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Financial Stability

27

Year XVIII · June 2026

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Contents

A Introduction

Elevated geopolitical, security and trade uncertainties and the increasingly pronounced fragmentation of international relations remain the most significant sources of risk to global financial stability. The war in the Middle East has disrupted the energy supply and intensified inflationary pressures, which has worsened the outlook for global economic growth, triggered volatility in financial markets and increased financing costs. As increased asset valuation makes the financial system sensitive to sudden changes in expectations, another sudden shock could set off a drop in the prices of financial instruments, which would decrease the value of affected portfolios in the balance sheets of financial institutions and push financing costs further up, with possible strong negative effects on the stability of the financial system. Due to its integration in the European economy, its dependency on energy imports and its structural weaknesses, such shocks would rapidly spill over to Croatia.

Cyclical vulnerabilities are intensifying in Croatia, increasing the vulnerability of the domestic economy and the financial system to possible shocks from the external environment that could become the main risk materialisation triggers. Against the backdrop of continued wage growth and a robust labour market, strong domestic demand supports accelerated loan growth and increased residential property prices. The continuously faster growth of real estate prices relative to macroeconomic determinants heightens the risk of a significant price decline in the event of a deterioration in macroeconomic conditions. Strong wage growth additionally increases cost pressures and weakens competitiveness, particularly in export-oriented activities, which contributes to a gradual deepening of external imbalances. All of the above increases the level of exposure of the financial system to systemic risks, which is still assessed as moderately elevated. Furthermore, challenges related to the development of artificial intelligence, cyber-threats and climate-related challenges also generate additional systemic risks.

The strong growth in household loans coupled with the slowdown in the growth in nominal income reversed the long-standing downward trend in the relative debt of households. Although it slowed down in the second half of 2025, following the entry into force of macroprudential regulations tightening consumer lending criteria, the annual growth rate of household loans still remained above 10%. Non-housing loans granted over the past few years amid strong growth in lending under relatively loose criteria have already begun to deteriorate noticeably despite favourable macroeconomic conditions. Loans that eventually became non-performing had frequently been granted to borrowers with lower income, less liquid financial assets (deposits) and higher debt and debt service-to-income ratios.

Bank loans to corporations continued to grow at elevated rates, with growth being noticeably concentrated in activities sensitive to business cycles, leading to the gradual accumulation of vulnerabilities. The stabilisation of interest rates at relatively low levels and good business results have had a favourable effect on the debt repayment burden, which shrank despite the increase in total financial debt. Although the ratio of non-performing loans continued to decline towards very low levels, the increase in the LTV ratio in newly granted

corporate loans in construction, real estate activities, trade and tourism and the still high share of loans with a variable interest rate point to a gradual accumulation of vulnerabilities that could materialise if macroeconomic conditions worsen.

Although credit institutions remain highly capitalised and profitable, resilience is gradually decreasing and the exposure to traditional and new sources of risk is rising. Exceptionally high dividend payments amid the strong growth in assets are gradually reducing the capital ratio. Strong credit growth was largely concentrated in unsecured consumer loans and corporate loans from cyclical activities, which historically recorded higher default rates and pronounced sensitivity to the worsening of macroeconomic conditions. At the same time, the accelerated accumulation of debt securities strengthens the exposure to market risk and further deepens the link and concentration of exposures to the government. The maturity mismatch between assets and liabilities is deepening, increasing the sensitivity to interest rate risk. Although the concentration of deposits at system level is gradually decreasing, the share of institutions with an increased concentration of deposits from large depositors is increasing, which, together with the sensitivity of such deposits to abrupt changes, triggered by the digitalisation of banking, brings liquidity risk back into focus. Banks are using synthetic securitisation transactions to reduce the base for the calculation of capital requirements, which, alongside high dividend payments, further reduces their resilience to future shocks. At the same time, the activity of non-bank financial institutions is growing even more strongly than that of banks, and their interconnectedness may be an important source of systemic risk spillover.

In an environment of growing cyclical risks and elevated global uncertainty, by tightening its macroprudential policy, the CNB continued to strengthen the resilience of the banking sector and households to preserve financial stability. Taking into account the high profitability of the banking sector, in late 2025, the CNB pre-emptively additionally increased the countercyclical capital buffer. The application of restrictions on consumer lending led to a significant decline in the share of new loans granted at elevated DSTI and LTV ratios. The distribution of these indicators moved down, with a noticeable bunching of loans just below the prescribed thresholds, at the expense of their very high values. The CNB periodically assesses the impact of macroprudential measures, taking into account their complementary effect and their contribution to the preservation of the stability of the financial system and will, if necessary, adapt the measures in line with the development of systemic risks and general macrofinancial circumstances.

I Risks to financial stability

A Macroeconomic environment

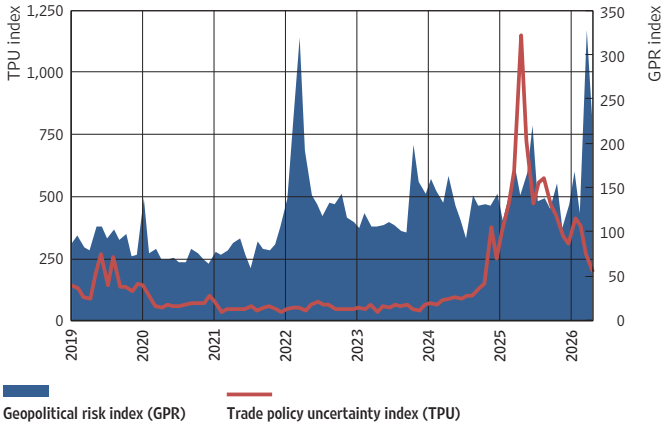
Elevated geopolitical, security and trade uncertainties and the increasingly pronounced fragmentation of international economic relations are among the most significant risks to global financial stability. Such developments increase the volatility in financial markets, worsen the outlook for economic growth and contribute to the build-up of macrofinancial imbalances. The European economy is particularly vulnerable due to its high integration into global supply chains, dependence on energy imports and persisting structural weaknesses. Small open economies such as Croatia are particularly exposed to the spillover of external shocks via trade and financial channels. Combined with increased cyclical pressures in the domestic economy, the total exposure of the system to systemic risks in Croatia is still assessed as moderately elevated.

A.1 Risks in the international environment

Growing geopolitical tensions remain among the most significant sources of risk to global financial stability (Figure A.1). Security and economic uncertainties in the international environment, including trade tensions and increasing geopolitical fragmentation, were already elevated in 2025. The pressures increased further with the outbreak of war in the Middle East in March 2026. The war has affected key energy producers and important maritime corridors, increasing the risk of disruptions in supply chains, especially in the segment of energy and its prices, and key transport routes. Uncertainty regarding the further development of geopolitical relations and the management of economic policies increases uncertainty on a global scale, with a possible adverse impact on global economic relations and financial developments. At the same time, increased spending on defence and security is additionally burdening fiscal positions and limiting fiscal room in many economies.

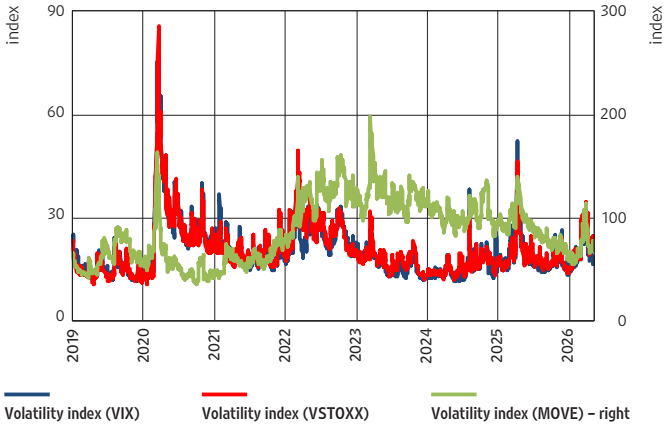
Heightened geopolitical uncertainty is being reflected in financial markets through increased volatility and unpredictable market swings. Following a period of stabilisation and recovery in the second half of 2025, the upward trend in leading global equity indices was interrupted and reversed in March 2026, causing the volatility indices in the US and European equity markets to rise slightly above their long-term averages (Figures A.2 and A.3). The increase in uncertainty, including the changes in inflationary expectations and investors' adjustment of expectations regarding monetary policy direction and dynamics, affected the bond markets which reacted with increased oscillations and episodes of increase in long-term sovereign bond yields (Figure A.4). Such developments point to the pronounced sensitivity of markets to abrupt changes in risk perception, particularly amid elevated valuations and high indebtedness. This increases financial stability risks due to possible changes in portfolio values in the balance sheets of financial institutions and rising financing costs, but also through the potential sudden outflows of capital to safer assets. The growing digitalisation of the financial system additionally increases the exposure to cyber risks and possible operational disruptions.

Figure A.1 Geopolitical turmoil is the most significant source of risk to global financial stability



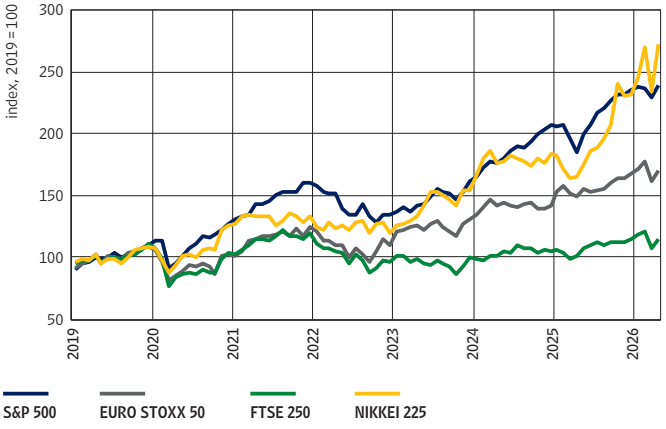
Notes: The geopolitical risk index reflects the results of an automated text-search of the electronic archives of ten newspapers (1985: 2019 = 100). The trade policy uncertainty risk index reflects the results of an automated text-search of seven newspapers (100 = 1% of newspaper articles contains a reference to trade uncertainty).
Source: matteoiacoviello.com

Figure A.2 Capital market volatility increased slightly in March 2026



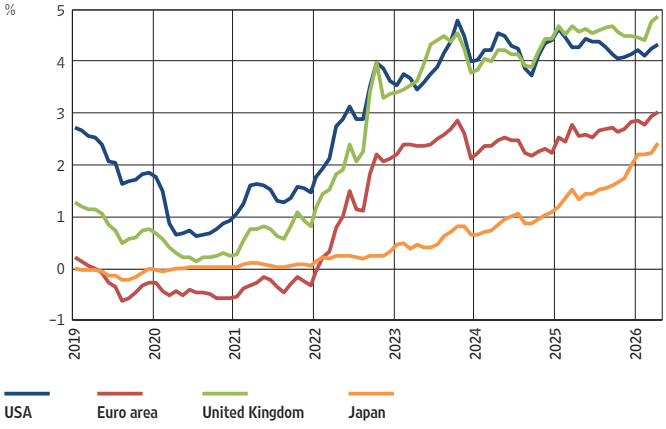
Notes: VIX is a measure of expected implicit volatility in the S&P500 options, while VSTOXX reflects the expected volatility extracted from EURO STOXX 50 options. The MOVE index measures the expected volatility in the US government bond market.
Source: Bloomberg.

Figure A.3 Sales pressures on the global stock market increased temporarily in March 2026



Source: Bloomberg.

Figure A.4 Elevated uncertainty was also reflected in long-term bond yields



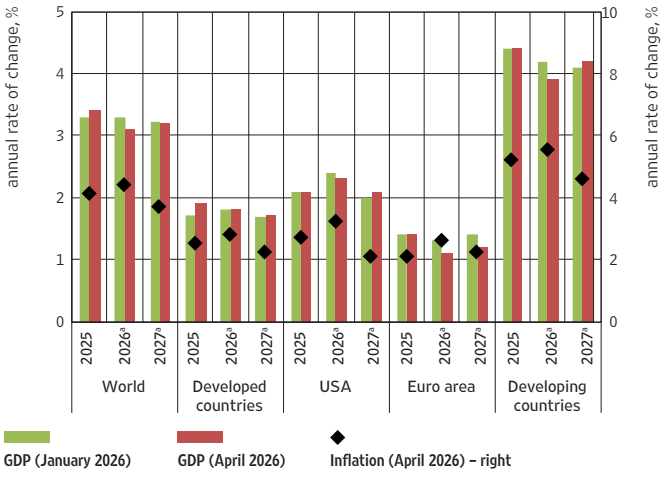
Source: Bloomberg.

The outlook for global economic growth remains moderate, with heightened uncertainty and pronounced negative risks. Although the growth of global economic activity in the previous year, marked by growing trade and security uncertainties, was somewhat more favourable than expected at the beginning of 2025, the outlook for economic growth remains uncertain (Figure A.5). The war in the Middle East has already caused significant damage in terms of critical infrastructure and disruptions in energy supply. Particularly noteworthy in that context is the sharp rise in oil prices, which have risen to their highest levels since mid-2022, when markets strongly incorporated the effects of the start of the war in Ukraine and the associated disruptions in energy markets (Figure A.6). Risks to global economic growth remain pronounced and dependent on the further development of geopolitical and security tensions, with the effects of such shocks unevenly distributed across countries. Economies

with pronounced structural vulnerabilities such as strong dependence on energy imports and limited fiscal room could be affected more strongly. Against such a backdrop, the growth of global economic activity is likely to slow down, with pronounced negative risks.

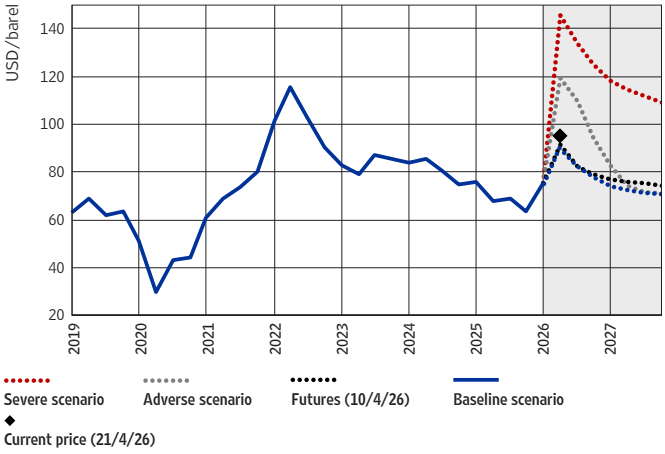
The European economy is particularly vulnerable to geopolitical shocks and trade disruptions. The short-term outlook for economic growth has weakened, with increased uncertainty expected to have an unfavourable effect on domestic and foreign demand and inflationary pressures linked to growing energy prices likely to intensify further (Figure A.7). High involvement in global supply chains and dependence on energy imports further increase the vulnerability of European economies to geopolitical shocks. The manufacturing sector remains under the strong pressure of high input costs and structural challenges, including slow productivity growth and weakening competitiveness. While the integration of artificial intelligence may increase productivity and economic growth in the long term, adaptation to new technologies requires significant investment and structural adjustments. Positive effects could, therefore, materialise gradually and unevenly, posing an additional risk. Against this background, the level of economic sentiment in the euro area has remained subdued and below its long-term average, with cautious expectations regarding future economic growth (Figure A.8). For small open economies highly integrated into the euro area such as Croatia, such developments additionally increase risks to economic growth.

Figure A.5 Outlook for global economic growth remains limited



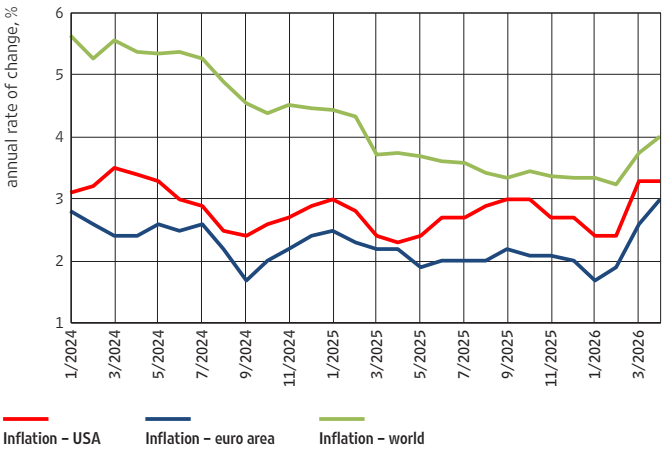
[a] Forecast
Note: The figure shows the baseline scenario for the annual rate of change in GDP and inflation.
Source: IMF (WEO, April 2026 /January 2026).

Figure A.6 Oil prices have risen under the influence of the war in the Middle East and supply disruptions



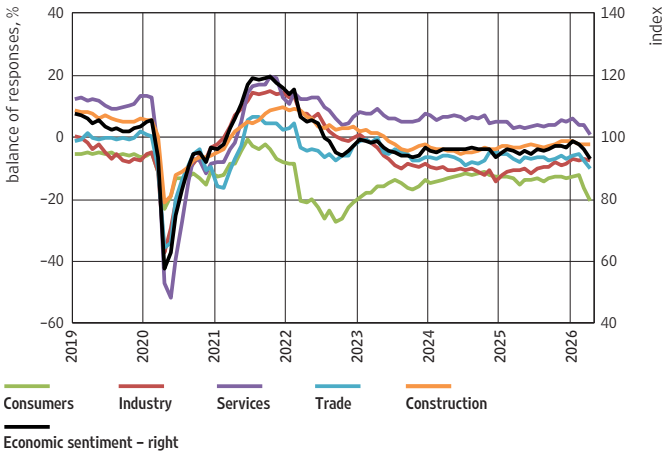
Notes: The baseline scenario assumes maximum oil and gas prices of USD 90 per barrel and EUR 50 per megawatt-hour in the second quarter of 2026. The adverse scenario assumes prices around USD 120 per barrel and EUR 90 per megawatt-hour. The severe scenario assumes prices of USD 150 per barrel and above EUR 100 per megawatt-hour, with a significantly slower normalisation of prices than in the adverse scenario.
Sources: ESB and Bloomberg

Figure A.7 Inflationary pressures have grown



Source: Bloomberg.

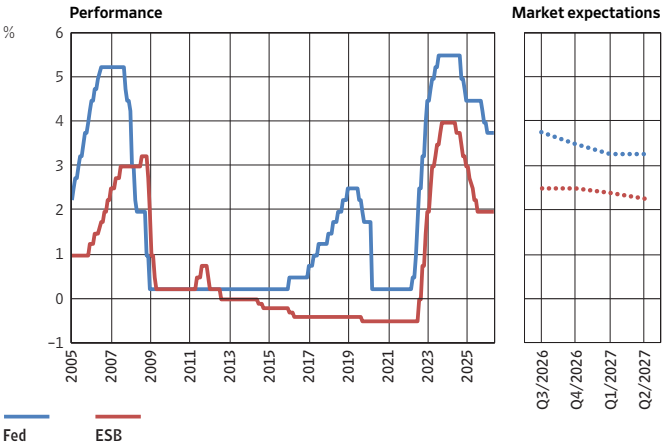
Figure A.8 Economic sentiment in the euro area remains subdued



Source: European Commission.

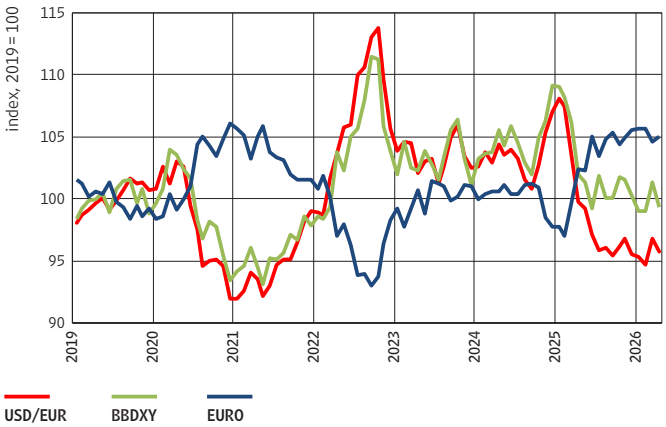
The risk of the renewed intensification of inflationary pressures affects market expectations regarding the maintenance of tighter monetary conditions. After a cycle of monetary easing seen in 2024 and a part of 2025, market expectations point to a more cautious approach to monetary policy by major central banks, including the ECB and the Fed, amid a renewed intensification of inflationary pressures linked to supply disruptions and energy price developments, which could rapidly spill over to producer and consumer prices. In such circumstances, a rise or sustained inflation above the 2% target over an extended period could require a prolonged period of restrictive monetary policy, which may further tighten financing conditions and weigh on the already weakened economic growth prospects (Figure A.9). Deteriorating financing conditions could particularly burden the operations of the corporate sector through increased borrowing costs and subdued investment activity.

Figure A.9 Market expectations point to a more cautious approach to monetary policy by major central banks



Notes: The figure shows the Fed's benchmark rate (upper bound) and the ECB's deposit facility rate. Market expectations refer to 30 April 2026 for the benchmark interest rate of the Fed and to 11 May 2026 for the deposit facility rate of the ECB.
Source: Bloomberg.

Figure A.10 Volatile response of the US dollar exchange rate to the increase in global uncertainty



Notes: BBDXY (EURO) tracks the performance of the US dollar (euro) versus the basket of currencies of the major trading partners. The rise in the index suggests the appreciation of the US dollar (euro). USD/EUR tracks the performance of the euro against the US dollar, with the rise in the index indicating US dollar appreciation.
Source: Bloomberg.

Despite elevated global uncertainty, the US dollar has not exhibited the typically strong and consistent response associated with the perception of a safe haven. Under the influence of the US shift towards protectionism and the sudden changes in trade policies across the world, the US dollar has weakened markedly relative to the basket of currencies of major trading partners since spring 2025, while the euro has strengthened. With the outbreak of the war in the Middle East, the value of the US dollar stabilised temporarily, with episodes of strengthening triggered by the increased demand for more liquid and safer assets in March 2026, while in April, the momentum weakened, and depreciation pressures prevailed again (Figure A.10). Despite the volatile response to the changes in the global perception of risk, the US dollar continues to maintain its role as the dominant global currency, accounting for over a half of international foreign exchange reserves.

A.2 Risks in the domestic environment

Cyclical pressures pose a main source of risk to financial stability stemming from the domestic macroeconomic environment. Favourable macroeconomic developments, including the strong domestic demand supported by continued wage growth and a robust labour market, are fostering growth in household lending and residential real estate prices (see Chapters B and C). At the same time, such developments contribute to the accumulation of cyclical vulnerabilities in the domestic economy, which may increase its susceptibility to shocks. Furthermore, strong wage growth is additionally increasing cost pressures and weighing on competitiveness, particularly in export-oriented activities, which, coupled with the rise in imports linked to robust domestic demand, contributes to the gradual deepening of external imbalances and could weaken the long-term sustainability and resilience of growth. In such circumstances, combined with heightened geopolitical and trade uncertainties in the international environment, the total exposure of the system to systemic risks is assessed as moderately elevated.

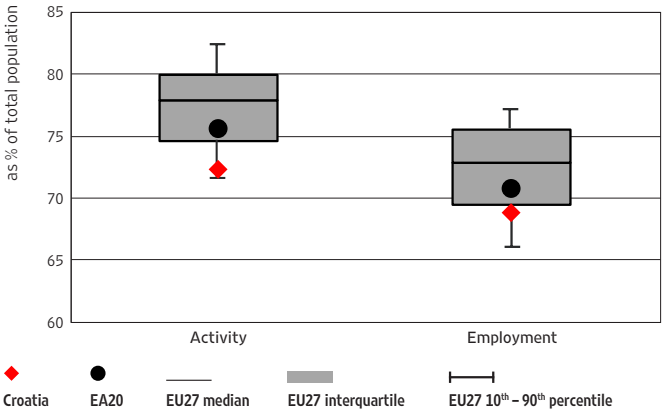
Structural weaknesses of the domestic economy are still most pronounced in the labour market. Although unemployment remains historically low, the employment rate and the population activity rate are still lower than in most EU member states (Figure A.11). Moreover, imbalances between labour supply and demand remain pronounced, particularly across sectoral and qualification levels, with adverse demographic trends further exacerbating these imbalances. Such developments reflect the structural weaknesses of the domestic labour market, which affect the effectiveness of the allocation of labour resources and long-term economic growth. The implementation of artificial intelligence could also increase the mismatch between labour supply and demand, particularly in activities subject to technological changes, due to changes in the competencies required.

The prospects for the growth of the domestic economy are affected by the increasingly pronounced negative risks stemming from the international environment. The rate of growth of the domestic economic activity slowed down slightly in 2025, but nevertheless stood somewhat above the expectations from the beginning of 2025 and among the highest in the EU. The domestic economy proved to be relatively resilient to elevated global uncertainty,

reflecting strong domestic demand, particularly in the segment of personal consumption and investment activity (Figure A.12). Overall economic sentiment remains above the long-term average, but the initial effects of the war in the Middle East have affected consumer confidence and business optimism in the trade and services sectors, which declined noticeably in March and April 2026 (Figure A.13). Geopolitical uncertainties will continue to affect the optimism and dynamics of domestic economic activity, and their further escalation could additionally worsen the prospects of economic growth.

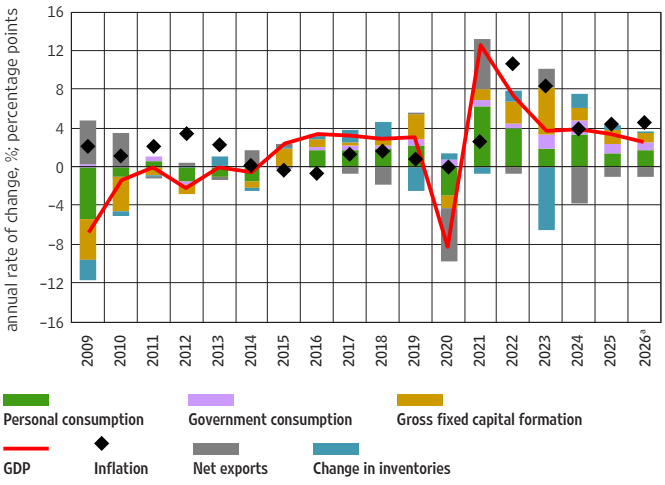
Inflation pressures are intensifying under the influence of geopolitical tensions and disruptions in global energy flows. The average annual rate of inflation picked up slightly in 2025 from the year before, primarily due to the pressures on the prices of food and the rise in administrative energy prices after the withdrawal of fiscal subsidies (Figure A.14). In addition, prices of services are still an important generator of inflation developments, reflecting strong domestic demand and wage growth. After the outbreak of the war in the Middle East, inflationary pressures increased further and negative risks became even more pronounced, with current inflationary pressures mostly linked to energy prices. In the case of prolonged war and additional supply disruptions, energy prices could remain at elevated levels and spill over more strongly to the prices of other goods and services.

Figure A.11 Employment and activity rates are lower than in most EU member states



Note: The figure shows rates for 2025.
Source: Eurostat.

Figure A.12 Prospects for the growth of the domestic economy are affected by the increasingly pronounced negative risks from the international environment

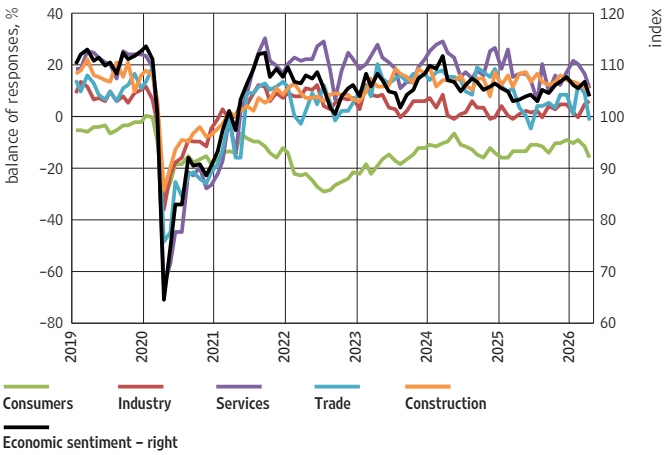


[a] CNB forecast of March 2026 (baseline scenario). For alternative scenarios see the Macroeconomic projection of March 2026.
Note: The figure shows contributions to GDP growth, the annual rates of change in real GDP and the average annual rates of change in the consumer price index (CPI).
Sources: CBS and CNB.

In 2025 and in early 2026, the financial resilience of households strengthened, primarily thanks to the robust labour market. Real wages increased continuously in 2025 (to 6.5% in December) and in early 2026, so that in March 2026, they were 2.9% higher than in the same month in 2025 (Figure A.15). Real wages are expected to continue to increase in the upcoming years, albeit at a gradually slower pace (see Overview of CNB spring macroeconomic projections for Croatia of March 2026). At the same time, household disposable income went

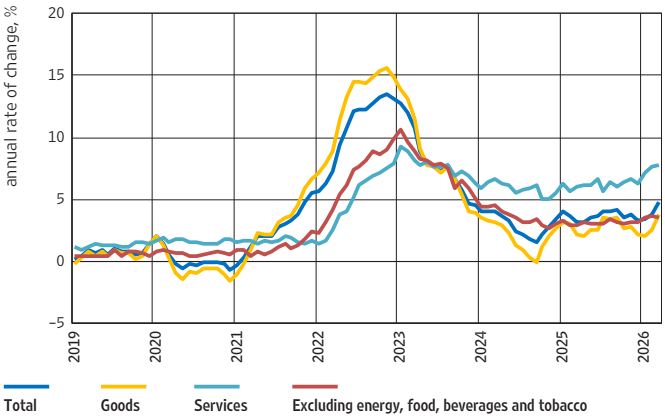
up faster than final consumption, pushing the savings rate up and thus strengthening the resilience of households to possible unfavourable economic trends (Figure A.16). However, households remain exposed to a possible deterioration of the macroeconomic environment, particularly to changes in the labour market and increases in costs of living (see Chapter C).

Figure A.13 Economic sentiment in Croatia has remained above its long-term average



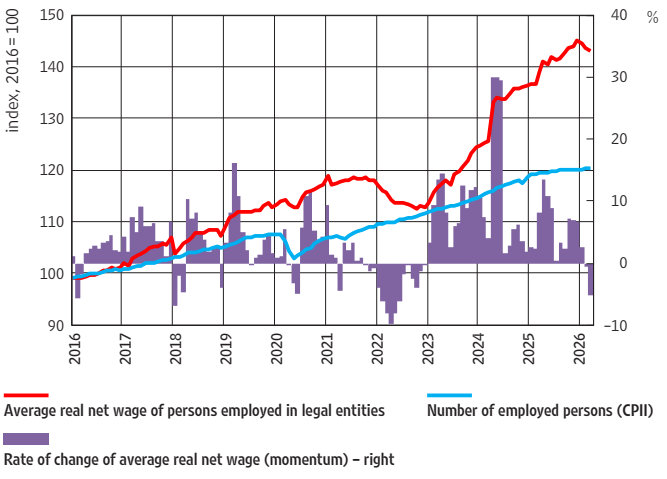
Source: European Commission.

Figure A.14 Inflation pressures are intensifying under the influence of geopolitical tensions and disruptions in global energy flows



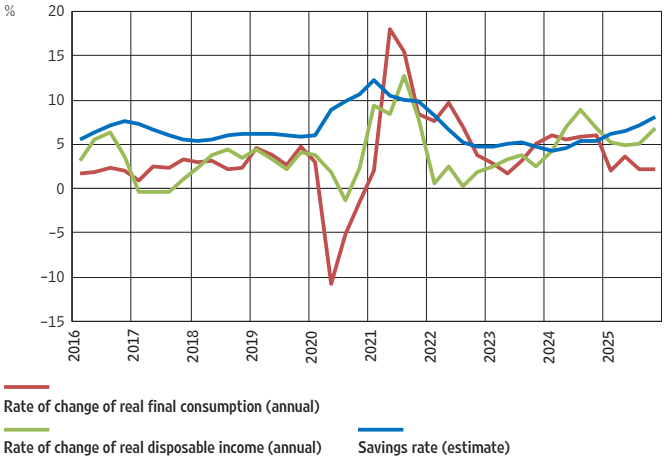
Note: The figure shows annual rates of change in the consumer price index (CPI).
Source: CNB.

Figure A.15 Real wage growth is moderating



Notes: Data are seasonally and calendar adjusted. The momentum refers to the quarterly rate of change, expressed at an annual level.
Sources: CBS, CNB and CPII.

Figure A.16 The savings rate continued to increase in 2025

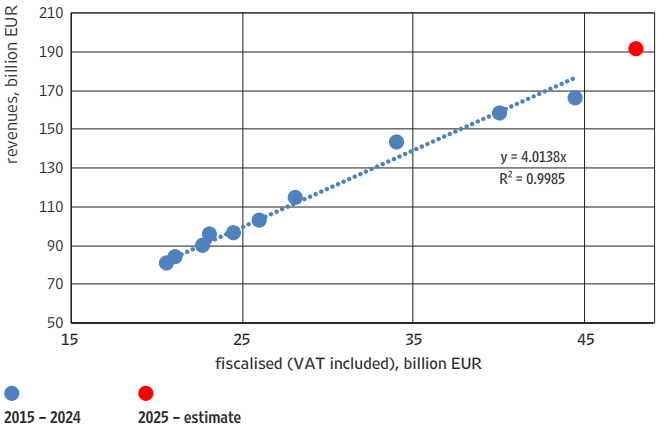


Notes: Quarterly disposable income values have been estimated using the Chow-Lin method and a series of employee compensation and gross operating surplus and mixed income as indicators. Official annual data on disposable income are available until 2024, while data for 2025 are estimated. The savings rate is calculated as the ratio of the moving annual sums of the estimated nominal amount of savings and estimated disposable income and excludes adjustments for changes in pension rights. The figure shows the quarterly moving average of the savings rate. Disposable income and final household consumption are deflated using the final consumption deflator and expressed in base prices in 2020.
Sources: Eurostat and CNB calculations.

The continued strong growth of economic activity has had a favourable effect on the operations of non-financial corporations. Based on the developments in fiscalised invoices, it is estimated that the business activity of non-financial corporations remained strong and that operating revenues continued to grow (Figure A.17). A favourable business environment

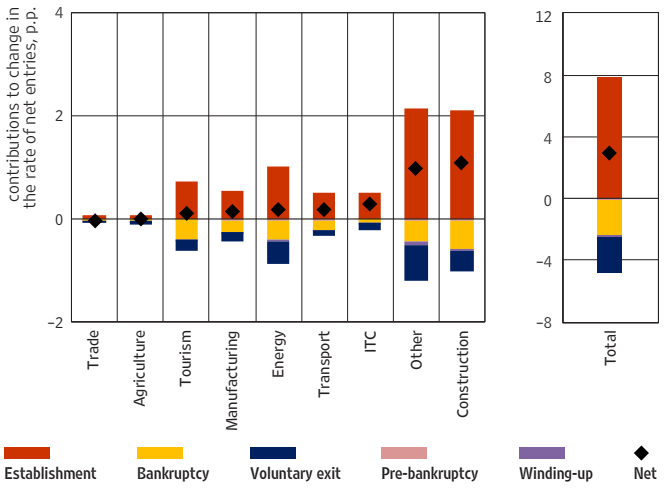
is also reflected in the increase in the net entries of enterprises to the market[1], which reached 3% in 2025, driven primarily by the establishment of new firms in construction and other service activities (Figure A.18). Growth in gross value added was mainly driven by construction, which maintained vigorous activity throughout the year, while in the last quarters, growth accelerated in manufacturing as well. However, corporate operations remain highly sensitive to changes in the macroeconomic environment, primarily to changes in energy prices and supply (see Box 2 The effects of energy shocks on non-financial corporate operations), as well as to the possible deterioration in financing conditions (see Chapter C).

Figure A.17 The growth of operating revenues is estimated to have continued in 2025



Sources: Tax Administration and CNB.

Figure A.18 The rise in the net entries of enterprises continued in 2025



Notes: The figure shows contributions to change in the rate of net entries of enterprises, which stood at 3% in 2025. The term Tourism denotes enterprises from accommodation and food services activities.
Sources: CNB and Commercial Court Registry.

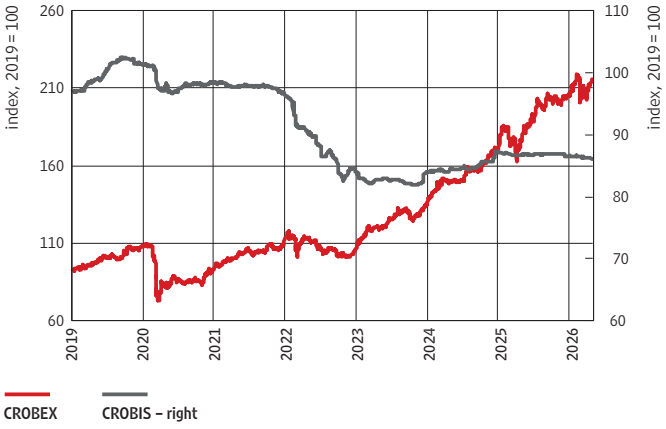
Positive macroeconomic developments and optimism on the global capital markets contributed to the strong recovery on the domestic equity market. After a temporary drop in April 2025, the value of the CROBEX index stabilised fast and continued to increase throughout the rest of 2025. In February 2026, for the first time since 2008, it exceeded the level of 4,000 points (Figure A.19). Under the influence of heightened global uncertainty, the volatility on the equity market increased slightly in March and April 2026, but the value of the CROBEX index has remained elevated, reflecting a favourable business environment and stable macroeconomic conditions.

The developments on the domestic bond and money market remained within the range of the usual fluctuations and the level of financial stress remained low (Figure A.20). Amid strong demand for government bonds, the bond market remained stable, although yields rose slightly in March 2026 in line with global developments. The risk premium remained low and borrowing conditions favourable. Due to the still high liquidity of the banking system and the

1 The net entries of enterprises are defined as the difference between entries (establishment) of enterprises to the market and exits (bankruptcy, pre-bankruptcy, winding-up and voluntary exit) of enterprises from the market.

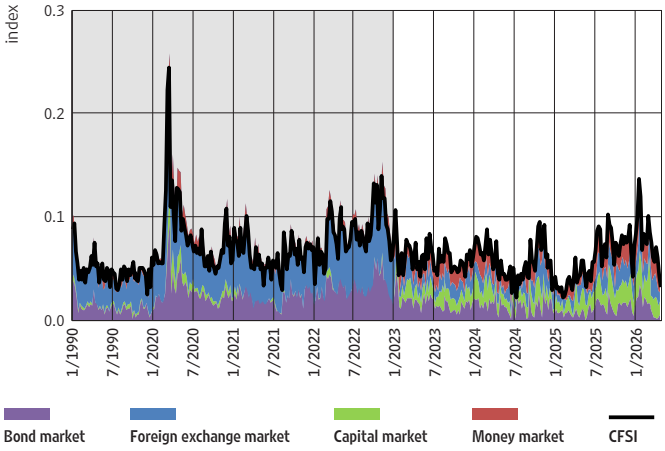
limited need for interbank financing, no major trading activity was recorded in the money market. Structural weaknesses of domestic financial markets remained unchanged, reflecting their low liquidity and shallowness.

Figure A.19 The domestic equity market experienced strong growth in 2025



Source: Zagreb Stock Exchange.

Figure A.20 The Croatian financial stress index held steady at low levels

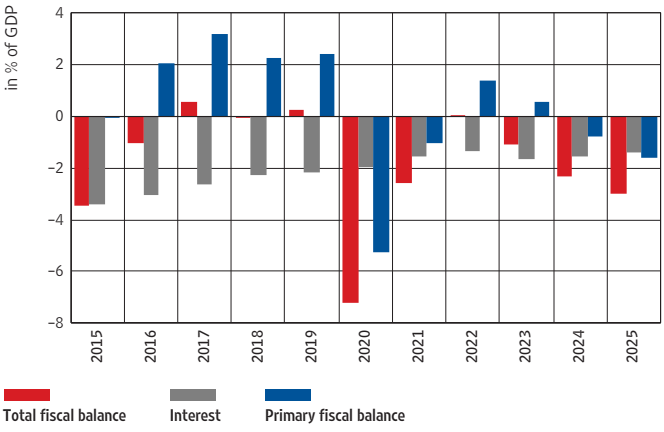


Notes: The old CFSI is shown for the period up to 31 December 2022. A new and revised CFSI (for methodology description see Financial Stability No. 24) is shown for the period from 1 January 2023.
Source: CNB.

Country risk has remained moderate, although increasing fiscal challenges are noticeable. The general government balance worsened in 2025, mainly as a result of the increasing structural deficit, but also due to the gradual weakening of the positive effects of favourable cyclical developments. The public debt-to-GDP ratio continued to decline and remained below the level of the Maastricht convergence criterion of 60% (Figures A.21 and A.22). Despite the slight increase in the share of short-term debt, the maturity structure of total debt remained favourable, with the share of long-term debt at a variable interest rate in the total long-term debt remaining low (Figure A.23). Long-term governments bonds continued to be issued at a relatively low cost, reflecting Croatia's improved credit rating[2] and the low level of country risk premium measured by credit default swap (CDS) (Figure A.24 and Table A.1). Fiscal challenges are mainly related to the possible intensification of energy-related compensatory measures and to stronger pressures on the expenditure side of the budget, including the expenditures on public wages and increases in defence spending. Taking these circumstances into account, and considering the still high exposure of banks to the central government, there is pronounced risk of the sovereign-bank nexus, whereby the weakening of the fiscal position could affect the stability of the financial system.

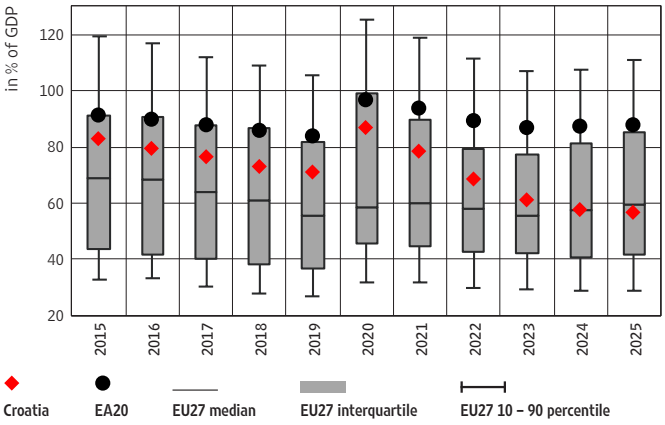
2 In March 2026, the S&P credit rating agency raised Croatia's long-term credit rating from A- to A, with a stable outlook.

Figure A.21 General government balance is deteriorating



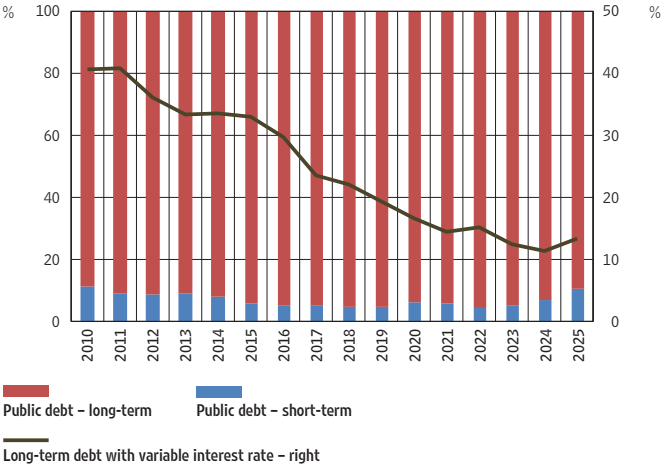
Source: CNB.

Figure A.22 Public debt-to-GDP ratio continued its downward trend



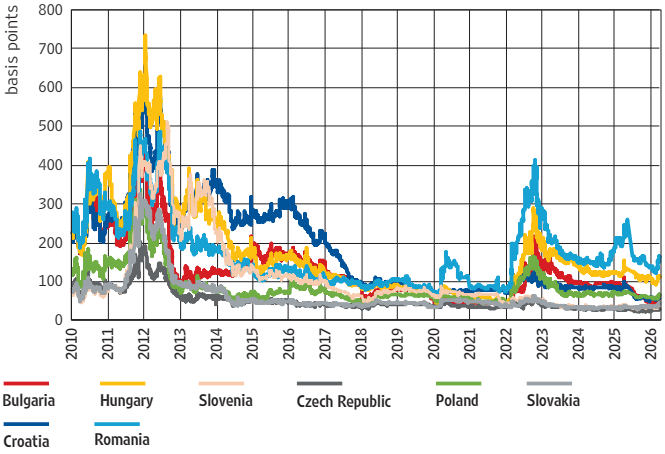
Source: Eurostat.

Figure A.23 The maturity and interest rate structure of public debt remained favourable



Source: CNB.

Figure A.24 Country risk premium measured by CDS is low



Source: Bloomberg.

Table A.1 Matured and issued bonds in 2025 and the first months of 2026

Year	Matured bonds						Issued bonds					
	Amount	Currency	Interest rate	Date of issue	Date of maturity	Maturity in years	Amount	Currency	Interest rate	Date of issue	Date of maturity	Maturity in years
Domestic												
2025	5,000,000,000	HRK	0.250	3/3/2020	3/3/2025	5	1,250,000,000	EUR	3.000	10/3/2025	10/3/2030	5
	6,000,000,000	HRK	4.500	9/7/2015	9/7/2025	10	1,000,000,000	EUR	3.000	4/7/2025	4/7/2035	10
International												
2025	1,500,000,000	EUR	3.000	11/3/2015	11/3/2025	10	2,000,000,000	EUR	3.250	11/2/2025	11/2/2037	12
2026							2,000,000,000	EUR	3.250	25/2/2026	25/2/2036	10

Note: The table shows bonds with a maturity of five years and more.
Source: Ministry of Finance.

B Risks in the real estate market

The growth in residential real estate prices picked up in 2025, supported not only by high employment and robust wage growth but also by lower interest rates on housing loans and tax incentives that provided an additional stimulus to demand. At the same time, construction activity increased, which could, to a certain extent, alleviate upward pressures on residential property prices. The commercial real estate market continues to be characterised by high demand and limited supply, leading to the rise in prices and low vacancy rates. The potential worsening of macroeconomic conditions stemming from stronger spillovers of unfavourable geopolitical developments onto the domestic economy constitutes a key risk of a reversal on the real estate market, primarily through the channel of weakening demand.

B.1 Residential real estate market

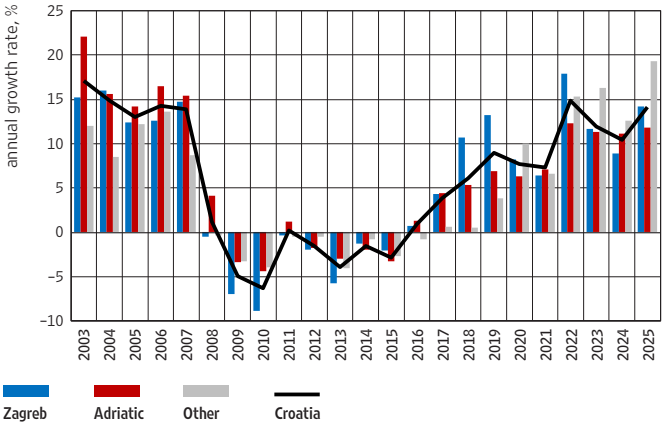
Residential property prices in Croatia increased at high rates over the past four years, with growth picking up further in 2025 (Figure B.1). The annual rate of growth in residential property prices accelerated to 14.1% in 2025 (Figure B.1), following 10.4% in 2024, placing Croatia among the countries with the highest rate of price growth in the European Union. This reflects robust demand amid continued economic growth, rising employment and wages, and a sharp decline in interest rates on housing loans at the beginning of the year, with demand being further supported by the new government measure providing tax refunds for young people purchasing their first residential property. Strong demand for residential real estate is also reflected in the fact that optimism regarding the planned purchase of a flat or house over the next 12 months has reached historically high levels (Figure B.2). Observed by regions, price growth picked up further in the City of Zagreb and the rest of Croatia, while on the Adriatic coast, it slowed down somewhat from the preceding year. Real estate asking prices on property-listing websites[3] suggest that the strong growth in actual prices could continue in the first half of 2026, especially in Zagreb.

According to preliminary Tax Administration data, the number of residential property purchases continued to decline in 2025[4]. The number of purchase and sale transactions decreased for the third consecutive year, with the total number of transactions down by 8% from the preceding year (Figure B.4). The strongest decline in market activity was seen on the Adriatic coast. At the same time, the total value of purchase and sale transactions of residential real estate increased by 3.3% annually, spurred by the increase in prices.

3 The asking price index was constructed according to data obtained from www.njuskalo.hr. The asking price index was assessed by applying the hedonic regression approach, in which the logarithm of the listed residential property price is explained by real estate characteristics and time effects, which represent the part of the price not related to real estate characteristics, which allows for a direct comparison. For more details on hedonic regression, see Surveys S-37 – Kunovac, D. and Kotarac, K. (2019): Residential Property Prices in Croatia.

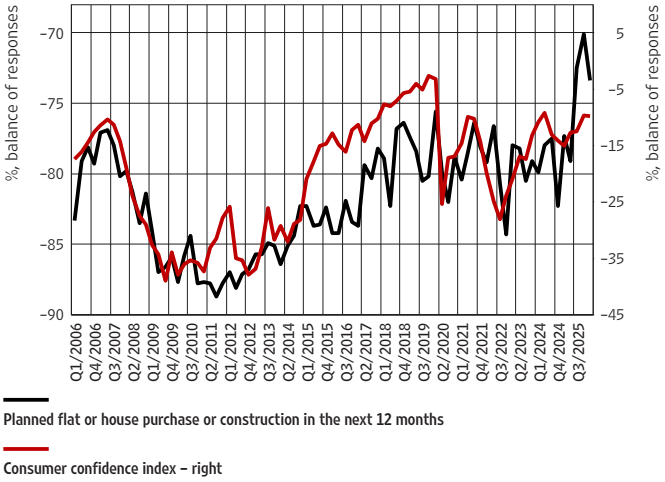
4 As the Tax Administration provides the institution with revised data on transactions conducted in previous periods once a year (up to several years back), this assessment should be interpreted with caution, as the estimated number of transactions in 2025 may be revised upwards in the future. For example, following the subsequent submission of revised data received by the Croatian National Bank at the beginning of 2026, the data for 2024 were revised upwards by around 9% relative to the initially reported transaction data for that year.

Figure B.1 The increase in residential property prices in Croatia picked up in 2025



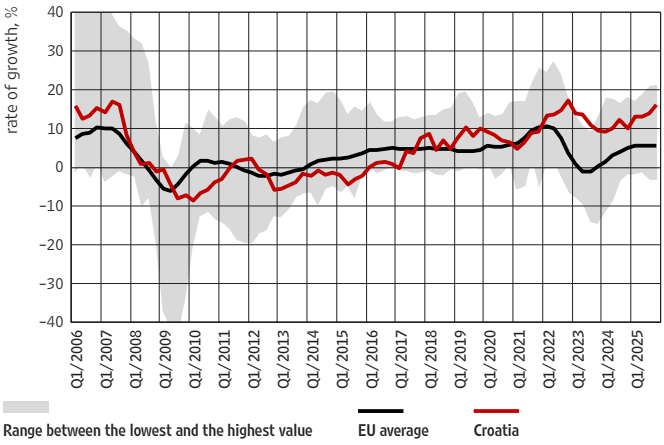
Note: For details on the construction of the nominal index, see Kunovac, D. and Kotarac, K. (2019): Residential property prices in Croatia.
Source: CBS.

Figure B.2 The demand for real estate was stronger than overall demand



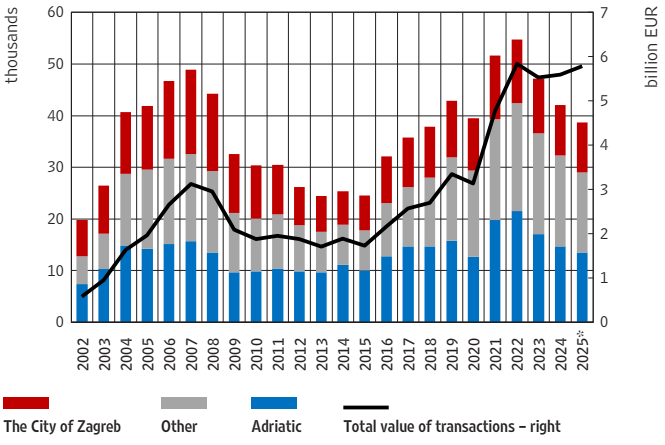
Source: European Commission (Business and Consumer Survey).

Figure B.3 Croatia is among the top EU member states in terms of increase in residential real estate prices



Note: Grey shaded area represents the range between the lowest and the highest value of annual rates of change of residential real estate prices in EU member states.
Source: Eurostat.

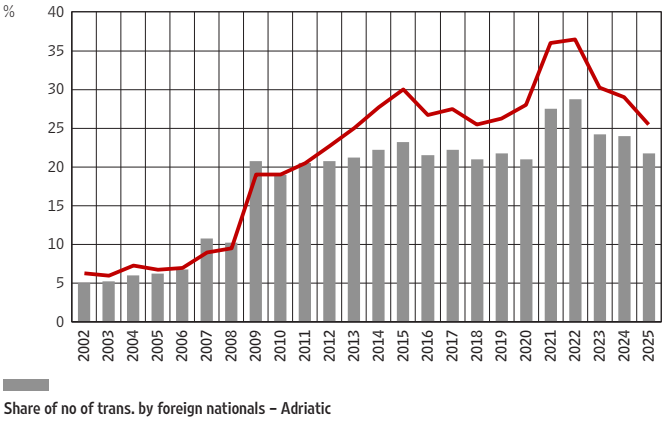
Figure B.4 The number of purchase and sale transactions continues to fall



Notes: The data for 2025 refer to the data processed at the beginning of 2026, while for other years, multi-year revisions were conducted. The total number of purchase and sale transactions was obtained by adding up transactions from the categories "Flat/apartment", "Residential building – family house", "Residential building – holiday home", and transactions classified under "Mixed-use properties" in which at least a part of the usable floor area is intended for residential purposes.
Sources: Tax Administration and Institute of Economics, Zagreb (data processed by the CNB).

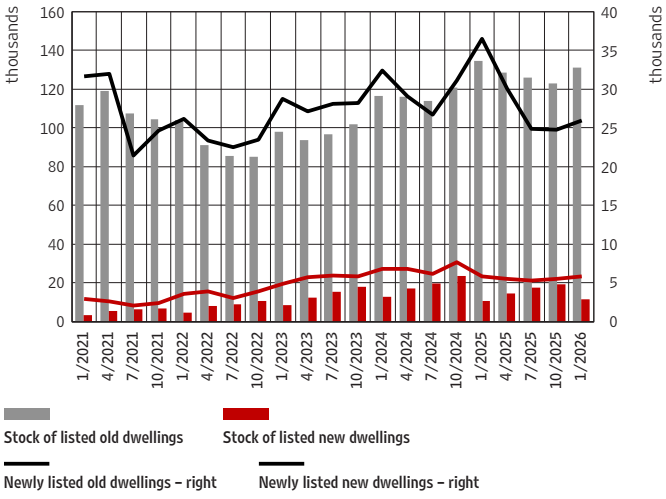
Activity of non-residents in the Croatian real estate market continued to decline in 2025. According to Tax Administration preliminary data, the number of purchase and sale transactions by non-residents decreased, while their share in total purchase and sale transactions remained stable, hovering around 9%. Observing only the purchase and sale transactions on the Adriatic coast, where foreign demand is most pronounced, the share of non-residents decreased slightly, by 22% in 2025 when measured by the number of transactions and 25% when measured by total transaction value (Figure B.5).

Figure B.5 Purchase and sale transactions stagnated on the Adriatic coast, with the share of non-residents participating in the transactions continuing its downward path



Source: Tax Administration database.

Figure B.6 The number of listed properties is stagnating



Source: Njuškalo (data processed by CNB).

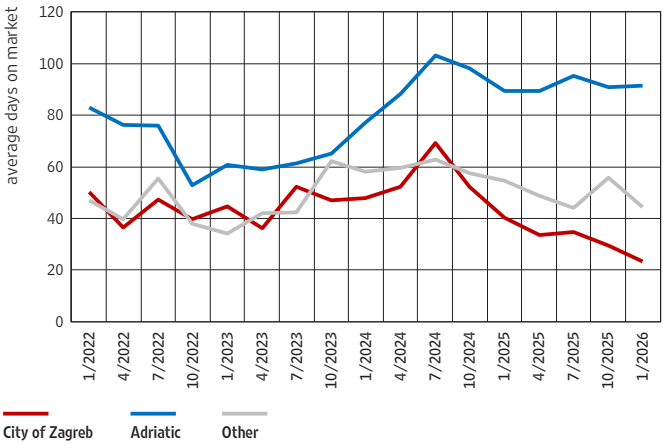
The number of residential property listings is stagnating, while their time on the market is becoming shorter on average. The total number of active residential property listings has been stagnant since the second half of 2024, while the number of new listings fell to the lowest levels in the past three years, which may suggest that the supply of available real estate is narrowing[5] (Figure B.6). The slowdown is noticeable in both the new and the old dwellings segment, although the new dwellings segment constitutes a significantly smaller share of the total market and therefore has a limited effect on the trends in aggregated indicators. Since the end of 2024, the average listing duration began to decline after a two-year period of slight growth, signalling that the demand is increasingly outpacing supply (Figure B.7). The decline in the average listing duration was most pronounced in Zagreb, while on the Adriatic coast, the indicator stagnated at a significantly higher level, pointing to substantial regional differences in the supply-demand relationship.

The sharper increase in residential property prices than in income points to a deterioration in housing affordability after several years of stagnation, while loan-financed affordability improved. Observing the ratio of real estate prices to net disposable income (excluding the effects of changes in financing conditions), the multi-year trend of deteriorating affordability of residential real estate stopped briefly in 2023 and 2024, but in 2025, it continued to worsen. In contrast, the affordability of financing real estate through borrowing improved in 2025 after several years of deterioration thanks to lower costs of financing, i.e. a decline in the loan-to-income ratio[6] (Figure B.8).

5 Still, it is necessary to take into account that new dwellings are often listed on the websites of real estate agencies or investors.

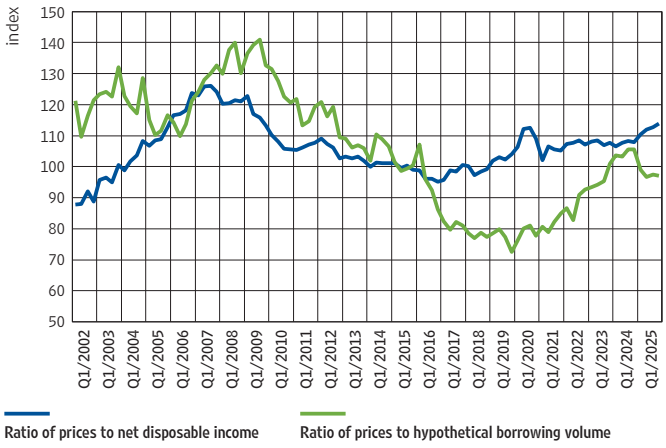
6 This refers to the maximum loan households with average incomes could secure for the purchase of residential property of 50 square metres based on the currently applicable interest rate on housing loans. The estimate of the average monthly annuity is based on the model of loan repayment in equal annuities with end-of-period interest calculation over a 30-year maturity period.

Figure B.7 Shorter average time of listing duration



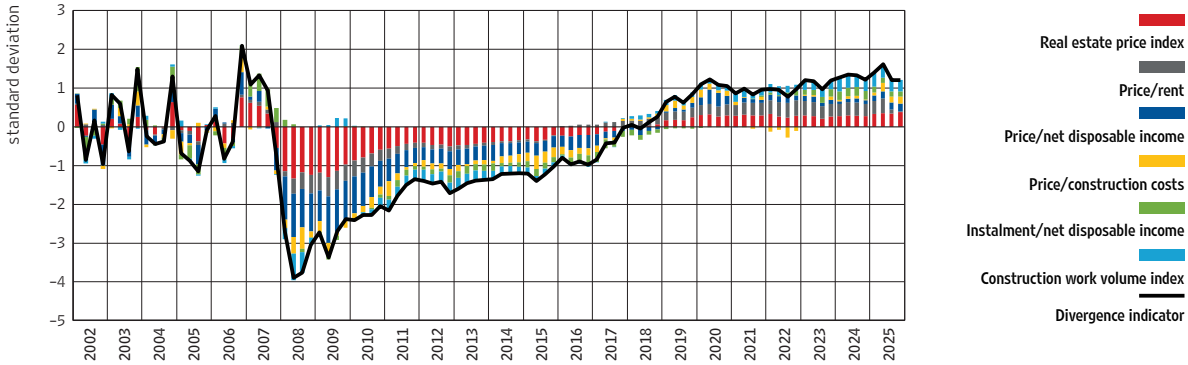
Notes: The average is calculated only for real estate that is removed from the listings after a period t, assuming they were sold. The 5% top and bottom values in a given quarter have also been removed.
Source: Njuškalo (data processed by CNB).

Figure B.8 The sharper increase in residential property prices than in income contributed to the deterioration of housing affordability, while loan-financed affordability improved



Notes: Indicator upward movement denotes lower affordability. Ratio of real estate price to the hypothetical borrowing volume has been calculated in line with Hertich, M. (2019): https://www.bundesbank.de/en/publications/research/discussion-papers/a-novel-housing-price-misalignment-indicatorfor-germany-806946
Sources: CBS, Eurostat and CNB.

Figure B.9 A persistent and pronounced gap exists between residential real estate prices and key macroeconomic determinants



Note: The methodology of calculation is described in Financial Stability No. 18, Box 2 Divergence of real estate prices in Croatia from Intrinsic value.
Sources: CBS, Tax Administration, Eurostat and CNB.

The composite indicator of the divergence in real estate prices is still pointing to a mismatch between the prices of real estate and their key macroeconomic determinants. Alongside the increase in the ratio of real estate prices to net disposable income, the price-to-construction cost ratio also increased, with both ratios remaining above their long-term averages. The ratio of real estate prices to rental costs also grew in the first half of 2025, after which it fell sharply in the second half of the year due to a steep rise in rental prices[7], but

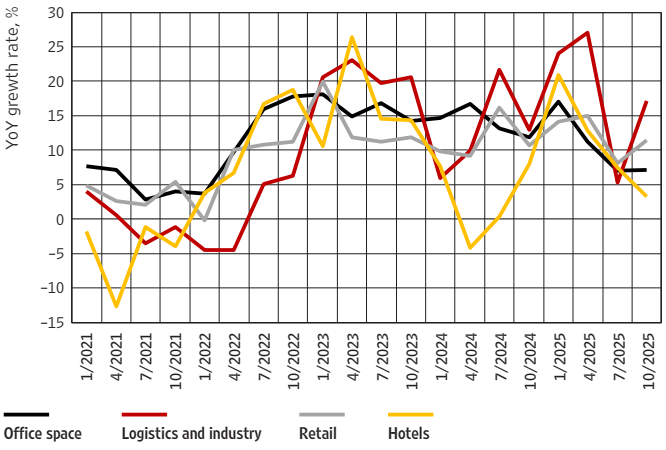
7 Rental prices refer to a component of the harmonised index of consumer prices (HICP CP041) and are based on the data obtained from lease agreements currently in force. They include both freely set market prices and regulated rental prices. Since a significant number of flats are rented at regulated prices (e.g. in public housing or protected tenancy schemes), they make a substantial contribution to the calculation of the index. The sharp leap in the official rental price index (HICP) in the third quarter of 2025 was caused by an increase in the prices of social rents, which constitute a significant part of the sample used by the CBS to estimate that inflation sub-component.

remained above its long-term average (Figure B.9). The persistent gap between prices and macroeconomic determinants increases the risk of a pronounced price drop in the case of a stronger spillover of adverse geopolitical events onto domestic economic developments and a possible worsening of domestic macroeconomic conditions.

B.2 Commercial real estate market

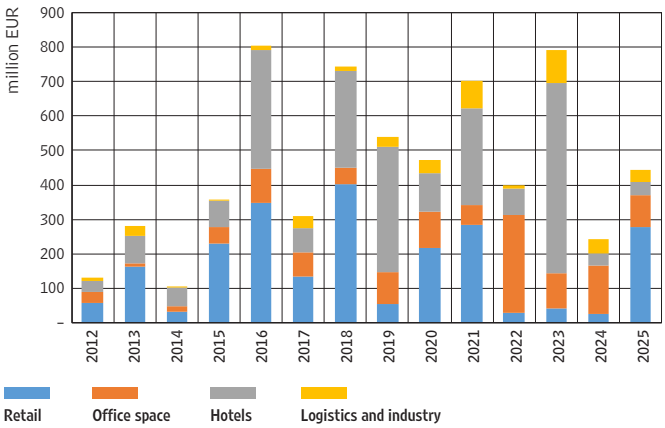
Commercial real estate asking prices have continued to grow strongly. Data from property-listing websites point to accelerated growth in the segments of logistics and industrial space and hotel accommodation, while in the retail segment, the trend was more moderate (Figure B.10). On the other hand, the rise in asking prices slowed down only in the office space segment in 2025. Nevertheless, prices across all segments have been steadily increasing at rates above 10% for a while now, which is partly attributable to the constrained supply of such spaces.

Figure B.10 Commercial real estate asking prices on property-listing websites have continued to grow



Notes: Asking prices of commercial real estate on property-listing websites refer to a wider sample of real estate than the data collected from real estate agencies. In addition to prime real estate, they also include commercial premises in other segments and in various locations in Croatia.
Sources: CNB calculations and Njuškalo.

Figure B.11 Increase in the number of transactions in the commercial real estate market

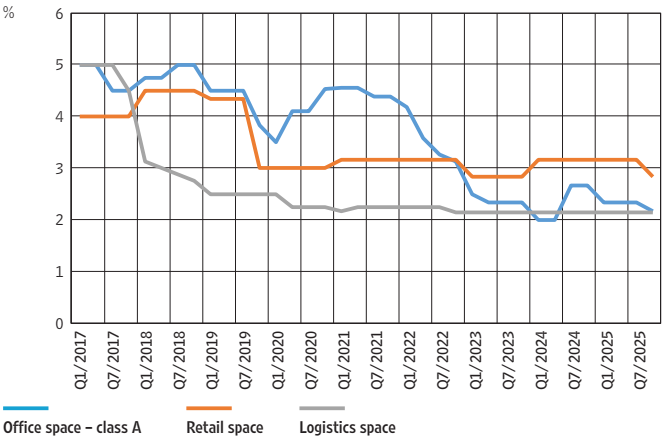


Note: The assessment does not cover total transactions but only investment deals, and does not include investments in construction.
Source: Colliers.

After falling sharply in 2024, the total value of transactions on the commercial real estate market rebounded in 2025. According to the available estimates of one agency (Figure B.11), total turnover in commercial real estate in 2025 was double that of 2024. This was primarily due to the increase in activity in the segment of retail space, while investment activity in the segment of office space shrank. At the same time, transaction values in the segments of industrial space and logistics and hotel accommodation remained at approximately the same level as in 2024. Due to the exceptionally shallow commercial real estate market in Croatia and the constrained supply in the market segments referred to above, changes in the number of transactions can be quite volatile and do not necessarily provide a clear signal of market trends.

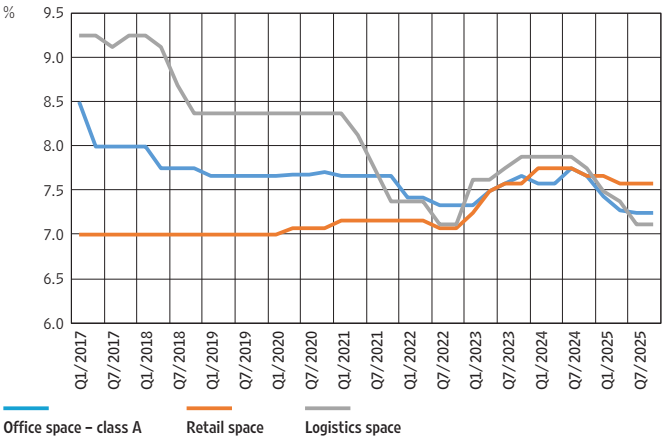
Prime commercial real estate rental market is still characterised by robust demand and limited supply. According to the data from commercial real estate agencies, the vacancy rate remained stable across all commercial real estate segments. The stabilisation was particularly noticeable in the office space segment, following a substantial decline recorded in the aftermath of the pandemic (Figure B.12). The vacancy rate in the segments of prime office space and logistics space still hovers around 2%, while the availability of retail space is somewhat higher.

Figure B.12 Low vacancy rates point to a limited supply of commercial premises



Note: Data refer to Zagreb and its surroundings.
Sources: CBRE, Colliers and CW CBS International.

Figure B.13 Yields in the market of prime commercial premises



Note: Data refer to Zagreb and its surroundings.
Sources: CBRE, Colliers and CW CBS International.

Prime commercial real estate yields dropped slightly in 2025. Rental prices for commercial real estate in prime locations grew moderately compared with the increase in commercial property values, resulting in somewhat lower, albeit still relatively high yields (between 7% and 8%). The fall in yields was more pronounced in the segments of office and logistics space, while it was somewhat more moderate in the segment of retail space (Figure B.13).

The commercial real estate market is still in the upward phase of the cycle, but remains vulnerable to possible sudden changes. Low vacancy rates of office space and stable yield levels in all segments signal a favourable outlook for the sector. Still, due to its relatively shallow depth and low liquidity, the market remains vulnerable to sudden shocks. A deterioration in macroeconomic conditions, for example due to the spillover effects of adverse geopolitical developments, constitutes a key risk that could weaken demand and tighten financing conditions, thereby impairing the operations of related companies and triggering a downturn in the commercial real estate market.

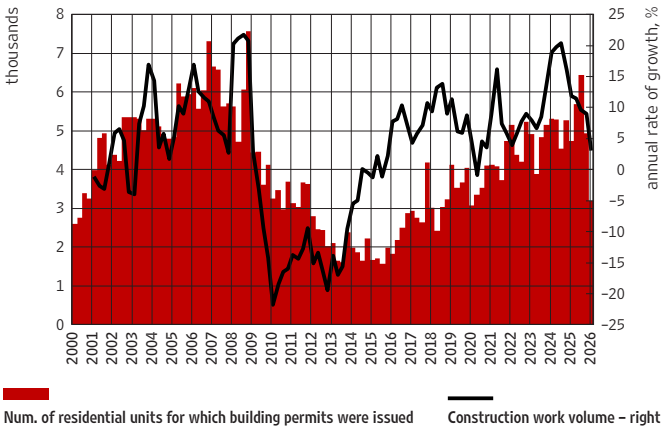
B.3 Activities related to the real estate market

Activity in the construction sector is moderating, but remains at historical peaks. In the segment of building construction, construction activity saw an annual increase of 10.5% in 2025. Following a sharp decline in January 2026, which was probably attributable to adverse

weather conditions, in February, construction activity picked up again. The number of building permits issued increased in 2025, with a particularly pronounced increase recorded in September due to the surge in applications ahead of the amendments to the Zagreb General Urban Development Plan (GUP) (Figure B.14). In early 2026, the number of permits issued fell relative to both the same period in 2025 and the preceding quarter, but at this stage, it cannot be concluded whether this reflects the concentration of permit issuance in the second half of 2025 ahead of the entry into force of the amendments to the GUP, or whether it points to a more general slowdown.

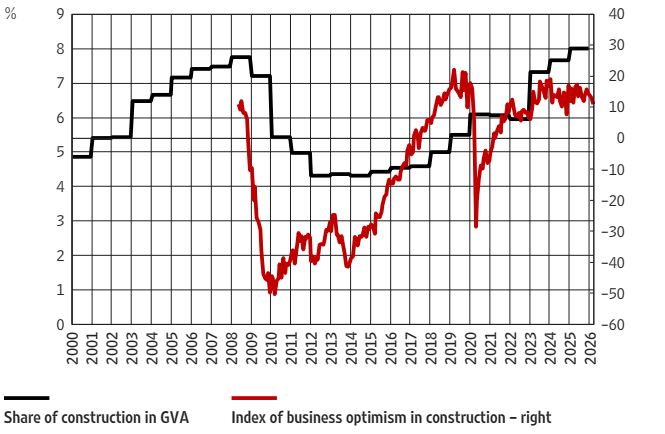
Confidence in the construction sector remains high. The business optimism of domestic construction firms remained well above its long-term average, supporting increased construction activity. The share of construction in total gross value added reached historic highs in 2025, exceeding the previous peak recorded in 2008. This implies the importance of the sector to the economy as a whole, but also points to cyclical risk due to the increased sensitivity of the economy to any deterioration in the developments in construction (Figure B.15).

Figure B.14 Construction activity and the number of construction permits continue to grow



Notes: The figure shows the annual rate of change in the volume index of construction works (buildings). The annual rate of change in the volume index of construction works for the first quarter of 2026 was calculated based on data for the first two months of 2026 compared with the same period in 2025. The number of residential units covered by building permits for the first quarter of 2026 was calculated by calculating the sum of the first two months of 2026 and the last month of 2025.
Source: CBS.

Figure B.15 The construction sector's share in total GVA at historic highs

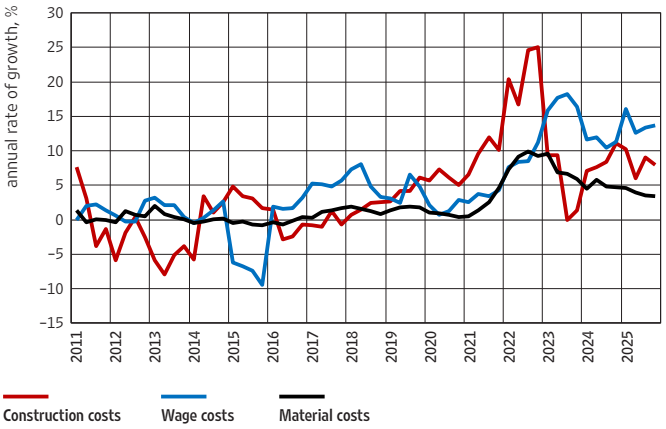


Sources: Eurostat and the European Commission (Business and Consumer Survey).

Rising construction costs are mostly attributable to wages, which have been increasing strongly due to the lack of labour. Furthermore, the war in Iran could lead to a renewed acceleration in the growth of construction material and energy costs (Figure B.16). The rise in labour costs picked up in 2025 to some 13.9% in annual terms amid persistent labour shortages and robust wage growth. According to the Business and Consumer Survey, construction firms still cite the labour shortage as the main problem they are facing (Figure B.17). Although the growth in the prices of materials slowed down following the post-pandemic surge driven by logistical disruptions, current geopolitical tensions pose a risk of a renewed acceleration in price increases. In the event of strong shocks that would push construction costs up and trigger their pass-through to prices, construction firms would face a trade-off between reducing

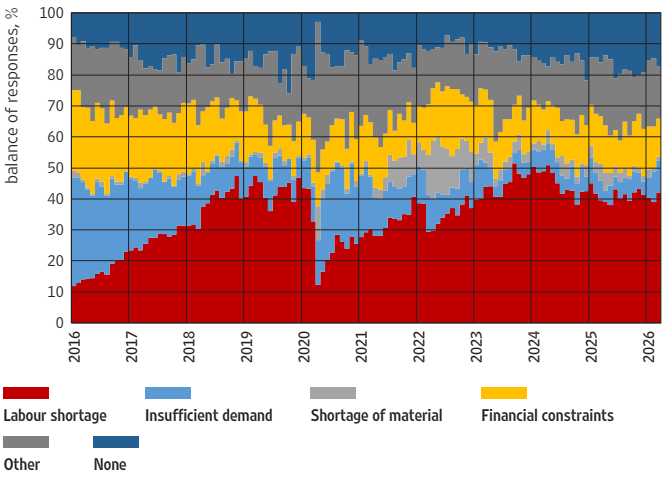
the volume of activity and reducing profit margins. While a higher pass-through of costs into prices would lead to a faster and more pronounced decline in turnover and construction activity, margin cuts would allow the short-term preservation of activity volume, but at the expense of profitability and with potentially delayed negative effects on investment and employment.

Figure B.16 Upward pressures on wages continue



Source: CBS.

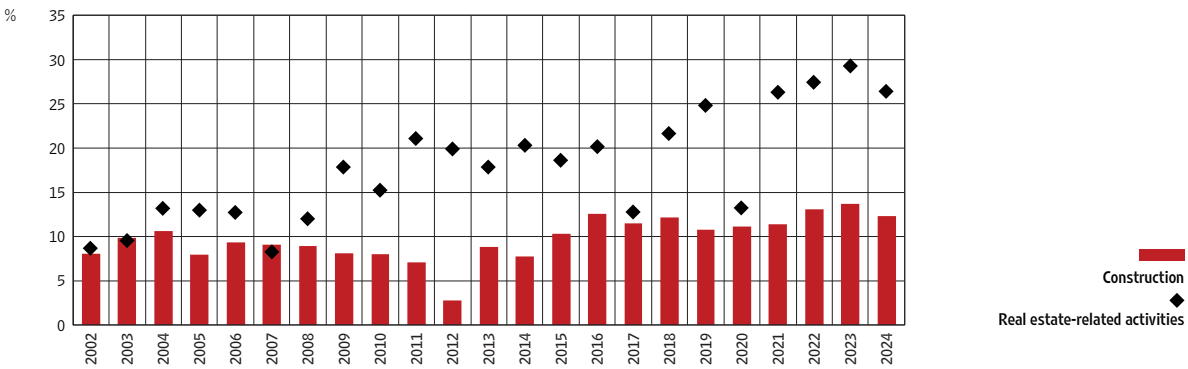
Figure B.17 Labour shortage remains the main problem faced by construction firms



Note: The share of responses is based on the survey question: "What main factors are currently limiting your building activity?"
Source: European Commission (Business and Consumer Survey).

Strong growth in real estate prices had a positive impact on the business performance of companies operating in real estate-related activities, and higher costs did not significantly reduce profits. Over the past years, construction firms generated stable, but also historically high gross profit margins hovering around 13% (Figure B.18). In contrast, real estate companies have much more volatile operating revenues but also even higher profit margins, which makes them more vulnerable to possible changes in the real estate market cycle.

Figure B.18 Price growth was reflected in the favourable business performance of companies operating in real estate related activities



Note: Net profit margin refers to EBITDA margin, that is, the ratio of earnings before interest, taxes, depreciation and amortisation and revenue.
Source: FINA.

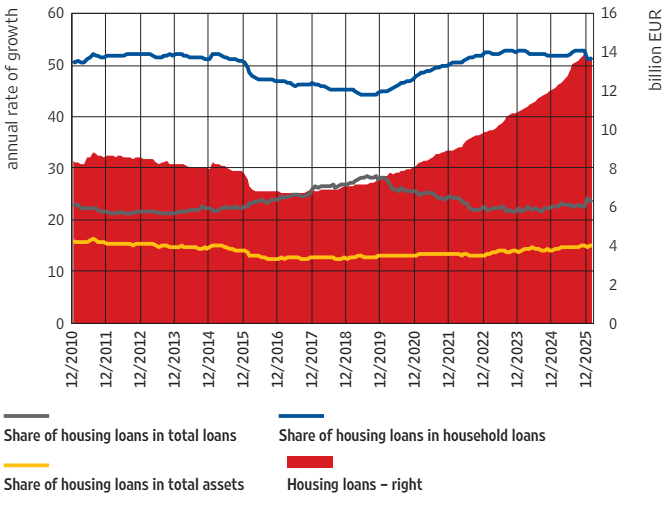
B.4 Exposure of banks to the real estate market

Considering the high level of the direct and indirect exposure of banks, the real estate market is one of the most significant sources of risk to the stability of the financial system. Housing loans constitute the lion's share of the banks' portfolio and are the key segment through which real estate-related market risks are passed through to the banking sector. Banks are also significantly exposed to the real estate market in the corporate sector, with exposures stemming from the funding of construction projects and the development of real estate intended for sale or rental as well as from corporate loans using real estate as collateral regardless of their primary activity or loan purpose. In addition to direct exposure channels, adverse trends on the real estate market may also spill over onto credit institutions indirectly, by affecting demand or overall economic activity.

B.4.1 Exposure of banks to the residential real estate market

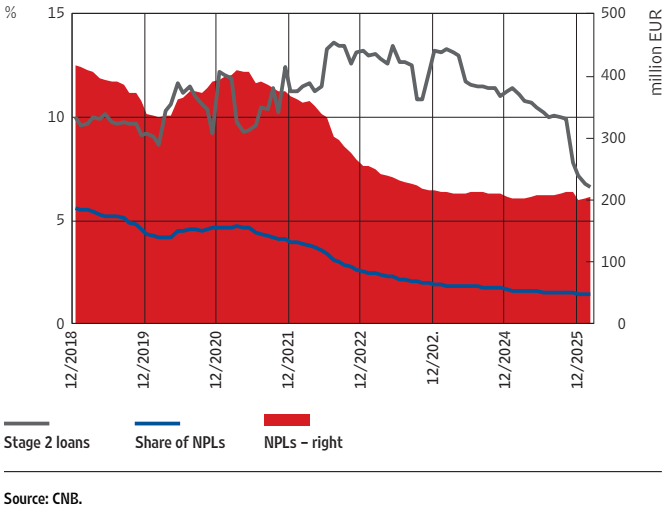
Housing loans constitute around 15% of the total assets of the banking sector, making them one of the key channels through which developments on the real estate market are directly transmitted to banking sector operations. Since 2018, housing loans have been growing continuously at stable annual rates of around 10%, increasing their share in total assets (Figure B.19). At the end of 2025, they accounted for more than a half of all loans to households and around a quarter of total loans. Their strong growth was mostly accompanied by an improvement in the loan portfolio, and at end-2025, the share of non-performing housing loans shrank below 1.5%. In 2025, the share of stage 2 loans, i.e. loans with an increased level of credit risk, decreased considerably, from 11.3% in late 2024 to 7.2% (Figure B.20). Despite the currently favourable trends, the size of this portfolio segment and its sensitivity to economic developments indicate that housing loans are still one of the key channels for the potential transmission of real estate market-related risks to the banks' operations. This is well illustrated by the fact that over a several-year long period of recession in Croatia, the share of non-performing housing loans exceeded 10%.

Figure B.19 Housing loans constitute 15% of bank assets



Source: CNB.

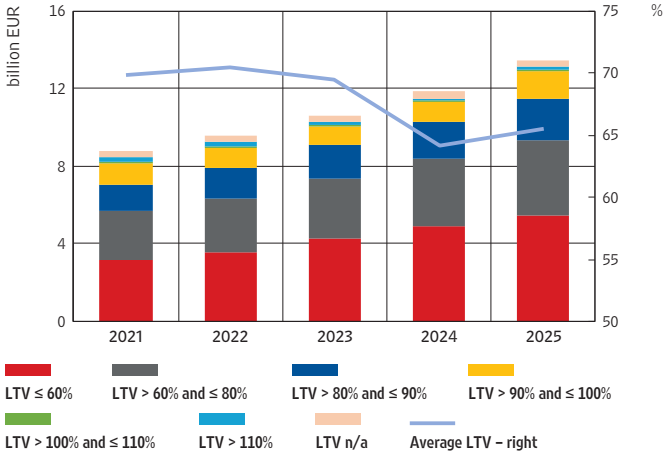
Figure B.20 The quality of housing loans is at a record high



Source: CNB.

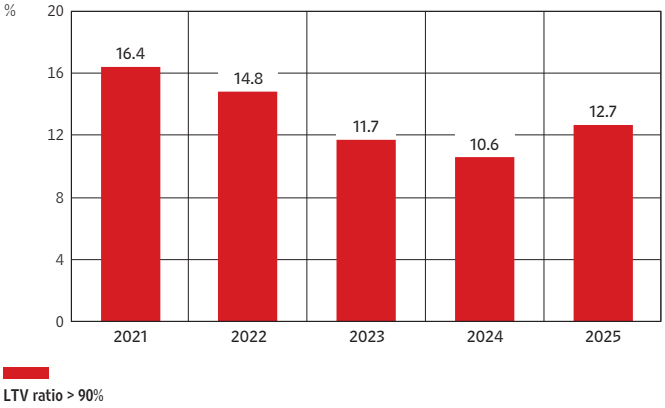
Despite a slight increase in the average LTV ratio of all housing loans in the banks' balance sheets, the ratio of loan amount to the value of collateral remains favourable.[8] The average loan-to-value (LTV) ratio was 66% at the end of 2025, with most housing loans having an LTV ratio below 80% (Figure B.21). The slight increase in the average LTV in 2025 compared with the previous year primarily reflects the exit of older loans with a lower LTV from the portfolio and the surge in new housing loans granted at a relatively high LTV, although these have declined slightly compared with the previous year (see chapter I.C.1). The share of loans with an LTV above 90% increased to 12.7%, reflecting the slight increase in loans that are more sensitive to a decline in real estate prices due to weaker collateral coverage (Figure B.22). In a scenario of a sudden slump in real estate market prices, loans with a high LTV ratio are particularly exposed to the risk that the outstanding principal exceeds the value of collateral. Limited market liquidity coupled with high expenses and a possibly long-lasting process of real estate sale could additionally curtail the capacity of banks to collect their claims, which could increase the vulnerability of the system.

Figure B.21 The average LTV ratio of housing loans increased slightly in 2025



Source: CNB (consumer lending standards).

Figure B.22 The share of housing loans with an LTV above 90% rose slightly in 2025



Source: CNB (consumer lending standards).

B.4.2 Exposure of banks to the commercial real estate market

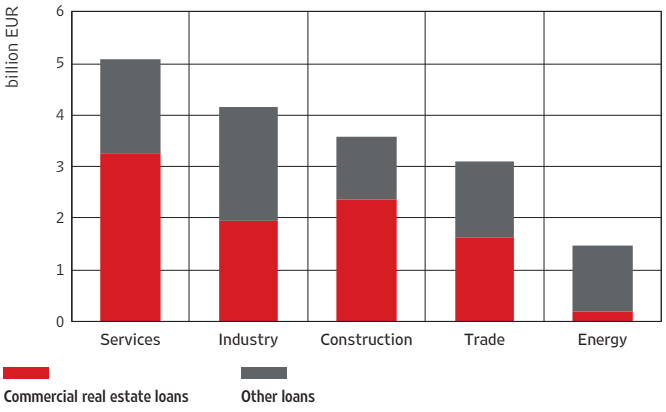
Since corporate loans related to the commercial real estate market constitute 11.5% of credit institution assets, potential disruptions in that market could have a significant impact on banks (Figure B.23). Commercial real estate loans, i.e. loans secured by commercial real estate or intended for the acquisition or construction of commercial real estate, constitute 54% of total corporate loans. In addition to commercial real estate loans, another source of exposure stems from loans granted to firms in the construction and real estate

8 As part of its macroprudential policy, the CNB adopted the Decision on consumer lending criteria, which entered into force on 1 July 2025 and is applied to all loans granted from that date forward. Among other restrictions, the Decision imposes a cap on the loan-to-value (LTV) ratio, which may not exceed 90%, with the discretionary option for banks to grant up to 20% of loans without applying the restriction. By limiting the LTV ratio, the amount of newly granted loans is reduced relative to collateral value. This increases, in the event of credit risk materialisation, the likelihood of the recovery of claims from the value of the pledged real estate, which should improve the quality of the housing loan portfolio in the future.

sectors that are not classified as commercial real estate loans, but whose repayment is nonetheless contingent on the conditions in the real estate market. Since the commercial real estate market may be sensitive to cyclical fluctuations in economic activity and may react to adverse developments by lower prices and reduced liquidity, the materialisation of these risks would be directly reflected in the banks' balance sheets as a decline in collateral values or a deterioration in the income and loan repayment capacity of firms whose business is linked to the real estate market.

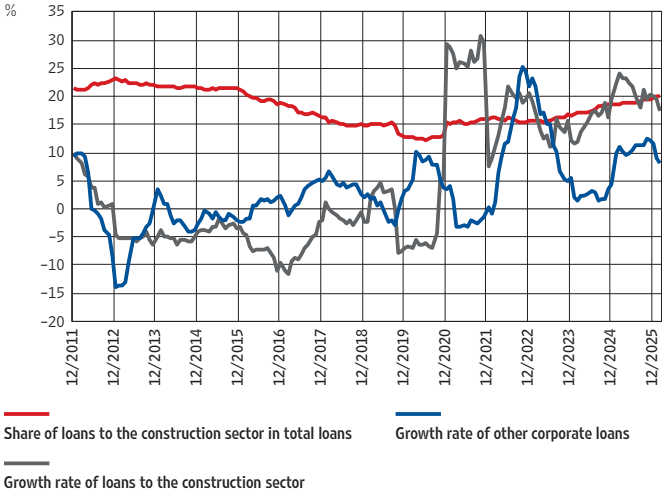
Corporate loans in construction have been growing strongly over the past years, increasing the exposure of the banking sector to the real estate market. Over the last five years, corporate loans in the construction sector increased by 20% on average in annual terms, significantly exceeding the growth in other loans (Figure B.24). The typically large amounts and long maturities of such loans, combined with the time lag between loan origination and project completion, make them particularly vulnerable to a reversal in the macroeconomic cycle. This is confirmed by the historically high volatility of asset quality in construction activities, with shares of non-performing loans exceeding 50% in the period after the global financial crisis.

Figure B.23 Around 60% of corporate loans are directly exposed to the real estate market



Note: Services include activities H, I, J, M, N, O, P, Q, R, S, T and U, industry refers to activities A, B and C, construction includes activities F and L, and trade and energy refer to activities G and D, respectively.
Source: CNB (AnaCredit).

Figure B.24 Loans to the construction sector are growing faster than other corporate loans

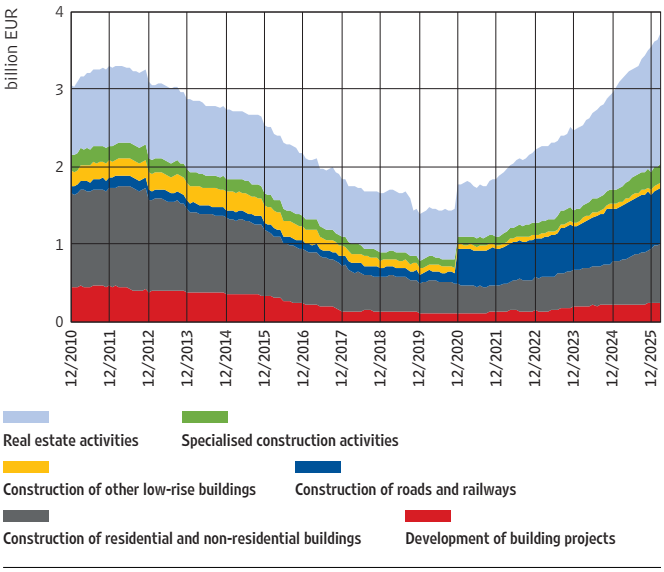


Source: CNB.

The quality of loans related to the commercial real estate market continued to improve, but the level of risk remains slightly elevated relative to other placements. The drop in the share of exposures classified as stage 2 and stage 3 points to a gradual decrease in the number of risky placements in that portfolio segment (Figure B.26). Loans to the construction sector reached record highs, with not only the traditionally dominant loans for the construction of residential and non-residential buildings increasing, but also amounts of loans for road construction (Figure B.25). This lending segment is exposed to the cyclical risks of construction activity, while loans for building construction are additionally vulnerable to sharp declines in real estate prices and changes in corporate creditworthiness. Sudden shocks could rapidly increase the share of non-performing loans and additionally burden banks with potential losses.

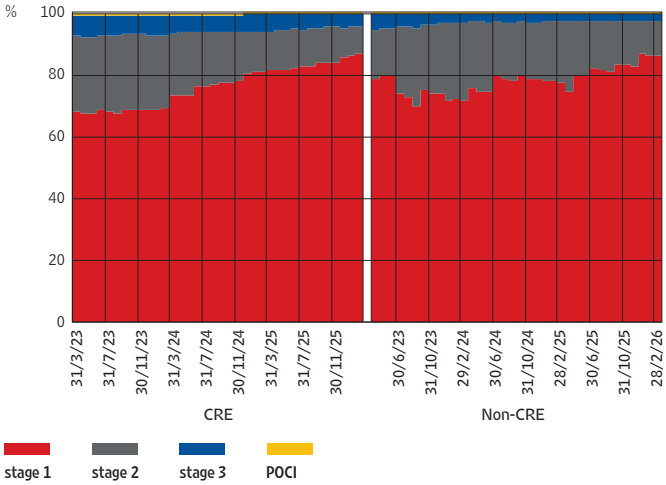
Although the average ratio of loan amount to the value of collateral is low, a part of the commercial real estate loan portfolio has an elevated LTV ratio. According to the current LTV, almost two thirds of all loans related to commercial real estate have a ratio below 60%, which reduces the risk of loss in the event of loan quality deterioration for a significant part of the portfolio. However, more than a quarter of these loans have a ratio above 80%, more than 15% have a ratio exceeding 100% and some are not collateralised at all (Figure B.27). Such loans are potentially risky, as a sharp decline in real estate prices could quickly reduce the value of the collateral below the level of the outstanding principal. Furthermore, around one third of new loans are granted with a ratio above 100% or without collateral (Figure I.C.24), which additionally increases the exposure of the sector to a scenario of price stagnation or decline. In the event of low real estate market liquidity, banks would face difficulties in recovering their claims through collateral, which, altogether, increases the vulnerability of the system in the commercial real estate segment.

Figure B.25 Loans to the construction sector reached their historical peak



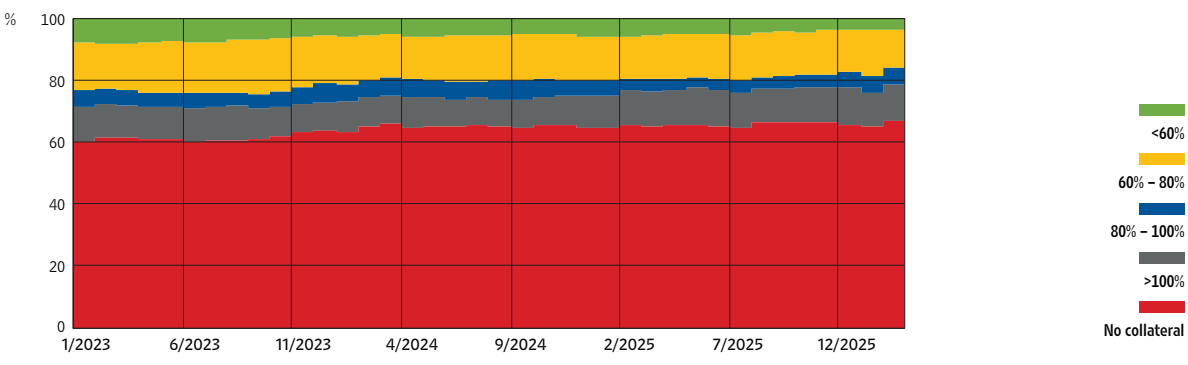
Source: CNB.

Figure B.26 Commercial real estate loan quality has been continuously improving and is approaching the quality level of other corporate loans



Note: Purchased or originated credit-impaired financial assets (POCI) refer to claims that already had impairment characteristics at the time of acquisition or initial recognition.
Source: CNB (AnaCredit).

Figure B.27 Most existing commercial real estate loans have a low LTV, but some 15% of the portfolio has an LTV above 100%



Source: CNB (AnaCredit).

C The risks of lending to the private non-financial sector

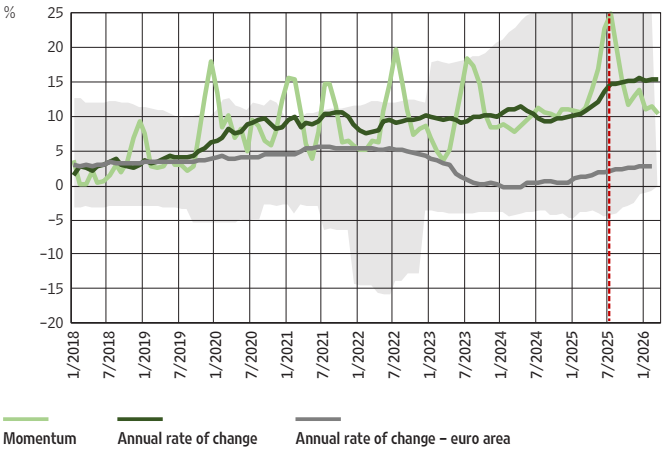
The strong growth of loans to the private non-financial sector continued in 2025. However, the dynamics changed considerably in the second half of the year. Lending to households had accelerated in the first half of the year due to the lowering of banks' interest rates and strong demand ahead of the entry into force of the Decision on consumer lending criteria after which current lending activity slowed down markedly, particularly with respect to non-housing loans. At the same time, the implementation of stricter lending criteria in the second half of the year reduced the shares of loans with increased DSTI and LTV ratios, reducing the risk pockets in newly granted consumer loans. Lending to non-financial corporations remained high and was concentrated in cyclically sensitive activities, construction, trade and accommodation services, which are more sensitive to business cycle reversals. Continued growth in income and lower lending rates support regular repayments of non-financial sector debt. However, the growth in relative household indebtedness and increased lending to cyclically sensitive activities point towards a gradual accumulation of vulnerabilities, especially given the heightened geopolitical tensions that could jeopardise corporate operations and household incomes.

C.1 Household sector

Lending to households remained high in 2025, slowing down gradually in the second half of the year. The acceleration in household lending in the first half of the year was partly due to the more favourable conditions for housing loans offered by banks ahead of the announcement of the introduction of stricter consumer lending criteria, which prompted some consumers to take out loans sooner (Figures C.1 and C.2). The introduction of stricter lending criteria led to a noticeable slowdown in non-housing lending, their momentum reducing from 17.6% in June 2025 to 6.9% at the end of the year, to increase mildly by March 2026 (to 11.3%). The momentum of housing loans decreased gradually, from 22.8% in June 2025 to 10.3% in March 2026. Consequently, the annual growth rate in housing loans remained high (some 15%), while in non-housing loans it slowed down from 14.3% in June 2025 to 10.5% in March 2026.

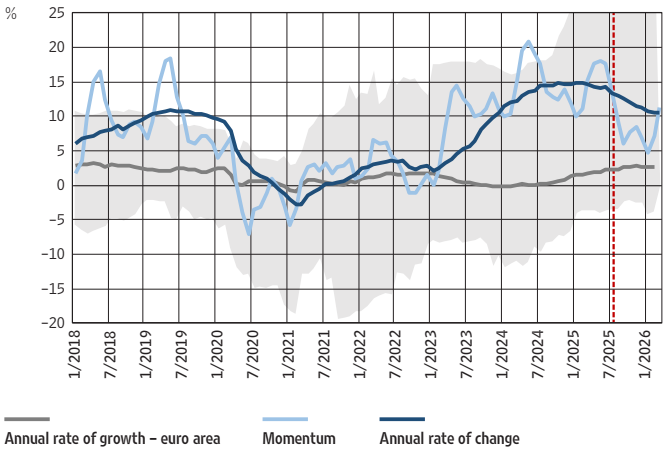
After the introduction of limits on lending criteria, the number of disbursed non-housing loans went down to below the multi-year average, while the number of housing loans normalised at the level of previous years. Approximately a quarter fewer non-housing loans were disbursed in the second half of 2025 than in the first half of the year (Figure C.4). Excluding those contracted before the introductions of the measures, the number of disbursed housing loans in the second half of 2025 remained at its long-term average (Figure C.3). Further, the growth of the average principal of new non-housing loans, which totalled EUR 9.3 thousand stopped, while the average principal of housing loans at the end of 2025 totalled slightly less than EUR 130 thousand, continuing to grow but at slightly more moderate rate than over the previous years.

Figure C.1 Housing loans increased considerably in 2025 amid decline in interest rates



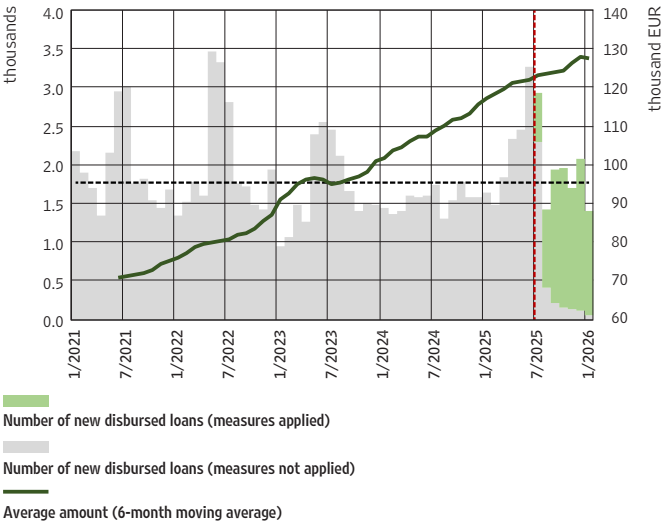
Notes: The figure shows the annual transaction-based rate of change, which excludes exchange rate, price and other changes. The momentum refers to the transaction-based quarterly rate of change, expressed at an annual level. The grey area denotes the difference between the highest and the lowest annual growth rate in the euro area. The red dashed line shows the month when the Decision on consumer lending criteria was first introduced.
Sources: CNB and ECB.

Figure C.2 Non-housing loans slowed down markedly after introduction of limits on lending criteria



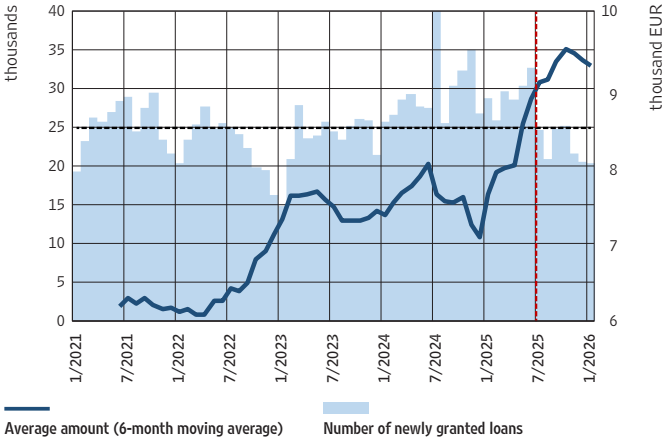
Notes: The figure shows the 12-month transaction-based rate of change, which excludes exchange rate, price and other changes. The momentum refers to the transaction-based quarterly rate of change, expressed at an annual level. The grey area denotes the difference between the highest and the lowest annual growth rate in the euro area. Consumer and other loans were used to calculate the euro area annual growth rate. The red dashed line shows the month when the Decision on consumer lending criteria entered into force.
Sources: CNB and ECB.

Figure C.3 Number of disbursed housing loans in the second half of 2025 remained at the multi-year average



Notes: Renegotiated loans are excluded. Loans in tranches are included in the month in which the first tranche was disbursed. Average loan amounts exclude loans disbursed in tranches and are calculated as a 6-month moving average. The black dashed line shows the historical average of the number of disbursed housing loans during the observed period from 2021 to 2026, with the calculation excluding the 5% top values to reduce the impact of outliers on the average. The red dashed line shows the month when the Decision on consumer lending criteria was first introduced.
Source: CNB (consumer lending standards).

Figure C.4 Number of disbursed non-housing loans decreased considerably in the second half of 2025



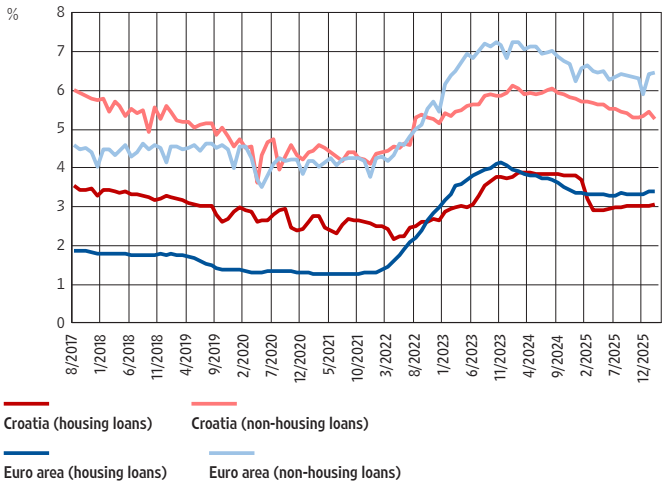
Notes: Renegotiated loans are excluded. Loans in tranches are included in the month in which the first tranche was disbursed. Average loan amounts exclude loans disbursed in tranches and are calculated as a 6-month moving average. The black dashed line shows the historical average of the number of disbursed non-housing loans during the observed period from 2021 to 2026, with the calculation excluding the 5% top values to reduce the impact of outliers on the average. The red dashed line shows the month when the Decision on consumer lending criteria was first introduced.
Source: CNB (consumer lending standards).

Lending rates on new loans to households decreased in 2025 to below the euro area average. Lending rates on new housing loans decreased significantly at the beginning of 2025, stabilising at a lower level thereafter (Figure C.5). In February 2026, the average interest rate on new housing loans totalled 3.1%, some 0.7 p.p. below the all-time high of early 2024.

Lending rates on new non-housing loans gradually decreased during 2025 and at the beginning of 2026, totalling 5.3% or some 0.7 p.p. less on average in February than at the beginning of 2024.

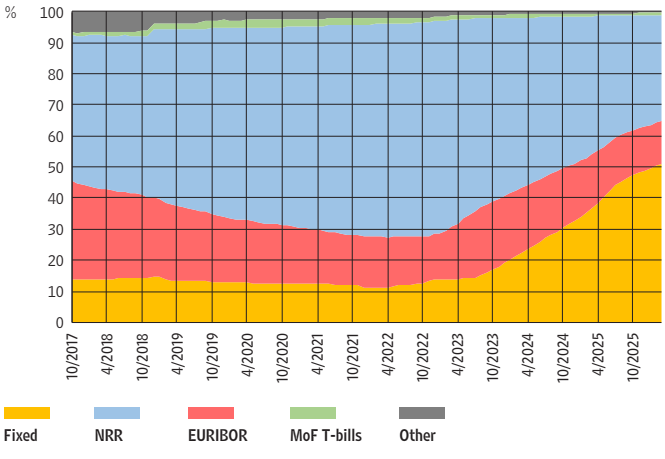
A high share of fixed rate loans decreases the susceptibility of households to unexpected changes in lending rates. The impact of a possibly more significant growth of EURIBOR on the debt servicing capacity of households would be relatively low due to the small share of loans linked to EURIBOR, which at the end of March made up 13.8% of housing loans, including loans with contracted initial interest rate fixation that are temporarily protected from changes in the reference parameter (Figure C.6). Looking only at loans with variable interest rates, the share of the most vulnerable debtors declines to some 5% of the total stock of housing loans. Debtors are additionally protected by the legal cap on the maximum variable interest rate on housing loans (3.87% in the first half of 2026), which is only 0.3 p.p. above the average interest on the stock of loans with variable interest rates linked to EURIBOR. This means that for the time being the increase in market interest rates above the said threshold cannot spill over onto debtors. On the other hand, the exposure of non-housing loans to changes in EURIBOR is negligible loans linked to that parameter accounting for some 2% of the stock of non-housing loans. In March 2026, after a prolonged pause, banks again started to grant housing loans with variable interest rates and the initial rate fixation, which could in the future increase the vulnerability of the household sector to unexpected changes in interest rates.

Figure C.5 Household lending rates in Croatia below the euro area average



Source: ECB MIR.

Figure C.6 Small portion of housing loans principals sensitive to changes in EURIBOR within a one year horizon

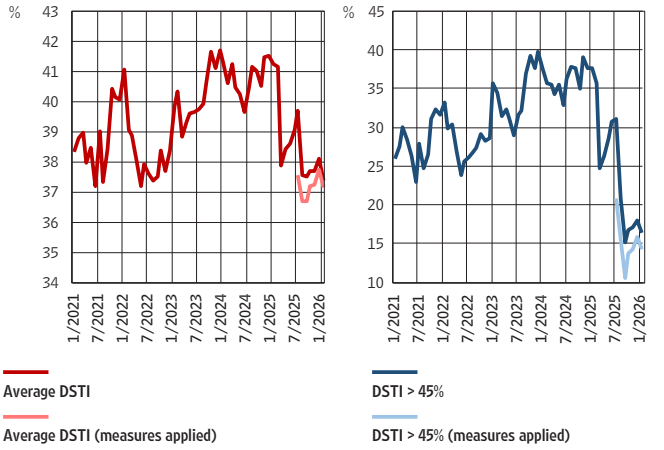


Note: Figure shows the distribution of the stock of housing loans by reference parameter.
Source: CNB.

The introduction of stricter lending criteria reduced the riskiness of newly granted housing loans. The average LTV ratio remained almost unchanged in 2025 (some 77%), while the share of loans with an LTV ratio above 90% fell from 36% in July to some 10% at the end of 2025. At the end of 2025, this share was similar for loans to which the measures applied and for other loans (contracted prior to the implementation of the measures or left out of their scope). The average DSTI decreased from some 39% in the first half of 2025 to some 38% in the

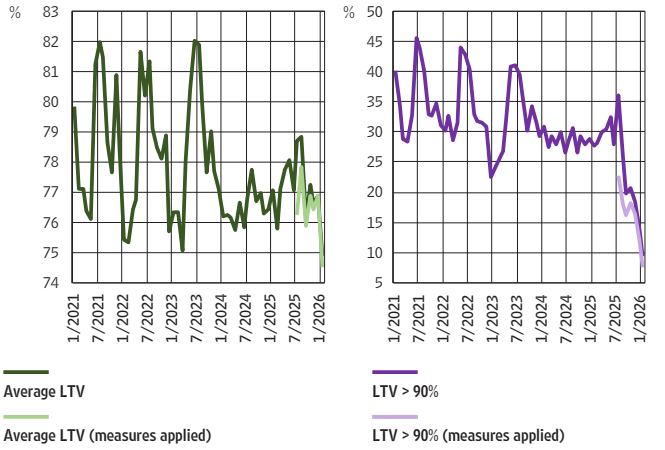
second half of the year, while the share of loans with a DSTI ratio above 45% fell from some 30% to below 20%. At the end of 2025, the share of loans with the DSTI ratio above 45% was almost the same as the share in total loans and in those to which the measures directly applied. The decrease in the average DSTI reflects a shift in distribution which is primarily related to the decrease in the right tail, that is, the decline in the share of loans with high values of that ratio (see Box 6 Impact of macroprudential restrictions on the distributions of risk indicators of consumer lending).

Figure C.7 The share of non-housing loans with DSTI share above 45% decreased considerably after the introduction of limitations



Note: "DSTI > 45%" refers to the share of the principal of loans with a DSTI ratio above 45% at creditworthiness assessment.
Source: CNB (consumer lending standards).

Figure C.8 In the second half of 2025 the share of loans with LTV ratio above 90% halved

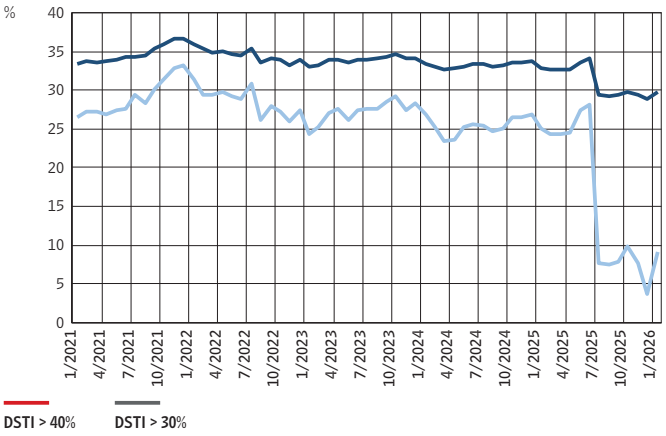


Notes: "LTV > 90%" refers to the share of the principal of loans with an LTV ratio above 90% at creditworthiness assessment. Loans with atypically high or missing LTV ratio values were excluded from the calculation.
Source: CNB (consumer lending standards).

Indicators of risk improved more noticeably in non-housing loans than in housing loans. The average DSTI for new non-housing loans (Figure C.9) decreased from 33.3% in the second quarter of 2025 to some 30% in the second half of 2025. At the same time, the share of loans with a DSTI ratio above the prescribed cap of 40% fell sharply, from 26% to 10%. The more rapid and stronger mitigation of the risk profile of new non-housing loans is attributable to tightened restrictions and the reduced volume of allowed deviations, as well as to the shortened time lag between loan origination and disbursement.

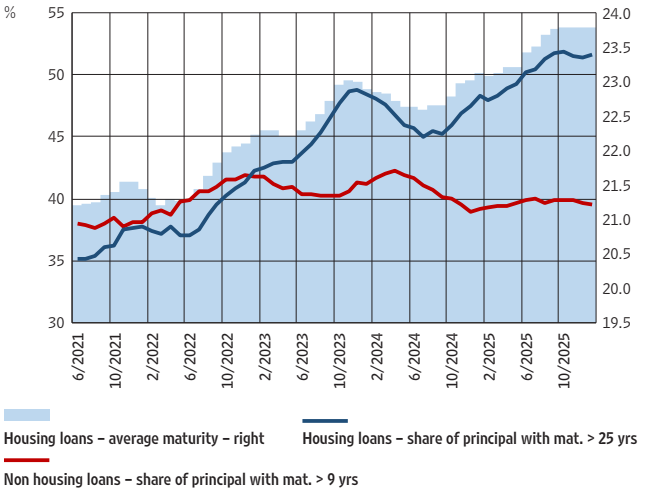
The maturity extension of new housing loans was halted in the second half of 2025. The average maturity of new housing loans, which grew from 22 to 23.8 years in the period from the second half of 2022 to the second quarter of 2025 (Figure C.10), offset to a degree the increase in the monthly repayment burden amid the rise in interest rates. After that period, the average maturity stabilised so in the second half of 2025 loans were granted with an average maturity slightly shorter than 24 years. At the same time, the increase of the share of loans with maturity longer than 25 years was halted as well, so at the end of 2025 some 50% of the principal of housing loans was disbursed with a maturity longer than 25 years. On the other hand, the maturity of non-housing loans in the period from 2022 to 2025 mostly did not change, averaging at slightly more than seven years, with the share of the principals of loans granted for a period longer than nine years halting at some 40%.

Figure C.9 The share of non-housing loans with DSTI shares above 40% decreased considerably



Note: "DSTI > 40%" refers to the share of the principal of loans with a DSTI ratio above 40% at creditworthiness assessment.
Source: CNB (consumer lending standards).

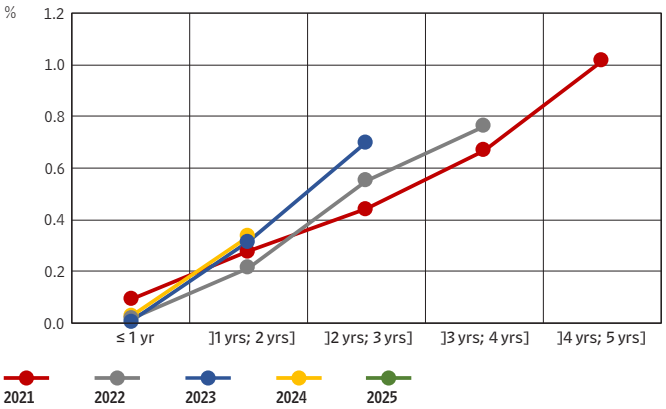
Figure C.10 The increase in the maturity of new housing loans slowed down in the second half of 2025



Note: The figure shows 6-month moving averages.
Source: CNB (consumer lending standards).

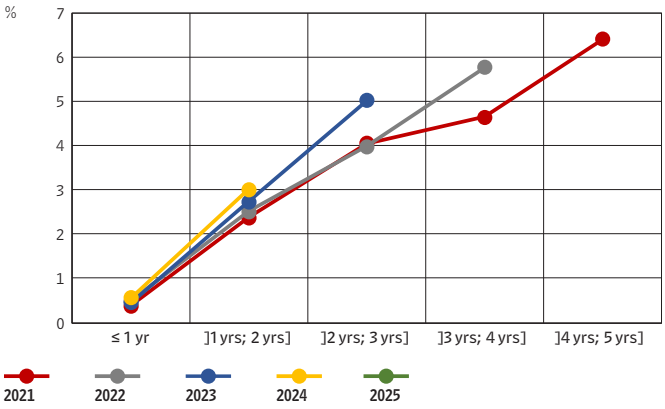
Despite favourable macroeconomic conditions, the quality of non-housing loans disbursed in the last years continued to deteriorate in 2025, which might be further exacerbated by the possible materialisation of geopolitical risks. In the period from 2022 to 2024, an average of 2.5% of principals of non-housing loans became non-performing in the second year after disbursement (Figure C.12), and in 2025 this share increased to 3% (See Box 1 Crises are not accidental: why are non-housing loans to households going bad?). Further, in the event of a strong materialisation of geopolitical risks followed by a contraction of economic activity, the deterioration in the quality of non-housing loans might accelerate, which would coincide with the patterns observed in past episodes. In contrast, the quality of housing loans continues to deteriorate at a stable, very slow pace. Late repayment was registered for only 0.2-0.4% of the principal of housing loans within the period of the first two years after disbursement, with a gradual annual rise of some 0.2 p.p. in the following years (Figure C.11).

Figure C.11 Late repayments of housing loans remain rare



Notes: The figure shows the share of principals of housing loans classified into "B" and "C" risk categories. The X-axis shows the time elapsed since the loan was disbursed.
Source: CNB.

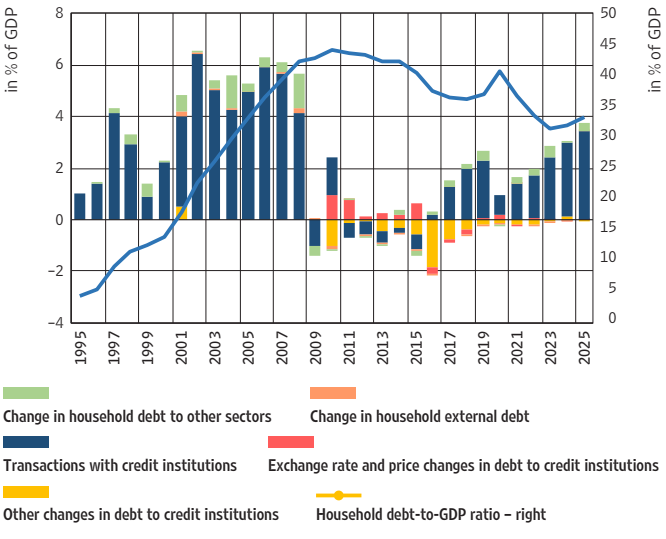
Figure C.12 Deterioration in non-housing loans accelerated



Notes: The figure shows the share of principals of non-housing loans classified into "B" and "C" risk categories. The X-axis shows the time elapsed since the loan was disbursed.
Source: CNB.

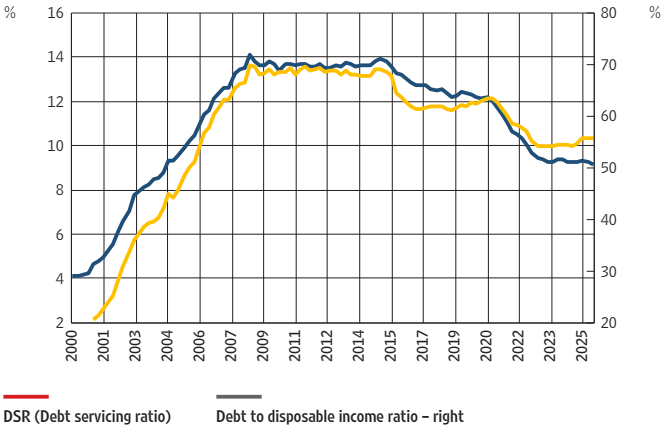
The gradual growth of the household debt-to-GDP ratio continued in 2025, while the estimates of developments in the debt-to-income ratio point to a stagnation in relative indebtedness. Net growth in household loans reached almost 3.5% of GDP, outpacing the strong nominal growth of the domestic economy and resulting in the growth of the household debt-to-GDP ratio (Figure C.13). At the end of 2025, this ratio increased to 33.3%, that is, by some 1 p.p. from 2024. At the same time, the aggregate debt-service-to-income ratio and household debt-to-income ratio in 2025 remained unchanged from the preceding year (Figure C.14). The rising indebtedness of households amid the slowdown in the growth of income increases their susceptibility to external shocks. These shocks particularly affect households with high indebtedness, floating interest rates or limited liquidity, which under such circumstances postpone consumption and spend savings if they have any. As a result, in the event of a possible materialisation of an adverse macroeconomic scenario, the risk of unorderly debt servicing would run high, thus negatively affecting financial institutions and consequently the broader economy.

Figure C.13 Gradual growth of relative indebtedness continues



Note: Changes in debt to other sectors and the rest of the world are shown as the difference between the end of the previous year and relativised as a share in GDP.
Sources: CNB and Eurostat.

Figure C.14 Sharp growth in loans halts the fall in household sector debt indicators



Notes: Quarterly disposable income values have been estimated using the Chow-Lin method and a series of employee compensation and gross operating surplus and mixed income as indicators. Official annual data on disposable income are available until 2024, while data for 2025 are estimated.
Sources: CNB and Eurostat.

BOX 1

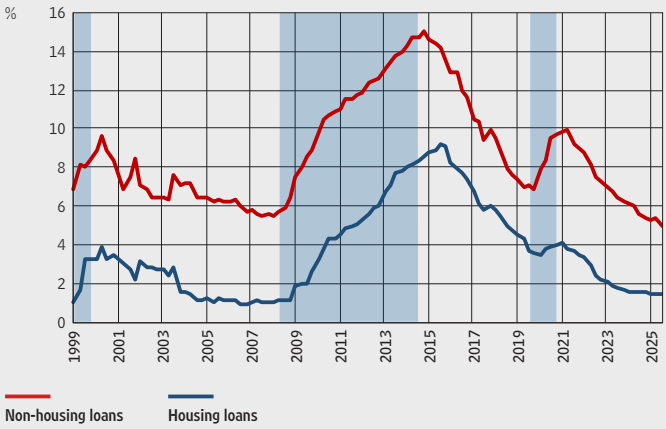
Crises are not accidental: why are non-housing loans to households going bad?

In contrast to most other EU member states non-housing loans make up an important segment of household lending in Croatia and are, as a rule, riskier than housing loans. This makes their monitoring very important from the financial stability perspective. Analysis shows that loans that eventually became non-performing had, as a rule, been granted to borrowers with lower income, less financial assets (deposits) and higher debt service-to-income (DSTI) ratios. Among them, most represented are loans with a DSTI ratio above 40%, especially in the segment of maturity below five years. Analysis results show that indicators of relative indebtedness paired with additional financial and behavioural indicators may offer early signals of possible vulnerability accumulation in non-housing lending and underline the importance of macroprudential restrictions on consumer lending criteria in mitigating the riskiness of new non-housing loans.

Credit risk is one of the key risks that banks face in their operations and understanding it is exceptionally important from the financial stability perspective. Its size does not depend exclusively on the intensity of the negative macroeconomic shock and its impact on debtors' loan repayment capability but also on the structural characteristics of individual debtors at the moment of loan origination. Thus, for example, negative shocks are harder on debtors with high debt-service-to-income (DSTI) ratio, while debtors with small deposits have fewer liquid reserves available to mitigate their financial difficulties. The implementation of macroprudential policy depends largely on analyses that link lending conditions and debtors' financial assets with the probability that loans will become non-performing. Such analyses ensure timely identification of segments in which vulnerabilities accumulate and provide an analytic basis the for calibration and recalibration of measures aimed at debtors.

The analysis of factors impacting deterioration in the quality of non-housing loans is exceptionally important due to their high share in loans to households and higher inherent riskiness. In contrast to other euro area member states in which non-housing loans account for slightly over 20%, in Croatia they make up as much as 45% of household portfolios. At the end of 2025, the stock of non-housing loans accounted for some 15% of GDP, only slightly less than the ratio of housing loans to GDP (Figure 2). Generally speaking, these loans are unsecured, and, viewed historically, problems with their repayment occurred much faster and much more frequently than problems with housing loans because banks are, at a higher price and with shorter maturities than for housing loans, more prone to granting them to riskier clients (Figure 1). Although in 2025 the share of non-performing non-housing loans reached its historical low, there is a visible deterioration of loans granted in the period from 2021 to 2015 (see Figure C.12). This points to the need to monitor this segment of bank lending in more detail, especially in the circumstances of increased bank competition late in the financial cycle.

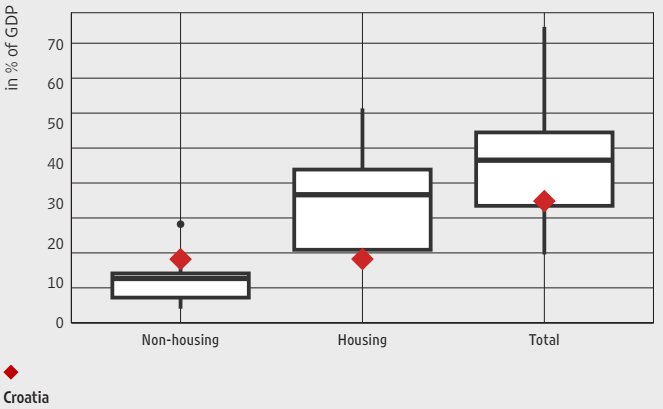
Figure 1 Non-housing loans turn non-performing faster than housing loans due to negative economic shocks



Notes: The figure shows the share of principal of loans classified into "B" and "C" risk categories. The blue shaded areas indicate periods in which the annual rate of change of GDP was negative

Source: CNB.

Figure 2 Non-housing loans-to-GDP ratio in Croatia among the highest in the euro area



Notes: The rectangle shows the lower and upper quartile, the line in the rectangle shows the median, the lines outside the rectangle show the range within the interquartile range and the dots outside the lines show the outliers. The data shown are for euro area countries at the end of 2025.

Sources: ECB DWH and CNB calculations.

Non-housing loans that became non-performing were, on average, disbursed to debtors with lower income and higher indebtedness at the moment of loan origination[1]. The debtors with non-performing non-housing loans were granted slightly lower loan amounts, the average loan principal amounting to EUR 7,800, which is some EUR 2,200 less than for performing loans. The average income of borrowers with non-performing loans is some EUR 1,300 monthly, EUR 300 lower[2] than borrowers with performing loans[3]. Further, they also have higher indebtedness under previous loans (by some EUR 5,000). The combination of lower average income and higher indebtedness is reflected in their average DSTI ratio at loan origination, which is 2 p.p. higher than for borrowers of performing loans, whose average DSTI ratio is 33.6%. Although the difference in the average DSTI ratio among the two borrower groups is small, the share of the principal disbursed with DSTI ratio higher than 40% is significantly higher for non-performing loans (31.7% compared with 25.6% for performing loans). This shows that the risk of deterioration is not distributed linearly with the level of debt burden but is disproportionally concentrated in the segment of high DSTI ratios.

There are significant differences in the distribution of DSTI ratios of non-housing loans with maturities below and above five years (Figures 3 and 4). Namely, the CNB recommendation on the application of the implicit cap on the DSTI ratio did not cover non-housing loans with maturities lower than five years[4]. As a result, these loans were granted at higher average DSTI ratios and often with maturities only slightly shorter than five years. In this segment, non-performing non-housing loans had an average DSTI ratio of 41.1%, some 5 p.p.

1 The analysis was conducted on non-housing loans disbursed between 2022 and 2025, non-performing at the end of 2025.

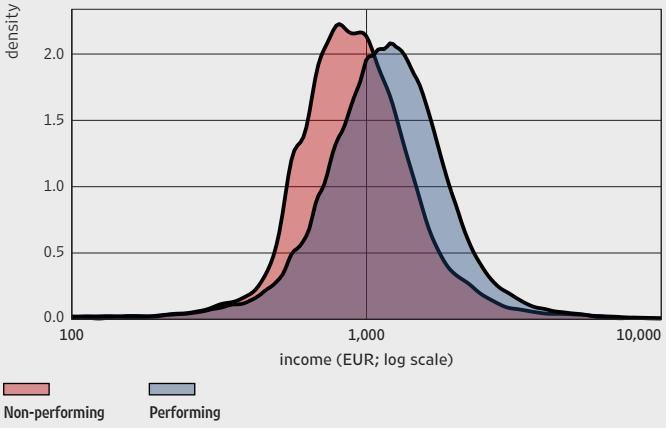
2 In some cases, borrower's income can also include co-borrower's income due to the definition of borrower's income in the reporting system on consumer lending standards and household deposits.

3 The relative difference in average principal and income between performing and non-performing loans is present in each year of loan disbursement and is not a consequence of the growth in loan amount and income in the analysed period.

4 For more details see Box 6 Impact of macroprudential restrictions on the distributions of risk indicators of consumer lending.

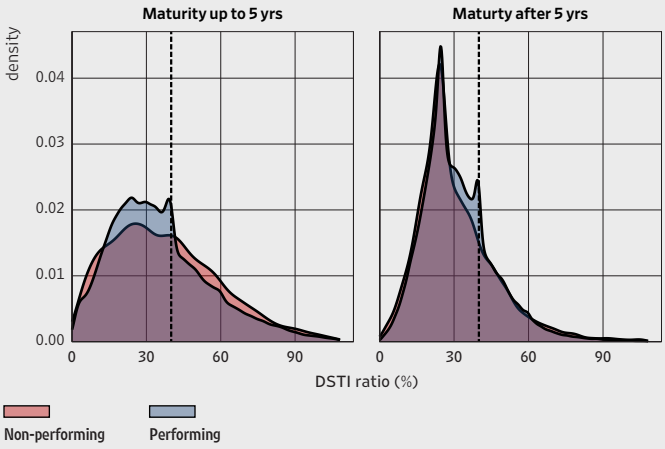
higher than performing loans, while the share of principals of loans granted with a DSTI ratio above 40% (46.6%) was much higher (by 14 p.p.). On the other hand, when it comes to non-housing loans with maturity longer than five years the average DSTI was much lower. At the same time, the distribution of loans by DSTI ratio also shows a concentration of loans on the upper threshold of the implicit DSTI cap of 25%, which is in line with the application of the CNB recommendation, as well as on the threshold of the new macroprudential cap on the DSTI ratio of 40%. In this segment of non-housing loans as well, non-performing loans have an approximately 1 p.p. higher average DSTI ratio (33.5%) and larger share of loans disbursed with a DSTI ratio above 40% (26.2% of the principal compared with 22.6%) than performing loans[5].

Figure 3 Non-performing non-housing loans were granted to borrowers with lower incomes



Source: CNB (consumer lending standards).

Figure 4 Distribution of non-performing non-housing loans by DSTI ratio has a heavy right tail



Source: CNB (consumer lending standards).

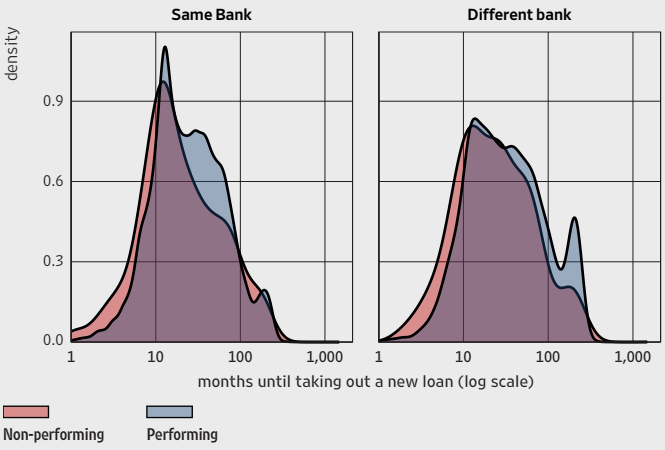
Borrowers with non-performing loans more often take out non-housing loans[6]. Thus, borrowers with non-performing loans have a median range of 18 months between the repayment of two loans, and borrowers with performing loans a range of 24 months. Further, some 40% of borrowers with non-housing loans that have a previous loan do not take out two loans in the same bank successively. Borrowers that do not borrow successively in the same bank, medianly take out non-housing loans after a longer period of time (28 compared to 19 months). Also, regardless of whether they took out a loan at the same bank or not, the time span between two loans for borrowers with non-performing non-housing loans is much shorter (Figure 5).

5 The fact that by taking out more than one loan during the period under observation some debtors may be included in the analytical sample several times has no significant impact on the said indicators. Namely, the distributions of DSTI ratio shown in Figure 4 remain almost unchanged when the sample includes only one loan per debtor (for instance, the latest one, the first one or the one with the highest DSTI ratio).

6 Observed is the absolute time difference between the date of disbursement of the analysed non-housing loan (regardless of its performance status) and the date of loan disbursement (regardless whether housing or non-housing) that preceded it. For instance, if a debtor was disbursed a non-housing loan that is the subject of analysis in January 2024 and the previous loan (regardless whether housing or non-housing) was disbursed in January 2023 the absolute time difference between these two loans is 12 months.

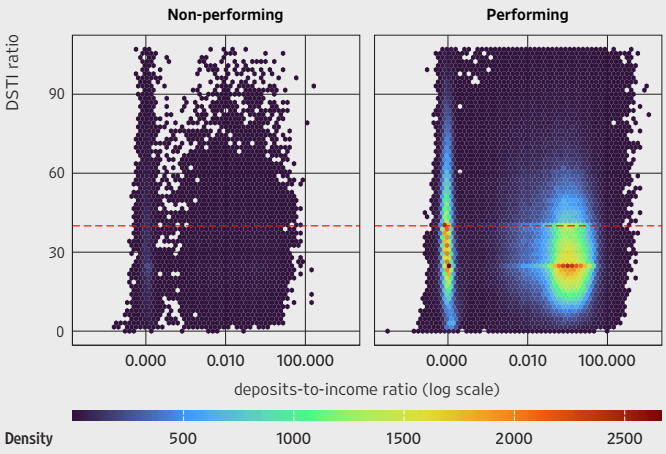
The level and structure of borrower deposits largely contribute to the explanation of the difference between performing and non-performing loans, regardless of the DSTI ratio. In the year preceding the granting of non-housing loans, most borrowers of later non-performing loans had almost no liquid funds available at the bank and their median deposit totalled only EUR 0.4, while for debtors with performing loans it totalled EUR 300 (some 78% of those debtors had deposits with a bank). Further, for the same DSTI ratio, the distribution of deposits for non-performing loans has a heavier left tail, which means that under the identical burden borrowers of non-performing loans systemically have less liquid reserves available (Figure 6). Therefore, available liquid financial assets, paired with debt repayment burden, may also affect the ability to regularly service obligations so the median deposit to monthly income ratio of debtors with performing loans is slightly higher than one fourth in contrast to borrowers with non-performing loans that to the largest extent had no deposits.

Figure 5 Borrowers with non-performing loans take out new loans faster



Note: Observed is the absolute time difference between the date of disbursement of the analysed non-housing loan (regardless of whether performing or non-performing) and the date of loan disbursement that preceded it.
Source: CNB (consumer lending standards).

Figure 6 Borrowers with non-performing loans have lower deposits



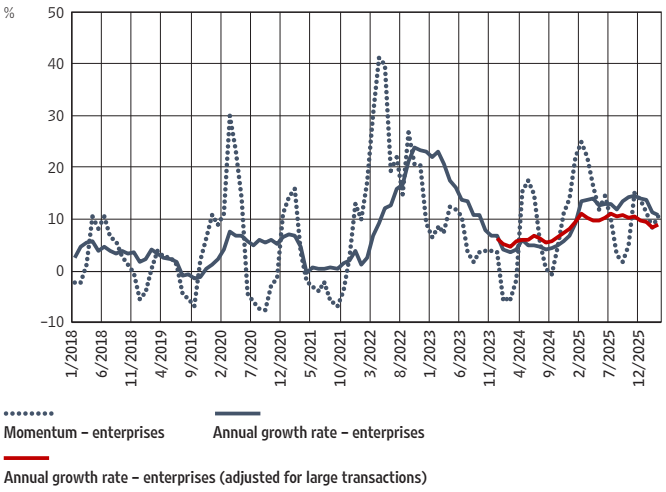
Note: This figure shows debtor deposits in the year preceding the granting of non-housing loan.
Source: CNB (consumer lending standards).

Analysis suggests that the characteristics of non-housing loans at origination point towards higher risk of subsequent migration to non-performing status. The two most important characteristics that are singled out are lower income and higher DSTI ratio and previous indebtedness of the borrower. Analysis additionally suggests that liquid financial assets of the borrower, in the form of deposit, also contribute to the explanation of the differences between performing and non-performing loans, so loans with non-performing loans to the greatest extent have no deposits at the time of loan origination in contrast to borrowers with performing loans. From the macroprudential policy perspective the results therefore support the importance of monitoring the segment of non-housing lending, as well as the justification of the introduction of tighter consumer lending criteria for all loans to consumers, both housing and non-housing.

C.2 Non-financial corporate sector

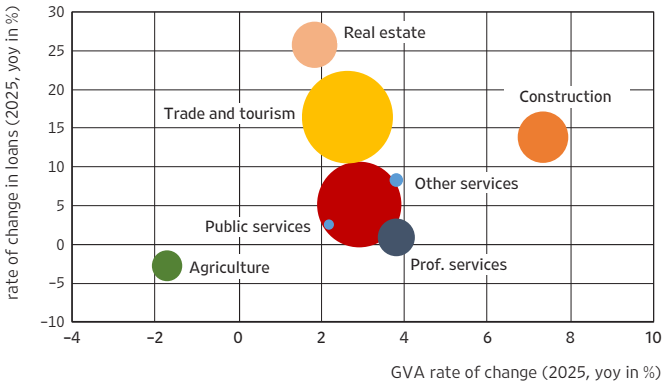
Last year bank loans to the corporate sector continued to grow at elevated rates. The annual rate of change of loans to non-financial corporations totalled 10.7% in March 2026, that is, 8.8% after adjustment for the effect of large one-off transactions (Figure C.15). There was a noticeable growth in loans to enterprises in construction, predominantly through lending to micro enterprises (Figure C.17). Construction projects are frequently financed through special purpose vehicles (SPVs) established for managing risks by separating individual projects from the parent construction company; for statistical classification purposes these vehicles are registered as micro enterprises).

Figure C.15 Strong growth of corporate loans continues, with weakened effect of large one-off transactions



Source: CNB.

Figure C.16 Lending growth reflects gross value added growth

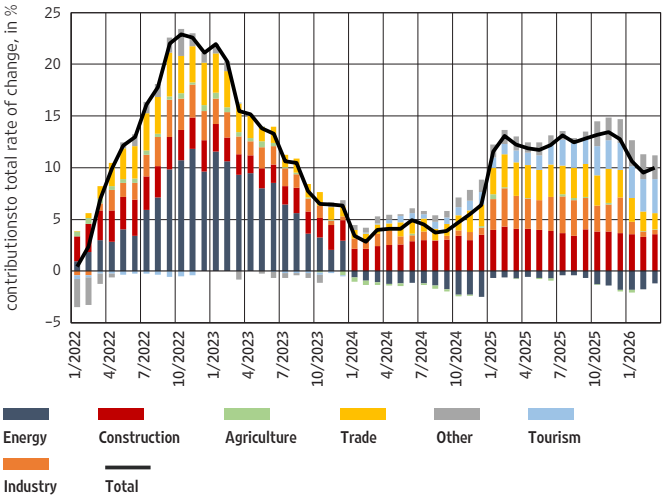


Notes: Tourism includes enterprises in the activities of accommodation and food services. Industry includes enterprises in the activities of mining and quarrying, manufacturing industry, water supply, sewerage, waste management and remediation activities and electricity, gas, steam and air conditioning supply. The size of the bubble represents the stock of loans to non-financial corporations from individual activities at the end of 2025.
Sources: CNB and Eurostat.

The growth in corporate lending reflects a favourable cyclical position of the Croatian economy, with pronounced concentration in activities sensitive to business cycles. The activities with the highest growth of gross value added, such as construction, real estate activity, trade and tourism-related service activities are at the same time those that borrow the most (Figure C.16). This concentration of credit growth increases the vulnerability of the banking sector to a possible slowdown in economic activity. The growth in the share of loans directed at sectors predominantly producing internationally non-marketable goods and services is historically related to greater frequency and intensity of financial crises and weaker productivity growth, which additionally exacerbates the risks of strong credit growth[9]. At the peak of the cycle of non-performing loans in Croatia, which followed the global financial crisis, it was precisely enterprises from the construction and real estate sector that had the highest rate of non-performing loans (Figure C.18).

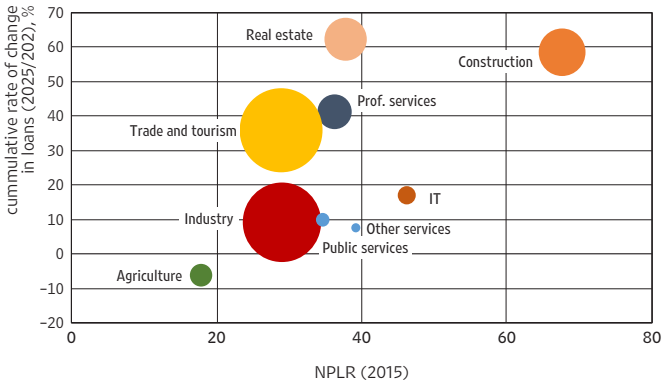
9 Mueller K., and E. Verner (2024): *Credit allocation and macroeconomic fluctuations*, The Review of Economic Studies, 91(6), available at: https://www.esrb.europa.eu/pub/pdf/other/Credit_allocation_and_macroeconomic_fluctuations.pdf

Figure C.17 Lending to procyclical activities continues



Notes: Tourism includes enterprises in the activities of accommodation and food services. Industry includes enterprises in the activities of mining and quarrying, manufacturing industry, water supply, sewerage, waste management and remediation activities.
Source: CNB.

Figure C.18 Construction enterprises had the highest rates of non-performing loans at the peak of the global financial crisis



Notes: Tourism includes enterprises in the activities of accommodation and food services. Industry includes enterprises in the activities of mining and quarrying, manufacturing industry, water supply, sewerage, waste management and remediation activities and electricity, gas, steam and air conditioning supply. The size of the bubble represents the stock of loans to non-financial corporations from individual activities at the end of 2025.
Source: CNB.

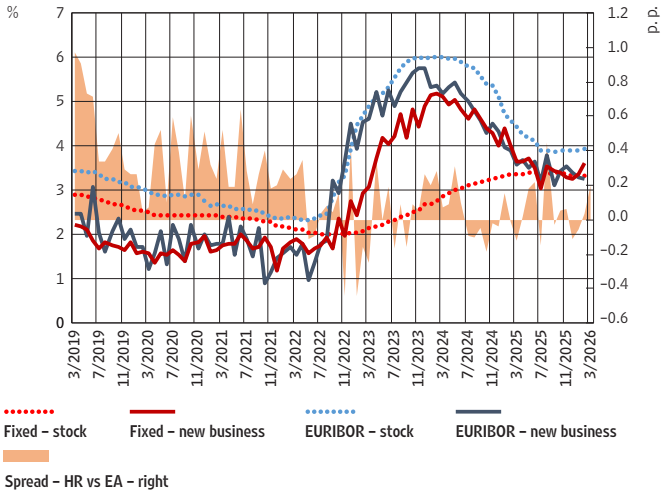
A favourable economic environment paired with the growth in personal consumption and investments stimulates corporate loan demand. The rise in revenues and profit strengthens business optimism which spurs the conclusion of long-term agreements and planning of investments with longer time horizons. The available high-frequency data indicate a continuation in the growth of operating revenues and a rise in the number of active enterprises (see Chapter I.A Macroeconomic environment). However, in cyclical activities, especially construction, long-term investments are sensitive to cycle reversals, when a fall in demand and tougher financing conditions may jeopardise their financial viability.

The fall in interest rates in 2024 and early 2025, after which they stabilised, favourably affected debt servicing costs. Interest rates on new loans to non-financial corporations in 2025 stabilised within a range of 3.0% to 3.5%, while interest rates on the balances of loans neared interest rates on new business, reflecting the gradual transfer of the easing of the monetary policy on corporate financing costs (Figure C.19). The difference between interest rates on new corporate loans in Croatia and the euro area average, which was positive and substantial in the previous years, almost disappeared in the previous period. The convergence is a reflection of the euro introduction but also of the improvement of Croatia's credit rating and represents a structural improvement in the financing conditions of domestic enterprises. In addition to external factors, the competition among banks in the corporate credit market and high corporate liquidity have also contributed favourably to the reduction in this difference.

Half of corporate loans was granted at variable interest rates which exposes them to interest rate risk (Figure C.20). A high share of fixed interest rates makes repayment costs predictable and mitigates the exposure to possible future changes in market interest rates. However, the level of protection provided by the fixed rate is limited – the average remaining maturity of loans with fixed rates is some 5 years. If the share of the variable rate is added to fixed loans

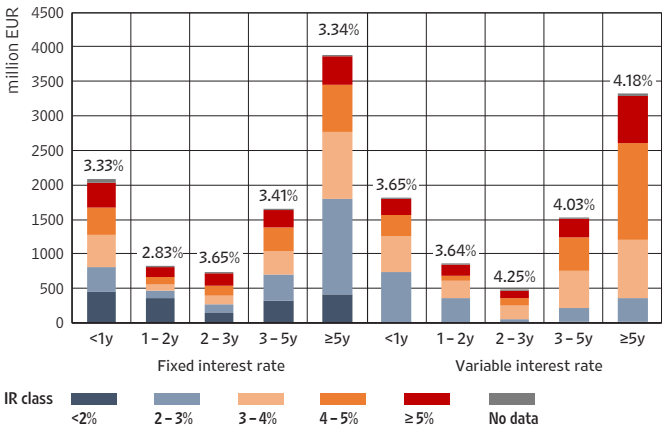
maturing within one year, slightly more than 60% of the overall corporate loan portfolio will be effectively exposed to interest rate risk. Under the scenario of renewed growth of interest rates, enterprises would again be exposed to the growth of financing costs, while those borrowers that contracted loans with fixed interest rates would be faced with a surge in financing costs when attempting to refinance their loans.

Figure C.19 Interest rates on corporate loans in decline since mid-2024



Sources: CNB and ECB.

Figure C.20 Slightly more than a half of corporate loans contracted with fixed interest rates



Notes: The x-axis shows the classes of remaining loan maturity. The value at the top of the column refers to weighted average interest rate at maturity. The data refer to 31 March 2026.
Source: CNB (AnaCredit).

The growth in bank loans to non-financial corporations led to the increase in their financial debt in 2025[10]**.** The total corporate financial debt increased by some 6%, with more than two thirds of this increase being accounted for by loans of domestic banks and the rest by loans of other enterprises (Figure C.21). In contrast, the contributions of foreign funding sources remained negative. Foreign funding sources are more sensitive to changes in global financial conditions and risk perception of individual economies, which makes them less reliable in times of stress. Therefore, the rise in the share of funding from domestic banks may have a stabilising effect since domestic banks are more inclined to maintain credit relationships even in conditions of elevated uncertainty.

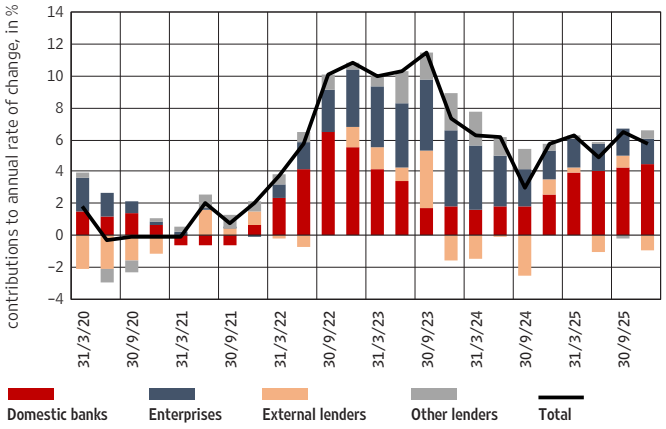
In the context of robust economic activity and elevated inflation, corporate indebtedness continued to decrease in 2025 despite the growth of total debt. Relative indebtedness of non-financial corporations continued to decrease in 2025, primarily amid the strong nominal growth of GDP, with indebtedness decreasing both in the segment of financial and in the segment of non-financial debt. The financial debt/GDP ratio in Croatia is considerably below the euro area average, while the non-financial debt/GDP ratio is much higher (Figure C.23). A higher non-financial debt is partially a structural feature of a small open economy dominated by enterprises from trade and service activities with a limited industrial basis and a lesser

10 Financial debt includes obligations arising from received funds subject to interest payments, while non-financial debt includes obligations arising from payment deferral for goods and services received. Instruments included in financial debt are loans and debt securities, while non-financial debt consists of trade credit and other liabilities to suppliers.

need for long-term external financing, with enterprises from the manufacturing industry also accounting for a sizeable share of liabilities to suppliers.

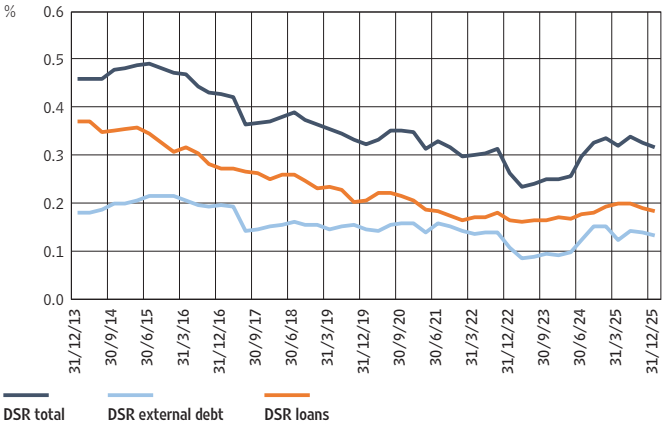
In addition to the decrease in indebtedness, the debt repayment burden of non-financial corporations declined in 2025, primarily thanks to the fall and stabilisation of interest rates and good operating results (Figure C.22). The debt service-to-income ratio[11] of corporates stabilised and decreased slightly in the second half of 2025, following the increase in 2024. The debt burden to foreign creditors remained stable and lower than the debt burden to domestic banks, which started declining in mid-2025 to its historical low. Good business performance of corporations that supports the growth of income and earnings additionally contributes to the decrease in the relative debt repayment burden. The combination of lowered interest rates and favourable business activity in 2025 resulted in the mitigation of liquidity and solvency pressures on corporations when servicing their financial obligations.

Figure C.21 The share of domestic banks in corporate financial debt on the rise



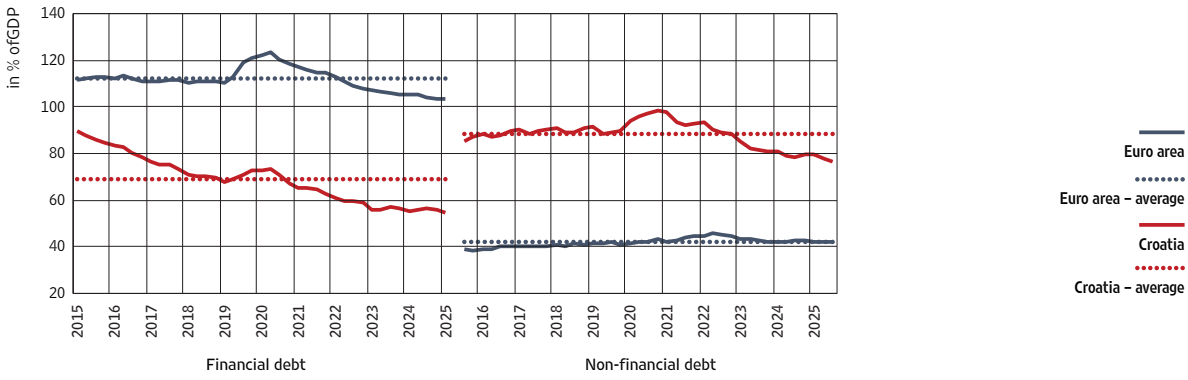
Note: Columns show contributions to the annual growth rate of corporate financial debt (loans and debt securities).
Source: Eurostat.

Figure C.22 Corporate debt repayment burden remains low



Sources: CNB and CBS.

Figure C.23 Indebtedness of non-financial corporate sector continues to decrease



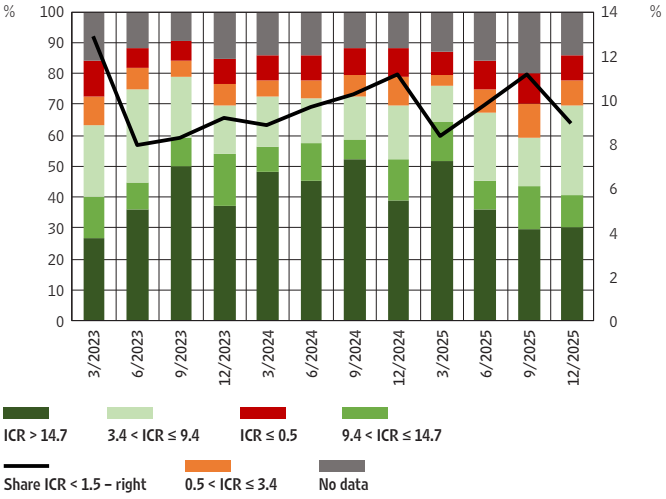
Note: The figure shows the financial and non-financial debt-to-GDP ratio.
Source: Eurostat.

11 Corporate earnings are approximated from the gross operating surplus.

Although lending terms to non-financial corporations in 2025 reflect favourable corporate business performance and a relatively low debt servicing burden, individual indicators suggest gradual credit risk accumulation. Interest coverage ratio (ICR)[12] of newly granted loans remains high, with the share of newly granted corporate loans with ICR value below 1.5 remaining within the range of 10% (Figure C.24). In 2025, the average loan-to-value (LTV) ratio of newly granted loans reached 100%, reflecting lower average coverage of credit placements by physical collateral (Figure C.25). LTV growth was especially pronounced in construction and trade, where loans grew the most. Since these are sectors in which performance is highly sensitive to economic developments, and the values of commercial real estate in which they invest or which they use are closely linked to the possibility of generating profit, elevated LTV levels may represent the easing of lending terms and conditions, and higher credit losses should there be a deterioration in borrower creditworthiness.

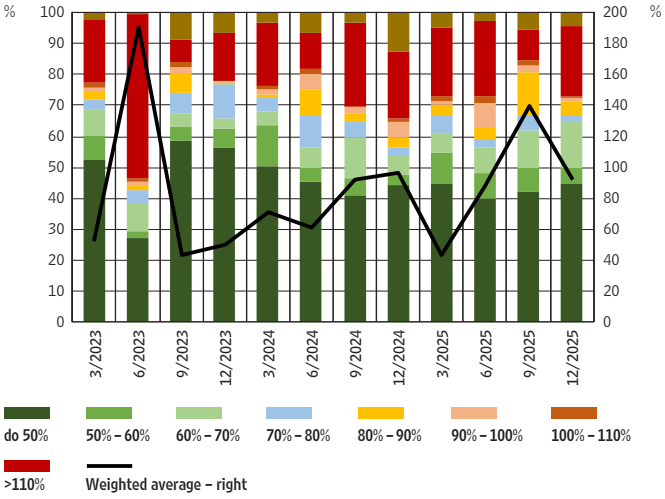
Credit risk indicators for corporate loans amid favourable operating conditions remained low (Figure C.26). The share of non-performing loans remained at some 3%, rising only in the segment of lending to industry. The share of loans with forbearance measures to the energy sector declined significantly, reflecting loan repayments by individual public enterprises in the course of the previous year. In other activities the share of restructuring remained stable and at low levels, with no signs of systemic deterioration in the loan portfolio quality, except for the deterioration in industrial activities.

Figure C.24 Share of newly granted loans to vulnerable corporations remains stable



Notes: The figure shows corporate indebtedness, measured by the debt-to-EBITDA ratio, for enterprises that were granted a new loan in the period shown. The data on corporate debt and EBITDA are obtained from the financial reports for 2023 and 2024.
Sources: CNB and FINA.

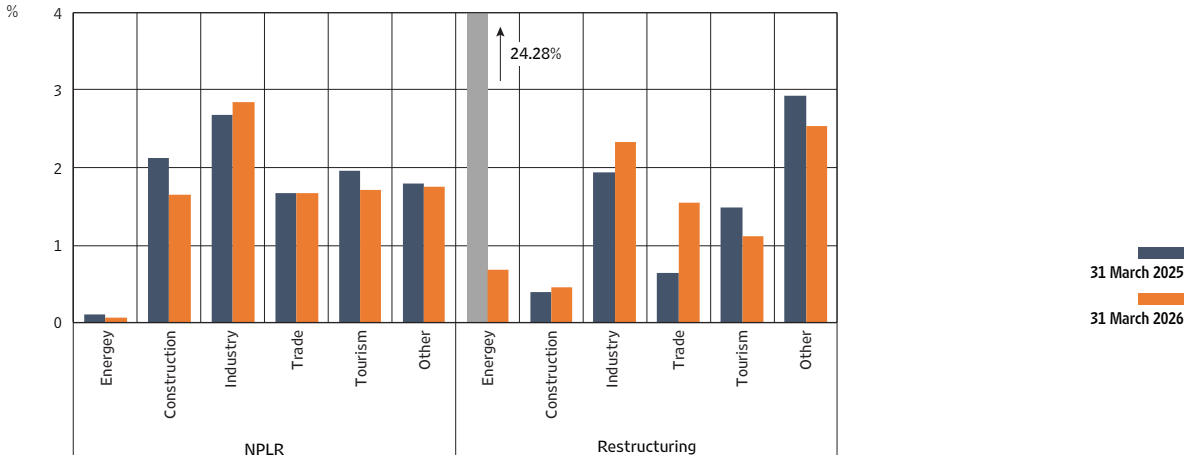
Figure C.25 Coverage of newly granted loans by collateral in the form of real estate goes down



Notes: The calculation of the LTV weighted average is based on the sample of newly granted corporate loans, where the share of the value of collateral in the form of real estate in the total value of collateral is above 10%. In addition, the value of the real estate property must exceed EUR 10,000. The weight for the calculation of the weighted LTV is the amount of newly granted loans.
Source: CNB.

12 The interest coverage ratio measures the ability of an enterprise to cover its interest expenses from operating income.

Figure C.26 The fall in non-performing loans and loans with forbearance measures continued in the past year



Notes: The NPLR is the share of loans in stage 3, that is, those loans that generated loss, in total loans. The forbearance measures include the following types of changes in the loan agreement: instruments with interest rates amended to below market conditions, instruments with other amended conditions, refinancing – full or partial debt refinancing.
Source: CNB.

Risks in the environment are elevated regardless of favourable current developments in the segment of non-financial corporations. The continued upward tendency in the improvement of business results, the fall in relative indebtedness and the decline in the debt repayment burden indicate high corporate sector resilience. However, these indicators need not be a timely signal of deteriorating conditions, especially when there are sudden and strong changes in operating conditions, since they often impact financial indicators with a considerable time lag. At the same time, the acceleration of credit growth in cyclical activities paired with the increase in the share of loans with higher LTVs points to a gradual accumulation of vulnerabilities. These risks are predominantly associated with a possible worsening of macroeconomic conditions, volatility of energy prices due to the war in the Middle East or disturbances in the global supply chains, which would directly jeopardise corporations' business performance and their debt repayment capacity (See Box 2 The effects of energy shocks on non-financial corporate operations).

BOX 2

The effects of energy shocks on non-financial corporate operations

Energy shocks can seriously disrupt corporate operations through price growth and/or decreased availability of energy and thus lead to a rise in credit losses of the banking system. Therefore, at times when access to energy is increasingly more often used as an instrument in geopolitical conflicts, the ability to promptly recognise and quantify energy risks becomes a necessary tool in monitoring risks to financial stability. The susceptibility of enterprises in Croatia to energy shocks and the consequences of these shocks on financial stability can be monitored via analytical tools developed to assess the resilience of corporates and banks to climate risks. The results suggest that a stronger and longer lasting growth of energy prices, especially if followed by disruptions in supply, could additionally reduce corporate operating margins and increase the risk of corporate failure. The strength of this impact depends on the ability of corporations to transfer increased costs to end buyers, their energy intensity and reliance on local, more secure energy sources.

The energy crisis of 2022 demonstrated how strongly geopolitical conflicts can impact the energy market. The effect of the 2022 crisis was mitigated by strong demand which enabled enterprises to transfer the increase in the cost of energy to buyers, as well as by fiscal support. Therefore, it did not test corporate resilience to energy shocks to the full extent. In contrast, energy shocks caused by the war in the Middle East that started at the end of February 2026 potentially constitute shocks with structural consequences as damaged energy infrastructure cannot be quickly repaired.[1] On the positive side, this energy shock unfolded against the backdrop of diversified sources of supply to the EU energy system.[2]

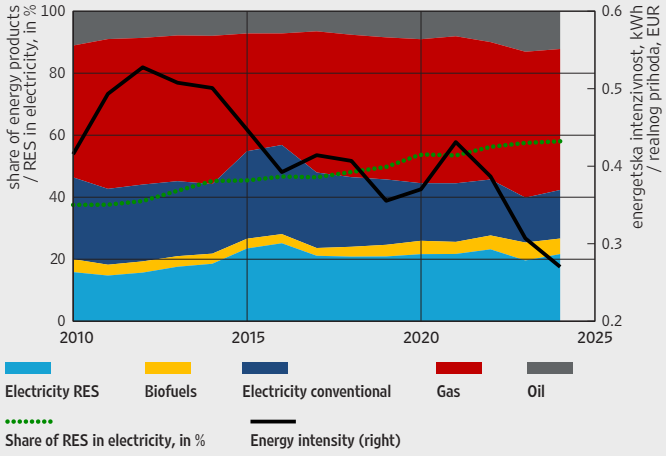
Although the energy intensity of the Croatian economy has been gradually decreasing, it is still dependent on imported fossil fuels, which makes enterprises vulnerable to disturbances in the energy markets. Croatia is characterised by a high share of renewable sources in electricity production (close to three quarters). However, electricity makes up only a third of the total corporate energy consumption, while oil and natural gas, for which there is no commercial substitute available in transport and in industrial processes, continue to account for approximately two thirds (Figure 1). The structural dependency of the economy on energy imports makes enterprises directly exposed to price fluctuations in global wholesale markets. This exposure is quickly transmitted to corporate operations because enterprises are

1 International Energy Agency (IEA) qualified the de facto closing of the Strait of Hormuz and the ensuing damage to the regional infrastructure as the largest disruption in the global oil market in history (The Middle East and Global Energy Markets – Topics – IEA). The war in the Middle East also caused disruptions in the supply of fertilisers and petrochemical products, which is indirectly transferred to food prices and prices of agricultural inputs and additionally exacerbates inflationary pressures.

2 This refers primarily to the diversification in gas supply. See more in the Presentation by Governor Vujčić: Energetski šok 2.0: kakve nam rizike nosi? (Energy shock 2.0: what are the risks?).

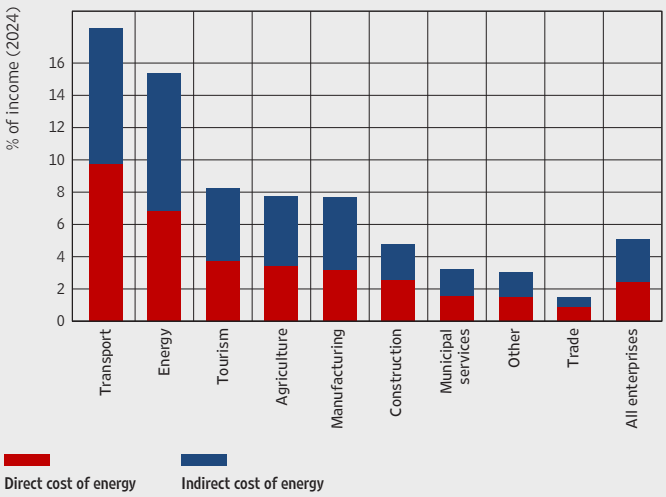
directly exposed to energy prices through the cost of own energy consumption, and indirectly through the cost of energy embedded in the prices of raw materials and services through supply chains. Therefore, the overall energy exposure (both direct and indirect) accounts, on average, for some 5% of revenues, with significant differences across activities (Figure 2).

Figure 1 The corporate energy intensity in Croatia has been continuously decreasing without a significant decrease in fossil fuel reliance



Notes: Energy intensity is calculated as the ratio of total physical energy consumption in (kWh equivalent) and real corporate revenues (deflated by sectoral PPI index). Physical consumption per energy product is derived from the total cost of energy of a company and sectoral shares of individual energy products divided by the appropriate price of an energy product.
Sources: FINA, CBS and Eurostat (Energy mix).

Figure 2 Energy is an important input in corporate operations



Notes: The direct cost of energy is a cost a company pays for energy it purchases and uses in its operation. In contrast, the indirect cost of energy is the one embedded in the prices of raw materials, materials and services a company purchases from its suppliers. The channel is quantified through input-output multipliers from IO tables end for each sector it represents the ratio between the indirect and direct cost of energy. For an average enterprise indirect costs are some 10% higher than direct costs.
Sources: FINA (Direct costs), CBS, Eurostat (IO tables).

The analysis of the impact of energy shocks on corporate operations and financial stability was conducted through the adjustment of the analytical framework for assessment of climate risks[3], drawing on ECB scenarios of varying duration and impact regarding the war in the Middle East and its effects on energy availability and prices.[4] Under the baseline scenario, the developed synthetic price index which encompasses the prices of various energy products used by enterprises in their operations would return to the level from the end of 2025 by 2028, while under the severely adverse scenario even after having normalised to a

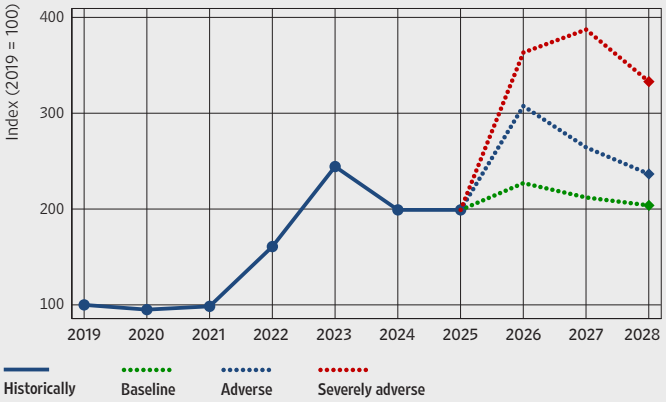
3 The analytical framework for the transition climate risk score which introduces to corporate balance sheets the shock of adjustment to higher prices of CO_2, that increase the costs of corporate operations, may directly be adjusted for the analysis of energy shocks. In that case, the analytical framework and transmission mechanisms remain the same, the only thing that changes is the source of the rise in the prices of energy.

4 In March 2026, the Croatian National Bank (CNB) published its expectations regarding energy prices based on the ECB's macroeconomic projections. These assumptions were also incorporated into the CNB's presentation Energetski šok 2.0: kakve nam rizike nosi? (Energy shock 2.0: what are the risks?)"

4 The analytical framework for the transition climate risk score which introduces to corporate balance sheets the shock of adjustment to higher prices of CO_2, that increase the costs of corporate operations, may directly be adjusted for the analysis of energy shocks. In that case, the analytical framework and transmission mechanisms remain the same, the only thing that changes is the source of the rise in the prices of energy. The analysis assumes that, due to delayed pass-through, long-term contracts, and hedging instruments, energy prices for firms respond more slowly and and gradually than market prices.

degree it would remain approximately 150% higher than in 2025. Thus, the price of oil at the peak of the shock would amount to 150 USD/bbl, and the price of gas some 100 EUR/MWh (Figure 3 and Table 1).

Figure 3 The synthetic energy price index varies differently by scenario



Notes: The synthetic energy price index is calculated as the weighted average of the change in the price of individual energy products, with the weights being determined by the share of each energy product in the total energy consumption of a company from the sample. The index is based on 2019 = 100 and accumulates annual price changes. The assumptions on changes in electricity prices are calibrated according to ECB projections of March 2026, which imply the elasticity of the wholesale electricity prices to the price of gas of some 0.30.
Source: ECB staff macroeconomic projections for the euro area, **March 2026 for scenarios and CBS for the energy mix.**

Table 1 Basic variables per energy scenario (annual rate of change)

	Baseline			Adverse			Severely adverse		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
Oil	+15%	−5%	−5%	+50%	−15%	−10%	+80%	+5%	−15%
Gas	+20%	−10%	−5%	+80%	−20%	−15%	+120%	+10%	−20%
Electri-city	+6%	−3%	−2%	+24%	−6%	−5%	+36%	+3%	−6%

Note: Figure shows the changes in the average annual price of energy.
Source: ECB staff macroeconomic projections for the euro area, **March 2026 for scenarios.**

In order to isolate the effects of energy shocks, the analysis[5] was conducted on static corporate balance sheets, with energy prices being the only difference among the scenarios. The analysis is static so it does not provide for reactions of enterprises or their suppliers or for them substituting energy products. In addition, in reality, substantial disruptions in energy markets would most likely be accompanied by the deceleration in economic activity, that is, decline in corporate revenues, exits of some enterprises from the market and the tightening of financial conditions. Finally, the presented energy scenarios are not comparable to scenarios in the standard stress testing of credit institutions, which additionally includes strong negative and persistent confidence shocks due to changes in sentiment, volatility growth, growth of risk premiums, decrease in asset value and growth of funding costs (see Chapter II.D.1).

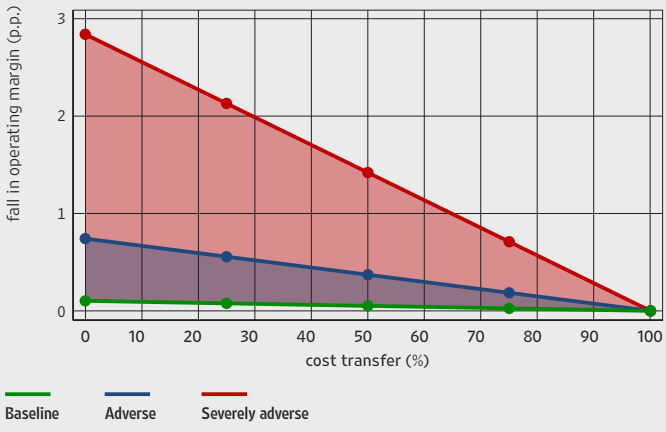
The most significant limitation of the analysis is the assumption that enterprises do not transfer the increase in costs to buyers. By increasing their selling prices in proportion to the rise in energy prices, which many enterprises managed to do after the energy shock of 2022, they can considerably mitigate the shock of energy prices. In reality, most enterprises are somewhere in between these two poles with their ability to transfer costs, in addition to developments in economic activity, that is, demand for products and services, depending on

5 The analysis is based on microdata from the FINA database, which includes annual accounts for 73,017 non-financial corporations in Croatia for the period 2010-2024. The synthetic energy price index, the weighted price shock which reflects the sector energy mix, is calculated for each year of the scenario (2026-2028). The additional cost absorbed by the company is through the indirect channel of growth in the prices of inputs through the supply chain.

a series of factors: market position, product differentiation and structure of agreements with buyers. In periods of strong economic growth, enterprises can transfer costs to buyers more easily because demand is strong. However, in times of recession, they are faced with declining demand and cannot raise prices without losing market shares. The analysis conducted additionally illustrates the susceptibility of corporate operating margins to the degree of cost transfer (Figure 4). Finally, the analysis does not take account of any fiscal support to enterprises, which would make it easier for them to cover energy costs.

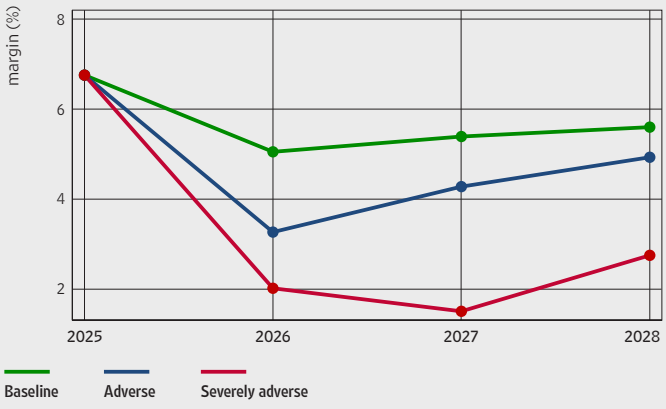
The rise in energy costs described in these scenarios without enterprises adjusting the way they operate would lead to a fall in corporate operating margins and to an increase in the probability of their failure, although they would continue to generate profit. The corporate operating margin decreases under all scenarios, including the baseline scenario, because under the baseline scenario the energy price at the end of the projection horizon remains slightly above the precrisis level (Figure 5). The probability of corporate failure under the adverse and the severely adverse scenario would increase, thus reversing the multi-year downward trend in the risk of corporate insolvencies (Figure 6). Such deterioration in corporate operations would also increase the credit risk for the banking system, which would have an unfavourable impact on corporate operations. However, strong business results in the post-pandemic period have greatly strengthened corporate resilience and the expected moderation in energy prices should provide for renewed recovery of corporate business performance. Therefore, aggregate profitability would remain positive even under a severely adverse scenario and the probability of corporate failure would be lower than in 2019.

Figure 4 The transfer of the increased cost of energy to buyers would mitigate the estimated effects of decline in operating margin



Note: The figure shows the susceptibility of the corporate operating margin on energy price shocks under three scenarios at the end of a three-year horizon.
Source: CNB calculations (FINA data and ECB data).

Figure 5 After declining in 2026, corporate operating margins would start to recover

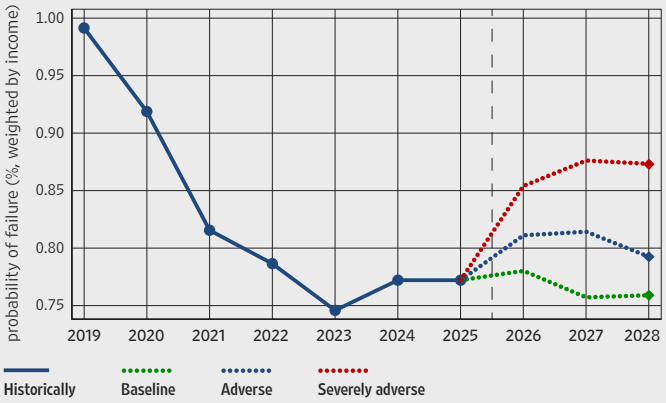


Note: The operating margin is calculated as calculated as the ratio of operating profit to net sales revenue weighted by corporate revenues.
Source: CNB calculations (FINA data and ECB data).

Against the backdrop of possible stronger geopolitical disturbances, it is the physical availability of energy products that might be diminished, which represents a much more dangerous scenario for enterprises than the increase in energy prices. Further conflict escalation, including long-term interruption of key transport routes or destruction of production infrastructure might lead to consumption rationing or physical interruptions in supply.

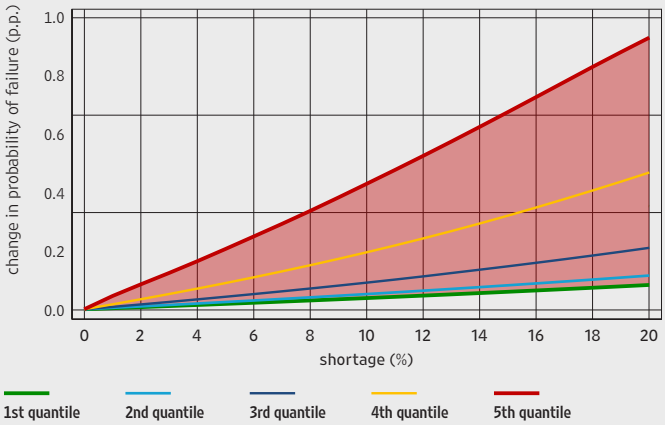
Damage to energy infrastructure which requires repairs lasting months or even years also points to the increase in this risk.[6] The reduced availability of energy as a production input would lead to a fall in the volume of operations paired with unchanged fixed costs, which would additionally reduce the operating margin and increase the risk of corporate failure (Figure 7). The most vulnerable are enterprises with high shares of fixed costs (high operating leverage) and high energy intensity because they are exposed at the same time to the price channel (rise in energy prices) and to the quantitative channel (effect of operating leverage).

Figure 6 Developments in the probability of corporate failure, by scenario



Notes: The probability of failure for each company is assessed by a logistic regression model estimated on FINA data for the period 2010-2024. The model uses three financial ratios (profitability, indebtedness and size) and sectoral fixed effects. Failure is defined as capital loss.
Source: CNB calculations.

Figure 7 Impact of possible energy shortages on the probability of corporate failure per quantile of operating leverage



Notes: The shortage on x-axis is the hypothetical shortage of the average energy product that causes the proportional decline in business activity. The channel of energy shortage is included via the operating leverage under the assumption that the shortage of necessary energy by X% causes a contraction in activity of X%. When the company needs to reduce production by X%, revenues and variable expenses decline by X%, fixed costs remain unchanged. Consequently, there is a fall in operating profit. In this analysis material costs (including energy) and a half of costs of external services are considered variable, while other costs are considered fixed.
Source: CNB calculations (FINA data).

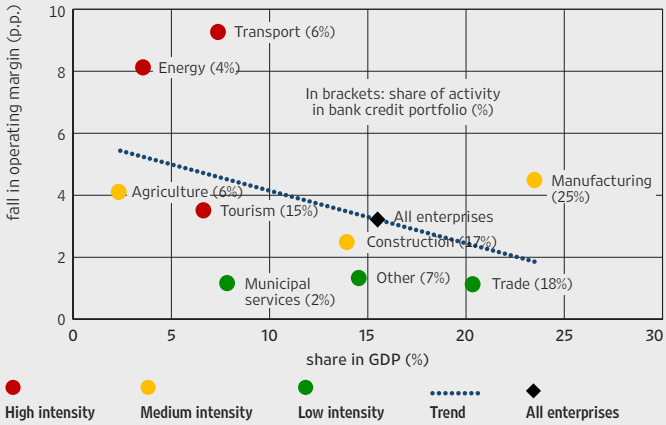
The effect of energy shocks on enterprises in different activities is exceptionally heterogeneous and dependent on the energy intensity of an individual activity. Energy intensive activities of transport and energy are the most vulnerable sectors with the decline in operating margin of 8-10 percentage points under the severely adverse scenario. However, their share in gross value added, as well as in bank loans, is relatively low. In contrast, trade as an activity with a higher share in GVA and in bank loans is less energy intensive so the fall in earnings would be lower in this sector. Manufacturing industry occupies a special place because it, at the same time, accounts for the greatest share in GVA and in corporate loans (some 23% and 25% respectively) and is characterised by a moderately high energy intensity, which makes it the most significant channel of transfer of the energy shock to the overall economic activity and banks (Figure 8).

The reduction in the susceptibility of the economy to described energy shocks is possible through activities at the economic policy level and at the level of enterprises themselves. Corporate vulnerability to geopolitical energy shocks is determined by the same factors

6 The current difference between the spot and futures energy prices (backwardation) signalises that market participants expect supply disruptions to continue.

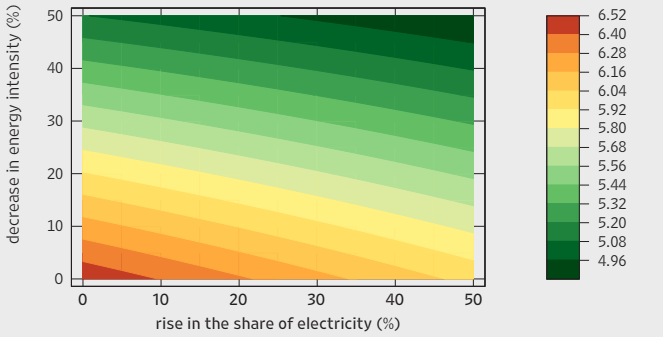
as exposure to transition climate risk: dependence on fossil fuels, energy intensity and the structure of the energy mix. Therefore, key steps at economic policy level are the diversification of energy supply sources and the development of domestic production capacities from renewable sources, that is, investment in energy infrastructure. At the level of enterprises themselves, the most efficient protection is to decrease energy intensity by investing in energy efficiency and productivity, and by transitioning to the local, cleaner and at the same time more predictable energy mix (Figure 9).

Figure 8 Enterprises from economically more significant activities are less susceptible to energy shocks



Notes: The figure shows the effects of the severely adverse scenario of the rise in energy prices on operating margin. Activities are classified in three groups by terciles of average energy intensity: high (red), medium (orange) and low (green). The number next to the activity code shows the share of the activity in the loan portfolio.
Source: CNB calculations (FINA data).

Figure 9 Negative effects of growth in energy prices may be mitigated by reduction of energy intensity and greater reliance on electricity



Notes: The figure shows a counterfactual analysis of the benefits of energy transition under the severely adverse scenario of the rise in energy prices in the form of a smaller fall in the operating margin. The benefits of electrification come from the fact that the price of electricity has been rising more slowly than the price of gas (the applied elasticity of the electricity price to the gas price amounts to 0.30 according to ECB projections of March 2026) and that domestic production is characterised by a large share of renewable sources, which reduces dependence on imports and imported shocks.
Source: CNB calculations (FINA data).

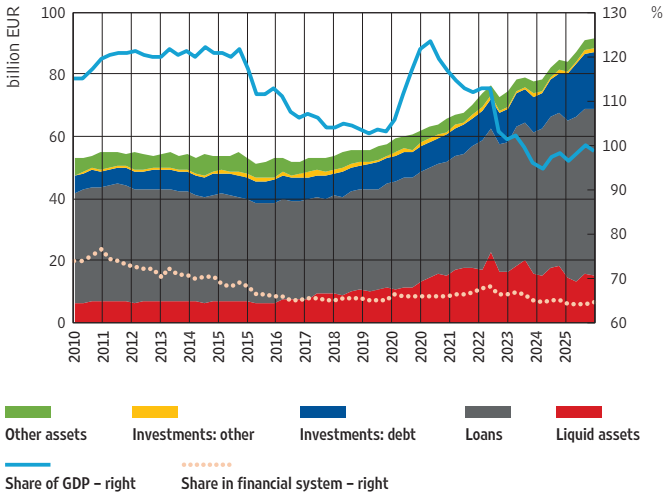
D Risks to credit institutions' operations

Banking system profitability, based on a still high interest margin and a low materialised credit risk remained at high levels in 2025. Although the decline in market interest rates has narrowed net interest margin, this fall has been almost completely offset by strong lending to the private non-financial sector and the accelerated accumulation of government debt securities. At the same time, resilience to disruptions is gradually weakening and key vulnerabilities stem precisely from banks' business decisions. Credit growth is largely directed at unsecured consumer loans and corporate loans from cyclical activities, which historically record higher default rates and pronounced sensitivity to worsening macroeconomic conditions. In parallel, the extension of the maturity of assets alongside predominantly short-term liabilities deepens the sensitivity to interest rate risk, while the growing concentration of large depositors and heightened sensitivity of sight deposits in the era of banking digitalisation bring liquidity risk back into focus. Capital adequacy ratio is gradually decreasing, reflecting a strong growth in assets and high dividend payouts. Although capitalisation remains adequate, capital surpluses above regulatory requirements are among the lowest in the euro area, which narrows the room for the absorption of sudden shocks and may weaken the propensity to lend to the economy, exacerbating a potential contraction.

D.1 Risks in assets

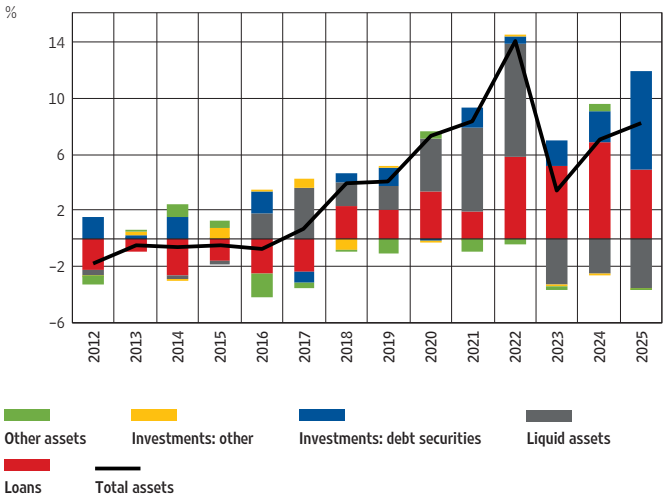
The growth of bank assets, driven by lending to the private non-financial sector and purchase of debt securities, increases the exposure to interest rate risk and fuels the accumulation of credit risk. In 2025, the assets of credit institutions increased by 8.2% and reached over EUR 91bn. The assets to GDP ratio stagnated at around 100%, and the share of the banking sector in the financial system continued to decline due to the stronger growth of pension funds and other non-bank financial institutions (see Box 4 Systemic risks arising from linkages between banks and non-bank financial institutions, Figure D.1). The largest contribution to the growth in assets was attributed to government debt securities and loans to the private sector, with the shift towards more yield-attractive forms of assets reflecting banks' efforts to position themselves at the longer end of the yield curve after monetary policy easing had reduced yields on overnight deposits with the central bank. At the same time, a structural shift of assets towards long-term placements with fixed interest rates continued, alongside a fast expansion in riskier credit segments, primarily in unsecured consumer loans and corporate loans from cyclically sensitive activities. Such trends simultaneously deepened the exposure to interest rate risk and accumulated hidden credit risk. In parallel, the share of liquid assets decreased from 21.4% to 16.6%, mainly by reserves with the central bank being cut by almost EUR 3bn (Figure D.2); this partly reflected more intensive investment in foreign debt securities, and was largely due to the worsening of the external position amid a widening of the current and capital account deficit.

Figure D.1 Despite the growth in banks' assets, their share in the financial system stagnates



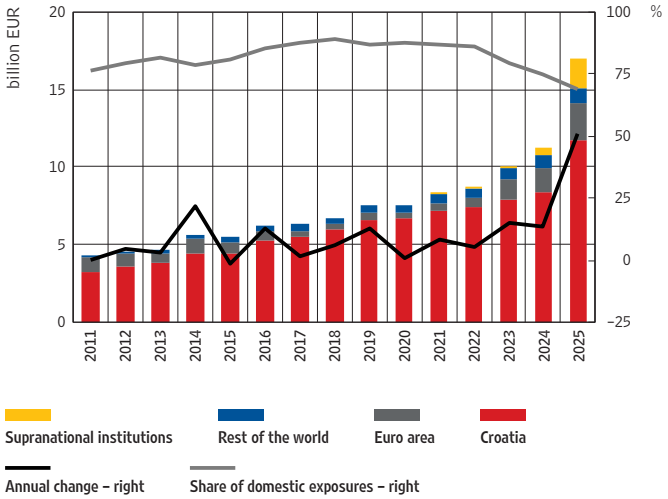
Source: CNB.

Figure D.2 The largest contribution to asset growth comes from debt securities and loans



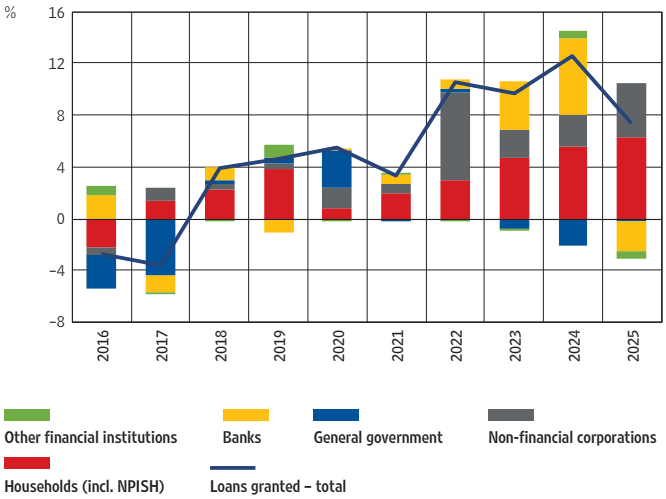
Note: The figure shows the annual rate of change in asset components.
Source: CNB.

Figure D.3 Investments in government securities reach record levels amid a gradual reduction in domestic bias



Source: CNB.

Figure D.4 Loans to the private sector are growing strongly while interbank lending is decreasing



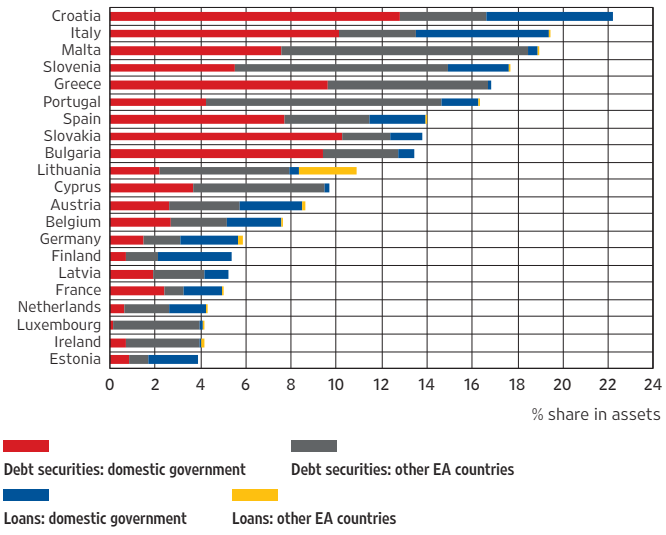
Note: The figure shows the annual rate of change in the components of granted loans.
Source: CNB.

The growth in assets is largely reflected in increased investments in government debt securities and loans to the private non-financial sector. The exposure of banks to domestic government debt increased to EUR 11.7bn during 2025 (Figure D.3), and accounted for 12.7% of total assets (from 9.9% at the end of 2024), representing the historic maximum of 127% of common equity tier 1 (CET1) capital. At the same time, loans to the private non-financial sector increased by 13.7%, an acceleration of the pace from 2024, to which households contributed 8.2 percentage points and non-financial corporations 5.5 percentage points. The decline in the growth rate of total loans from 12.5% in 2024 to 7.4% in 2025 exclusively reflected a decrease in interbank lending and loans to non-bank financial institutions (Figure D.4). The rise in risks

associated with the accelerated lending to the private non-financial sector prompted the CNB to further raise the countercyclical capital buffer and to introduce restrictions on household lending (see Chapter III).

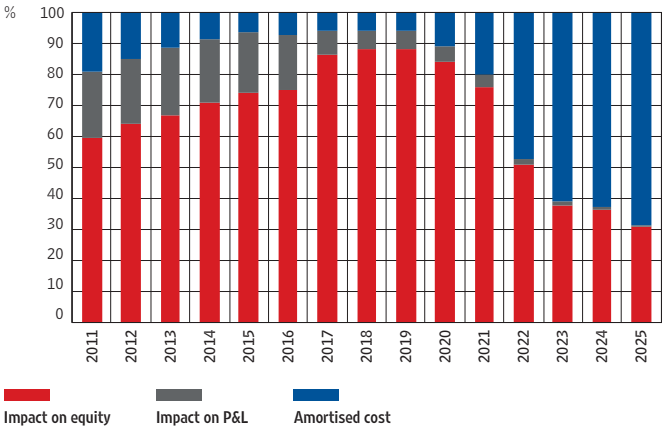
A sharp rise in investment in government debt securities makes the Croatian banking system the most exposed to sovereigns in the euro area, while simultaneously deepening interest rate risk and the risk of the banking-sovereign nexus. Government bonds offer a relatively stable yield alongside favourable regulatory treatment, zero risk weight and the status of high-quality liquid assets[13], which has boosted their growth in banks' portfolios. However, it is precisely this preferential regulatory treatment that simultaneously dulls the signal about the risks such exposures introduce to the balance sheet. Total exposure to the general government (including loans and debt securities) exceeds 21% of assets, the highest among euro area countries (Figure D.5). Although the share of domestic issues in the debt securities portfolio has decreased from 75% to 69%, this diversification effect has been outweighed by the absolute growth in domestic exposures. An additional vulnerability is introduced by the accounting treatment: the growing portion of the portfolio classified at amortised cost, which at the end of 2025 accounted for almost 70%, is not revalued to market movements. Therefore, unrealised losses from the increase in the yield are not included in CET1 capital and are not reflected in the profit and loss account, which creates a discrepancy between the regulatory and economic resilience measure amid a more significant rise in yields and decreases portfolio management flexibility (Figure D.6).

Figure D.5 Exposure of banks in Croatia to the general government is the highest in the euro area



Note: The figure shows the exposure of the banking system to the general government as the share in total assets, broken down by debt securities and loans and by issuer country (domestic government and other euro area countries).
Sources: CNB and ECB CBD2.

Figure D.6 Shift towards amortised cost reduces sensitivity to market fluctuations in interest rates

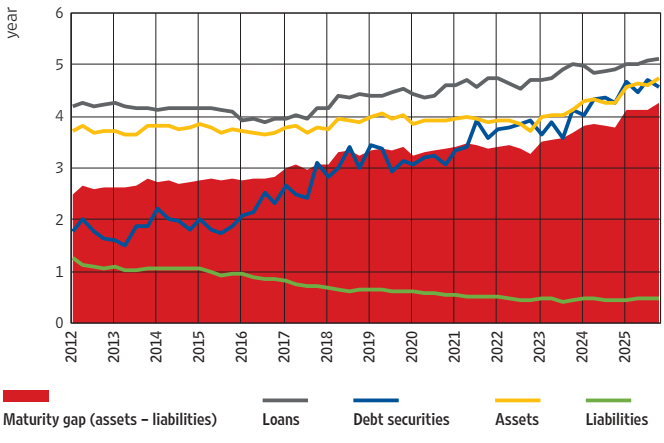


Notes: The figure shows the structure of the debt securities portfolio of credit institutions according to accounting classification. The "Impact on equity" refers to instruments classified at fair value through other comprehensive income (FVOCI), the "Impact on P&L" to instruments at fair value through profit or loss (FVPL) and "Amortised cost" to held-to-maturity instruments.
Source: CNB.

13 High-quality liquid assets (HQLA) is a category prescribed by the CRR intended for the coverage of net outflows in a stressed 30-day period. Domestic government bonds are classified as HQLA Level 1, without the application of impairment.

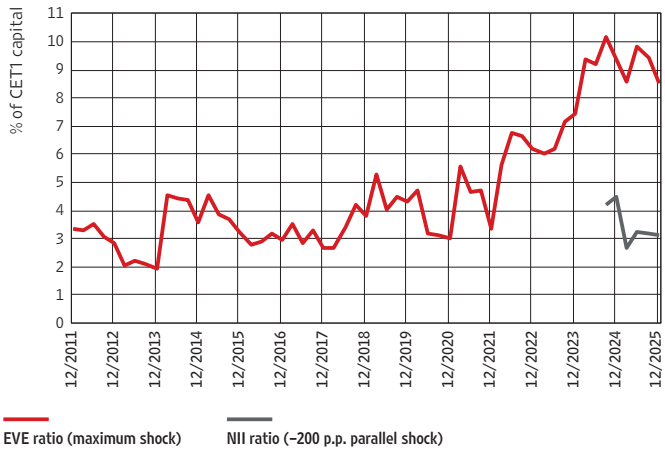
Despite the favourable impact on profitability due to the steepening yield curve, the widening of the maturity gap leads to an increased sensitivity of the economic value of equity to interest rate shocks. The strong growth in long-term assets (housing loans, government debt securities), alongside predominantly short-term liabilities, has widened the maturity gap (the difference between the average remaining maturity of assets and liabilities) from around 3 years at the end of 2022 to over 4.5 years at the end of 2025 (Figure D.7). Thus, the sensitivity of the economic value of equity to rising interest rates in the past three years almost doubled, making interest rate risk in the banking book one of the key vulnerabilities of the system. Namely, if there were a hypothetical parallel increase in the market curve by two percentage points, the economic value of banks' equity would decrease by 8.5% of the CET1 capital. Such a trajectory reflects the decline in the discounted present value of the growing segment of long-term loans and bonds with fixed interest rates. The reverse downside scenario, the decline in interest rates of the same size (2 p.p.) in the first year, would reduce net interest income by 3.4% (Figure D.8).

Figure D.7 Growth in loans and debt securities leads to maturity gap widening



Note: The figure shows the average remaining maturity of assets and liabilities and the resulting maturity gap (assets minus liabilities) of credit institutions.
Source: CNB.

Figure D.8 Sensitivity of the economic value of equity to interest rate shocks is elevated

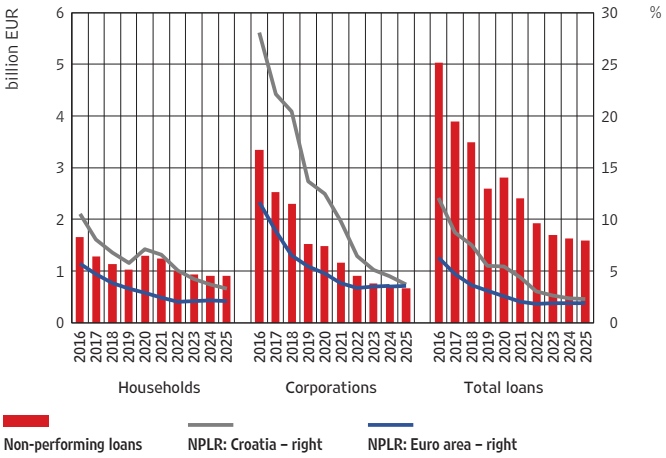


Notes: The EVE ratio shows the decrease in the economic value of equity in the interest rate shock scenario (increase by 200 p.p., with the parallel curve shift) as a share in the CET1 capital. The NII ratio shows the decrease in net interest income in the scenario of a parallel decline in interest rates of 200 basis points according to the current level.
Source: CNB.

In 2025, the quality of bank loans increased further and the share of non-performing loans (NPLs) dropped to 2.3% and was closer to the euro area average (Figure D.9). The share of NPLs decreased in both household loans and loans to non-financial corporations, however, the dynamics behind those movements was essentially different. In the case of loans to non-financial corporations, the ratio improved simultaneously with the nominal decline in non-performing exposures and growth in the credit portfolio, while among household loans the improvement in the ratio was exclusively the consequence of the strong credit expansion. **A similar pattern is also evident in restructured exposures, the share of which declined in the course of 2025, in particular in the corporate segment.** The combined indicator, which in addition to non-performing exposures also included performing restructured exposures (identified difficult repayment capacity) decreased from 4.6% to 3.5% in 2025 at the level of

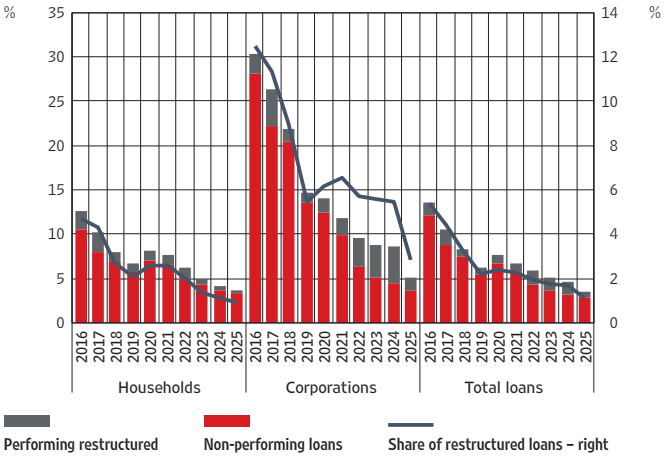
total credit portfolio, specifically from 8.5% to 5.2% for corporate loans (Figure D.10). Improvement in the quality of corporate loans is widespread by activity. The most pronounced decrease in the NPL ratio from the end of 2022 was achieved in transportation and storage, administrative services and accommodation, while a slight increase was observed in water supply, mining and agriculture (Figure D.11).

Figure D.9 The continued decline in the share of non-performing loans has brought it closer to the euro area average



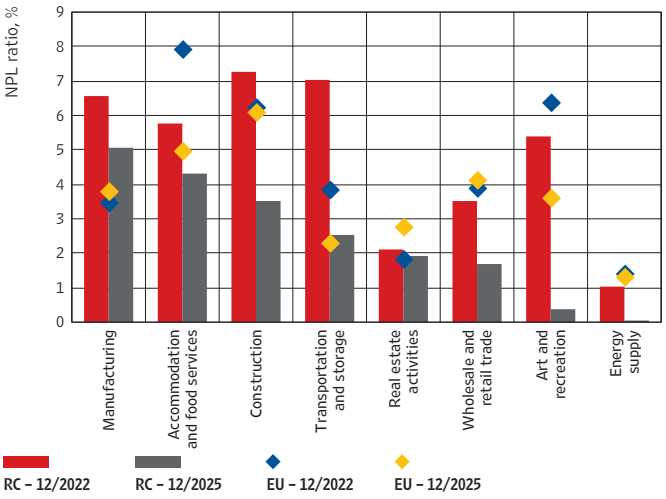
Note: NPLR is the share of non-performing loans in total loans.
Sources: CNB and ECB CBD2.

Figure D.10 The share of restructured loans continues to decline, with the most pronounced decrease in the corporate segment



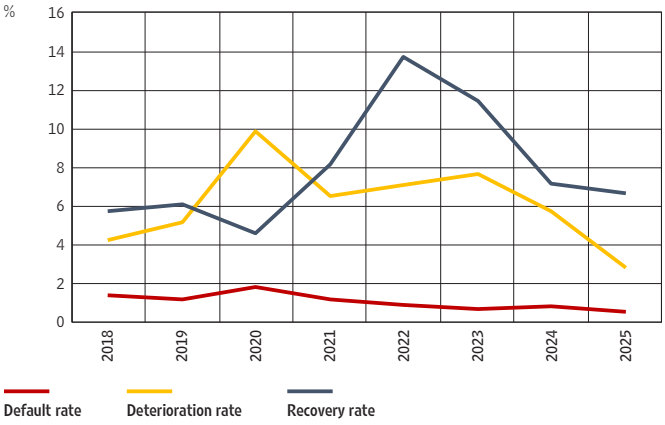
Notes: The bars show the share of non-performing loans (red) and performing restructured loans (yellow), whose sum accounts for the total quality indicator. The line (right axis) shows the share of restructured loans in total loans to each sector (forbearance ratio), which covers total restructured loans irrespective of the classification in stages under IFRS 9.
Source: CNB.

Figure D.11 With the exception of the manufacturing industry, the share of corporate non-performing loans by activity is predominantly below the European average



Note: The NPL ratio is the share of non-performing loans in total loans by activity, according to the NACE classification.
Source: EBA RiskDashboard.

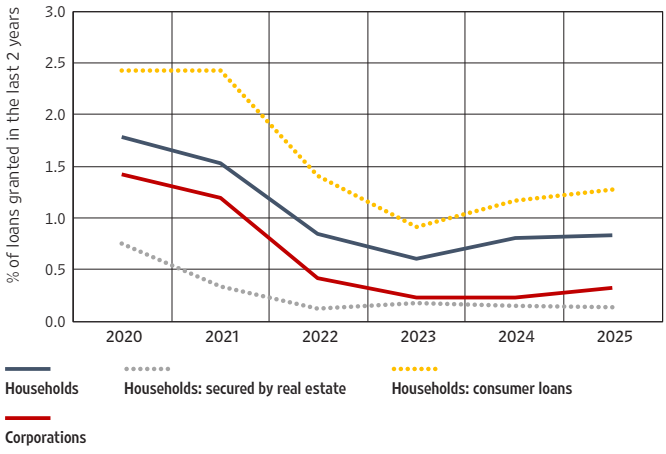
Figure D.12 Dynamics of loan quality transitions: decline in deteriorations alongside a marked slowdown in recovery



Notes: The default rate measures the share of exposures that have become non-performing, i.e. transitioned to stage 3 from stage 1 or stage 2. The deterioration rate covers all exposures to which loan quality has deteriorated, including transitions from stage 1 to stage 2 or stage 3 and from stage 2 to stage 3. The recovery rate covers exposures whose status has improved, i.e. those that have returned from stage 2 or stage 3 to a more favourable stage. All rates are expressed as a percentage of the initial level of the respective stage on a gross basis.
Source: CNB.

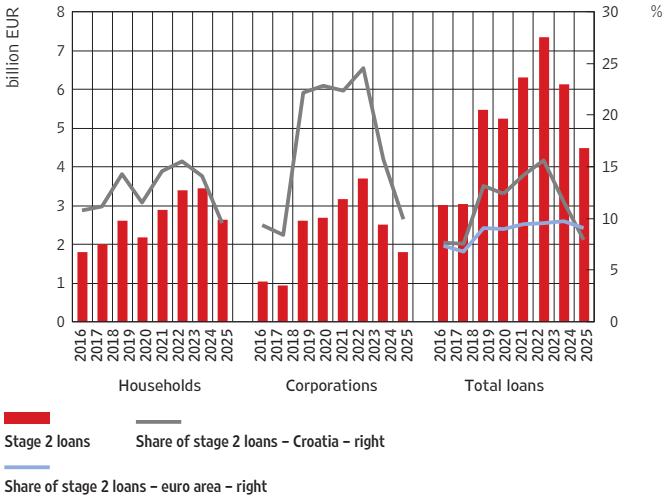
Credit quality has reached the level at which further improvement is structurally decelerating, leaving banks' balance sheets more sensitive to a reversal of the cycle. The default entry rate, which measures the share of performing exposures that transitioned to the non-performing category during the year, fell to 0.54% in 2025, its lowest level since the introduction of IFRS 9. Migrations in both directions slowed down simultaneously; the deterioration rate halved to 2.4% and the recovery rate continued to decline slightly and stood at 5.4%, primarily reflecting a reduced base of riskier exposures (Figure D.12). Despite those favourable aggregate indicators, for the second consecutive year the share of non-performing exposures among loans granted over the past two years has increased, that is, the quality of more recently granted loans is lower. This share in new household loans increased from 0.61% in 2023 to 0.83% in 2025, and in new corporate loans it increased from 0.23% to 0.32% in the same period (Figure D.13). The share of exposures with increased credit risk (stage 2) fell from 11.7% to 7.9%, falling below 10% for the first time since 2022, partly also due to the reclassification of a large energy sector company back to stage 1 following the improvement in its credit profile (Figure D.14).

Figure D.13 Default rates of new loans are rising, with household consumer loans under the strongest pressure



Note: The figure shows the default rate, defined as the share of loans that have migrated into the non-performing category over the past two years relative to the total loans granted in the same period.
Source: CNB.

Figure D.14 The share of stage 2 loans fell below that in the euro area, accompanied by a simultaneous decline in the nominal amount across all segments



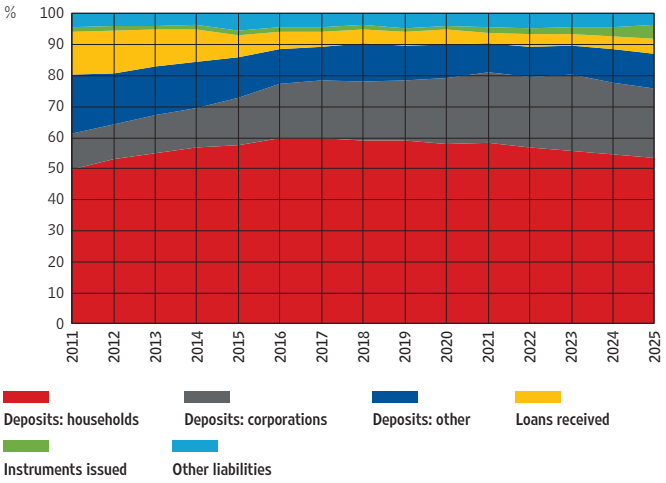
Sources: CNB and EBA RiskDashboard.

D.2 Risks in funding sources

The growth of banks' liabilities remains based on household deposits, while issued debt instruments are recording significant growth (Figure D.15). Received deposits increased by 7.6%, with the largest contribution made by household deposits, in addition to the strongest increase in the deposits of non-financial corporations in the past three years. The increase in private sector deposits was driven by the continuation of a strong credit expansion, where a larger part naturally returned to the banking system in the form of deposits and positive net inflows from abroad. However, the share of market-based financing instruments (issued

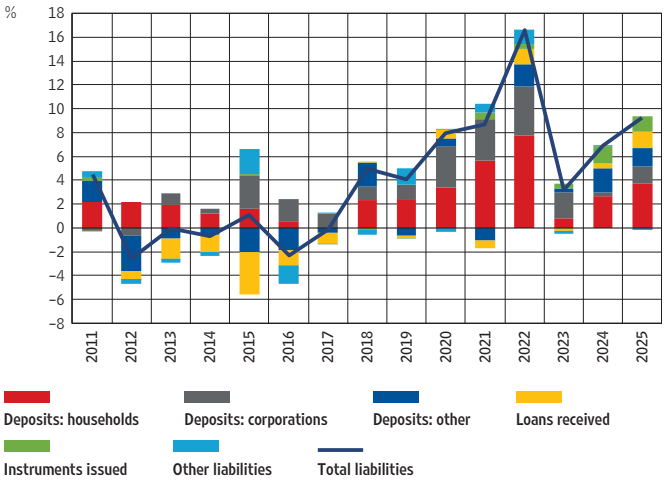
debt securities, loans received from parent institutions) is simultaneously increasing, which reflects the build-up of MREL capacity and the gradual expansion of the structure of funding sources in accordance with regulatory requirements (Figure D.16). Although the liability side of the balance sheet predominantly relies on granular household deposits, several sources of vulnerability are being built beneath aggregate stability. Market-based financing instruments carry two types of vulnerability depending on the source: funding from parent institutions creates intra-group concentration, with both refinancing conditions and its availability becoming dependent on the credit profile of the whole group, whereas funding from external investors introduces market procyclicality as risk premiums rise and market access narrows during stress periods.

Figure D.15 The structure of bank funding is stable with a gradual growth of market instruments



Source: CNB.

Figure D.16 Household deposits remain the main source of growth of liabilities, alongside the increase in issued securities

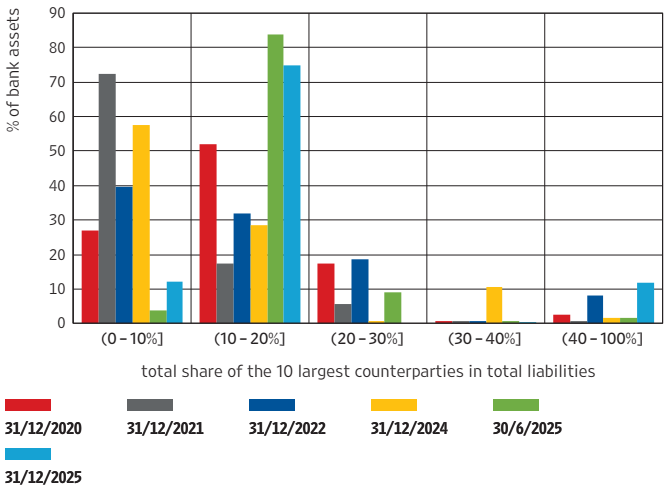


Source: CNB.

Concentration grows in the structure of liabilities in the wholesale segment, which increases liquidity risk. Although the high granularity of household deposits and a significant share of secured funds continued to act as key buffers, deposit base concentration was only rising in the segment of legal persons: the share of the ten largest counterparties in total liabilities increased from around 11% at the end of 2023 to 16% at the end of 2025, while the deposit base of natural persons remained highly granulated. At the same time, the share of covered deposits in total liabilities decreased to 56% from 60%, reflecting precisely the faster growth of large depositors (Figure D.17). Additional vulnerability is evident in the segment of deposits of non-financial corporations, where in the past two years the number of banks outside the circle of other systematically important institutions (OSIIs) increased. At the same time they were heavily dependent on corporate deposits with a high concentration among a small number of depositors (Figure D.18). The potential withdrawal of funds of several large counterparties, in particular uncovered deposits that under stress conditions show a greater propensity to flee, could in the short term cause liquidity pressure. Combined with a widespread availability of digital channels which in a stress scenario can accelerate outflows, those vulnerabilities emphasise the importance of maintaining adequate liquidity

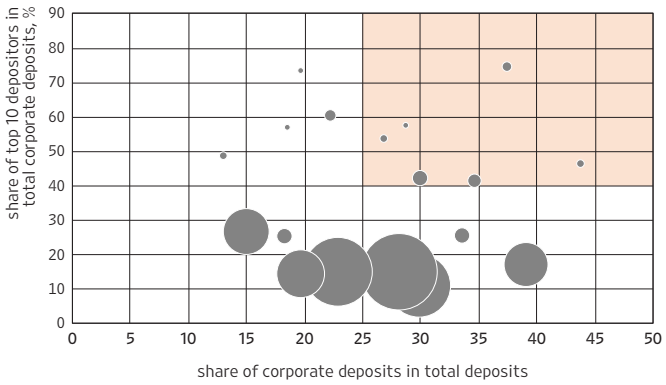
reserves (see Chapter II.B). Alongside concentration by sources, the reliance on transaction or overnight deposits is strengthening again. The growth of the liability side continued to rely predominantly on sight deposits, the share of which remained elevated when compared with the period preceding the ECB's monetary policy tightening in 2022.

Figure D.17 Concentration of funding sources is growing



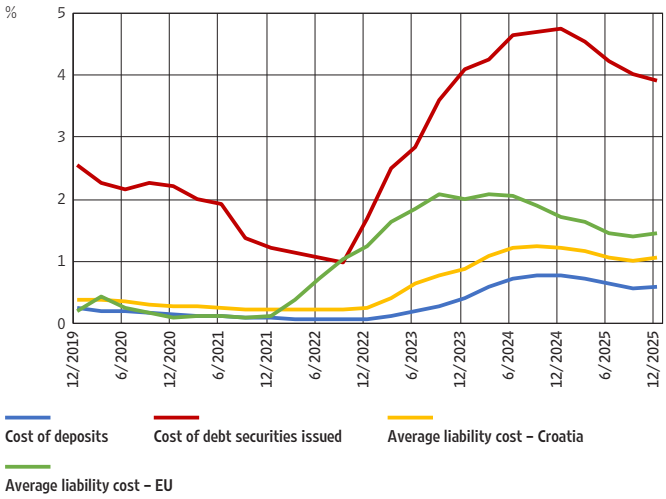
Source: CNB.

Figure D.18 Some banks are exposed to a small number of corporate depositors



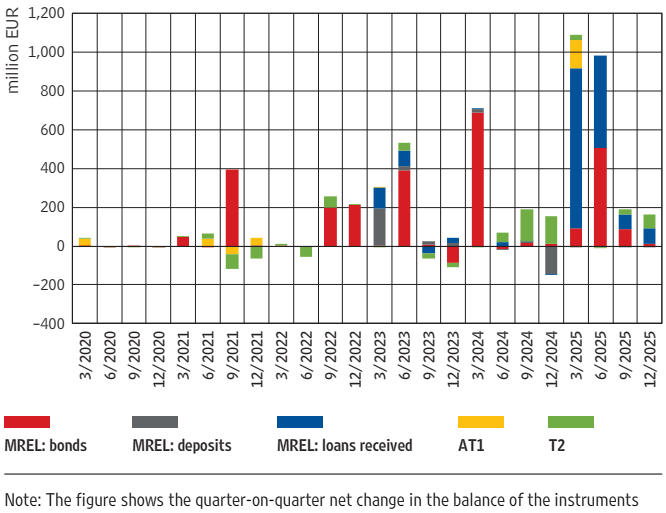
Note: Banks with dual vulnerability are marked in the top right highlighted quadrant: high reliance on corporate deposits (> 25%) and high concentration among large depositors (> 40%).
Source: CNB.

Figure D.19 The cost of funding held steady at the lower level



Notes: The figure shows the implicit interest rate on credit institutions' liabilities and its main components, calculated as the ratio of interest expenditure and the average stock of liabilities. The dashed line shows the average marginal cost of funding of euro area banks (weighted cost of deposits and bonds, based on the ICE BofA Euro Banking Index).
Sources: CNB and ECB CBD2.

Figure D.20 The fulfilment of MREL capacity increasingly relies on intra-group financing with the emergence of AT1 instruments



Note: The figure shows the quarter-on-quarter net change in the balance of the instruments broken down by the instruments to MREL eligible instruments: AT1 – additional tier 1 capital instruments and T2 – t2 instruments.
Source: CNB.

The cost of funding completed the full cycle and reached its peak in mid-2024 and then gradually declined in the course of 2025 (Figure D.19). The total cost of liabilities fell from a cyclical peak of 1.25% in mid-2024 to around 1% at the end of 2025, mostly following the

dynamics of the ECB's key interest rates. Interest rates on deposits, accounting for the largest portion of liabilities, changed only moderately, considering the high share of transaction deposits in the deposit base, alongside the only limited transmission of the ECB's key interest rates to deposit rates in Croatia, as compared with other euro area member states. The largest cost adjustments, both in the upward and in the downward phase, occurred in interest rates on debt securities and loans from parent institutions. The average interest rate on debt securities reached almost 4.8% at the end of 2024, simultaneously with the peak in the yield on Croatian government bonds in the secondary market, before it began to ease in 2025. This rate reflects the total cost of the MREL capacity build-up, whereas the legal form of the instrument is secondary[14]: as a rule, interest rate conditions for received loans or deposits from parent banks and for bond issues have a similar trajectory because they all adapt to the same market benchmark.

The building up of the MREL capacity accelerated strongly in 2025. It largely referred to intra group bank funding in resolution strategies with a uniform approach. The amount of eligible liabilities at the end of 2025 increased considerably from the end of 2024, mostly owing to the rise in loans received from parent institutions and the continuation of the emissions of MREL eligible bonds, predominantly subscribed by parent companies. In parallel, banks issued considerable amounts of additional tier 1 capital (AT1) and rescheduled and increased the amount of tier 2 capital (T2) (Figure D.20). In those issues, too, the subscribers were their parent companies. Although, as a rule, MREL instruments are contracted under market conditions, almost all issues end up within the group, so that real access to the external market has not been tested yet. Therefore, the standard market procyclicality is not the dominant risk in this stage, it is the intra-group concentration in which refinancing conditions of banks in Croatia become dependent on the credit profile of the entire banking group. Market procyclicality remains a latent risk that would materialise only in the case of actual refinancing with external investors.

14 The reason is in the arm's length principle, according to which the parent institution agrees the financing of its subsidiary under the conditions comparable to those that would be in place between unrelated parties, so that, in practice, the internal MREL follows the market movement of yields on the issuance of MREL debt securities.

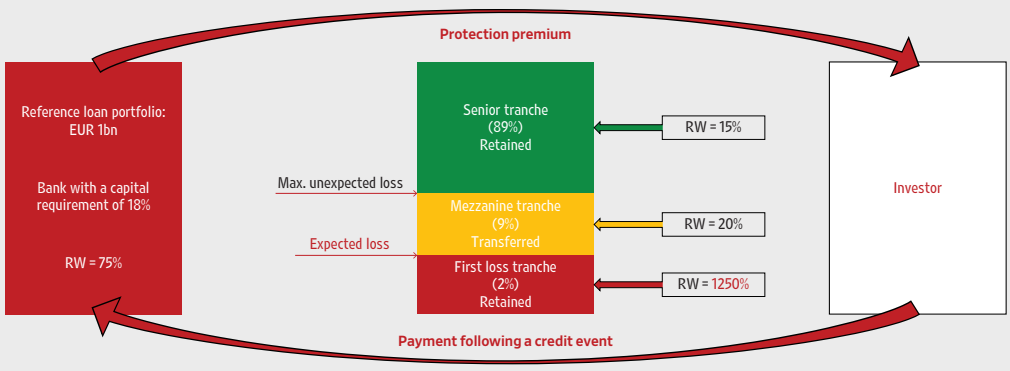
BOX 3

Synthetic securitisation and risks to financial stability

Synthetic securitisation allows banks to transfer credit risk to investors without selling the assets themselves, thereby releasing own funds and increasing the capacity for further lending as well as reducing capital requirements. This market is growing sharply in the European Union. Despite the short history of its application since 2022, Croatia is already slightly above the EU average according to the share of securitised exposures in risk-weighted assets. Although the regulatory framework was considerably strengthened after the global financial crisis, the rise in synthetic securitisations made key systemic risks topical again, in particular with regard to procyclicality, the risk of the renewal of transactions, investor concentration and the potential impact on credit standards and monetary policy transmission.

Securitisation is the procedure of issuing a portion of the banks' portfolio with similar characteristics and issuing marketable securities backed by the expected cash flows from that portfolio, thereby transferring the credit risk to investors and consequently reducing the base for the calculation of capital requirements (Figure 1). In true sale exposures are extracted from the bank's balance sheet and transferred to a special purpose vehicle (SPV), which issues securities to investors, while in the case of synthetic securitisation exposures remain in the balance sheet and only the credit risk is transferred through credit derivatives or guarantees. Securitisation can contribute to a more efficient capital allocation, management of credit risk concentrations and development of the capital market. At the same time, however, it weakens the incentives for diligent lending, makes risk assessment more difficult and allows for regulatory arbitrage. Synthetic securitisation also brings counterparty exposure in hedging instruments and a more demanding regulatory monitoring. In European practice, standard securitisation is dominant in housing loan portfolios, and synthetic securitisation in corporate loan portfolios.

Figure 1 Example of synthetic securitisation

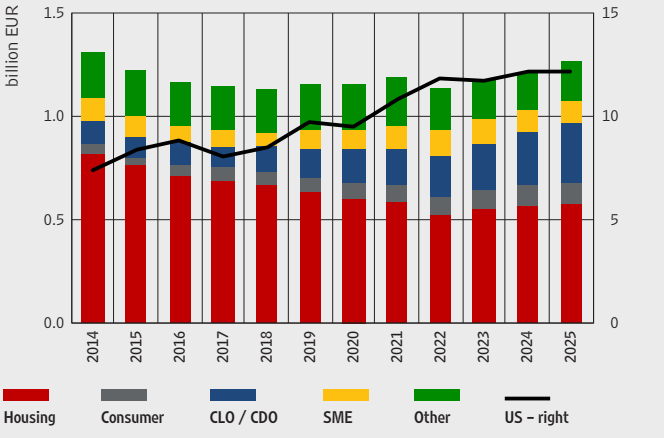


Notes: Capital requirement pre-securitisation: EUR 135m (1bn × 75% × 18%).
Capital requirement post-securitisation: EUR 47.3m, consists of:
senior tranche: EUR 890m × 15% × 18% = EUR 24.03m
mezzanine tranche EUR 90m × 20% × 18% = EUR 3.24m
first loss tranche: EUR 20m × 1250% = EUR 20m.
Total capital relief: EUR 87.7m (135 – 47.3).
Source: CNB; adapted from González and Triandafil (2023).

The regulatory framework for securitisation in the European Union has been strengthened considerably since the global financial crisis, so that now it directly covers key securitisation risks identified in the previous part. The Securitisation Regulation (EU 2017/2402) creates a specific legal framework, which includes risk-retention requirements, thereby reflecting originator's incentives for diligent lending and monitoring the portfolio and transparency and due-diligence requirements, which reduce information asymmetry between the originator and the investor. Under the same regulation, a special regime for simple, transparent and standardised (STS) securitisations has been introduced, which provides incentives for issuances with smaller structural complexity by a more favourable regulatory treatment. The significant risk transfer (SRT) is particularly important for synthetic securitisation, which the competent authority confirms to the bank and which serves as the basis for reducing risk weight, within the portfolio covered. The SRT assessment directly prevents regulatory arbitrage because it ensures that capital requirements are reduced only when the risk is actually transferred to investors. The transfer of risk is usually structured by tranches: the first loss tranche is the first to absorb potential portfolio losses and bears the highest level of risk, followed by the mezzanine tranche which then assumes the losses, while the senior tranche absorbs losses only after these subordinated tranches are exhausted and bears the lowest risk.

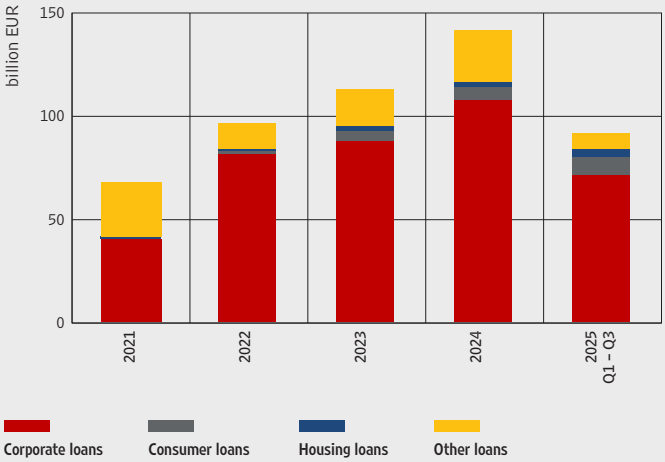
Although the standard securitisation market is much more developed in the USA (Figure 2), the European market already has a global significance in the segment of synthetic transactions and significant risk transfer (SRT). Synthetic securitisation in the European Union accounts for about a half of the global synthetic securitisation market, which positions the EU as the leading regional market in that segment. The volume of synthetic securitisations issued by European significant institutions grew by about 24% from 2022 to 2024 (Figure 3). In the first half of 2025, it increased additionally by about 85% from the same period in the previous year.[1]

Figure 2 The amount of standard securitisation in the USA is about ten times larger than in Europe



Source: AFME, Securitisation, available at: https://www.afme.eu/our-work/prudential-regulation-supervision/securitisation/.

Figure 3 The amount of new issues of synthetic securitisation increased considerably over the past years in the EU

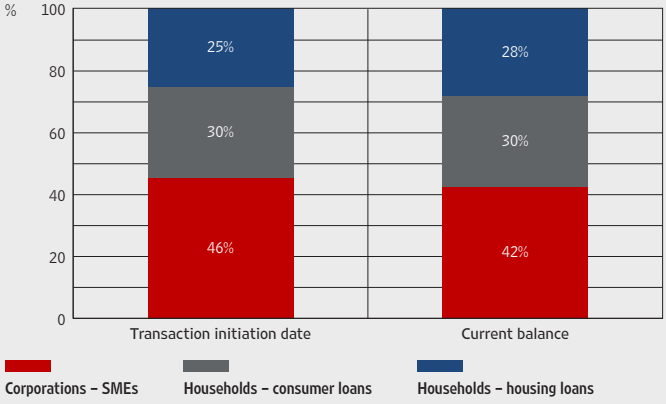


Source: AFME, Securitisation, available at: https://www.afme.eu/our-work/prudential-regulation-supervision/securitisation/.

1 Machado, P. (2025): **Securitisation: you can never tranche the same portfolio twice**, keynote speech at the European Financial Institutions Conference, ECB, 30 September 2025.

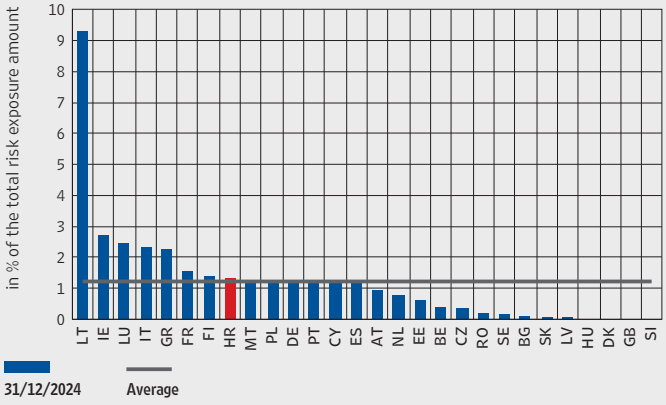
In Croatia, slightly more than 3% of total loans were synthetically securitised at the end of 2025. Banks in Croatia started implementing synthetic securitisations in 2022. However, despite the relatively short period of application, their volume increased rapidly, so that, if observed according to the share in the total risk exposure amount, Croatia is already slightly above the average of the European Union. According to the structure of securitised portfolios at the end of 2025 (Figure 5), corporate loans and loans to small and medium-sized enterprises (42%) accounted for the largest share, followed by housing loans (30%) and consumer loans (28%). Such a structure deviates from the common one in other countries (Figure 4), where, as a rule, corporate loans account for most of securitised exposures, while in Croatia, a relatively larger share is attributed to household loans.

Figure 4 More than a half of securitised exposures in Croatia are linked to household loans



Source: CNB.

Figure 5 Share of securitised exposures in risk-weighted assets in Croatia is around the EU average



Notes: The share of securitised exposures was measured as the ratio between the amount of securitisation positions and total risk exposure amount (TREA). The black horizontal line marks the EU average.
Source: ECB.

Despite the strengthened regulatory framework, synthetic securitisation is connected with a series of risks relevant for financial stability. During the phases of strong economic expansion, reducing capital requirements can additionally strengthen the already elevated cyclical movements or banks may use it to decrease capital, which may reduce its resilience to future shocks. At the same time, the optimistic reliance on the possibility of the renewal of transactions under similar conditions exposes the banks to rollover risk in conditions of market stress. Additional vulnerability is also created by mutual exposures that arise when banks finance investors in the SRT transactions of other banks. Non-linear distribution of losses among tranches further intensifies the sensitivity of capital indicators to extreme losses. As long as losses remain within subordinated tranches transferred to investors, the bank is fully protected. However, after they are exhausted, losses penetrate the senior tranche, which the bank keeps with much lower risk weights. As a result, a relatively small increase in portfolio losses above the expected level may cause a disproportionately large blow to the capital. In addition, the use of the risk transfer can change incentives in the credit process and impact

credit standards (originate-to-distribute)[2]. Finally, synthetic securitisation may weaken the effectiveness of macroprudential and monetary policies if it alleviates the effects of the tightening of capital requirements and reduces the sensitivity of credit offer to changes in interest rates through the bank lending channel, while the relieved capital may trigger additional risk-taking (risk-taking channel).

The above risks have also been identified in recent analyses conducted by European and international institutions[3] that emphasise the need for a continuous monitoring of the synthetic securitisation market. Although it is estimated that the regulatory framework has increased the resilience of the synthetic securitisation market after the crisis, the importance of risk assessment at the level of the financial system is emphasised, in particular in the context of the leverage effect, the need for the renewal of transactions and reliance on the resilience of the providers of credit protection. Microempirical findings[4] for the euro area additionally point to changes in the behaviour of banks after conducting SRT transactions, including the redistribution of capital according to riskier exposures, by reducing the intensity of monitoring credit risk and the existence of circular exposures between banks and investors. Such structures undermine investors' actual capacity to absorb losses under stress because the risk that has been formally transferred outside the banking system still remains within the system. Therefore, systemic vulnerabilities can intensify through channels that are difficult to monitor.

The experiences of the global financial crisis have shown that securitisation can be an important channel for the accumulation and transmission of systemic risks. So far, the volume of synthetic securitisation has been limited in the domestic market. However, the rapid growth in the past years increases the exposures of banks through that channel and makes the structure of risk transmission more complex. A further growth of synthetic securitisations raises their relevance to the assessment of systemic risks, especially as the key objective of most synthetic securitisations is to reduce regulatory capital requirements. Therefore, it is important to ensure that the development of that market is monitored by using adequate analytical and oversight tools, including the monitoring of investor concentration, the quality of securitised portfolios and effects on credit standards.

2 The model in which a bank grants loans with the primary objective of transferring them to investors through securitisation, and not to hold them in its own portfolio. Such an approach may weaken incentives for a thorough assessment of a borrower's creditworthiness because the bank does not fully bear consequences of a potential default. This problem was particularly pronounced in the period before the global financial crisis (2007 – 2008), when looser standards for granting mortgage loans in the USA, triggered precisely by the securitisation model, were one of the key factors of the crisis.

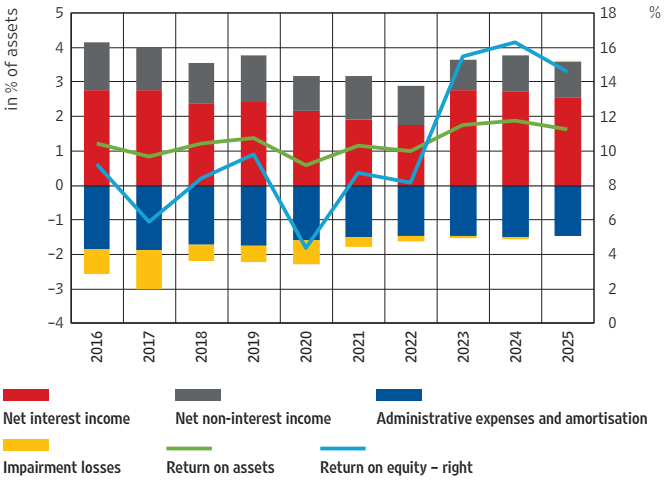
3 Machado, P. (2026): **Changing the tune but not the tone: synthetic risk transfers in Europe**, keynote speech at the LBBW Fixed Income Forum, Frankfurt; Basel Committee on Banking Supervision (2026): **Synthetic risk transfers**; Bank for International Settlements (2026): **The rise and risks of synthetic risk transfers**, BIS Quarterly Review, 16 March; European Central Bank (2025).

4 Osberghaus, A. and Schepens, G. (2026): **Synthetic, but how much risk transfer?**, ECB Working Paper Series No. 3210.

D.3 Profitability

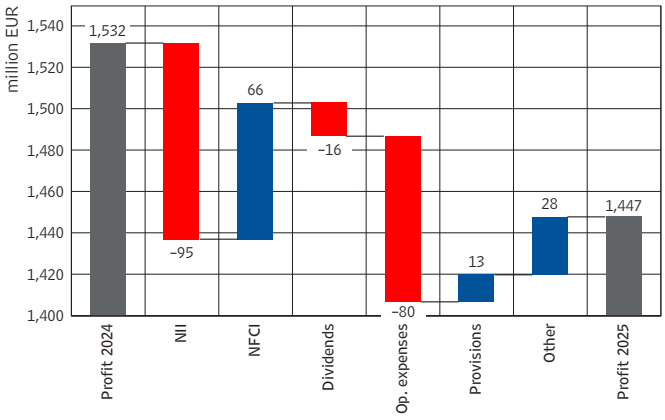
Although the profitability of banks continued to decline and converge towards the long-term average, it was still high and considerably above the European average. Net profits of credit institutions in 2025 decreased by 6.4% from the record level in 2024, thereby lowering the return on assets to 1.6%, and the return on equity to 14.6% (Figure D.21). Both measures noticeably exceed the euro area average (0.7% and 9.2%, respectively). The decline in net profits mostly results from the fall in net interest income, which is partly mitigated by the growth in revenues from fees and the continued release of provisions, while the growing operating expenses additionally burden the total financial result (Figure D.22).

Figure D.21 Profitability of banks remains noticeably above the euro area average, despite the decline



Source: CNB.

Figure D.22 The fall in net interest income, alongside rising operating expenses, is the main source of the decline in net profit, which is partly mitigated by the growth in revenues from fees

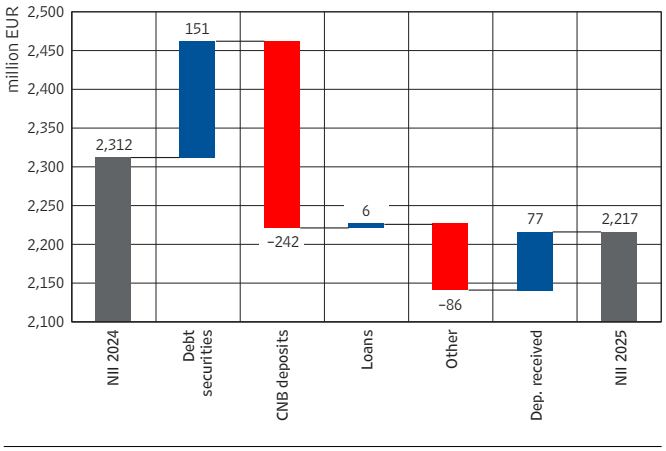


Notes: NII stands for net interest income, calculated as the difference between interest income and interest expenses. NFCI stands for net fee and commission income, calculated as the difference between income and expense from fees and commissions.
Source: CNB.

Net interest income still makes the largest contribution to bank profitability, however, its structure is changing: the share of interest income generated through placements to the central bank has almost halved, while contributions from household loans and investment in government debt securities are growing (Figure D.24). Net interest income accounts for around 71% of operating income, significantly above the level in other euro area member states (59%). Its decline, when compared with the previous two years, reflects the decrease in interest income from reserves with the central bank, with the parallel decrease in key interest rates and smaller bank reserves with the CNB, as a result of which the share of interest income from the central bank in total income almost halved to 9.7% (from 16.8% at the end of 2024). This decline was partly mitigated by the increase in interest income from households, while the strong credit expansion more than offset the effect of the decrease in interest rates, and by the increase in interest income from the general government due to the sharp increase in investments in debt securities (Figure D.23). Net interest margin (the ratio of net interest income to average assets) slightly decreased in 2025, however, it remained at 2.4%, considerably above the level of 1.3% in other euro area member states. Net fee and commission income continued to grow alongside increased transaction activity, with the share in operating

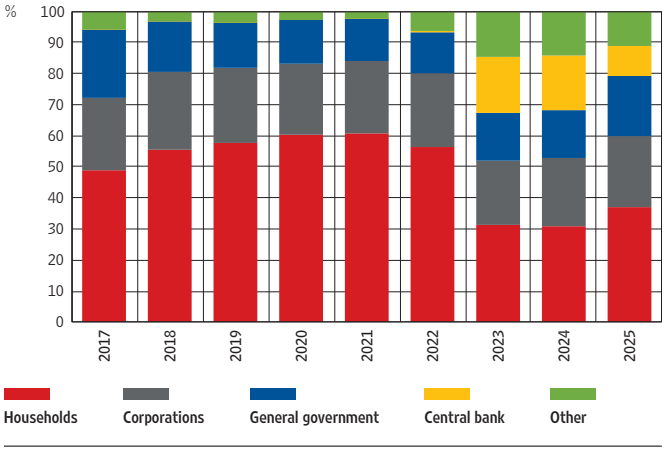
income of 21%, which was very gradually converging towards the average of other euro area member states (28%).

Figure D.23 The decline in interest income from overnight deposits with the CNB was partly offset by the increase in income from debt securities



Source: CNB.

Figure D.24 Households and the general government offset the decline in interest income from the central bank



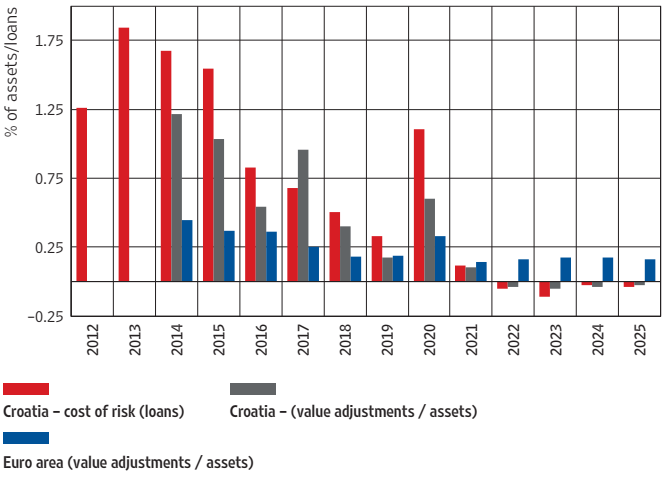
Source: CNB.

For the fourth consecutive year, provisions for credit risk have recorded net release, as a result of which the cost of risk is at the historical minimum and profitability becomes structurally sensitive to a reversal in the cycle. Despite its favourable effect on short-term profitability, such a low cost of credit risk, whose multi-year average is in the net release zone, signals that room for a further continuation of such movements is practically exhausted, so that the cost of risk in the forthcoming periods will probably return to the net forming zone and start to encumber the operating result (Figure D.25). The return to the long-term average of 0.7% in assets would require the forming of provisions in the amount of approximately EUR 600m, which would decrease the ROA from 1.6% to about 1.0% and the ROE from 14.6% to the level close to 9.2%, the average of other euro area member states. Such normalisation could occur relatively quickly even without a pronounced reversal in the cycle, which means that even a moderate slowdown in economic activity, in addition to exhausting the provisions accumulated in 2020, could encumber the result by itself. It should be taken into account that, historically, the largest portion of the cost of credit risk in Croatia originated from the portfolio of non-financial corporations, the channel which macroprudential measures for households impact only indirectly (see Chapter I.C.1).

Operating expenses are growing and the favourable cost-to-income ratio (CIR) reflects high interest income more than the low cost base. The CIR increased from 40% in 2024 to 43% in 2025, primarily due to the increase in wage costs, which also reflected the general labour market dynamics in Croatia, with a significant real wage growth above inflation in the past few years. However, it still remained significantly below the average of around 55% in other euro area member states. If measured by the share of operating expenses in assets, with 1.5%, the Croatian system is above the level of 1.3% in other euro area member states (Figure D.26). Nevertheless, this comparison should be interpreted with caution. Structurally

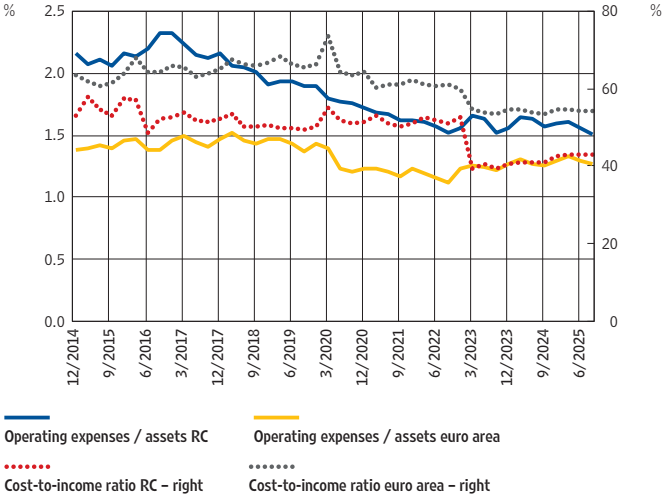
higher cost intensiveness in Croatia is connected with the smaller average size of banks and limited economies of scale in a small jurisdiction with a shallow financial system (see Box 4 Systemic risks arising from linkages between banks and non-bank financial institutions), where the average assets of domestic banks stand at EUR 5.1bn, well below the EUR 17bn in other euro area banks. In this light, the lower CIR in Croatia results from a dual effect: high interest income generated amid higher interest rate margin on one hand, and a structurally higher cost base, which only partly encumbers the result due to the high interest rate component, on the other hand. Further room to improve cost efficiency could come from investments in digitalisation and the application of more advanced analytical tools, but such a step requires initial capital investments that are not singularly reflected in the short-term CIR.

Figure D.25 Net release of provisions occurred for the fourth consecutive year



Notes: The cost of risk is calculated as the annual ratio of net change in value adjustments for loans subject to impairment and the average balance of those exposures. The positive value indicates the net formation of provisions, and the negative value indicates net release. For the sake of comparability with the euro area, the ratio of impairment of financial assets at amortised cost and total assets is also shown as an alternative indicator.
Sources: CNB and ECB CBD2.

Figure D.26 Favourable cost-to-income ratio masks structurally higher cost intensity relative to the euro area



Notes: The figure shows cost efficiency indicators for the Croatian banking system and the euro area. The full lines (left axis) show the ratio of operating expenses and total assets, while the dashed lines (right axis) show the cost-to-income ratio (CIR).
Source: ECB CBD2.

Bank profitability remained high, but still structurally dependent on low materialised credit risk and still elevated interest margin. The net release of provisions for credit risk has continued for several years, and room for a further improvement in portfolio quality is almost fully exhausted. The testing of such a low cost of risk as a permanent condition is a source of vulnerability for the projections of profitability, even with a moderate slowdown of economic activity foreseen in the forthcoming period. In such circumstance, the cost of risk could return to the net forming zone even without a more expressed deterioration in the credit portfolio quality, simply through the exhaustion of the previously accumulated provisions, and in more pronounced scenarios even through an actual worsening in quality. In this context, the CIR could also deteriorate, since its downward trend so far has primarily been driven by the increase in income, and only to a lesser extent by the control of costs.

BOX 4

Systemic risks arising from linkages between banks and non-bank financial institutions

Non-bank financial institutions (NBFIs) account for a much smaller part of the financial system in Croatia than in the euro area. However, their strong growth in the past decade makes them increasingly more relevant in the context of financial stability. The growth of NBFI assets in Croatia is largely the consequence of the development of the pension system and the increase in pension funds' assets, while other financial institutions currently play a smaller role. Short-term deposits held by the NBFI sector with banks are the dominant channel of the direct linkage between banks and non-bank institutions, which isa source of funding sensitive to sudden outflows in crisis conditions. Although banks have satisfactory levels of highly liquid assets they can use to settle due liabilities if an NBFI suddenly withdraws its short-term deposits, the loss of funding could worsen the banks' liquidity position. In addition to the direct linkage through deposits, the joint exposure of banks and NBFIs to debt securities is an indirect channel for the transmission of risks, the significance of which can additionally increase amid disruptions in the short-term financing market.

Although the domestic NBFI sector is relatively small in absolute amounts, over the past ten or so years it has been constantly growing. The size of the Croatian financial system differs considerably from the euro area average, in particular from the developed financial systems of certain member states. The financial system in Croatia is small when compared with the euro area average, with the total assets of financial intermediaries, excluding the central bank, accounting for 150% of GDP in Croatia, while in the euro area average it accounts for as much as 600% of GDP. Not only are total bank assets comparatively low at around 100% of GDP in Croatia, much less than the euro area average of 240% of GDP, but the share of NBFI assets is also at considerably lower levels in Croatia, at just 53% (Figure 3).

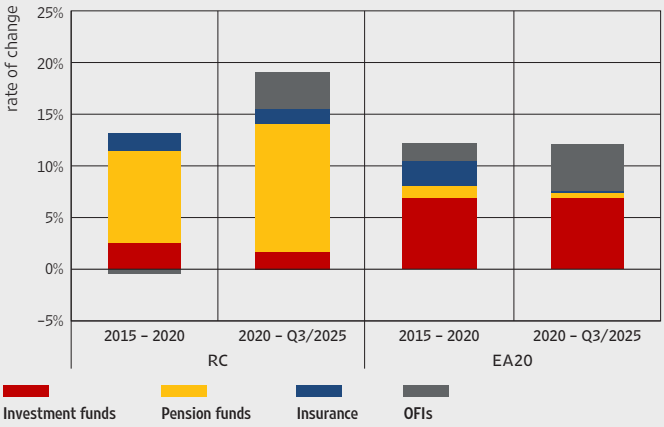
Apart from being much smaller, the Croatian financial system is very bank-centric and banks play the key role in allocating capital in the economy, in contrast to the euro area average, where in addition to banks, investment funds and other financial institutions[1] play a significant role (Figure 2). Nevertheless, the past few years have seen an increase in the assets of other financial institutions due to structural and market factors.[2] In the 2020 – 2025 period, the NBFI sector assets in Croatia on average grew by 20% annually, compared with the 12% in the euro area (Figure 1), where the largest contribution came from pension funds. In addition

1 According to the ESA 2010 methodology, other financial institutions include the subsectors of the institutional sector: S12 – S.125, S.126, S127, which comprise auxiliary institutions, such as stock exchanges, clearing companies and brokers, venture capital funds and special purpose entities, which serve for the purposes of securitisation, and financial companies operating within large conglomerates (such as financial companies linked to large industrial conglomerates in the car industry). For more information, see: https://ec.europa.eu/eurostat/esa2010/definitions.

2 HANFA, Annual Report 2024 https://www.hanfa.hr/publikacije/godisnje-izvjesce/.

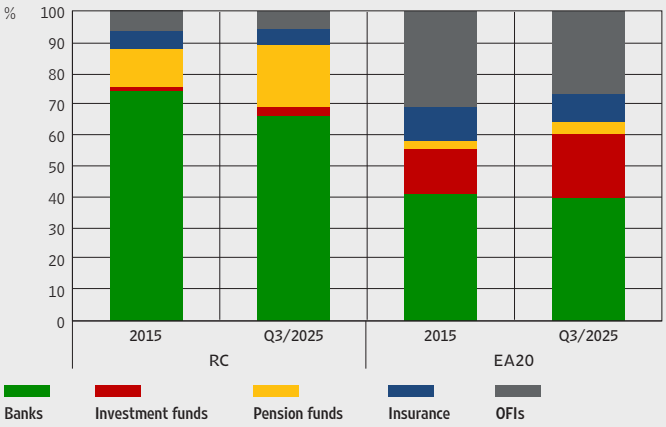
to the contributions made by insured persons to the pension system, the increase in assets was also attributed to asset revaluations due to the rise in prices in the global and domestic stock markets. On the other hand, on average, the largest contribution to the NBFI growth in the euro area was made by the increase in the assets of investment funds and other financial institutions.

Figure 1 Pension funds most significantly contribute to the growth of assets in Croatia, in contrast to investment funds in the EU



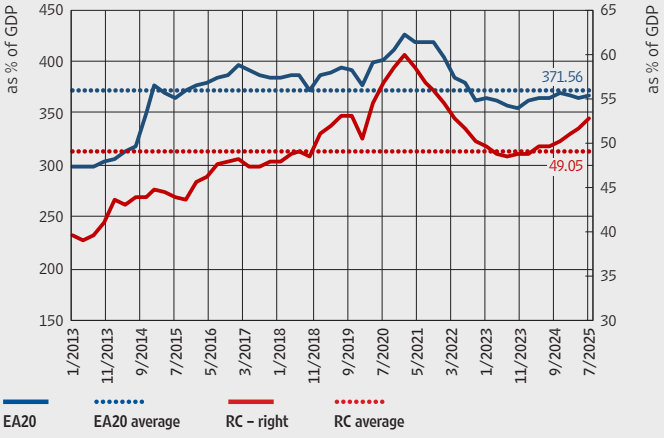
Note: The figure shows the contributions to the total rate of change of the NBFI sector assets during two five-year periods.
Sources: CNB and Eurostat.

Figure 2 The Croatian financial system is very bank-centric



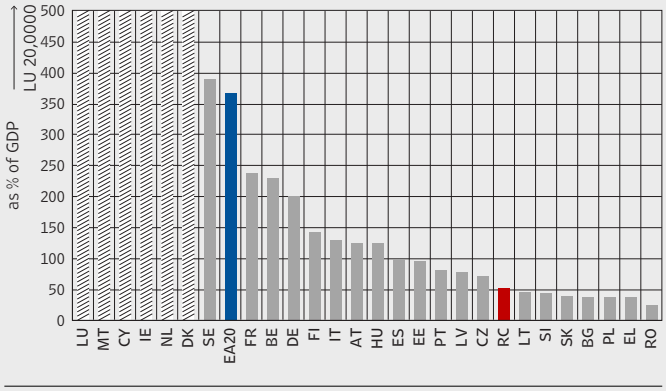
Sources: CNB and Eurostat.

Figure 3 The assets of non-bank financial institutions are growing faster than the economy



Source: Eurostat.

Figure 4 The relative significance of the NBFI sector in Croatia is among the smallest in the European Union



Note: Data refer to the end of 2025.
Source: Eurostat.

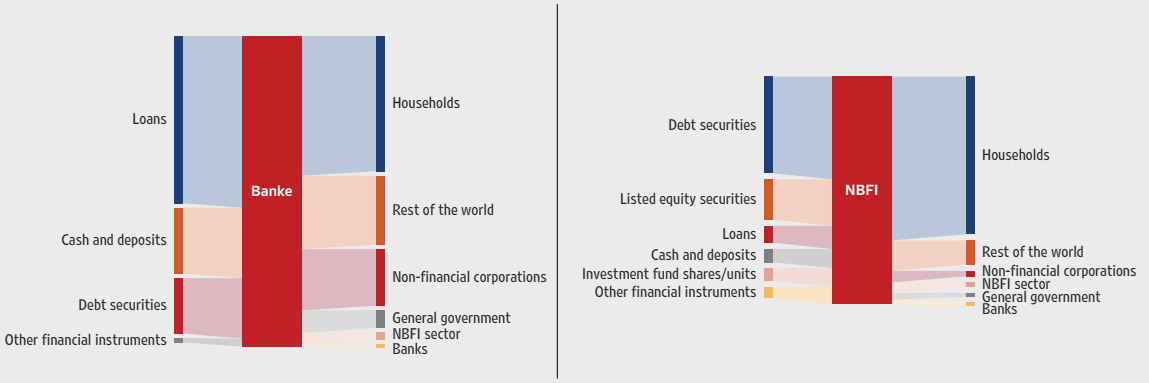
Linkages between banks and the NBFI sector can be an important source of systemic risk, which may materialise in two directions[3] – through short-term liabilities banks obtain from the NBFI sector and bank lending to institutions using financial leverage to increase their returns. In the first case, banks that largely rely on funding by the NBFIs may be exposed to

3 https://www.ecb.europa.eu/press/financial-stability-publications/fsr/special/html/ecb.fsrart202511_02~e2f82a64bf.en.html

sudden liquidity outflows in stress conditions if counterparties withdraw their deposits and terminate their repo agreements. On the other hand, by lending to highly indebted non-bank institutions, such as hedge funds or private equity funds, banks are exposed to the risk of significant losses in the case of unfavourable trends in financial markets.

The comparison between the sources of financing and the forms of investment of banks and NBFIs in Croatia not only reveals essential differences in business models, but also points to certain linkages between them (Figure 5). In this context, NBFIs are exposed to banks to a certain extent, while bank exposures to NBFIs are almost negligible. Banks in Croatia mostly rely on the private non-financial sector for their sources of funding, mainly in the form of deposits of households and non-financial corporations, while the NBFI sector accounts for only about 5% of total bank liabilities, predominantly in the form of short-term deposits. Like banks, NBFIs also rely on households for their sources of financing, even more than banks, while the role of banks is negligible. This is an important difference, when compared with the developed financial systems of the euro area, where the NBFI sector is financed by banks to a much larger extent[4]. The absence of direct credit linkages is an important risk-mitigating factor within the financial system, which limits the risk of direct contagion from banks to NBFIs. However, short-term deposits of NBFIs with banks take the characteristics of the wholesale sources of financing that are more sensitive to market conditions and prone to sudden outflows in stress situations, which enables the spreading of the risk of contagion from non-bank institutions towards banks.

Figure 5 Banks and NBFIs mostly allocate funds collected from the private non-financial sector to loans and debt instruments



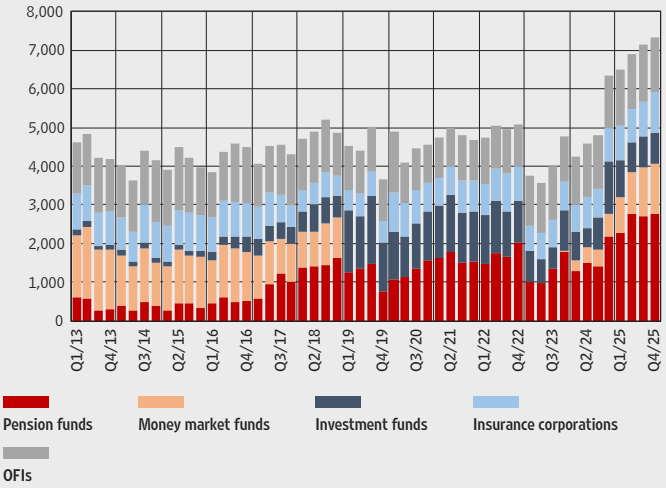
Notes: The figure shows the structure of the balance sheet of the bank sector and the NBFI sector. The structure of the sources of funding by sector is shown on the liability side and the structure of investments by financial instrument is shown on the asset side. Data refer to the end of 2025.
Source: CNB (financial accounts).

Although bank funding by institutional investors grew strongly in the past two years, the absolute amounts have so far been relatively low. Bank liabilities to non-bank financial institutions, mostly in the form of short-term deposits (Figures 7 and 9), grew by as much as around 40% annually from the second half of 2024. In accordance with their size, pension

4 For example, through reverse repo agreements and other forms of short-term financing that account for a significant channel of exposure of systemically important banks of the euro area to non-bank institutions.

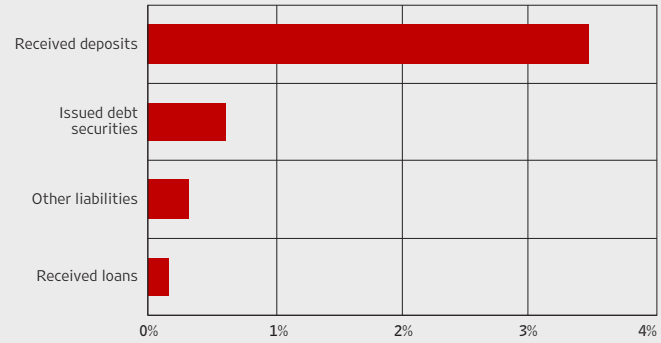
funds were the largest contributors, significantly increasing their exposure to banks from the end of 2024. Money market funds are the second important source of funding, while the remaining segments, such as insurance corporations, investment funds and auxiliary financial institutions have fewer, although observable, liabilities towards banks (Figure 6). By contrast, bank claims on non-bank financial institutions are modest and mostly concentrated in the segment of other financial intermediaries[5] and investment funds, while they are almost negligible in pension and money market funds.

Figure 6 Pension funds have the largest claims on banks



Note: The figure shows the structure of bank liabilities towards NBFIs by counterparty sector.
Source: CNB.

Figure 7 Short-term deposits account for a dominant source of bank funding from NBFIs



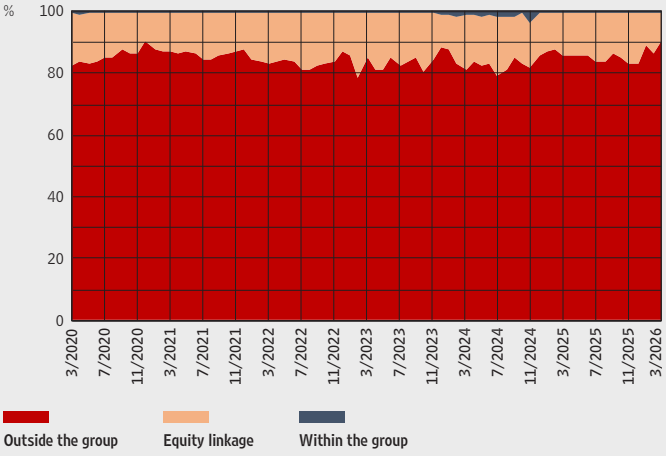
Notes: The figure shows the structure of bank liabilities towards NBFIs. The data refer to 31 March 2026.
Source: CNB.

Bank funding in the form of short-term deposits may be subject to sudden outflows. Although banks in the domestic financial system often have ownership stakes in non-bank financial institutions, intra-group exposures account for a smaller part of the total liabilities of the NBFI sector (Figure 8), partly also due to regulatory constraints that prevent conflicts of interest within financial groups. The maturity structure of the mentioned deposits additionally strengthens the relevance of liquidity risk as, according to the data from the money market, overnight deposits (Figure 9)[6] are mostly contracted between banks and NBFIs. Overnight deposits are the most liquid and the most sensitive form of short-term liabilities. since the depositor can withdraw them without prior notice, which in conditions of market stress may result in sudden outflows of liquidity from the banking system.

5 Other financial intermediaries, among others, include leasing companies, factoring companies, credit unions and providers of the payment services of card acquiring. They conduct intermediation in terms of collecting funds through raising equity and issuing liabilities and mostly invest in financial assets.

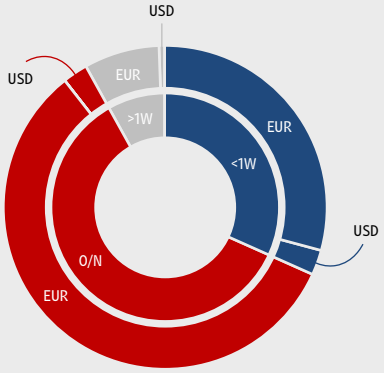
6 The graphic depiction of the maturity and currency structure uses the volume of transactions (newly granted/renewed deposits) realised from the beginning of 2024. The mentioned approach is based on the predominantly short-term nature of the deposits of the NBFI sector since they are short-term instruments with a remaining maturity period of up to one year, the total annual trading volume reliably reflecting the structure of active positions because the existing positions are renewed within the observed period. Therefore, the annual volume of transactions refers to a valid approximation of the maturity and currency composition of deposit exposures shown in balance sheets.

Figure 8 The structure of deposits indicates the counterparties without ownership linkages



Source: CNB.

Figure 9 According to data from the money market, NBFIs mostly place euro overnight deposits with banks

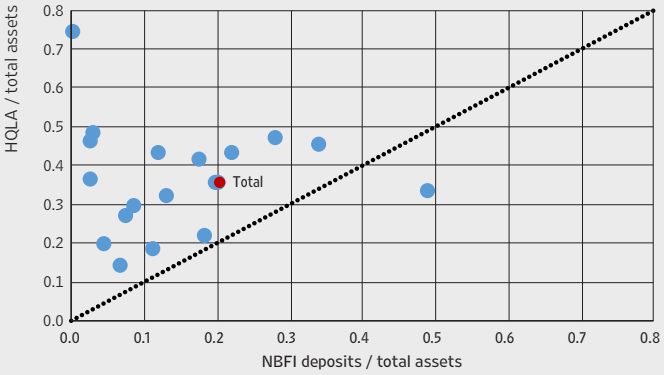


Note: The figure shows the structure of the volume of trading in deposits between banks and NBFIs in the money market according to the agreed currency and maturity from the beginning of 2024.

Source: CNB (money market).

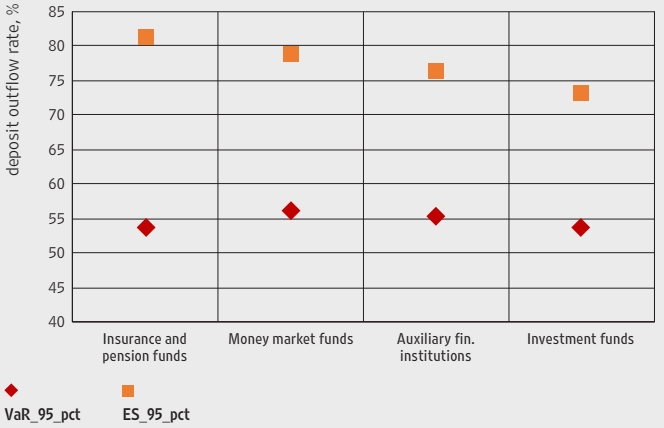
Under current conditions, domestic banks are sufficiently liquid to settle potential outflows of short-term deposits of non-financial institutions. The weekly rate of losses of NBFI short-term deposits, defined as the rate of change in the balance of deposits by segment, in the least favourable 5% of cases (VaR at the level of the 95th percentile) stands at about 55% of short-term deposits and the expected loss in the tail part of the distribution (ES at the level of the 95th percentile) is between 74% and 81% of the balance of deposits (Figure 11). However, a comparison of the share of highly-liquid assets and the share of the deposits of non-bank financial institutions in total bank assets (Figure 10), shows that, even in the case of a complete outflow of deposits, all banks, except one, would be capable of settling their short-term liabilities to NBFIs, without relying on the short-term financing market. Namely, almost all banks have a liquidity buffer that exceeds their exposure to deposits of the non-bank financial sector. Therefore, in the event of sudden outflows, unless they are accompanied by outflows of deposits from other sources as well, highly-liquid bank funds would be sufficient to settle such liabilities.

Figure 10 Almost all banks currently have sufficient highly liquid funds to settle potential outflows of total NBFI deposits



Notes: High-quality liquid assets (HQLA) are unencumbered high-quality assets that credit institutions hold and that can be converted into cash easily and immediately with little or no loss of value, in particular during financial stress. It represents the numerator of the liquidity coverage ratio (LCR) under the Basel III regulations and ensures that banks can survive a 30-day liquidity crisis.
Source: CNB.

Figure 11 The deposits of pension funds and money market funds are extremely sensitive to disruptions



Notes: The value-at-risk (VaR) is a statistical measure of risk that is defined as the maximum amount expected to be lost within a specific time horizon, with a predefined level of reliability. The expected shortfall (ES) is a conditional measure of risk that measures the average portfolio loss in the worst-case scenarios, focusing in particular on losses that exceed the VaR threshold. The VaR and the ES are calculated on a sample of euro deposits that NBFIs have held with banks since 2014, of all maturities.
Source: CNB (money market).

In addition to liquidity risk arising from deposit linkages, a significant source of potential systemic risks is also the joint exposure of banks and NBFIs to debt securities of the Republic of Croatia. Banks hold EUR 11.6bn and the NBFI sector holds EUR 12.9bn of domestic government securities (Figure 12), which aggregately account for a significant portion of total general government debt (63% of the total stock of debt securities). Taking into account the joint exposure, a decrease in the prices of government bonds would have a simultaneous negative impact on the balance sheets of banks and NBFIs. It is estimated that a parallel shift in the yield curve of 100 basis points upwards[7] would result in a market-to-market (MtM) loss of around EUR 450m[8] for banks and EUR 650m for NBFIs, or a total of 1.3% of GDP. Pension funds are relatively more sensitive to changes in interest rates, which reflects their role of long-term institutional investors, with assets entirely carried at fair value, while in the case of banks, the direct impact on own funds only refers to the portfolio classified in the FVOCI[9] category; in bonds in amortised cost losses remain unrealised and materialise only in the case of forced sale.[10] In this context, banks in Croatia carry a significant part of their bond portfolio at amortised cost, so that the decrease in the prices of bonds would not immediately reflect on bank capital.

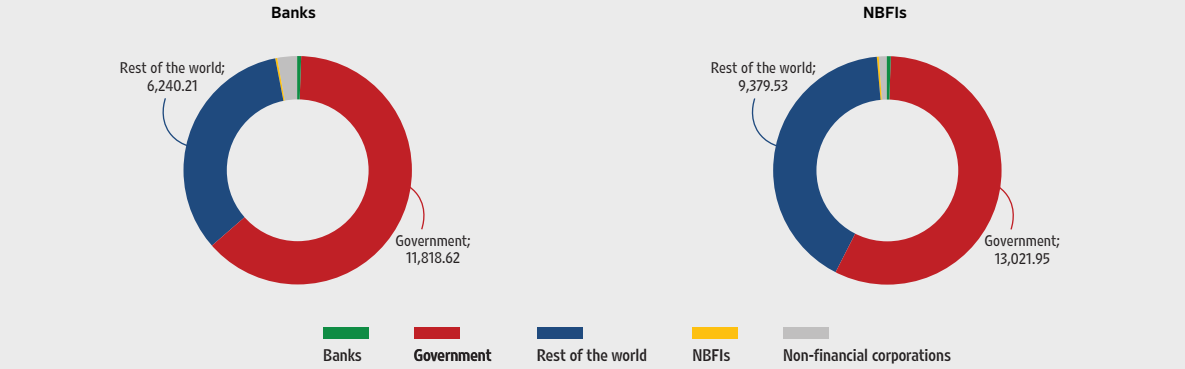
7 The estimate is based on the modified duration of approximately 3.9 years for the bank portfolio and 5.0 years for pension funds, with the assumption of a parallel shift in the yield curve.

8 Around EUR 120m (26.7%) refers to FVOCI and directly reduces the CET1 by about 0.3 percentage points, while the remaining around EUR 330m (72.8%) refers to the portfolios where loss is economically present, but not recognised in accounting terms and is materialised only in the case of the sale of assets.

9 The FVOCI portfolio (fair value through other comprehensive income) is an accounting category of financial assets carried at fair value. However, changes in the value are not shown immediately in the profit and loss account, but are shown within other comprehensive income.

10 In recent years banks extended the average duration of debt securities from around 3 years in 2021 to around 4.6 years in mid-2025, while in the same period pension funds shortened the average duration of securities. If the whole bond securities portfolio were carried at fair value, the extension of the duration would increase the portfolio's sensitivity to interest rate changes.

Figure 12 NBFI sector is more exposed to debt securities and both sectors mostly finance the government with these instruments



Notes: The figure shows the structure of investment in debt securities by counterparty sector. Data refer to the end of 2025.
Source: CNB (financial accounts).

The analysis of linkages between the banking and the non-bank financial sector in Croatia leads to the conclusion that relevant risk transmission channels are present, despite the relatively small domestic NBFI sector. The main channel of direct linkage includes the short-term deposits that non-bank financial institutions hold with banks, where pension and money market funds are the segments with the largest deposit amounts, at the same time being most active in managing their liquid assets. In contrast, direct credit exposures of banks to the NBFI sector are negligible, thus mitigating the risk of a direct transmission of contagion in the opposite direction. In addition to deposit linkages, the joint and concentrated exposure of banks and non-bank financial institutions to the debt securities of the Republic of Croatia is an additional risk transmission channel. In the case of disruptions in bond markets and the increase in bond yields, losses in the NBFI sector incurred in this way might trigger the withdrawal of investors from funds and then the withdrawal of deposits from banks. Such conditions might reduce the liquidity of banks, which would at the same time face the negative effects of the decline in the value of bond assets.

HNB
EUROSYSTEM

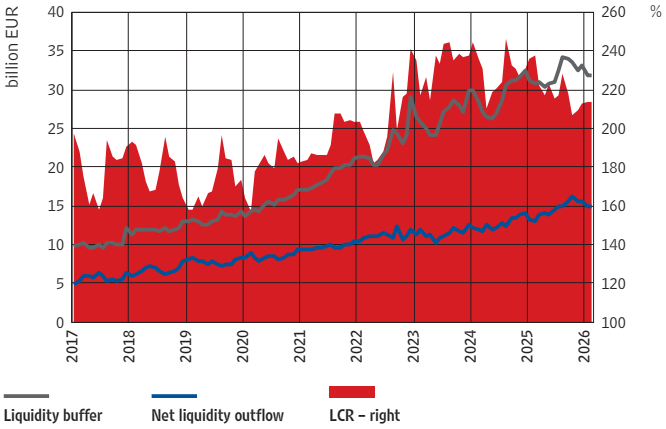
II Resilience of credit institutions

In 2025, credit institutions in Croatia continued to maintain high levels of liquidity and capitalisation, well above the regulatory requirements. The trend of a step-by-step reduction in capital surpluses continued, influenced by a strong growth in credit activity and high profit distributions. The results of the liquidity and solvency stress testing of credit institutions show that the domestic banking system remained resilient and able to withstand shocks from extremely unfavourable macroeconomic and financial developments.

A Liquidity

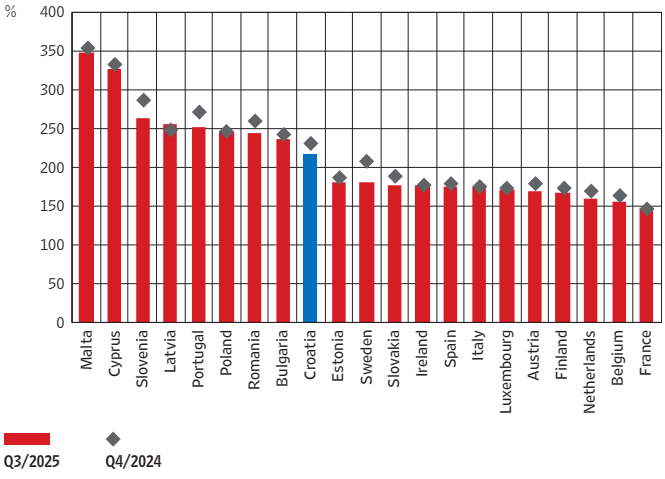
The liquidity position of the banking system remained well above the minimum regulatory requirements, albeit with a slight decrease in the liquidity coverage ratio (LCR). This reflects a growth in net outflows faster than the increase in highly liquid assets, so that at the end of the first quarter of 2026, the LCR fell to 199.7%, which is still almost double the prescribed minimum of 100% (Figure II.1). Comparing liquidity on an international level, the LCR of the Croatian banking system ranks in the upper half of EU countries (Figure II.2).

Figure II.1 Liquidity coverage ratio and its components



Source: CNB.

Figure II.2 Liquidity coverage ratio, international comparison

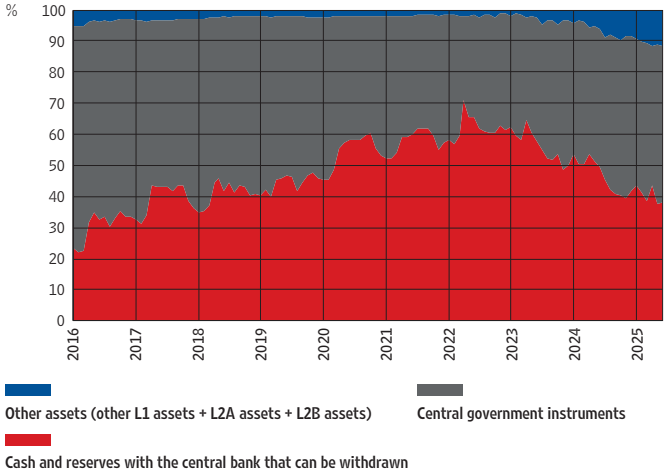


Source: ECB CBD2.

The change in the composition of the liquidity buffer from exposure to central bank to central government instruments, has deepened the structural exposure of the banking system to the central government. The share of cash and reserves with the central bank, which accounted for the bulk of the buffer in the period around the accession to the euro area, decreased gradually over the last two years, while the share of central government debt instruments exceeded 45% of the buffer at end-2025, which is well above the EU average of 31% (Figures II.3a and II.3b). The increased share of government bonds in the balance sheet reinforces the sovereign-bank nexus, given that the deteriorating fiscal outlook directly spills over into a decline in the value of bank assets, putting pressure on own funds. At the same

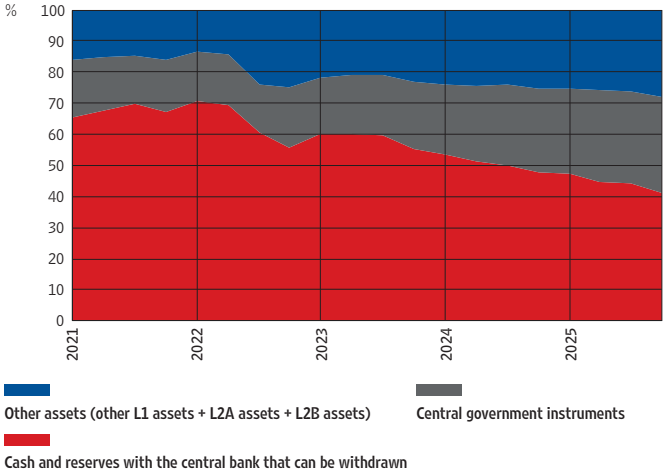
time, the replacement of short-term positions with a variable interest rate yield by debt instruments with long-term fixed yield increases interest rate risk in the banking book (IRRBB). This means that the potential rise in long-term bond yields would exert a downward pressure on fixed-interest asset valuations.

Slika II.3a Liquidity buffer structure; Croatia



Sources: CNB and EBA Risk Dashboard.

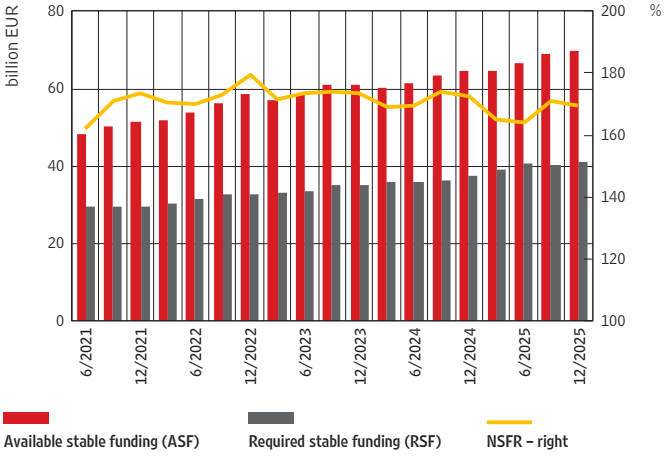
Slika II.3b Liquidity buffer structure; EU



Sources: CNB and EBA Risk Dashboard.

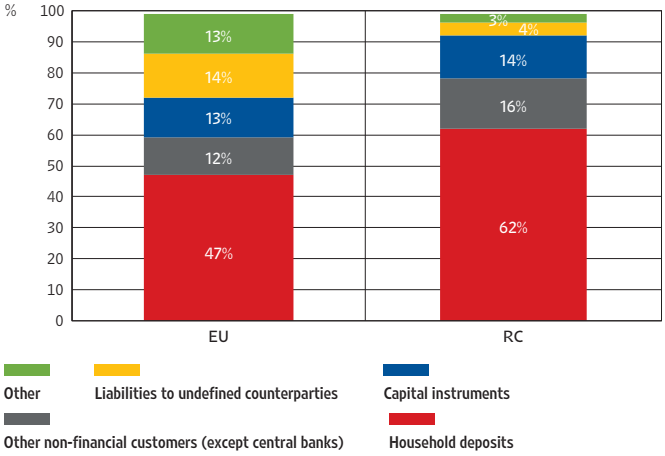
The net stable funding ratio (NSFR) has confirmed the favourable structural liquidity position of the banking system, which largely relies on household deposits. At the end of 2025, the NSFR stood at 160%, well above the regulatory minimum of 100% (Figure II.4). Its slight reduction in 2025, from 172.4% at end-2024, reflects a strong growth in lending, especially of long-term loans to non-financial customers, which increase the amount of stable funding that banks are required to maintain. Despite the decline in the NSFR, Croatia's banking system is above the EU average in terms of this ratio and is one of the countries with the most stable financing structures. Owing to a large share of household deposits, which alone account for more than 60% of total available stable funding (ASF), relative to the EU average of 45%, Croatia's banking system is among those of countries with the most pronounced orientation of funding towards this historically most important structural source of resilience of the system to distortions in funding markets (Figure II.5). The remaining portion of the ASF is mostly accounted for by deposits of other non-financial customers and capital instruments, while the share of liabilities to financial institutions and central banks is considerably lower than in most of the more developed EU banking systems, where these components account for a considerably larger share of the financing structure (see Box 4 Systemic risks arising from linkages between banks and non-bank financial institutions).

Figure II.4 Net stable funding ratio (NSFR) and its components



Notes: The bars show the absolute levels of available stable funding (ASF) and required stable funding (RSF) in EUR billion (left axis), while the orange dots show the level of NSFR in % (right axis). Data are quarterly.
Source: CNB.

Figure II.5 Structure of available stable funding as at 31 December 2025



Note: The figure shows shares of individual categories in total available stable funding (after applying regulatory weights).
Source: EBA Risk Dashboard.

The high share of demand deposits raises risks of sudden liquidity outflows. The high share of demand deposits in total household deposits implies that a significant part of what is in regulatory terms treated as stable funding is in fact prone to rapid withdrawal or reorientation to other forms of assets. Amid a steeper yield curve and the growing attractiveness of alternative investment instruments (such as money market funds and government bond issues intended for retail investors), there is a growing risk of cumulatively substantial outflows, directly exerting pressure on the financing costs and net interest margin of the affected institutions. This structural channel is complemented by the risk of acute episodes of rapid outflows: international experience in recent years has shown that, amid digitalised banking and instant payment systems, negative information about individual institutions can trigger deposit outflows that are multiple times higher than assumed in the standard LCR methodology. Although the Croatian banking system is structurally characterised by a high level of depositor confidence and a high coverage of deposits by the guarantee scheme, the risks described suggest that regulatory liquidity indicators should be interpreted as a necessary, but not sufficient condition of resilience. This is why they are supplemented by liquidity testing (see Chapter II.B).

B Liquidity stress testing

Credit institutions' liquidity risk has returned to the spotlight of regulators and supervisors in recent years. A protracted period of an expansionary monetary policy, characterised by exceptionally high liquidity, pushed the analytical interest in liquidity risk into the background. However, the gradual rise of key interest rates and contraction of central bank balance sheets reshaped the liquidity environment after 2022, bringing about a fall in the market value of banks' portfolio of debt securities and a sudden materialisation of latent losses in balance sheets. Even though the monetary policy stance changed in mid-2024, interest rates remain higher than before 2022. This, coupled with increased uncertainty in the global macroeconomic and geopolitical landscape, increases the susceptibility of the banking sector to sudden disruptions in access to funding.

The structural changes in the financial system, influenced by the advancements in information technology, have increased the speed and the unpredictability of liquidity risk materialisation. The digitalisation of banking operations and the availability of real-time services enable instant transfer of funds for customers, while information on difficulties faced by some institutions spreads almost instantly. The increased frequency and intensity of geopolitical shocks further complicate the timely projections of outflows. Liquidity shocks in some banking systems in 2023[1] sparked a debate among regulators at international level and highlighted the need for analytical approaches going beyond the standard LCR framework. Namely, the projected rates of outflow of stable and less stable deposits do not fully reflect the speed of the transfer of funds through digital channels or the impact of the rapid dissemination of information on social media.

To reinforce the existing regulatory framework for liquidity risk in credit institutions, there is a growing need for complementary approaches to assessing liquidity resilience that go beyond the standard 30-day regulatory horizon. To this end, a liquidity stress test of the Croatian banking system was carried out on a three-month horizon, by applying a methodology based on protracted and more intensive shocks of inflows and outflows, with the inclusion of new aggregate system-wide resilience indicators that allow monitoring liquidity resilience dynamics over time. This examines the ability of institutions to withstand prolonged high-intensity liquidity pressures.

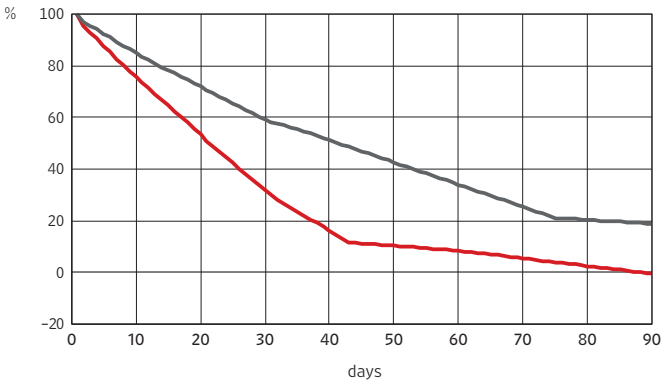
The simulated scenarios assume significant cumulative net outflows under different stress scenarios. In the significant outflows scenario (SO), the cumulative net outflows at the end of the three-month horizon stand at around 29.5% of total assets, while in the extreme outflows scenario (EO), they account for around 35.1% of total assets. If account is also taken of the effect of the assumed liquid asset haircut, which effectively reduces available liquidity reserves, the overall severity of the scenario increases further. If this component is included as well, the cumulative net outflows in the SO scenario reach around 80% of liquid assets, while in the EO scenario, they account for around 100% (Figure II.6). In addition, not only is the EO scenario more intense in total amount, but it is also faster and more demanding in the

1 The failure of Silicon Valley Bank and Signature Bank in spring 2023 and the acute liquidity crisis in Credit Suisse that culminated in its takeover by UBS have shown that liquidity strains, spurred by digital banking and fast dissemination of information on social media, can materialise considerably faster than the dynamics assumed by the standard LCR framework, especially because some of these institutions were meeting regulatory liquidity requirements immediately before the onset of stress (BCBS (2023), **Report on the 2023 banking turmoil**).

early phases of the horizon, which makes it structurally stronger than the final amount of outflow. In the SO scenario, the cumulative outflows in the first month account for around 15% of assets, while in the EO scenario, they reach 24.1% of assets as early as in the first month, suggesting that the pressure on liquidity is more pronounced in the early phase of the horizon and that the EO scenario, in terms of intensity, goes beyond the prescribed regulatory levels.

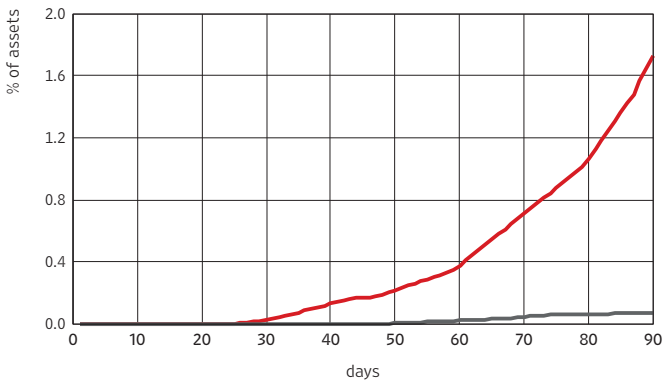
The Croatian banking system is highly resilient in terms of liquidity as it is able to successfully absorb liquidity pressures even in extreme scenarios that go well beyond regulatory requirements in intensity and duration. In the significant outflows scenario, almost all credit institutions managed to retain a positive net liquid position throughout the three-month period, while those with a negative position were systemically less important institutions, so that the impact on the aggregate level of liquidity at system level was subdued. Some of the banks were characterised by a higher concentration of deposit base and a smaller share of stable deposits, which in the extreme outflows scenario makes them more vulnerable to the simultaneous withdrawal of a small number of large depositors. In the extreme outflows scenario, a smaller number of institutions record a negative net liquid position after just one month, even though the funding gap at the end of the horizon accounts for as little as 1.73% of total system assets. This need is almost non-existent in the SO scenario and stands at 0.07% of assets (Figure II.7).

Figure II.6 Trend in net liquid position of the banking system across scenarios



Note: The y axis shows the remaining liquidity expressed as a percentage of the initial net liquid position.
Source: CNB.

Figure II.7 Funding needs by days as at end-2025

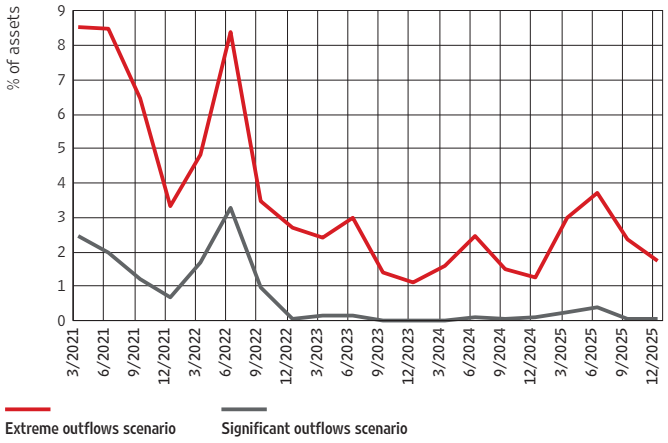


Source: CNB.

The weighted average system resilience (WSR) has recorded a structural upward trend from 2021 onwards. If such dry-run exercises had been carried out in the past few years, they would have shown higher funding needs at the end of the three-month horizon: under the EO scenario, funding needs drop from the level exceeding 8% of assets at the beginning of 2021 to below 2% at end-2025 (with temporary increases in mid-2022 and the first half of 2025), while under the SO scenario, they decline from the level of above 2% to that of below 0.1% of assets. This points to a structural build-up of liquidity buffers and a reduction in the sensitivity of the system to shocks over the observed period, although the liquidity position slightly deteriorated in 2025 from the year before (Figure II.8). Following a strong increase in liquidity surpluses in the period between 2021 and 2023, the WSR in the SO scenario is kept continuously close

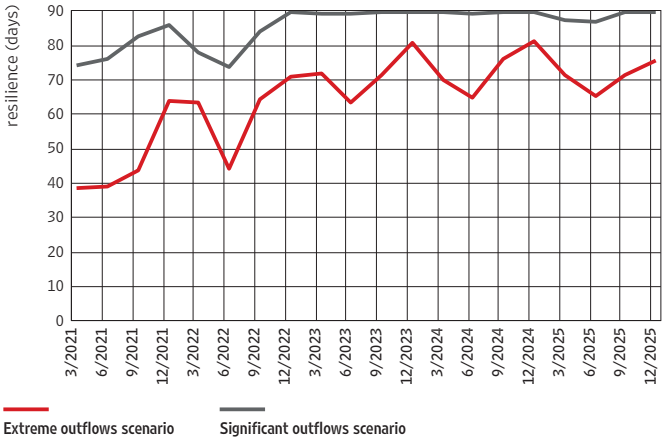
to the upper limit of the three-month horizon and stands at 89.7 days at end-2025, meaning that an average credit institution has no liquidity deficit, even in the case of regulatory stress. Under the EO scenario, the WSR stands at 75.8 days, meaning that an average institution maintains a positive net liquid position more than two and a half months, even in the conditions of extreme outflows reaching one third of the balance sheet total (Figure II.9).

Figure II.8 Funding needs on the 90th day of stress



Notes: The figure shows funding gap size (FGS). See more in stress test methodology.
Source: CNB.

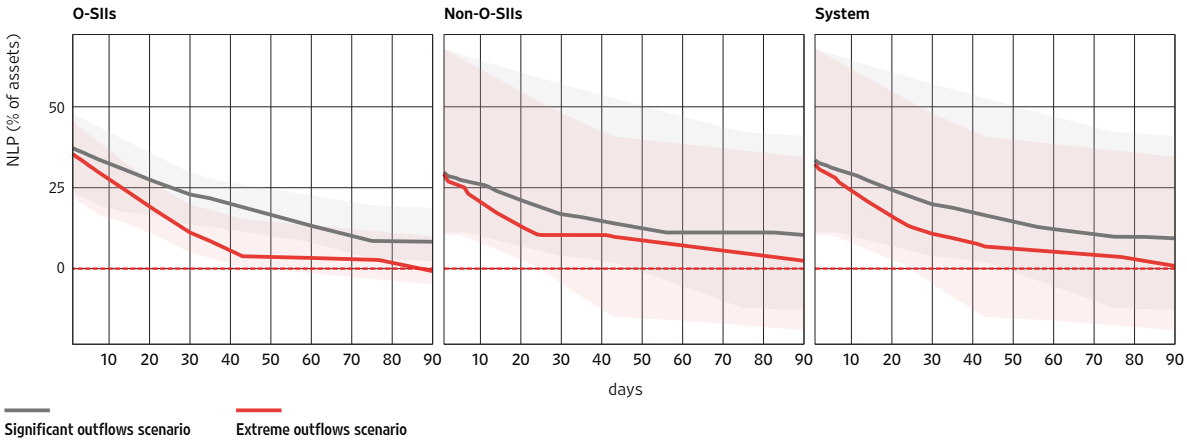
Figure II.9 Weighted average resilience of the banking system



Notes: The figure shows the weighted average system resilience (WSR). See more in stress test methodology.
Source: CNB.

The overall results confirm the robust liquidity position of the Croatian banking system. Accumulated liquidity surpluses allow the absorption of shocks several times more intense than the regulatory minimum, while a positive trend over the observed period suggests that credit institutions have systemically reduced their sensitivity to liquidity shocks. An average credit institution has maintained a positive net liquid position over a larger part of the three-month horizon, even in the conditions of extreme outflows that are several times greater than assumed in the regulatory LCR framework, while under the significant outflows scenario, there is practically no liquidity deficit. The distribution of liquidity resilience within the system is not uniform (Figure II.10). Some institutions have recorded a need for additional funding in the extreme outflows scenario, especially towards the end of the horizon, even though this need is limited, which is why the aggregate need for funding at system level has remained low. Differences in resilience are further accentuated by a gradual shift towards a higher concentration of deposit base (Figures D.17 and D.18).

Figure II.10 A more uniform liquidity position was recorded in systemically important institutions



Notes: The chart shows the distribution of net liquid position (NLP) of credit institutions, expressed as a share in total assets of an institution, over a 90-day horizon. The solid line represents median distribution, that is, the value below and above which there is an equal number of credit institutions within the observed group. The shaded area displays a range from the minimum to the maximum value within the group, illustrating the dispersion of liquidity positions across institutions.
Source: CNB.

Methodology for liquidity stress testing of credit institutions

Liquidity stress testing of credit institutions examines their resilience to stress conditions over a three-month horizon, under the assumption of a constant balance sheet and without further support from the central bank, other than renewals of the already agreed repo operations. A detailed description of the methodology is available in the publication Financial Stability No 25 (Box 6 Liquidity stress testing methodology, pp. 59–61). The exercise is based on a maturity ladder (ML) report, which covers the expected inflows and outflows and high-quality liquid assets (HQLA). Haircuts are applied when estimating the counterbalancing capacity (CBC): cash and reserves with the central bank are not subject to haircuts, while a 7% haircut is applied to government bonds, and 50% to 100% haircuts are applied to other assets.

Two scenarios are defined that differ in the intensity of outflows:

- **Scenario of significant outflows (SO)** replicates the assumptions under the regulatory LCR. A decrease in inflows from the private sector to 50%, outflows of stable deposits by 5% and outflows of less stable deposits by 10% to 100% are assumed in the first month. In the remaining two months, outflows of stable deposits stand at 3% and outflows of less stable deposits are 6.5% on a monthly basis.
- **Scenario of extreme outflows (EO)** assumes a full suspension of inflows from the private non-financial sector in the first month and increased pressure by depositors: stable deposits flow out at a rate of 10%, operating deposits flow out at a rate of 25%, while other household deposits flow out at a rate of 15%, and non-operating deposit rate reaches 70%. In the next two months, the outflow of stable deposits stands at 4.5% and the outflow of less stable deposits amounts to 8%.

- **Net liquid position (NLP)** measures the difference between the available liquid assets and cumulative net outflows until a specific moment in time:

$$NLP_t = CBC_{initial} - \sum \left[Outflows_{t,after\ shock} - \min\left(Inflows_{t,after\ shock}; 0.75 \cdot Outflows_{t,after\ shock} \right) \right], T = 90$$

- **Weighted average system resilience (WSR)** measures the number of days within the three-month horizon when an average credit institution, weighted by the share of assets, has maintained a positive net liquid position:

$$WSR = \sum_{i=1}^{N} d_i \times w_i; \; w_i = \frac{A_i}{\sum_{j=1}^{N} A_j}$$

where $\mathbf{d}_i$ is the day when an institution **i** has recorded NLP < 0 for the first time (for institutions that had no deficit within the horizon, the following is applied: $\mathbf{d}_i = H = 90$), and $\mathbf{w}_i$ is the share of its assets in total system assets. The indicator takes values within the following range: $1 \leq WSR \leq 90$; the higher the value, the more favourable the liquidity position.

- **Funding gap size (FGS)** measures the share of total system assets accounted for by institutions with a negative net liquid position in a specific moment in time:

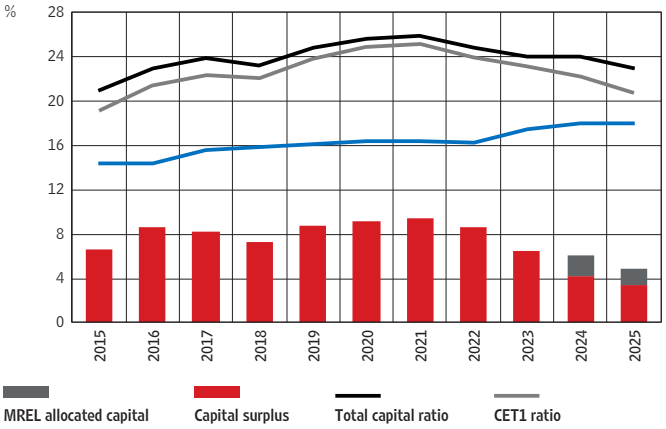
$$FGS_t = \sum NLP_{t,i} \leq 0$$

Unlike the previous exercise, where the indicators were calculated only at the reference date, this analysis includes monitoring of all indicators over time, which enables an additional dimension in assessing and monitoring the dynamics of liquidity resilience of the system, as well as the identification of possible structural changes or trends that are not visible from a single observation point.

C Capital position of credit institutions

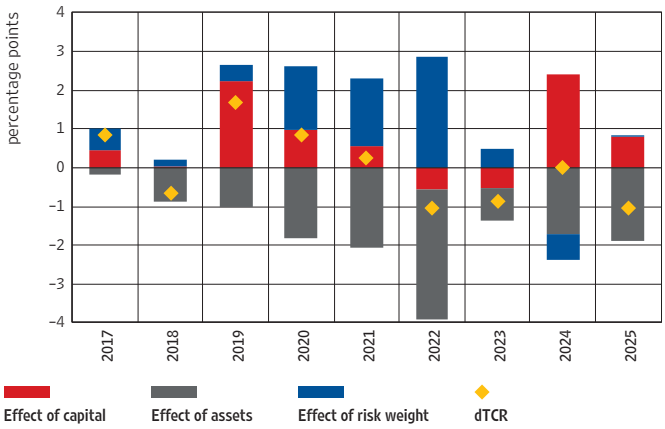
The banking system remained highly capitalised. However, the years-long narrowing of capital surpluses amid record dividend payouts has reduced banks' room for manoeuvre to absorb sudden shocks, which may result in a limited loan supply in stressed conditions. Total capital ratio (TCR) stood at 22.9% at end-2025 (Figure II.11), having gone down by 1 p.p. in 2025 due to a growth of total risk exposure amount (TREA) faster than the growth of own funds (Figure II.12). This was the lowest level of capitalisation since 2018, 3.0 p.p. lower than the peak level recorded in 2021, when banks accumulated considerable capital surpluses due to restrictions on dividend payouts during the pandemic. In earlier years, the impact of asset growth on the capital ratio was offset by retained profits and a fall in risk density. However, both of these counterbalances have weakened (Figure II.12). Highest-quality common equity tier 1 (CET1) ratio declined further by 1.6. p.p. in 2025, reflecting a strategic decision of banks to replace the more expensive equity with currently more affordable market-based additional capital instruments, which, in turn, have certain limits in the coverage of losses and are susceptible to market refinancing conditions. Although capital ratios are falling, a clean measure of capital strength independent of risk weights remains well above the prescribed levels: the leverage (capital-to-assets) ratio fell by 0.5 p.p. in 2025, even though its level of 10% still considerably exceeds the regulatory minimum of 3%, which means that Croatia is among the best capitalised systems in the EU in terms of this measure.

Figure II.11 Total capital ratio is falling, with increasing burden from regulatory requirements



Notes: The OCR refers to overall capital requirement (Pillar 1, Pillar 2 and combined capital buffer), while P2G means Pillar 2 guidance. Bars show the unused portion of capital (surplus above the regulatory requirements), of which a portion is also used to maintain MREL since 2024.
Source: CNB.

Figure II.12 Asset growth is the main source of pressure on capital ratio, while counterbalances are weakening

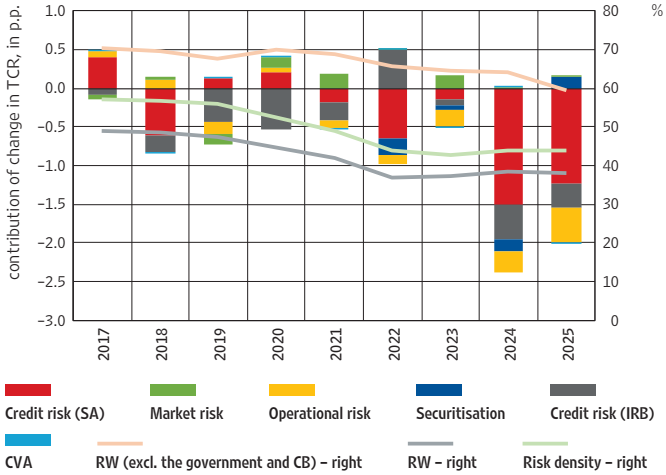


Notes: dTCR shows the annual change in total capital ratio, broken down to three components: the effect of assets, the effect of risk weight and the effect of capital. Positive values denote the contribution to the growth of capital ratio, while negative values denote the contribution to its decline
Source: CNB.

The growth of own funds is less and less driven by retained earnings and increasingly relies on the issuances of additional regulatory eligible instruments (AT1 and T2), making the capital base more susceptible to refinancing conditions. With the dividend payout ratio standing at 93% in 2025, well above the already relatively high multi-year average of 74% (Figure II.14), retained earnings made a positive contribution to the growth in own funds, by a mere 0.9 p.p., while the issuance of AT1 instruments and the increase in T2 capital via loans

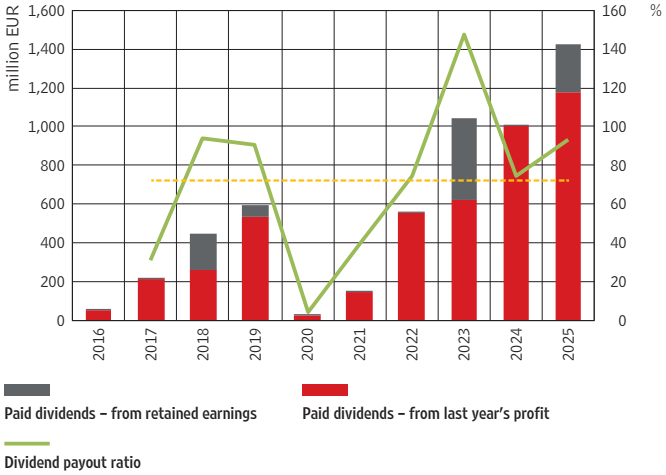
from parent institutions made a contribution of 2.8 p.p. to this growth (Figure D.20). Such a structure poses two specific risks: market emissions expose banks to refinancing risk at maturity of instruments and the risk of unavailability of capital markets in times of market turmoil, which have the potential to be mutually reinforcing in times of stress. In addition, the growing share of intragroup financing, while reducing exposure to market sentiment, increases dependence on the ability of parent institutions to continue to provide support in stressed conditions.

Figure II.13 Decomposition of the effect of components of risk-weighted exposure on total capital ratio (TCR)



Notes: Risk density is defined as a ratio between total risk exposure amount (TREA) and total (on- and off-balance sheet) exposure, and measures the average portfolio riskiness: lower density means that, on average, banks hold less risky assets while meeting the same regulatory requirements. CVA (Credit Valuation Adjustment) means a capital requirement for credit valuation adjustment risk of bonds. Lines represent the level of risk density (TREA/total exposure) and the average risk weight (RW) for credit risk, in total and excluding exposures to governments and central banks.
Source: CNB.

Figure II.14 High profit distributions limit organic capital accumulation

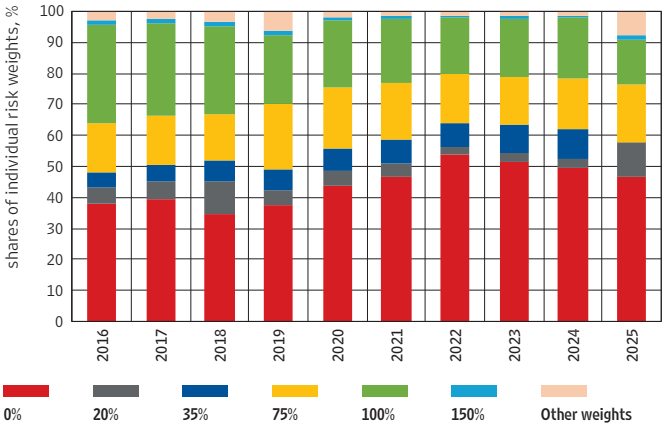


Note: Dividend payout ratio means the ratio between paid dividends and profit in the previous year.
Source: CNB.

The decline in risk density, which has been the strongest counterbalance to exposure growth for years and thus supported the capital ratio, is gradually being depleted. Risk density (total risk exposure-to-assets ratio) fell from 51.5% in 2015 to 38.1% at end-2025, largely due to the rise in the share of government bonds and assets held with the central bank, which are treated as risk-free under the standardised approach (Figure II.13). Observing only the credit risk portfolio after the exclusion of exposures to governments and central banks, the average credit risk weight went down from 64.2% at end-2024 to 59.6% at end-2025. This fall largely resulted from amendments under CRR3, according to which a portion of exposures to corporates migrated from the 100% weight category to the category of exposures secured by residential immovable property with a more favourable weight (see Box 7 Regulatory treatment of exposures secured by immovable property under the Capital Requirements Regulation (CRR3)). This allowed banks to benefit from the regulatory flexibility of the CRR3 framework by reclassifying portfolios, which resulted in a one-off reduction of risk-weighted assets without an actual change in the risk profile of placements. The depletion of this counterbalance to asset growth makes the system more dependent on retained earnings, the remaining factor in the increase in the capital ratio, precisely at a time when record dividend payouts also limit this channel.

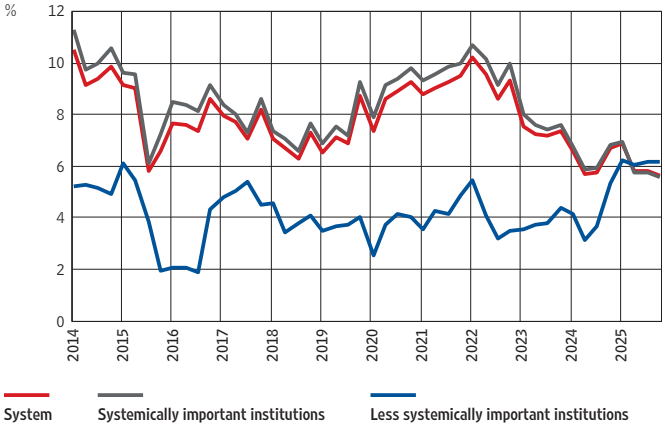
A more detailed observation of the structure of risk weight further confirms that the mitigating effect of structural shifts in the balance sheet has reached its limit. Despite regulatory changes introduced by CRR3, a zero weight is still applied to almost a half of total exposure to credit risk under the standardised approach, which reflects a significant share of exposures to governments and central banks in the system balance sheet (Figure II.15). Among the active weights, the share of 20% and 75% weights increased the most[2] as a result of regulatory changes in treating exposures secured by immovable property that does not generate income (see Box 7 Regulatory treatment of exposures secured by immovable property under the Capital Requirements Regulation (CRR3)) and a strong growth of housing loans to households.

Figure II.15 Nearly half of exposures are weighted at 0%, despite regulatory changes



Note: The figure shows the structure of exposures of credit institutions measured by the standardised approach for credit risk, broken down by categories of risk weights.
Source: CNB.

Figure II.16 Surplus capital above regulatory requirements is declining, especially in systemically important banks



Note: The figure shows the unused part of capital in excess of total regulatory requirements (OCR, including P2G) as a share in total risk exposure, broken down by systemically important institutions, systemically less important institutions and the banking system as a whole.
Source: CNB.

The narrowing of capital surpluses at system level largely reflects changes in the position of systemically important institutions, while less systemically important banks have strengthened their capital positions over the same period. Unused capital in excess of regulatory requirements at system level (i.e. management buffer) contracted from the record-high of 9.5% in 2021 to 3.4% of total risk exposure at end-2025, while total capital requirements (including Pillar 2 requirement) rose from 16.4% to 18.0% over the same period. Since 2024, banks are required to also meet the final MREL requirements, while using the same capital base to partially meet them further decreases capital surpluses (Figure II.11). Less systemically important institutions took advantage of the period of record-high profitability to strengthen their capital positions and at end-2025 had higher relative surpluses than systemically important institutions (Figure II.16), which recorded a narrowing in surpluses due to a double-digit credit growth, the depletion of the risk density effect and high dividend payouts. In addition, since 2022, banks have started to make a more intense use of securitisation as a balance sheet optimisation tool, and the share of securitised exposures in total risk exposure amount reached the EU average (see Box 3 Synthetic securitisation and risks to financial stability).

2 The 20% weight has practically replaced the previous 35% weight for exposures with LTV below 55%, while higher weights, usually 75% weights, are applied to the remaining exposures.

D Solvency testing[3]

Stress testing of credit institutions tests their resilience under hypothetical, extremely unfavourable macroeconomic and financial conditions that pose a highly unlikely but possible materialisation of systemic risks deemed relevant for the operation of the banking sector in Croatia. Even though stress testing is not a projection of unfavourable developments expected in the financial sector, it contributes to a timely assessment of systemic risks and financial system stability maintenance.

The credit institution stress-testing exercise shows that, considering the current level of capitalisation, credit institutions have continued to be able to withstand risk materialisation under a hypothetical adverse scenario considered unlikely but conceivable. The exercise encompasses a three-year horizon and analyses the capital ratio level under baseline and adverse scenarios concerning economic developments in the period from the beginning of 2026 to the end of 2028. Capital is compared with the total capital requirement, which includes the announced 0.5 percentage point increase in the countercyclical capital buffer rate as of 1 January 2027 and changes in the requirements for other systemically important institutions (see Chapter III). Since banks are also required to meet the minimum requirement for own funds and eligible liabilities (MREL), the capital ratio at the end of the testing horizon is also observed by taking account of this requirement. The results show that accumulated capital surpluses in the system, despite their several-year downward trend, are sufficient to absorb the effects of unfavourable developments at system level, even under the unlikely adverse scenario. As in previous years, the resilience of credit institutions under the adverse scenario is very heterogeneous.

D.1 Macroeconomic scenarios for stress testing

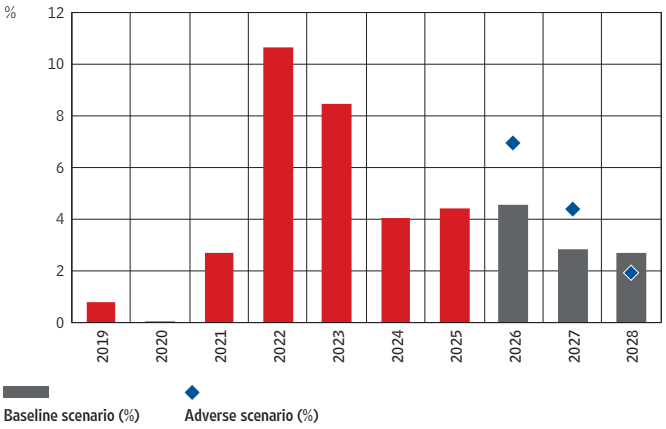
The stress testing of credit institutions in the period from 2026 to 2028 is carried out according to two different scenarios, that is, the baseline scenario and the adverse scenario. Under the baseline scenario, which assumes a relatively short-lived war in the Middle East[4], domestic economic activity growth could gradually slow down, largely due to the expected slowdown in the growth of real disposable income and the weakening of government investment due to a reduced use of EU funds, mostly associated with the expiry of the period planned for the use of funds under the Recovery and Resilience Facility. With a reduction in the contribution of domestic demand to real GDP growth, it is expected that, assuming a relatively rapid de-escalation of war in the Middle East, the contribution of foreign demand could strengthen. Real GDP could grow at a cumulative rate of 7.5% in the period from 2026 to 2028. The average annual consumer price inflation rate in the domestic market could accelerate in 2026 due to the rise in energy prices and, to a much smaller extent, due to an increase in

3 Stress testing of credit institutions examines their resilience (solvency) during hypothetical, extremely unfavourable macroeconomic and financial developments that pose unlikely but possible systemic risks, which, if materialised, are deemed relevant for the operation of the banking sector in Croatia. Even though stress testing is not a projection of unfavourable developments expected in the financial sector, it contributes to a timely assessment of systemic risks and the maintenance of stability.

4 This refers to the baseline scenario in the CNB's March 2026 macroeconomic projections, which assumes that energy prices follow the trajectory of price futures valid until 11 March 2026, with expectations of a gradual decline in the prices of oil and gas following their record-high level in the second quarter of this year.

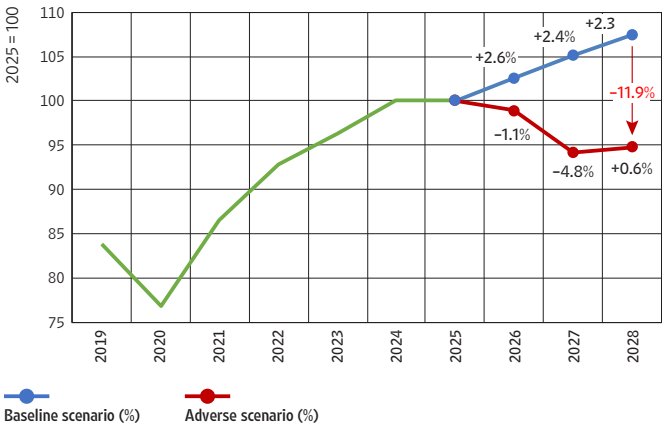
core inflation. In the next two years, overall inflation might slow down markedly due to the slowdown in inflation in most of the main components. House price growth might gradually abate in the observed three-year period, as a result of slower wage growth and reduced affordability following a years-long period of strong growth. As regards financing conditions, lending and deposit interest rates are expected to rise slightly and gradually, reflecting increased inflation expectations.

Figure II.17 Developments in consumer price inflation under baseline and adverse scenarios



Sources: CBS and the CNB's March 2026 macroeconomic projections for the baseline scenario and the simulation of the macroeconomic model PACMAN for the adverse scenario.

Figure II.18 Developments in real GDP under baseline and adverse scenarios



Sources: CBS and the CNB's March 2026 macroeconomic projections for the baseline scenario and the simulation of the macroeconomic model PACMAN for the adverse scenario.

The adverse scenario is based on a hypothetical assumption of a sharp escalation and a prolongation of the war in the Middle East, leading to severe disruptions in the functioning of global supply chains and further damage to critical transport and energy infrastructures. These conditions could lead to pronounced inflationary pressures and a noticeable deterioration in financing conditions. The scenario further assumes strong negative financial effects reflected in a considerable rise in volatility and risk premiums. Furthermore, global equity indices might drop markedly due to a downward revision of expected profits of corporates and reorientation towards safe financial instruments. Government bond yields would increase, reflecting higher inflation premiums and market expectations of a more restrictive monetary policy, with the concurrent widening of bond spreads[5] of highly indebted euro area countries. Financing conditions might tighten through higher debt and equity financing costs and a fall in the value of collateral, with a simultaneous drop in real estate prices, which would further hamper access to finance for households and corporates. A fall in domestic demand would be exacerbated by the negative and persistent confidence effects and the negative wealth effect resulting from the fall in prices of financial and other assets. In addition, a protracted period of high prices of raw materials and tightened global financial conditions would put a heavy strain on the world economy and foreign demand, mostly from other EU countries that are Croatia's major trading partners. In the coming years, the initial inflationary shock would be cushioned by a gradual weakening of domestic and foreign demand due to recessionary developments (Table II.1).

5 Bond spread means the difference between bond yields of a euro area country and yields on risk-free instruments, such as German governments bonds.

Table II.1 Main features of baseline and adverse macroeconomic scenarios

	Initial value	Baseline scenario			Adverse scenario		
	2025	2026	2027	2028	2026	2027	2028
International environment							
GDP EA (annual rate of change, %)	1.5	0.9	1.3	1.4	−3.3	−5.4	1.3
EURIBOR 3M, %	2.2	2.3	2.6	2.6	4.2	3.8	3.4
Macroeconomic developments							
GDP (annual rate of change, %)	3.2	2.6	2.4	2.3	−1.1	−4.8	0.6
Personal consumption (annual rate of change, %)	2.5	3.2	2.6	2.4	−1.5	−6.2	0.4
Investments (annual rate of change, %)	6.1	3.7	1.5	1.6	−3.6	−6.2	5.2
Unemployment rate (%)	4.9	4.7	4.6	4.5	6.1	10.0	8.7
Real estate prices (annual rate of change, %)	14.1	11.1	7.8	7.2	0.6	−8.7	−3.7
Inflation (%)	4.4	4.6	2.8	2.7	6.9	4.4	1.9
Financing conditions							
Yield on government bonds	3.1	3.4	3.5	3.6	5.3	5.0	4.8
Lending rates on new business of households, housing loans	3.0	3.2	3.4	3.5	4.7	5.0	4.7
Lending rates on new business of corporates	4.0	4.0	4.2	4.3	5.3	5.5	5.1
Deposit rates on new business of households, time deposits	1.5	1.7	1.8	1.9	3.1	3.4	3.2
Deposit rates on new business of corporates, time deposits	2.0	2.0	2.3	2.4	3.5	3.7	3.4

Sources: CBS, CNB, EBA, Eurostat, ECB, CNB's March 2026 macroeconomic projections for the baseline scenario. The adverse scenario uses the trajectory of oil prices from the CNB's extremely adverse scenario published in March 2026, while the trajectories of domestic macroeconomic variables are obtained from the simulation of the macroeconomic model PACMAN.

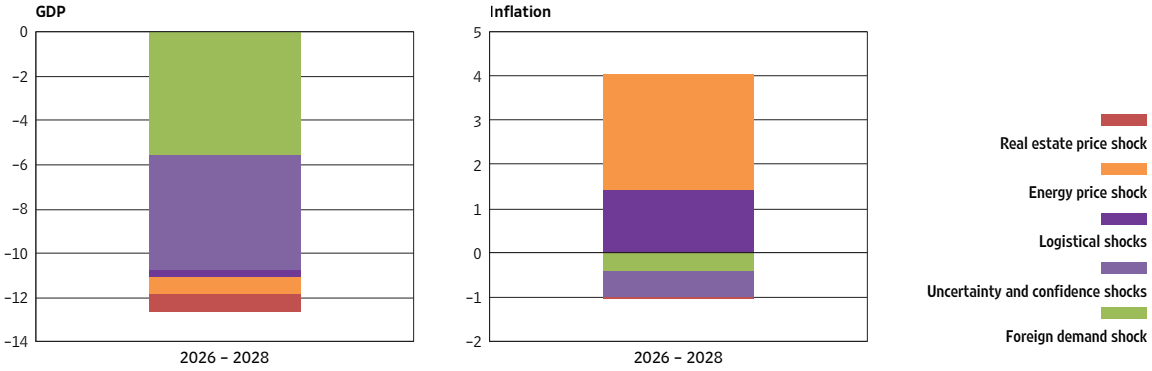
This adverse scenario uses the same assumptions about oil and gas price developments as those used in the extremely adverse scenario published as part of the CNB's spring macroeconomic projections[6], which assume a much slower normalisation of energy prices than under the baseline scenario. Unlike the extremely adverse scenario from the macroeconomic projections, this adverse scenario includes an oil price shock, as well as strong and persistent negative confidence shocks resulting from a change in sentiment, rising volatility, growing risk premiums, declining asset value and rising financing costs. The scenario also includes logistical shocks stemming from problems with the availability of critical raw materials from the region, notably oil and gas, artificial fertilisers, petrochemical products and other raw materials, leading to actual shortages due to interruptions in supply (Figure II.19)[7]. All this would have an impact on the increase in manufacturing costs, contraction in production capacity, decline in profitability and investments of corporates, with a negative effect on the labour market. Ultimately, the reduction in personal consumption, investments and exports

6 Available at https://www.hnb.hr/en/analyses-and-publications/macroeconomic-projections. The extremely adverse scenario assumes that oil and gas prices could go up to almost USD 150 per barrel and to more than EUR 100 per MWh, respectively, in the second quarter of 2026, and potentially decrease afterwards. Prices for energy could remain elevated until the end of 2027, with oil prices exceeding USD 100 per barrel and gas prices standing at around EUR 60 per MWh, and then gradually normalise in 2028.

7 The Middle East is a concentration point of global supply chains for several key commodity categories. Persian Gulf countries hold approximately 48% of the world's proven oil reserves and about 40% of natural gas reserves, while about 20%–25% of world's oil trade and roughly a third of seaborne LNG flows pass through the Strait of Hormuz. The region is also an important exporter of nitrogen fertilisers (urea, ammonia), as well as petrochemical products and sulphur. Additional horizontal risk in the event of the potential spread of the conflict in the region would be the maritime transit through the Bab el-Mandeb Strait and the Suez Canal, which affects the costs and journey time for the transport of goods between Asia and Europe, regardless of the origin of the raw materials. Turmoil in the region would also have an impact through the inflation channel (energy, food because of fertilisers) and the logistics channel (sea freight rates).

under this scenario would lead to a strong decrease in domestic economic activity, which would begin to gradually recover as late as in 2028; the effects on real activity would be considerably more negative than in the extremely adverse scenario published as part of the CNB's March 2026 macroeconomic projections.

Figure II.19 Decomposition of macroeconomic variables under adverse scenario for initial shocks



Note: The charts show the amount of the cumulative decrease in GDP, that is, the increase in inflation during the observed period from 2026 to 2028, under adverse and baseline scenarios.
Sources: CNB calculations and the simulation of the macroeconomic model PACMAN for the adverse scenario.

D.2 Banks' performance under the baseline and adverse scenarios

Over the stress testing horizon, a gradual decline in banks' net interest margin is expected under both scenarios, with a negative effect on net interest income as the main source of their profitability[8]. The estimated growth in interest expenses outweighs the growth in interest income, while under the adverse scenario, the materialisation of interest rate-induced credit risk further accentuates downward pressures on net interest income. The economic downturn under the adverse scenario also leads to the weakening of net fee and commission income[9], while under the baseline scenario, it hovers around the same level as in 2025. Net operating earnings under both scenarios are additionally eroded by the growth in the cost of impairments resulting from the technical assumption that the cure rate equals 0[10]. Under both scenarios, administrative expenses grow in parallel with the increase in wage costs (linked to inflation in the previous year) and in line with the increase in other administrative expenses by linear progression.

Credit quality[11] under the baseline scenario remains relatively stable throughout the horizon (Box 5 Development of the expected credit loss model as part of stress testing, Figure

8 Corporate and household net interest income is estimated separately, depending on the model estimate of interest rates developments for new household and corporate loans.

9 Fee and commission income was modelled in relation to bank assets using the dynamic panel and the generalised method of moments, in which macroeconomic variables were included as explanatory variables. Fee and commission expenses were assessed as a historical percentage of fee and commission income.

10 In line with EBA's methodology.

11 In assessing credit quality, the existing models were upgraded so that instead of estimating the NPLR and estimating the impairment costs separately from the increase in stage 2 loans, an expected credit loss model was developed using a transition matrix (see Box 5 Development of the expected credit loss model as part of stress testing).

4), **while it deteriorates markedly under the adverse scenario.** The probability of default under the baseline scenario remains at low levels across all the observed credit portfolios, reflecting resilience supported by favourable macroeconomic conditions and a stable labour market. Phase 1 to phase 2 transitions display somewhat larger volatility, but still remain relatively stable within the usual range. Under the adverse scenario, a combination of strong domestic activity contraction, rising interest rates and a sharp fall in real estate prices leads to a deterioration in credit quality. In the household sector, the simulated default rate in the three-year period increases by 1.4 p.p. for housing loans and by a somewhat higher rate of 2.4 p.p. for non-housing loans, as negative economic developments hit non-housing loans first and harder due to historically less stringent lending criteria (see Box 1 Crises are not accidental: why are non-housing loans to households going bad?). In the non-financial corporate sector, the default rate increases by 2.6 percentage points in the first two years and decreases moderately in the third year.

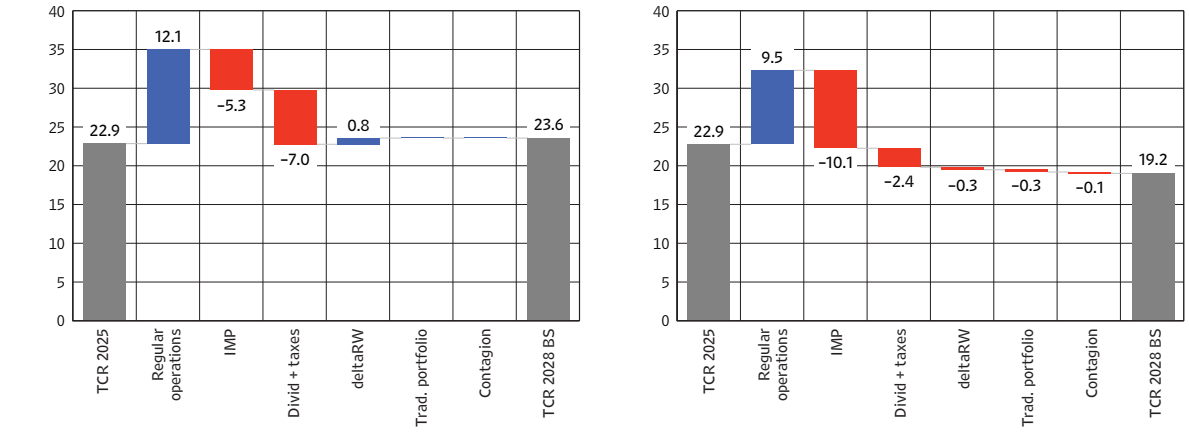
D.3 Assessment of banking system stability

Under the baseline scenario, the capital ratio increases from 22.9% at the end of 2025 to 23.6% at the end of 2028, owing to partial retention of earnings. Both scenarios assume that in 2026, credit institutions will pay out the announced amount of profit for 2025. In the following years, with the assumed fall in profit under both scenarios, the payment of taxes and dividend payouts in the amount of 80% of profit after tax from the previous year is assumed[12], while the remaining portion of earnings leads to an autonomous capital increase.

Under the adverse scenario, capital ratio decreases throughout the horizon and drops to 19.2% at the end of 2028. The difference from the baseline scenario stems primarily from additional impairments due to credit risk materialisation in an unfavourable economic environment. Consequently, net operating earnings also decline due to borrowers' lower debt servicing capacity. The growth in government bond yields under the adverse scenario lowers their market value with a negative impact on capital, even though this impact is partially cushioned by the rise in interest income from the central government through the replacement of instruments with higher market yields (Figure I.D.6). In addition to these direct negative effects, there are also indirect negative effects caused by interbank contagion, that is, losses due to credit institutions' exposures to institutions in distress, in other words, those that do not meet supervisory capital requirements. At the same time, risk-weighted exposure is growing due to a deterioration in the ratio of exposures to the value of the pledged real estate due to a fall in real estate prices, which increases risk weights under the standardised approach (see Box 7 Regulatory treatment of exposures secured by immovable property under the Capital Requirements Regulation (CRR3)) and consequently also increases the capital requirements.

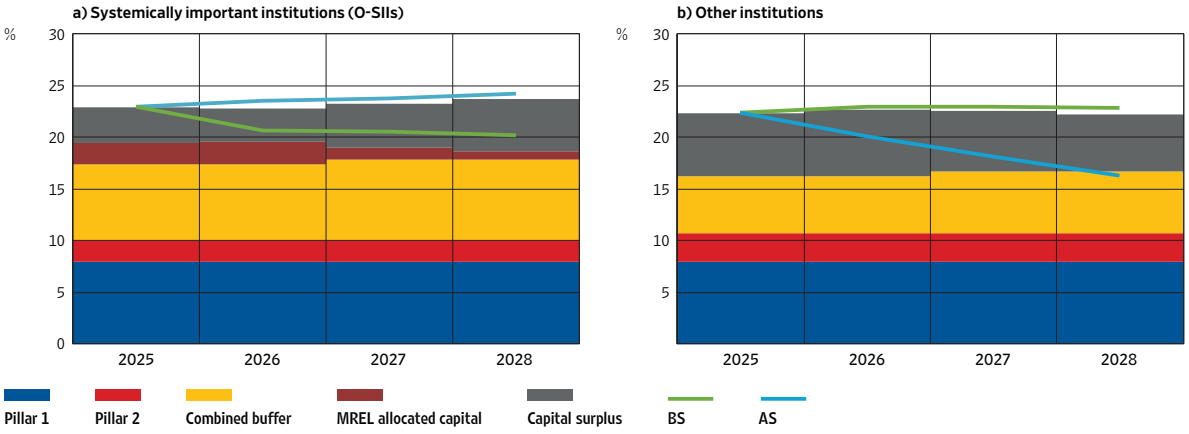
12 For one bank, dividend payout is limited under the adverse scenario, in accordance with Article 141 of the Capital Requirements Directive.

Figure II.20 Decomposition of change in the capital ratio under baseline and adverse scenarios, from the end of 2025 to 2028



Notes: TCR 2028 BS denotes total capital ratio at the end of the horizon (in 2028) under the baseline scenario, while TCR 2028 AS denotes this rate under the adverse scenario. Regular operations refer to net interest income, net fee and commission income and dividend income. IMP refers to costs of increase in impairments.
Source: CNB.

Figure II.21 Capital ratio under baseline and adverse scenarios with respect to prudential capital requirements



Notes: Pillar 1 – minimum capital requirement; Pillar 2 – own funds requirements appropriate to overall system average; the combined buffer consists of SRB – systemic risk buffer; CCoB – capital conservation buffer; O-SII buffer – the capital buffer for other systemically important institutions; CCyB – countercyclical capital buffer; BS – total capital ratio under the baseline scenario; AS – total capital ratio under the adverse scenario. Capital surplus is defined as the difference between the total capital ratio of a credit institution under the baseline scenario and the sum total of prudential and resolution capital requirements for that credit institution, i.e. as the BS – (Pillar 1 + Pillar 2 + CCoB + SRB + O-SII buffer + CCyB) – MREL requirement (% of TREA).
Source: CNB.

In addition to prudential capital requirements, the banking system also meets the parallel final MREL[13] requirements under the adverse scenario. With respect to the balance of own funds and eligible instruments that banks had at the end of 2025, assuming an autonomous capital increase under the simulated scenarios, the MREL requirements and the combined capital buffer that banks are also required to maintain are met in both scenarios.

The stress test results suggest a substantial heterogeneity across institutions (Figure II.21). The banking system as a whole and the aggregate of systemically important credit institutions have also remained resilient under the adverse scenario, while the accumulated capital surpluses efficiently absorb the unfavourable effect of macroeconomic developments, so that

13 Minimum requirement for own funds and eligible liabilities.

the capital ratio is held at above the regulatory requirements. For a portion of other credit institutions, the accumulated capital surplus was not sufficient to absorb the effect of several years of unfavourable economic movements, so that in the last year of the adverse scenario, other credit institutions as a whole depleted their capital surplus and slightly encroached on the combined capital buffer. At the level of individual credit institutions, nine institutions encroached on the combined capital buffer at the end of the stress horizon, while one institution also encroached on the supervisory Pillar 2, and three institutions also breached the Pillar 1 capital requirement. A total of four credit institutions, accounting for 1.1% of the total assets of the banking system, failed the system's stress test, since they breached the total SREP capital ratio (TSCR).

The results of this year's stress testing of credit institutions are less favourable than in the previous year, largely due to a lower initial total capital ratio, stemming from high profit distributions and reduced capital retention within the system. At the same time, the continued strong lending increased the exposure to credit risk, increasing potential losses stemming from the deterioration in the quality of placements under stressed conditions. In addition, a lower contribution of net interest income to the business results of banks compared with previous years limits the possibility of a significant organic capital generation over the projection horizon.

The solvency test has shown that the banking system is capable of absorbing hypothetical shocks, highlighting the importance of maintaining adequate capital buffers. High capitalisation is a key factor in protecting the system and enabling it to overcome rare, but possible crisis situations caused by the deepening and prolongation of the negative effects of the parallel economic downturn, inflationary pressures and tightened global financial conditions. Capital buffers play a key role, and their build-up has additionally increased the resilience of the banking system in recent years and created additional room for monetary policy manoeuvring for potential release in times of crisis, in order to alleviate the potential negative effects on lending activity. In addition, any voluntary capital surpluses that banks maintain above regulatory requirements provides them with additional stability and capacity to adjust in crisis situations. Maintaining high levels of capitalisation will continue to be crucial for preserving the stability and resilience of the banking sector.

BOX 5

Development of the expected credit loss model as part of stress testing

Solvency stress testing of the banking system is one of the main tools for assessing the resilience of banks' capital, and its credibility depends on the quality of satellite models that link scenario trajectories to the materialisation of individual risks. Among them, the expected credit loss (ECL) estimate is critical as impairments directly affect the profitability, capital and solvency of credit institutions. This box describes an upgraded version of the model used for estimating credit loss that the CNB employs in its stress testing system, with a special focus on modelling the Z-score as a one-parameter representation of the transition matrix, which allows linking the probability of transition between loan stages to macrofinancial variables and assessing expected credit loss.

One of the key elements of stress testing is modelling of credit risk sensitivities to macrofinancial disturbances and estimating their impact on the banking system. Credit risk materialisation is reflected in the increase in expected credit loss, with its impact on profitability and indirectly also on the level of total capital ratio and the solvency of credit institutions quantified through the increase in impairments. Changes in the portfolio credit quality that cause increases in impairments most frequently occur in the conditions of adverse macrofinancial developments, characterised by the rise in the probability of default and the transition of exposures to riskier stages of credit risk. Therefore, a reliable assessment of expected credit loss is critical for credible stress testing results.

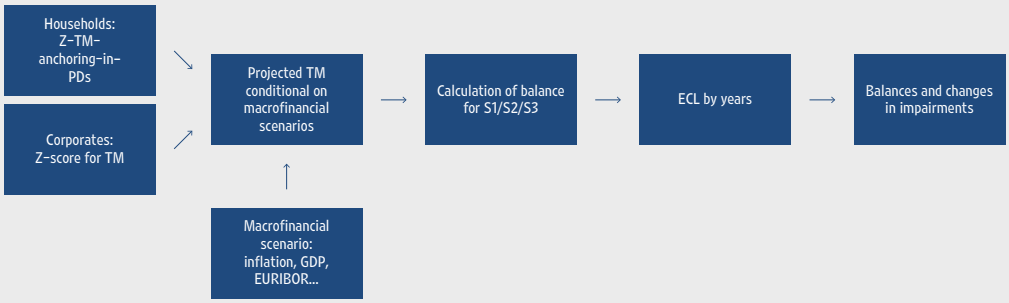
The previous approach to estimating credit loss in stress testing was based on a combination of partial models adjusted to particular segments of the credit portfolio. For stage 3 loans (non-performing loans ratio, NPLR), a satellite NPLR model was used (see Box 6 Macro models for forecasting non-performing loans in Financial Stability 22). For stage 2 loans to non-financial corporations, a model of probability of default (PD) was applied (see Grebenar (2018)). However, impairment costs for stage 2 household loans were estimated indirectly, by applying the ratio of new impairments for stage 2 loans to non-financial corporations and their total exposure to the corresponding household portfolio. This approach had several limitations: a) transitions between stages are not modelled explicitly, which undermines consistency across portfolio segments; b) the dependence of PD on macrovariables is modelled by a logit transformation of limited robustness[1]; c) impairment estimate for stage 2 household loans considers assumptions from the non-financial corporate sector, ignoring structural differences between sectors.

Therefore, instead of relying on separate models for stage 2 and stage 3 loans, credit risk score is upgraded by focusing on changes in expected losses between stages. The new framework models the dynamics of the transition of exposures between stages depending on macrofinancial variables taken from the baseline and adverse scenarios, with expected losses

1 Gross, M. and J. Población: A false sense of security in applying handpicked equations for stress test purposes, Working Paper Series No 1845, European Central Bank, September 2015. Authors explain that a stress testing system in which credit risk models are based on a single model specification is not robust as it is subject to a high probability of error (e.g. due to a possible omitted variable bias).

being formed in a way that is more adjusted to the actual accounting provisioning process in banks. This also allows for a better interpretation of results: instead of aggregated deterioration in portfolio quality, the model explicitly shows the channels (migrations between stages, changes in the probability of default) through which the scenario affects provisions and capital.

Figure 1 Diagram of the model used for estimating credit loss



Notes: TM stands for transition matrix, while PD denotes probability of default. S1/S2/S3 refer to stage 1, stage 2 and stage 3 financial assets, while ECL stands for expected credit loss.
Source: CNB.

The basic idea is to integrate the movement of loans across different credit risk stages into a single common indicator called the Z-score.[2] Instead of observing each of the nine transition probabilities separately, the Z-score is calculated by combining all nine transition probabilities into a single indicator which summarises the prevailing trajectory of portfolio credit quality. In other words, the Z-score is a single number which shows how the current behaviour of the portfolio is different from the historical average and whether credit quality will have a positive or negative trend. If the Z-score is positive, loans behave, on average, better than the long-term average, meaning that they migrate less frequently to riskier stages, such as stage 2 and stage 3, and recoveries are more common. If the Z-score is negative, credit quality deteriorates and there is a higher probability of transition into riskier stages. The advantage of this approach is that the entire dynamics of credit risk is reduced to a single latent variable that can be linked to macrofinancial variables under the baseline and adverse scenarios. From such a simulated Z-score, the entire transition matrix for transitions between credit risk stages is reconstructed, and from it the expected credit loss is reconstructed as well (Figure 1).

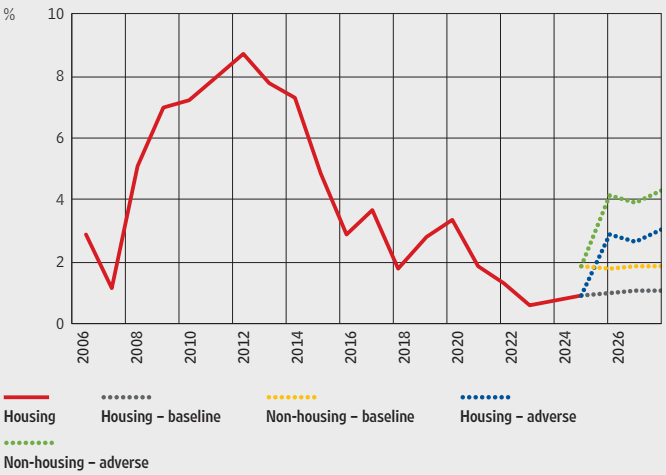
The way in which the Z-score is simulated is different for corporates and households, due to different availability of data. For non-financial corporations, data on transition matrices are available for a longer period of time than for households, so that the Z-score is calculated directly from historical transitions between stages and is then statistically linked to macrofinancial variables[3] to simulate the trajectory of the Z-score in relation to the movements

2 The methodology is based on Belkin, B., L. R. Forest Jr. and S. J. Suchower: A one-parameter representation of credit risk and transition matrices, CreditMetrics monitor, Third Quarter, JP Morgan, New York, 1998 and Gross, M., M. Leika and P. Lukyantsau: Expected Credit Loss Modeling from a Top-Down Stress Testing Perspective, IMF Working Papers 2020/111, International Monetary Fund, July 2020.

3 Linking of the Z-score to macrofinancial variables was carried out by combining the ARDL with a sign restriction and the Bayesian model averaging method (BMA; Gross and Población, 2017), which allows for systematic averaging across a wide set of potential specifications, thereby reducing the dependence of results on the arbitrary choice of models.

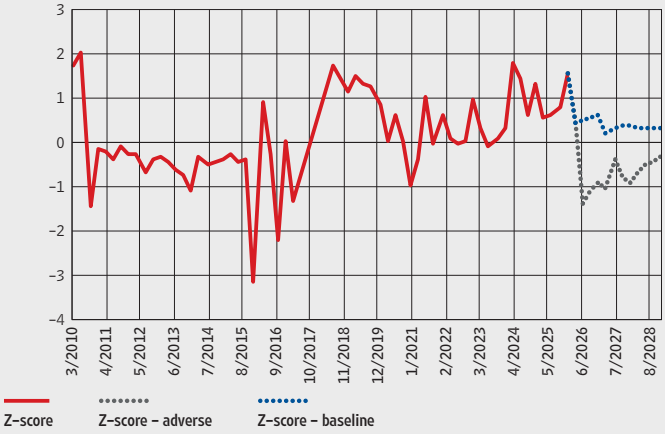
of macrofinancial variables (Figure 3). For households, where available data on migrations between stages do not cover the full business cycle for all banks, a workaround is applied: first, default rates for housing loans of large banks[4] are simulated, in relation macrofinancial developments (Figure 2), and then the Z-score trajectory is calibrated so that it generates stage 3 transition probabilities[5] as simulated rates. For non-housing loans, for which data are even scarcer, the default rate is derived from the housing loan rate through a simple linear link, calibrated separately for the baseline and adverse scenarios. For all portfolios, the simulated Z-score for both scenarios is ultimately translated back to the transition matrix[6].

Figure 2 Estimated default rate for the household sector



Note: A historical series of default rates is not available for non-housing loans.
Source: CNB.

Figure 3 Estimated Z-score for the corporate sector



Notes: Z-score shows how different the credit quality is from the long-term average: when Z-score is positive, loans behave better than usual, and when it is negative, the quality deteriorates. For the period from Q2 2017 to Q2 2018 no data are available on the amounts of stage 2 loans or the amounts of loans in A2 risk category that describes stage 2 loans well, and for these periods Z-score has been linearly approximated.
Source: CNB.

This simulated transition matrix is used to calculate expected credit loss. For stage 1 loans, loss over the next 12 months is observed, while for stage 2 loans, the lifetime ECL is considered. For stage 3 loans, an average rate of coverage is applied, aligned with the regulatory provisioning calendars, given that the lifetime ECL leads to lower expected credit losses than the prescribed minimum.

Simulated probabilities of transition to riskier stages show different dynamics under baseline and adverse scenarios. With regard to non-financial corporations, the probability of default in the adverse scenario grew the most, suggesting a build-up of credit risk and high sensitivity of this segment to macroeconomic conditions. A more moderate growth in PD was recorded for household loans. Transitions from stage 1 to stage 2, which are the main channel of leaps in provisions, clearly react to cyclical conditions and under the adverse scenario they boost the impairment dynamics before the materialisation of actual defaults

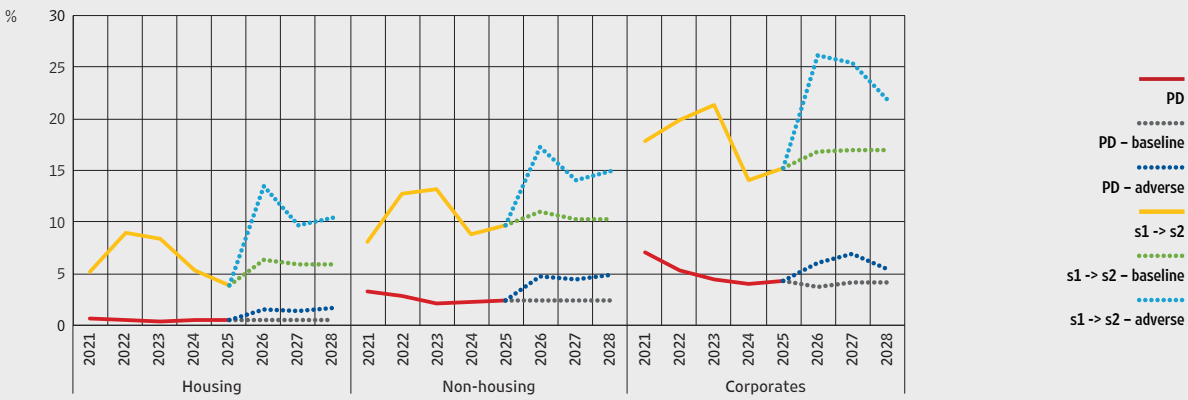
4 The historical default rates were available for the four largest banks for the period from Q1 2007 to Q4 2025, accounting for 72% of total banking system assets as at 31 December 2025. The representativeness of the sample was confirmed by comparing the data with the system's NPLR.

5 Probability of default is calculated as the weighted average of the probability of transition to stage 3, weighted by exposures.

6 Transition matrices for housing and non-housing loan portfolios were estimated according to annual data, while for loans to non-financial corporations they were estimated at quarterly level, conditional on differences in data availability.

(Figure 4). This is in line with the expectations, with a somewhat more pronounced sensitivity of individual credit portfolio segments to changes in macroeconomic conditions. Under the baseline scenario, the probability of default remains low in all the observed credit portfolios, reflecting the resilience of the portfolio supported by favourable macroeconomic conditions. However, the back testing of estimates is not yet fully possible, as banks started calculating impairments based on expected credit losses as late as in 2018, which is why data on transitions of exposures between credit risk stages still do not cover a sufficiently long period for a robust model estimation throughout the business cycle.

Figure 4 Transition probabilities for different portfolios implied by TM



Notes: Annual values are shown for the portfolios of housing and non-housing loans, while average quarterly values within a year are shown for non-financial corporations portfolios . TM stands for transition matrix. Transition matrix shows the probability of a loan transitioning from one stage to another over an observed period of time. PD stands for probability of default, while s1->s2 means a transition from stage 1 to stage 2.
Source: CNB.

The presented framework brings significant methodological refinements, albeit there are still some limitations that should be taken into account when interpreting results. These limitations stem primarily from the availability and quality of data: historical time series cover only one complete credit cycle and part of the following credit cycle, which limits the accuracy of the calibration of extreme scenarios. Further limitations stem from the simplifications necessary in the modelling of transition dynamics, especially in segments where the PD anchoring approach has been applied. Finally, the empirical model validation is limited by the relatively short period of application of IFRS 9 (since 2018), which does not yet cover the full business and credit cycle. Therefore, the results obtained should be interpreted as indicative estimates of potential movements of credit risk under the given macroeconomic scenarios, and not as precise predictions of the expected losses, which require a wider database, improvement of satellite models and additional validation of key parameters.

III Implementation of macroprudential policy

With the deepening of domestic cyclical vulnerabilities coupled with heightened global uncertainty, the CNB additionally strengthened the resilience of banks and households to possible adverse shocks in the second half of 2025. It raised the countercyclical capital buffer rate from 1.5% to 2.0% in September 2025 and confirmed the status of other systemically important credit institutions in December 2025, raising the buffer rate for one institution. The systemic risk buffer rate will remain at the level of 1.5% until the next regular review. Capital measures are complemented by restrictions on consumer lending criteria, in effect since 1 July 2025, and the first assessments suggest that the effects on lending activity and the riskiness of borrowing are gradual and consistent with the objectives of the measure. In the area of risks associated with the immovable property market, the macroprudential framework in 2025 has been adjusted to the amended Capital Requirements Regulation (CRR3), with the CNB maintaining a more restrictive definition of residential immovable property for the use of the preferential risk weight.

A Capital buffers

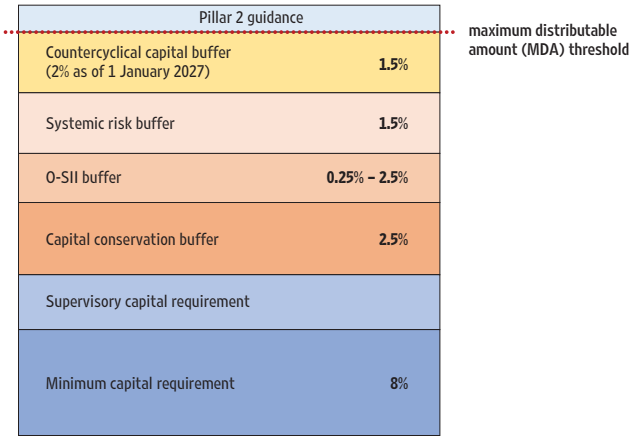
Amid elevated cyclical systemic risks and uncertain future developments, the CNB additionally strengthened the combined capital buffer in the second half of 2025, increasing macroprudential space in the event of systemic risks materialisation. The CNB imposes additional macroprudential capital buffers on credit institutions in order to strengthen their resilience to sudden shocks and adverse financial and macroeconomic scenarios. The combined buffer consists of the capital conservation buffer of 2.5% of the total risk exposure amount, as prescribed by European regulation, the countercyclical capital buffer of 1.5% (2.0% as of 1 January 2027, an increase announced in September 2025), the systemic risk buffer of 1.5% and the buffer for other systemically important institutions ranging between 0.25% and 2.5% (Figure III.1).

A.1 Countercyclical capital buffer

At the end of September 2025, the CNB increased the countercyclical capital buffer rate from 1.5% to 2.0%, to be applied as of 1 January 2027 (Figure III.2). The measure is aimed at further strengthening banking sector resilience amid the continued expansion of the domestic financial cycle and the further build-up of cyclical systemic risks. In the first half of 2025, the domestic economy was marked by strong and broad-based bank lending to the non-financial sector, with continued robust growth in immovable property prices, faster than in most other EU member states (see Chapter I.B). The acceleration in household lending in the first half of the year was partly due to more favourable conditions for housing loans offered

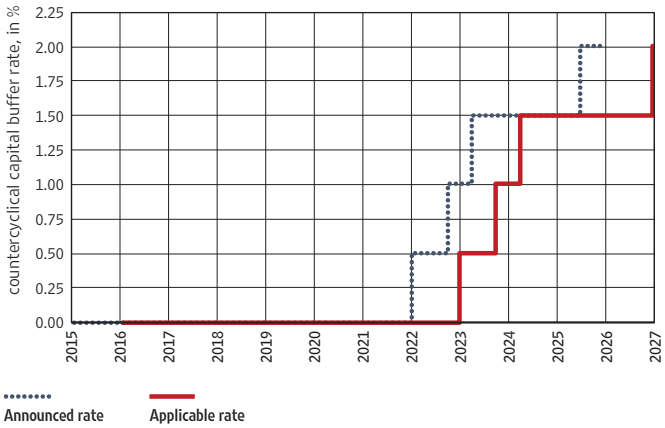
by banks ahead of the announcement of the introduction of restrictions on consumer lending criteria, which prompted some consumers to contract loans earlier.

Figure III.1 Capital requirements for banks in 2026



Notes: Illustration. The amount of buffers shown does not represent their real size. The MDA threshold refers to the calculation of the maximum distributable amount given the degree of compliance with capital requirements.
Source: CNB.

Figure III.2 Countercyclical capital buffer rates



Note: Between the announcement of the rate and its application, the usual legal time limit of 12 months is applied.
Source: CNB.

With the strong growth in loans and residential immovable property prices, the indicators of cyclical systemic risk grew additionally, pointing to the need for a higher capital buffer rate. Intensive lending growth led to an increase in the credit-to-GDP ratio and a further divergence from its long-term trend, additionally increasing credit-to-GDP gap indicators specific[1] to the Republic of Croatia. The elevated value of the composite indicator of cyclical systemic risks[2] primarily reflects strong lending activity and increased debt burden in a low interest rate environment, which points to a possible underestimation of credit and other risks. The contribution of the growth in residential immovable property prices was also pronounced, while strong domestic demand and the weakening of cost competitiveness were reflected in the deepening of the current and capital account deficit, which additionally contributed to the build-up of systemic risks. The rise in cyclical risk indicators raised benchmark countercyclical buffer rates, pointing to the need to increase the rate above the previous 1.5% since June 2024.

Regular assessments of cyclical risks in the remainder of the period confirmed the appropriateness of the countercyclical buffer rate of 2.0%, also taking into account the complementary effect of restrictions on consumer lending criteria. The credit-to-GDP gap indicators and the composite indicator of cyclical systemic risk remained elevated in the

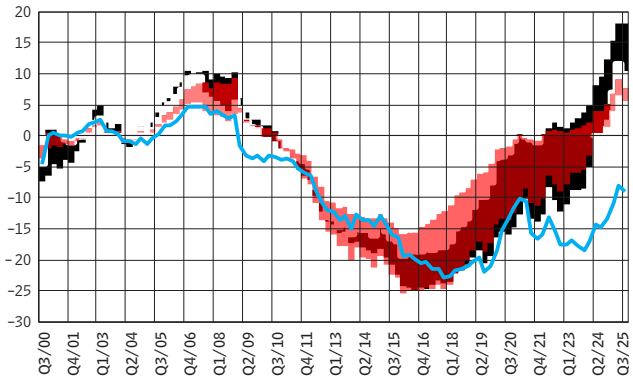
1 Specific credit-to-GDP gap indicators for the Republic of Croatia include 12 indicators: six absolute and six relative gaps, calculated using different definitions of credit and different smoothing parameters. For more information, see the CNB's publications Macroprudential Diagnostics No. 16 and Škrinjarić, T. and M. Bukovšak (2022): **New Indicators of Credit Gap in Croatia: Improving the Calibration of the Countercyclical Capital Buffer**, CNB Working Papers, W-69, December.

2 The composite index comprises a wide range of indicators related to excessive credit growth, divided into six risk categories as recommended by the ESRB, which have been assigned equal weights. For more information, see the CNB's publications Macroprudential Diagnostics No. 16 and Škrinjarić, T. (2022): **Introduction of the Composite Indicator of Cyclical Systemic Risk in Croatia: Possibilities and Limitations**, CNB Working Papers, W-68, November.

third quarter of 2025, with the composite indicator exceeding the level recorded immediately before the global financial crisis (Figures III.3 and III.4). The first signs of a gradual slowdown in lending were observed in the second half of 2025. The annual growth of loans to households slowed down to 12.7% in January 2026, with housing loans starting to edge down (to 15.1%) after more than a year of uninterrupted acceleration, and general-purpose cash loans continuing to trend downwards (to 10.8%). The slowdown can to a large extent be attributed to the application of restrictions on lending criteria, which resulted in a significant decrease in the share of new loans with elevated debt service-to-income ratios and loan-to-value ratios.

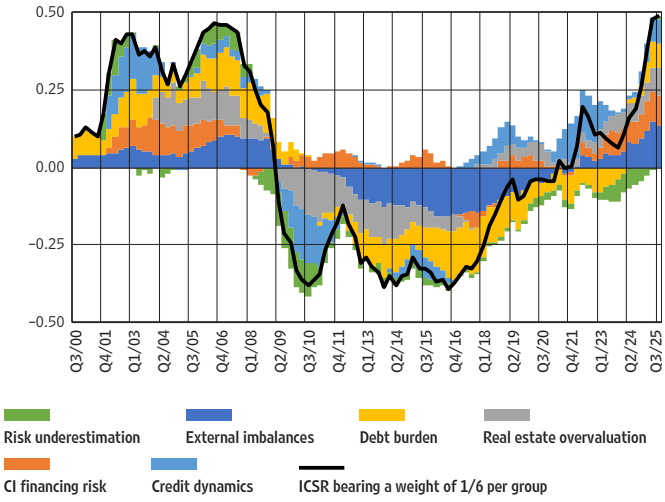
With the gradual build-up of the countercyclical buffer, the CNB increased the share of the variable, releasable capital requirement in the combined capital buffer from 2023 onwards. This further expanded room for countercyclical macroprudential policy action in the event of a sudden shock, including those not necessarily related to the development of the financial cycle. The domestic banking system is profitable and maintains considerable capital surpluses, which has enabled an increase in the countercyclical capital buffer without an adverse impact on the cost and availability of bank financing.

Figure III.3 Credit-to-GDP gap



Notes: The panel shows the Basel gap (blue curve) and the range of 12 credit-to-GDP gap indicators which have better signalling properties for the Republic of Croatia than the Basel gap. Red shaded areas indicate the range of absolute gaps, while black shaded areas refer to relative gaps.
Source: CNB.

Figure III.4 Indicator of cyclical systemic risk (ICSR)



Note: ICSR with equal weight of 1/6 by groups of indicators.
Source: CNB.

A.2 Other systemically important institutions buffer

As part of its regular annual review in December 2025, the CNB confirmed the status of seven other systemically important credit institutions (O-SIIs) (Table III.1). For six credit institutions, status was awarded automatically, on the basis of total systemic importance scores above the materiality threshold of 275 points, while the status of one credit institution (Addiko Bank d.d.) was determined on the basis of expert judgement, taking into account its importance for the deposit guarantee scheme and its broad client base as well as its high integration in the domestic economy and financial flows.

The prescribed capital buffer rate for O-SIIs in 2026 was increased for one credit institution in line with the change in its market position. The capital buffer rate set for Privredna banka Zagreb was raised from 2.0% to 2.25%, in order for the level of the buffer to adequately reflect the increase in its systemic importance scores. At the same time, the capital buffer rate set for Zagrebačka banka remained at 2.5%, but its applicable rate in 2026 was decreased to 2.25% due to the regulatory constraint related to the level of the buffer rate of its parent O-SII (which fell from 1.5% to 1.25% in 2026). The set and applicable rates of the remaining five credit institutions remained unchanged.

Table III.1 Other systemically important institutions in 2026

O-SII	Systemic importance score as at 31 December 2024	O-SII buffer rate as of 1 January 2026 (%)
Zagrebačka banka d.d., Zagreb	2936	2.50 (2.25↓)
Privredna banka Zagreb d.d., Zagreb	2619	2.25↑ (2.25↑)
Erste&Steiermärkische Bank d.d., Rijeka	1635	2.0 (2.0)
Raiffeisenbank Austria d.d., Zagreb	855	1.5 (1.5)
OTP banka Hrvatska d.d., Split	788	1.5 (1.5)
Hrvatska poštanska banka d.d., Zagreb	550	1.0 (1.0)
Addiko Bank d.d., Zagreb	178	0.25 (0.25)

Notes: O-SII buffer is short for the capital buffer rate for O-SIIs. The arrows indicate the direction of the change in the O-SII buffer rate in relation to the set and applicable rate in 2025.
Source: CNB.

A.2.1. Amendments to the Procedure for identifying other systemically important credit institutions

In October 2025, the CNB updated the Procedure for identifying other systemically important credit institutions and capital buffer requirements for other systemically important credit institutions (hereinafter: the Procedure), which, in accordance with the Guidelines of the European Banking Authority and the Credit Institutions Act, governs the manner in which the designated authority identifies O-SIIs and determines their capital buffer rates. The amendments aimed to increase the transparency and predictability of the procedure for both credit institutions and the public.

The standard scoring approach remains the cornerstone of the procedure and the procedure for conducting expert judgement has been further formalised. Credit institutions are automatically identified as O-SIIs if their total scores of systemic importance, calculated on the basis of indicators from the four categories (size, importance for the economy, complexity and financial system interconnectedness), exceed the materiality threshold of 275 points. A key novelty relates to the second step of the procedure for identifying O-SIIs on the basis of expert judgement, i.e. institutions whose total score is below the stated threshold.

The procedure now provides a clearer indication of additional quantitative indicators that serve as a starting point for expert judgement: the amount of deposits covered by the deposit guarantee scheme, the number of retail deposit accounts and the number of business deposit accounts. These indicators better cover certain aspects of systemic importance that are not necessarily reflected in the standard scoring approach, particularly the role of a credit

institution in protecting small savers and the breadth of its client base. A credit institution in which at least one of these indicators exceeds the threshold of 275 points may be identified as an O-SII based on expert judgement.

The assessment is further complemented by qualitative indicators, including reputational risks, other circumstances connected with the credit institution or the group to which it belongs and the principle of continuity and stability of capital requirements. Thus, the status of an O-SII may be kept for two years after the score calculated on the basis of mandatory indicators in the first round of the assessment falls below the threshold of 275 points, in order to avoid sudden changes in capital requirements due to short-term fluctuations in market shares.

A similar approach to determining the systemic importance of credit institutions is also employed in other European Economic Area countries. National macroprudential authorities using expert judgement when identifying O-SIIs have formalised the criteria and the scope of additional quantitative indicators in line with the characteristics of their financial systems and economies. This strengthens transparency in the application of the European framework for O-SIIs among member countries, without undermining the ability of national authorities to take into account the specific characteristics of a particular banking system.

A.3 Systemic risk buffer

The CNB continues to apply the systemic risk buffer at an unchanged rate of 1.5% of the total amount of risk exposure. Since structural systemic vulnerabilities of the domestic economy and the financial system remained only moderately elevated in the observed period, there was no need for an extraordinary review of the level of this buffer. The next regular review is planned for the second half of 2026.

B Restrictions on consumer lending criteria

Restrictions on consumer lending criteria (borrower-based measures), in effect as of 1 July 2025, were introduced with the aim of mitigating the risks associated with the strengthening of the credit cycle and household borrowing. Macroprudential restrictions on lending criteria include the maximum allowed ratio of debt service-to-income (DSTI), the maximum loan-to-value (LTV) ratio and the longest maturity of loans. The cap on the DSTI ratio of 45% is prescribed for housing loans, with a maximum maturity of 30 years, while for non-housing loans a cap on the DSTI ratio of 40% and a maximum maturity of 10 years is prescribed. For all consumer loans secured by immovable property, the LTV ratio is capped at 90%. Exemptions are also foreseen: credit institutions may, based on their own assessment, grant to consumers up to 20% of the amount of housing loans and up to 10% of the amount of non-housing loans with an increased DSTI ratio, as well as up to 20% of the amount of loans with an increased LTV ratio, each quarter, the use of exceptions for housing loans being enabled mostly for consumers who use the loan to address their housing needs. In addition to the mentioned macroprudential restrictions, when granting housing loans banks must apply the implicit DSTI ratio[3] set out in the Foreclosure Act and the supervisory Decision on the additional criteria for the assessment of consumer creditworthiness, which is stricter for lower-income consumers.

Restrictions on consumer lending criteria were introduced preventively as an ongoing structural element of the CNB's macroprudential policy. Restrictions work in complementarity with the countercyclical capital buffer: while the capital buffer increases banks' ability to withstand possible losses, restrictions on lending criteria reduce the riskiness of new consumer loans and increase the financial resilience of households in the event of adverse shocks. Further effects of restrictions on consumer lending criteria will be assessed in conjunction with other macroprudential measures and their contribution to the preservation of the stability of the financial system and will, if necessary, be adapted to the development of systemic risks and general macrofinancial circumstances.

In the first seven months of their application, the measures resulted in a significant decrease in the share of new loans with elevated DSTI and LTV ratios and a slowdown in lending activity. The materialised effects were more pronounced in the segment of non-housing loans, in line with the stricter calibration of measures for this type of loan. The effect of restrictions in the segment of housing loans was initially milder due to accelerated loan contracting before 1 July 2025, spurred by promotional interest rates, with some such loans being disbursed through the second half of 2025. As a result, the full impact of the restrictions only began to be felt more strongly towards the end of 2025 and in early 2026. A detailed analysis of the first effects of the measures on the riskiness of new loans to consumers is presented in Box 6 Impact of macroprudential restrictions on the distributions of risk indicators of consumer lending.

3 The Decision requires credit institutions to assess consumers' creditworthiness taking into account minimum living costs, which cannot be lower than the legally defined amount of salary exempt from foreclosure. The interaction of this Decision and the Foreclosure Act results in an indirect (implicit) cap on the DSTI ratio for housing loans, which for consumers with below-average incomes stands at about 25% and for other consumers increases in parallel with the growth of their income. For more information, see Macroprudential Diagnostics No. 8, February 2022, Box 1 Indirect limit on the amount of loan repayment relative to debtor's income.

C Coverage of risks associated with the residential immovable property market

In order to mitigate risks associated with the residential immovable property market, the CNB applies measures aimed at increasing banks' and housing loan users' resilience. Cyclical risks related to the residential immovable property market are taken into account in the calibration of the countercyclical capital buffer, which further strengthens banks' resilience. They are also mitigated by the use of the maximum allowed LTV ratio when granting consumer loans secured by immovable property.

At the same time, as of 1 January 2025, the CRR3 changed significantly the treatment of exposures secured by immovable property in the standardised approach for the calculation of the capital requirement for credit risk, introducing a more granular and risk-sensitive framework (see Box 7 Regulatory treatment of exposures secured by immovable property under the Capital Requirements Regulation (CRR3)). In the new regulatory framework, the CNB maintained a more restrictive definition of residential immovable property for the use of the preferential risk weight[4] in order to pre-emptively limit the possibility of unjustified reduction in risk-weighted assets in conditions of increased risks associated with the immovable property market.

The appropriateness of risk weights for exposures secured by immovable property is reviewed regularly once a year. If necessary, they will be adjusted as appropriate in line with the assessed riskiness of exposures, incurred losses on these exposures, trends in the immovable property market and other financial and economic developments, taking into account the interaction with other macroprudential measures.

4 By contrast, with the entry into force of CRR3, the requirement to apply a higher risk weight to exposures secured by commercial immovable property has been lifted by the CNB, so that, as of 1 January 2025, these exposures have been subject to risk weights in compliance with CRR3. These weights are higher than the previous weights provided by the CRR and different with regard to the possibility of generating income from immovable property, which is why, based on a preliminary analysis, it was assessed that there is no longer a need to apply higher national risk weights.

BOX 6

Impact of macroprudential restrictions on the distributions of risk indicators of consumer lending

The introduction of macroprudential restrictions on consumer lending criteria significantly shifted the distributions of key risk indicators of new loans, contributing to a considerable drop in the shares of loans with elevated LTV and DSTI ratios and a pronounced build-up of housing and non-housing loans granted with ratios only slightly below the prescribed limits. The shift in distributions is particularly strong in the segment of non-housing loans with a maturity of less than five years and in the segment of housing loans to debtors with above-average incomes, i.e. in the segments in which the new restrictions represented the actual tightening of lending conditions relative to the implicit criteria that had already been applied.

On 1 July 2025, the Croatian National Bank introduced macroprudential restrictions on consumer lending criteria. This led to the setting of the upper limits of the debt service-to-income (DSTI) ratio (45% for housing loans and 40% for non-housing loans) and the loan-to-value (LTV) ratio (90%) as well as of the maximum maturity of housing (30 years) and non-housing loans (10 years). At the same time, the Decision allows for deviations from the prescribed ratios to a limited extent, which are higher for housing loans and amount to 20% of the principal disbursed in the previous quarter, than for non-housing loans for which this share amounts to 10%.

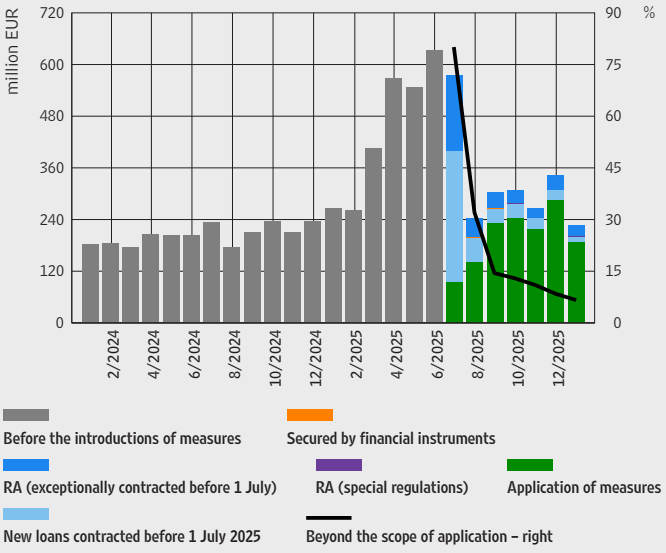
The measures slowed down the growth and reduced the riskiness of new loans, with a noticeable decrease seen in the share of loans with very high DSTI and LTV ratios, while the share of loans is bunching immediately below the prescribed ratios. Following the introduction of the measures, the average DSTI and LTV ratios and the shares of loans with the values of these indicators above the prescribed limits decreased, while lending activity slowed down, particularly in the non-housing loans segment.[1] In addition, the introduction of macroprudential restrictions changes the shape of distribution of DSTI and LTV ratios, i.e. it reduces their dispersion and concentrates them immediately below the limits, which is not evident from the average itself or the share above the threshold. An insight into the overall distribution of the ratios shows in particular the so-called bunching effect, i.e. the building up of loan accounts with DSTI and LTV ratios immediately below regulatory thresholds.

From the very beginning, the measures applied to almost all disbursed non-housing loans, while for the housing loans the scope of application extended gradually (Figures 1 and 2). The incomplete scope of the application of measures to housing loans is the result of the time lag between contracting and disbursement, which was probably additionally extended due to increased lending activity triggered by the cut in interest rates ahead of the announced introduction of measures. As a result, a significant share of loans contracted before 1 July 2025 continued to be disbursed in the following months. The share of the principal

1 See Macroprudential Diagnostics No. 28, Box 1 The first effects of limits on consumer lending criteria.

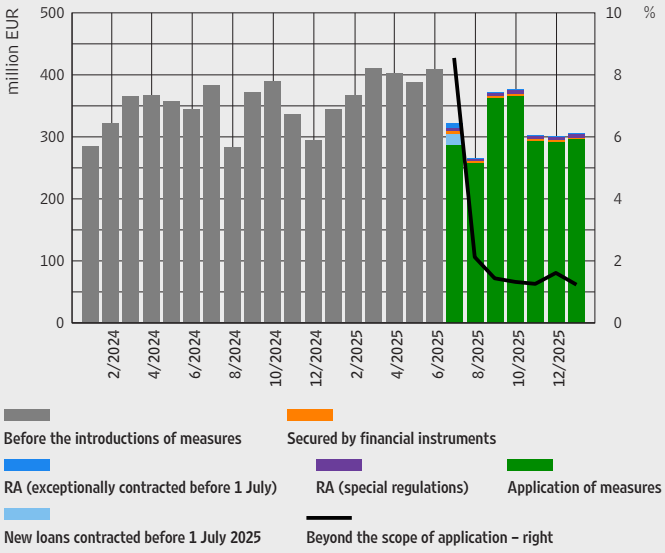
of housing loans not covered by restrictions thus stood at a high 30% in the second half of 2025; it was the highest in July (80%) and fell to below 8% in December. In contrast, for non-housing loans, the time lag between contracting and disbursement is usually short, so that, already in the first months of application, the measures cover almost all loans disbursed.

Figure 1 The share of pure new housing loans contracted before the measures had almost completely disappeared until the beginning of 2026



Notes: Amounts shown refer to housing loans. RA refers to renewed agreements. RA (special regulations) refers to renewed agreements the conclusion of which implies the application of specific legislation and subordinate legislation (e.g. measures to facilitate repayment). In the case of loans secured by financial instruments, the value of collateral is not less than the disbursed principal of the loan. The black line refers to the share of the principal of pure new loans that are not subject to restrictions on lending criteria.
Source: CNB (consumer lending standards).

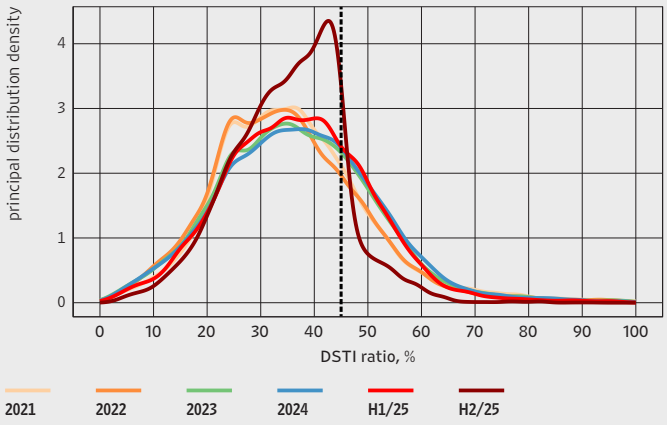
Figure 2 The share of non-housing loans not subject to the measures is almost negligible



Notes: Amounts shown refer to non-housing loans. RA refers to renewed agreements. RA (special regulations) refers to renewed agreements the conclusion of which implies the application of specific legislation and subordinate legislation (e.g. measures to facilitate repayment). In the case of loans secured by financial instruments, the value of collateral is not less than the disbursed principal of the loan. The black line refers to the share of principal of pure new loans that are not subject to restrictions on lending criteria.
Source: CNB (consumer lending standards).

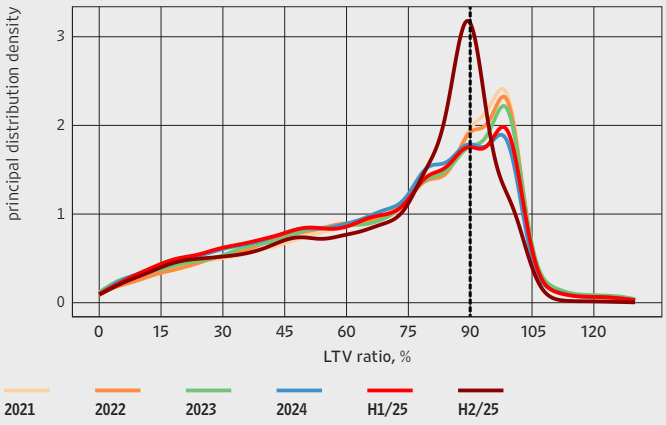
The distributions of DSTI and LTV ratios of housing loans have changed considerably since the introduction of the measures, with a strong grouping of loans immediately below regulatory restrictions (Figures 3 and 4). The formerly heavy right tail of the distribution of the DSTI ratio for housing loans thinned significantly. While 10% of the principal of housing loans was disbursed with DSTI above 55% in the first half of 2025, the threshold was lowered to 48% in the second half of the year, slightly above the regulatory limit. At the same time, a significant share of housing loans was disbursed with DSTI ratios close to the limit, so that in the second half of 2025 around one fourth of loans were granted with a DSTI ratio between 40% and 45%, compared with 15% in the first half of the year (Table 1). The distribution of the LTV ratio also moved to the left side, with almost one third of loans being grouped just below the limit (LTV between 85% and 90%) compared to 14% before the measures were introduced. This part of the distribution increased at the expense of loans with LTV ratios above 90%, whose share halved from 32% to 16% after the measures were introduced. In addition, the comparison of DSTI and LTV ratio distributions in the first half of 2025 with those in 2024 and 2023 does not show signs of the weakening of credit standards pending the introduction of macroprudential measures, i.e. the deliberate granting of riskier loans before the start of their implementation.

Figure 3 After the measures were introduced the right tail of DSTI ratio distribution decreased noticeably



Notes: Data shown for pure new housing loans disbursed in the first half of 2025 also include subsequently disbursed loans contracted in the first half of 2025, while for loans disbursed in the second half of 2025, they do not include previously contracted loans. The distribution presented is weighted by the amount of the principal disbursed.
Source: CNB (consumer lending standards).

Figure 4 The most common value of LTV ratio for housing loans was reduced from 100% to 90%



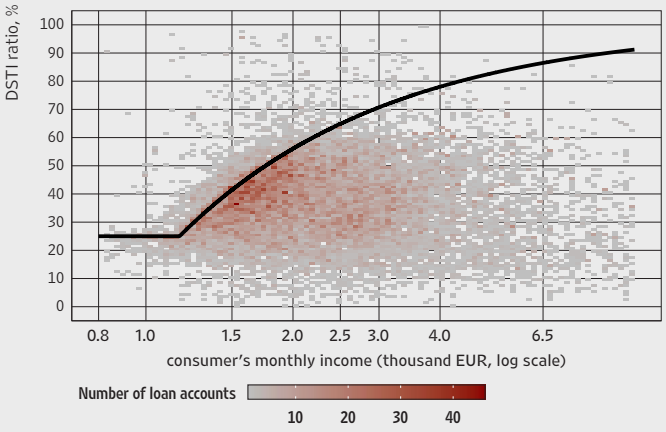
Notes: Data shown for pure new housing loans disbursed in the first half of 2025 also include subsequently disbursed loans contracted in the first half of 2025, while for loans disbursed in the second half of 2025, they do not include previously contracted loans. The distribution presented is weighted by the amount of the principal disbursed.
Source: CNB (consumer lending standards).

In the segment of housing loans, the introduction of DSTI ratio restrictions affected borrowers with above-average incomes more strongly. The reason for this is that before the introduction of the measures the DSTI ratio for housing loans was grouped by applying an implicit cap[2] that depends on consumer income and derives from the provisions on the amount of income legally exempt from foreclosure. The introduction of the single macroprudential cap on DSTI ratio effectively tightened lending conditions for debtors with incomes above EUR 1,600, since, for lower-income debtors, the stricter implicit cap continues to set the upper level of DSTI ratio[3] (Figures 5 and 6). Accordingly, the share of the principal of housing loans with a DSTI ratio above 45% decreased the most for consumers with above-average incomes, i.e. by more than 15 percentage points in all groups above EUR 1,700, and in the group from EUR 1,700 to EUR 2,200, by as much as 23 percentage points (Figure 7). This reduced the share of the risk segment of consumers with above-average incomes and high levels of indebtedness in the total principal of housing loans. For example, the share of loans granted to consumers with an income of between EUR 1,500 and EUR 3,000, who spend more than half of their income to repay their debt (DSTI > 50%), stood at 4.4% after the introduction of macroprudential restrictions, almost three times less than in the first half of the year, when it stood at 12.4%.

2 The implicit cap on the DSTI ratio is set out in the Decision on the additional criteria for the assessment of consumer creditworthiness and on the procedure of collection of arrears and voluntary foreclosure (OG 107/2017), which prescribes that credit institutions, when determining a consumer's creditworthiness, apply minimum costs of living that may not be less than the amount prescribed by the act governing a part of salary exempted from foreclosure. In addition, pursuant to the Foreclosure Act (OG 112/2012, 25/2013, 93/2014, 55/2016, 73/2017, 131/2020, 114/2022 and 6/2024), debtors with net salary below the average net salary in the Republic of Croatia have three quarters of their income exempt from foreclosure, provided that the exempt part does not exceed two thirds of the average net salary in the Republic of Croatia.

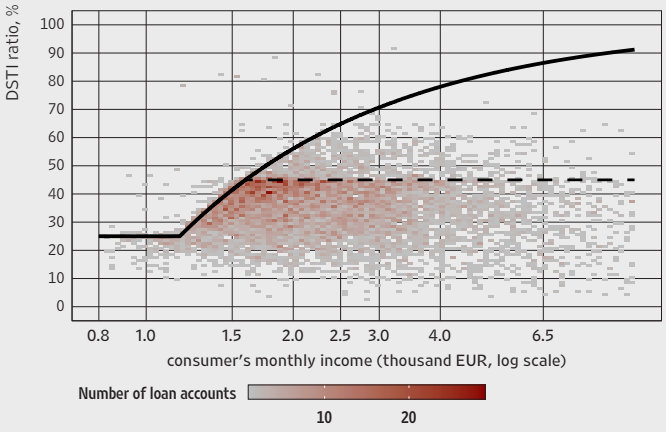
3 For 2025, the implicit cap at the income level of EUR 1,600 was 45%, while for incomes above that level, the implicit cap was higher than the macroprudential restriction.

Figure 5 Until the first half of 2025, housing loans were grouped by applying the implicit cap on the DSTI ratio



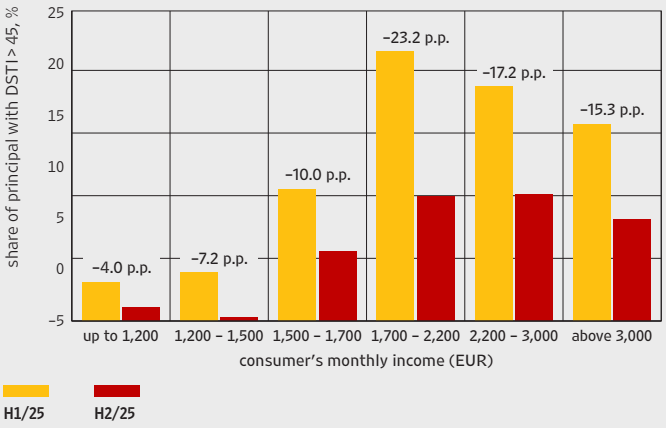
Notes: The figure shows data on pure new housing loans disbursed in 2025 that were not subject to macroprudential restrictions and include either disbursed or contracted loans in the first half of 2025. The solid line in the chart shows the implicit DSTI ratio cap.
Source: CNB (consumer lending standards).

Figure 6 With the introduction of a single cap, the most stringent conditions were imposed on consumers with above-average incomes



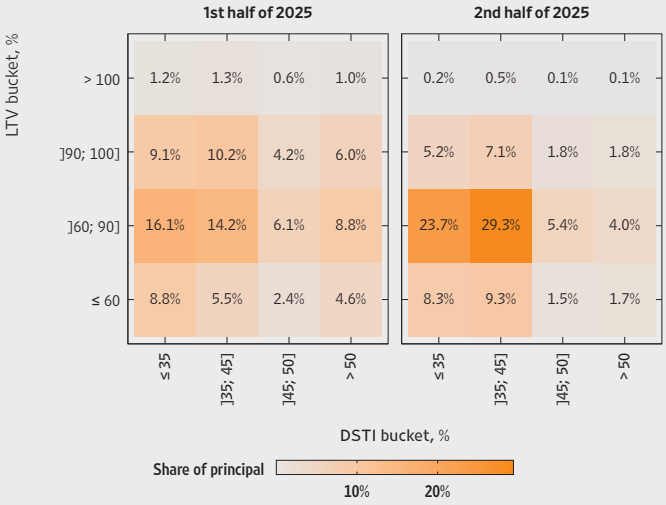
Notes: The figure shows data for pure new housing loans contracted and disbursed in the second half of 2025 that were subject to macroprudential restrictions. The solid line in the chart shows the implicit DSTI ratio cap. The dashed line refers to the cap on DSTI ratio pursuant to the Decision on consumer lending criteria.
Source: CNB (consumer lending standards).

Figure 7 DSTI ratios of housing loans granted to consumers with above-average incomes fell the most



Notes: Data shown refer to the shares of principal in a particular income bracket. The numbers above the bars refer to changes in principal shares between two periods.
Source: CNB (consumer lending standards).

Figure 8 The share of the principal of loans with simultaneously high LTV and DSTI ratios decreased to a third of the previous value

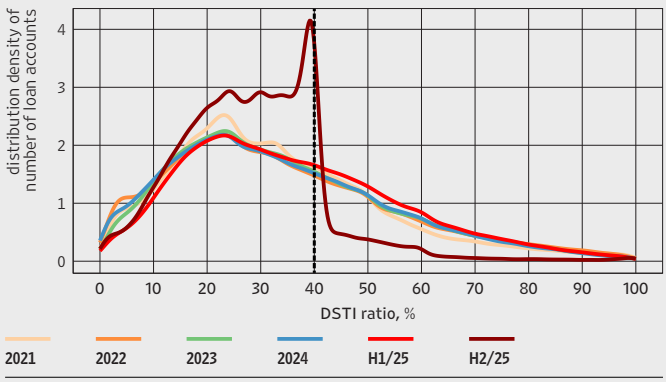


Notes: Data shown for the first half of 2025 refer to pure new housing loans disbursed in 2025 that were not subject to macroprudential restrictions and include either disbursed or contracted loans in the first half of 2025. Data shown for the second half of 2025 refer to pure new housing loans contracted and disbursed in the second half of 2025 that were subject to macroprudential restrictions.
Source: CNB (consumer lending standards).

Following the beginning of the application of macroprudential measures, the share of immovable property-secured loans with simultaneously high LTV and DSTI ratios also decreased (Figure 8). Observed individually, the share of the principal of loans secured by immovable property with an LTV ratio above 90% halved in the second half of 2025 from around one third in the first half of the year, as did the share of loan principal with a DSTI ratio exceeding 45%. The share of the principal of loans with DSTI and LTV ratios simultaneously exceeding 45% and 90% respectively fell even more steeply, from 11.8% to 4%. In addition, the decline in loans with very high LTV ratios was particularly pronounced, loans with an LTV ratio above 100% almost completely disappearing.

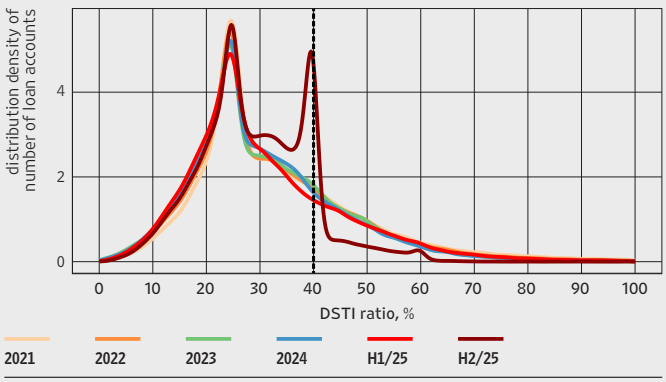
The right tail of the distribution of non-housing loans has significantly thinned, which means that loans with very high DSTI ratios almost completely disappeared (Figures 9 and 10). The decline in the share of non-housing loans with high DSTI ratios was particularly strong in the segment of loans with a maturity of less than five years. In the first half of 2025, the DSTI ratio was 60% or higher for 10% of the principal of loans, but in the second half of the year fell considerably, to only 40%. Measures were less effective in the segment of non-housing loans with a maturity longer than five years because in that segment even before the introduction of macroprudential restrictions the CNB recommendation on granting non-housing consumer loans was in force, which suggested the application of an implicit cap on the DSTI ratio. As a result, the distribution of the DSTI ratio in that segment was already skewed towards lower values, as reflected in the pronounced bunching at the DSTI ratio of 25%, which is the implicit cap on below-average incomes. Following the introduction of the binding cap of 40%, lending criteria in the form of maximum allowed DSTI ratios have been additionally tightened for debtors with above-average incomes, while for debtors with lower incomes, a stricter implicit cap still applies, which is why the relative changes in the distribution are milder than in the segment of non-housing loans with shorter maturities. At the same time, it is evident that, irrespective of their maturity, non-housing loans are bunching immediately below the regulatory threshold, which further confirms the impact of the restrictions imposed.

Figure 9 Macroprudential restrictions mostly affected non-housing loans with a maturity of less than 5 years



Note: Data shown refer to pure new non-housing loans with an original maturity of less than five years.
Source: CNB (consumer lending standards).

Figure 10 The introduction of restrictions further reduced the DSTI ratios for non-housing loans with a maturity of more than 5 years



Note: Data shown refer to pure new non-housing loans with an original maturity of more than five years.
Source: CNB (consumer lending standards).

Taken together, DSTI and LTV ratio distributions following the introduction of macroprudential restrictions show a systematic decrease in the share of loans with high values of these ratios and a pronounced build-up of loan accounts immediately below regulatory thresholds. The introduction of regulatory thresholds primarily reduced the share of loans with very high DSTI and LTV ratios, with a significant share of loans that would have previously been granted with high ratios now being granted at ratios bunching just below the prescribed limits. The fall in risk indicators was the strongest in those segments where the new restrictions led to the actual tightening of lending conditions, including housing loans to debtors with above-average incomes and non-housing loans with shorter maturities, while changes were less pronounced in the segments where previously tighter restrictions had been implicitly applied. Such developments are in line with the expected impact of the

introduced macroprudential measures. However, a longer period of monitoring is required to assess their effects more fully. The CNB will therefore continue to observe the distributions of risk indicators and other credit activity indicators and to assess the effects of the measures introduced.

Table 1 Dispersion indicators of DSTI and LTV ratio distributions and principal concentrations immediately below regulatory limits

Housing loans, DSTI ratio

Period	Amount of disbursed principal (million EUR)	10th percentile	25th percentile	Median	75th percentile	90th percentile	Interquartile range	Range between 10th percentile and 90th percentile	Share of principal with DSTI ratio between 40% and 45%	Share of principal with DSTI ratio above 45%
2024	2,088	22.9%	31.3%	40.7%	49.8%	58.0%	18.5%	35.1%	14.4%	37.6%
2025 H1	2,039	23.4%	30.7%	39.5%	47.9%	55.2%	17.2%	31.8%	15.7%	32.7%
2025 H2	1,074	24.2%	30.8%	38.0%	43.6%	47.9%	12.7%	23.7%	25.7%	16.4%

Housing loans, LTV ratio

Period	Amount of disbursed principal (million EUR)	10th percentile	25th percentile	Median	75th percentile	90th percentile	Interquartile range	Range between 10th percentile and 90th percentile	Share of principal with LTV ratio between 85% and 90%	Share of principal with LTV ratio above 90%
2024	1,992	41.0%	61.6%	81.3%	93.6%	99.9%	32.1%	59.0%	13.6%	30.1%
2025 H1	1,879	42.3%	63.7%	83.6%	95.1%	100.0%	31.3%	57.7%	14.1%	33.2%
2025 H2	1,024	43.3%	65.9%	84.7%	90.0%	98.7%	24.1%	55.4%	32.5%	16.7%

Non-housing loans, DSTI ratio

Period	Amount of disbursed principal (million EUR)	10th percentile	25th percentile	Median	75th percentile	90th percentile	Interquartile range	Range between 10th percentile and 90th percentile	Share of principal with DSTI ratio between 35% and 40%	Share of principal with DSTI ratio above 40%
2024	2,965	17.1%	23.2%	30.5%	40.8%	52.9%	17.6%	35.9%	11.2%	26.3%
2025 H1	1,662	17.1%	22.8%	29.8%	41.0%	53.6%	18.2%	36.5%	9.5%	26.5%
2025 H2	1,256	17.1%	22.7%	28.9%	36.4%	40.0%	13.7%	22.9%	20.8%	8.2%

o/w: Non-housing loans with a maturity of less than 5 years, DSTI ratio

Period	Amount of disbursed principal (million EUR)	10th percentile	25th percentile	Median	75th percentile	90th percentile	Interquartile range	Range between 10th percentile and 90th percentile	Share of principal with DSTI ratio between 35% and 40%	Share of principal with DSTI ratio above 40%
2024	1,079	15.7%	22.3%	32.4%	45.6%	59.3%	23.3%	43.5%	9.8%	34.6%
2025 H1	615	16.4%	22.9%	33.5%	46.8%	60.0%	23.9%	43.6%	10.1%	36.8%
2025 H2	422	15.5%	21.2%	29.2%	37.0%	40.0%	15.7%	24.4%	23.3%	8.0%

o/w: Non-housing loans with a maturity of more than 5 years, DSTI ratio

Period	Amount of disbursed principal (million EUR)	10th percentile	25th percentile	Median	75th percentile	90th percentile	Interquartile range	Range between 10th percentile and 90th percentile	Share of principal with DSTI ratio between 35% and 40%	Share of principal with DSTI ratio above 40%
2024	1,886	17.9%	23.5%	29.7%	38.2%	49.2%	14.7%	31.3%	12.1%	21.5%
2025 H1	1,047	17.5%	22.8%	28.3%	37.3%	49.0%	14.6%	31.5%	9.1%	20.5%
2025 H2	834	18.0%	23.3%	28.7%	36.0%	39.9%	12.7%	21.9%	19.6%	8.2%

Notes: Renegotiated loans are excluded. The indicators presented are weighted by the amount of the principal disbursed. Data shown for pure new loans disbursed in the first half of 2025 also include subsequently disbursed loans contracted in the first half of 2025, while for loans disbursed in the second half of 2025, they do not include previously contracted loans.
Source: CNB (consumer lending standards).

BOX 7

Regulatory treatment of exposures secured by immovable property under the Capital Requirements Regulation (CRR3)

With the entry into force of CRR3 on 1 January 2025, the treatment of exposures secured by immovable property in the standardised approach for the calculation of the capital requirement for credit risk changed significantly. The new framework introduces a more granular risk measurement approach that differentiates exposures according to whether their repayment is materially dependent on the cash flow generated by immovable property, with a separate treatment of exposures related to land acquisition, development and construction. As part of the quantitative impact study at the end of 2024, the CNB estimated that the application of new provisions at system level should not lead to a reduction in capital requirements for these exposures, thus abolishing the previous national discretion on a higher risk weight for exposures secured by commercial immovable property, while pre-emptively maintaining a more restrictive definition of residential immovable property for the purposes of the preferential risk weight. The average risk weight for the portfolio secured by immovable property increased from 41% at the end of 2024 to 51% at the end of 2025, reflecting structural changes in the portfolio classification and scope and not a deterioration in its credit quality.

One of the most important changes adopted by CRR3 relates to the treatment of exposures secured by immovable property, for which three key novelties are introduced. First, exposures secured by immovable property are divided into those whose repayment materially depends on the cash flow generated by immovable property ('income-producing real estate exposures' or 'IPRE exposures') and other general exposures ('non-income-producing real estate exposures' or 'non-IPRE exposures'), with different regulatory treatments. Second, in addition to the existing approach of loan-splitting into secured and unsecured parts of the exposure, a whole-loan approach was introduced. Non-IPRE exposures are subject to a loan-splitting approach, where preferential risk weights are applied to the secured part of the exposure, while the remaining part is weighted according to counterparty risk. In contrast, for IPRE exposures, CRR3 typically provides for a whole-of-loan approach, where the risk weight for the entire exposure is determined by the exposure-to-value (ETV) bucket. Third, a new sub-category of immovable property exposures has been introduced, the so-called ADC (land acquisition, development and construction) exposures, which, although regulated within the same broader category, are not considered exposures secured by immovable property and are assigned weights of 150% or 100% due to their increased risk, subject to the fulfilment of prescribed conditions. Regardless of the sub-category, to recognise the regulatory risk weight for the treatment of exposures secured by immovable property, credit institutions must also meet a number of operational conditions, including the completion of the property, for the legal enforceability of the lien and the prudent valuation of the collateral.

Prior to the introduction of CRR3, the CNB, as the designated authority, actively used national discretions[1] to calibrate the risk weights of exposures secured by immovable property. Thus, for exposures secured by residential immovable property, since 2014, stricter criteria for recognising a preferential risk weight of 35% have been applied, instead of the counterparty risk weight, which stands at 75% for the household sector. A higher risk weight of 100% has been applied for exposures secured by commercial immovable property since 2016, instead of the standard 50%. Both measures were adopted after the standard parameters were assessed as being inappropriate for the losses incurred and risks associated with developments in the immovable property market; their adequacy was reviewed annually thereafter.

With the entry into force of CRR3 on 1 January 2025, the regulatory framework changed significantly, which entailed adjustments to existing national discretions[2]. For general (non-IPRE) exposures secured by residential and commercial immovable property, a loan-splitting approach is applied, with the secured part up to 55% of the property value carrying a preferential risk weight of 20% for residential immovable property and 60% for commercial immovable property, while the remaining part is considered unsecured and bears the risk weight of the debtor.[3] For IPRE exposures, a stricter treatment is applied, typically using a whole-loan approach, whereby the entire exposure is assigned a single risk weight depending on the ETV bucket, ranging from 30% to 105% for exposures secured by residential immovable property and from 70% to 110% for exposures secured by commercial immovable property.[4]. The CRR3 also replaced the previous treatment of speculative immovable property financing with a new category of exposures to land acquisition, development and construction (ADC), which is generally weighted at a rate of 150%[5] (Table 1).

Based on the assessment of the potential effects of CCR3, the CNB has retained stricter criteria for the application of preferential risk weights for exposures secured by residential immovable property in 2025, while for commercial immovable property, the weights prescribed in CRR3 were assessed to be appropriate to the riskiness of these exposures. The assessment was carried out on the basis of the results of a quantitative impact study of the new regulatory provisions. National discretion has retained the rules under which the preferential risk weight for exposures secured by residential immovable property can only be applied if the property owner owns no more than two properties and if the property securing

1 Decision implementing the part of Regulation (EU) No 575/2013 pertaining to the valuation of assets and off-balance sheet items and the calculation of own funds and capital requirements

2 In accordance with Articles 124 and 164 of Regulation (EU) No 575/2013.

3 Loan-splitting approach for general exposures: for residential immovable property (Article 125(1)), the secured part (ETV ≤ 55%) bears a 20% risk weight and the unsecured part (ETV > 55 %) bears the debtor's risk weight; in the case of commercial immovable property (Article 126(1)), the secured part bears a 60% risk weight and the unsecured part bears the debtor's risk weight.

4 Risk weights under the whole-loan approach (IPRE):

Exposures	ETV bucket	≤ 50%	50% – 60%	60% – 80%	80% – 90%	90% – 100%	> 100%
Secured by residential immovable property	Risk weight	30%	35%	45%	60%	75%	105%
Secured by commercial immovable property		70%		90%		110%	

5 The ADC category covers all financing by companies or special purpose vehicles for the acquisition of land, development and construction of residential immovable property or commercial immovable property. The standard risk weight is 150%, with the possibility of reduction to 100% for housing projects that meet the prescribed risk mitigation requirements.

the exposure is not a holiday home. In contrast, as regards the segment of exposures secured by commercial immovable property it has been concluded that the new rules at system level adequately reflect the riskiness of such exposures, with the result that national discretion on the higher risk weight for commercial immovable property no longer applies from 1 January 2025.

Table 1 Treatment of exposures secured by immovable property in the standardised approach under CRR2 and CRR3

Exposure class	CRR2 (until 31 December 2024)	CRR3 (as of 1 January 2025)
Exposures secured by residential immovable property (RRE)		
General (non-IPRE) exposures (repayment is not predominantly made from income generated by the immovable property)	35% for the part of the exposure up to 80% of the property value; remaining part: counterparty's risk weight	20% for the secured part up to 55% of the property value (loan-splitting approach); remaining part: counterparty's risk weight
IPRE exposures (repayment predominantly depends on the cash flow generated by the immovable property)		30% – 105% depending on ETV bucket (whole-loan approach)
Exposures secured by commercial immovable property (CRE)		
General (non-IPRE) exposures (repayment is not predominantly made from income generated by the immovable property)	50% for the part of the exposure up to 50% of the property value; remaining part: counterparty's risk weight	60% for the secured part up to 55% of the property value (loan-splitting approach); remaining part: counterparty's risk weight
IPRE exposures (repayment predominantly depends on the cash flow generated by the immovable property)		70% – 110% depending on ETV bucket (whole-loan approach)
Immovable property exposures – land acquisition, development and construction (ADC)		
ADC exposures	reported under high-risk exposure class (a risk weight of 150%)	150% (100% for residential ADC under certain risk mitigation requirements)
National discretions of the CNB		
Stricter definition of residential immovable property for the use of the preferential risk weight	in application (owner is a natural person, no more than two properties, not a holiday home)	retained – 20% preferential risk weight is subject to the same additional requirements
Higher risk weight for commercial immovable property	a risk weight of 100% is applied instead of 50%	discontinued – CRR3 risk weights apply

Source: CRR, adjustment by CNB.

The application of CRR3 has resulted in a significant reclassification of the portfolio of immovable property exposures. The total value of the portfolio increased from EUR 7.8bn at the end of 2024 to EUR 15.7bn at the end of 2025, which primarily reflects the broader scope of the new regulatory definition rather than organic portfolio growth (Figure 1). The reclassifications mostly relate to exposures secured by commercial immovable property. These were reclassified from the corporate portfolio, in which credit institutions had previously had no incentive to classify them as secured by commercial immovable property, given the application of the stricter national risk weight (100%). Even after the reclassification, the portfolio of immovable property exposures remained concentrated in residential immovable property[6], which accounts for 62% of the portfolio, while commercial immovable property and ADC exposures account for 33% and 4% respectively. More than 90% of the portfolio is accounted for by non-IPRE exposures under the loan-splitting approach, while the share of IPRE exposures, which carry much higher risk weights, is very low, particularly in the residential immovable property segment (Figure 2)[7].

6 Includes ADC exposures.

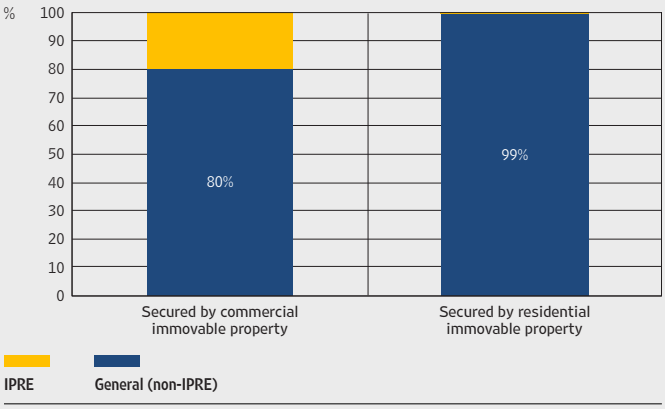
7 The share of IPRE exposures in the residential segment stands at only 0.6%, while in the segment of commercial immovable property it is much higher (around 20%).

The average risk weight for the immovable property portfolio increased from 41% at the end of 2024 to 51% at the end of 2025. This increase does not reflect deterioration in credit quality but is of a structural nature: it primarily stems from a larger coverage of commercial immovable property (with an average risk weight of around 73%) in the new classification and from the inclusion of ADC exposures with a 150% risk weight. The residential segment, which accounts for the bulk of the portfolio, maintained a slightly lower average risk weight of around 40%, reflecting the prevailing non-IPRE classification and the significant share of exposures that meet the requirements for the application of a risk weight of 20% (Figures 3 and 4).

Figure 1 Exposures secured by immovable property and ADC exposures

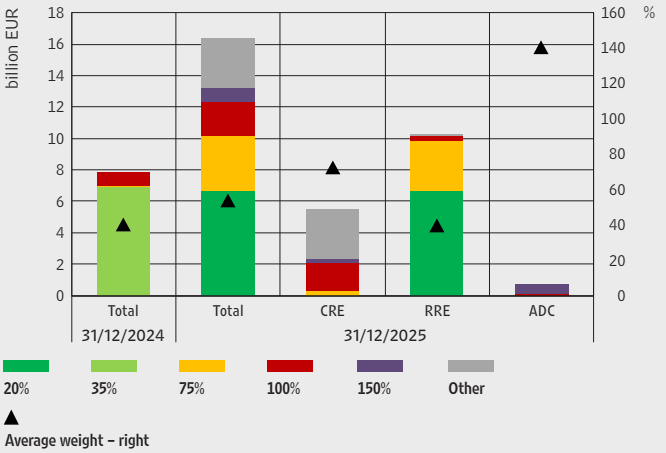
Source: CNB.

Figure 2 Structure of exposures secured by immovable property by cash flow dependency, 31 December 2025



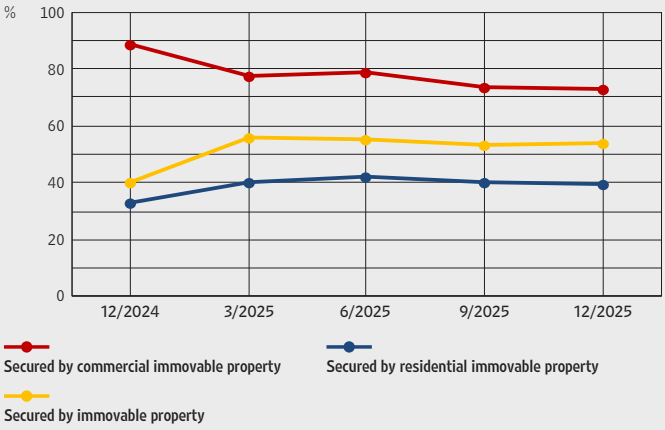
Source: CNB.

Figure 3 Structure of immovable property exposure risk weights under CCR2 and CRR3



Notes: The CRR2 applied until the end of 2024 with national discretions. The application of CRR3 has led to a significant reclassification of exposures by regulatory categories so that the scope of exposures before and after 2025 is not comparable. Other risk weights in CRR3 cover a wide range of potential risk weights that are reported collectively.
Source: CNB.

Figure 4 Average risk weight by segments



Note: The category "immovable property exposures" includes ADC exposures and represents the weighted average of the total portfolio, rather than a separate exposure class.
Source: CNB.

From the point of view of financial stability, the new regulatory rules have increased the sensitivity of capital requirements to changes in the value of collateral and debtor's business models, particularly in those segments where a whole-loan approach or a stricter treatment of riskier exposures is applied. The channel for transferring changes in the market value of collateral to the regulatory treatment of exposures is important: the fall in immovable property prices could increase the ETV ratios and average risk weights, which could add procyclical pressure on capital. This risk for the domestic banking sector has so far been mitigated by the low share of IPRE and ADC exposures, the prevailing relatively low ratios of exposures and immovable property values in total stock of loans and the requirements for prudent collateral valuation. The CNB will continue its regular monitoring of the immovable property exposures of credit institutions and developments in the immovable property market. In addition, with more data availability under the new regulatory framework, it will reassess the appropriateness of the risk weights in application and, if necessary, consider the activation of appropriate macroprudential measures, including the subsequent application of stricter national discretions as regards the implementation of the Regulation.

Abbreviations and symbols

Abbreviations

ADC	land acquisition, development and construction
AFME	Association for Financial Markets in Europe
ARDL	autoregressive distributed lag
ASF	available stable funding
AT1	additional tier 1
BBDXY	Bloomberg Dollar Spot Index
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BMA	Bayesian model averaging
BS	baseline scenario
CBC	capacity to bear coverage
CBRE	Coldwell Banker Richard Ellis, real estate agency
CBS	CBS International, real estate agency
CBS	Croatian Bureau of Statistics
CDS	credit default swap
CET1	common equity tier 1
CIR	cost-to-income ratio
CNB	Croatian National Bank
CPI	consumer price index
CPII	Croatian Pension Insurance Institute
CRE	commercial real estate
CROBEX	Zagreb Stock Exchange share index
CROBIS	Zagreb Stock Exchange bond index
CRR	Capital Requirements Regulation
CVA	credit valuation adjustment
CW	Cushman & Wakefield, real estate agency
DSR	debt service ratio
DSTI	debt service-to-income
DS	debt securities
DWH	Data Warehouse
EA	euro area
EBA	European Banking Authority
ECB	European Central Bank
ECL	expected credit loss
EIZ	Institute of Economics, Zagreb
EO	extreme outflows
ES	expected shortfall
ESA	European System of Accounts
ESRB	European Systemic Risk Board

ETV	exposure-to-value
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
EVE	economic value of equity
Fed	Federal Reserve System
FGS	funding gap size
FINA	Financial Agency
FTSE	Financial Times Stock Exchange
FVOCI	fair value through other comprehensive income
GDP	gross domestic product
GPR	geopolitical risk index
GUP	Zagreb General Urban Development Plan
GVA	gross value added
HANFA	Croatian Financial Services Supervisory Agency
HICP	harmonised index of consumer prices
HIFS	Croatian index of financial stress
HQLA	high-quality liquid assets
ICR	interest coverage ratio
ICSR	indicator of composite systemic risk
IEA	International Energy Agency
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IMP	impairment
IPRE	income-producing real estate
LBBW	Landesbank Baden-Württemberg
LCR	liquidity coverage ratio
LNG	liquefied natural gas
LTV	loan-to-value
MIR	monetary financial institutions interest rate
MoF	Ministry of Finance
MOVE	Merrill Lynch Option Volatility Estimate
MREL	minimum requirement for own funds and eligible liabilities
MWh	megawatt per hour
NACE	European classification of economic activities (Nomenclature des Activités Économiques)
NBFI	non-bank financial institutions
NFCI	net fee and commission income
NII	net interest income
NIKKEI	Japanese stock index
NLP	net liquidity position
NPL	non-performing loan
NPLR	non-performing loan ratio
NRR	net reference rate

NSFR	net stable funding ratio
OCR	overall capital requirement
OSII	other systemically important institutions
P&L	profit and loss account
PACMAN	macroeconomic model of the CNB
PD	probability of default
PL	protective layer
POCI	purchased or originated credit-impaired
POS	period of survival
PPI	producer price index
RES	renewable energy sources
ROA	return on assets
ROE	return on equity
RRE	residential real estate
RSF	required stable funding
RW	risk weight
SPV	special purpose vehicle
SREP	Supervisory Review and Evaluation Process
SRT	significant risk transfer
SO	significant outflows
SS	stress scenario
STOXX	European stock index
STS	simple, transparent and standardised
TCR	total capital ratio
TM	transition matrix
TPU	trade policy uncertainty
TREA	total risk exposure amount
TSCR	total SREP capital ratio
UBS	UBS Group AG
USA	United States of America
USD	US dollar
USD/EUR	US dollar to euro exchange rate
VaR	value at risk
VAT	value added tax
VIX	Volatility S&P 500 Index
VSTOXX	EURO STOXX 50 Volatility Index
WEO	World Economic Outlook
WSR	weighted average system resilience

Three-letter currency codes

CHF	Swiss franc
CNY	Chinese yuan renminbi
EUR	euro

GBP	pound sterling
JPY	Japanese yen
USD	United States dollar
XDR	Special Drawing Rights

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
GB	Great Britain
GR	Greece
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LV	Latvia
MT	Malta
NL	Netherlands
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
UK	United Kingdom

Symbols

–	no entry
....	data not available
0	value is less than 0.5 of the unit of measure being used
Ø	average
a, b, c,...	indicates a note beneath the table and figure
*	corrected data
( )	incomplete or insufficiently verified data

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