	-31	-1.0	-16.5
Shareholder equity	1,896	8.0	4,010	8.4	3,670	4,805	5,063	10.5	237	-158	258	-3.2	5.4
Other	1,326	5.6	2,206	4.6	704	564	543	1.1	154	-25	-20	-4.3	-3.6
Balance sheet total	23,820		47,947.9		40,343.6	44,651	48,255	100.0	2,437	3,438	3,604	8.3	8.1

Source: Banka Slovenije

Table 6.3 Banking sector income statement, 2018 to 2021

	Amount, EUR million				Growth, %				Ratio to gross income, %			
	2018	2019	2020	2021	2018	2019	2020	2021	2018	2019	2020	2021
Net interest	672	683	639	625	3.0	1.6	-6.4	-2.2	58.2	54.4	47.0	51.8
Non-interest income	482	573	721	581	14.1	19.1	25.7	-19.5	41.8	45.6	53.0	48.2
of which net fees and commission	315	334	330	377	0.6	5.8	-1.2	14.4	27.3	26.6	24.2	31.3
of which net trading gains/losses	13	12	16	18	-56.0	-6.9	31.8	10.8	1.1	1.0	1.2	1.5
Gross income	1153	1256	1360	1206	7.4	8.9	8.3	-11.3	100.0	100.0	100.0	100.0
Operating costs	-669	-709	-718	-717	-0.6	5.9	1.3	-0.2	-58.0	-56.5	-52.8	-59.5
labour costs	-390	-401	-386	-398	2.2	2.8	-3.6	3.0	-33.8	-31.9	-28.4	-33.0
Net income	484	547	642	489	20.8	13.0	17.3	-23.8	42.0	43.5	47.2	40.5
net impairments and provisions	47	46	-170	74	10.1	-2.8	-470.8	-143.4	4.1	3.6	-12.5	6.1
of which at amortised cost	68	60	-133	72		-12.9	-323.8	-153.8	5.9	4.7	-9.8	6.0
Pre-tax profit	531	593	472	562	19.8	11.6	-20.3	19.1	46.0	47.2	34.7	46.6
corporate income tax	-36	-62	-22	-37	93.4	73.9	-65.0	70.3	-3.1	-4.9	-1.6	-3.1
Net profit	495	531	450	525	16.6	7.1	-15.1	16.6	42.9	42.2	33.1	43.6

Source: Banka Slovenije

Table 6.4 Selected bank performance indicators for the Slovenian banking system, 2011 to 2021

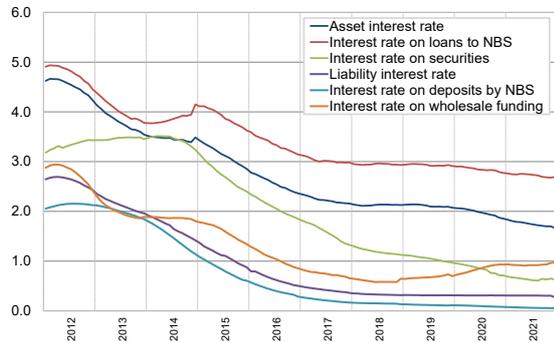
(%)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
ROA	-1.06	-1.60	-7.70	-0.27	0.42	0.99	1.19	1.38	1.48	1.10	1.21
ROE	-12.54	-19.04	-97.30	-2.69	3.63	7.96	9.60	11.07	12.16	9.57	11.38
CIR	53.68	47.43	66.04	55.80	59.26	59.19	62.68	58.05	56.47	52.82	59.47
Net interest margin on interest-bearing assets	2.13	1.93	1.68	2.18	2.06	1.91	1.83	1.84	1.79	1.57	1.41
Interest margin on total assets	2.02	1.83	1.59	2.09	1.96	1.82	1.75	1.75	1.70	1.49	1.34
Non-interest margin	0.85	1.40	0.85	1.01	1.09	1.23	1.13	1.26	1.43	1.67	1.24
Gross income / average assets (FIM)	2.87	3.23	2.44	3.10	3.05	3.05	2.88	3.01	3.13	3.16	2.58

Note: The indicators for March in both years are calculated cumulatively, i.e. for a period of three months. FIM: Financial intermediation margin.

Source: Banka Slovenije

Selected income statement categories and indicators for the Slovenian banking system

Figure 6.1 Effective interest rates by main instruments of interest-bearing assets and liabilities



Source: Banka Slovenije

Figure 6.2 Growth in interest income, interest expenses and net interest

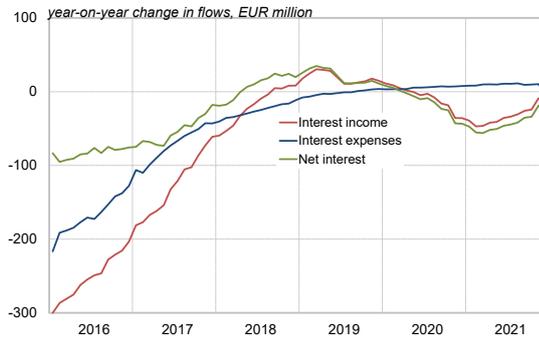
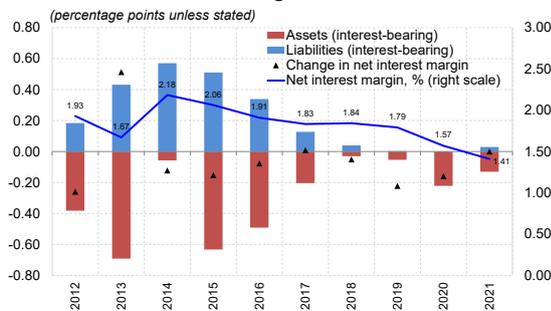


Figure 6.3 Overall contributions via interest-bearing assets and liabilities to change in net interest margin



Note: In the left figure the change in asset items is the sum of the contributions made by loans, securities and other interest-bearing assets, while the change in liability items is the sum of the contributions made by deposits by the non-banking sector, wholesale funding and other interest-bearing liabilities. The change in the effect of liability items is multiplied by -1, as for example a rise in liability interest rates acts to reduce the net interest margin, while a fall acts to raise the net interest margin. The margins for 2020 are calculated for the preceding 12 months.

Source: Banka Slovenije

Figure 6.4 Net commission margin and net non-interest margin

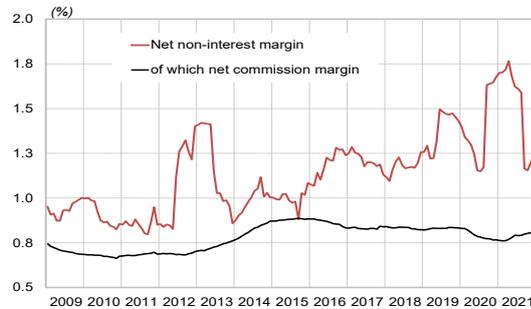
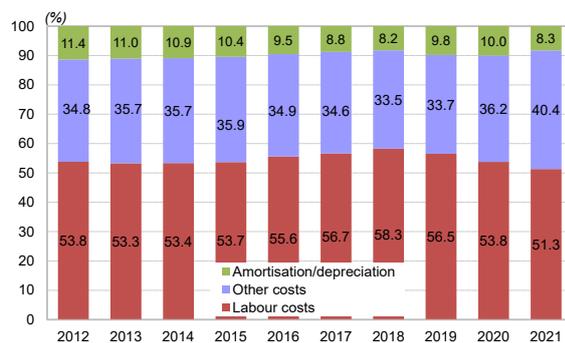
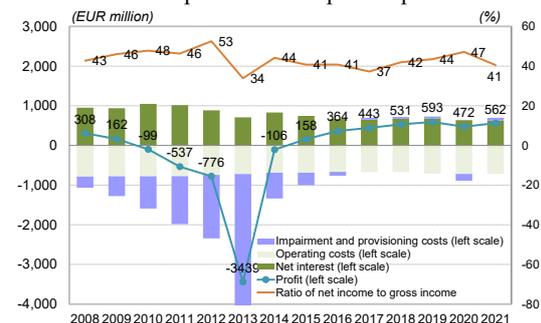


Figure 6.5 Breakdown of operating costs



Source: Banka Slovenije

Figure 6.6 Gross income, operating costs, net impairments and pre-tax profit



Ratio of operating costs to balance sheet total, and CIR

Figure 6.7 Ratio of operating costs to balance sheet total in Slovenia and EU Member States in 2021 (to third quarter)

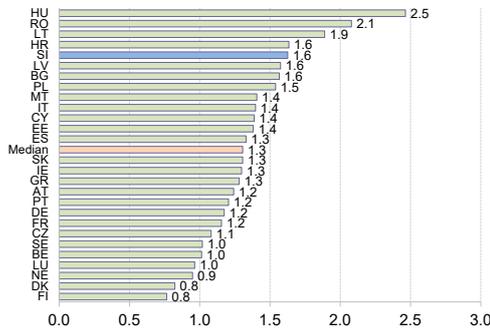
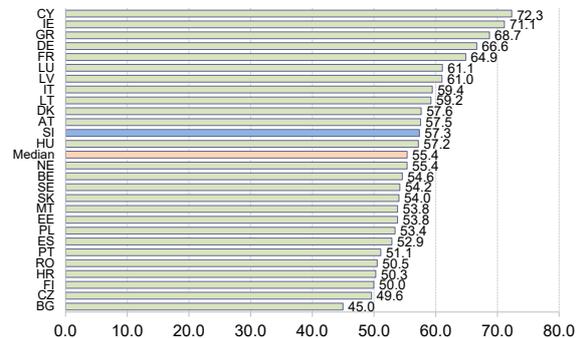


Figure 6.8 CIR in Slovenia and EU Member States in 2021 (to third quarter)



Note: The indicators are calculated on the basis of the ECB SDW's consolidated banking data. This data differs slightly from the figures based on balance sheets on an individual basis. The indicators in the left figure are annualised from the data to the third quarter, while CIR in the right figure is taken directly from the data to the third quarter.

Sources: Banka Slovenije, ECB SDW

Demand for bank loans according to BLS

Figure 6.9 Demand for loans from NFCs

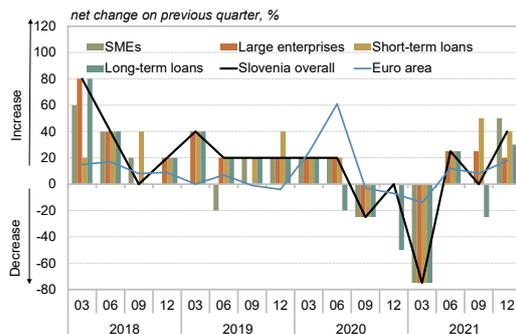
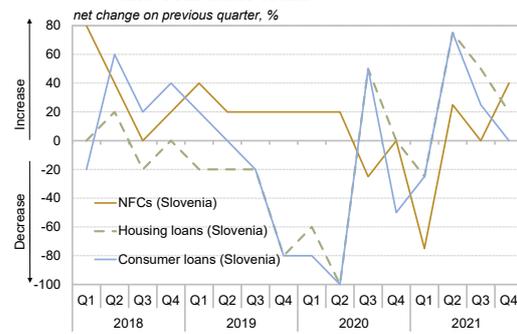


Figure 6.10 Demand for loans to NFCs, housing loans and consumer loans

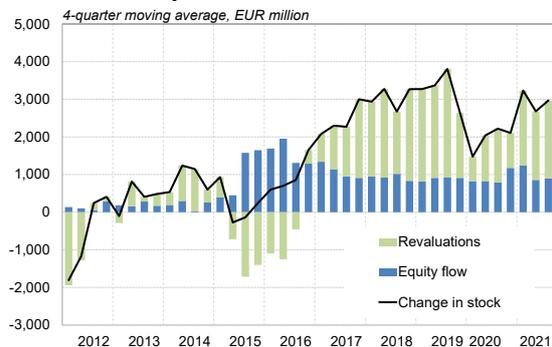


Note: Two banks were excluded from sample in connection with the growth figures in 2020 and the first half of 2021 in the right figure. One bank was excluded from the sample in connection with demand and growth in demand between 2012 and 2019. Six credit institutions were added to the sample in the final quarter of 2021, bringing the total to ten.

Sources: BLS, Banka Slovenije

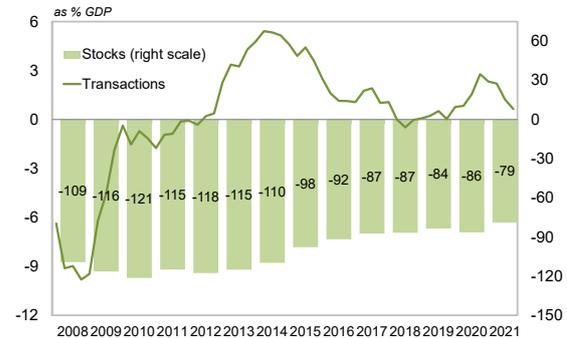
Non-financial corporations

Figure 6.11 Change in capital of NFCs, and contributions by transactions and revaluations



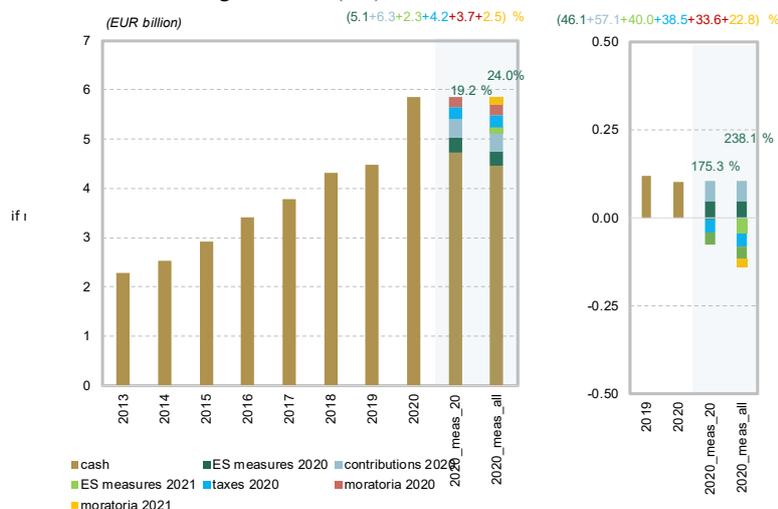
Source: Banka Slovenije

Figure 6.12 NFCs' net financial position, stocks and flows



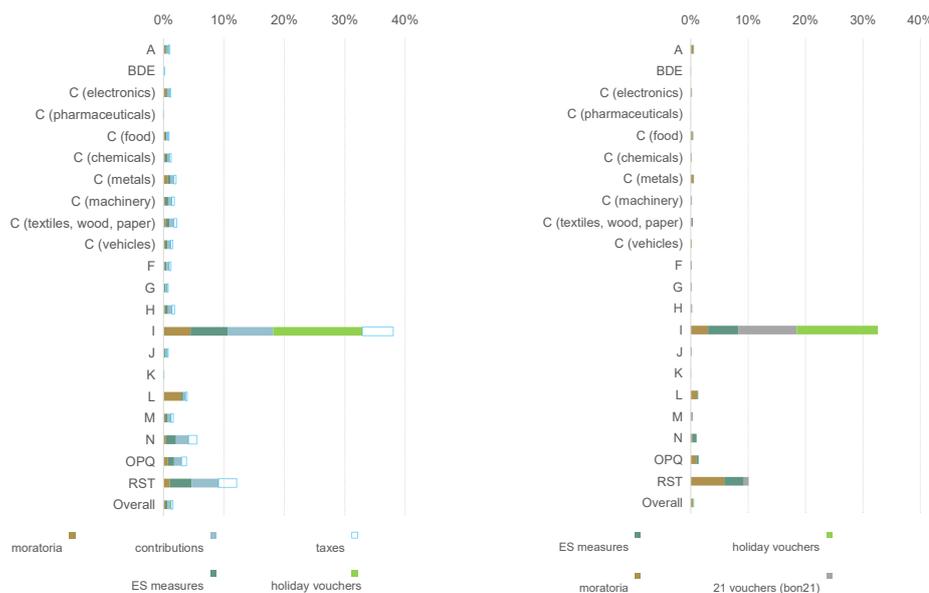
Simulation of the impact of government emergency measures on corporate performance (Box 3.1)

Figure 6.13 Impact of Employment Service measures, tax deferrals, contributions and loan moratoria on cash holdings of NFCs (left) and NFCs in accommodation and food service activities (I) (right)



Sources: Banka Slovenije, AJPES, Fiscal Council of Slovenia, Employment Service, own calculations

Figure 6.14 Share of government emergency measures from 2020 (left) and 2021 (right) in net operating revenues in the portfolio of NFCs, as at 31 December 2020, by sector



Note: The allocation across sectors¹⁴⁷ of measures deriving from contributions, taxes and holiday vouchers is approximate (assumptions given in the main body of the text).

Sources: Banka Slovenije, AJPES, Fiscal Council, Employment Service of Slovenia, 24ur.com, own calculations

¹⁴⁷ A: Agriculture, forestry and fishing; B: Mining and quarrying; C: Manufacturing; D: Electricity, gas, steam and air conditioning supply; E: Water supply, sewerage, waste management and remediation activities; F: Construction; G: Wholesale and retail trade, repair of motor vehicles and motorcycles; H: Transportation and storage; I: Accommodation and food service activities; J: Information and communication; K: Financial and insurance activities; L: Real estate activities; M: Professional, scientific and technical activities; N: Administrative and support service activities; O: Public administration and defence, compulsory social security; P: Education; Q: Human health and social work activities; R: Arts, entertainment and recreation; S: Other service activities; T: Activities of households as employers, undifferentiated goods- and services-producing activities of households for own use

Abbreviations:

AJPES	Agency of the Republic of Slovenia for Public Legal Records and Related Services
APP	Asset Purchase Programme
SMA	Securities Market Agency
ISA	Insurance Supervision Agency
GDP	Gross domestic product
BLS	Bank Lending Survey
BoS	Banka Slovenije
CB	Central bank
CCyB	Countercyclical capital buffer
CET1	Common equity Tier 1 capital
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
O-SIIs:	Other systemically important institutions
DSTI	Debt-service-to-income ratio
BAMC	Bank Assets Management Company
EBA	European Banking Authority
EBITDA	Earnings before interest, taxes, depreciation and amortisation
ECB	European Central Bank
EEA	European Economic Area
EMU	European Monetary Union (euro area)
ESRB	European Systemic Risk Board
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
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
LCR	Liquidity coverage ratio
LIBOR	London Interbank Offered Rate
LTROs	Longer-term refinancing operations
LTV	Loan-to-value ratio
MCR	Minimum capital requirement
IMF	International Monetary Fund
IFRS	International Financial Reporting Standards
NFCs	Non-financial corporations
NPEs	Non-performing exposures
NSFR	Net stable funding ratio
MROs	Main refinancing operations
OECD	Organisation for Economic Co-operation and Development
PEPP	Pandemic Emergency Purchase Programme
PMI	Purchasing Managers' Index
P2G	Pillar 2 guidance
ROE	Return on equity
RWA	Risk-weighted assets
S&P	Standard and Poor's
SCR	Solvency capital requirement
SDW	Statistical Data Warehouse
OCR	Overall capital requirement
SyRB	Systemic risk buffer
SORS	Statistical Office of the Republic of Slovenia
Tier 1	Tier 1 capital
Tier 2	Tier 2 capital
TLTRO	Targeted longer-term refinancing operation
RWA	Risk-weighted assets
ZBan-3	Banking Act
ZIUPOK	Emergency Deferral of Borrowers' Liabilities Act
ZOPVTKK	Act on the Mitigation and Allocation of Currency Risk Between Lenders and Borrowers in Swiss Francs
ESS	Employment Service of Slovenia

Figures and tables

Tables

Table 1	Banka Slovenije's risk and resilience dashboard for the Slovenian financial system	1
Table 1.1	Cointegration equation between deposits, GDP and interest rate benchmark	23
Table 1.2	Scenario of full liquidity utilisation and breach of regulatory minimum	28
Table 1.3	Change in NPEs, impairments and provisions and total capital ratio under various scenarios	43
Table 3.1	Decomposition of value of measures included in the analysis	72
Table 5.1	Macroprudential instruments in European countries	80
Table 5.2	Macroprudential instruments	83
Table 5.3	Indicators for setting the buffer rate	84
Table 5.4	Indicator of systemic importance and capital buffer rate for O-SIIs	85
Table 5.5	Average values of selected parameters for housing loans and consumer loans, and level of deviations from macroprudential instruments	86
Table 5.6	Share of uncreditworthy individuals by income quintile	87
Table 5.7	Share of uncreditworthy households by income quintile	87
Table 5.8	Potential, actual and marginal indebtedness of individuals by income quintile (EUR)	87
Table 5.9	Potential, actual and marginal indebtedness of households by income quintile (EUR)	87
Table 5.10	Attributes of new housing loans approved in 2018 by type of borrower	88
Table 5.11	Attributes of new consumer loans approved in 2018 by type of borrower	88
Table 5.12	Sectoral exposures for which a systemic risk buffer is being introduced, and buffer rates	93
Table 5.13	Assessment of short-term and long-term impact of the introduction of sectoral systemic risk buffer for retail exposures secured by residential real estate	95
Table 6.1	Risk and resilience dashboard (description of risks, resilience and factors)	96
Table 6.2	Slovenian banking system balance sheet for selected time snapshots (2004 to 2021)	97
Table 6.3	Banking sector income statement, 2018 to 2021	97
Table 6.4	Selected bank performance indicators for the Slovenian banking system, 2011 to 2021	97

Figures

Figure 1	Indicator of overvaluation of real estate and components thereof	2
Figure 2	Net interest income	2
Figure 3	Share of Stage 2 exposures by selected customer segment	3
Figure 4	Repricing gap including off-balance-sheet items and various assumptions for sight deposit stability	3
Figure 1.1	Oil prices and euro exchange rate	6
Figure 1.2	GDP growth in selected euro area countries by quarter	6
Figure 1.3	IHS Markit PMI for the euro area	7
Figure 1.4	Confidence indicators in the euro area	7
Figure 1.5	Required yield on 10-year government bonds	7
Figure 1.6	Change in stock market indices	7
Figure 1.7	Confidence indicators and economic sentiment indicator	8
Figure 1.8	GDP growth and contributions to GDP growth	8
Figure 1.9	Inflation (HICP) and components of inflation	9
Figure 1.10	Inflation (HICP) across the euro area	9
Figure 1.11	Unemployment and number of valid work permits for foreign nationals	10
Figure 1.12	Growth in gross wages	10
Figure 1.13	General government revenues, expenditures and position	10
Figure 1.14	Public debt in euro area countries and increase relative to the final quarter of 2019	10
Figure 1.15	Probability of a financial crisis in the next 12 months in Slovenia, with contributory factors	11
Figure 1.16	Probability of a financial crisis in the next 12 months in Slovenia and in countries in the sample	11
Figure 1.17	Residential real estate prices	13
Figure 1.18	Change in real GDP, and real and nominal residential real estate prices	13
Figure 1.19	Change in residential real estate prices by location and type	13
Figure 1.20	Average prices of used housing across Slovenia and in major towns	13
Figure 1.21	Ratio of average price of a used flat (60 m ²) to average annual wage	14
Figure 1.22	Rental yield	14
Figure 1.23	Various indicators of overvaluation of residential real estate	15
Figure 1.24	Indicator of overvaluation of real estate and components thereof	15
Figure 1.25	Year-on-year growth in residential real estate prices in EU Member States	15
Figure 1.26	Change in residential real estate prices in EU Member States between 2015 and third quarter of 2021	15
Figure 1.27	Change in residential real estate prices in selected EU Member States	16
Figure 1.28	Indicators of housing overvaluation in EU Member States, third quarter of 2021	16
Figure 1.29	Number of sales of residential real estate	16
Figure 1.30	Sales of residential real estate	16
Figure 1.31	Productivity, value-added and employment in construction	17

Figure 1.32	Number of issued building permits	17
Figure 1.33	Construction costs for new-build housing	17
Figure 1.34	Business trends in construction	17
Figure 1.35	Demand for housing loans and demand factors	18
Figure 1.36	Ratio of gross investment in housing to GDP in EU Member States	18
Figure 1.37	Breakdown of owner-occupiers and tenants in Slovenia	18
Figure 1.38	Owner-occupiers with and without a mortgage as proportion of total population, 2020	18
Figure 1.39	Commercial real estate prices	19
Figure 1.40	Issued building permits for non-residential real estate	19
Figure 1.41	Stock of and growth in housing loans	19
Figure 1.42	New housing loans, and share of total stock of housing loans accounted for by new housing loans	19
Figure 1.43	Comparison of growth in housing loans between Slovenia and the euro area	20
Figure 1.44	Distribution of LTV for housing loans	20
Figure 1.45	Credit standards for housing loans	20
Figure 1.46	Stock of loans to the construction and real estate activities sectors	20
Figure 1.47	New loans to NFCs for commercial real estate, and their share of total loans to NFCs for commercial real estate	21
Figure 1.48	Stock of loans to NFCs for commercial real estate	21
Figure 1.49	Distribution of tenor for loans for commercial real estate	21
Figure 1.50	Breakdown of loans for commercial real estate by type of remuneration	21
Figure 1.51	Stock and structure of bank funding	22
Figure 1.52	Change in stock of deposits by institutional sector	22
Figure 1.53	Growth in deposits by institutional sector	22
Figure 1.54	Comparison of growth in household deposits between Slovenia and the euro area	22
Figure 1.55	Simulation of interest rate normalisation and deposit response	24
Figure 1.56	LTD ratio for non-banking sector	25
Figure 1.57	Comparison of LTD ratio for non-banking sector between Slovenia and the euro area	25
Figure 1.58	Covered deposits	25
Figure 1.59	Breakdown of stock of deposits by the non-banking sector by residual maturity	26
Figure 1.60	Proportion of deposits accounted for by sight deposits by euro area country, December 2021	26
Figure 1.61	Weighted average maturity of assets and liabilities, and maturity gap	27
Figure 1.62	Net increases in deposits by and loans to the non-banking sector by maturity	27
Figure 1.63	Impact of deposit withdrawals on LCR, December 2021	28
Figure 1.64	Impact of deposit withdrawals on NSFR, December 2021	28
Figure 1.65	Breakdown of banking system's assets	29
Figure 1.66	Breakdown of banking system's liabilities	29
Figure 1.67	Comparison of repricing gaps, taking into account off-balance-sheet items and various assumptions for the stability of sight deposits	30
Figure 1.68	Repricing periods for individual balance sheet items	30
Figure 1.69	Average maturities of individual types of new long-term loan	31
Figure 1.70	Average interest rates on individual types of new long-term loan, and annual inflation (HICP)	31
Figure 1.71	Breakdown of new housing loans by type of remuneration	32
Figure 1.72	Breakdown of new consumer loans by type of remuneration	32
Figure 1.73	NPE ratios for selected portfolio segments	33
Figure 1.74	Change in NPE ratios in NFCs and household portfolios at individual banks over the course of the pandemic	33
Figure 1.75	Approaches to reduction and changes in NPEs in the NFCs portfolio in 2021	33
Figure 1.76	Approaches to reduction and changes in NPEs in the household portfolio in 2021	33
Figure 1.77	Default rate by corporate size	34
Figure 1.78	Default rate in NFCs portfolio by sector	34
Figure 1.79	Share of S2 exposures by selected customer segment	35
Figure 1.80	Share of S2 exposures in loan portfolio by EU Member State	35
Figure 1.81	Share of S2 exposures to NFCs by sector	36
Figure 1.82	Transition rates between credit risk stages for NFCs	36
Figure 1.83	NPEs for exposures subject to a moratorium in the NFCs and household portfolios	37
Figure 1.84	NPEs for exposures subject to a moratorium in the NFCs portfolio by sector and the household portfolio	37
Figure 1.85	Share of legislative and bilateral moratoria in the NFCs portfolio by sector and in the household portfolio	37
Figure 1.86	Share of S2 exposures in the NFCs and household portfolios relative to total exposures and exposures subject to a moratorium	37
Figure 1.87	Breakdown of forbore exposures to corporates	38
Figure 1.88	Forborne exposures to corporates by sector	38
Figure 1.89	Forborne exposures in the housing loans portfolio	39
Figure 1.90	Forborne exposures in the consumer loans portfolio	39
Figure 1.91	Credit standards for loans to NFCs	40

Figure 1.92	Credit standards for household loans	40
Figure 1.93	Net impairments and provisions, gross income, and ratio of net impairments to gross income	40
Figure 1.94	Ratio of net impairments to balance sheet total in EU Member States	40
Figure 1.95	Coverage of performing and non-performing exposures by impairments and provisions	41
Figure 1.96	Coverage of performing exposures by impairments and provisions in the NFCs portfolio by sector and in the household portfolio by loan type	41
Figure 1.97	Coverage of NPEs by impairments, provisions and collateral by selected customer segment	41
Figure 1.98	Coverage of NPEs by impairments, provisions and collateral for consumer loans and housing loans	41
Figure 1.99	Increases in NPEs versus debt-to-EBITDA ratio at a rise in energy costs of 100%	43
Figure 1.100	Inflow of NPEs versus debt-to-EBITDA ratio at a rise in energy costs of 100% by sector	43
Figure 1.101	Increase in NPE ratio under various scenarios of the rise in costs and the required debt-to-EBITDA ratio	44
Figure 1.102	Impact on total capital ratio under various scenarios of the rise in costs and the required debt-to-EBITDA ratio	44
Figure 1.103	Net interest income	46
Figure 1.104	Year-on-year growth in net interest and interest-bearing assets, and net interest margin	46
Figure 1.105	Contribution made by quantity effects and price effects to change in net interest income	46
Figure 1.106	Contributions of interest-bearing asset and liability instruments to change in net interest margin	46
Figure 1.107	Changes in interest income by type	47
Figure 1.108	Breakdown of gross income into net interest income and net non-interest income	47
Figure 1.109	Year-on-year growth in net fees and commission and balance sheet total, and net commission margin	48
Figure 1.110	Breakdown of non-interest income	48
Figure 1.111	Breakdown of fee and commission income: fee and commission income from payment services	48
Figure 1.112	Breakdown of fee and commission income: fee and commission income from credit operations, from investment services, and from brokerage and other operations	48
Figure 1.113	Fee and commission income from credit operations	49
Figure 1.114	Breakdown of fee and commission income from investment services	49
Figure 1.115	Main items of non-commission non-interest income other than extraordinary operating revenues	50
Figure 1.116	Decomposition of changes in other non-commission non-interest income, other than extraordinary operating revenues	50
Figure 1.117	Operating costs, labour costs and balance sheet total	51
Figure 1.118	The ratio between operating costs and gross income (Cost-to-income ratio)	51
Figure 1.119	Net interest margin in Slovenia and EU Member States in 2021 (to third quarter)	52
Figure 1.120	Net commission margin in Slovenia and EU Member States in 2021 (to third quarter)	52
Figure 2.1	Banking system's capital ratios on an individual basis	53
Figure 2.2	Capital ratios compared with the euro area, consolidated basis	53
Figure 2.3	Change in regulatory capital and RWA between the end of 2014 and September 2021 by euro area country, consolidated basis	54
Figure 2.4	Change in regulatory capital and RWA between the end of 2014 and September 2021 by bank, consolidated basis	54
Figure 2.5	CET1 ratio and leverage ratio at individual banks, consolidated basis	54
Figure 2.6	Breakdown of balance sheet total in terms of capital surplus over OCR (excluding P2G)	54
Figure 2.7	Decomposition of change in CET1 ratio, consolidated basis	55
Figure 2.8	Breakdown of risk-weighted assets for credit exposure, consolidated basis	55
Figure 2.9	The impact of changes in components of generation and use of gross income on the change in pre-tax profit, 2020 to 2021	56
Figure 2.10	Actual bank profitability and simulated profitability with ratio of impairment and provisioning costs to gross income at its long-term average	56
Figure 2.11	ROE in the EU in 2021 (to third quarter)	57
Figure 2.12	ROA in the EU in 2021 (to third quarter)	57
Figure 2.13	LCR	58
Figure 2.14	LCR in euro area countries	58
Figure 2.15	NSFR	59
Figure 2.16	LCR and NSFR at individual banks	59
Figure 2.17	Primary and secondary liquidity	59
Figure 2.18	Ratio of primary liquidity to the balance sheet total in Slovenia and other euro area countries	59
Figure 2.19	Breakdown of secondary liquidity	60
Figure 2.20	Banks' claims and liabilities vis-à-vis the Eurosystem, and proportion of the pool of eligible collateral that is free	60
Figure 3.1	Gross disposable income and final consumption expenditure	61
Figure 3.2	Household saving and investment	61
Figure 3.3	Consumer confidence indicators and assessment of financial situation of households	62
Figure 3.4	Year-on-year growth in average net monthly wage of employees at registered natural persons by SKD 2008 sector	62
Figure 3.5	Household financial liabilities, absolute amount and as ratio to GDP and disposable income	62
Figure 3.6	Household financial assets and liabilities in Slovenia and the euro area	62

Figure 3.7	Breakdown of increase in household financial assets	63
Figure 3.8	Breakdown of household financial assets in Slovenia and the euro area	63
Figure 3.9	Comparison of growth in consumer loans between Slovenia and the euro area	64
Figure 3.10	New consumer loans by the non-banking sector	64
Figure 3.11	Ratio of consumer loans to GDP	64
Figure 3.12	Ratio of consumer loans to balance sheet total in the banking system	64
Figure 3.13	Ratio of housing loans to GDP	65
Figure 3.14	Ratio of housing loans to balance sheet total in the banking system	65
Figure 3.15	Flows in NFCs' financial liabilities by instrument	66
Figure 3.16	NFCs' debt ratios	66
Figure 3.17	Business-to-business financing: trade credits and loans	66
Figure 3.18	Loans to NFCs from the rest of the world by ownership link	66
Figure 3.19	Growth in bank loans to NFCs in Slovenia and the euro area	67
Figure 3.20	Contributions to growth in loans to NFCs by sector	67
Figure 3.21	Growth in bank loans to NFCs by corporate size	67
Figure 3.22	Interest rates on the stock of loans to NFCs	67
Figure 3.23	Number of bankruptcy proceedings initiated against NFCs	68
Figure 3.24	Number of bankruptcy proceedings initiated against NFCs by sector	68
Figure 3.25	Flows in NFCs' financial assets by instrument	69
Figure 3.26	Slovenian NFCs' net position in loans according to debtor/creditor institutional sector	69
Figure 3.27	Loans granted to the rest of the world by ownership link to debtor	69
Figure 3.28	NFCs' receivables and liabilities vis-à-vis Russia, Ukraine and Belarus from loans and trade credits	69
Figure 3.29	Decomposition of government emergency measures for 2020 (left) and 2021 (right) included in the analysis	71
Figure 3.30	Impact of Employment Service measures on operating revenues of non-financial corporates overall (left) and non-financial corporates in accommodation and food service activities (I) (middle), and impact of vouchers on operating revenues in accommodation services and dynamics in sales revenues in accommodation services (part of sector I) and in entire sector of accommodation and food service activities (I) (right)	73
Figure 4.1	New leasing business	74
Figure 4.2	Stock of leasing business and proportion of arrears	74
Figure 4.3	Proportion of leasing business with NFCs and households more than 90 days in arrears	75
Figure 4.4	Impact of income statement components on total profit	75
Figure 4.5	Gross written premium and annual growth by type of insurance	76
Figure 4.6	Ratio of gross written premium to total assets and claims ratio	76
Figure 4.7	Claims ratios for the main insurance classes	76
Figure 4.8	Insurers' net profit and total assets	76
Figure 4.9	Capital adequacy in terms of SCR coverage ratio (insurance corporations)	77
Figure 4.10	Capital adequacy in terms of MCR coverage ratio (insurance corporations)	77
Figure 4.11	Domestic mutual funds' assets under management, and comparison of growth in Slovenia and the euro area overall	78
Figure 4.12	Net inflows into mutual funds by fund type	78
Figure 4.13	Net inflows into mutual funds by investor sector	78
Figure 4.14	Breakdown of mutual funds' assets under management by class of security	78
Figure 5.1	ESRB recommendation for the establishment of the EU-SCICF	82
Figure 5.2	Composite indicator	84
Figure 5.3	Credit-to-GDP gap	84
Figure 5.4	Breakdown of new consumer loans by the banking and non-banking sectors (value)	89
Figure 5.5	Breakdown of new consumer loans by the banking and non-banking sectors (number)	89
Figure 5.6	Banks' new finance leasing business with households	90
Figure 5.7	Leasing companies' new leasing business with households	90
Figure 5.8	Bank loans to households in Slovenia from euro area countries	91
Figure 5.9	Overdrafts and borrowing via payment and credit cards	91
Figure 5.10	Share of new housing loans for primary residence	92
Figure 5.11	Distribution of LTV for buyers not purchasing primary residence	92
Figure 6.1	Effective interest rates by main instruments of interest-bearing assets and liabilities	98
Figure 6.2	Growth in interest income, interest expenses and net interest	98
Figure 6.3	Overall contributions via interest-bearing assets and liabilities to change in net interest margin	98
Figure 6.4	Net commission margin and net non-interest margin	98
Figure 6.5	Breakdown of operating costs	98
Figure 6.6	Gross income, operating costs, net impairments and pre-tax profit	98
Figure 6.7	Ratio of operating costs to balance sheet total in Slovenia and EU Member States in 2021 (to third quarter)	99
Figure 6.8	CIR in Slovenia and EU Member States in 2021 (to third quarter)	99
Figure 6.9	Demand for loans from NFCs	99
Figure 6.10	Demand for loans to NFCs, housing loans and consumer loans	99

Figure 6.11	Change in capital of NFCs, and contributions by transactions and revaluations	99
Figure 6.12	NFCs' net financial position, stocks and flows	99
Figure 6.13	Impact of Employment Service measures, tax deferrals, contributions and loan moratoria on cash holdings of NFCs (left) and NFCs in accommodation and food service activities (I) (right)	100
Figure 6.14	Share of government emergency measures from 2020 (left) and 2021 (right) in net operating revenues in the portfolio of NFCs, as at 31 December 2020, by sector	100