Macroprudential Diagnostics

Year X · Number 25 · March 2025

CROATIAN NATIONAL BANK
EUROSYSTEM

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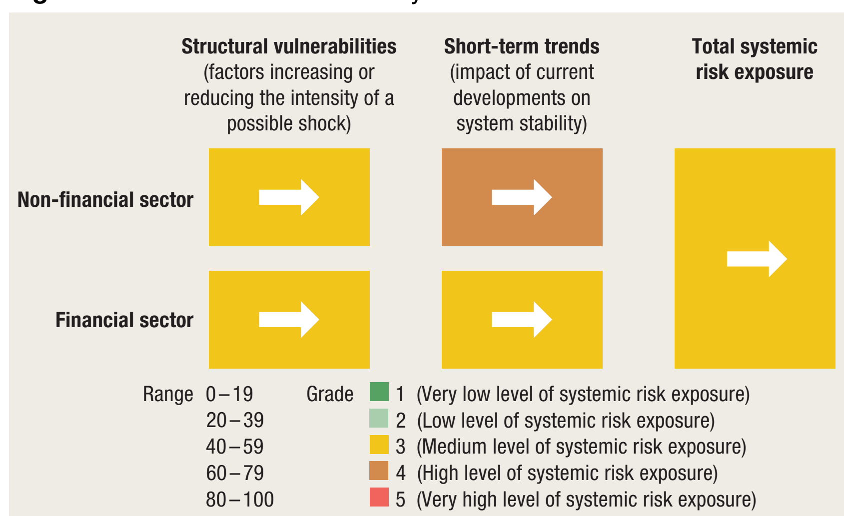
Introductory remarks

The macroprudential diagnostic process consists of assessing any macroeconomic and financial relations and developments that might result in the disruption of financial stability. In the process, individual signals indicating an increased level of risk are detected, according to calibrations using statistical methods, regulatory standards or expert estimates. They are then synthesised in a risk map indicating the level and dynamics of vulnerability, thus facilitating the identification of systemic risk, which includes the definition of its nature (structural or cyclical), location (segment of the system in which it is developing) and source (for instance, identifying whether the risk reflects disruptions on the demand or on the supply side). With regard to such diagnostics, instruments are optimised and the intensity of measures is calibrated in order to address the risks as efficiently as possible, reduce regulatory risk, including that of inaction bias, and minimise potential negative spillovers to other sectors as well as unexpected cross-border effects. What is more, market participants are thus informed of identified vulnerabilities and risks that might materialise and jeopardise financial stability.

1 Identification of systemic risks

The total exposure of the financial system to systemic risks remained at a moderate level (Figure 1). Robust economic growth and strong growth in wages keep consumer optimism at high levels and spur household consumption and borrowing. Favourable economic developments are also reflected in the operation of non-financial corporations the income of which has continued to increase. However, the economy's exposure to negative risks related to geopolitical tensions and the rise of protectionism has continued. The historic low in the share of non-performing loans and a good capital and liquidity position amid high profitability contribute to the resilience of the banking system. Nevertheless, it might be jeopardised by the risks associated with the strong increase in bank exposure to consumer and housing loans, and the cyclicality in construction and real estate activities. In order to mitigate the accumulation of cyclical risks to financial stability associated with increased lending to households, and at the same time strengthen their financial resilience under potentially unfavourable scenarios, the CNB announced the introduction of new macroprudential measures to tighten the criteria for lending to consumers.

Figure 1 Risks to financial stability remain moderate



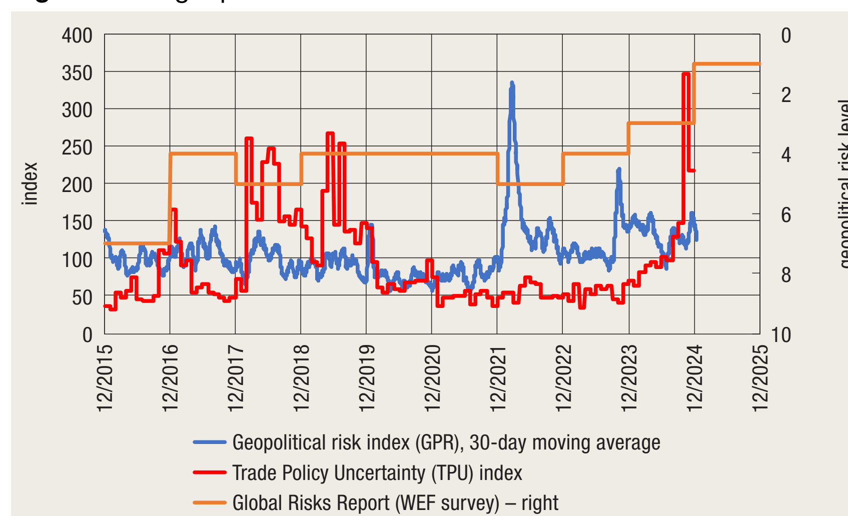
Note: Arrows indicate changes from the risk map published in Macroprudential Diagnostics No. 24 (October 2024).
Source: CNB.

At the end of 2024, global economic growth was strong but paired with increased negative risks. These are primarily related to the war in Ukraine and the sustainability of the ceasefire in the Middle East, but also to the uncertainty about the trade policy of the new US Administration and its possible impact on global economic activity. The heightening of tensions and trade protectionism might disrupt markets, such as the energy and the raw materials markets, jeopardise supply chains, increase inflationary pressures and impede economic growth (Figure 2). Investor optimism is buoyed by the strong growth of asset prices in global markets, especially those connected with the technology sector, which increases the risks of strong corrections in the capital markets.

In contrast to the stable global growth, economic activity in the euro area weakened at the end of the year, accompanied by a slight increase in inflation, which primarily reflected unfavourable base effects related to energy prices. The services sector remained the main driver of economic growth in the euro area in the third quarter. However, towards the end of the year business sentiment in the sector deteriorated, while trends in the manufacturing sector have been unfavourable for some time. At the same time, the disinflation process in the euro area is well on track, with the core inflation (excluding the prices of energy and food) nearing its medium-term target. Therefore, the European Central Bank (ECB) lowered its key interest rates three more times in the last quarter of 2024 and the first month of 2025. However, amid heightened geopolitical tensions and the danger of increasing trade conflicts negative risks to economic growth are on the rise, as is the risk of renewed strengthening of inflationary pressures.

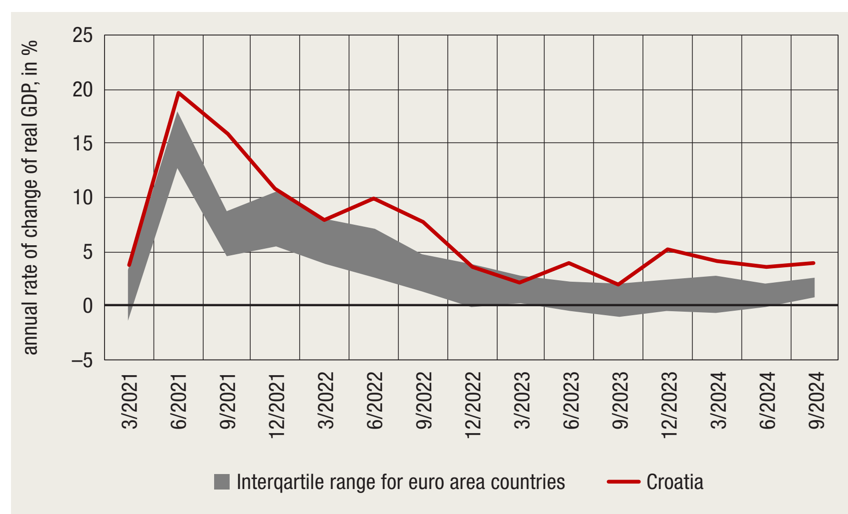
The Croatian economy continued its strong growth at the end of 2024 against the backdrop of the increase in global uncertainty and the poor performance of its main euro area trading partners (Figure 3). The high-frequency indicators for the fourth quarter of 2024 point to a robust growth of the Croatian economy under the influence of strong growth in domestic demand, accompanied by favourable developments in trade and construction. In addition, despite the slightly weaker results in the middle of the year, foreign demand picked up at the end of the year, especially in tourism. The overall inflation (measured by the harmonised consumer price index, HICP) accelerated to 5.0% in January 2025, from 3.0% in August 2024, while core inflation (excluding

Figure 2 The geopolitical risk index is elevated



Notes: The geopolitical risk index reflects the results of an automated text-search of the electronic archives of ten newspapers. The assessment of this risk is given in accordance with the survey of the Worle Economic Forum for the next year. The Trade Policy Uncertainty Index (TPU) is based on text searches of the articles of seven newspapers since 1960, normalised to a value of 100 for a one percent article share.
Sources: Data taken from https://www.matteoiacoviello.com/gpr.htm, https://www.matteoiacoviello.com/tpu.htm and the World Economic Forum

Figure 3 Croatia's economic growth much faster than that of other euro area countries

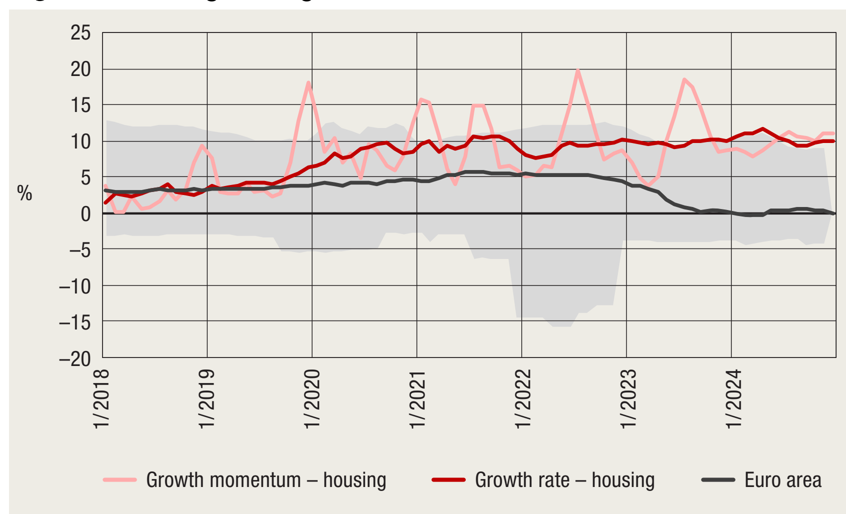


Source: Eurostat.

energy and food) continued to hover around an average 4.5%. This was primarily a reflection of the strong growth in wages connected to the robust domestic economic activity and a tight labour market, additionally spurred by the expansionary fiscal policy, predominantly related to the wage system reform in the public sector.

Against the backdrop of strong economic and wage growth, household borrowing continued to increase strongly at the end of 2024. Housing loans have been growing steadily for a long time at rates of some 10%, while the growth in cash loans has been showing signs of stabilising at a very high level, its annual growth rate totalling 16% at the end of the year. Croatia is currently at the forefront of the euro area in terms of the growth in housing and non-housing loans to households (Figures 4 and 5).

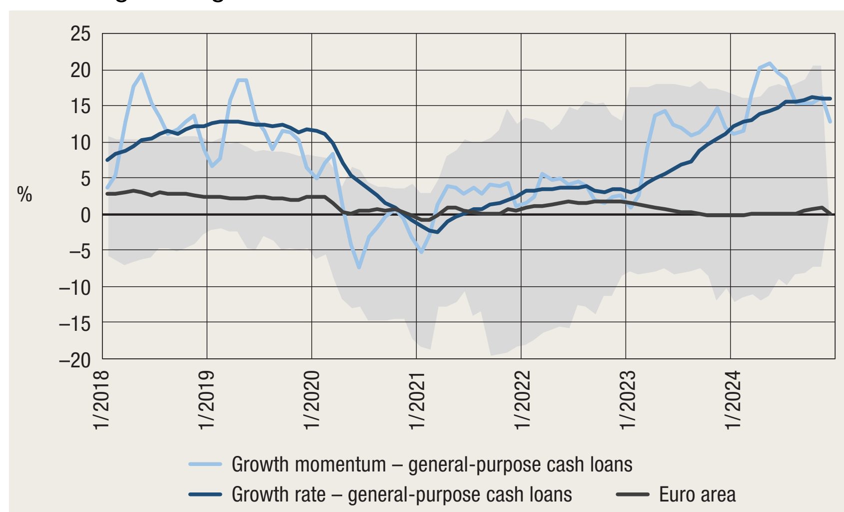
Figure 4 Housing loans grew at a stable annual rate of some 10%



Note: The grey area denotes the difference between the highest and the lowest growth rate in the euro area.
Sources: CNB and ECB.

The risks associated with the strong credit growth are additionally highlighted by the relatively lenient lending criteria. A considerable share of new housing and cash loans are granted with elevated debt-service-to income (DSTI) ratios. Amid the rising interest rates and the rising prices of residential real estate, the share of housing loans with elevated DSTI ratios (above 45%) increased to 35% at the end of 2024, up some 10 p.p. from the first half of 2022. At the same time, slightly more than 25% of general-purpose cash loans have elevated DSTI ratios of above 40%. Although the loan-to-value ratio (LTV) for new housing loans did not increase in 2024, the fact remains that some 30% of housing loans were disbursed with LTV ratio values exceeding 90%. In reaction to the risks associated with the strong growth of loans to households and lenient lending criteria (see Box 1 The risks associated strong credit growth amid eased lending criteria), the CNB announced

Figure 5 The growth of general-purpose cash loans shows signs of stabilising at a high level



Notes: The grey area denotes the difference between the highest and the lowest growth rate in the euro area. Consumer and other loans were used to calculate the euro area growth rate.
Sources: CNB and ECB.

that it would introduce new macroprudential measures to limit consumer lending criteria (see Chapter 3).

Residential real estate prices in Croatia continue to grow faster than in most other EU member states despite the continued decline in the number of transactions (Figure 6). The growth rate of residential real estate prices accelerated from the average 9.6% in the first half to 12.3% in the third quarter of 2024. This is primarily a reflection of the base effect since the prices of real estate stagnated in the third quarter of 2023. At the same time, the number of purchase and sale transactions continued to decline, predominantly under the influence of continuous decrease in transactions on the Adriatic coast, indicating a decline in foreign demand.

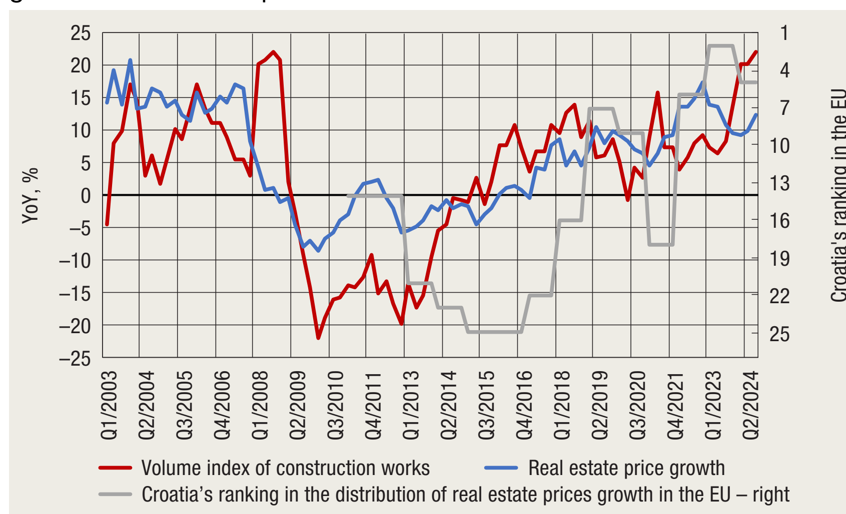
A long period in which there is a strong increase in prices of residential real estate accompanied by declining activity fuels the risk of a cycle reversal in the residential real estate market. The adjustment of residential real estate supply visible in the increase in the volume of construction works on buildings of 21% in the first eleven months of 2024, as well as the expected slowdown in the growth of income might, to a degree, mitigate the pressure on the prices of residential real estate. On the other hand, the expected decrease in interest rates might spur domestic and foreign demand and thus exacerbate the upward pressures on prices. Finally, the measures within the scope of the new housing policy will also affect the residential real estate market, with property tax exemptions and tax refunds for real estate purchase in newly built buildings offered to younger clients spurring demand, and the introduction of the real estate tax possibly

strengthening the supply of currently unused residential real estate properties.

Strong housing lending went in parallel with the considerable acceleration in lending to construction and real estate activities (Figure 7). The continuation of strong lending to these activities, characterised by the intensive use of financial leverage (debts), contributes to the additional build-up of cyclical risks associated with the real estate market. Namely, the operations of construction companies have historically proven to be very susceptible to the oscillations in the economic cycle with non-performing loans to companies from these activities reaching almost 60% during and after the global financial crisis.

Strong economic activity is also reflected in the rise of operating income of non-financial corporations and provides incentives for the establishment of new companies. The amount of fiscalised receipts grew by 11% in 2024 from 2023, which continued in 2025 (annual growth of 10%). However, costs, among which labour costs are most prominent, grew as well. The number of active companies grew by 2.9% in 2024, primarily thanks to net entries of enterprises from the construction and service activities, while exits from the market were relatively stable.

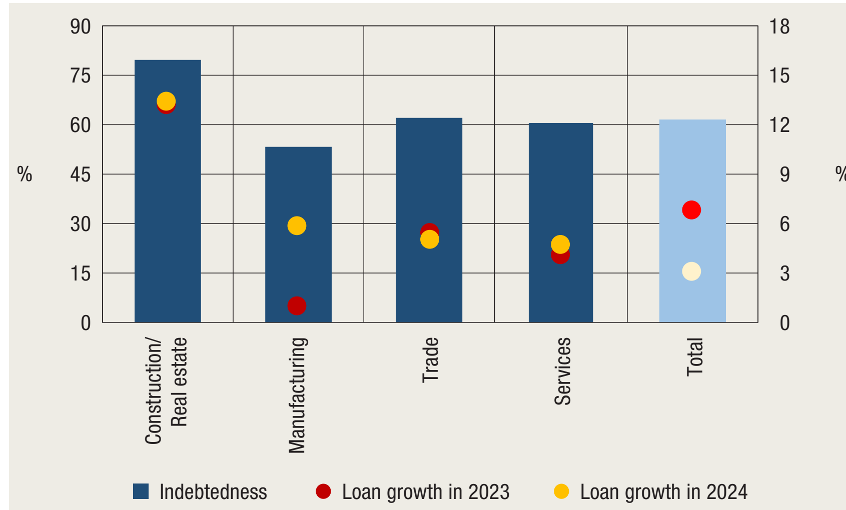
Figure 6 Croatia remains among the EU countries with the highest growth in real estate prices



Notes: International comparisons are not possible prior to 2011. The growth in real estate prices is calculated from the index of real estate prices. Rank 1 denotes the country with the fastest growth in real estate prices in the EU in a given quarter.
Source: CNB.

The favourable economic environment and elevated interest rates in 2024 underpinned the profitability of credit institutions (Figure 8). The gradual decline in bank profitability started in the third quarter of 2024, when ROA and ROE went down from the record levels observed in the previous quarter, from 2.1% to 2.0% and 19% to 17.5% respectively. This was a result of the lowering of the ECB's key interest

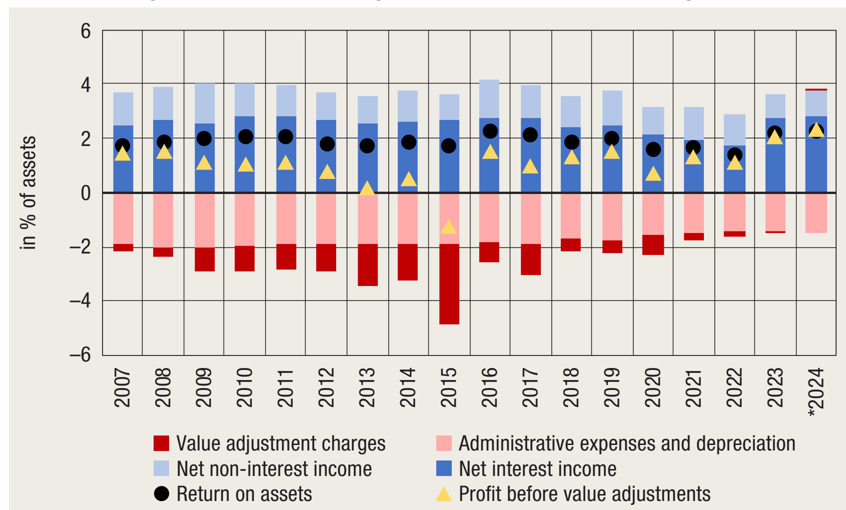
Figure 7 Credit growth is most pronounced in construction and real estate activities, whose debt is above average



Note: Debt indicator refers to the end of 2023.
Sources: FINA (indebtedness) and CNB (credit growth).

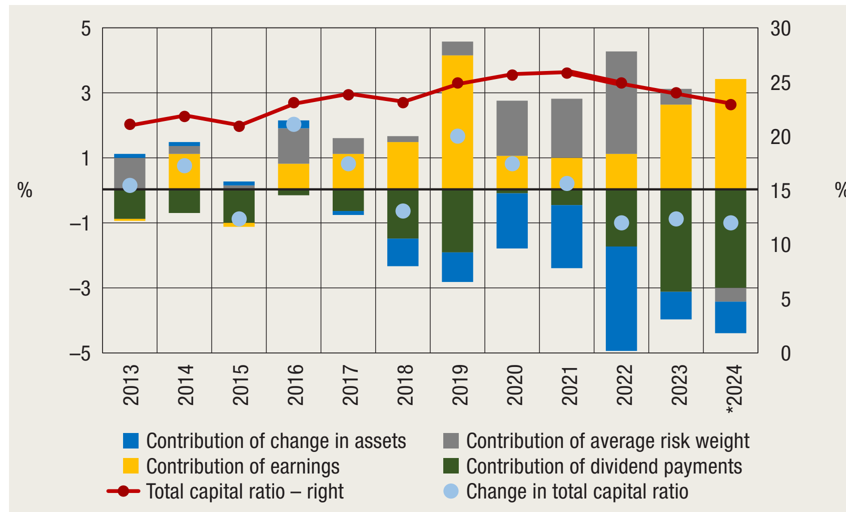
rates in October and December 2024, which led to a fall in net interest income, which contributed the most to the rise in bank profitability over the past two years. In the upcoming period, banks will face rising operating expenses, primarily due to the upward pressure on wages but also to continued investments in digitalisation which should, in the medium term, together with continued market consolidation, lead to an increase in cost efficiency. In addition, the room for further reduction of impairment costs is very limited considering that the ratio of non-performing loans (NPLR) reached the record low of 2.5% and that current indicators suggest a possible reversal in its downward tendency. The NPLR for loans to non-financial corporations increased slightly in the third quarter, from 4.7% to 4.8%, predominantly due to the rise in non-performing loans in the manufacturing industry, while the share of

Figure 8 High net interest margin is the main driver of high bank profitability



Note: The 2024 data are annualised from the figures for the first nine months.
Source: CNB.

Figure 9 Although still high, capital adequacy ratio decreases in 2024 primarily due to dividend payments



Note: Data for 2024 refer to the first nine months.
Source: CNB.

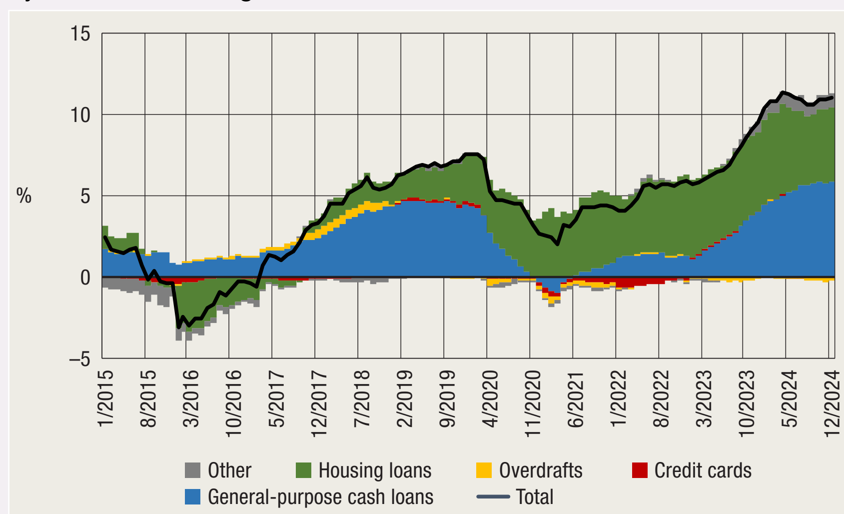
general-purpose cash loans with increased credit risk (stage 2 loans) went up slightly in the last quarter 2024.

The banking system maintained its strong capital position with the total capital ratio above the regulatory requirement (Figure 9). After having been negatively affected by the more intensive dividend payments, growth in placements and the increase in the average risk weight, the decline in the total capital ratio was halted in the third quarter, at 23.0%. This is some 3 percentage points above the regulatory requirement when the minimum requirement for own funds and eligible liabilities (MREL) is taken into consideration in addition to prudential requirements. In addition, liquidity indicators remain high, much above regulatory requirements. At the end of November, the liquidity coverage ratio (LCR) totalled 226.7%, and at the end of September the net stable funding ratio (NSFR) totalled 173.8%.

Box 1 The risks associated with strong credit growth amid eased lending criteria[1]

Lending to households picked up in the last two years, halting the several-year-long downward trend in their relative indebtedness. The annual growth rate of loans to households increased from 9.5% in 2023 to 11% in 2024, spurred by the acceleration in the growth of general-purpose cash loans, much more than over the previous years (Figure 1). This halted the several-year long downward trend in the relative indebtedness of households, during which their debt-to-GDP ratio reduced from 44% in 2010 to 31.9% in 2023, to increase slightly to 32.2% by the third quarter of 2024.

Figure 1 Lending to households picked up in the last two years spurred by the accelerated growth of cash loans

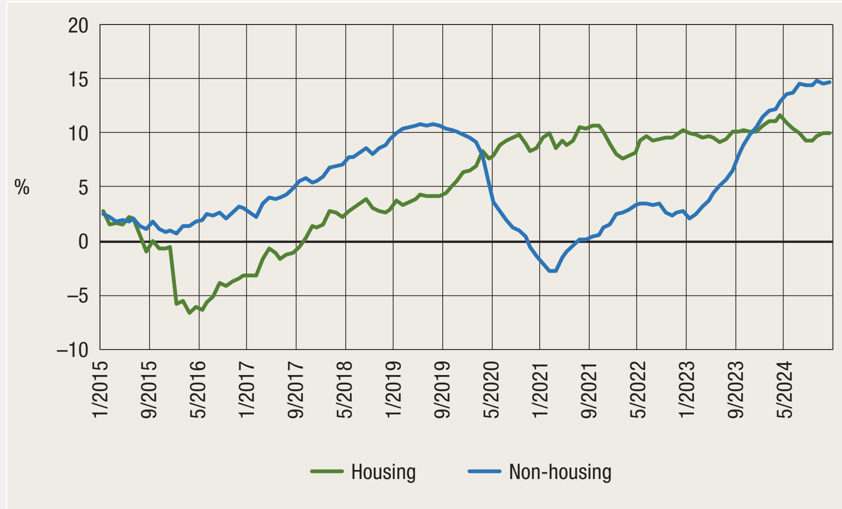


Notes: Non-housing loans exclude credit cards and overdrafts. The data for housing loans include mortgage loans. The figure shows rates of change and transaction-based contributions which exclude the exchange rate, price and other changes.
Source: CNB.

Housing loans have been increasing steadily for a number of years, with a visible increase in the loan amount, especially recently, which at the same time increased the debt repayment burden on the income of new debtors. Housing loans have been on the rise since 2017 when the recovery in real estate prices started (Figure 2). The annual rate of growth in housing loans stabilised in the last five years at the level of some 10% per year. However, since 2023 the number of newly-approved housing loans has been gradually decreasing parallelly with the growth in interest rates, so the nominal loan growth reflects the

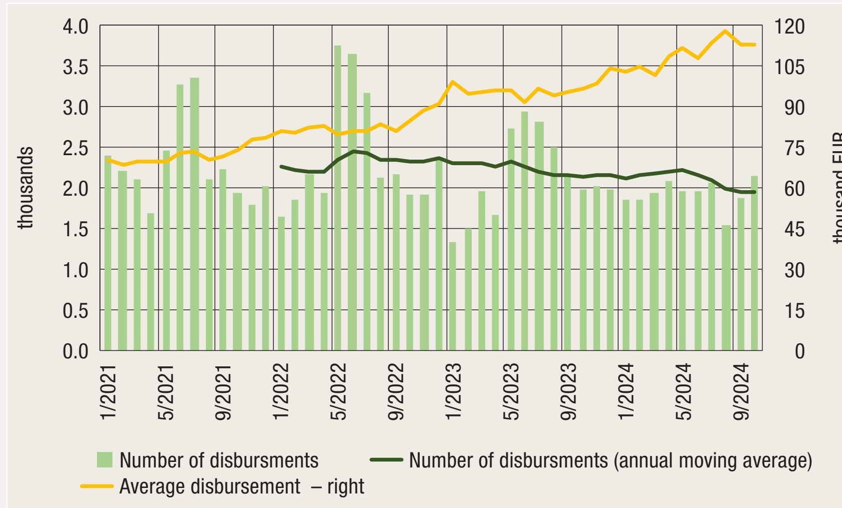
1 Previous analyses of approval criteria for consumer loans are available in earlier issues of CNB publications *Financial Stability* and *Macroprudential Diagnostics* (see, for example Macroprudential Diagnostics No. 24, Box 1, Financial Stability No. 25, Chapter C, Financial Stability No. 24, Chapter B, Financial Stability No. 23, Chapter 3.3, Macroprudential Diagnostics No. 15 Box 1, Financial Stability No. 22, Box 1)

Figure 2 Housing loans are rising steadily at high rates, while non-housing loans are accelerating



Notes: Non-housing loans exclude credit cards and overdrafts. The data for housing loans include mortgage loans. The figure shows rates of change and transaction-based contributions which exclude the exchange rate, price and other changes.
Source: CNB.

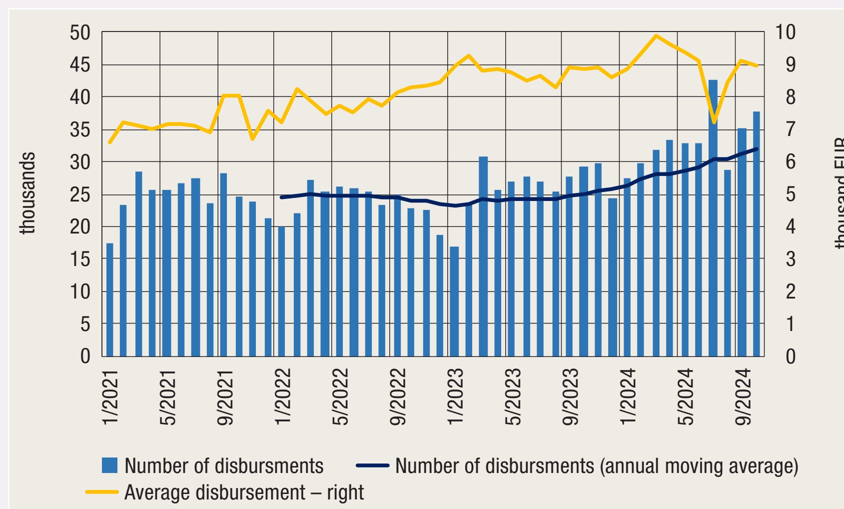
Figure 3 Higher average disbursements contribute to the growth of housing loans, while the number of disbursements is falling



Note: Data shown include housing and mortgage loans.
Source: CNB (consumer lending standards).

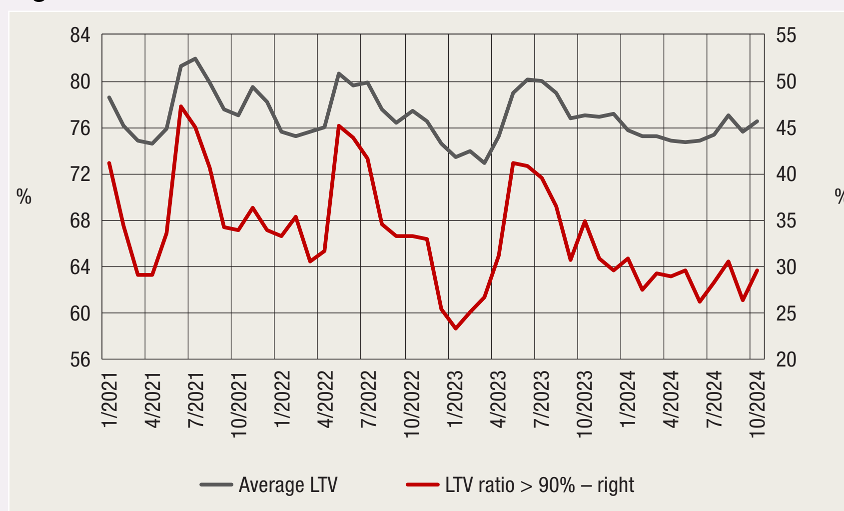
ever-increasing loan amounts (Figure 3). The average amount of new housing loans was some 20% higher in the third quarter 2024 than in the same period the year before, that is, some 40% higher than in 2022. This rise being loosely in sync with the growth in the average value of pledged residential real estate. As a result, the average loan-to-value ratio (LTV) has been relatively stable since the middle of 2023, at the average level of 78%, while in previous periods it oscillated between 72% and 82%. The rise in the LTV ratio was visible during periods of the disbursements of loans granted under the government's programme of subsidised housing loans. The termination of the programme at the same time reduced the share of loans with LTV ratios exceeding 90% to some 30% (Figure 5).

Figure 4 The growth of non-housing loans is driven by the growth in the number of new loans



Note: Non-housing loans exclude credit cards and overdrafts.
Source: CNB (consumer lending standards).

Figure 5 LTV ratios were stable in 2024

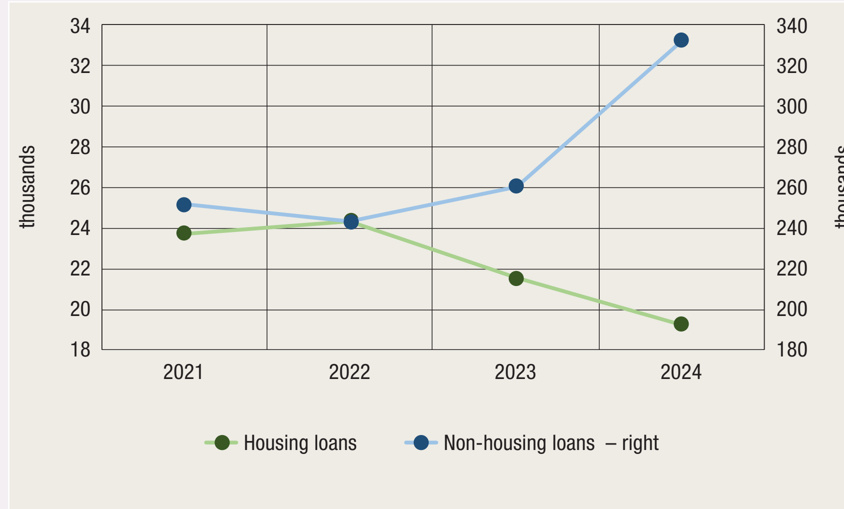


Note: Data shown include housing and mortgage loans.
Source: CNB (consumer lending standards).

Except for the temporary stall during the coronavirus pandemic, non-housing loans[2] also increased strongly over the past decade, although at an uneven intensity. After slightly falling and stagnating during the pandemic and recovering slowly in 2021 and 2022, non-housing loans started to accelerate strongly at the beginning of 2023, their annual growth rate reaching 14.6% in 2024. In contrast to housing loans, the non-housing loans strongly increased in number in the first 10 months of 2024, by slightly over one fourth, which partly reflects the impact of borrowing used to repay tacit overdrafts. At the same time, the average amount of non-housing loans only increased by some 3% in the first nine months of 2024, much lower than the 11% of 2023 (Figure 4).

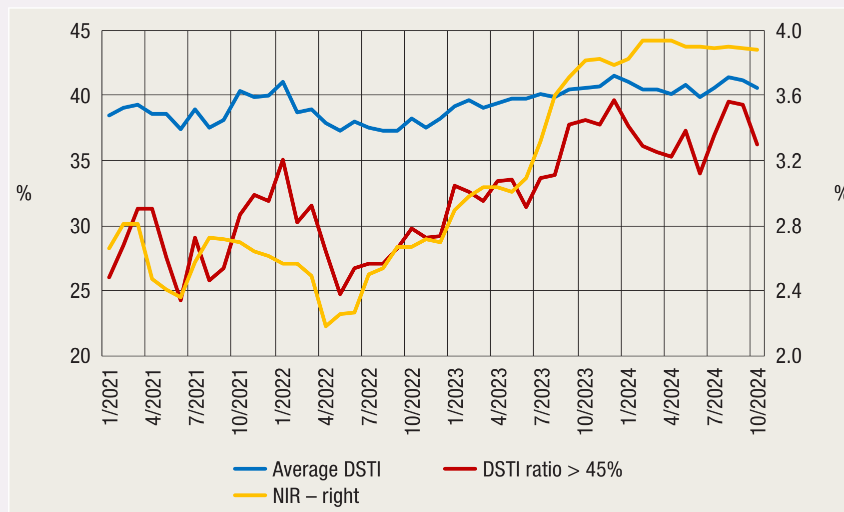
2 In addition to general-purpose cash loans, non-housing consumer loans include other types of loans and exclude overdrafts and credit cards. Housing loans also include mortgage loans. This coverage is harmonised with the legal definitions of housing and non-housing loans and slightly differs from the coverage of statistical definitions of housing and general-purpose cash loans.

Figure 6 The number of new housing loans continued to decline in 2024, while the number of disbursed non-housing loans increased



Notes: Non-housing loans exclude credit cards and overdrafts. The data for housing loans include mortgage loans. The series in the chart refer to the number of housing and non-housing loans from the beginning of the year to October of the same year
Source: CNB (consumer lending standards).

Figure 7 The increase in interest rates on new housing loans led to a rise in the share of debtors with higher DSTI ratios

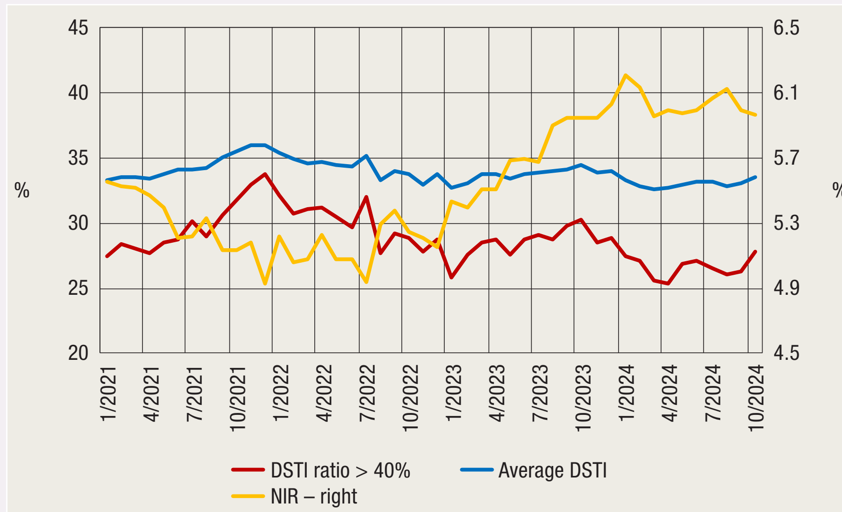


Note: The figure shows the nominal interest rate (NIR)
Source: CNB (consumer lending standards).

A sizeable share of new housing and cash loans are granted under relatively accommodative criteria. The increase in interest rates on new housing loans from the average 2.5% in 2022 to 3.8% in the second half of 2024 together with the growth in the average loan amount contributed to the increase in the average DSTI ratio of new housing loans (Figure 7) and their maturity. In the period, the average DSTI ratio of new housing loans increased from the average 38% to some 41% and loan maturity from about 22 to 24 years. At the same time, the share of debtors that allocate a substantial portion of their income to debt repayment rose as well, pushing the share of new loans with the DSTI ratio exceeding 45% up from one quarter in 2022 to slightly over one third in 2024. In contrast, the average DSTI for new non-housing

loans decreased marginally amid the slow growth in interest rates and shorter average maturity, which diminishes the effect of this rise on the amount of the monthly repayment so the repayment cost increased approximately the same as income. On average, consumers allocate around one third of their income for the repayment of new non-housing loans. However, approximately one in four non-housing loans in 2024 was granted with a DSTI ratio exceeding 40% (Figure 8).

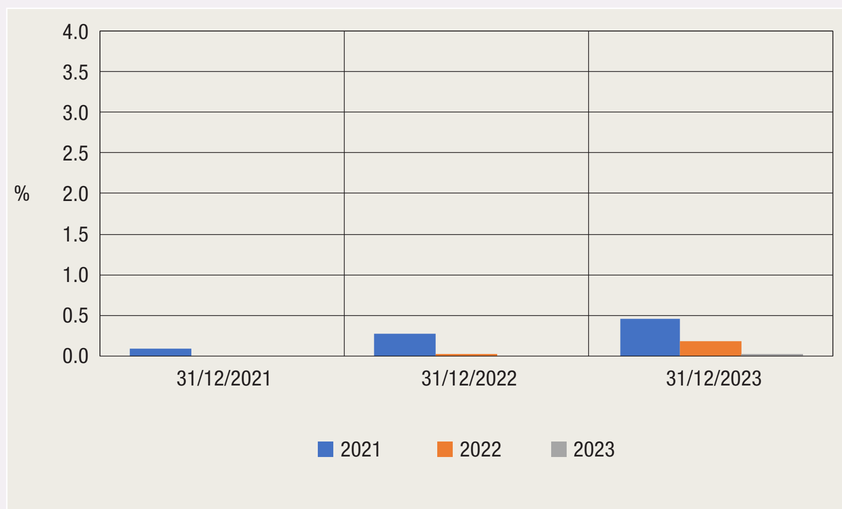
Figure 8 A sizeable share of debtors take out non-housing loans with higher DSTI ratios



Note: The figure shows the nominal interest rate (NIR)
Source: CNB (consumer lending standards).

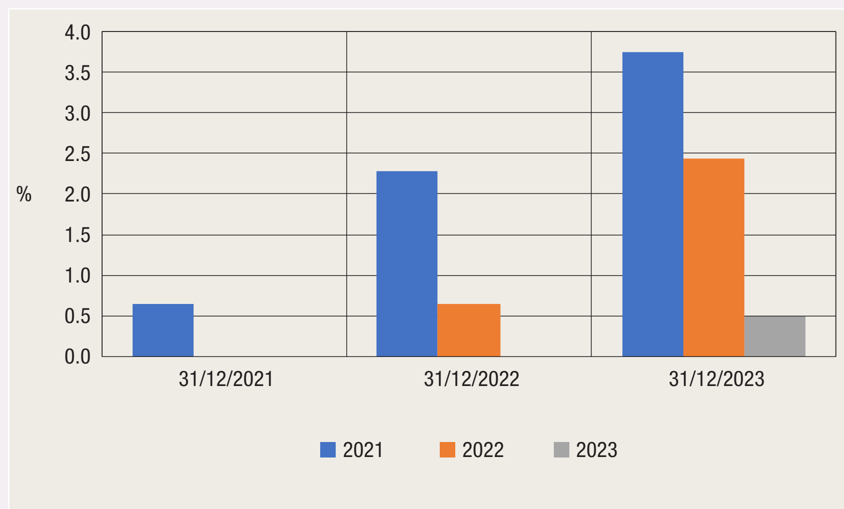
Difficulties in the repayment of non-housing loans become evident relatively quickly, while difficulties in the repayment of housing loans occur less frequently. From the cohort of loans granted in 2021, 2.3% were already over 90 days delinquent by the end of 2022 and the

Figure 9 As a rule, loans granted in 2021 continued to face no difficulties in loan repayment



Note: The three columns marked by the number of the year in question show the share of the principal of housing loans categorised into risk category B and C at the end of that year, broken down by the year when the loan was granted (shown in colour).
Source: CNB (consumer lending standards).

Figure 10 A negligible share of consumers taking out non-housing loans soon face repayment difficulties



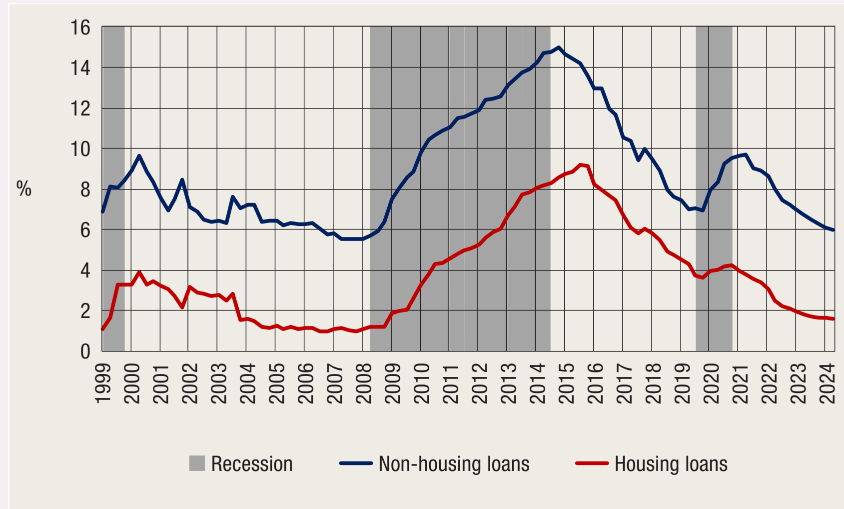
Note: The figure shows the share of the principal of non-housing loans categorised into risk category B and C at the end of that year, broken down by the year when the loan was granted.
Source: CNB (consumer lending standards).

share increased to 3.8% by the end of 2023. Consumers who took out housing loans faced difficulties in loan repayment less frequently so less than 0.5% of loans granted in 2021 were delinquent by the end of 2023 (Figure 9 and 10). Similar developments were registered with regard to loans granted in 2022. It is worth noting that 2023 was marked by an exceptionally robust labour market, growth in employment and an increase in nominal and real income that made loan repayment easier. Under the scenario of unfavourable economic developments consumers would have been faced with difficulties in loan repayment in much greater numbers.

The share of non-performing loans usually increases considerably at times of unfavourable economic developments, this increase being even more prominent for non-housing loans (Figure 11). Namely, during the period of favourable economic developments, and in particularly at its later stage, households are often borrowing pursuant to quite optimistic assumptions of future income. Excessive optimism leads to the accumulation of credit risk, which, as a rule, materialises at times of recession, when an increasing number of consumers face loan repayment difficulties. In addition, higher interest rates make credit institutions generally more willing to grant non-housing loans to riskier clients, which makes them especially susceptible to unfavourable economic developments, so they face difficulties in loan repayments quicker and more frequently than in relation to housing loans.

Strong credit growth and increase in household debt at periods of economic growth may subdue consumer spending after the economic outlook deteriorates. That is, in periods of strong economic

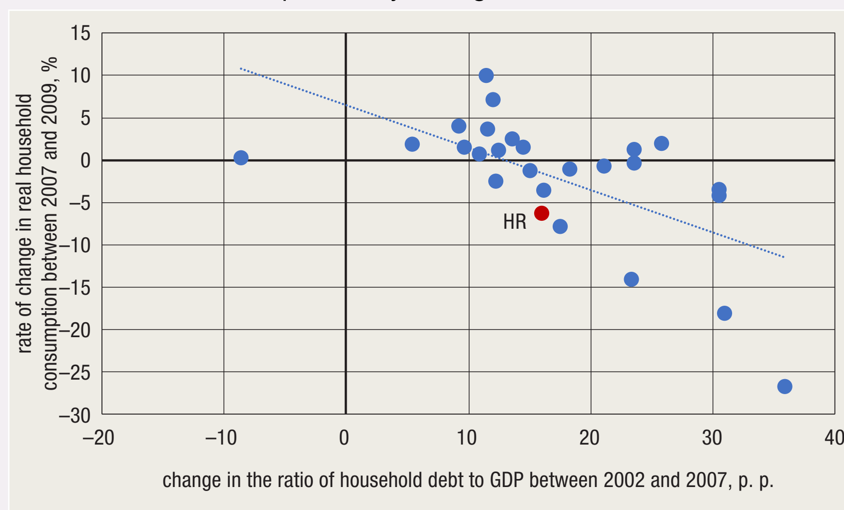
Figure 11 The increase in the share of non-housing loans usually follows after a period of high credit growth and is materialised amid unfavourable economic developments



Note: The figure shows the shares of the principal of loans categorised into risk category B and C. The grey shaded area refers to periods in which the annual rate of change in GDP was negative.
Sources: Eurostat and CNB.

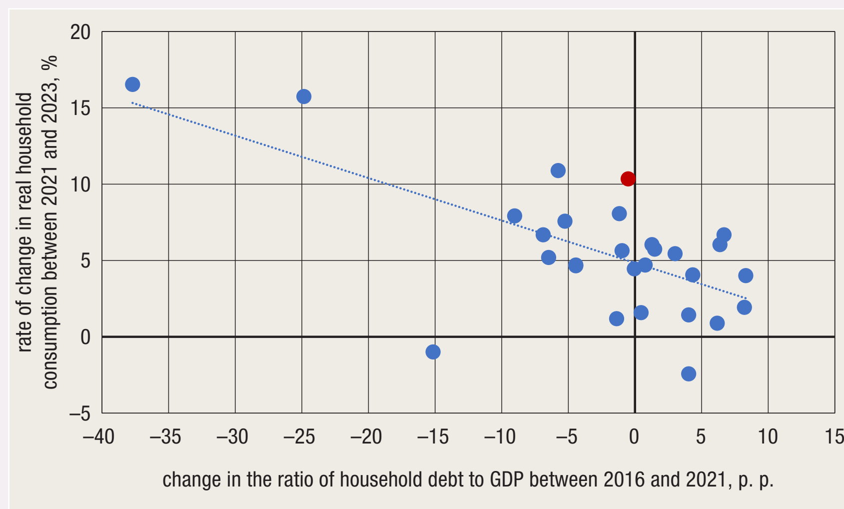
growth, households often make optimistic assumptions regarding increases in their future income, which can lead to excessive borrowing. When the economy slows down, household income grows much slower than expected in the upward phase of the cycle or may even decrease with debtors being forced to cut back on spending to be able to service their debt regularly. This reduces aggregate demand and additionally exacerbates unfavourable economic developments. The statistical link between debt growth in 2000s and the decline in household consumption in EU member states is a good illustration of the mechanisms described (Figure 12). A reversed mechanism was observed in the period of increased inflation after 2021 – households in member states that registered stronger deleveraging in the wake of the

Figure 12 During the global financial crisis household consumption fell more in countries with previously stronger increases in household debt



Source: CNB (consumer lending standards).

Figure 13 Between 2021 and 2023 consumer spending increased more in countries where households had deleveraged beforehand



Source: CNB (consumer lending standards).

inflationary shock subdued their consumer spending to a lesser degree (Figure 13).

The acceleration in credit growth paired with relatively accommodative lending criteria feeds the risks to financial stability and for the economy. The growing debt repayment burden indicates that some consumers have borrowed according to quite optimistic assumptions regarding their future income growth formed amid the exceptionally strong growth of nominal and real wages. Under the potential scenario of deteriorating economic conditions, employment and income growth might slow down, or wages could decrease, unfavourably affecting debt servicing abilities. Strong credit growth also carries the danger of loosening lending standards because banks in their efforts to preserve or increase their market shares become prone to granting loans to consumers with declining creditworthiness[3]. Macroprudential measures, which limit consumer lending criteria, mitigate the risk of excessive easing of lending criteria and pre-emptively mitigate risks to financial stability associated with increased consumer lending. This at the same time boosts their financial resilience under possible unfavourable macroeconomic scenarios.

3 See, for example Mian, A. and Sufi, A. (2014): House of Debt: How They (and You) Caused the Great Recession, and How We Can Prevent It from Happening Again, The University of Chicago Press, which demonstrated that speedy credit growth in the US in the 2000s played the key role in strengthening the contraction of economic activity during the recession of 2007–2009, especially in areas where loans were approved with high debt-to-income ratios. Namely, at a later stage of the credit cycle of the 2000s, banks were increasingly granting loans to so-called marginal debtors, that is, those debtors whose loan applications were earlier refused on account of high credit risk. These debtors were among the first to cease repayments, which caused an abrupt decline in consumption and additionally deepened the contraction. In addition, households in areas with higher debt growth before the crisis experienced a higher growth in the prices of real estate and were also especially vulnerable to wealth shocks caused by the subsequent decline in the value of real estate, which led to the stronger decrease in consumption and increase in unemployment in these areas.

2 Potential risk materialisation triggers

The possible increase in the intensity of military conflicts continues to represent the most significant potential risk trigger for global financial stability. This goes primarily for the war in Ukraine, which will soon enter its fourth year. Although initial shocks to financial stability, such as the growth in risk premium and volatility in the capital market, have mostly vanished, there are still risks present. The beginning of the year was thus marked by the rise in the price of gas in Europe after the flow of Russian gas to Europe through Ukraine was stopped, and further conflict escalation might revive inflationary pressures. Geopolitical tensions in the Middle East remain high as well, with the sustainability of the ceasefire between Israel and neighbouring countries playing an especially important role. In addition, the uncertainty regarding the future stance of the new Syrian government is especially important bearing in mind that this is the region with the world's largest oil and natural gas reserves, which means that new conflict escalation could lead to new disturbances in the energy market.

The announced shift in the US trade policy paired with the uncertain political situation in several of the largest European states might pose an additional challenge to the economic recovery of the European Union. Changes to the US customs policy might considerably affect global trade flows. The potential fragmentation of global trade spurred by protectionist measures might additionally slow down the already weak expected growth of the EU economy at the time of the uncertain political situation and economic policies in its largest economies: Germany, France and Austria. Aware of these risks, banks in the EU have increasingly been including political and geopolitical risks in their calculations of possible future credit losses, expecting them to negatively impact capital in the upcoming period. The responses to EBA's autumn 2024 semi-annual survey thus flagged political and geopolitical uncertainty as the main reason for additional model adjustments (items that are unforeseeable and cannot be included in the standard model calculation).[4]

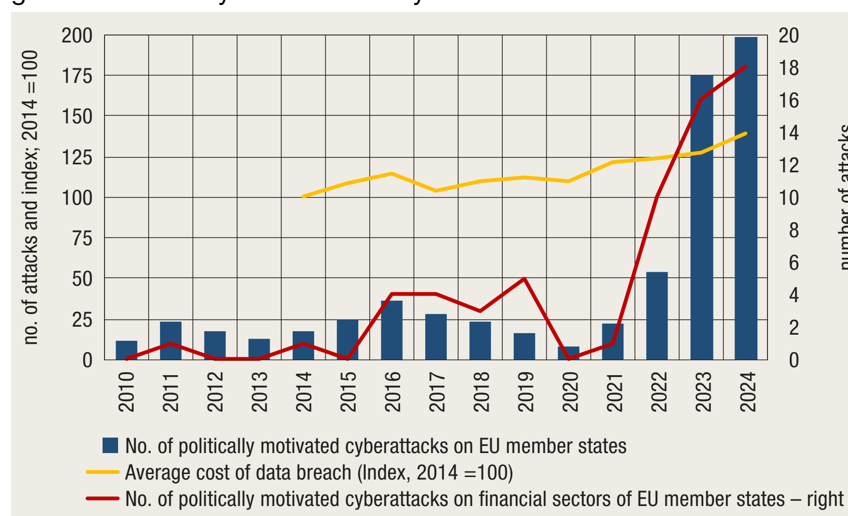
Increasing investments in defence put additional pressure on the economies and finances of EU countries. In 2024, these expenditures (according to the European Defence Agency) are estimated to have reached EUR 326 billion at EU level (about 1.9% of GDP) or 17% more

4 In EBA's survey, 46% of bank which use additional model adjustments specified geopolitical risks as the reason for additional provisions, which is a considerable increase from the spring 2024 survey when it was the third most common reason for additional provisions, with the share of banks employing them being slightly below 30%.

than in the year before and are expected to continue growing going forward. The increase in defence spending makes it more difficult for many EU member states to stabilise their public debt, as well as to continue to invest in other long-term projects such as fighting climate change.

Cyberattacks that have lately increasingly more often been used as a form of hybrid warfare pose a rising risk to financial stability (Figure 10). Technological progress over the past years, especially the development of artificial intelligence has led to considerable advancements but also became weaponised at times of increased geopolitical tensions. Hacker attacks, sometimes even state-sponsored ones, are growing more frequent, with their intensity and costs increasing. With regard to financial systems, cyberattacks may disrupt the digital infrastructure of financial institutions, such as payment systems and trading platforms, or data processing systems and bring trading and transactions to a halt, leading to data loss, thus jeopardising client confidence and increasing systemic risk.

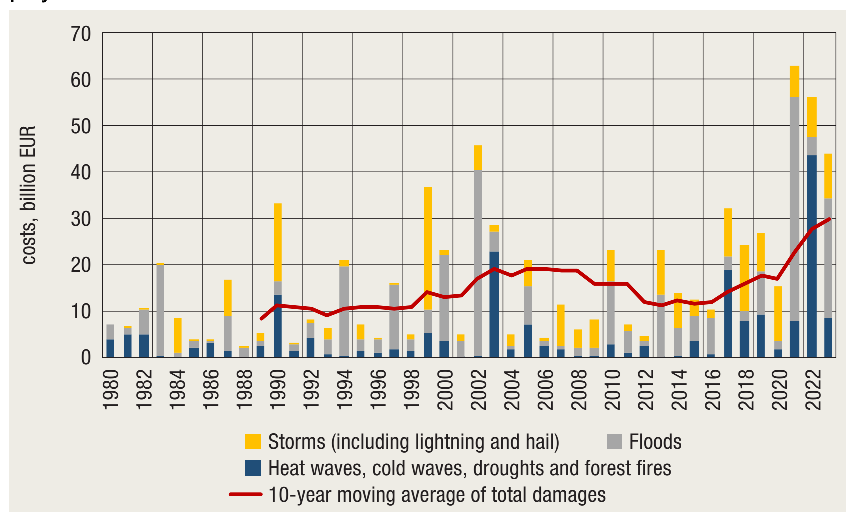
Figure 10 The number of and damage from cyberattacks in the EU grew considerably in the last five years



Note: Data collected from more than 200 public reports about cyber incidents.
Sources: European Repository of Cyber Incidents and Statista.

While geopolitical tensions and trade conflicts dominate short-term assessments of major risks to the global economy and financial system, in the long run climate risks remain a major threat to global financial stability (Figure 11). Continuing the upward trend, the year 2023 and 2024 were the warmest on record in the history of recording temperatures. The beginning of this year was marked by devastating wildfires in California, partially caused by extreme weather conditions, which are already estimated to be the largest natural disaster in US history. A continued trend of rising average temperatures and generally a higher frequency of extreme weather conditions might also lead to other

Figure 11 Costs in the EU increase due to the materialisation of physical risks



Source: European Environment Agency.

natural disasters with might considerably jeopardise economies and consequently financial stability. The exposure of the European economy to these risks is considerable because the European continent in global terms has been recording the highest increases in average temperature, Croatia even more so, due to its geographic diversity which is reflected in its coast, mountains, rivers and plains.

3 Recent macroprudential activities

The CNB's macroprudential policy in the last quarter of 2024 and in early 2024 was directed at mitigating the accumulation of risks associated with strong household borrowing under relatively accommodative lending criteria and preserving the resilience of the banking sector to the possible materialisation of systemic risks. With this aim, the CNB has expanded its macroprudential toolbox by introducing limits on consumer lending criteria, pertaining to housing and non-housing consumer loans. Following its regular review at the end of 2024 the level of capital buffers remained unchanged. The applied national discretions regarding the calculation of riskiness of exposures secured by immovable property were amended in compliance with amendments to the Capital Requirements Regulation.

3.1 Decision on consumer lending criteria

The CNB is introducing new macroprudential measures to limit consumer lending criteria, aiming to mitigate the accumulation of systemic risks associated with household borrowing and to strengthen of their financial resilience under unfavourable macroeconomic scenarios. These measures are being adopted pre-emptively in reaction to risks associated with the strong growth of loans to households, with a considerable share of loans being granted under not very stringent criteria (see Chapter 1 and Box 1). They are at the same time expected to contribute to the reduction of inflationary pressures associated with increased household demand. Under the Decision on Consumer Lending Criteria, the ratio of monthly debt service to income (DSTI) will be limited to a maximum of 45% for housing loans and 40% for non-housing loans, and the ratio of the total loan amount to the value of the real estate serving as collateral (LTV) will be limited to 90%. In addition to these limits, the prescribed quota of allowed exemptions is set at 20% for housing loans, intended primarily (three-quarters of exceptions) for consumers addressing their housing needs, while 10% of the amount is intended for non-housing loans. The maturity of housing loans is limited to thirty years and that of non-housing loans to ten years. Before adopting the measure, the CNB provided for a public consultation period of 30 days with the final decision to be published in March 2025.

Limits on consumer lending criteria are part of the group of macroprudential measures that are directed at borrowers and directly limit the amount of loan that can be granted by a credit institution in accordance with the borrower's income or the value of the instrument of collateral, the duration of the credit relationship and/or the manner of debt repayment (see Macroprudential Diagnostics No. 10, Box 1). Their role in safeguarding financial stability is twofold: they directly contribute towards the reduction of risks arising from (excessive) credit activity by limiting the amount of new loans to certain categories of consumers, while indirectly they increase the resilience of both borrowers and credit institutions in the event of unfavourable microeconomic scenarios materialising. At present, these measures constitute an integral part of the set of macroprudential measures used in 23 of the 27 member states of the European Union (see Table P.1), most often employed to mitigate risks associated with lending to households and the real estate market with Croatia being the 24th member state to activate them.

Limiting lending criteria is the new ongoing structural element of the CNB's macroprudential policy. Its impact will be monitored in the context of a comprehensive set of macroprudential measures

and of their contribution to the safeguarding of the financial system and sustainable economic growth in the long run and will, where necessary, be adapted to the development of systemic risks and general macrofinancial circumstances.

3.2 The countercyclical capital buffer rate to remain at 1.5%

Considering the still elevated level of cyclical vulnerabilities, the countercyclical capital buffer rate of 1.5%, effective from the end of June 2024, is assessed as adequate for preserving banking system resilience to possible systemic risk materialisation. The domestic financial cycle remains in the mature phase of expansion, characterised by ongoing robust lending to households, especially in the segment of general-purpose cash loans, while housing loans continue to increase at stable rates. At the same time, the growth of loans to non-financial corporations increased slightly. The elevated level of cyclical risks is also a result of the continued growth in the prices of residential real estate despite the decrease in the number of transactions. A possible further deterioration of cyclical vulnerabilities in a favourable macrofinancial environment might call for an additional increase in the prescribed rate of this buffer.

3.3 Review of the systemic importance of credit institutions

In December 2024, the CNB confirmed the status of seven other systemically important credit institutions (hereinafter referred to as 'O-SIIs') and their capital buffer rates. This additional capital buffer increases resilience and the ability to sustain losses by credit institutions, which, due to their systemic importance, could, in the event of their failure, negatively impact the stability of the entire financial system. The systemic importance of credit institution is reviewed every year, as is the

Table 1 O-SIIs in the Republic of Croatia

O-SII	Systemic importance score as at 31 Dec. 2023	O-SII buffer rate as of 1 Jan. 2025 (%)	O-SII buffer rate in 2024 (%)
Zagrebačka banka d.d., Zagreb	3004	2.5	2.5
Privredna banka Zagreb d.d., Zagreb	2412	2.0	2.0
Erste&Steiermärkische Bank d.d., Rijeka	1622	2.0	2.0
Raiffeisenbank Austria d.d., Zagreb	1070	1.5	1.5
OTP banka Hrvatska d.d., Split	787	1.5	1.5
Hrvatska poštanska banka d.d., Zagreb	458	1.0	1.0
Addiko Bank d.d., Zagreb	190	0.25	0.25

Source: CNB.

necessary capital buffer rate for the identified O-SIIs. The latest review was carried out in October 2024 on the basis of data from the end of 2023 in line with the guidelines of the European Banking Authority and the internal methodology. The buffer rates to be maintained by the O-SIIs in 2025 remained unchanged (Table 1) from the previous year (Table 1).

3.4 Review of the level of the structural systemic risk capital buffer rate

The structural systemic risk buffer rate of 1.5% was assessed as adequate to preserve the resilience of the domestic banking sector to structural systemic risks. The analysis of structural vulnerabilities and systemic risks in the domestic economy was conducted in the last quarter of 2024 as part of the regular biannual review. The major sources of risks to financial stability arise from the international environment, and the Republic of Croatia, as a small and open economy is sensitive to disruptions in the global economy. The main structural weaknesses of the domestic economy and the financial system continue to be the structural deficiencies of the labour market, primarily in the shape of very low rates of labour force participation and unfavourable demographic trends, as well as high exposure of the banking sector to the government and high bank-centricity of the domestic financial system.

3.5 Macroprudential measures for risks associated with the real estate market

In December 2024, the CNB adjusted the applied national discretions regarding the calculation of riskiness of exposures secured by immovable property, maintaining the more restrictive definition of residential real estate and repealing the application of a higher risk weight for exposures secured by commercial real estate. Namely, at the beginning of 2025 the amended Capital Requirements Regulation (CRR3[5]) entered into force, which, among other things, amended the provisions regarding exposures secured by real estate within the framework of the standardised approach for the calculation of the capital requirement for credit risk. The changes in question include a more granular approach to risk measurement in an effort to ensure a more appropriate risk assessment in relation to exposures secured by immovable property. Taking into account the results of the quantitative impact study of the application of the new regulation conducted at the end of 2024, the CNB maintained the more restrictive definition

5 Regulation (EU) 2024/1623 amending Regulation (EU) No 575/2013

of residential real estate for the use of the preferential risk weight for exposures secured by residential real estate, which now lays it down that loan users may not own more than two immovable properties and that the real estate property used as collateral may not be a holiday home. With regard to exposures secured by commercial immovable property the previously exercised national discretion in the form of the mandatory application of a higher risk weight (100%) was repealed, and as of January 2025 these exposures became subject to risk weights in accordance with the CRR3.

The decision to cease applying the more stringent risk weight to exposures secured by commercial immovable property is motivated by the more granular approach to measuring credit risk for these exposures, as provided by the CRR3. The new approach is more sensitive to the riskiness of exposures, the treatment of which differs depending on the ability to generate revenues, and lays down a higher lowest risk weight for exposures secured by commercial immovable property (60% instead of the previous 50%) up to the loan to value ratio of 55% (previously 80%). In addition, the results of the quantitative impact study indicate that the application of risk weights envisaged under the CRR3 without the exercise of national discretion should not lead to the decrease in capital requirements for exposures secured by commercial immovable property. Nevertheless, the CNB continues to regularly monitor data on exposures of credit institutions secured by immovable property and the related systemic risks to financial security and, where necessary, may exercise more restrictive national discretion at a later date, as well as other macroprudential measures for mitigating systemic risks associated with immovable property.

3.6 Actions taken at the recommendation of the European Systemic Risk Board

With respect to ESRB Recommendations, in the second half of 2024 the CNB adopted decisions on the non-reciprocity of the macroprudential policy measures adopted by designated authorities of Portugal, Denmark and Italy, since the exposures of domestic credit institutions do not exceed the prescribed materiality thresholds. These macroprudential measures include: (1) the sectoral systemic risk buffer rate of 4% for credit institutions that use the IRB approach for all exposures to natural persons secured by residential property in Portugal; (2) the sectoral systemic risk buffer rate of 7% for all types of exposures located in Denmark to non-financial corporations operating in real estate activities and in the development of building projects and (3) the sectoral systemic buffer rate of 0.5% (from 31

December) and 1% (from 30 June 2025) for all exposures to credit risk and exposures to counterparty credit risk in Italy.

Within the scope of the review of compliance with the Recommendation[6] on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures, the Republic of Croatia was rated as fully compliant.

3.7 Implementation of macroprudential policy in other European Economic Area countries

In the last quarter of 2024, several EEA member countries continued to build releasable capital buffers, and one introduced borrower-based measures.

Portugal and Greece decided to introduce the positive neutral countercyclical capital buffer rate strategy, to be applied in a neutral risk environment. The positive neutral rate of 0.75% should start to be applied in Portugal from 1 January 2026. The Bank of Greece announced an increase in the countercyclical capital buffer rate to 0.25% from 1 October 2025 and the application of the targeted positive neutral rate of 0.5% from 1 October 2026.

Latvia started to apply the announced countercyclical capital buffer rate of 0.5% from 18 December 2024, in accordance with the positive neutral rate strategy and with the aim of boosting the resilience of its banking system. In June 2025, this rate will be raised to the targeted positive neutral rate of 1%.

Cyprus announced an increase in its countercyclical capital buffer rate from 1% to 1.5%, effective as of 14 January 2026. It was assessed that cyclical risks in Cyprus increased amid continued expansion of new lending to households and non-financial corporations and that risks in the residential immovable property market were elevated as well.

Borrower-based measures for loans secured by residential property started to be applied in **Bulgaria** from 1 October 2024. When granting new loans, the LTV ratio is limited to 85%, the DSTI ratio to 50% and maturity to 30 years. In addition to these measures, a quota was determined for allowed exemptions in relation to prescribed limits in the maximum value of 5% of new loans in each quarter. Bulgaria

6 ESRB/2015/2

thus became the 23rd of 27 EU member states to apply this type of macroprudential measure.

Latvia adjusted the exercise of its national discretion in relation to the calculation of the riskiness of exposures secured by commercial immovable property due to the start of the application of the amended Capital Requirements Regulation (CRR3). The previously prescribed national discretion in the form of the mandatory application of a higher risk weight (80%) to exposures secured by commercial immovable property stopped applying and as of January 2025 these exposures became subject to risk weights in accordance with the CRR3.

Table 2 Overview of macroprudential measures in EEA member countries and the United Kingdom

	AT	BE	BG	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HR	HU	IE	IS	IT	LT	LU	LI	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
Capital and liquidity buffers																														
CCoB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CCyB rate applied (%)	0	1.0	2.0	1.0	1.25	0.75	2.5	1.5	0	0	1.0	0	1.5	0.5	1.5	2.5	0	1.0	0.5	0	0.5	0	2.0	2.5	0	0	1.0	2.0	0.5	1.5
CCyB rate pending (%)				1.5					0.5			0.25		1.0							1.0					0.75			1.0	
G-SII						●			●		●												●							
O-SII	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SRB	●		●		●		●			●			●	●		●							●	●			●	●		
Sectoral SRB		●				●	●				●						●	●		●		●				●			●	
Liquidity ratio														●										●	●			●		
Caps on prudential ratios																														
DSTI	●		●	●				●		●	●	●		●		●		●			●	●			●	●	●		●	●
DTI/LTI							●								●						●			●						●
LTD																													●	
LTV	●	●	●	●	●		●	●		●		●		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●
Loan amortisation					●															●				●				●		●
Loan maturity	●		●		●			●		●	●							●			●	●	●		●	●	●		●	●
Other measures																														
Pillar II		●		●																									●	
Risk weights								●					●						●	●		●	●	●	●		●	●	●	
LGD																								●						
Stress/sensitivity test			●	●	●					●					●									●		●				
Other measures	●		●				●						●		●							●			●		●	●		●

Notes: The listed measures are in line with Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms (CRR) and Directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms (CRD IV). The definitions of abbreviations are provided in the List of abbreviations at the end of the publication. Green indicates measures that have been added since the last version of the table.
Sources: ESRB, CNB and notifications from central banks and websites of central banks as at 10 January 2025.
For details, see: https://www.esrb.europa.eu/national_policy/html/index.en.html and https://www.esrb.europa.eu/home/coronavirus/html/index.en.html.

Table 3 Implementation of macroprudential policy and overview of macroprudential measures in Croatia

Measure	Primary objective	Year of adoption	Description	Basis for standard measures in Union law	Activation date	Frequency of revisions
Macroprudential measures implemented by the CNB prior to the adoption of CRD IV						
Prior to the adoption of CRD IV, the CNB used various macroprudential policy measures, of which the most significant ones are listed and described in: a) Galac, T., and E. Kraft (2011): http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5772 b) Vujčić, B., and M. Dumičić (2016): https://www.bis.org/publ/bppdf/bispap86l.pdf						
Macroprudential measures envisaged in CRD IV and CRR and implemented by the competent macroprudential authority						
CCoB	Credit growth and leverage following Recommendation ESRB/2013/1	2014	Early introduction: at 2.5% level	CRD, Art. 160(6)	1 Jan. 2014	Discretionary
		2015	Exemption of small and medium-sized investment firms from the capital conservation buffer	CRD, Art. 129(2)	17 Jul. 2015	Discretionary
CCyB	Credit growth and leverage following Recommendation ESRB/2013/1 and implementing Recommendation ESRB/2014/1	2015	CCyB rate set at 1.5% as of 30 June 2024	CRD, Art. 136	1 Jan. 2016	Quarterly
		2015	Exemption of small and medium-sized investment firms from the countercyclical capital buffer	CRD, Art. 130(2)	17 Jul. 2015	Discretionary
O-SII	Limiting the systemic impact of misaligned incentives with a view to reducing moral hazard following Recommendation ESRB/2013/1	2015	Seven O-SIIs identified by review in late 2024, with corresponding O-SII buffer rates: 2.5% for Zagrebačka banka d.d., Zagreb, 2.0% for Privredna banka Zagreb d.d. and Erste&Steiermärkische Bank d.d., Rijeka, 1.5% for Raiffeisenbank Austria d.d., Zagreb and OTP banka Hrvatska d.d., Split, 1.0% for Hrvatska poštanska banka d.d., Zagreb, 0.25% for Addiko Bank d.d., Zagreb.	CRD, Art. 131	1 Feb. 2016	Annually
SRB	Credit growth and leverage following Recommendation ESRB/2013/1	2014	Two SRB rates (1.5% and 3%) applied to two sub-groups of banks (market share < 5%, market share ≥ 5%). Applied to all exposures	CRD, Art. 133	19 May 2014	Annually
		2017	The level of two SRB rates (1.5% and 3%) and the application to all exposures remain unchanged. Decision (OG 78/2017) changes the method for determining the two sub-groups to which the SRB is applied. Sub-groups are determined by calculating the indicator of the average three-year share of assets of a credit institution or a group of credit institutions in the total assets of the national financial sector (indicator < 5%, indicator ≥ 5%). The review conducted in 2019 determined that the rates for the two sub-groups remain unchanged.	CRD, Art. 133	17 Aug. 2017	At least on a biennial basis
		2020	Under the Decision (OG 144/2020), a uniform buffer rate (SRB) was introduced in the amount of 1.5% of the total amount of exposure. All credit institutions having their head office in the RC have been required to maintain a uniform systemic risk buffer rate since the end of 2020.	CRD V, Art. 133	29 Dec. 2020	At least on a biennial basis
Risk weights for exposures secured by mortgages on residential property	Credit growth and leverage following Recommendation ESRB/2013/1	2014	Maintaining a stricter definition of residential property for preferential risk weighting (e.g. owner cannot have more than two residential properties, exclusion of holiday homes, need for occupation by owner or tenant)	CRR, Art. 124, 125	1 Jan. 2014	Discretionary
		2024	In accordance with amendments to the Capital Requirements Regulation (CRR3), the criteria for the application of the preferential risk weight for exposures secured by residential real estate have been adjusted. The more restrictive definition of residential real estate for the application of the preferential risk weight now assumes that the loan user does not own more than two real estate properties and that the real estate property used to secure the exposure is not a holiday home.	CRR, Art. 124, 125	1 January 2025	Discretionary
Risk weights for exposures secured by mortgages on commercial property	Mitigating and preventing excessive maturity mismatch and market illiquidity pursuant to Recommendation ESRB/2013/1	2014	CNB's recommendation issued to banks (not legally binding) on avoiding the use of risk weights of 50% to exposures secured by CRE during low market liquidity	CRR, Art. 124, 126	1 Jan. 2014	Discretionary
		2016	Decision on higher risk weights for exposures secured by mortgages on commercial immovable property. RW set at 100% (substituted CNB's recommendation from 2014, i.e. effectively increased from 50%)	CRR, Art. 124, 126	1 Jul. 2016	Discretionary
		2024	With regard to amendments to the Capital Requirements Regulation (CRR3), the exercised national discretion in the form of the mandatory application of a higher risk weight (100%) to exposures secured by mortgages on commercial immovable property was repealed.	CRR, Art. 124, 126	1 January 2025	Discretionary
Other measures and policy actions whose effects are of macroprudential importance and are implemented by the macroprudential authority						
Consumer protection and awareness	Raising risk awareness and creditworthiness of borrowers following Recommendation ESRB/2011/1	2013	Decision on the content of and the form in which consumers are provided information prior to contracting banking services (credit institutions are obliged to inform clients about details on interest rate changes and foreign currency risks)		1 Jan. 2013	Discretionary
		2013	Amended Decision from 1 Jan. 2013 (credit institutions were also obliged to provide information about the historical oscillations of the currency in which credit is denominated or indexed to vis-à-vis the domestic currency over the past 12 and 60 months)		1 Jul. 2013	Discretionary
Information list with the offer of loans to consumers aimed at consumer protection and awareness raising	Raising risk awareness of borrowers pursuant to Recommendation ESRB/2011/1 and encouraging price competitiveness in the banking system	2017	The Information list with the offer of loans to consumers, available on the CNB's website, provides a systematic and searchable overview of the conditions under which banks grant loans. With the Information list, standard information available to the consumers are extended with information regarding interest rates.		14 Sep. 2017	Discretionary
Consumer protection and awareness	Financial stability concerns regarding risk awareness of borrowers	2016	Borrowers are strongly recommended (publicly) by the CNB to carefully analyse the available information and documentation on the products and services offered prior to reaching their final decision, as is customary when concluding any other contract		1 Sep. 2016	Discretionary
Recommendation to mitigate interest rate and interest rate-induced credit risk	Mitigation of the interest rate risk in the household sector and the interest-induced credit risk in the banks' portfolios and enhancing the price competition in the banking system	2017	Credit institutions providing consumer credit services are recommended to extend their range of credit products to fixed-rate loans, while minimising consumer costs.		26 Sep. 2017	Discretionary

Measure	Primary objective	Year of adoption	Description	Basis for standard measures in Union law	Activation date	Frequency of revisions
Additional criteria for assessing consumer creditworthiness in granting housing consumer loans	Credit risk management in housing consumer loans pursuant to EBA Guidelines on creditworthiness assessment (EBA/GL/2015/11) and EBA Guidelines on arrears and foreclosure (EBA/GL/2015/12)	2017	Decision on the additional criteria for the assessment of consumer creditworthiness and on the procedure for the collection of arrears and voluntary foreclosure		1 Jan. 2018	Discretionary
Recommendation on actions in granting non-housing consumer loans	Financial stability concerns due to credit risk in banks' housing loan portfolios and protection of consumers excessive debt taking	2019	All credit institutions in Croatia granting consumer loans are recommended to apply, in determining a consumer's creditworthiness for all non-housing consumer loans with original maturity equal to or longer than 60 months, the minimum costs of living that may not be less than the amount prescribed by the act governing the part of salary exempted from foreclosure.		28 Feb. 2019	Discretionary
Decision on collecting data on standards on lending to consumers	Establishment of an analytical basis for the monitoring of systemic and credit risk and the calibration of borrower-based measures and for meeting the requirements from the ESRB recommendations on closing real estate data gaps (ESRB/2016/14 and ESRB/2019/3)	2020	A new reporting system is introduced which provides for a monthly collection of individual data on all newly-granted consumer loans at the individual loan level and the annual collection of data on all individual consumer loan balances. The collected data will be used for the analysis and the regular monitoring of systemic risk, the monitoring of credit risk, the calibration of macroprudential measures and, where necessary, the monitoring of actions by credit institutions against which measures have been imposed.		2 Apr. 2020	Discretionary
Other measures whose effects are of macroprudential use						
Amended Consumer Credit Act	Financial stability concerns due to interest rate risk and currency risk	2013	Fixed and variable parameters defined in interest rate setting, impact of exchange rate appreciation for housing loans limited, upper bound of appreciation set to 20%		1 Dec. 2013	Discretionary
Amended Consumer Credit Act	Financial stability concerns due to interest rate risk and currency risk	2014	Banks are obliged to inform their clients about exchange rate and interest rate risks in written form		1 Jan. 2014	Discretionary
Amended Consumer Credit Act	Financial stability concerns due to currency risk	2015	Freezing the CHF/HRK exchange rate at 6.39		1 Jan. 2015	Discretionary
Amended Consumer Credit Act	Financial stability concerns due to currency risk	2015	Conversion of CHF loans		1 Sep. 2015	Discretionary
Consumer Home Loan Act	Financial stability concerns due to interest rate risk and currency risk	2017	To establish the variable interest rate, the interest rate structure was defined through reference variable parameters and the fixed portion of the rate; for foreign currency consumer home loans, clients were offered one-off conversion of loans, from the currency a loan was denominated in or linked to, to the alternative currency without additional costs		20 Oct. 2017	Discretionary
Act on Amendments to the Credit Institutions Act	Compliance with the requirements for close cooperation with the ECB and the legal basis for imposing legally binding borrower-based measures	2020	Detailed provisions on the CNB's powers regarding the adoption and implementation of macroprudential measures that for the first time explicitly stipulate borrower-based measures. The ECB may issue instructions to the CNB if it assesses that a Croatian macroprudential measure, which is based on harmonised European rules and aimed at credit institutions, is not strict enough		15 Apr. 2020 (some provisions entered into force on 1 October 2020, with the beginning of close cooperation with the ECB)	Discretionary
Act on Amendments to the Credit Institutions Act	Compliance with CRD V	2020	Regulation of the provisions on capital buffers; increased maximum O-SII buffer rate; sectoral SRB; O-SII buffer and SRB additivity; changes to the notification system; determination of the CNB as the designated authority for the assessment of the adequacy of the risk weights referred to in Article 125(2) or Article 126(2) of Regulation (EU) No 575/2013		29 Dec. 2020	Discretionary
Act on Amendments to the Credit Institutions Act	Text adjustment relating to the RC joining the euro area	2022	Harmonisation of the provisions of the Act relating to the RC joining the euro area and the related changes in the CNB's powers, full membership in the Single Supervisory Mechanism and the Single Resolution Mechanism.		1 January 2023	Discretionary
Act on Amendments to the Credit Institutions Act	Harmonisation of legal provisions with the acquis communautaire	2024	The adjustment of the provisions of the Act relating to the implementation of directives governing the digital operational resilience of the financial sector, crypto-asset markets, the provision of crypto-asset services, and requirements relating to credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor. Adjustment of provisions due to the RC joining the OECD. Finally, for the purpose of enhancing the financial literacy of Croatia's citizens, a requirement is introduced for credit institutions to set aside a portion of their operating income each year to finance activities aimed at strengthening financial literacy.		21 December 2024	Discretionary

Notes: The definitions of abbreviations are provided in the List of abbreviations at the end of the publication. Green indicates measures that have been added since the last version of the table.
Source: CNB.

Glossary

Financial stability is characterised by the smooth and efficient functioning of the entire financial system with regard to the financial resource allocation process, risk assessment and management, payments execution, resilience of the financial system to sudden shocks and its contribution to sustainable long-term economic growth.

Macroprudential policy measures imply the use of economic policy instruments that, depending on the specific features of risk and the characteristics of its materialisation, may be standard macroprudential policy measures. In addition, monetary, microprudential, fiscal and other policy measures may also be used for macroprudential purposes, if necessary. Because the evolution of systemic risk and its consequences, despite certain regularities, may be difficult to predict in all of their manifestations, the successful safeguarding of financial stability requires not only cross-institutional cooperation within the field of their coordination but also the development of additional measures and approaches, when needed.

Systemic risk is defined as the risk of events that might, through various channels, disrupt the provision of financial services or result in a surge in their prices, as well as jeopardise the smooth functioning of a larger part of the financial system, thus negatively affecting real economic activity.

Vulnerability, within the context of financial stability, refers to structural characteristics or weaknesses of the domestic economy that may either make it less resilient to possible shocks or intensify the negative consequences of such shocks. This publication analyses *risks* related to events or developments that, if materialised, may result in the disruption of financial stability. For instance, due to the high ratios of public and external debt to GDP and the consequentially high demand for debt (re) financing, Croatia is very vulnerable to possible changes in financial conditions and is exposed to interest rate and exchange rate change risks.

List of abbreviations

Art.	Article
ASEAN	Association of Southeast Asian Nations
bn	billion
b.p.	basis points
CB	central bank
CCoB	capital conservation buffer
CCyB	countercyclical capital buffer
CEE	Central and Eastern European
CES	Croatian Employment Service
CHF	Swiss franc
CNB	Croatian National Bank
CRD IV	Directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms
CRR	Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms
d.d.	dioničko društvo (joint stock company)
DSTI	debt-service-to-income ratio
DTI	debt-to-income ratio
EEA	European Economic Area
EBA	European Banking Authority
EBITDA	earnings before interest, taxes, depreciation and amortisation
ECB	European Central Bank
ESRB	European Systemic Risk Board
EU	European Union
EUR	euro
Fed	Federal Reserve System
FINA	Financial Agency
GDP	gross domestic product
G-SII	global systemically important institutions buffer
HANFA	Croatian Financial Services Supervisory Agency
IRB	internal ratings-based
LGD	loss-given-default
LTD	loan-to-deposit ratio
LTI	loan-to-income ratio
LTV	loan-to-value ratio
no.	number
m	million
NRR	national reference rate
OG	Official Gazette
O-SII	other systemically important institutions buffer
O-SIIs	other systemically important institutions
Q	quarter

SRB	systemic risk buffer

Two-letter country codes

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finland
FR	France
GR	Greece
HR	Croatia
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LI	Liechtenstein
LV	Latvia
LT	Lithuania
LU	Luxembourg
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom

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