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Semi-annual Information

Semi-annual Information on the Financial Condition, the Degree of Price Stability Achieved and the Implementation of Monetary Policy in the First Half of 2023

Zagreb, November 2023

CROATIAN NATIONAL BANK
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PUBLISHER

Croatian National Bank
Trg hrvatskih velikana 3
10000 Zagreb

www.hnb.hr

ISSN 1849-3483 (online)

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Summary

Economic activity in the euro area was very subdued in the first half of 2023 amid high uncertainty and strong inflationary pressures. After the decline in the last quarter of 2022, the euro area economy resumed its upward path in the first half of 2023, growing, however, by a quarterly rate of only 0.1%. The weak growth in personal consumption dampened by reduced purchasing power had the strongest effect on economic activity. The contribution of net exports of goods and services to economic growth was positive only in the first quarter, when global demand picked up temporarily in response to the sudden opening of the Chinese economy. Also, the positive contribution of government consumption almost completely disappeared after the lifting of most of the support measures introduced during the COVID-19 pandemic. Despite worsened financing conditions, private sector investments continued to grow, albeit at a much slower pace than last year.

Thanks to a gradual abatement in imported inflationary pressures, overall inflation in the euro area continued to fall in the first half of 2023, but core inflation proved to be more persistent. Overall annual consumer price inflation dropped from 9.2% in late 2022 to 5.5% by the end of June 2023; in addition to the sharp decrease in energy prices, in particular of gas and other raw materials, this was supported by the normalisation of global supply chains. However, the delayed transmission of the earlier shock in the prices of energy and raw materials to producer prices coupled with the pressures stemming from the labour market kept core inflation at relatively high levels. Core inflation, which excludes energy and food prices, was very persistent, and hovered at around 5.5%. Particularly noteworthy in this context are prices of services, which continued to rise due to increased demand and mounting upward pressures on wages in response to labour shortages.

During the strongest monetary policy tightening cycle in the euro area since the euro was introduced as a currency, the ECB Governing Council raised its key interest rates by another 150 basis points in the first half of 2023, so that the deposit facility rate reached 3.5% In addition to standard measures, the ECB further tightened its monetary policy by gradually reducing the Eurosystem balance sheet (primarily due to banks' repayment of funds from the third series of targeted longer-term financing operations). The increase in ECB key interest rates led to a hike in interest rates on the interbank market, resulting in almost full transmission. Yields on the bond market were stable from the beginning of the year, and yields at the end of June were at levels similar to those recorded at the beginning of the year. A deviation from such trends was recorded only during a brief period of increased volatility in March, stemming from uncertainties regarding the condition of US and, to a smaller extent, European banks. These events briefly reduced yields as investors expected a delay or a slowdown in the intensity of further ECB monetary policy tightening. Since regulatory measures prevented the spillover of effects of the failure of regional banks in the US to the wider banking and financial system, movements in euro area financial markets

stabilised quickly, which enabled the ECB to persist in its monetary policy tightening. Corporate and household borrowing costs continued to grow in the euro area, reflecting the intensity of ECB interest rate increases, while lending activity remained subdued, amid heterogeneity across countries and instruments.

The pace of economic growth in Croatia in the first half of 2023 was among the fastest in the euro area, largely owing to the recovery of personal consumption and buoyant demand for tourist services. Following a slowdown in late 2022, when the quarterly real GDP growth rate stood at 0.5%, economic activity grew by 1.3% at a quarterly level in the first three months of 2023 and by 1.1% in the period from April to June. Observed on an annual basis, real Croatian GDP increased by 2.7% in the period from January to June 2023 from the same period of the previous year. Personal consumption made a large contribution to growth, which is attributable to favourable labour market developments, that is, continued growth in employment and the recovery of real wages. In addition, the very good performance of the tourist pre-season was reflected in a surge in services exports. In contrast, developments in other components were mostly subdued, with a considerable decline in the exports of goods, which is partly also due to weak activity in countries that are Croatia's main trading partners and the shift of demand from goods towards services. However, as the imports of goods also decreased in the same period, net exports made a positive contribution to the annual growth rate in the first half of the year.

In the first half of 2023, inflation in Croatia slowed down steadily for the most part, primarily owing to the falling prices of energy; however, core inflation still persisted, as did, in particular, the inflation of service prices. The annual rate of overall inflation dropped from 12.7% in December 2022 to 8.3% in June 2023, primarily as a result of weaker external inflationary pressures following the decrease in the prices of energy and other raw materials on the global market and the return of global supply chains to normal. The slowdown in inflation was also attributable to a favourable base effect, i.e. the disappearance of the effect of the significant increase in the prices of a large number of products in 2022, particularly in the middle of the year. Still, short-term developments in the first half of the year suggested already elevated current inflationary pressures under the influence of the indirect effects of the earlier increase in the prices of energy, food and other input costs and the shift of demand towards services, which enabled corporate profitability to rise and the labour market to strengthen, supported by stable employment growth, a labour shortage in some activities and relatively strong nominal wage growth.

Even though monetary policy tightening in the euro area and increasingly unfavourable financing conditions began to affect domestic interest rates and lending conditions, the lending activity of Croatian banks remained relatively strong. However, the intensity of the transmission of the increase in the key ECB interest rates to interest rates in Croatia was among the weakest in the euro area. Under the influence of the increase of ECB key interest rates, interest rates on corporate loans continued to rise in Croatia in the first half of 2023, while interest rates on loans to households also began to increase. Corporate lending standards continued to tighten, primarily under the influence of the lower risk tolerance of banks and the outlook for particular activities and/or firms. Corporate lending remained relatively strong despite deteriorating financing conditions. Rising interest rates had a negative effect on household demand for housing loans; however, this demand rose in the second quarter, driven by the subsidy programme. On the other hand, demand for consumer loans increased as a result of growing income and consumer optimism spurring the purchase of durable goods.

As at 30 June 2023, financial assets stood at EUR 21,632.7m, of which euro assets amounted to EUR 19,372.0m (89.5%) and foreign currency assets amounted to EUR 2,260.7m (10.5%). The name of the assets managed by the Croatian National Bank has changed following the country's entry into the euro area and the introduction of the euro as the domestic currency. As a result, former net reserves have become financial assets in the domestic currency – euro (non-monetary policy related) and foreign currency assets, that is, the former international reserves (not transferred to the European Central Bank). Total earnings from the management of financial assets amounted to EUR 315m in the first half of 2023. In that period, the annual rate of return on the entire euro portfolio of financial assets was 1.89%, while the annual rate of return on the US dollar portfolio totalled 3.62%.

The growth in the assets of credit institutions, which lasted for six years, came to a halt in the first half of 2023. Large deposit inflows in 2022, that is, in the run-up to the euro introduction, were partly reversed, resulting also in a decrease of cash in total assets of credit institutions. Nevertheless, liquidity held steady at a very high level, with the continuation of lending activity to all sectors. Asset quality remained constant, despite the fact that the credit risk in the performing share of the credit portfolio associated with an economically unstable environment still shows no sign of descending from its elevated level. Robust interest income led to a noticeable increase in the profit and profitability and cost efficiency indicators of credit institutions. Very strong capitalisation, which is one of the highest among EU member states, continues to support safe and stable operations in the banking system of the Republic of Croatia.

1 Euro area

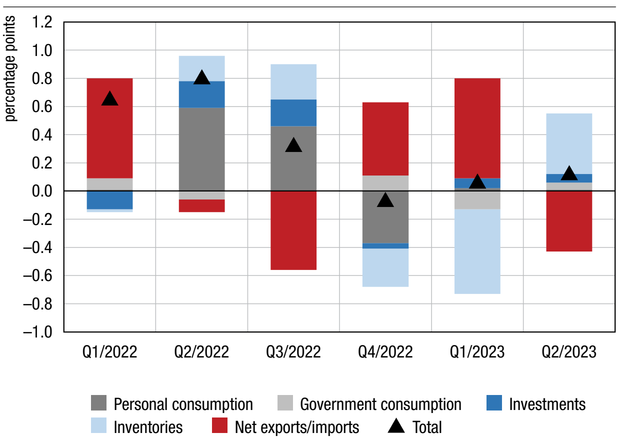
1.1 Real developments

Euro area economic activity was almost stagnant in the first half of 2023, with a quarterly real GDP growth of only 0.1%. Personal consumption of households made a slight positive contribution to growth, although the relatively robust growth in nominal wages and the inflation slowdown to a certain extent offset the intensity of the drop in the disposable income of households. Amid growing uncertainty and rising deposit interest rates, the propensity of households to save increased, which further curbed consumption. A larger contribution to growth came from the net exports of goods and services, particularly in the first quarter of 2023, when global demand picked up sharply due to the opening of the Chinese economy, giving a boost to the recovery of goods exports. Private sector investments made a positive if slight contribution to economic growth in the first half of the year, while the contribution of government consumption was negative.

The growth in the service sector lost momentum, but remained positive, while the manufacturing sector saw a contraction. The strengthening of activity in the service sector, particularly in contact-intensive activities, was supported by the strong demand following the pandemic and changes in consumer habits. The manufacturing sector saw a contraction in the first half of 2023 as the positive impact of order backlogs on production began to fade, while new orders were limited. This is confirmed by the data on industrial production, which was 1% lower in the first half of 2023 than in the same period in 2022.

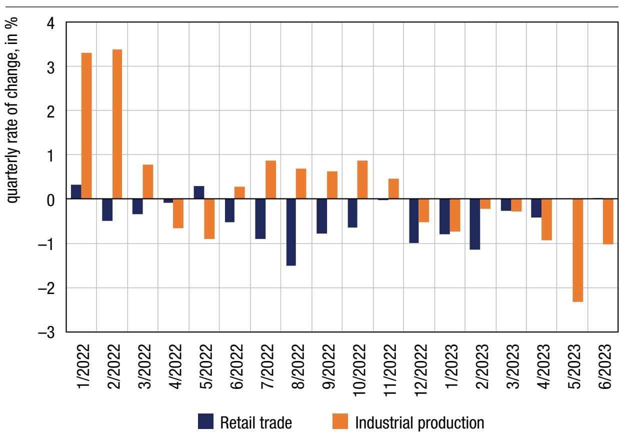
Trends seen on the labour market in 2022, i.e. widespread labour shortages and the relatively strong nominal wage growth, continued. By the end of June 2023, the unemployment rate in the euro area went down to 6.4% of the labour force, with most activities, notably service activities, experiencing pronounced labour shortages. Against

Figure 1.1.1 Quarterly growth rates of real GDP in the euro area, contributions by components



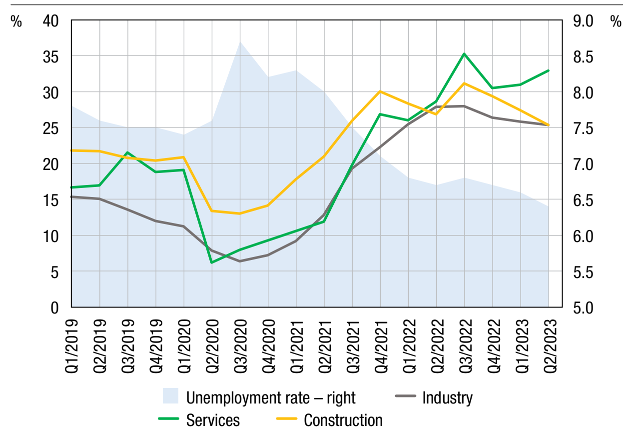
Source: Eurostat.

Figure 1.1.2 Indicators of economic activity in the euro area



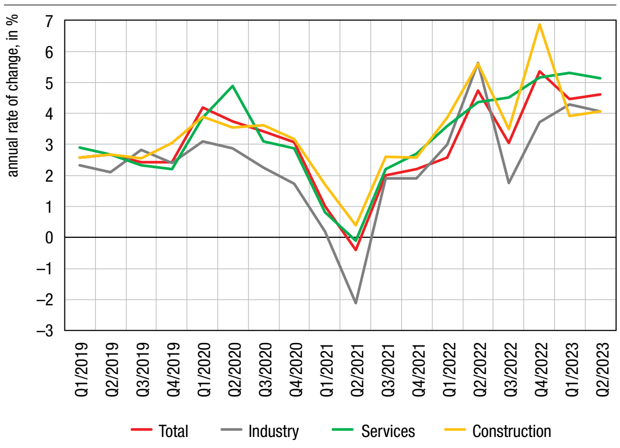
Source: Eurostat.

Figure 1.1.3 Labour shortage and unemployment rate in the euro area



Note: Labour shortage is measured by a quarterly survey and indicates the percentage of firms reporting a labour shortage as the main obstacle to business activity.
Source: Eurostat.

Figure 1.1.4 Employee compensation by individual activities in the euro area



Source: Eurostat.

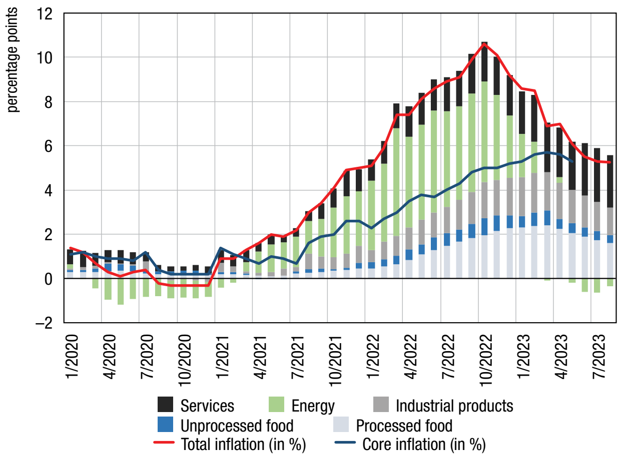
this backdrop, coupled with demands of workers and unions to offset the decline in purchasing power caused by high inflation, pressures on wage growth continued. In the first half of 2023, the annual rise in nominal wages in the euro area reached 4.5%, with the most significant increases recorded in activities in which labour shortages were particularly pronounced. However, because of the sustained limitations on the supply side and buoyant demand, corporate profits grew, despite the increase in labour costs.

1.2 Price developments

The slowdown in the annual rate of inflation of the euro area that started in November 2022 continued into the first six months of 2023. The annual inflation rate stood at 5.5% in June 2023, after having peaked at 10.6% in October 2022 (Figure 1.2.1). This was mostly due to the energy component, whose negative contribution in May and June reflected lower energy prices in the global market than in the same period of the previous year. In addition to energy prices, other price pressures also eased, particularly those stemming from disruptions in global supply chains, further adding to the decrease in producer prices, albeit not of the same intensity across individual components of the consumer basket. For example, the increase in food prices remained pronounced and contributed significantly to overall inflation trends. Core inflation, which excludes food and energy prices, was very persistent in the first six months of 2023, and amounted to around 5.5%. Such trends were largely driven by the service component, which, due to the sustained strong increase in demand in the first half of the year and the delayed transmission of higher food and energy prices was particularly noticeable in accommodation and food service activities; also significant were pressures stemming from the labour market.

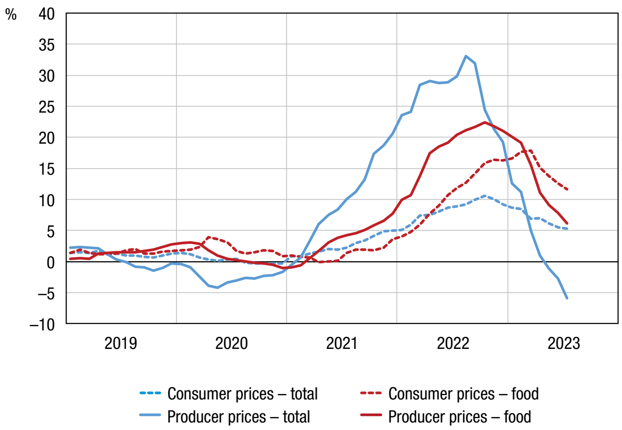
The easing of inflationary pressures in the first half of 2023 was also evident in short-term indicators, which better reflect current developments. Inflation momentum, as measured by the annualised quarterly rates of change in consumer

Figure 1.2.1 Euro area inflation



Source: Eurostat.

Figure 1.2.2 Selected indicators of consumer and producer prices

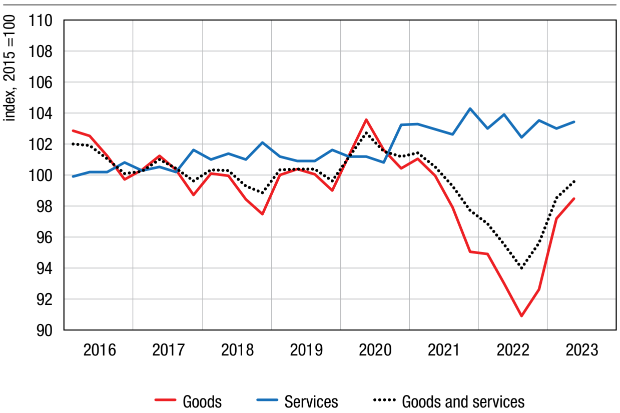


Source: Eurostat.

prices, continued to fade during the first half of the year, notwithstanding a short-term reversal of the trend in March and April, mostly due to persistent inflation of service and food prices.

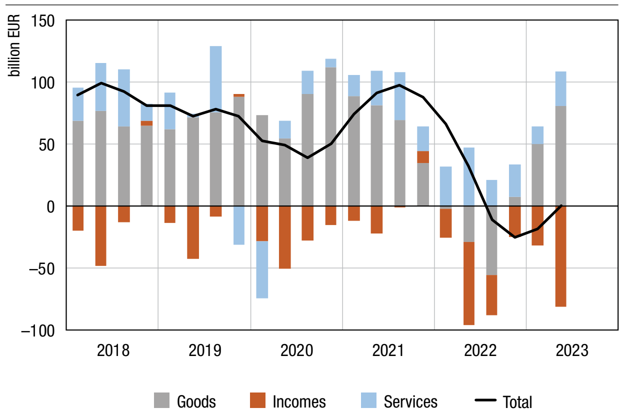
Since the beginning of the inflationary wave in mid-2021, import prices in the euro area have grown significantly faster than export prices, resulting in a strong deterioration of terms of trade and the current account balance. Because the euro area is a net importer of energy, the considerable rise in energy prices affected its terms of trade negatively, and the growth in the export prices of services, which exceeded the rise in the import prices of services, particularly transport and tourist services, mitigated the deterioration in the terms of trade only partly. Following the decline in energy prices, which began in late 2022, terms of trade began to improve, contributing to an improvement in the current account balance in the first half of 2023.

Figure 1.2.3 Euro area terms of trade in goods and services



Note: Terms of trade refer to the ratio of import and export prices of goods and services from the national accounts.
Source: Eurostat.

Figure 1.2.4 Euro area balance of payments current account



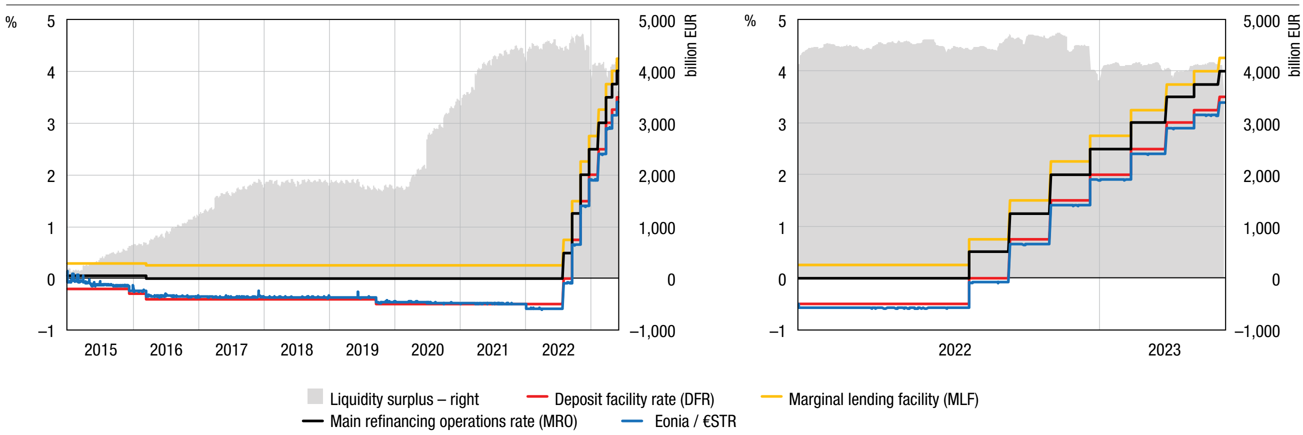
Note: Total current account balance has been calculated as the moving average of the last four quarters.
Source: ECB.

1.3 Monetary policy

On the first day of 2023, Croatia became a member of the euro area, having joined the European Exchange Rate Mechanism (ERM II) in mid-2020. Croatia's risk premium declined as early as in mid-2022, when the EU Council adopted the decision on the adoption by Croatia of the euro, which was confirmed by all three credit rating agencies, which upgraded Croatia's credit rating by one notch in July 2022. Expectations of the forthcoming introduction of the common currency also impacted the stability of the exchange rate of the kuna against the euro during the very challenging 2022, when the current and capital account balance entered into negative territory due to energy and raw material price hikes. In addition, the introduction of the euro almost completely eliminated currency risk, while producing a minimum direct effect on inflation. In the period immediately before the introduction of the new currency, the character of the CNB's monetary policy was marked by the preparations for the new monetary framework, which to a large extent offset the pressures of external shocks on the domestic financial market. The adjustment of the CNB's monetary policy instruments resulted in a record-high liquidity level in the banking system, which mitigated the transfer of tighter financing conditions spurred by the ECB's monetary policy normalisation.

Against the backdrop of elevated inflation, the ECB's Governing Council, of which the CNB Governor has been member since the beginning of 2023, continued to tighten monetary policy in the first half of the year. Key ECB interest rates started to rise in July 2022, growing by 250 basis points in the second half of that year and by an additional 150 basis points in the first half of 2023. As a result, key ECB interest rates grew by 400 basis points from July 2022 to June 2023, which has been the strongest monetary policy tightening cycle in the euro area since the euro was introduced as a currency. By decisions adopted in the aforementioned period, the deposit facility rate (DFR, which, due to currently high liquidity surpluses, is the Eurosystem's benchmark interest rate) was raised from –0.50% to 3.50%, the main refinancing operations rate (MRO) was lifted from 0% to 4.00% and the marginal lending facility

Figure 1.3.1 Key ECB interest rates



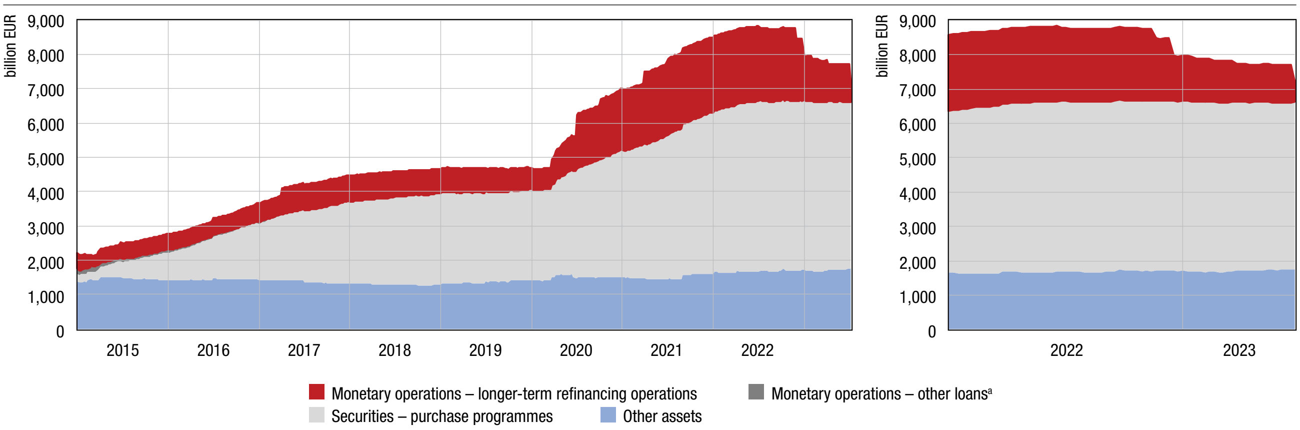
Source: ECB.

rate (MLF) was increased from 0.25% to 4.25% (Figure 1.3.1). In mid-June 2023, the Governing Council noted that its future decisions will ensure that the key ECB interest rates are brought to levels sufficiently restrictive to achieve a timely return of inflation to the 2% medium-term target and that they are kept at those levels for as long as necessary. Interest rate decisions will continue to be based on an assessment of the inflation outlook in light of the incoming economic and financial data, the dynamics of underlying inflation, and the strength of monetary policy transmission.

As well as employing standard monetary policy measures, the ECB reinforced the effects of interest rate increases by the gradual reduction of the Eurosystem balance sheet (Figure 1.3.2). Balance sheet reduction was mainly supported by banks' early repayment of funds from the third series of targeted longer-term refinancing operations (TLTRO III) driven by the recalibration of financing conditions of November 2022. Under the new conditions, from 23 November 2022 until the maturity date or early repayment date of each respective outstanding TLTRO III operation, the interest rate on TLTRO III operations will be indexed to the average applicable key ECB interest rates over this period. The Governing Council also decided to offer banks additional voluntary early repayment dates. The increase in banks' funding costs associated with this instrument reinforces the transmission of policy rate increases to bank lending conditions. Furthermore, after ending the net asset purchases via the Asset Purchase Programme (APP) in December 2021, as of March 2023, the Eurosystem stopped reinvesting a part of principal payments from maturing securities. The Governing Council confirmed in June 2023 that it would completely discontinue reinvestment as of July 2023.

In contrast, securities falling due under the pandemic emergency purchase programme (PEPP) will be reinvested in a flexible manner until at least the end of 2024. Flexibility in reinvesting supports the smooth transmission of monetary policy across all euro area countries, that it, it prevents financial fragmentation in terms of increases in the yields on government bonds that are deemed to be unwarranted considering country-specific macroeconomic indicators. Therefore, the payments from

Figure 1.3.2 Eurosystem balance sheet



Note: Red and gray shaded areas show the monetary items of Eurosystem balance sheet assets, while the blue shaded areas represent the non-monetary items.
[a] Other loans include: main refinancing operations, fine-tuning reverse operations, structural reverse operations, marginal lending facilities and credits related to margin calls.
Source: ECB.

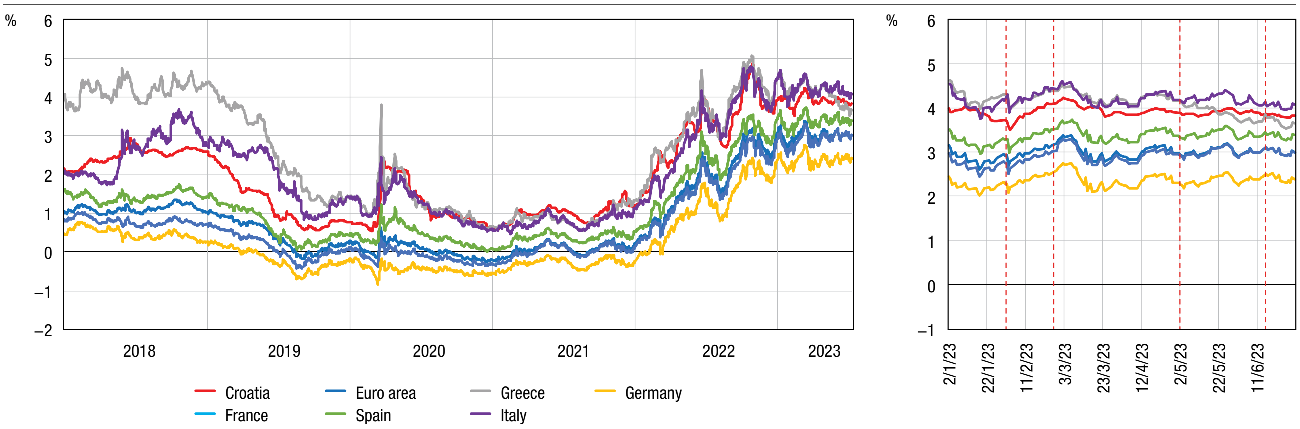
maturing securities under the PEPP are reinvested to prevent unjustified increases in government bond yields in particular countries, regardless of the existing PEPP portfolio distribution across countries. Should there be any significant increases in the risk of financial market fragmentation, the ECB has at its disposal the Transmission Protection Instrument (TPI), which was presented in mid-2022, but has not been applied so far. The TPI enables secondary market purchases of debt securities issued in jurisdictions experiencing increases in financing costs not warranted by country-specific macroeconomic indicators. Also defined is a list of criteria to primarily assess whether a country in which purchases under the TPI would be conducted pursues sound and sustainable fiscal and macroeconomic policies. In addition to the TPI, the ECB also has at its disposal outright monetary transactions (OMT), the instrument launched to counter the threat of financial fragmentation during the euro area sovereign debt crisis in 2012, which has also never been used. The OMT enables the ECB to purchase government bonds of member states facing difficulties, providing that they have beforehand signed a Memorandum of Understanding with the ESM, thereby imposing strict conditions for the ECB's indirect support.

1.4 Financial markets and the banking system

The increase in ECB key interest rates has been almost fully transmitted to interest rates on the money market. In the first half of 2023, the transmission of the increase in ECB key interest rates to the unsecured segment of the money market was immediate and full, while in the secured segment, the transmission was strong but not full, with some cross-country heterogeneity. Following the last increase in ECB interest rates of 25 basis points in June, the €STR went up from 3.1% to 3.4% at the end of June (Figure 1.3.1). Oscillations in other short-term financing costs were more pronounced under the influence of changed expectations regarding the speed and intensity of monetary policy tightening. After the three-month EURIBOR had grown to 2.2% by the beginning of 2023, steady inflationary pressures and continued monetary tightening pushed the three-month EURIBOR up to 3.5% at the end of May and, ultimately, to 3.6% in late June. In the first half of the year, the upward trend in EURIBOR was briefly halted in mid-March on the back of growing uncertainty in financial markets following the failures of the first two out of three regional US banks and one Swiss bank.

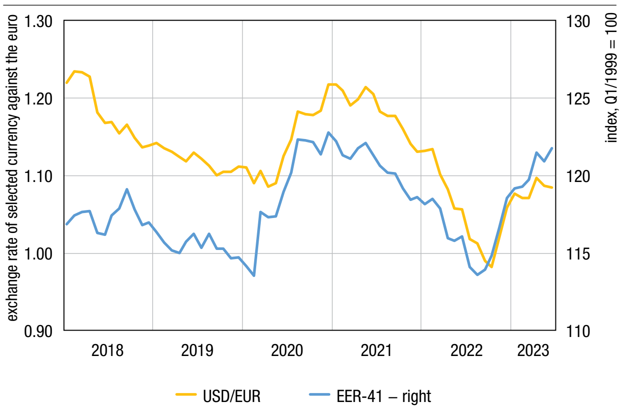
Yields on the bond market were stable from the beginning of the year, and yields at the end of June were at a level similar to that recorded at the beginning of the current year. March was an exception, when uncertainty related to the situation in US banks, and, to a significantly smaller extent, in European banks, increased volatility in the short term (Figure 1.4.1). Considering the regulatory measures taken to prevent the spillover of effects of the failure of large banks in the US and Switzerland to the wider banking and financial system, movements in euro area financial markets stabilised quickly, which enabled the ECB to persist in its monetary policy tightening. The yield on the long-term bonds of Croatia did not react significantly to the aforementioned events, standing at 3.8% at the end of June, down by 17 basis points from the end of 2022.

Figure 1.4.1 Yields on long-term government bonds with the remaining maturity of approximately 10 years



Notes: Yields for the euro area have been weighted by the shares in GDP of countries included. Data from the euro area do not include those from Estonia, Latvia, Luxembourg and Malta. The red dotted lines denote ECB Governing Council meetings in February, March, May and June.
Sources: Bloomberg, Eurostat and CNB calculations.

Figure 1.4.2 Exchange rates of selected currencies against the euro and the nominal effective exchange rate of the euro

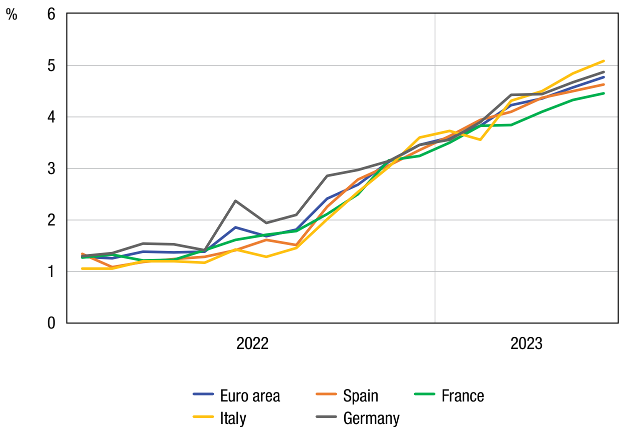


Notes: EER-41 is the nominal effective exchange rate index of the euro against 41 major trading partners of the euro area. Exchange rate increase indicates euro appreciation.
Source: ECB.

In the global foreign exchange market, the euro began to recover relative to the US dollar towards the end of 2022, so that by mid-2023 it regained most of the value lost in 2022. This was primarily brought about by expectations that the pace of the Fed key interest rate increase could slow down and that the US monetary policy could change course earlier than expected. In addition, the euro was supported by expectations of the continued tightening of ECB monetary policy. The exchange rate of the euro versus the US dollar hovered around an average value of USD/EUR 1.08 in June 2023, which is an appreciation of around 10% relative to the level in October 2022. Over the same period, the nominal effective exchange rate of the euro against a basket of currencies of the main trading partners of the euro area appreciated by around 6% and returned to the level recorded in mid-2021 (Figure 1.4.2).

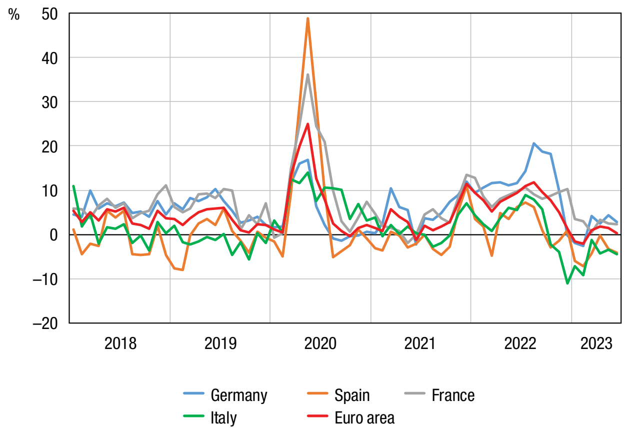
Corporate and household borrowing costs continued to grow, reflecting the pronounced intensity of ECB interest rate increases, while lending activity remained subdued, amid heterogeneity across countries and instruments. At euro area level, the average interest rate on pure new loans granted to non-financial corporations reached 4.77% in June (Figure 1.4.3), having gone up by 132 basis points from the end of the preceding year. The increase in interest rates was accompanied by a decline in the total volume, with the quarterly annualised rate of growth in loans to non-financial corporations entering negative territory at the beginning of 2023 in all large

Figure 1.4.3 Interest rates on pure new corporate loans



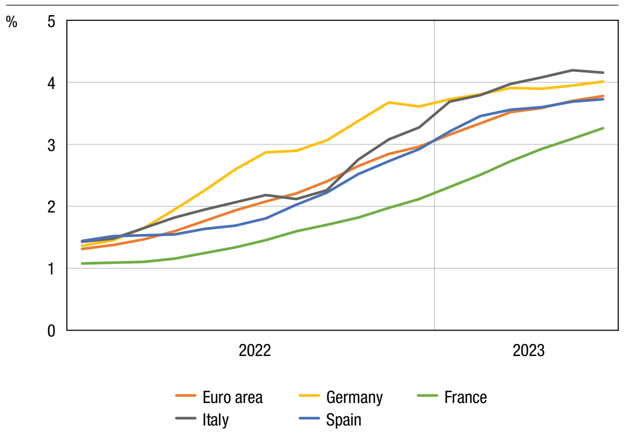
Source: ECB.

Figure 1.4.4 Lending momentum in the euro area (corporations)



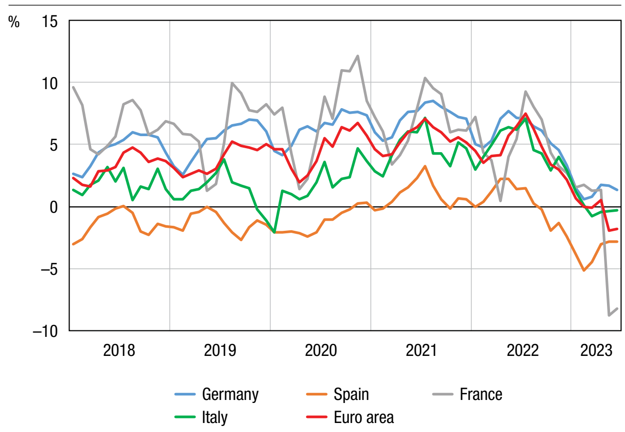
Note: Quarterly rate of change on an annual level.
Sources: ECB and CNB calculations.

Figure 1.4.5 Interest rates on pure new household loans



Note: Series refer to housing loans.
Source: ECB.

Figure 1.4.6 Lending momentum in the euro area (households)



Notes: Quarterly rate of change on an annual level. Series refer to housing loans.
Sources: ECB and CNB calculations.

euro area countries except France (Figure 1.4.4). With heterogeneity across countries, loans to non-financial corporations had decreased in Italy and Spain by mid-year, while lending to non-financial corporations is still growing in France and Germany, but is much smaller than the 2022 average. As regards household borrowing, the quarterly annualised rate of growth in housing loans in the euro area was negative in mid-2023, with a particularly pronounced fall seen in France, while Germany was the only large economy that recorded growth in housing loans (Figure 1.4.6). The interest rate on original new housing loans to households was 3.78% in June relative to 3.16% in January (Figure 1.4.5). Overall, relative to the preceding year, the intensity of lending weakened noticeably more in the segment of lending to non-financial corporations than in the segment of lending to households. This fact is also related to base effects from 2022 when lending was very strong due to increased needs for financing working capital driven by increases in the prices of energy and raw materials.

2 Croatian economy

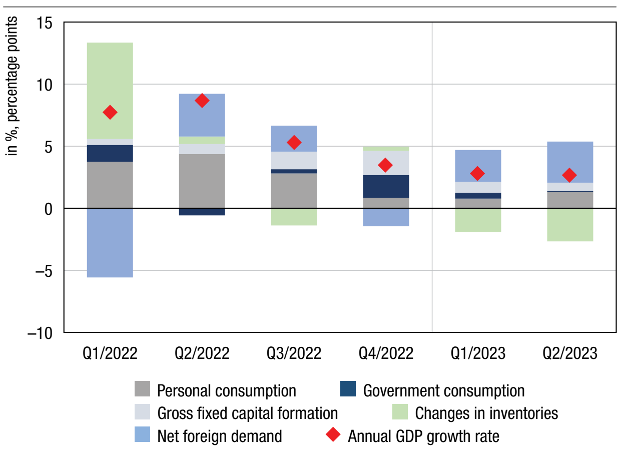
2.1 Real developments

Economic activity in Croatia grew relatively vigorously in the first half of 2023, driven mainly by the recovery in personal consumption and buoyant demand for tourist services. These favourable effects eclipsed the limitations stemming from geopolitical instability, still-high inflation and restrictive monetary policy. Following a slowdown in late 2022, when the quarterly real GDP growth rate stood at 0.5%, economic activity grew by 1.3% at a quarterly level in the first three months of 2023 and by 1.1% in the period from April to June. Owing to favourable current developments, real GDP increased by 2.7% from January to June 2023 from the same period of the previous year, with economic growth being relatively evenly distributed across quarters (Figure 2.1.1). A real GDP growth rate higher than the euro area and EU average (Figure 2.1.2) gradually reduced income differences, after domestic product per capita (in terms of purchasing power) reached 73% of the EU average in 2022.

GDP growth in early 2023 was mostly driven by positive developments in personal consumption associated with favourable trends in the labour market. The labour market in early 2023 was marked by continued growth in the number of employed persons and a recovery in real wages, which resulted in improved consumer optimism and increased personal consumption. Investment activity also continued to pick up, with favourable trends also seen in service activities, while the sharp contraction in the exports of goods is attributable to changes in the structure of foreign demand (from goods towards services) and subdued activity in countries that are Croatia's main trading partners. Nevertheless, owing to the parallel steep decline in goods imports, net exports made a positive contribution to the annual growth rate.

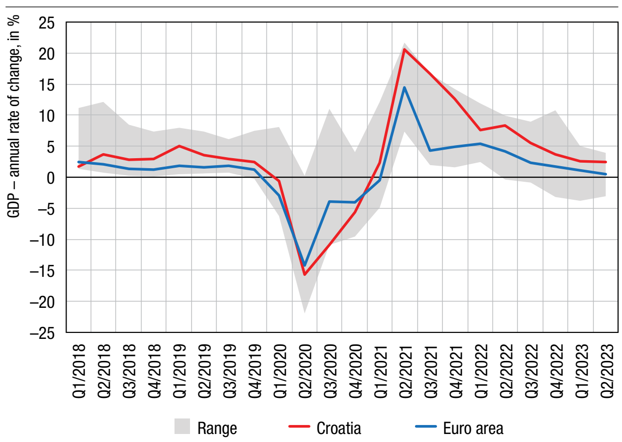
In the second quarter real growth was mostly fuelled by personal consumption and exports of services, which may be associated with continued favourable developments in the labour market, the further recovery in real income and a strong

Figure 2.1.1 Contributions to the change in real economic activity



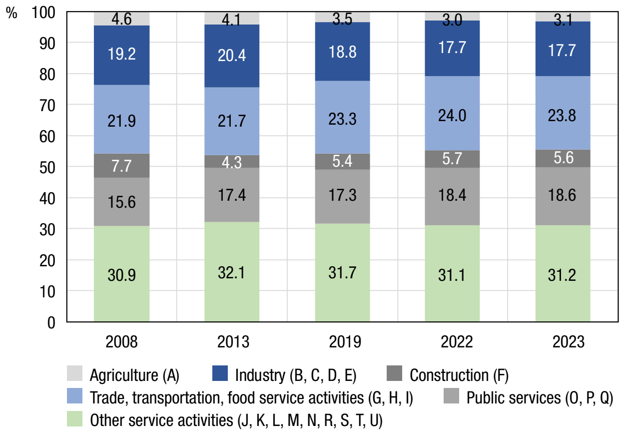
Source: Eurostat.

Figure 2.1.2 Trends in economic activity in Croatia and the euro area



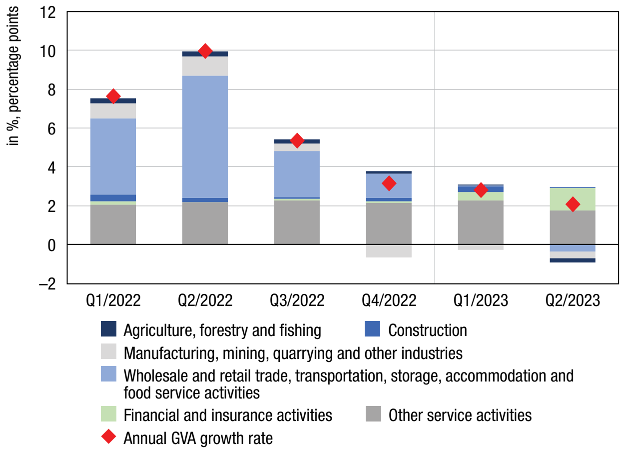
Note: The figure shows the range of values of real GDP growth of individual euro area Member States.
Source: Eurostat.

Figure 2.1.3 GVA structure by activities



Note: Data for 2023 refer to the last four quarters for which data are available, as at the second quarter of 2023.
Source: CBS.

Figure 2.1.4 GVA rate of change, contributions to the annual change by components



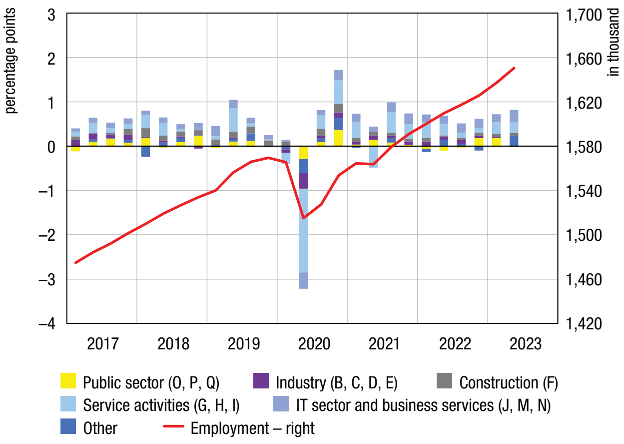
Source: CBS.

inflow of foreign tourists. Developments in other components were relatively subdued. The contribution of net exports to the annual growth rate remained positive as the decrease in goods exports was paired with a continued fall in goods imports. Investments and government consumption were slightly lower than in the quarter before. Following unfavourable trends in a number of activities in the second half of 2022, in the period from April to June, economic activity resumed an upward trajectory in most activities, with the exception of construction and agriculture, where the contraction gained momentum from the previous quarter. The shares of wholesale and retail trade, transportation and storage, accommodation and food service activities in total GVA remained larger than in the pre-pandemic period, which points to an increase in the share of tourism-related activities in overall economic activity (Figure 2.1.3). Financial activities recorded a sharp growth, probably due to the rise in banks' net interest margins, which include the income of banks from overnight deposits with the CNB (Figure 2.1.4).

2.2 Labour market

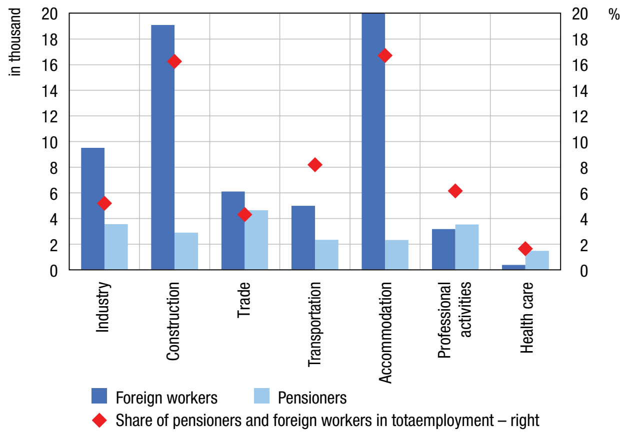
Robust economic activity in the first half of 2023 contributed to the ongoing strong increase in the number of employed persons in Croatia. In the first quarter of 2023, total employment increased by 0.7% from the previous quarter. Employment in tourism-related service activities, the IT sector and the public sector made the biggest contribution to total employment growth, while the number of persons employed in construction and industry grew at a slower intensity (Figure 2.2.1). Employment grew at a similar pace in the second quarter, with a positive contribution again being more pronounced in service activities, while employment in the public sector and industry held steady. If viewed on an annual level, the number of employed persons grew equally in the first and the second quarter of 2023, by a total of 2.4% from the same period of last year. The demand for labour continues to be partially met by increased employment

Figure 2.2.1 Employment by NCA, seasonally adjusted data, contributions to the quarterly rate of change



Source: CPII (seasonally adjusted by the CNB).

Figure 2.2.2 Employed pensioners and foreign workers as at June 2023

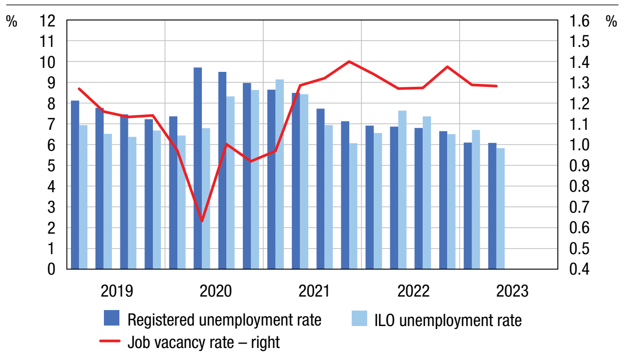


Note: The chart shows data for third-country workers and pensioners working up to half time in 2023 as at end of June.
Source: CPII.

of third-country workers (from non-EU countries) and by hiring pensioners who work up to half time, as provided under the amended Pension Insurance Act. Workers from third countries are represented predominantly in labour-intensive activities such as construction, tourism-related service activities and industry, while the majority of pensioners work in retail trade, industry and professional service activities (Figure 2.2.2).

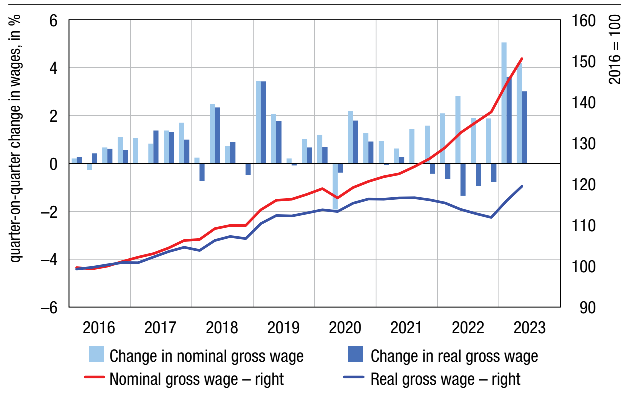
Employment growth partially contributed to a reduction in the unemployment rate, with strong demand for labour reflected in the still high job vacancy rate (Figure 2.2.3). The seasonally adjusted registered unemployment rate held steady from the first to the second quarter of 2023, standing at 6.1% of the labour force, down from 6.6% at the end of 2022. In the first and the second quarter, the internationally comparable ILO unemployment rates stood at 6.7% and 5.8%, respectively, of the labour force (seasonally adjusted). It should be noted that the basis for the estimation of survey data for the first and the second quarter of 2023 was the 2021 Census of Population,

Figure 2.2.3 Unemployment and job vacancy rates, seasonally adjusted data



Notes: Since January 2015, the calculation of the registered unemployment rate has used data on employed persons from the JOPPD form. The job vacancy rate is calculated as the share of total positions that are vacant in the total demand for labour (the sum of the number of persons insured with the CPII and vacant positions). The ILO unemployment rate for the first and second quarter of 2023 is not comparable with data for the previous quarters due to the transition to calculation of indicators based on the 2021 population census.
Sources: CBS, CES and CNB calculations (seasonally adjusted by the CNB).

Figure 2.2.4 Average nominal and real wage, seasonally adjusted data



Notes: As of January 2016, data refer to the JOPPD form, while earlier data refer to the RAD-1 form. Data on average wages paid in February 2020 were reported in full-time equivalent. Data on wages in 2019 reported in full-time equivalent were released for analytical purposes. The figure shows changes in nominal and real wages on a quarterly level.
Sources: CBS and CNB calculations (seasonally adjusted by the CNB).

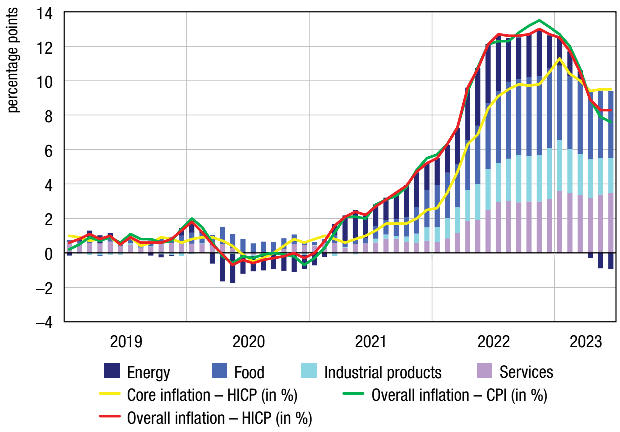
Households and Dwellings in the Republic of Croatia, while the estimation of the previously released data was based on the 2011 census. This created a break in the time series so that data from the first quarter of 2023 onwards are not directly comparable with data for the previous quarters.

Strong demand for labour paired with the shortage in the labour force, low unemployment and accumulated loss of purchasing power due to rising inflation strongly accelerated nominal wage growth in the first half of the year, so purchasing power grew against the background of gradually easing inflationary pressures (Figure 2.2.4). Wage growth was widespread across different activities, although growth acceleration was most prominent in the private sector. The growth of gross nominal wages and the gradual slowdown in inflation also resulted in an increase in real wages in the first half of 2023. After having declined for five consecutive quarters, the average real gross wage increased by 3.6% in the first quarter of 2023 (from the last three months of 2022), and by another 3.0% in the second quarter. Developments in the first quarter were largely characterised by the noticeable spike in wages paid out in February for January, which was, judging by the substantially less prominent increase in March, a one-off occurrence. It is possible that such strong wage growth at the beginning of the year reflects the fact that in a certain number of companies at the beginning of the year wages are adjusted in accordance with business results and/or macroeconomic trends in the previous year. In addition, present labour shortages might spur employers to reduce employee fluctuations and the related costs by raising wages. Some of the impact could also have come from the increase in the minimum wage as of 1 January (from EUR 560 to EUR 700 in gross amount). Data for the second quarter show that the quarterly growth in nominal and real wages in most activities (with the exception of industry) lost momentum from the previous quarter. Amid rapid and complete recovery in GDP, the consequence of the mentioned increase in real wages in the first half of the year was that they came close to the levels they would have reached had they continued to grow after 2019 at the rates seen in the period from 2017 to 2019.

2.3 Inflation

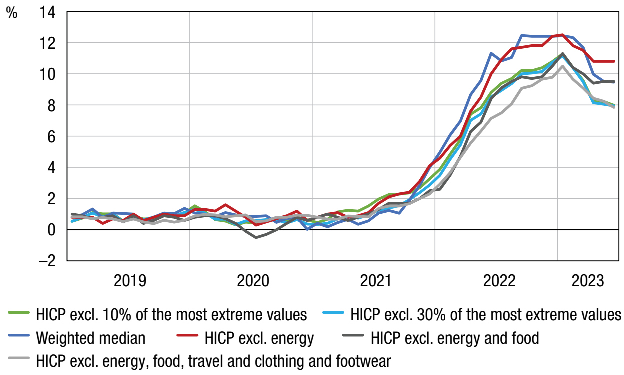
Croatia's overall inflation measured by the harmonised index of consumer prices (HICP) decreased in the first six months of 2023, reaching 8.3% in June, down from the 12.7% recorded in December 2022 (Figure 2.3.1). Energy prices contributed the most to the slowdown in overall inflation, thanks to the decrease in the prices of refined petroleum products and the favourable base effect. To a smaller extent, food prices (including alcohol and tobacco) also contributed to the slowdown of inflation, although their annual increase in June was nevertheless sharp (13.4%) due to the spillover of the earlier strong increase in the prices of energy and food raw materials to food consumer prices. The introduction of the euro in Croatia has had a relatively small and one-off impact on overall inflation, mostly attributable to increases in the prices of some services (for more details, see Box 1 Estimation of the impact of euro adoption on inflation).

Figure 2.3.1 Inflation indicators in Croatia



Note: Core inflation is measured by the harmonised index of consumer prices that excludes energy, food, alcoholic beverages and tobacco prices.
Sources: Eurostat and CNB calculations.

Figure 2.3.2 Core inflation indicators in Croatia

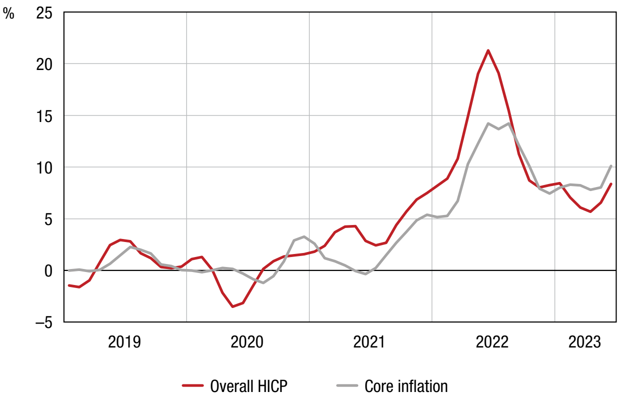


Notes: Trimmed mean is the measure of the central tendency calculated by eliminating 5% (15%) of components with maximum and minimum annual rates of change in a given month. The total data set refers to 87 HICP components. The weighted median is a form of median without the most extreme values, which excludes all values but the weighted median of the distribution of price change.
Sources: Eurostat and CNB calculations.

Core inflation (excluding the prices of energy and food) slowed down relatively slightly, from 10.5% in December 2022 to 9.5% in June (Figure 2.3.2)**, reflecting a decrease in the inflation of prices of industrial products.** This was mostly a result of the decrease in the prices of energy and other raw materials on the global market and the elimination of remaining bottlenecks in global supply chains. The slowdown in core inflation was also due to the waning effect of the sharp increase in the prices of numerous products in 2022. In contrast to the inflation in the prices of goods, service price inflation (for more details, see Box 2 Developments in the inflation of service prices in the first half of 2023) is much more persistent, remaining at two-digit levels in the first half of 2023 (ranging from 10.1% to 11.4%).

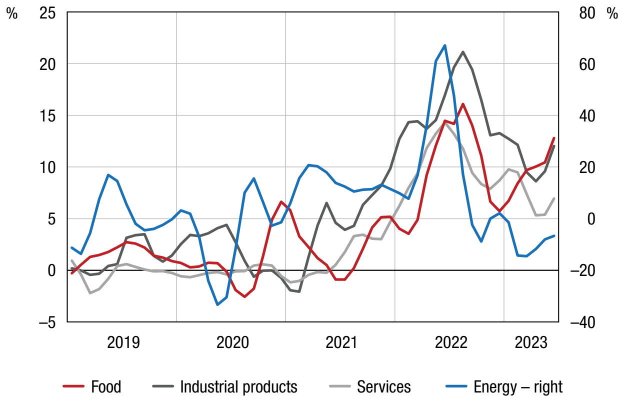
The short-term indicator of overall inflation (Figure 2.3.3)**, which reflects current developments, went up in May and June, after decreasing in the first four months of 2023, but was much lower than in the same months of the previous year.**

Figure 2.3.3 Momentums of overall and core inflation



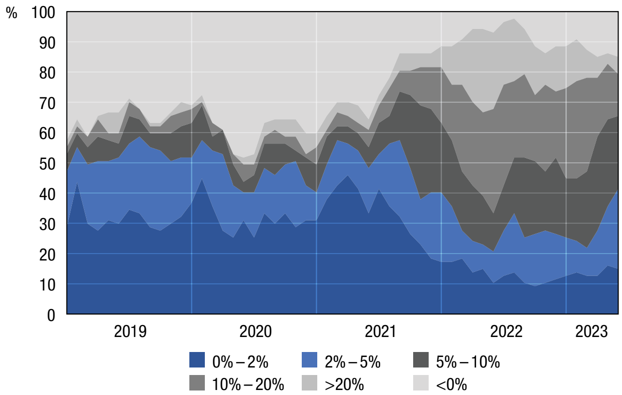
Note: The quarterly rate of change on an annual level has been calculated based on the quarterly moving average of seasonally adjusted harmonised indices of consumer prices.
Sources: Eurostat and CNB calculations.

Figure 2.3.4 Momentums of main inflation components



Note: The quarterly rate of change on an annual level has been calculated based on the quarterly moving average of seasonally adjusted harmonised indices of consumer prices.
Sources: Eurostat and CNB calculations.

Figure 2.3.5 Diffusion of consumer price inflation

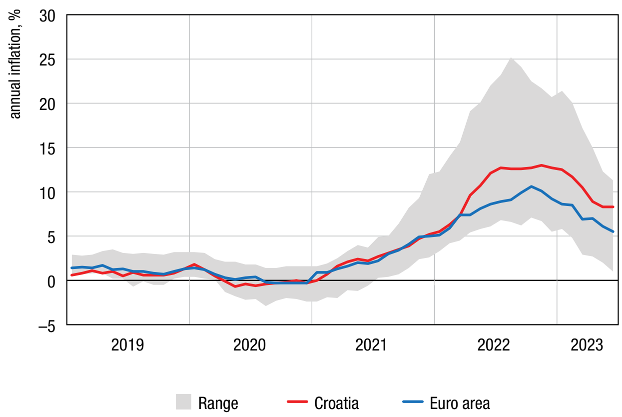


Note: The figure shows the share of products whose prices changed within a defined range in the total number of products according to quarterly moving averages of annual rates of change of seasonally adjusted price indices of 87 components of the harmonised consumer price index.
Sources: Eurostat and CNB calculations.

Figure 2.3.6 Short-term consumer and corporate inflationary expectations

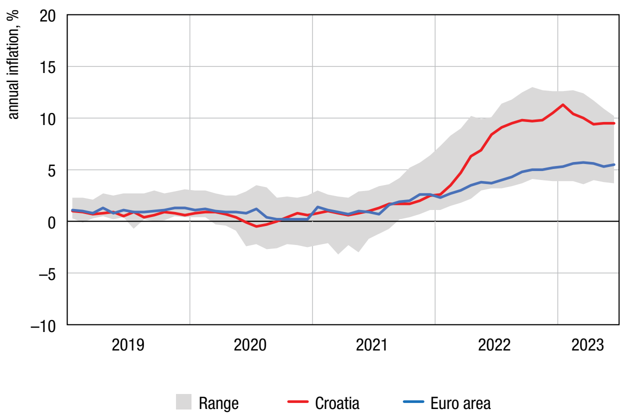
Note: Consumer expectations refer to a twelve-month period ahead and corporate expectations refer to a three-month period ahead.
Source: Ipsos.

Figure 2.3.7 Synchronisation of overall inflation in Croatia and the euro area



Note: Gray areas show the range of values of individual member states.
Source: Eurostat.

Figure 2.3.8 Synchronisation of core inflation in Croatia and the euro area



Note: Gray areas show the range of values of individual member states.
Source: Eurostat.

The decrease in imported inflationary pressures contributed the most to the mitigation of current inflation, particularly in the segment of energy prices. In June, prices of crude oil on the global market were a third lower than they were following the Russian invasion of Ukraine, while prices of gas and electricity dropped by around 60%. Still, current inflation remained elevated in June. Short-term indicators of core inflation increased slightly over the first six months of the current year, although they were still significantly lower than the peaks recorded in mid-2022 (Figure 2.3.4). The increase was to a large extent attributable to a rise in the momentum of service prices amid pronounced labour market pressures, two-digit inflation of food prices, one of the input costs in some services segments and, particularly, growing demand for tourist services ahead of the peak tourist season.

Even though inflation diffusion decreased in the first half of 2023, it remained

elevated (Figure 2.3.5). The share of subcomponents in the consumer price index whose annual growth stands above 2% exceeded 70% (which is nevertheless much less than in the third quarter of 2022, when that share peaked at around 84%). As a result, **the downward trend in short-term inflationary expectations of consumers that began in mid-2022 continued over the first four months of 2023, after which expectations edged up in May and June** (Figure 2.3.6). Trends seen in energy prices, i.e. the decrease in the prices of refined petroleum products in the domestic market coupled with the continued "freezing" of consumer prices of natural gas and electricity in the first months of 2023 have, most probably, contributed to the decrease in consumer inflationary expectations. The decrease in the prices of energy and other raw materials on the global market and reduced inflationary pressures caused by disruptions in global supply chains are some of the factors contributing to the decrease in short-term inflationary expectations of corporations in manufacturing and services in the first half of 2023.

Although inflation levels and trends primarily reflect developments that are shared by a large number of countries, the impact of certain locally specific features was noticeable as well in the first half of the year. Overall and core inflation in Croatia in June 2023 were, respectively, 2.8 and 4.0 percentage points higher than in the euro area (Figure 2.3.7). This inflation differential was primarily a result of a greater contribution of food (mainly due to its larger weight in the basket for the calculation of the HICP), but also of the stronger annual growth in the prices of services in Croatia than in the euro area (Figure 2.3.8).

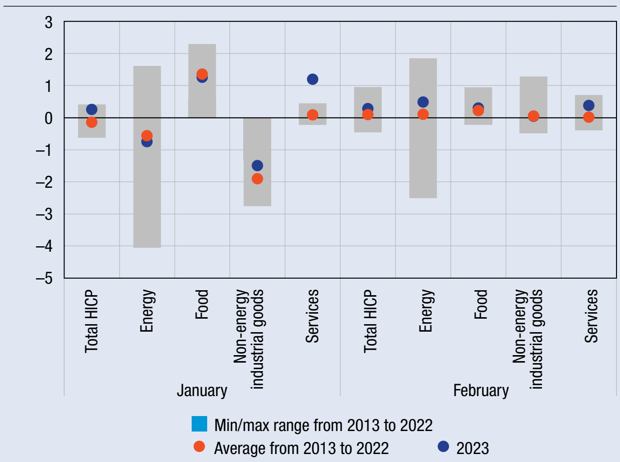
Box 1 Estimation of the impact of euro adoption on inflation[1]

While many Croatian consumers have expressed concerns about further price increases related to the euro changeover, the estimates show that euro adoption triggered an increase in overall inflation of 0.4 percentage points in January 2023, mostly through the rise in the prices of individual services. This was similar to the experience of other euro area countries, where the changeover from the national currency to the euro had a generally mild and one-off effect on inflation, mainly concentrated in the services sector.

Many consumers in Croatia were concerned about price increases related to the euro changeover. Their concerns were amplified by the high-inflation environment at the time. The conversion of prices of particular products from kuna to euro has been effected according to the fixed exchange rate, a technical operation that should not trigger a price increase. However, there are factors present during the changeover that may fuel a price increase in the short run; they mostly concern the spillover of conversion costs (e.g. the costs of changing price lists, IT services and staff training) onto consumers and the attempts of some companies to increase their profit margins whilst people are adjusting to a new currency. There were other practices that were widespread before the euro changeover: the setting of prices at attractive levels to make payments more practical (so that giving change does not require many coins/banknotes), and the setting of prices so that they end with the digit 9 after the decimal separator (psychological prices), which is believed to make consumers underestimate the cost of a product. However, prices were often no longer at attractive levels following the euro changeover according to the official conversion rate. If retailers adjust prices in euros to the next higher attractive level, this could indeed have a certain short-term impact on inflation. Competition (market forces) is an important factor that deters retailers from raising prices, while the decrease in transaction costs and absence of exchange rate risks have a lowering effect on prices. In addition, the obligation to display dual prices in stores as of September 2022 might also have deterred retailers from raising prices.

The impact of euro adoption on overall inflation in Croatia has been mild and nonrecurring

Figure 1.1 Consumer price inflation in Croatia



Source: Falagiarda, M. et al. (2023.): Has the euro changeover really caused extra inflation in Croatia?, The ECB Blog, 7 March.

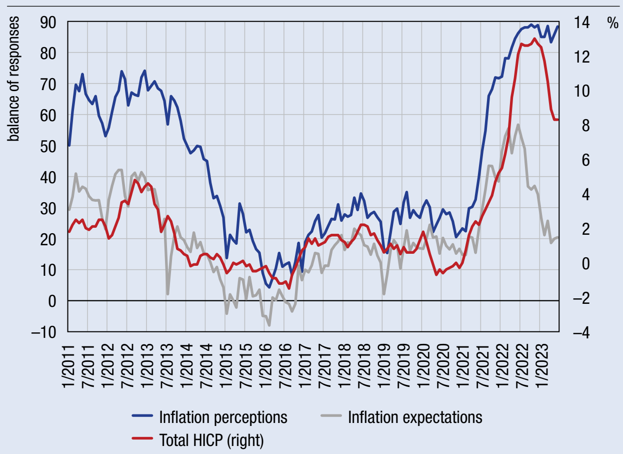
1 The text is based on the paper by Falagiarda, M., Gartner, C., Mužić, I. and Pufnik, A. (2023): Has the euro changeover really caused extra inflation in Croatia?, The ECB Blog, 7 March 2023.

and mostly a result of increases in the prices of some services. Eurostat data show that consumer prices (measured by the harmonised index of consumer prices) in Croatia grew by 0.3% from December 2022 to January 2023, which is less than in some other euro area countries. A comparison of price inflation of the main components of consumption against the average monthly increase in these prices in the month of January over the previous ten years shows no significant departures in the monthly change in the prices of food, energy and industrial products (Figure 1.1). By contrast, the month-on-month growth rate of service prices in January 2023 was much higher than the long run average (1.2% vs. 0.1%). The largest contribution to these prices came from the services in restaurants and bars, followed by dental and medical services and hairdressers. In February 2023, the month-on-month growth of overall inflation was 0.2%, with none of the main inflation components displaying any significant departures from historical averages. Had the monthly growth in service prices in January 2023 been at the long-term average, the overall monthly consumer price inflation would have been 0.4 percentage point lower than the actual figure. This estimate of the impact of euro adoption on overall inflation in Croatia is consistent with the experience of other euro area countries, which shows that the effect of the changeover from the national currency to the euro on consumer price inflation was generally mild and nonrecurring, with a slightly higher growth seen only in some services.

The share of attractive prices in domestic retail chains decreased sharply in January (to around 45% in euro, from around 98% in kuna in December 2022),[2] largely because retail chains complied with the rounding rules provided for by the law. More specifically, around 65% of prices in January were the same as in December 2022, while within the remaining 35% of prices that changed as many as 25% were lowered, partly because some retailers rounded their prices down when converting them into the euro.

In contrast to the experience of other euro area countries, where inflation perception mostly increased during the euro changeover, **inflation perception in Croatia was lower in January than in December,** and was paired with a decline in inflation expectations of consumers (Figure 1.2). Such developments were probably largely linked to the decrease in the prices of energy products, which also reduced the annual rate of overall inflation in January.

Figure 1.2 Inflation perceptions and expectations



Sources: Eurostat and European Commission.

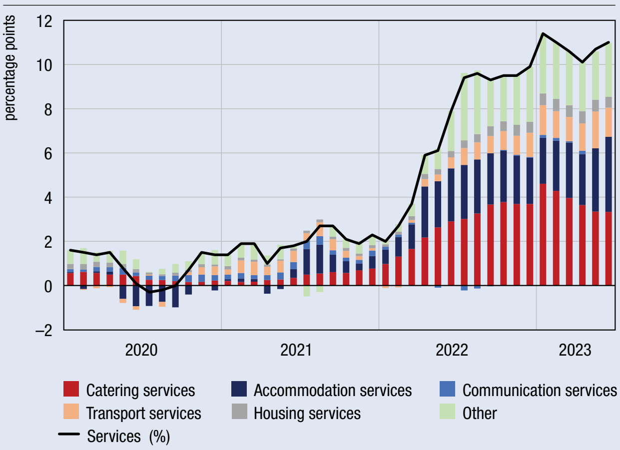
2 The analysis is based on microdata on the prices in the ten biggest retail chains in Croatia obtained from the company "PCA – prikupljanje cijena i analiza d.o.o. ", which specializes in collecting and analysing prices on the Croatian market. The sample contains food products, beverages, cleaning products, products for care and hygiene, etc.

Box 2 Developments in the inflation of service prices in the first half of 2023

Short-term indicators of service price inflation increased in 2023, suggesting that it was more persistent than had been expected earlier; what is more, in Croatia, it was noticeably higher than at euro area level. This box therefore focuses, in more detail, on the developments in the inflation of service prices in Croatia and the euro area, which is linked to the overall price growth. The inflation of service prices in Croatia is primarily spurred by catering and accommodation services, which account for more than a half of the annual inflation of service prices and which also contribute the most to the difference between the inflation of service prices in Croatia and the euro area. Factors affecting the growth in the prices of these services, include, among other things, the long-term effect of the price convergence due to the low level of prices relative to other euro area countries, the recent rise in input costs brought about by increases in the prices of energy and food, wage growth, labour shortages and the strong demand of foreign visitors for tourist services. The growth in the prices of these services improves the terms of trade in Croatia and has a positive effect on domestic income.

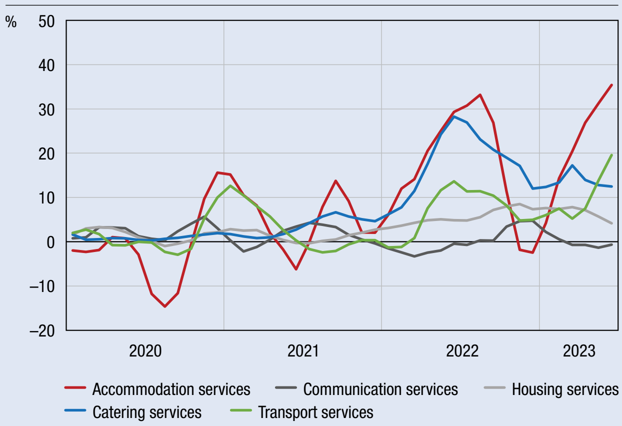
Indicators of current trends in the inflation of service prices in Croatia increased in the first half of 2023, which particularly applies to catering and accommodation services, accounting for more than a half of the annual inflation in service prices. Following the strong acceleration in 2022, particularly in the first half of the year, in January 2023 (partly as a result of the one-off effect of euro introduction), the annual inflation in service prices slowed down only slightly, standing at 11% in June 2023 (Figure 2.1). More than a half of the inflation of service prices was attributable to catering (services of restaurants, cafés and canteens) and accommodation services. The

Figure 2.1 Inflation of service prices in Croatia and contributions of main components



Sources: Eurostat and CNB calculations.

Figure 2.2 Momentums of price inflation in individual types of services



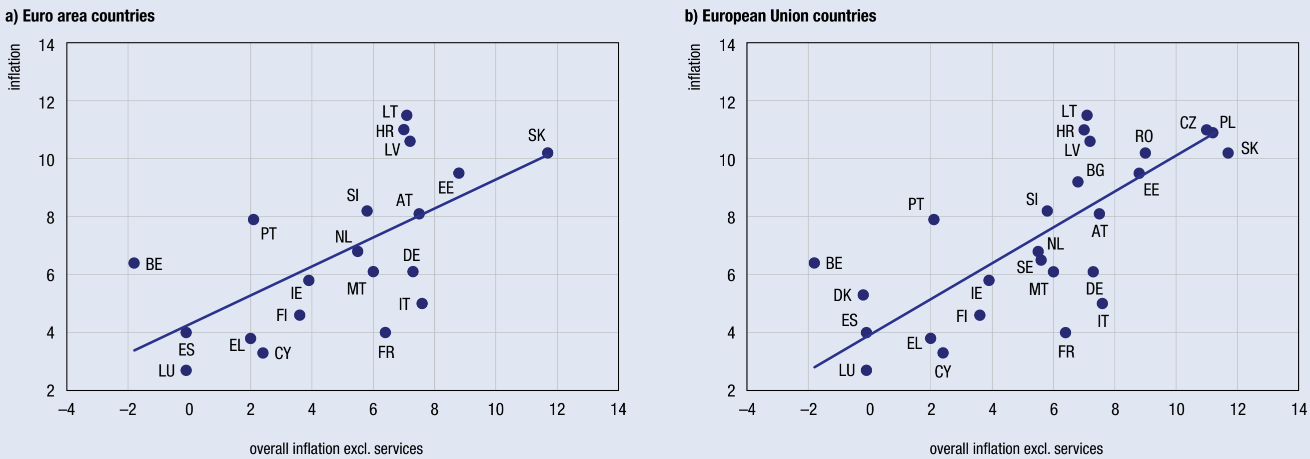
Note: The quarterly rate of change on an annual level is calculated from the quarterly moving average of seasonally adjusted harmonised consumer price indices.
Sources: Eurostat and CNB calculations.

aforementioned services also stand out if indicators of current trends in the inflation of service prices, i.e. momentums of individual types of services, are observed, which are most pronounced precisely in catering and accommodation services (Figure 2.2). Furthermore, in contrast to energy, food and industrial products (Figure 2.3.4), whose momentum indicators decreased in the first six months of 2023, momentum indicators of inflation in the prices of services went up. This points to the evident persistence of inflation in service prices, suggesting that developments in the inflation of service prices could, in the upcoming period, to a crucial extent, determine the dynamics of slowdown in overall inflation and the moment of return to target levels.

In addition to food, prices of services contributed the most to the difference between overall inflation in Croatia and the whole of the euro area. Inflation of service prices in Croatia was twice as high as that in the euro area, where in June 2023 it stood at 5.4% (Figure 2.4.a). Croatia stands out as one of the euro area countries with the highest rates of inflation of service prices. In June 2023, only Lithuania recorded higher annual increases in the prices of services among euro area countries, and Latvia and Slovakia saw rates of inflation in service prices slightly below that of Croatia. Inflation in the prices of services was the highest in countries where overall inflation (excluding services) was also the highest (Figure 2.3.a) and a clear positive link between the inflation in the prices of services and the growth in overall price levels is also noticeable when CEE countries are included in the analysis (Figure 2.3.b). This points to spillover effects of the increase in the prices of food and energy on the prices of services and to a link with wage growth. Furthermore, strong demand for contact-intensive services following the pandemic is an additional factor in Croatia.

The difference in the rates of inflation of service prices between Croatia and the euro area average in June 2023 was primarily due to the prices of catering and accommodation services. The inflation of the prices of catering and accommodation services picked up in Croatia at a much faster rate than at euro area level, resulting in

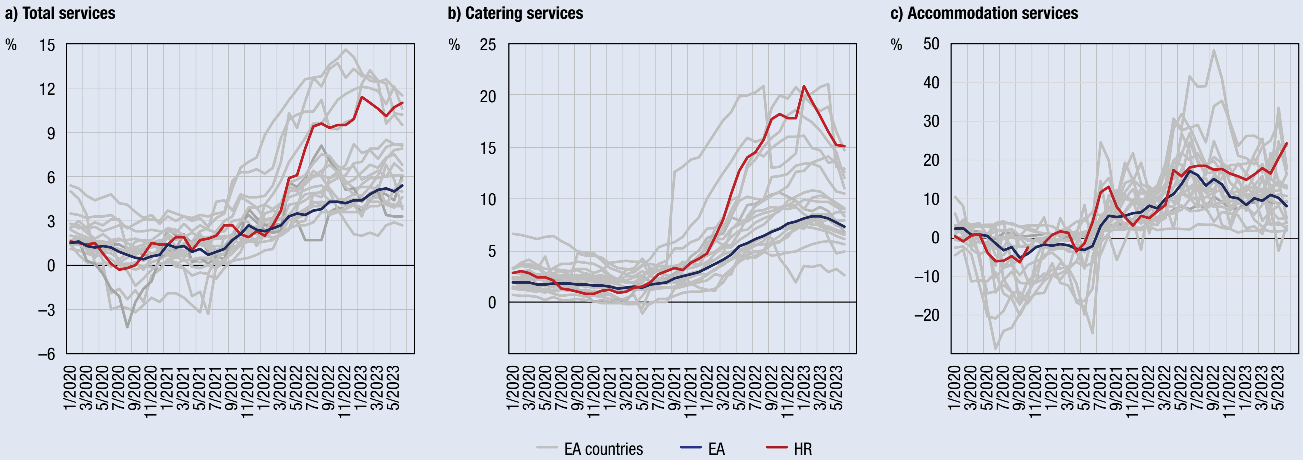
Figure 2.3 Inflation in the prices of services and overall inflation excluding services, June 2023



Source: Eurostat.

a noticeable divergence in their paths (Figures 2.4.b and 2.4.c). Croatia was among the euro area countries that recorded the highest annual increases in the prices of catering and accommodation services in June 2023. Compared with developments in mid-2021,

Figure 2.4 Annual rate of growth in service prices in Croatia and euro area countries



Source: Eurostat.

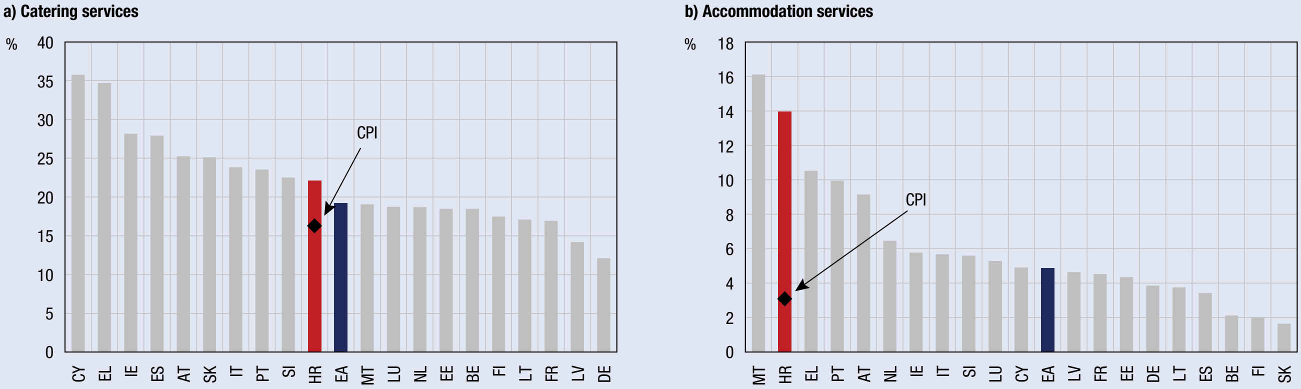
in June 2023, prices of catering services in Croatia were almost 30% higher, while in the euro area, they went up by less than 15%. At the same time, prices of accommodation in Croatia grew by almost 50%, and in the euro area, by one fourth.

The significance of individual services for overall inflation does not depend only on the developments in their prices, but also on their share in the consumer basket. Specifically, catering services account for an equal share in Croatia and at the entire euro area level, while accommodation services account for a much larger share of the consumer basket in Croatia, which reflects the importance of tourism in the domestic economy. The share of prices of catering services in total services in the consumer basket in Croatia is only slightly higher than the euro area average (Figure 2.5). On the other hand, only Malta outranks Croatia among euro area countries with regard to the share of accommodation services in total services in the consumer basket. Therefore, the higher contribution of catering services to the inflation of service prices in Croatia than in the euro area is primarily a result of the faster pace of growth in their prices, whereas in accommodation services, it is a result of the faster growth in their prices as well as their greater weight.[3]

Croatia stands out among euro area member states according to the level of contribution of service prices to overall inflation and the level of the contribution of prices of catering and accommodation services to the inflation of service prices.

3 In contrast to the national consumer price index (CPI), the harmonized index of consumer prices (HICP) also takes into account the consumption of foreign guests, due to which the shares of catering services and, particularly, accommodation services are higher if the HICP is observed instead of the CPI. Therefore, the inflation of prices of services is lower if the CPI is observed: in June 2023, it stood at 7.6% (11.0% according to the HICP), but that is still higher than the euro area average.

Figure 2.5 Share of accommodation and catering services in total services in the consumer basket

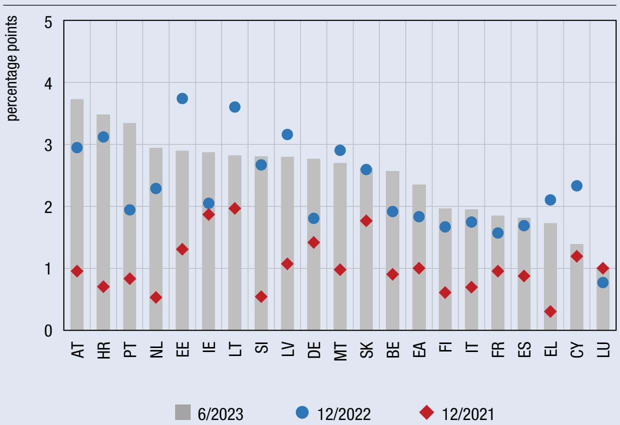


Sources: Eurostat, CBS and CNB calculations.

There are substantial differences between euro area member states in the significance of services for overall inflation. The contribution of services to overall inflation in June 2023 was the largest in Austria, Croatia and Portugal (Figure 2.6), while Ireland, Austria and Malta (Figure 2.7) stand out in terms of the relative significance of services for the overall inflation path. Croatia is among the top euro area member states according to the respective contributions of prices of catering services (Figure 2.8) and accommodation services (Figure 2.9) to the overall inflation of prices of services.

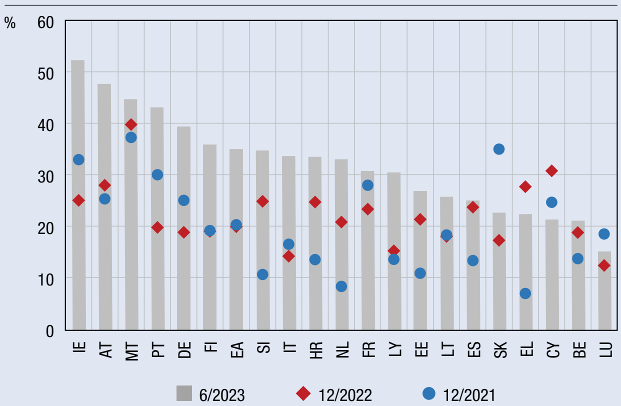
The increase in the prices of catering and accommodation services in Croatia partially reflects long-term factors, for instance, the process of convergence of the prices of these services to the euro area average. The level of service prices in Croatia greatly lags behind the level of prices of goods relative to levels recorded in the euro

Figure 2.6 Contributions of services to overall inflation (HICP)



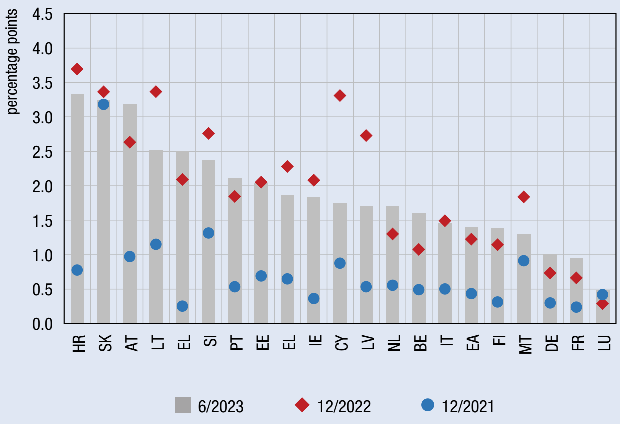
Sources: Eurostat and CNB calculations.

Figure 2.7 Relative significance of services for the overall inflation path



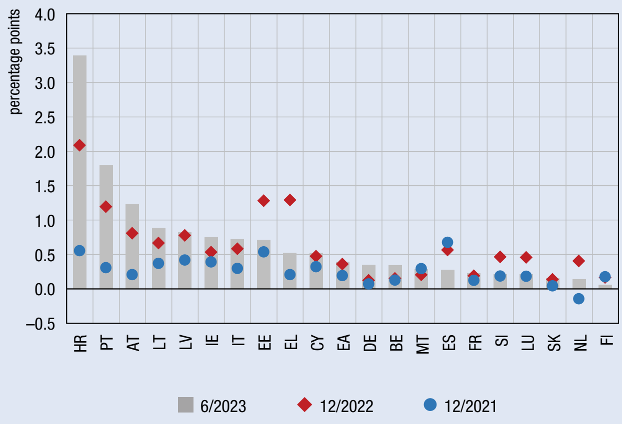
Note: Relative significance reflects the share of services in the sum of absolute values of contributions of four main components of the consumer price index (energy, food, industrial products and services) to overall inflation.
Sources: Eurostat and CNB calculations.

Figure 2.8 Contributions of catering services to the overall inflation in service prices



Sources: Eurostat and CNB calculations.

Figure 2.9 Contributions of accommodation services to the overall inflation in service prices

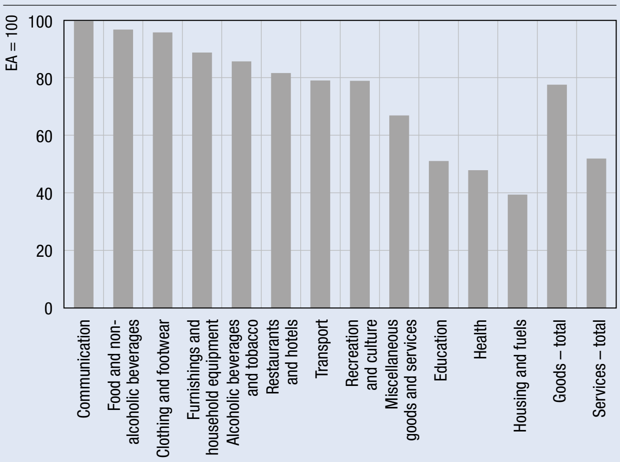


Sources: Eurostat and CNB calculations.

area (Figure 2.10). According to the latest available data for 2022, the level of prices of restaurants and hotels was among the lowest in euro area countries (Figure 2.11) and significantly lower than the level of prices of, for example, food or clothing and footwear relative to the euro area.

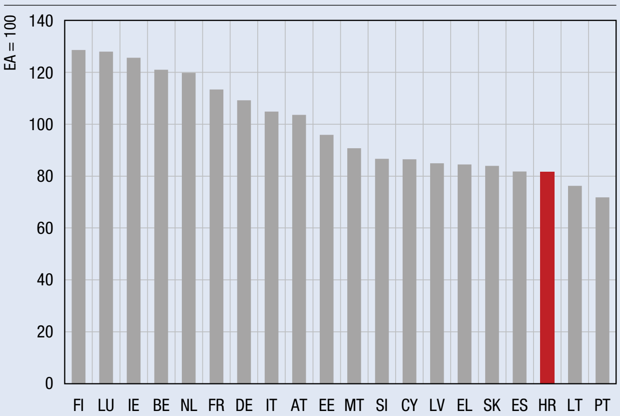
In addition, the surge in the prices of catering and accommodation services partly reflected the rise in input costs related to the prices of energy and food products and the increase in the wages of employed persons driven by pronounced labour shortages. The shares of direct costs of energy and employee wages in accommodation and food service activities are quite similar in Croatia and in the euro area (Figure 2.12). The share of costs of food and beverages is slightly higher in Croatia and could have, to a lesser extent, contributed to the faster growth in the prices of

Figure 2.10 Price levels in the main categories of the consumer basket in Croatia, 2022



Sources: Eurostat and CNB calculations.

Figure 2.11 Levels of prices of restaurants and hotels in euro area countries, 2022

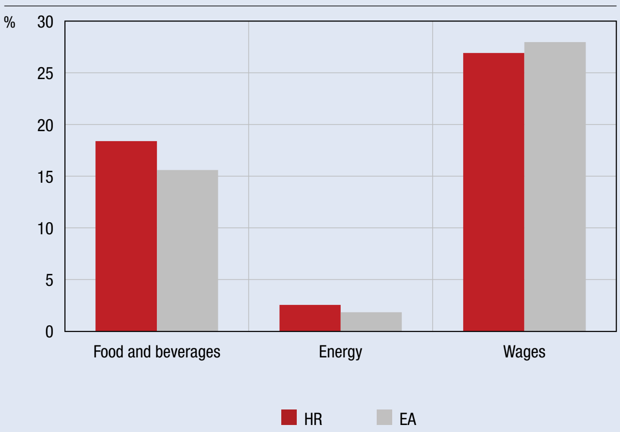


Sources: Eurostat and CNB calculations.

catering and accommodation services, even if the somewhat faster increase in the prices of food in Croatia last year is taken into account. Furthermore, in 2022, labour costs in accommodation and food service activities grew in Croatia, on average, more than in the euro area (Figure 2.13).

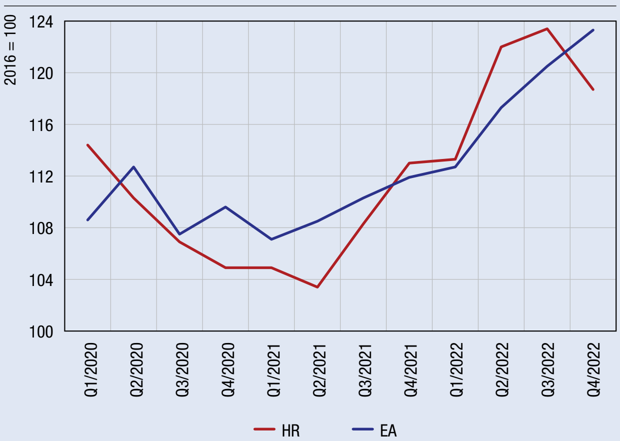
The increase in the prices of catering and accommodation services in Croatia was also driven by the demand of domestic and, particularly, foreign guests related to the strong recovery of tourist activity. In addition to the increase in input costs, the upward trend in catering and accommodation service prices was also spurred by the demand for such services which particularly strengthened as the economy opened and demand shifted towards services following the waning of the COVID-pandemic. Against such a backdrop, the developments in the prices of the aforementioned services in Croatia were affected by the demand of not only domestic but also of foreign visitors amid the strong recovery of tourist activity.

Figure 2.12 Shares of particular direct costs in accommodation and food service activities



Sources: Eurostat and CNB calculations based on input-output tables from 2018.

Figure 2.13 Labour cost index in accommodation and food service activities



Source: Eurostat.

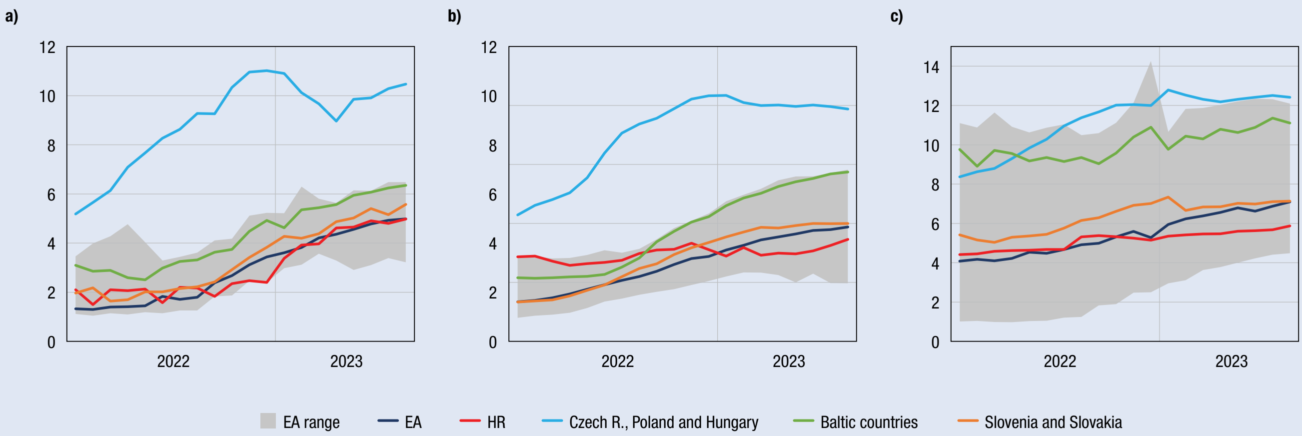
Box 3 Impact of euro introduction on borrowing costs in Croatia

One of the main positive effects of euro introduction singled out by the CNB before joining the euro area was its favourable impact on borrowing costs. The intensity of the transmission of the increase in the key ECB interest rates to bank interest rates has been among the weakest, so that interest rates on corporate and household loans are among the lowest in the euro area and much below those in countries that have not adopted the euro, which is in line with expectations. Such developments are attributable to a number of factors associated with the introduction of the euro, such as a significant release of liquidity, elimination of currency risk and the drop in the country risk premium.

While the effects of the tightening of the ECB's monetary policy have been observed in Croatia, the intensity of the transmission of the increase in the key interest rates has been among the weakest in the euro area. Lending rates of Croatian banks are among the lowest in the euro area and much below those in countries that have not adopted the euro. The difference in interest rates relative to the majority of euro area countries is particularly evident in household loans, both housing and other purpose loans, including consumer loans (Figure 3.1.b, Figure 3.1.c). Interest rates on household loans are currently below the euro area average and below those in comparable countries such as Slovenia and Slovakia, and are at much lower levels than in countries that have not adopted the euro (Czech Republic, Poland and Hungary) and the Baltic countries. After being lower, on average, than in euro area countries in late 2022 and early 2023, interest rates on corporate loans in Croatia caught up with the euro area average in the first half of 2023 (Figure 3.1.a).

Some of the key factors keeping interest rates at low levels and moderating the

Figure 3.1 Interest rates on corporate, housing and consumer and other loans



Sources: ECB and CNB.

intensity of transmission in Croatia vis-à-vis other euro area countries that can be singled out are one-off in nature, e.g., the surge in surplus liquidity resulting from the alignment of monetary policy instruments and the decline in the country risk premium resulting from accession to the euro area, while others are of a structural nature, such as a stable and growing deposit base, the role of deposits as the dominant source of bank financing, the relatively low loan-to-deposit ratio, as well as the small share of variable interest rates when loans are being granted.

Reducing the reserve requirement rate from 9% to 1% and repealing the obligation to maintain minimum required foreign currency claims because of the alignment of monetary policy instruments in the run-up to joining the euro area have reduced the regulatory cost of bank intermediation and significantly increased liquidity surpluses. Free funds in Croatian banks thus reached almost 20% of total banking system assets at the beginning of this year, which is among the highest in the euro area. The most recent data suggest that surplus liquidity in the Croatian banking system continues to be among the largest in the euro area.

The country risk premium has been reduced as a result of the process of euro introduction. The experiences of countries that have introduced the euro and empirical literature[4] show that membership in the euro area reduces the costs of government borrowing. It has been argued that the elimination of currency risk and the accession to the European Stability Mechanism (ESM), providing support to countries experiencing financial difficulties, are the main reasons behind the existence of the so-called euro premium. Although estimates show that in some periods "euro premium" tended to be negative, as for example during the European debt crisis, when the ESM was established, over a longer period a favourable effect of euro area membership on country risk premium still prevails.

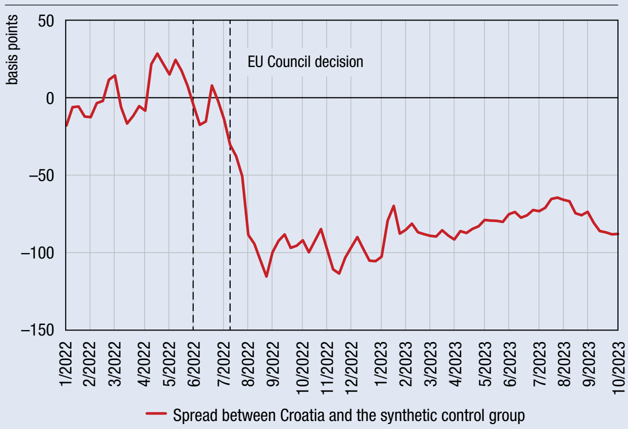
The impact of euro adoption on the yield on bonds of the Republic of Croatia as a result of the announced accession to the euro area cannot be directly measured, but it can be estimated. The estimation of the effect of euro adoption on yields is not simple since it is hard to separate the impact of the announced accession to the euro area (EU Council decision) from other shocks affecting the movement of bond yields. A potential solution to this problem would be to compare the trends in Croatia's government bond yields with yields on government bonds of peer countries, where the effects of many other factors impacting yield movements should be taken into consideration. In order to determine whether the announced adoption of the euro really caused the fall in yields on Croatian government bonds, the analytical method[5] is used in the Box; this method is applied in empirical literature in searches for answers to similar analytical questions (for more details see Box 4 in the publication Macroeconomic Developments and Outlook No. 13, December 2022).

4 See, for example: Szilard, 2021; Kunovac and Pavić, 2018; Wiegand, 2017; Ehrmann, Fratzscher, Gürkaynak and Swanson, 2007; Côté and Graham, 2004.

5 The so-called synthetic control method (Abadie, 2021). The idea is to construct a synthetic Croatia by averaging the trends in indicators for other countries. Each country is assigned a weight in a synthetic control group, so that it tracks well the trends in indicators for Croatia.

Following the adoption of the EU Council decision in July 2022, Croatia's bond yields decreased significantly when compared with the synthetic control group (Figure 3.2). The yield on Croatia's bonds was about 90 basis points lower at end-September 2023 than that in the calculated counterfactual scenario in which Croatia did not join the euro area (Figure 3.2). The analysis shows the additional effect of the reduced uncertainty concerning Croatia's accession to the euro area (mainly due to the requirement to meet the criterion of inflation), so that this result can be observed as the lower limit to the probable effect of the adoption of the euro.

Figure 3.2 Yield spread on Croatia's ten-year euro government bond relative to the synthetic control group



Note: The first vertical line concerns the Convergence Report of 1 June 2022, while the second vertical line concerns the decision of the EU Council on the adoption by Croatia of the euro.
Source: CNB calculations.

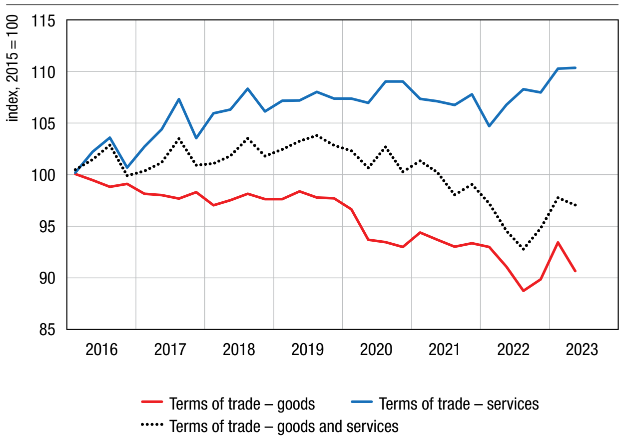
It may be concluded that owing to the country having joined the euro area, the costs of government and private sector funding in Croatia are lower than they would have been in a scenario without the euro. The rise in interest rates in Croatia has been much smaller than in other euro area countries and it has been particularly small when compared with countries that have not adopted the euro, which justifies the assumption that interest rates would have been even higher had the euro not been introduced.

2.4 Economic relations with foreign countries

Having worsened substantially in 2022 due to the sharp increases in the prices of energy on the global market, the terms of trade of Croatia improved slightly in the first half of 2023, but remained worse than before the pandemic. The terms of trade in services improved faster, reflecting a significant increase in the prices of tourist services in the first half of 2023, while the terms of trade in goods have not yet improved despite the recent easing of imported price pressures, mainly brought about by the decrease in the prices of energy on the global market (Figure 2.4.1). A noticeable improvement was also seen in Croatia's balance of payments in the first half of 2023 owing to a sharp annual growth in tourism revenues, as well as greater disbursements from EU funds to end beneficiaries. The overall deficit in the current and capital account stood at EUR 1.4bn, an improvement of EUR 2.1bn from the same period of the previous year.

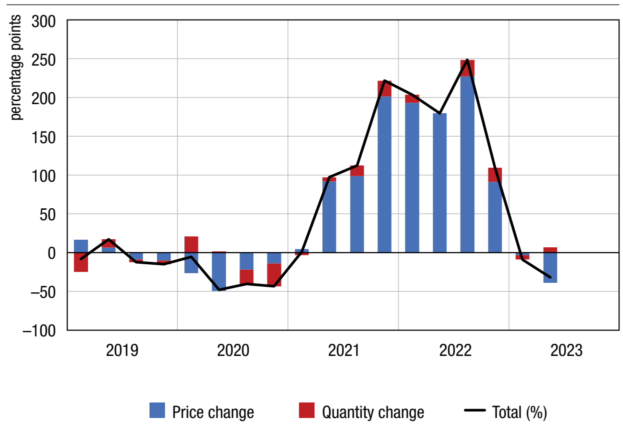
Although the growth of foreign trade in goods decelerated strongly in the first half of 2023, an export performance slightly less unfavourable than that of imports led to a decrease in the overall deficit on an annual basis, of 1.7% and 1%, respectively, in the first and second quarter. The slower growth in goods trade was largely a result of the decrease in the net imports of energy caused by the fall in energy prices on the global market (Figure 2.4.2). If trade in energy products is excluded, exports and imports of other goods grew perceptibly in the first half of the year (by around 7%). The pace of the increase slowed down noticeably towards the middle of the year on the back of lower foreign demand, with the rise in the exports of other goods, of 13.3% in the first quarter, slowing to only 1.4% in the second quarter, while imports of other goods slowed down from 11.3% to 4.2% from the first to the second quarter. The geographic structure of the trade in goods suggests that exports to euro area countries and CEFTA member countries, primarily neighbouring Serbia and Montenegro,

Figure 2.4.1 Terms of trade in goods and services



Sources: CBS and CNB calculations.

Figure 2.4.2 Breakdown of the annual rate of change in the imports of energy

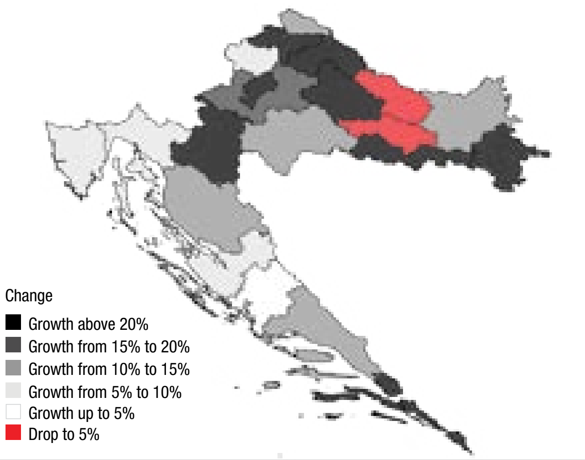


Sources: CBS and CNB calculations.

contributed the most to the rise in total exports in the first six months. In contrast, the mild increase in goods imports was almost entirely accounted for by larger imports from euro area countries, in particular, Germany.

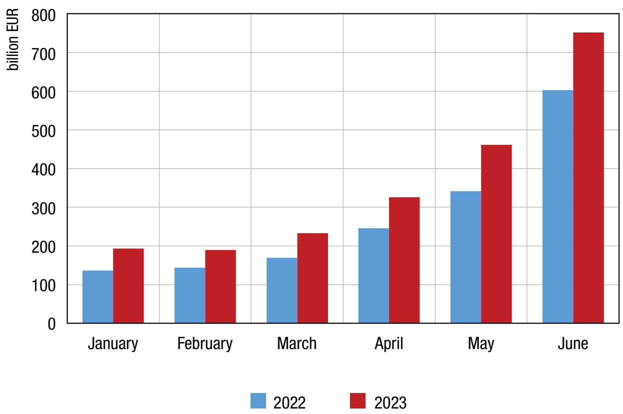
The first half of 2023 was marked by a continued highly favourable tourism performance (Figure 2.4.3). Volume indicators of foreign tourist arrivals and nights point to a very successful pre-season, with tourist nights growing by 21.7% in the first two quarters, or 9.9% when compared with the same period in the previous year. Euro area guests contributed the most to the trend, particularly those from Germany, Austria, Slovenia and Italy. Observed by tourist destinations, Dubrovnik, Rovinj, Split and Zadar stand out in terms of favourable results, with a noticeable increase in the number of nights stayed also seen in Zagreb. Financial indicators too suggest a record performance in the first six months of the current year, with the amount of fiscalised receipts in accommodation and food service activities being 37% and 29% higher, respectively, in the first and the second quarter than in the same periods of last year (Figure 2.4.4). In addition to growing volume indicators, this is attributable to price increases in the prices of accommodation and food and drink services.

Figure 2.4.3 Annual change in the cumulative number of nights stayed from January to June 2023



Source: eVisitor.

Figure 2.4.4 Amount of fiscalised receipts in accommodation and food service activities



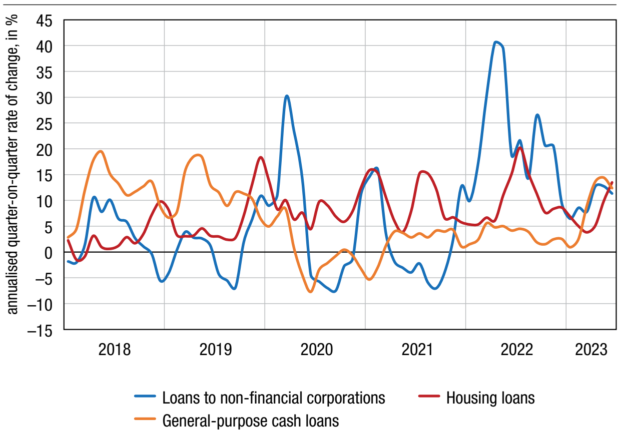
Source: Ministry of Finance.

2.5 Banking system

Interest rates on household and corporate loans increased in the first half of 2023 under the influence of the spillover effects of the tightening of the ECB's monetary policy. The average interest rate on pure new loans to non-financial corporations reached 5.0% in June, up by 302 basis points from the period preceding the common monetary policy normalisation (Figure 2.5.2). With regard to lending to households, in April, the average interest rate on pure new general-purpose cash loans and housing loans reached 5.8% and 3.1%, respectively, having gone up by 44 basis points and 58 basis points respectively from the average in the first quarter of 2022. Interest rates on pure new corporate time deposits have been increasing uninterruptedly since October last year, while interest rates on household deposits started gradually increasing only this year. The increase in interest rates on corporate loans has been much slower than the euro area average, while the rise in interest rates on housing and consumer and other household loans has been among the slowest in the euro area. The situation is similar with deposits. Some of the key factors moderating the intensity of transmission in Croatia vis-à-vis other euro area countries that can be singled out are one-off in nature, e.g., the decline in the country risk premium and the surge in surplus liquidity resulting from joining the euro area, while others are of a structural nature, such as a stable and growing deposit base, the role of deposits as the dominant source of bank financing, the relatively low loan-to-deposit ratio, as well as the small share of variable interest rates when loans are being granted.

Lending to the private sector continued to be quite strong despite higher borrowing costs and tighter lending standards. Loans to non-financial corporations grew by EUR 0.6bn in the first six months of 2023. However, as this growth was slower than in the same period of the previous year, the annual increase in loans to that sector slowed down from 20.9% in December to a still-high 13.5% in June (Figure 2.5.6). In terms of loan purpose, syndicated loans and loans for working capital and investments increased perceptibly. However, loans for working capital and investments grew at a slower pace than in the same period of 2022 so that their growth decelerated on an annual basis, particularly that of working capital loans (from 18.3% in December to 0.1% in June). Loans to households increased by EUR 0.8bn in the first six months of 2023. General-purpose cash loans and housing loans rose at the same rate. The bulk of the growth in housing loans came in May and June because of the new round of the housing loans subsidy programme. The annual growth in household loans accelerated moderately (from 5.9% in December to 6.6% in June), reflecting a rise in general-purpose cash loans (from 3.5% to 6.3%), while the rise in housing loans decelerated slightly (from 10.4% to 9.2%), which was probably related to the delayed processing of applications for subsidised housing loans this year because of the strike of judicial officers. Continued and quite strong lending to the private sector is also clearly reflected by the indicator of short-term loan dynamics, useful for the early signalling of trend shifts (Figure 2.5.1).

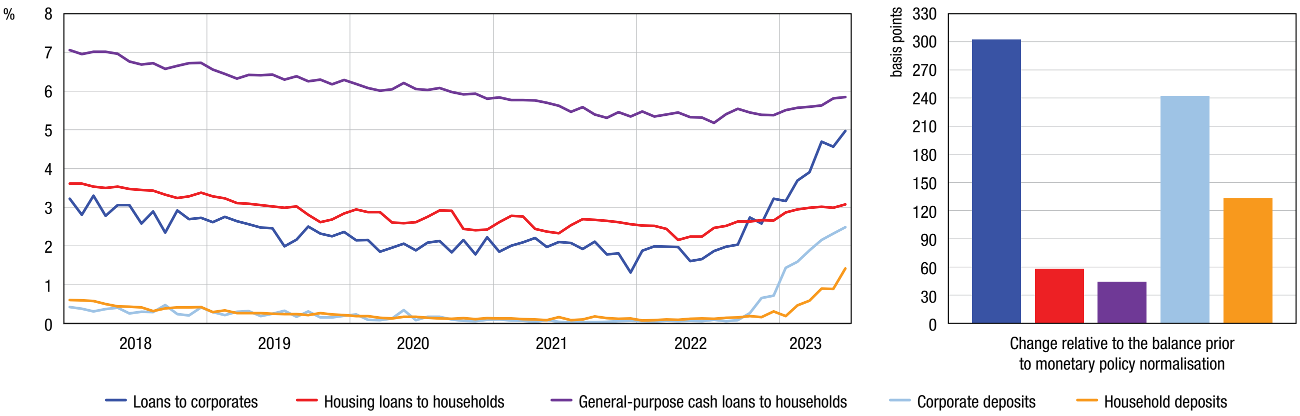
Figure 2.5.1 Lending momentum, corporates and households



Note: Quarterly rate of change on an annual level (transaction-based).
Sources: CNB and CNB calculations.

Bank lending survey results also point to the tightening of financing conditions and a relatively stable demand for loans. Bank corporate lending standards continued to tighten in

Figure 2.5.2 Interest rates on pure new loans and time deposits of corporates and households

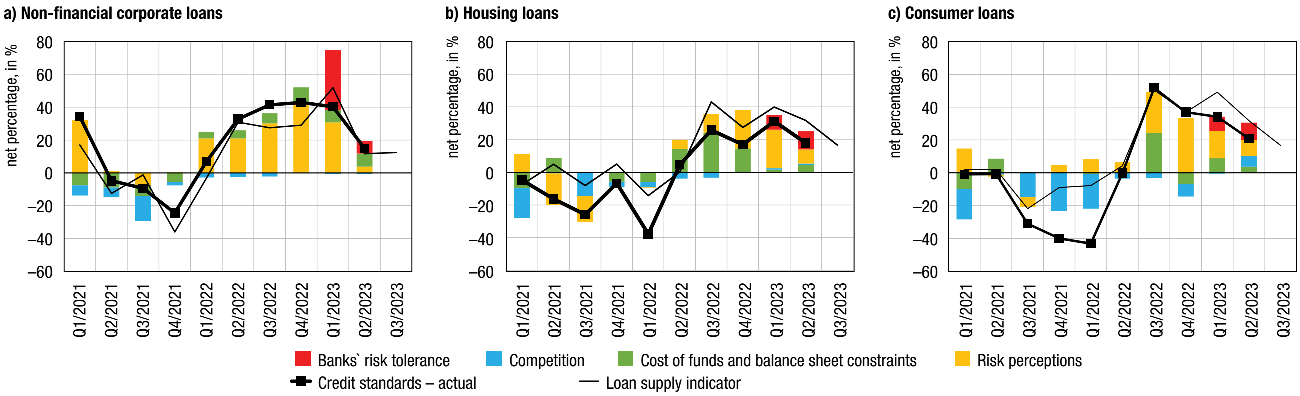


Note: Data up to December 2022 refer to loans and deposits in kuna, in kuna with a currency clause in euro and in euro, and from January 2023 to loans and deposits in euro.
Source: CNB.

the first half of 2023, albeit the pace of tightening slackened perceptibly in the second quarter (Figure 2.5.3). The tightening of credit standards was mainly driven by banks' lower tolerance levels, worsened expectations related to overall economic trends and the outlook for the industry or the individual corporation concerned. According to the results of the latest survey from this year's third quarter, banks expect the intensity of the tightening of lending standards to remain the same. Corporate demand for loans edged up in the second quarter after having decreased perceptibly in the first quarter. The increase in interest rates contributed the most to the lowering of corporate demand for loans, particularly in the first quarter, while greater needs for financing investments, as well as for inventories and working capital in the second quarter gave a push to the recovery in corporate loan demand (Figure 2.5.4). Banks expect a slight decrease in corporate demand for loans in the third quarter of 2023. Lending standards for households also continued tightening, although for consumer and other loans the intensity was weaker than in the second half of last year. The factors contributing to the tightening in lending standards are risk perception, that is, unfavourable expectations regarding overall economic trends, as well as housing market prospects for housing loans and borrowers' creditworthiness and collateral risk for consumer and other loans. In the third quarter of 2023, banks expect household lending standards to continue tightening; however, less intensively than in the first half of the year. Rising interest rates had a negative effect on household demand for housing loans as well; however, following a decrease in the first quarter, this demand rose in the second quarter, driven by a favourable real estate market outlook and the subsidy programme. On the other hand, demand for consumer loans increased as a result of growing income and consumer optimism, which spur the purchase of durable goods. In the third quarter of 2023, banks expect demand for consumer loans to increase while demand for housing loans is expected to decrease.

Strongly increasing on the eve of the euro introduction, deposits of domestic

Figure 2.5.3 Bank lending survey – BLS
lending standards and factor contributions



Notes: Cost of funds and balance sheet constraints are the unweighted average of the Impact of capital position, Impact of ability to access market financing and Impact of liquidity position. Competition is the unweighted average of Impact of bank competition, Impact of non-bank competition and Impact of market financing competition. Risk perceptions are the unweighted average of Impact of general economic activity, Impact of industry or firm specific situation and Impact of risk on the collateral demanded.
Source: CNB.

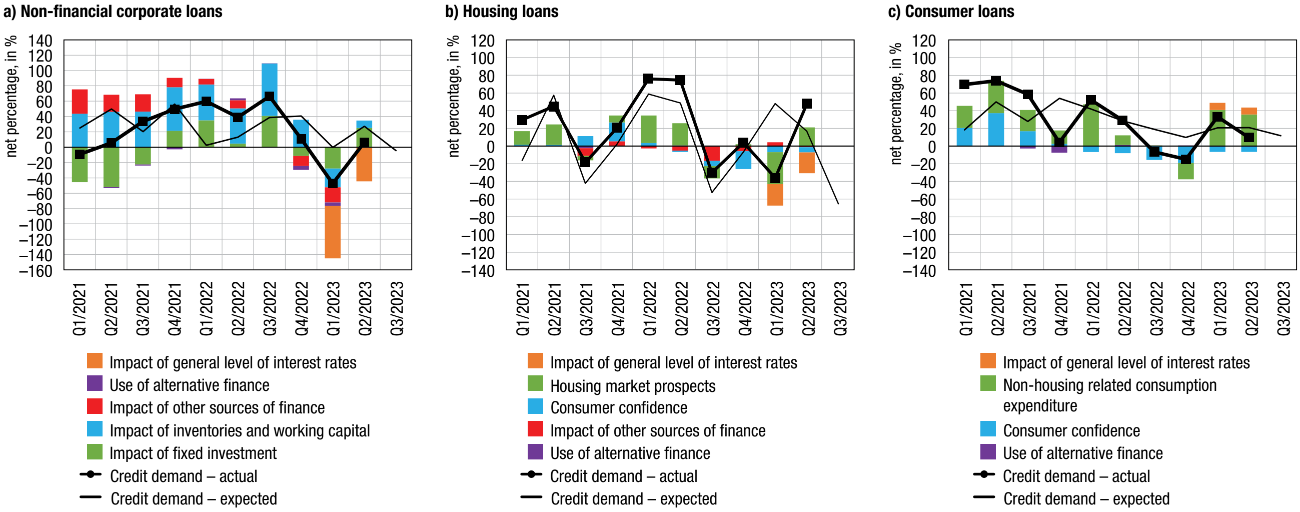
Notes: Risk perceptions are the unweighted average of Impact of general economic activity, Housing market prospects and Borrowers' creditworthiness. Competition is the unweighted average of Impact of bank competition and Impact of non-bank competition.
Source: CNB.

Notes: Risk perceptions are the unweighted average of Impact of general economic activity, Borrowers' creditworthiness and Impact of risk on the collateral demanded. Competition is the unweighted average of Impact of bank competition and Impact of non-bank competition.
Source: CNB.

sectors[6] with banks perceptibly decreased at the beginning of 2023, largely due to the refinancing of maturing external public debt in the domestic market and probably because of the renewal of cash reserves. Total deposits of domestic sectors went down by EUR 1.9bn in the first six months of 2023 (Figure 2.5.5). In the deposit structure, overnight deposits decreased by EUR 2.8bn and time deposits increased by EUR 0.8bn. The transition of funds from overnight to time deposits due to the rise in interest rates on time deposits was particularly pronounced in the corporate sector, which reduced their overnight deposits by EUR 2.0bn and increased their time deposits by EUR 1.5bn. Overnight deposits of other non-banking financial institutions also decreased, by EUR 0.7bn. The drop in overnight deposits of households in the first quarter was almost entirely offset by their increase in the second quarter, so that, observed in total, these deposits decreased only marginally in the first half of the year. However, this sector also recorded a decrease in time deposits, of EUR 0.6bn, while other non-banking financial institutions reduced their time deposits only slightly. The decline in deposits was largely brought about by the bond issue in the domestic capital market, by which the government collected funds to refinance the international bond with maturity early in April 2023. In the first round of subscription, which was intended for members of the public and took place in late February and early March, the allocated amount of the subscription of government bonds was EUR 1.3bn, while in the second round of subscription, which was intended for institutional investors and took place at the beginning of March, further EUR 0.5bn was allocated. It is possible that developments in deposits were also influenced by the supply of euro cash.

6 Domestic sectors exclude the general government.

Figure 2.5.4 Bank lending survey – BLS
demand change and factor contirbutions

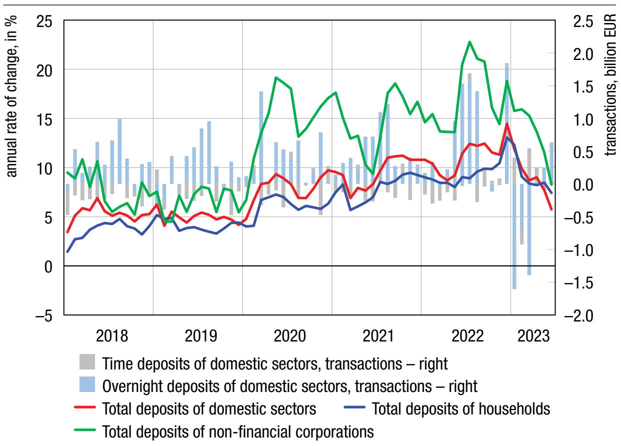


Notes: Impact of other sources of finance is the unweighted average of Debt restructuring and Impact of mergers and acquisitions and corporate restructuring. Use of alternative finance is the unweighted average of Impact of internal financing, Impact of loans from other banks, Impact of loans from non-banks, Impact of debt securities issuance and Impact of equity issuance.
Source: CNB.

Notes: Impact of other sources of finance equals Non-housing-related consumption expenditures. Use of alternative finance is the unweighted average of Impact of internal financing out of savings, Impact of loans from other banks and Impact of other sources of finance.
Source: CNB.

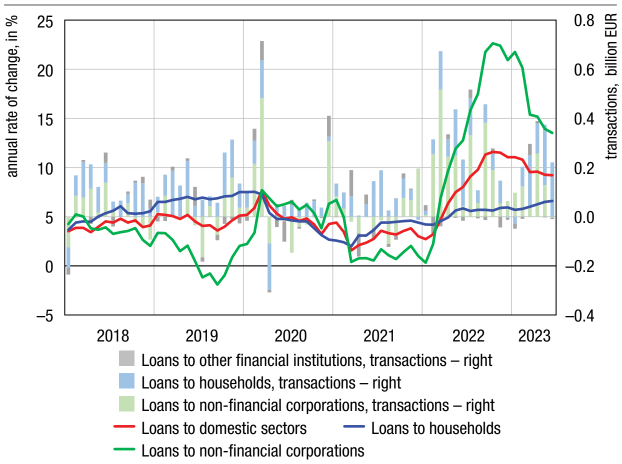
Note: Use of alternative finance is the unweighted average of Impact of internal financing out of savings, Impact of loans from other banks and Impact of other sources of finance.
Source: CNB.

Figure 2.5.5 Deposits
transactions and annual transaction-based rates of change



Notes: Total deposits include overnight and time deposits. Deposits of domestic sectors exclude deposits of the general government.
Source: CNB.

Figure 2.5.6 Loans
transactions and annual transaction-based rates of change



Note: Loans to domestic sectors exclude loans to the general government.
Source: CNB.

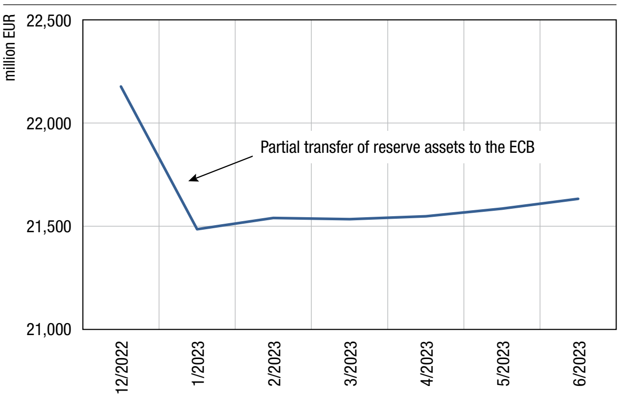
3 Financial assets management

Pursuant to the Act on the Croatian National Bank (Article 100), the Croatian National Bank (CNB) manages the foreign reserves of the Republic of Croatia that have not been transferred to the ECB, as well as other financial assets in the CNB balance sheet as at the date of the introduction of the euro as the official currency in the Republic of Croatia. Without interfering with the common monetary policy of the Eurosystem, in managing financial assets, the CNB supports financial stability and confidence in the financial system and is governed primarily by the principles of liquidity and safety of investment. Financial assets consist of the foreign currency assets that have not been transferred to the European Central Bank in accordance with Articles 30.1 and 48.1 of the Statute of the European System of Central Banks (ESCB) and of the European Central Bank (ECB) and euro-denominated domestic assets not related to monetary policy.

As at 30 June 2023, financial assets stood at EUR 21,632.7m, of which euro-denominated assets amounted to EUR 19,372.0m (89.5%), while assets in US dollars and other currencies amounted to EUR 2,260.7m (10.5%). These financial assets correspond to the net reserves before accession to the euro area, which stood at EUR 22,177.1m at the end of 2022.

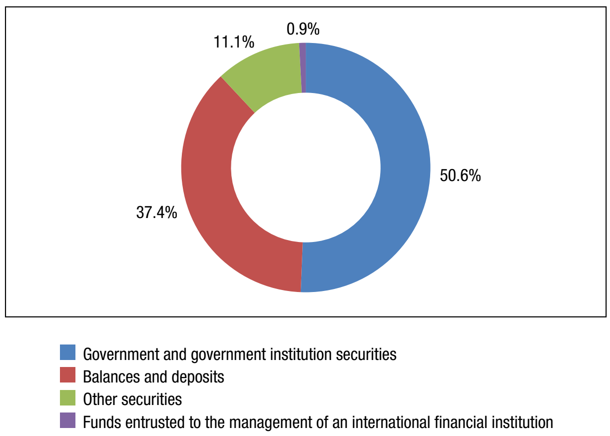
In the first half of 2023, financial assets decreased by EUR 544.4m or 2.5%. The fall was largely due to the partial transfer of reserves to the ECB, in the amount of EUR 639.9m. More precisely, in accordance with the Statute of the European System of Central Banks and the ECB, national central banks are obliged to transfer a portion of their foreign reserve assets to the ECB. On 30 December 2022, the ECB adopted a decision under which the CNB was required, according to its key for subscription of the ECB's capital, to transfer to the ECB foreign reserve assets of

Figure 3.1 Monthly changes in CNB financial assets
end of period



Source: CNB.

Figure 3.2 Structure of financial assets investment as at 30 June 2023



Source: CNB.

EUR 639.9m, of which 85% were in US dollars and 15% were in gold. In addition to the transfer of a minor portion of reserve assets to the ECB, after the entry to the euro area, the CNB is obliged to apply the Eurosystem's asset management framework with respect to the remaining CNB financial assets. Accordingly, the ceiling for net financial assets that a central bank is entitled to manage without interfering with the monetary policy implementation is defined in the Agreement on Net Financial Assets (ANFA)[7].

Securities of governments and government institutions accounted for the largest share in the structure of financial assets investment at the end of the first half of 2023, followed by investments in balances and deposits and other securities (of international financial institutions, development banks of German federal states and covered bonds). A portion of financial assets invested in ESG[8] investment went up from 7.3% at end-2022 to 7.5% at the end of June 2023.

The CNB invests funds in instruments with an investment grade rating; the assessment of creditworthiness is based on ratings issued by internationally recognised rating agencies (Moody's, Standard & Poor's and Fitch Ratings) and on an internally developed creditworthiness assessment model.

At the end of the first half of 2023, approximately 73% of financial assets were invested in instruments within the two highest credit rating categories, balances and BIS instruments.

Total earnings from the management of financial assets amounted to EUR 315 in the first half of 2023. The annual rate of return on the entire euro portfolio of financial assets was 1.89%, while the annual rate of return on the US dollar portfolio totalled 3.62% in the first half of 2023.

7 For more information on the Eurosystem's international reserves and framework for the management of CNB financial assets after the euro introduction, see HNB Blog Što će biti s međunarodnim pričuvama kada uvedemo euro?, available at: https://www.hnb.hr/-/sto-ce-biti-s-medjunarodnim-pricuvama-kada-uvedemo-euro.

8 Environment, social, governance. ESG investment refers to green, social and sustainable bonds.

4 Business operations of credit institutions

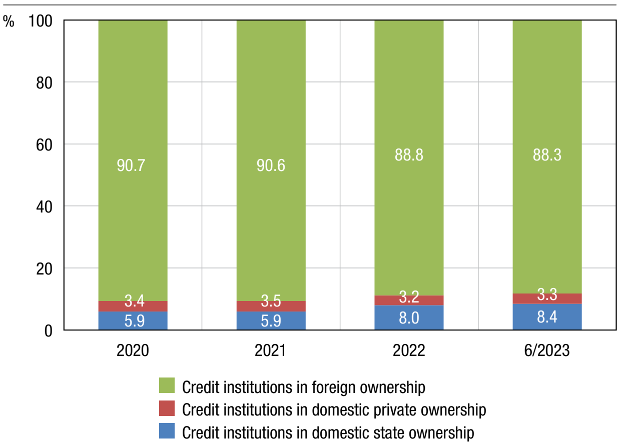
At the end of the first half of 2023, there were 21 credit institutions operating in the Republic of Croatia (20 banks and one housing savings bank) and one branch of an EU credit institution. More than 240 credit institutions from the EU and the EEA used the benefits provided by the application of the single passport, notifying the CNB of their intentions regarding the direct provision of mutually recognised services.[9]

Other features of the banking system structure also remained unchanged. The number of credit institutions in the majority ownership of foreign shareholders stayed at 11, while their assets accounted for 88.3% of total assets of the banking system. Most credit institutions in majority foreign ownership are owned by shareholders from the European Union.

The assets of credit institutions decreased by EUR 2.0bn (2.6%) in the first half of 2023, amounting to EUR 74.0bn. The assets decreased, after growing for six consecutive years, due to a fall in received deposits. It should be noted that received deposits grew substantially in 2022, with some of them being placed with credit institutions ahead of the euro introduction, in order to facilitate the cash changeover. Deposits dropped by EUR 2.5bn (3.9%) in the first quarter of 2023, with individuals using some of that amount to purchase national bonds.

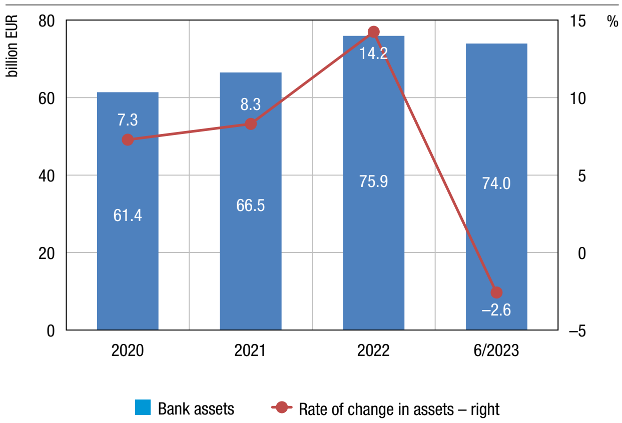
The cash component of credit institutions' assets decreased (by EUR 5.3bn or 24.2%) exclusively in the banks' settlement accounts with the CNB. Nevertheless, to meet their short-term liabilities, credit institutions continued to have available highly liquid asset amounts that were almost two and a half times larger than the prescribed minimum of 100%. The average value of the liquidity coverage ratio (LCR) stood at 233.7%, with all credit institutions meeting the prescribed minimum liquidity

Figure 4.1 Ownership structure of credit institutions and their share in total assets of credit institutions



Source: CNB.

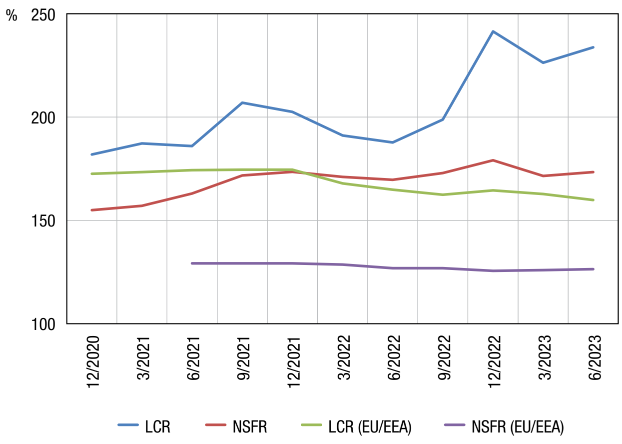
Figure 4.2 Assets of credit institutions



Source: CNB.

9 Updated information on credit institutions operating in the territory of the Republic of Croatia may be found here.

Figure 4.3 Liquidity indicators of credit institutions



Source: CNB.

requirements. Long-term liquidity and the requirements for stable funding sources continued to be supported by available sources of finance, predominantly household deposits. The value of the net stable funding ratio (NSFR) stood at 173.3%, also much above the prescribed minimum of 100%.

The decrease in cash triggered a contraction and a mild restructuring of assets as some of the funds went to an increase in loans and advances (EUR 2.3bn or 5.4%). Deposits and loans granted to other credit institutions grew the most. Household loans continued to grow (by EUR 0.9bn or 4.6%), driven by further growth of housing loans, supported by credit institutions' participation in the government housing loans subsidy programme, as well as the mild rise in general-purpose cash loans. Loans to non-financial corporations also grew (by EUR 0.7bn or 5.5%), particularly to borrowers engaged in energy supply.

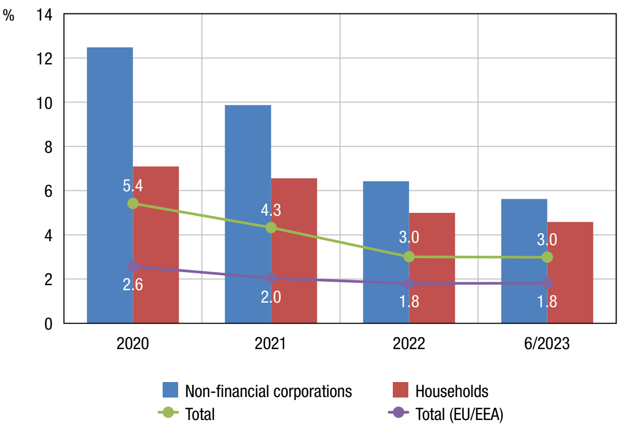
Credit institutions also increased their investments in debt securities (EUR 1.0bn or 10.9%), with significant changes in their structure. More specifically, credit institutions continued to direct new investments mostly to the portfolio of instruments measured at amortised cost, so that this portfolio has become dominant in total debt securities (accounting for 56.6%). The share of the portfolio of securities measured at fair value through other comprehensive income dropped to 41.9%, mostly under the influence of unrealised loss (arising from unfavourable changes in the market value of debt securities in that portfolio), which leads to a reduction in own funds of credit institutions. Such loss was prominent in 2022 because of interest rate growth and the fall in the market prices of securities. Though the loss decreased in the first half of 2023, it continues to prompt credit institutions to measure new investments in debt securities at amortised cost.

The years-long trend of improvement in the quality of assets came to a halt despite the steady decrease in non-performing loans (6.1%). This was the outcome of the aforementioned decrease in cash, also leading to a reduction in overall credit exposure. Against this backdrop, the share of non-performing loans (NPLs) in total loans held steady at the previous year's level (3.0%). The quality of loans in the banking system of Croatia remained below the EU average (1.8%), with some credit institutions still facing high NPL ratios.[10]

The total amount of NPLs decreased in the first half of 2023, mostly owing to repayments of the non-performing loans of both non-financial corporations and

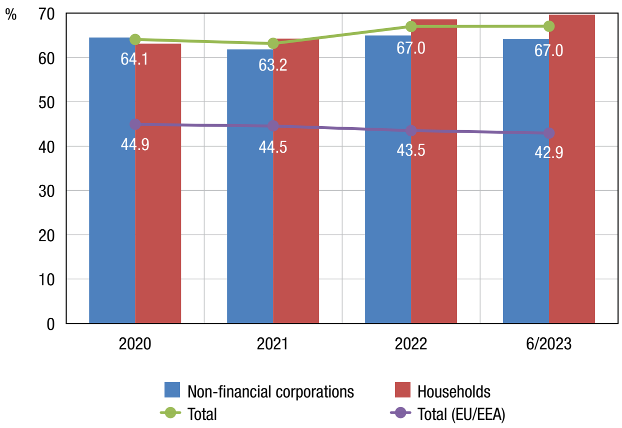
10 Data on the values of key performance indicators of the EU banking system may be found here.

Figure 4.4 Share of non-performing loans in total credit institution loans



Source: CNB.

Figure 4.5 Coverage of non-performing loans by impairment



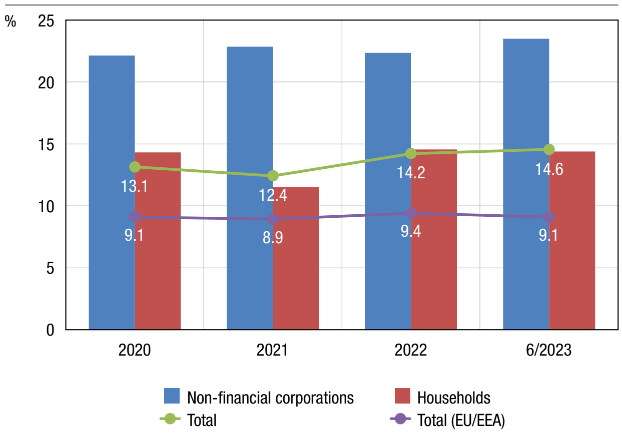
Source: CNB.

households. In the portfolio of loans to non-financial corporations, the share of NPLs fell from 6.4% to 5.6%, with improved loan quality noticeable in loans to all major activities in that sector. The share of NPLs in the household sector dropped from 5.0% to 4.6%, with the value of this ratio being mostly affected by the ongoing improvement in the quality of housing loans, where the NPL ratio stood at 1.9%. New credit activity also contributed to the decrease in the NPLs in both these sectors.

The coverage of NPLs by impairment remained very high (67.0%) and much above the average NPL coverage within the EU banking system (42.9%).

Credit risk associated with performing loans is still high and has yet to show signs of improvement. This was evident in the large share of loans in value impairment stage 2, which accounted for 14.6% of total loans at the end of the first half of 2023.[11] The growth in that share started under the influence of the pandemic and geopolitical uncertainty and continued with the impact of changes in economic factors on borrowers' ability to

Figure 4.6 Share of loans in value impairment stage 2 in total credit institution loans



Source: CNB.

11 Each instrument that is subject to the calculation of expected credit loss, which includes all debt instruments measured at amortised cost and at fair value through other comprehensive income, is classified in one of the three stages of value impairment. An instrument is classified in stage 2 if there is a significant increase in credit risk (although still not in default), where the expected loss is calculated for the entire lifetime of the instrument.

meet their obligations.

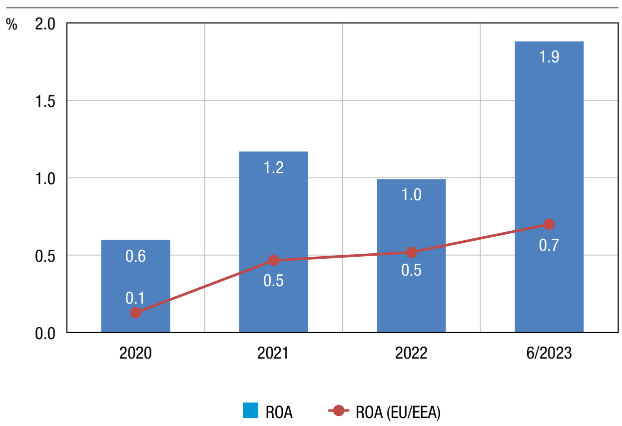
At the end of the first half of 2023, credit institutions operated at a profit that totalled EUR 703.8m. This profit was EUR 297.4m (73.2%) larger than in the same period last year, mostly due to the growth in interest income. Profitability indicators reached record highs – return on assets (ROA) grew to 1.9%, while return on equity (ROE) rose to 16.8%.

The ten-year period of almost uninterrupted decrease in interest income came to a halt in 2022, with interest income resuming a strong upward trend in the first half of 2023. This was caused by a surge in interest income of EUR 511.9m (74.2%), with income from overnight deposits with the CNB being the main source of growth. More specifically, since the beginning of 2023, that is, the introduction of the euro and accession to the Eurosystem, credit institutions have been able to use the deposit facility to make overnight deposits with the CNB on which they earn interest income.[12] Even though interest income from all other sectors also saw an increase, the leading share of the household sector in total interest income dropped from 60% to 34% in the period from the end of the first half of 2022 to the end of the first half of 2023.

Interest expenses increased (by EUR 142.0m or 223.6%), with almost a half of the increase being associated with derivatives that are used by credit institutions to manage risks. Nevertheless, as the higher level of interest expenses did not follow the growth in interest income, the level of net interest margin rose and reached 2.7%. Profit was also boosted by income from the reversal of impairment for credit losses.

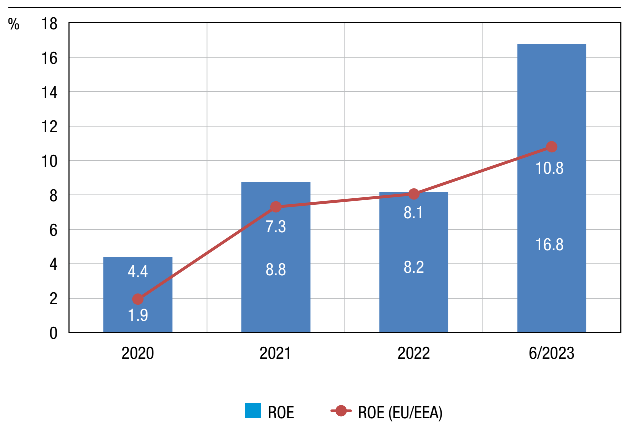
Compared with the growth in total net operating income (of 32.4%), the rise in operating costs was mild (4.1%). In such circumstances, bank cost effectiveness

Figure 4.7 Return on assets (ROA) of credit institutions



Source: CNB.

Figure 4.8 Return on equity (ROE) of credit institutions



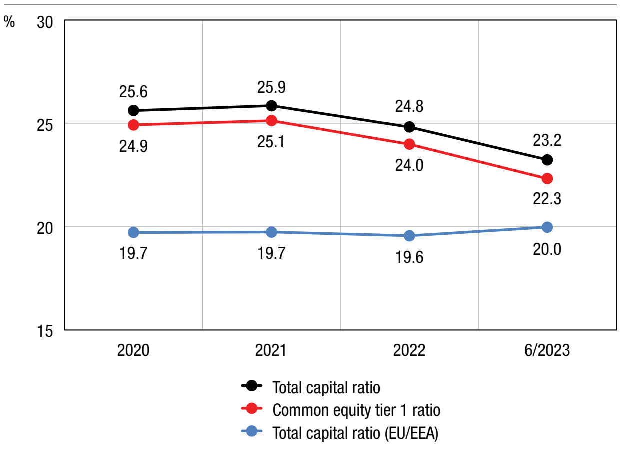
Source: CNB.

12 The overnight deposit facility is a standing facility that is part of the Eurosystem's monetary policy operations, access to which is provided by the CNB in line with the objectives and the general stance of the ECB's monetary policy. Overnight deposits are remunerated at an interest rate set by the ECB's Governing Council on a regular basis. The interest rate applicable at the end of the first half of 2023 was 3.50% (source: ECB).

improved strongly, particularly due to the performance of the largest banks. The cost-to-income ratio (CIR) of credit institutions stood at 41.9%.

The values of key indicators of banking system capitalisation decreased marginally by the end of the first half of 2023, but remained very high. The total capital ratio dropped from 24.8% at the end of 2022 to 23.2% at the end of the period under review. For the most part, this was driven by the fall in own funds (of 5.1%), mostly due to the recent dividend payments from retained earnings. The decrease in the capital ratio was also a result of a slight increase in total risk exposure (1.4%), mostly exposure to credit risk associated with ongoing lending to all sectors. The structure of credit risk exposure continues to be dominated by items that are assigned a risk weight of 0%. The level of overall risk exposure was positively affected by the effects of euro introduction, which reduced currency risk to a negligible level. The already predominant share of credit risk in overall risk exposure grew further, and reached 89.6%.

Figure 4.9 Capital ratios of credit institutions

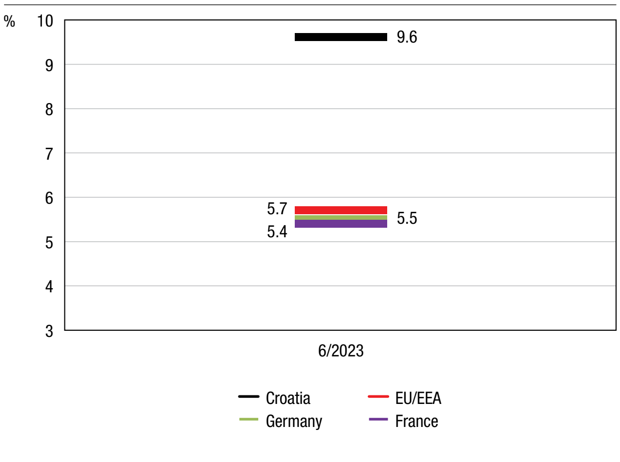


Source: CNB.

All credit institutions reported a total capital ratio above the prescribed minimum of 8%, while nine of them, accounting for three quarters of the total system assets, boasted a total capital ratio of above 20%. The average total capital ratio in the Croatian banking system is still among the highest in EU member states and much above the EU average (20.00%).

The high level of capitalisation of the Croatian banking system is also reflected in the leverage ratio. This ratio stood at 9.6% at the end of the first half of 2023, which is almost double the EU average and more than three times above the regulatory minimum (3%). This suggests that banks have sufficient capital to cover unexpected losses.

Figure 4.10 Leverage ratio of credit institutions



Source: CNB.

Abbreviations and symbols

Abbreviations

ANFA	– Agreement on Net Financial Assets
APP	– Asset Purchase Programme
bn	– billion
b.p.	– basis points
BEA	– U. S. Bureau of Economic Analysis
c.i.f.	– cost, insurance and freight
CBRD	– Croatian Bank for Reconstruction and Development
CBS	– Central Bureau of Statistics
CEE	– Central and Eastern European
CEFTA	– Central European Free Trade Agreement
CES	– Croatian Employment Service
CHF	– Swiss franc
CHY	– Yuan Renminbi
CICR	– currency-induced credit risk
CPI	– consumer price index
CPII	– Croatian Pension Insurance Institute
CNB	– Croatian National Bank
DFR	– deposit facilty rate
EBA	– European Banking Authority
EC	– European Commission
ECB	– European Central Bank
EEA	– European Economic Area
EMU	– Economic and Monetary Union
EU	– European Union
ERM	– European exchange rate mechanism
ESG	– Environment, Social, Governance
ESM	– European Stability Mechanism
EUR	– euro
excl.	– excluding
f/c	– foreign currency
Fed	– Federal Reserve System
GDP	– gross domestic product
GVA	– gross value added
HANFA	– Croatian Financial Services Supervisory Agency
HICP	– harmonised index of consumer prices
incl.	– including
JPY	– Japanese yen
m	– million

MLF	– marginal lending facility
MoF	– Ministry of Finance
MRO	– main refinancing operations
NBS	– National Bureau of Statistics of China
NCA	– National Classification of Activities
n.e.c.	– not elsewhere classified
NPL	– Non performing loans
RH	– Republic of Croatia
ROAA	– return on average assets
ROAE	– return on average equity
o/w	– of which
PPI	– producer price index
Q	– quarter
SDR	– special drawing rights
SGP	– Stability and Growth Pact
SITC	– Standard International Trade Classification
TLTRO	– targeted longer-term refinancing operations
TPI	– Transmission Protection Instrumen
USA	–United States of America
USD	– US dollar

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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ISSN 1849-3483