



CROATIAN NATIONAL BANK

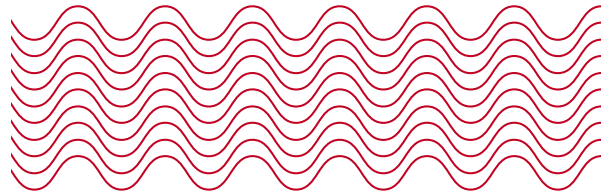
EUROSYSTEM

2023

ANNUAL REPORT

2023

23



ZAGREB, JUNE 2024

Annual Report **2023**

Climate Report and Financial Statements

Foreword

With the introduction of the euro on 1 January 2023, Croatia became the 20th member of the euro area. Today we can say that the euro has brought all the benefits we announced and anticipated. This is particularly noteworthy bearing in mind the circumstances in which Croatia completed the formal process of euro adoption and that, during the final stage of the process, the country was affected by severe shocks – the pandemic, earthquakes and global inflation – which made its path to the euro even more difficult. In operational terms, the change-over to the euro was carried out very successfully, without disturbances in the payment system, cash shortages in shops, queues in banks or at ATMs. The benefits of euro area membership for Croatia include lower exposure to risks, more favourable financing conditions, a reduction in transaction costs and far greater resilience to crises and external shocks and will continue to support the growth and stability of the Croatian economy.

Joining the euro area has resulted in the reduction of the country risk premium; in such conditions, for the first time ever, Croatia recorded lower interest rates on loans than, for example, Germany. In addition, the introduction of the euro has eliminated currency risk, so that the foreign currency debt of all sectors now amounts to less than 1% of total debt, compared with 70% in the past. Furthermore, the euro has significantly reduced transaction costs, which in addition to helping all entities that perform external operations, has fostered trade and the financial integration of Croatia with the rest of the euro area and facilitated inward investment.

The adoption of the euro has had a very mild impact on prices. Analyses by both the CNB and the European Central Bank suggest that the euro's upward impact on prices was 0.4 percentage points, whereas Eurostat established that this impact was 0.2 percentage points at the maximum. This was within expectations and in line with the estimated impact on inflation experienced by other countries that had introduced the euro, despite their circumstances being much more favourable, primarily due to low global inflation.

The performance of our financial assets was also very good; these are all assets that prior to entering the euro area had the function of net international



Boris Vujčić,
Governor of the Croatian
National Bank

reserves, which the Croatian National Bank continues to manage after joining the Eurosystem. Financial assets managed by the CNB stand at almost EUR 22bn; the Croatian central bank also participates in the management of a portion of former international reserves that were transferred to the European Central Bank at the beginning of 2023. Against the backdrop of extremely volatile financial market conditions, income generated from the management of financial assets reached a record high of EUR 611.2m in 2023, which is an increase of EUR 447.0m from 2022. This is the second Annual Report in which we publish climate metrics for non-monetary portfolios of the CNB, thereby enhancing knowledge about potential climate risks and climate compatibility at Eurosystem level.

In response to the steadily growing interest of Croatian citizens in the CNB's work, each year we intensify our activities in informing and educating the Croatian public. We have opened the CNB to interested citizens, pupils, students and their teachers. I am glad that the topics of central banking, personal finances, numismatics, and similar topics attracted more than 10,000 visitors in 2023 and that attendance at the CNB Open Day in October 2023 exceeded expectations, with more than 1100 citizens visiting the CNB's main building in just one day.

The great interest of the general public in having direct communication with the CNB, while the CNB is the only euro area central bank without an adequate space in which citizens can learn what money is, how monetary policy is conducted, who supervises banks and how, what each individual should know to be able to make better decisions about their personal finances, has encouraged us to establish Moneterra – Money Museum of the Croatian National Bank, which will, to a large extent, be digital and interactive to make communication with young people as successful as possible. In addition to the history of money, banking and central banking, the activities of Moneterra will focus on current topics and future challenges – ranging from further money dematerialisation and the development of a central bank digital currency, the use of digital technologies in banking, and monetary policy amid technological, climate and demographic developments and changing geopolitical circumstances.



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1

First year in the euro area

With the introduction of the euro on 1 January 2023, Croatia became the 20th member of the euro area. This achievement is particularly meaningful if account is taken of the fact that Croatia's formal euro adoption procedure was more complex than in other member states that had adopted the euro earlier and that during the final phase of the changeover Croatia was exposed to severe shocks – the pandemic, earthquakes and global inflation – which made the country's path to the euro more difficult. However, the changeover process was completed successfully, without any disruptions in the payment system or any halt in economic activity. Euro area membership has brought significant and permanent benefits to Croatia, including reduced exposure to risks, more favourable financing conditions, reduced transaction costs and far greater resilience to crises and external shocks, which will continue to support the growth and stability of Croatia's economy.

With the introduction of the euro as the official currency on 1 January 2023, Croatia successfully completed a years-long process, which started in 2017 with the preparation and subsequent publication of the **Strategy for the Adoption of the Euro in the Republic of Croatia** ¹. The changeover to the euro marked a momentous achievement for economic policy and reaffirmed the stability and resilience of the Croatian economy. In order to be able to initiate the procedure of adopting the euro and complete it in the shortest possible time, Croatia had to ensure a high level of macroeconomic stability and meet numerous prerequisites and criteria relating to this procedure by conducting a responsible economic policy. It is worth noting that Croatia was the first member state to complete the euro changeover process after the global financial crisis in 2008/2009 and following important reforms of the EU institutional framework taken in response to this crisis. Due to the institutional changes in the EU, the euro changeover process today is much more complex than before. Croatia had to meet a set of preconditions, especially those concerning the entry to the European Exchange Rate Mechanism (ERM II), which was not obligatory for other countries in the past. In addition, Croatia prepared for the introduction of the euro in a challenging period marked by unforeseen shocks – the pandemic crisis, earthquakes and global inflation – which made the path to the euro even more demanding.

Euro area membership has brought significant economic benefits to Croatia that will permanently support the growth and stability of the Croatian economy. The introduction of the euro has eliminated currency risk because now the financial liabilities of households, corporates and the government are almost completely denominated in the domestic currency, that is, the euro (Figure 1.1). The risks to the stability of the banking system also decreased since most bank placements and liabilities are now denominated in the domestic currency,

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FIGURE 1.1 Elimination of currency risk

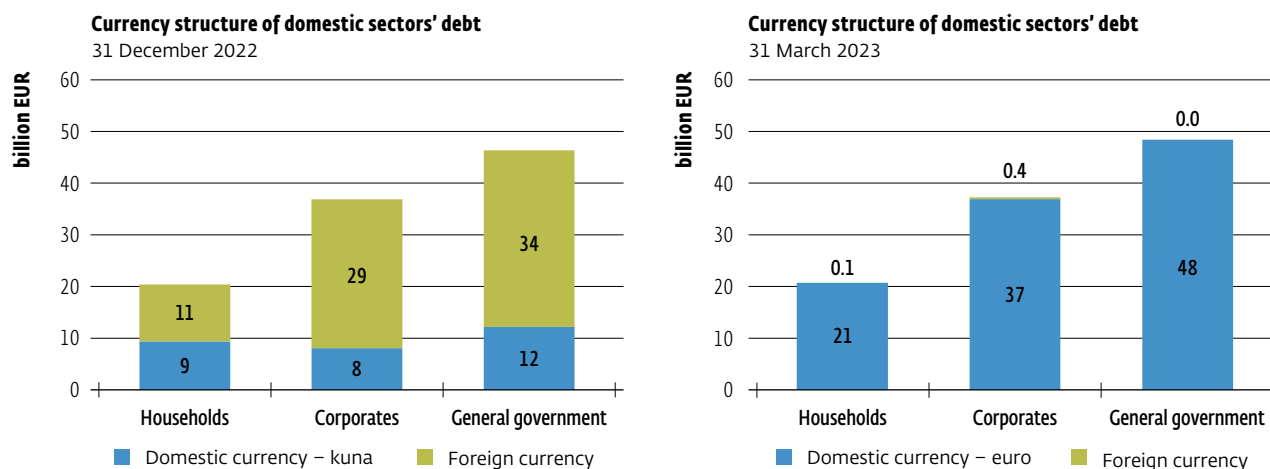
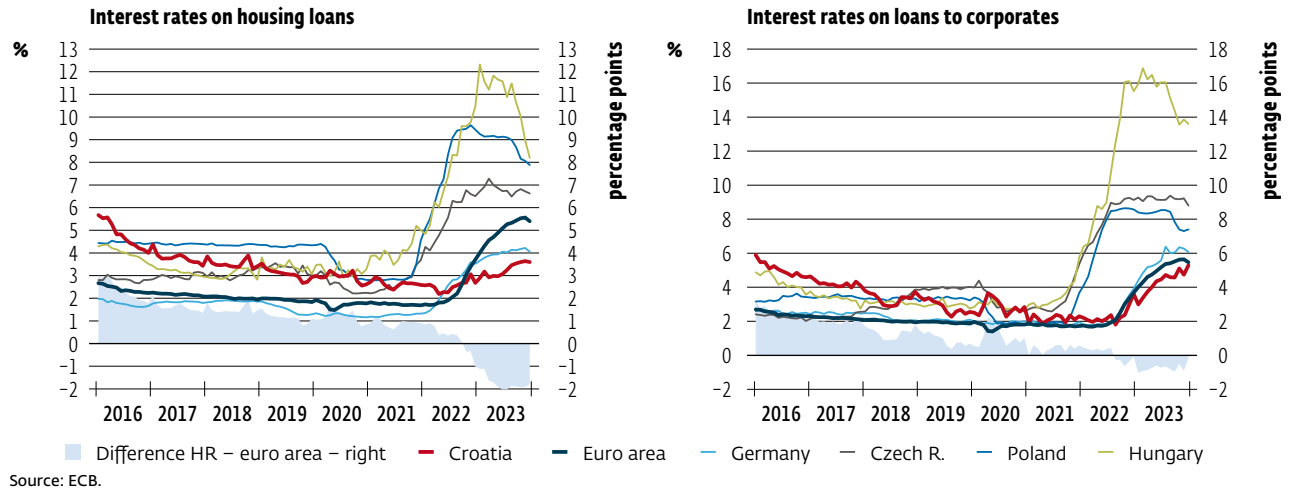


FIGURE 1.2 Interest rates on newly-granted loans

which provides almost full protection against currency risk and currency-induced credit risk. Risk of liquidity disturbances in the banking system was also reduced since the CNB, as an integral part of the Eurosystem, can now provide banks with euro liquidity, which was not possible before. With regard to borrowing costs, even though interest rates rose in absolute terms in 2023, influenced by monetary policy tightening, the rates were still lower than they would have been if Croatia had not adopted the euro. Joining the euro area resulted in the reduction of country risk premium and led to a release of additional liquidity in the domestic banking system, which has alleviated the pass-through of interest rate hikes in the euro area to interest rates in Croatia. Against this backdrop, for the first time in history Croatia recorded lower lending rates than Germany. For instance, in December 2023, the average interest rate on newly-granted housing loans in Croatia was 3.6%, relative to 4.1% in Germany, while the interest rate for corporate loans of up to EUR 1m in Croatia amounted to 5.3%, while in Germany it was 6.1%. Interest rates on housing and corporate loans in comparable non-euro area EU member states exceeded the interest rates in Croatia by several percentage points (Figure 1.2). Ultimately, the adoption of the euro eliminated the exchange of currency in international trade with Croatia's major trading partners from the EU, which reduced the costs and boosted the competitiveness of Croatian enterprises.

Even though the euro changeover was carried out amid record-high inflation, the effects of the adoption of the euro on prices was negligible, similar to countries that adopted the euro in a period of low inflation. According to Eurostat estimates, the effect of the adoption of the euro on the inflation rate in Croatia was 0.2 percentage points, which is in line with the experience of other countries, such as Slovenia, Latvia and Lithuania, that joined the euro area amid low inflation. In addition, the inflation rate in Croatia in 2023 was considerably lower

than in peer non-euro area EU member states, which suggests that the effect of the euro changeover on prices was not substantial.

The changeover to the new official currency was operationally very successful, as confirmed by the European Commission in its [report 1](#). The successful outcome of this demanding project can be attributed to timely and exhaustive planning, intensive coordination and the dedicated efforts made by all the key stakeholders participating in the process. The main elements of the operational euro changeover process were defined as early as in late 2020, when the Government of the Republic of Croatia and the CNB presented the [National Euro Changeover Plan 2](#), while all the aspects of the euro changeover were defined in more detail with the adoption of the [Act on the Introduction of the Euro as the Official Currency in the Republic of Croatia 3](#) in May 2022. Key stakeholders were thus informed in good time about the changes that would take effect with the adoption of the new official currency. As a result, the euro changeover process was completed without any disruption in the payment system or any halt in economic activity. Cashless payment transactions ran smoothly as early as in the first hours of 1 January 2023; all account balances, deposits and loans were correctly converted to the euro, while more than two-thirds of ATMs dispensed euro banknotes. Business entities were supplied with sufficient amounts of euro banknotes and coins and coped well with the extra workload during the dual circulation period in the first half of January.

The exchange of cash was carried out without much difficulty throughout 2023 at bank branches and offices of FINA and Hrvatska pošta d.d. This logistically demanding activity was largely facilitated by citizens, who followed the recommendations from the Government of the RC and the CNB and deposited their kuna cash surpluses in their bank accounts in advance, so that the amount of kuna cash in circulation decreased by 60% in the second half of 2022. Cash changeover activities were particularly intensive in January and the first half of February and decreased afterwards. Retailers also played an important role in the exchange of cash during the two weeks of the dual circulation period in early January. In cash transactions with citizens, retailers accepted payments in both kuna and euro, while they gave change mostly in euro and thus exchanged a share of kuna cash for euros. At end-December 2023, there was a total of HRK 4.5bn of kuna banknotes and coins in circulation. From 1 January 2024, kuna cash could be exchanged exclusively at the CNB. There are no time limits for the exchange of kuna banknotes, while kuna coins can be exchanged only until the end of 2025.

Croatia's accession to the euro area and the CNB's joining the Eurosystem substantially changed the functioning of the central bank. The most important change concerns the CNB's involvement in the creation and operational implementation of the common monetary policy in the euro area. On 1 January 2023, the Governor of the CNB became a full member of the Governing Council of the ECB, which sets the common monetary policy. The CNB, as national central bank, conducts this policy within the Croatian financial system. Ahead of each

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Governing Council meeting, the Governor holds preparatory meetings with CNB experts, at which they discuss analytical inputs for the meeting and adopt a stance on the topics to be discussed and decided at the Governing Council meeting. The first year of the CNB's participation in conducting common monetary policy was marked by further monetary policy tightening by the ECB in an attempt to tame inflationary pressures. Restrictive monetary policy, underpinned by the stabilisation of commodity prices in the global market, resulted in a noticeable slowdown in the growth of prices – euro area inflation fell from 8.6% in January to 2.9% in December. Over the same period, the inflation rate in Croatia, as measured by the Harmonised Index of Consumer Prices (HICP), dropped from 12.5% to 5.4%.

With regard to other central bank competences, the introduction of the euro did not bring significant changes in the type and volume of its activities. The CNB is still responsible for macroprudential policy. It supervises credit institutions in collaboration with the ECB and carries out resolution of credit institutions within the Single Resolution Mechanism. The CNB also ensures the smooth functioning of the payment system, supplies the economy with cash, participates in the preparation of official statistics and oversees the implementation of measures to prevent money laundering and terrorist financing in institutions under its authority. In carrying out these activities, CNB experts participate in the work of different committees and working bodies of the European Central Bank and constantly cooperate with the relevant experts from the ECB and other national central banks of the Eurosystem and are also involved in the preparations for the Governor's participation in the decision-making process within the ECB Governing Council.

2

Monetary policy and economic developments

The past year was marked by Croatia's entry into the euro area and the Schengen area, by an ongoing relatively strong economic growth despite weak foreign demand and a gradual slowdown in inflation. September saw the end of the most severe monetary policy tightening cycle since the euro was introduced as a currency. Key ECB interest rate hikes spilled over to money market interest rates and led to an increase in borrowing costs for both households and corporates. Notwithstanding these conditions, the Croatian economy continued to grow at a much faster pace than the euro area average. This was largely due to a robust demand for tourist services and an expansionary fiscal policy associated with the use of EU funds, which reached a record-high level. This had a positive effect on income and drove up spending. The annual inflation rate recorded a noticeable decline in 2023, which also contributed to the increase in real income and boosted consumer optimism.

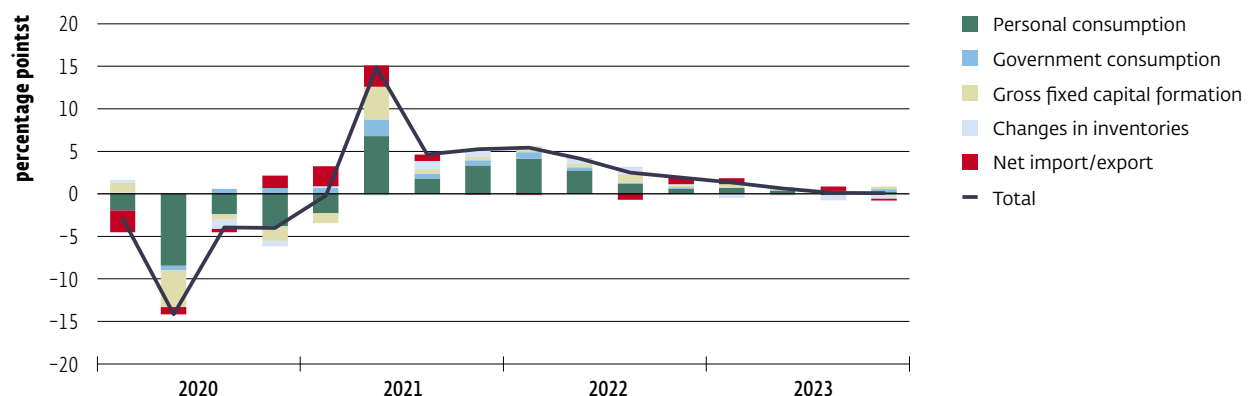
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Real and price movements

Economic growth in the euro area dropped markedly in 2023, to 0.4%, which is a substantial slowdown from the 3.4% recorded in 2022. The growth in euro area GDP in the whole of 2023 resulted from a high level of economic activity in the first half of the year, on top of the levels recorded the year before. However, economic conditions deteriorated towards the end of the year. Despite the resilient labour market and high levels of employment in 2023, the contribution of private consumption almost completely disappeared towards the end of the year as financing conditions worsened due to monetary policy tightening. Other GDP components also declined from the year before. Investments and government consumption slowed down noticeably amid growing financing costs and the energy crisis caused by the Russian invasion of Ukraine. Recovery in foreign demand was also weaker than expected, which especially holds true with regard to demand from China. Euro area economies were exposed to two shocks, that is, the rise in the prices for energy and the change in consumption patterns, with heterogeneous effects on individual member states and economic sectors. On the one hand, manufacturing recorded a further decline due to high costs of energy, as did real activity in those countries in which it plays a more important role in the economy. On the other hand, the services sector, supported by strong demand following the pandemic and a shift in consumer preferences, contributed to a more pronounced growth in those countries that rely more on this sector.

Euro area inflation peaked in October 2022, slowing down considerably in 2023. The average annual consumer price inflation in 2023 stood at 5.4%, considerably lower than the 8.4% recorded in 2022. Short-term indicators of headline and core inflation fell further and came close to their normal levels towards the end of the year. Inflation slowed down in 2023 due to the decline in the global prices of

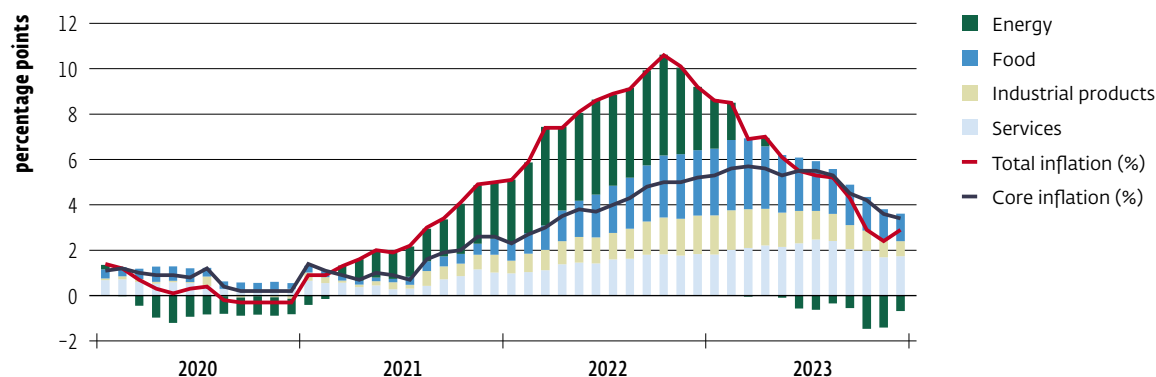
FIGURE 2.1 Euro area real GDP growth contributions by components



Source: Eurostat.

FIGURE 2.2 Euro area inflation indicators

contributions by components



Note: Core inflation is measured by the harmonised index of consumer prices, which excludes energy, food, alcoholic beverages and tobacco prices.

Source: Eurostat.

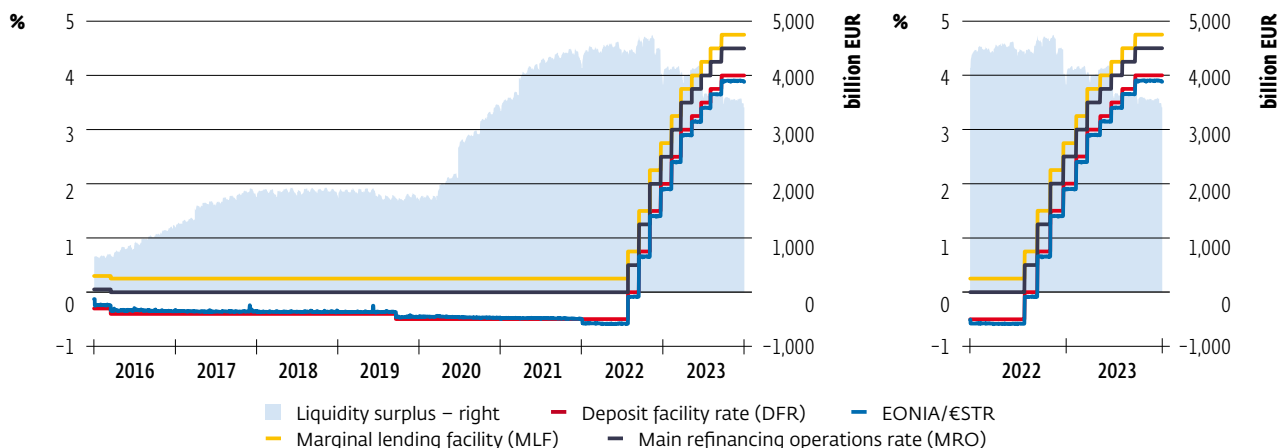
energy and other raw materials, the easing of pressures in the earlier stages of the price chain (this primarily concerns import prices and producer prices for intermediate goods and consumer goods), the normalisation of supply chains and the impact of monetary policy tightening, which led to a slowdown in demand. By contrast, domestic inflationary pressures on the cost side in the euro area rose amid increasing wage growth and a decline in labour productivity. The contribution of unit profits to domestic inflationary pressures decreased markedly in the second half of 2023, which suggests that profits managed to ease pressures stemming from the growing labour costs.

Monetary policy and financial markets

September 2023 saw the end of the most severe monetary policy tightening cycle since the euro was introduced as a currency. After ten successive increases in key interest rates, the meeting of the ECB Governing Council in October 2023 was the first that did not result in a decision to raise key interest rates. The meeting held in December ended with the same outcome. At both meetings, the Governing Council emphasized that the key interest rates were at levels that, maintained for a sufficiently long duration, would make a substantial contribution to the timely return of inflation to its target level. The Governing Council's future decisions will ensure that the key ECB interest rates are set at sufficiently restrictive levels for as long as necessary and will continue to follow a data-dependent approach.

The ECB started raising its key interest rates in July 2022. By the end of 2022, they had risen by 250 basis points¹, followed by a further 200 basis points in 2023. The ECB Governing Council decided to raise the deposit facility rate (DFR) (which is a relevant Eurosystem monetary policy instrument due to currently high liquidity

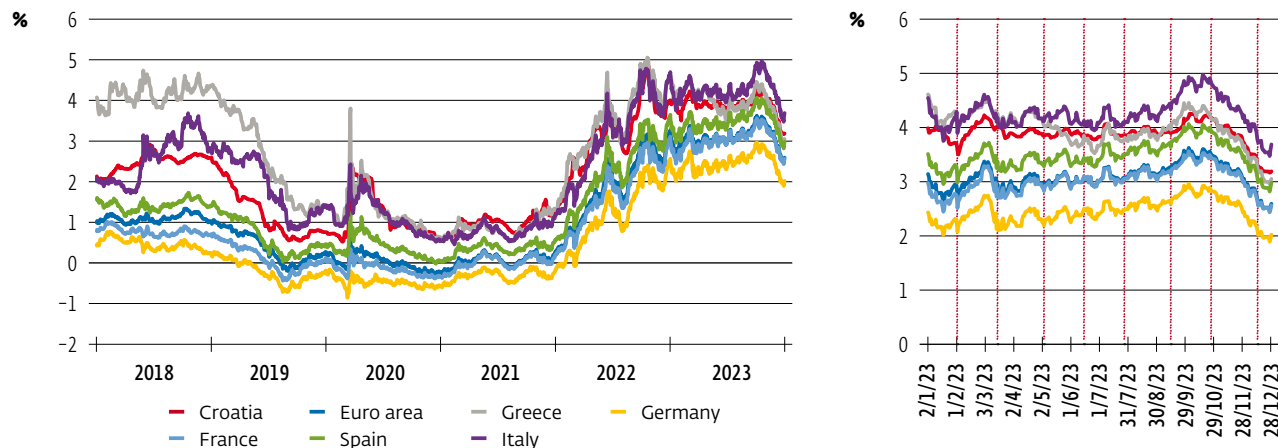
¹ A basis point is one hundredth of one percentage point.

FIGURE 2.3 Key ECB interest rates

Notes: DFR (deposit facility rate); MLF (marginal lending facility); MRO (main refinancing operations). The EONIA was replaced by the €STR in early 2022.
Source: ECB.

surpluses) from -0.50% to 4.00%. The main refinancing operations (MRO) rate was raised from 0% to 4.50% and the marginal lending facility (MLF) rate was upped from 0.25% to 4.75%.

The increase in key ECB interest rates soon spilled over to money market interest rates. Following the last increase in key ECB interest rates in September 2023 of 0.25 percentage points, the €STR rose to 3.9% and held steady at approximately the same level thereafter. EURIBOR, representing interest rates with different maturities (up to 1 year) used in lending between the largest banks in the

FIGURE 2.4 Yields on long-term government bonds with the remaining maturity of approximately 10 years

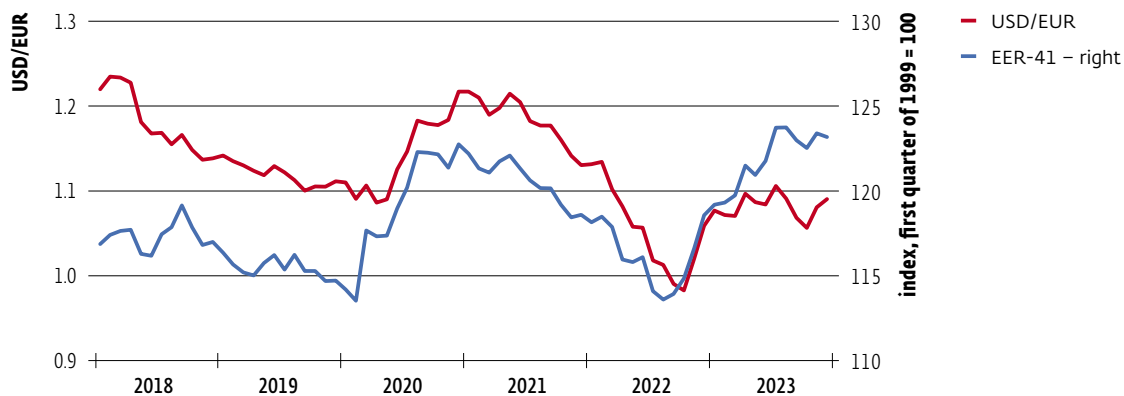
Notes: Yields for the euro area have been weighted by the share of GDP of the countries included. Data from the euro area do not include those from Estonia, Latvia, Luxembourg and Malta. The red dotted lines denote ECB Governing Council meetings in February, March, May, June, July, September, October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

euro area, reflected the expected trends in key ECB interest rates. Due to persistent inflationary pressures and further monetary tightening, the three-month EURIBOR reached 3.9% in September. Thereafter, markets began to expect that there would be no more hikes in key ECB interest rates, and thus the three-month EURIBOR stabilised and remained virtually unchanged until the end of the year. At end-December, it was 1.8 percentage points higher than at the end of the previous year.

Government bond yields recorded a relatively wide amplitude of oscillations during the year, while in the last quarter they declined below the levels recorded at the end of the previous year. The euro area GDP-weighted average of long-term government bond yields stood at 2.6% at end-December, down by 68 basis points from the levels recorded at the end of 2022.

The euro appreciated slightly against the US dollar on the global foreign exchange markets in 2023. The euro began to recover relative to the US dollar towards the end of 2022, so that by July 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 further tightening of the ECB's monetary policy. From July to November the euro weakened against the US dollar continually, mostly due to the expectations that key interest rates in the USA could hold steady at an elevated level for a longer period of time since the US economy had proved to be more resilient than expected. The weaker euro area economic outlook created additional downward pressure on the euro. In November, expectations grew that because of the easing of inflationary pressures in the USA the Fed was close to the end of the cycle of upping its

FIGURE 2.5 USD/EUR exchange rate and 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.

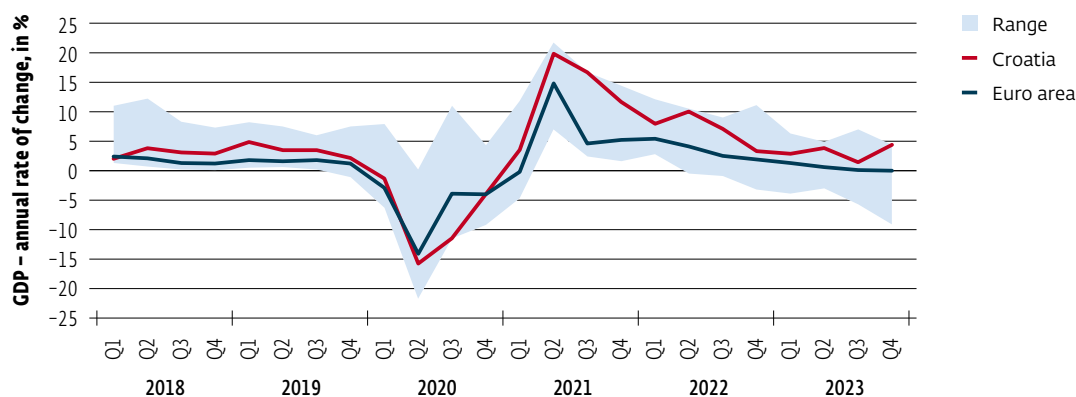
key interest rates, which reversed the trend, so that the USD/EUR exchange rate appreciated until the end of the year. The exchange rate of the euro against the US dollar hovered around an average value of USD/EUR 1.09 in December 2023, which is an appreciation of 3% relative to the level recorded in December 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 4%.

Borrowing costs for households and corporates continued their upward trend in 2023 due to the increase in key ECB interest rates, while credit activity weakened. At the euro area level, the average interest rate on pure new loans to non-financial corporations and housing loans to households rose to 5.12% and 4.06% respectively in December, up by 167 and 110 basis points respectively from the end of 2022. The rise in interest rates was accompanied by a slowdown in lending activity. Lending dynamics was considerably weaker in the segment of lending to non-financial corporations than in the segment of household lending. This discrepancy is also associated with the base effects of the very strong corporate lending last year due to an increased need for the financing of working capital amid the rise in the prices of energy and raw materials. Overall, lending activity remained subdued and was much weaker than in 2022.

CROATIA

Real developments

After the strong economic recovery in 2021 and 2022, favourable economic developments continued into 2023, which is particularly relevant in the light of unfavourable developments in the external environment and in some of Croatia's major trading partners. The faster growth of the Croatian economy than that of the euro area and the EU average also points to the continuation of economic convergence, after GDP per capita (adjusted for price differences) reached 73% of the EU average in 2022. The ongoing expansion of economic activity was driven by the sustained high demand for tourism-related services, expansionary fiscal policy, intensified use of EU funds and consequently by the strong construction activity and robust real estate market. As a result, labour market developments remained favourable. Combined with the decline in inflation, this led to an increase in real income and gave a boost to consumer optimism and private consumption. The first half of the year was marked by a relatively strong growth of economic activity, with a contribution from all components except for exports of goods, which declined noticeably. Economic activity weakened over the summer months due to a slowdown in domestic demand and a decline in the exports of services on an annual basis. It picked up again at the end of the year on a quarterly level, largely due to the increase in private and government consumption and owing to the gradual recovery in the exports of goods and a continued growth in the exports of services. At the end of last year, the annual GDP growth rate reached 4.4%. At the level of 2023 as a whole, real GDP increased by 3.1% on average.

FIGURE 2.6 Trends in economic activity in Croatia and the euro area

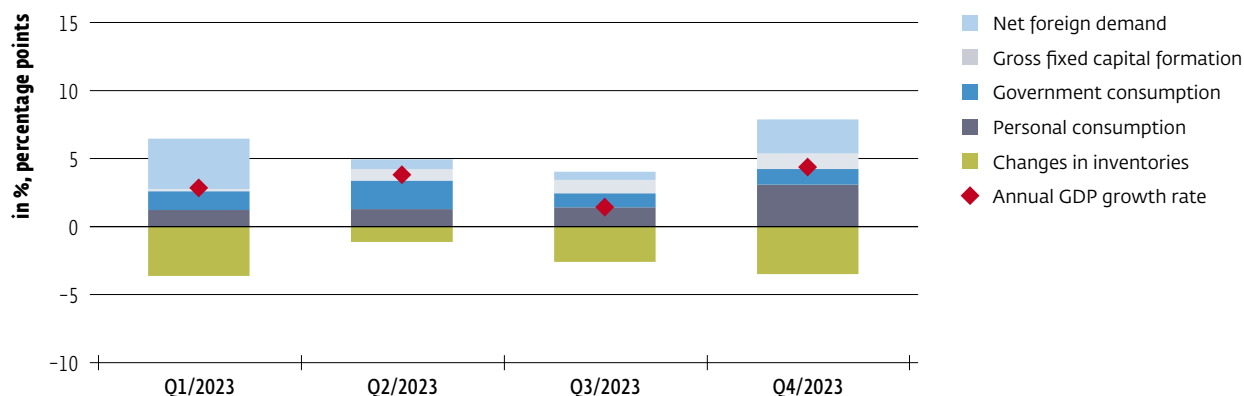
Note: The figure shows the range of values of real GDP growth of individual euro area member states.

Sources: CBS and Eurostat.

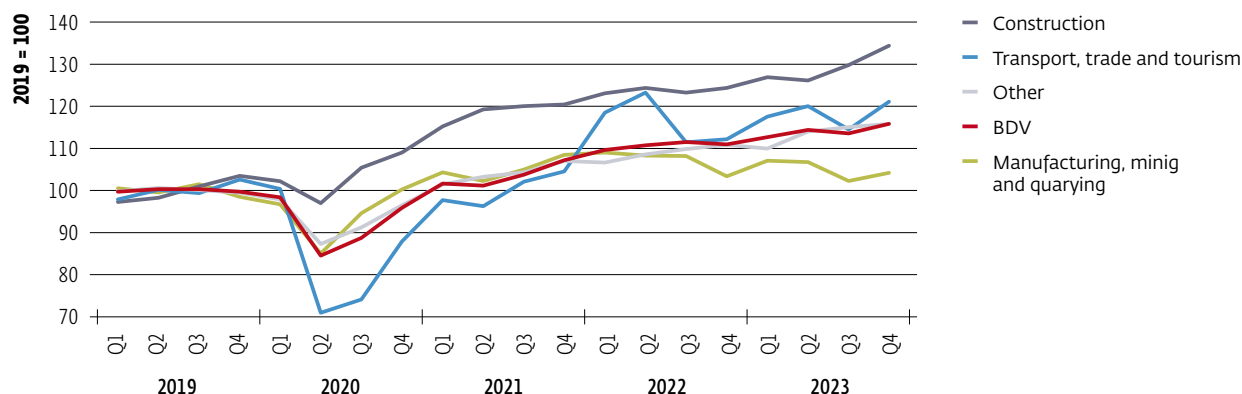
Real annual growth in 2023 largely stemmed from a robust domestic demand, especially from private consumption. Positive trends in private consumption may be attributed to the ongoing growth in employment, the recovery in real wages and the rise in consumer optimism. Government consumption and investments rose sharply. The rise in government investments partly stemmed from projects co-financed from EU funds. In addition to domestic demand, the growth was also propelled by services exports, largely due to the continuation of favourable developments in tourism, while exports of goods declined on an annual basis due to weak foreign demand, so that total exports of goods and services decreased from the year before. Apart from goods exports, the decline in the previously accumulated inventories also made a negative contribution to growth, which resulted in a reduced need for imports. However, despite the drop in exports, net exports made a positive contribution to growth in 2023.¹

Observing the trends in economic activity by its main activities, growth was largely supported by the upswing in the services sector, which was relatively broadly based. Accordingly, growth was recorded in activities related to trade and tourism, the real estate market, information and communication activities and public services. Growth was also seen in construction activities, which is consistent with the relatively strong rise in investment activity and residential construction. On the other hand, agricultural production was almost stagnant, while manufacturing activity declined, which can be associated with weak foreign demand and exports of goods. It should be noted that the annual increase in total gross value added (GVA) in 2023 lagged behind the growth in GDP and stood at 2.3%, as a result of a considerable positive contribution to GDP growth from net indirect taxes (taxes on products less subsidies on products).

¹ It should be noted that the inventories series includes statistical discrepancies arising between the expenditure and the production GDP calculation methods, and should therefore be interpreted with caution.

FIGURE 2.7 Contributions to the change in real economic activity

Source: CBS.

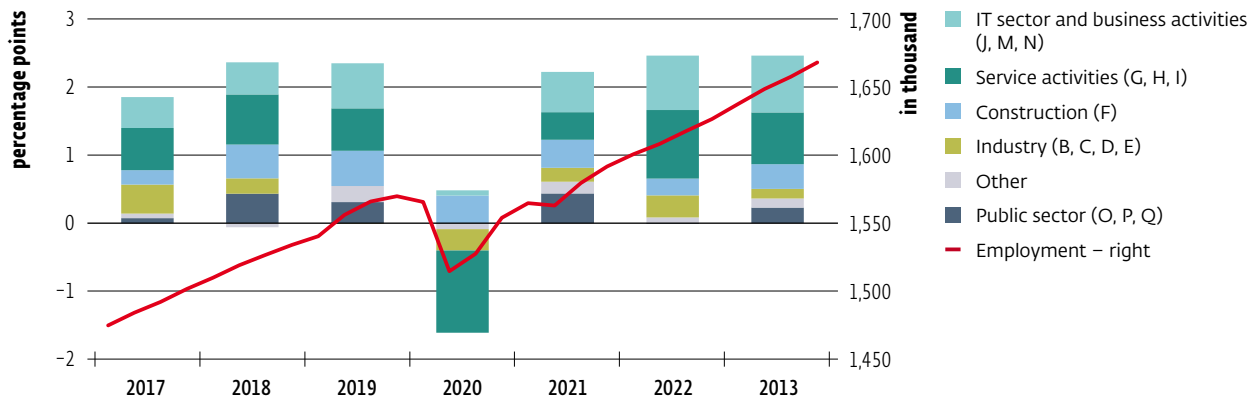
FIGURE 2.8 Gross value added by activity in Croatia

Source: CBS.

Labour market

Labour market in 2023 was marked by a continued rise in employment and a further drop in unemployment, as well as by a strong rebound in nominal gross wages. The number of employed persons rose by 2.5% in 2023. Broken down by the NCA, the largest contribution to growth in employment came from business services and IT, trade, accommodation and transport and construction. The growth of employment was largely spurred by the employment of third-country workers (from non-EU countries) and by hiring pensioners on a part-time basis. Unemployment continued its downward path in 2023, and the registered unemployment rate fell to 6.2% of the labour force (from 6.7% in 2022). The ILO unemployment rate averaged at 6.1%, as against the 7% recorded in 2022. Wages increased sharply in 2023 due to a robust labour demand and workers' attempts to offset accumulated losses in purchasing power due to rising inflation. The average nominal gross wage in 2023 rose by 14.4% on an annual basis, with an equally sharp

FIGURE 2.9 Employment by NCA, seasonally adjusted data, contributions to the annual rate of change and total employment



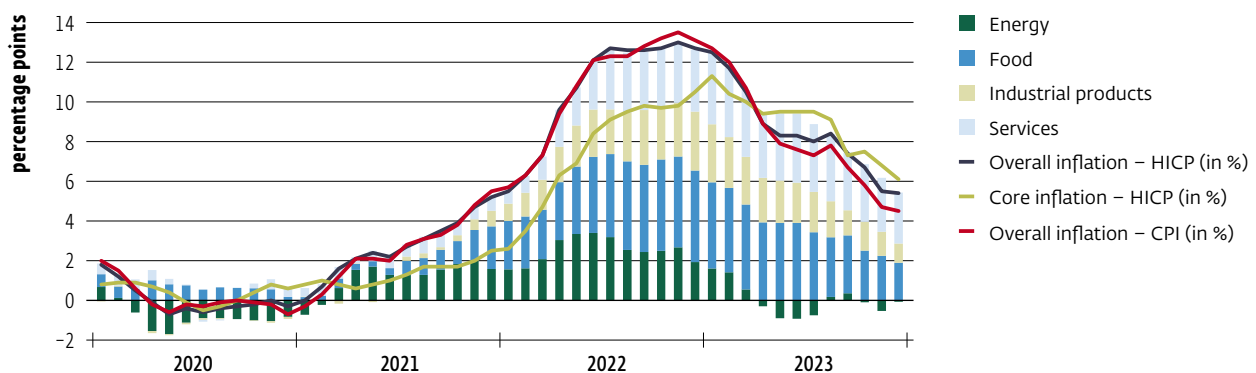
Note: NCA means the National Classification of Activities.
Source: CPII (seasonally adjusted by the CNB).

rise in wages in both public and private sectors. Nominal net wages increased by 12.6% (7% in 2022), while real net wages rose by 4.2% (after having fallen by 3.4% in 2022).

Price developments

Inflation decelerated perceptibly in 2023, having surged in 2022 to the highest level in the last 29 years. The average annual rate of inflation in Croatia measured by the harmonised index of consumer prices fell from 10.7% in 2022 to 8.4% in 2023. The intensity of inflation slowdown is even more pronounced when observing year-end results – inflation decreased from 12.7% in December 2022 to 5.4% in

FIGURE 2.10 Inflation indicators in Croatia
contributions by components



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

December 2023. The slowdown in inflation was driven by the gradually waning effect of the considerable increase in the prices of numerous goods and services in 2022 (base effects), against the background of the substantial deceleration in the current price rises. The easing of current inflationary pressures was particularly accentuated following the end of the peak tourist season amid the fading impact of past shocks (increases in the prices of energy, food raw materials and other raw materials, supply chain disruptions, increased demand due to the reopening of the economy following the pandemic). Even though Croatia joined the euro area at the time of elevated inflation, in line with expectations, the introduction of the euro had a relatively modest and one-off impact on total inflation, concentrated in the services sector.

Price growth for all major inflation components slowed down in 2023. Energy price inflation went down from 14.7% in December 2022 to -0.5% in December 2023 owing to the decrease in the prices of refined petroleum products, while the administered prices of electricity and gas for households remained unchanged. Inflation in the prices of food (including beverages and tobacco) fell to 6.5% in December 2023 (from 16% in December 2022), owing to, among other things, the spillover of lower prices of energy, fertilisers and food raw materials on the global market and the slowdown in the rise of food prices in Croatia's main trading partners. Additionally, lower commodity prices on the global market, normalisation of global supply chains and slower annual growth of industrial producer prices on the domestic market led to a relatively steady slowdown in industrial goods inflation over the course of last year. Having reached 11.2% in December 2022, industrial goods inflation receded to 3.7% in December 2023. Services inflation slowed down only slightly, from 9.9% in December 2022 to 8.1% in December 2023, which was most prominent after the peak tourist season was over. Services inflation was largely affected by the sizeable rise in the prices of catering and accommodation services as a result of the spillover of earlier increases in costs, especially of energy and food raw materials, the rise in wages, the robust demand for the above services and the convergence of these prices to the average level in the euro area.

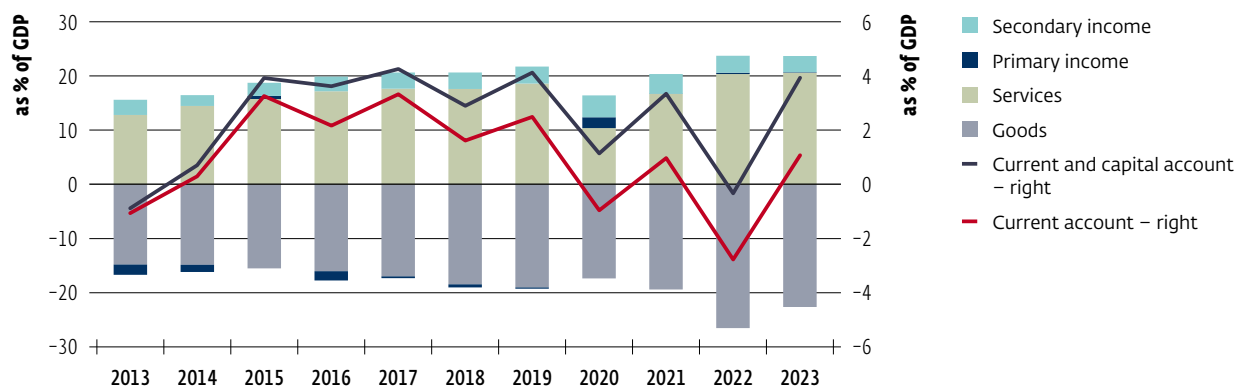
Despite its slowdown, core inflation remained relatively elevated. Core inflation (excluding energy and food prices), which fell from 10.5% in December 2022 to 6.1% in December 2023, declined considerably slower than headline inflation. Other indicators of core inflation, which exclude certain volatile components, also went down in 2023, even though they still remained elevated relative to their long-term average levels. Relatively high levels of core inflation mainly reflected domestic inflationary pressures arising from the robust labour market, that is, from wage growth (to compensate for purchasing power decline caused by previous price increases) and solid domestic demand, as well as the strong demand of foreign visitors for travel-related services. Having peaked in the first quarter of 2023, the contribution of unit profits to domestic inflationary pressures declined steadily in the remaining part of the year, which suggests that profits were able to cushion inflationary pressures coming from the growth in labour costs.

Short-term consumer and corporate inflationary expectations also declined. Even though consumer perception of inflation in the past twelve months remained elevated, consumer inflationary expectations in the next twelve months decreased considerably relative to the peak levels recorded in mid-2022. In addition, firms' expectations about price trends in the next three months also declined. Corporate short-term inflationary expectations in industry returned in the second half of 2023 to approximately their average level in the 2017 to 2019 period, while corporate expectations in the services sector remained elevated relative to the pre-pandemic period.

Economic relations with foreign countries

Falling energy prices and growing tourism revenues, paired with the increased net inflows of funds from the EU budget, had a positive effect on Croatia's balance of payments in 2023. Total current and capital account balance reached 3.9% of GDP in 2023, which is a significant improvement from the slightly negative balance in the previous year and also one of the best historical results. In 2023, the current account ran a surplus of 1.1% of GDP due to a marked reduction in the foreign trade deficit, that is, owing to the decrease in the value of net imports of energy resulting from the fall in energy prices on the global market. However, if trade in energy is excluded, the annual growth in goods exports was slower than that in goods imports (3.9% relative to 6.2%) in 2023, and the foreign trade deficit thus increased by 10.1%. The balance improved also on account of the increase in net exports of services, largely revenues from tourist consumption by foreign tourists, which rose by 11.3% on an annual basis and reached a record high of EUR 14.6bn. Exceptionally good tourist performance came from the rise the number of arrivals and nights stayed by foreign tourists, especially before and after the peak season, and was even more driven by the rise in the prices of catering and accommodation services. The surplus in the secondary income account also rose owing to a strong inflow of personal transfers, while net inflows from EU funds peaked

FIGURE 2.11 Current and capital account



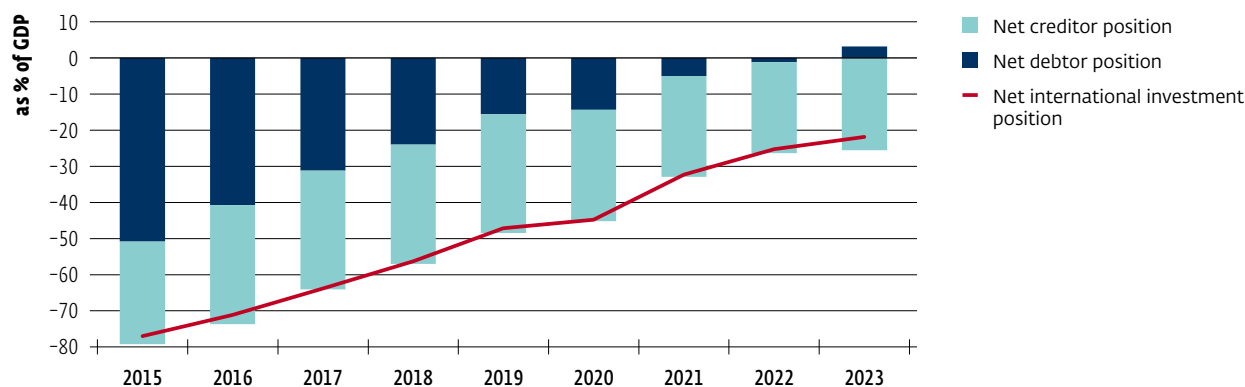
Sources: CNB and CBS.

(3.9% of GDP). On the other hand, the surplus in the primary income account decreased noticeably due to increased outflows of funds abroad stemming from compensation to non-residents employed in Croatia and the increase in expenditures on equity investments in Croatia, largely due to increased profitability of banks in foreign ownership.

The financial account of the balance of payments saw a net outflow of capital in 2023, largely as a result of the continued deleveraging of domestic sectors. A net outflow of EUR 5.5bn was recorded only in the other investment account, which reflects the ongoing deleveraging of domestic sectors vis-à-vis other countries. The account of portfolio investment showed a net inflow of funds owing to the change in the investment strategy for central bank non-monetary financial assets following the entry into the euro area. Direct investment inflows in Croatia were considerably lower than last year which saw exceptionally high investments in a holding company. Their structure was dominated by investments in real estate, information and communication activities, energy and trade. Foreign investments by domestic firms rose considerably, especially in the pharmaceutical industry.

The current and capital account surplus aided the deleveraging of domestic sectors, which contributed to a substantial improvement in the net international investment position. The gross external debt position stood at EUR 63.9bn or 83.7% of GDP at the end of 2023, having gone up by EUR 14.2bn (10.8 percentage points of GDP) from the end of 2022. The rise in gross external debt mainly reflects the increased liabilities of the central bank, while other domestic sectors recorded a decrease in gross external debt. The rise in gross liabilities of the central bank stems from the application of accounting rules relating to the recording of receivables and liabilities from the euro banknotes issued within the Eurosystem and has no effect on the central bank's net external position. Therefore, Croatia's net external debt, which also takes account of the changes in foreign assets

FIGURE 2.12 International investment position



Sources: CNB and CBS.

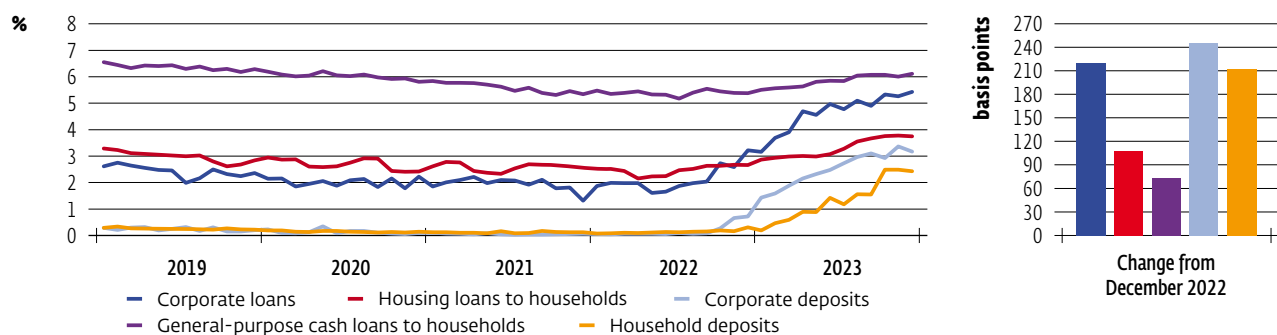
of domestic sectors, went down by EUR 3.4bn (4.6 percentage points of GDP) and stood at -3.4% of GDP at end-2023, and thus supported the improvement of total net international investment position, which rose from -25.3% of GDP at end-2022 to -21.9% at end-2023. The net equity position held relatively stable in 2023 at the level of -25.5% of GDP.

Banking system

ECB monetary policy tightening continued to push the costs of financing of corporate and household sectors in banks operating in Croatia upwards. The average interest rate on pure new loans to non-financial corporations rose relatively sharply (by 220 basis points) from the end of 2022 and reached 5.4% in December 2023. The costs of household financing rose at a much slower pace, while in December the average interest rate on pure new housing loans and general-purpose cash loans reached 3.7% and 6.1% respectively, having gone up by 108 and 73 basis points respectively from the previous year. In addition, the results of the bank lending survey suggest the tightening of credit standards for corporates and households in 2023. Banks reported that the tightening largely stemmed from the negative risk perception associated with the outlook for industry or individual firms, as well as expectations regarding general economic developments, a lower risk tolerance of banks, costs of funding and balance sheet constraints.

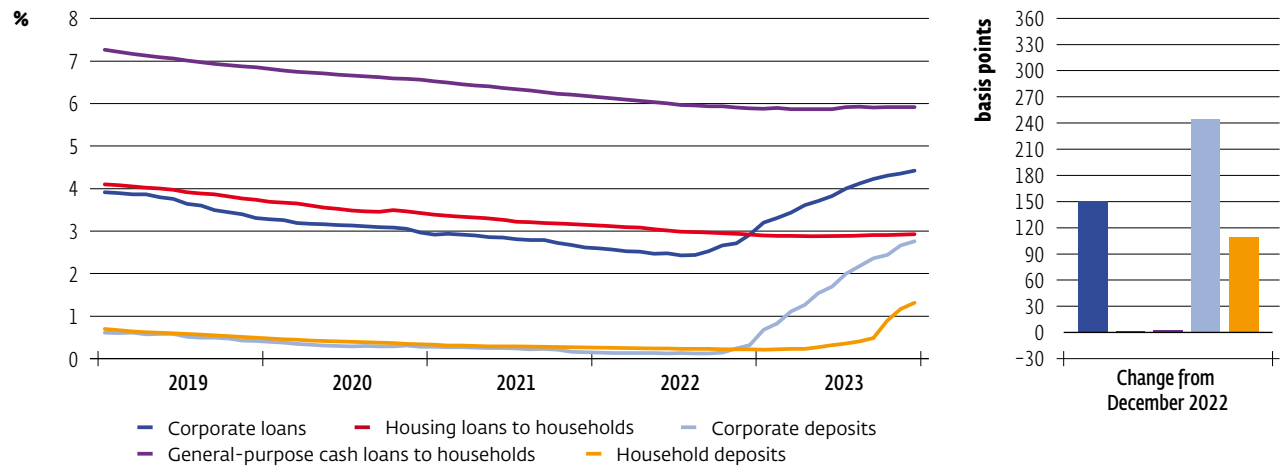
Banks' funding costs also rose, mainly due to the rise in interest rates on corporate and household time deposits. In late 2022, banks started increasing interest rates on corporate time deposits, which continued into 2023, especially at the beginning of the year, in an attempt to increase the attractiveness of deposits as opposed to other alternative forms of investment. On the other hand, the beginning of the last quarter of 2023 saw a substantial increase in the average interest rate on time deposits of households, which was influenced by offers made by some banks in an attempt to attract deposits from other banks. However, this

FIGURE 2.13 Interest rates on pure new loans and time deposits of corporates and households



Notes: Data up to December 2022 refer to loans and deposits in kuna and currencies indexed to kuna and in euro and currencies indexed to euro, and from January 2023 to loans and deposits in euro and currencies indexed to euro. Data refer to pure new loans and deposits. Deposits with a maturity of up to one month have been excluded.

Source: CNB.

FIGURE 2.14 Interest rates on existing loans and time deposits of corporates and households

Source: CNB.

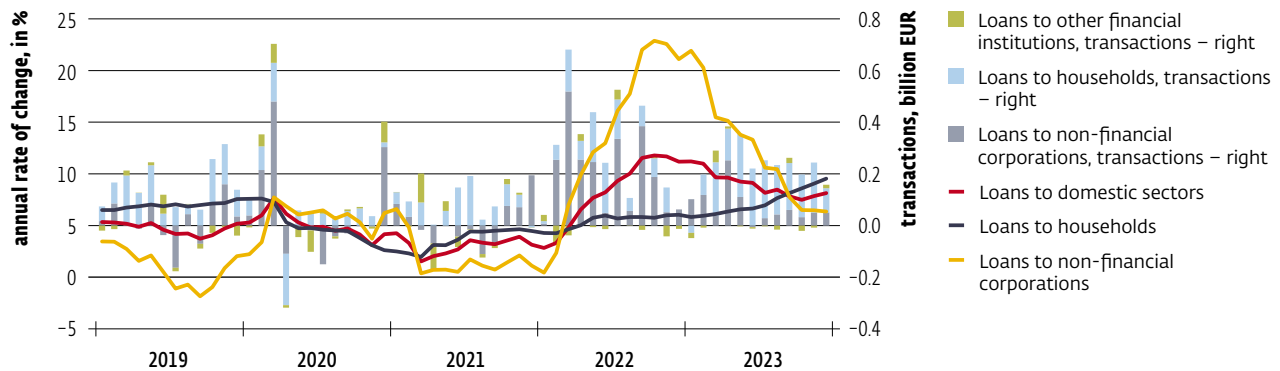
changed soon, as in November and December bank clients were more inclined to accept lower interest rates from their banks instead of turning to banks offering better time deposit terms. The average interest rate on pure new household time deposits thus stood at 2.4% at end-2023, up by 212 basis points from the end of the previous year, and approached the increase in interest rates on corporate time deposits which amounted 246 basis points in the same period.

The rise in interest rates on new loans and deposits gradually spilled over to existing loans and deposits. The increase was particularly prominent in interest rates on existing corporate loans, mostly because of the widespread use of the EURIBOR as the reference parameter in loans with variable interest rates (53% of corporate loans are loans with variable interest rates, and 80% of them are tied to the EURIBOR). On the other hand, interest rates on existing household loans have not yet started rising, due to several factors: the longer average loan maturity, a considerable representation of fixed interest rates (at end-2022, around 70% of loans were loans with a fixed interest for a period longer than one year, while around 40% of loans were loans with a fixed interest for a period longer than ten years or were even fixed until maturity), the domination of the national reference rate (NRR), accounting for around two-thirds of the reference parameters, and legal restrictions on the level of interest rates on variable interest rate loans.

Higher borrowing costs and tightening of credit standards resulted in subdued lending to firms, while loans to households continued to grow relatively strongly. Loans to corporates rose by EUR 0.9bn (transaction-based) in 2023, which is slightly more than one-third of growth recorded in the previous year. Working capital loans and investment loans to the energy sector and investment loans to the construction sector rose the most. Observed on an annual level, the growth of loans to corporates decelerated from a high 21.1% in December 2022 to 6.4% (transaction-based) in December 2023. On the other hand, loans to households increased

FIGURE 2.15 Loans

transactions and annual rates of change, transaction-based



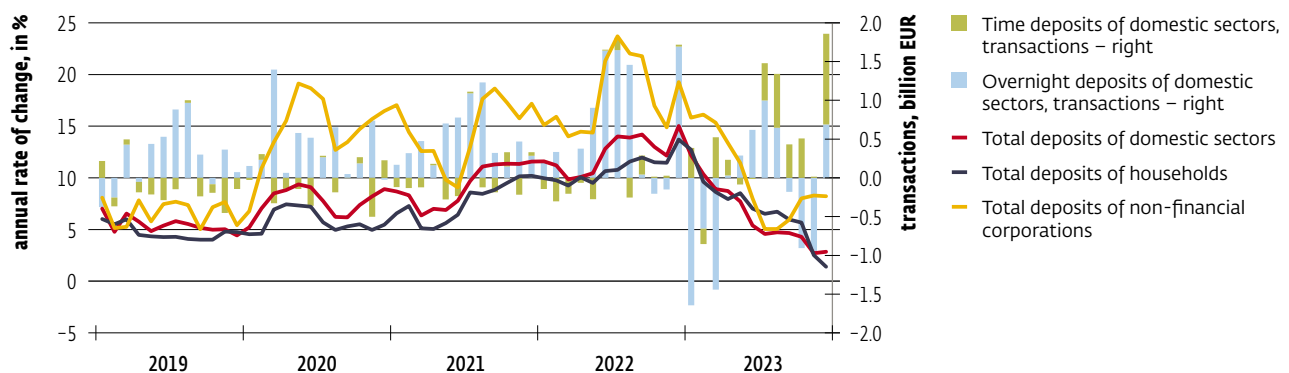
Note: Loans to domestic sectors exclude loans to the general government.

Source: CNB.

by EUR 1.9bn in 2023, with slightly over one half of the growth being accounted for by housing loans (EUR 1.0bn), which mostly grew during the summer months owing to the government's housing loans subsidy programme. In addition, general-purpose cash loans recorded a sharp growth of EUR 0.8bn. According to the bank lending survey, this was driven by an increased demand for durable consumer goods amid boosted consumer optimism and favourable labour market developments. Total household loan growth accelerated on an annual level from 6.0% in December 2022 to 9.5% in December 2023, owing to a fast acceleration in the growth of general-purpose cash loans, from 3.5% to 11.1%, while the growth in housing loans was more moderate, having decelerated from 10.5% to 9.9%.

FIGURE 2.16 Deposits

transactions and annual rates of change, transaction-based



Note: Deposits of domestic sectors exclude loans to the general government.

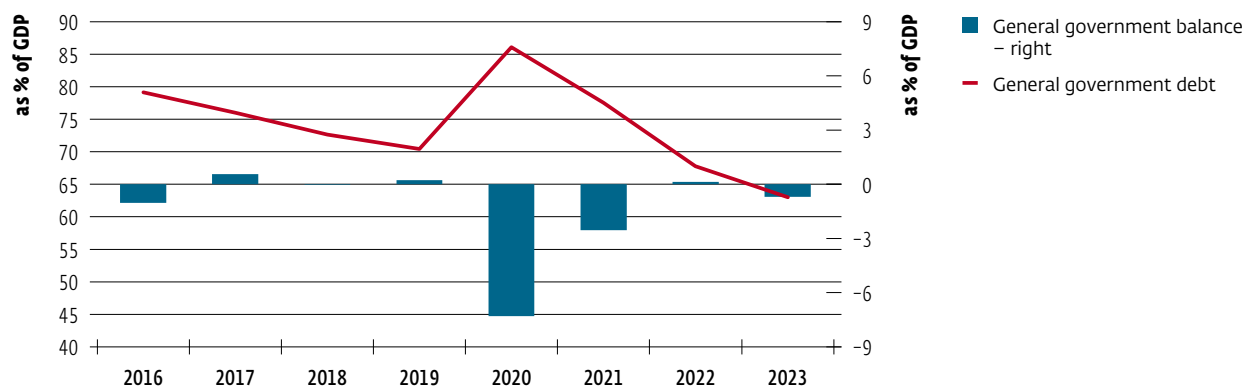
Source: CNB.

The growth of deposits slowed down substantially in 2023 as a result of the resupply of cash following the introduction of the euro, while the rise in interest rates reversed the trend of the years-long fall in the share of time deposits in total deposits. Total deposits of domestic sectors (excluding the general government) rose in 2023 by EUR 1.6bn, which accounts for only one-fifth of the growth recorded in 2022. A slower increase in deposits was influenced by the supply of euro cash to domestic sectors at the beginning of the year. On the other hand, in 2022, especially towards the end of the year, deposits grew due to the inflow of kuna cash to banks ahead of joining the euro area. Spurred by the rise in interest rates, the structure of total deposits saw an increase in time deposits (by EUR 4.1bn) and a decrease in overnight deposits (by EUR 2.5bn). Corporate deposits started going up significantly from the end of 2022, a trend which continued into 2023, when time deposits rose by EUR 2.6bn, and overnight deposits decreased by EUR 1.3bn. Changes in the structure of household deposits began at the beginning of the last quarter of 2022, when time deposits recorded a substantial growth. Following the increase in overnight deposits of EUR 1.1bn and a decrease in time deposits of EUR 0.5bn during the first nine months last year, time deposits rose by EUR 1.4bn, while overnight deposits dropped by almost the same amount in the last quarter.

GENERAL GOVERNMENT BUDGET RAN A DEFICIT IN 2023, WHILE THE PUBLIC DEBT-TO-GDP RATIO CONTINUED ITS DOWNWARD TREND

According to the internationally comparable methodology of the European System of National and Regional Accounts (ESA 2010), the general government budget ran a deficit of 0.7% of GDP in 2023, which is a deterioration from the surplus recorded in 2022 (0.1% of GDP). Amid real growth and persistent inflationary pressures, the general government debt-to-GDP ratio fell on an annual basis despite the rise in the level of general government debt.

FIGURE 2.17 Fiscal indicators



Sources: CBS and CNB.

A slight deterioration in the general government budget balance in 2023 reflects a stronger annual growth of budgetary expenditure (19.4%) than of revenues (17.4%). On the expenditure side, the perceived surge in government investments was largely associated with the positive impact of greater inflows from EU funds, although this expenditure category has had a neutral impact on the budget balance. Total expenditures also grew on account of expenditures for social benefits, which largely reflected trends in pension expenditures (influenced by pension indexation) and the payment of allowances to protect pensioners' standard of living. Expenses on employees also made a positive contribution to the annual increase recorded on the expenditure side of the budget. The revenue side of the budget showed a sharp increase in revenues from indirect taxes, which was due to a favourable effect of personal and tourist consumption. Although to a smaller extent, the annual increase in revenues was also spurred by revenues from direct taxes, reflecting the positive effect of firms' business performance. Favourable labour market trends contributed to the annual rise in social contributions.

Despite a slight deterioration in the general government budget balance, the increase in real economic activity and the GDP deflator resulted in a considerable decrease in the public debt-to-GDP ratio on an annual level. The relative indicator of public debt at the end of 2023 stood at 63.0% of GDP, which corresponds to an annual decrease of 4.8 percentage points.

3

Financial stability and macroprudential policy

Financial stability risks in 2023 were associated with protracted inflation, the weakening of economic activity in the neighbourhood, tightening of financial conditions and global geopolitical tensions. However, these risks were slightly cushioned by a robust economic growth in Croatia and the easing of inflationary pressures towards the end of the year. Interest rate increases were not as pronounced in Croatia as in other euro area countries, which limited the risks associated with the rise in the repayment burden for borrowers. Lending to firms was subdued, while consumer lending picked up sharply. Sales and purchases of residential property continued their downward trend, while the first signs of price stabilisation became apparent around the middle of the year, despite the continued growth of housing loans. A strong rise in net interest income, paired with a still low credit risk, boosted bank profitability. The CNB continued to pursue its macroprudential policy aimed at the strengthening of capital requirements in order to give a further boost to banks' resilience against shocks.

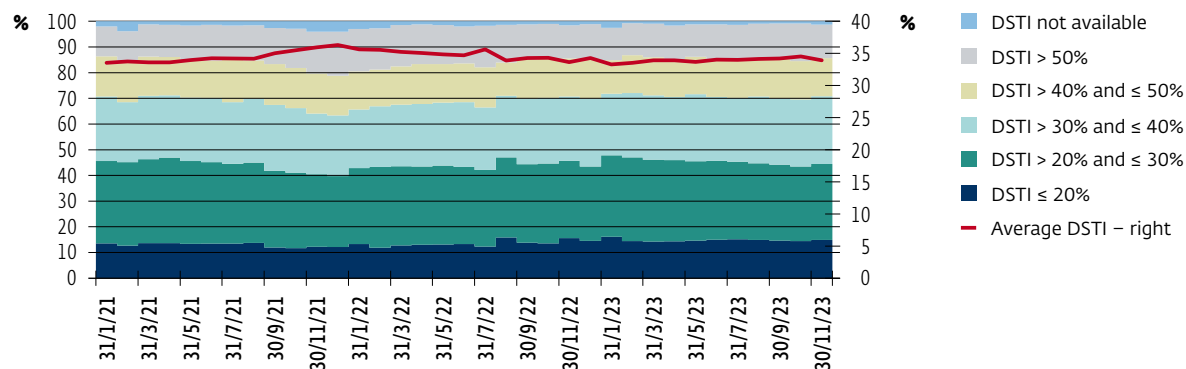
OVERALL ASSESSMENT OF THE MAIN RISKS AND CHALLENGES TO FINANCIAL STABILITY

The main financial stability risks in 2023 were those of high inflation, weakened economic activity in the neighbouring countries, tightening of financial conditions and global geopolitical tensions. These risks edged down towards the end of the year as the domestic macroeconomic outlook improved. Activity momentum remained unabated due to the robust domestic demand; growth accelerated and surpassed earlier expectations. Inflation fell considerably alongside the gradual dissipation of the adverse effects of the energy shock in 2022, a reduction in the prices of raw materials, supply chain normalisation and the easing of imported inflation pressures.

Strong labour market and consumer optimism gave a boost to demand for general-purpose cash loans, which again reached two-digit levels in 2023, after a several-year-long halt in their growth. Paired with the continued stable growth in housing loans, this momentum contributed to strong growth in total loans to households, amid rising interest rates on loans to this sector. The growth in cash loans accelerated in 2023 owing to stable lending conditions; the average total debt-service-to-income ratio held steady at around one third. The share of loans to vulnerable borrowers, whose debt servicing costs posed a significant burden on their income (surpassing two-fifths of their income) also remained at around 30% (Figure 3.1).

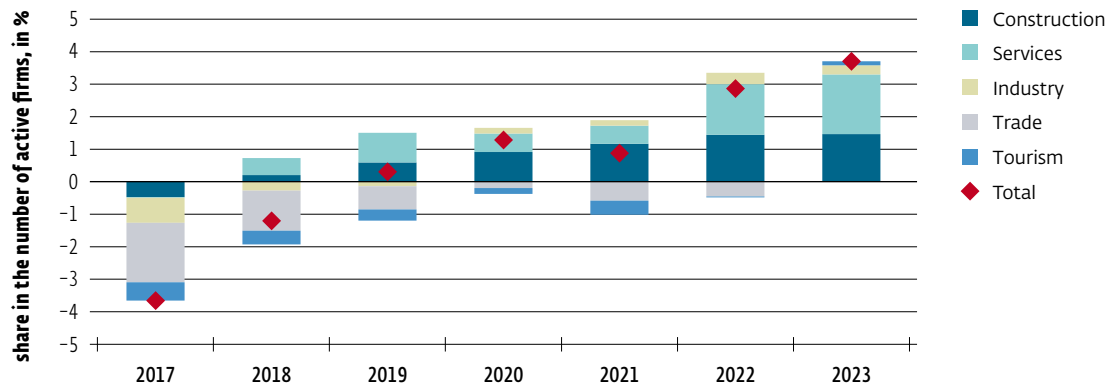
Against the backdrop of robust economic growth, the rise in profits gave a further boost to firms' capital strength, that is, their resilience to deteriorating financing conditions and a potential worsening of the economic outlook. The rise in interest rates and the reduced need for working capital financing, amid the conditions of decreased prices of energy and raw materials, dampened firms' demand for loans. The growth rate of corporate loans decelerated from the high 19.5% in

FIGURE 3.1 Stable lending conditions for new cash loans



Note: DSTI means debt-service-to-income ratio.

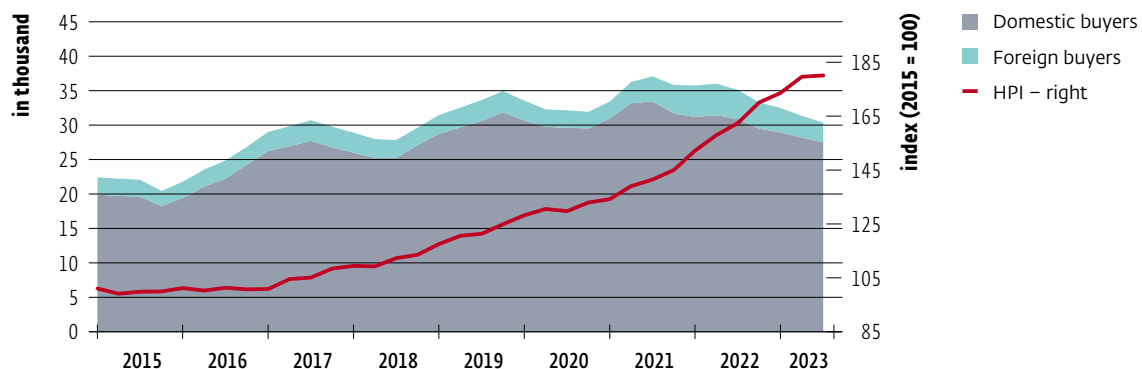
Source: CNB.

FIGURE 3.2 Favourable macroeconomic environment supports the entry of new firms to the market

Source: Court Register.

2022 to the moderate 5.8% in 2023. A favourable business environment was also reflected in the increase in the number of active companies from previous years owing to an increased inflow of newly established companies, largely in construction (Figure 3.2), which led to a considerable growth in the number of active companies in 2023.

Real estate market activity continued its downward path in 2023. The number of sale and purchase transactions decreased from the previous year, with a considerable reduction in non-resident demand (Figure 3.3) amid the slowdown in the European economy and tightened financing conditions. Residential real estate prices rose by 11.9% in 2023. This means that they moderated from 2022, but also that they grew more than in other EU countries. Despite a relatively mild increase in interest on new housing loans, prices still went up, supported by a strong labour market and the government's housing loans subsidy programme in

FIGURE 3.3 Sale and purchase activity in the residential real estate market continued its downward trend

Notes: The amount of transactions refers to the number of sale and purchase transactions in the last 12 months. HPI means house price index.
Sources: CBS and Tax Administration.

mid-2023. Systemic risks associated with the residential real estate market were cushioned by the sharp rise in employment and wages, and the widely-used practice of interest rate fixation.

Monetary policy tightening in the euro area in 2023 gradually drove up financing costs, albeit with a different intensity for households compared to corporates. Lending rates increased more steeply for firms than for households. However, considering good business performance and the relatively high share of loans with a fixed interest rate, the simulations of the effects of rising servicing costs have shown that interest repayment costs might severely jeopardise the profitability of only a small number of highly-indebted non-financial corporations. This risk is even less pronounced for households; in addition to a large share of loans with a fixed interest rate, borrowers are also protected by the legal restriction on the maximum permitted variable lending rates. With regard to housing loans, this ceiling remained at a very low level and is only slowly adjusting to changes in market conditions. Because of the low susceptibility of the private non-financial sector to the rise in interest rates and owing to positive domestic macroeconomic indicators, bank credit portfolio quality continued to improve, as reflected in the record-low non-performing loans ratio, which dropped to 2.6% at the end of the year.

Owing to the cut in minimum reserves from 9% to 1% for the purpose of harmonising the CNB's monetary policy instruments with those applicable in the euro area, the liquidity of credit institutions remained high, while the system remained highly resilient to potential liquidity risks. A high level of short-term liquid assets, which include reserves with the central bank, coupled with only a gradual rise in deposit rates, contributed to a considerable increase in banks' net interest income. In addition to increased income from short-term funds deposited with the central bank, net interest income of banks from their operations with the government and the corporate sector also rose, while net interest income from households held steady or even edged down in some banks.

Bank profitability rose sharply in 2023 due to a strong rise in net interest margin, low provisioning costs for risky loans and a fall in average operating costs. However, the accelerated rise in interest rates on household time deposits at the end of previous year led to an increase in the share of time deposits in total liabilities, which contributed to the rise in interest expense and slowed down the increase in profit. Notwithstanding this, banks' return on equity (ROE) in 2023 was as high as 15.5%. Banking sector capitalisation remained high and stood at 23.6% at end-2023, well above the EU average. High capitalisation of banks and a favourable short-term macroeconomic outlook strengthened the resilience to potential shocks arising from sudden escalations of geopolitical tensions with their concomitant negative impact on economic activity and inflation.

MACROPRUDENTIAL ACTIVITIES OF THE CNB IN 2023

As bank lending continued to increase sharply and residential real estate prices showed the first signs of stabilising at high levels, the domestic financial cycle in 2023 entered a mature phase of expansion, which is characterised by an elevated level of accumulated systemic vulnerabilities. The CNB continued to pursue its macroprudential policy aimed at strengthening bank resilience by raising capital requirements. Capital buffer increases also provide the manoeuvring space needed by the CNB to preserve the lending continuity of banks should systemic risks materialise.

a) Capital buffers

In 2023, the CNB continued to raise the countercyclical capital buffer, that is, a variable capital requirement aimed at mitigating cyclical risks that might arise from excessive lending. After two consecutive countercyclical capital buffer rate increases in March and December 2022 (to 0.5% and then to 1% ¹), applicable in 2023, in response to the continued build-up of cyclical systemic risks, in June 2023 the CNB raised the buffer rate to 1.5% ², to be applied as of end-June 2024.

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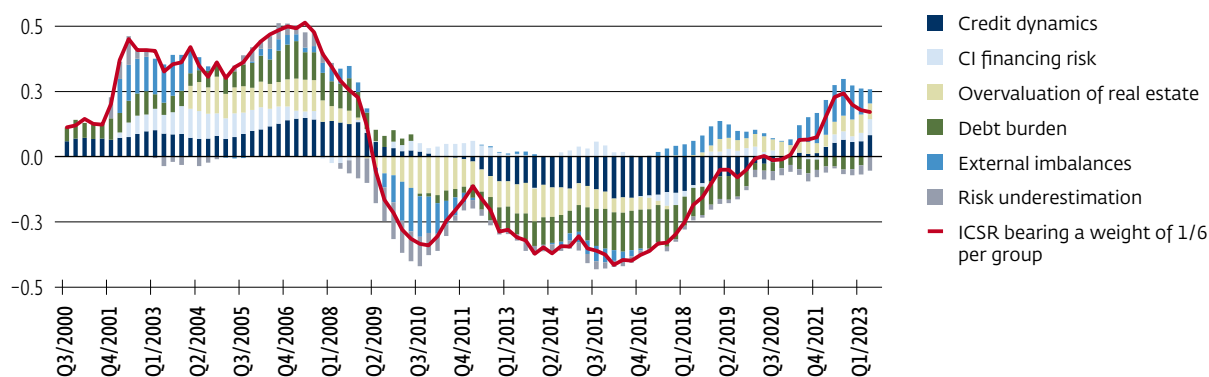


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At the end of 2023, the financial cycle in the mature phase showed signs of stabilisation. Activity in the residential real estate market continued to decline in late 2023, and the rise in housing prices came to a halt. Subdued corporate lending led to a slowdown in the growth of total loans to the private non-financial sector on an annual basis. Housing loans continued to grow steadily, while the growth in cash loans accelerated substantially, supported by a robust growth in employment and wages and growing consumer optimism. Since cyclical risks remained elevated, the announced countercyclical buffer rate increase remained applicable at the end of 2023. The CNB will continue its regular monitoring of the evolution of cyclical systemic risks against the backdrop of domestic and global economic

FIGURE 3.4 Composite indicator of cyclical systemic risk (ICSR)



Note: The abbreviation CI refers to credit institutions, and ICSR is the composite indicator of cyclical systemic risk (composite index of financial stress).

Source: CNB.

TABLE 3.1 Overview of decisions on the countercyclical buffer rate

Date of decision adoption	Date of entry into force	Level of the rate
19 January 2015	1 January 2016	0%
28 March 2022	31 March 2023	0.5%
15 December 2022	31 December 2023	1.0%
30 June 2023	30 June 2024	1.5%

Source: CNB.

and financial developments, so as to be able to adjust in good time, if needed, the countercyclical buffer rate, which can be released immediately in the event of a significant worsening of macroeconomic or financial conditions.

In addition to cyclical buffers, domestic credit institutions are obligated to also maintain two buffers for systemic risks of a structural nature. In 2023, all credit institutions were required to maintain a structural systemic risk buffer (SRB) of **1.5%** ¹ of the total risk exposure amount. This covers risks arising from structural vulnerabilities of the domestic economy, which, as a small and open economy, is highly susceptible to the spillover of negative effects from the international environment. Particularly noteworthy are a relatively high public debt level in comparison to peer EU economies, high exposure of the banking sector to the government and the imbalances in the labour market seen in the very low rates of labour force participation and unfavourable demographic and migration trends that limit the potential for economic growth. Systemically important credit institutions are also obligated to maintain an additional capital buffer, as additional protection against potential risk to financial stability stemming from the size of such an institution, its position in the banking system of the Republic of Croatia and the EU, the scope of its cross-border activities and its interconnectivity with the rest of the financial system.

In late 2023, as part of its regular review, the CNB **confirmed the status** ² of seven previously identified other systemically important credit institutions (hereinafter: O-SIIs) and raised the capital buffer rates at system level to be applied by these institutions in 2024. O-SII buffer rates are adjusted so as to take into account changes in the market position of O-SIIs and to better link the buffers to the systemic importance of each O-SII. Rate ranges increased: in previous years, the determined rates ranged between 0.5% and 2%, while now they range from 0.25% of total risk exposure amount for the smallest O-SII to 2.5% of total risk exposure amount for the largest O-SII. The set buffer rates are still in line with the revised **methodology** ³ of the European Central Bank, which prescribes the minimum rate of this buffer depending on the systemic importance scores calculated for each O-SII within the euro area, which became applicable as of 1 January 2024.

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In early 2024, the **combined buffer requirement** ❶ that all credit institutions were obligated to apply, depending on their systemic importance, totalled between 5% and 7.5%, up by 0.25 to 1 percentage point from the levels that applied at the beginning of 2023. It consisted of a capital conservation buffer of 2.5%, two structural risk buffers (SRB of 1.5% and O-SII buffer ranging from 0.25% to 2.5%) and the countercyclical capital buffer of 1%, applicable as of 31 December 2023. The announced increase in the countercyclical buffer rate in June 2024 will increase the combined buffer for all credit institutions by 0.5 percentage points. Since the domestic banking system has been very stable and profitable and has maintained significant capital surpluses at system level, raising the capital buffers had no adverse impacts on the cost and availability of bank financing.

In the second quarter of 2023, the CNB analysed third-country materiality for the banking system of the Republic of Croatia. As in previous years, the analysis identified Bosnia and Herzegovina and Montenegro as material third countries, largely due to the lending activity of subsidiaries of domestic credit institutions. From an analysis of cyclical systemic risks in the aforementioned countries, with persistent geopolitical uncertainties and the outlook for the world economy being taken into account, it was found that there was currently no risk of excessive credit growth that would require regulatory measures to be taken with respect to Croatian banks exposed to these markets.

c) Other macroprudential activities

The regular annual assessment of the adequacy of the currently applicable stricter risk weights for exposures secured by residential and commercial real estate has shown that the risk weights are appropriate and should continue to apply. A decision is in force in Croatia which lays down a more stringent definition of residential property than the definition laid down in the harmonised EU legislation, to which a preferential risk weight of 35% can be applied; it concerns only property owned by a natural person who owns a maximum of two residential real properties, occupied or let for residential purposes. Instead of the risk weight of 50%, a higher risk weight of 100% applies for exposures fully and completely secured by mortgages on commercial immovable property.

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In 2023, the CNB also took action at the recommendation of the European Systemic Risk Board (ESRB) on the reciprocation of macroprudential policy measures adopted by other EU member states. However, since the exposures of domestic credit institutions to the countries that implemented such measures have been very low, the CNB currently applies none of the national measures recommended for reciprocation (for more information, see <https://www.hnb.hr/en/core-functions/financial-stability/macroprudential-measures/reciprocation-of-measures> ❷).

COOPERATION IN THE FIELD OF MACROPRUDENTIAL POLICY

The CNB participates in the work of the **Financial Stability Council** ¹ together with the representatives of HANFA, the Ministry of Finance of the Republic of Croatia and the Croatian Deposit Insurance Agency, aimed at cooperation and exchange of information among member institutions. In 2023, the Council held **two sessions** ², chaired by the CNB Governor. The participants discussed developments and systemic risks in the financial sector, including the implications of tighter financing conditions and elevated geopolitical uncertainties.

CNB representatives took part in the work of the ESCB committees and working groups, which was, in 2023, directed at the analysis of systemic risks in the European Economic Area associated with the vulnerabilities in the real estate market, elevated inflation and the development of the framework and indicators aimed at monitoring systemic liquidity risk. The CNB formulated and implemented capital-based macroprudential measures in cooperation and coordination with the European Central Bank. The CNB held that the measures were adequate. CNB representatives joined the work of the Financial Stability Committee consisting of the countries participating in the Single Supervisory Mechanism and the European System of Central Banks, and its standing working groups, in which financial stability risks and measures and instruments of macroprudential policy considered or implemented by the member states are discussed.

LINK NO ¹



LINK NO ²



4

Financial asset management

Even after joining the Eurosystem, the Croatian National Bank continued to manage its own financial assets, which consist of almost all the assets that made up net international reserves before euro area accession. The CNB also participates in the management of a portion of the international reserves it transferred to the European Central Bank at the beginning of 2023.

FINANCIAL ASSETS IN 2023

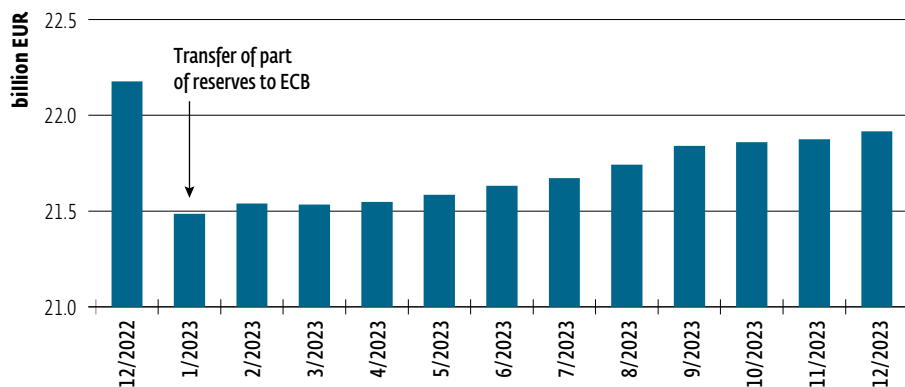
As at 31 December 2023, financial assets totalled EUR 21,915.7m¹, comprising assets denominated in the euro worth EUR 19,435.9m (88.1%) and assets denominated in US dollars and other currencies amounting to EUR 2,479.7m (11.3%). These financial assets account for almost all assets of the Croatian National Bank that made up net international reserves before Croatia joined the euro area.

Financial assets edged down by EUR 261.4m (1.2%) in 2023, largely due to the transfer of a smaller portion of international reserves to the European Central Bank. In accordance with the obligations assumed, in early 2023 the CNB transferred a portion of the reserves to the ECB, worth EUR 639.9m. In accordance with the ECB's requirements, 85% of the amount was transferred in US dollars, and the remaining 15% was transferred in gold. The transfer of the portion in gold, worth EUR 96m or 56,256.29 ounces of gold, was made in so-called unallocated monetary gold obtained from the Bank for International Settlements. All Eurosystem national central banks, including the CNB, participate in the activities related to the management of the portion of reserves transferred to the ECB. Also, with regard to transferred international reserves, the CNB kept an equivalent amount of claims on the ECB on the assets side of its balance sheet.

In addition to the obligation to transfer a minor portion of the reserves to the ECB, after the accession to the euro area, the CNB started to apply the Eurosystem's financial asset management framework with respect to the remaining CNB financial assets. This primarily entailed the implementation of the Agreement on Net Financial Assets (ANFA). ANFA sets out the ceiling for net financial assets

FIGURE 4.1 Developments in CNB's financial assets in 2023

end of period



Source: CNB.

¹ This amount excludes Croatian bonds purchased during the COVID-19 pandemic under the bond purchase programme, which ceased to be part of CNB's monetary assets following Croatia's entry to the euro area. The nominal value of that portfolio as at 31 December 2023 was EUR 1,836.3m.

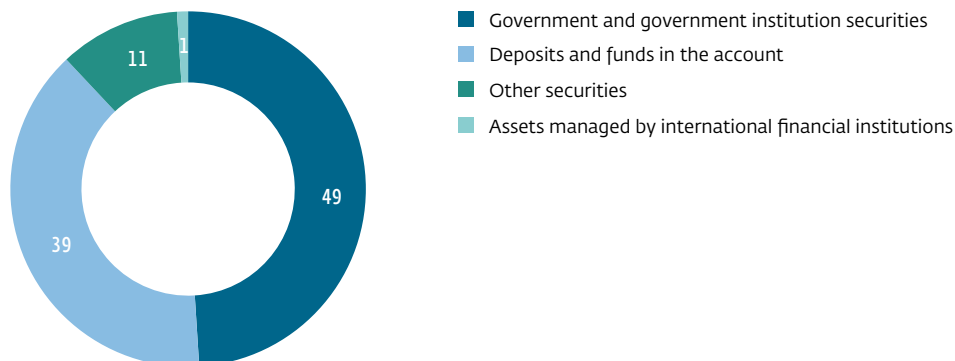
that a central bank is entitled to manage without interfering with monetary policy implementation. In addition, the CNB is also obligated to take account of the ECB Guideline on domestic asset and liability management operations (DALM), while the prohibition of monetary financing laid down by Article 123 of the Treaty on the Functioning of the European Union, which is supervised by the ECB, has been in force since Croatia's accession to the EU.

FINANCIAL ASSETS INVESTMENT STRUCTURE

At the end of 2023, the largest share in the structure of financial assets investment was accounted for by investments in government and government institution securities, followed by investments in deposits and funds in the account and other securities (Figure 4.2). A portion of financial assets was also made up of sustainable ESG (environmental, social, governance) investment, including investment in green bonds, social bonds and sustainability bonds. The share of ESG investments in total financial assets stood at 7.5% at the end of 2023¹.

CNB's financial assets are invested in instruments with investment grade ratings, with limitations regarding investments in individual financial institutions and countries or in individual financial instruments, which diversifies credit risk. At the end of 2023, about 74% of financial assets were invested in the safest investments – instruments by issuers within the two highest credit rating categories, BIS instruments or funds in the account.

FIGURE 4.2 Investments in the safest instruments accounted for the largest share in the structure of financial assets investment shares in percentage, at the end of 2023



Note: The shares of instruments in the structure are rounded to the nearest whole number.
Source: CNB.

¹ The [Climate Report](#) contains a climate-related disclosure regarding CNB financial assets.

FINANCIAL MARKETS AND FINANCIAL ASSET MANAGEMENT RESULTS IN 2023

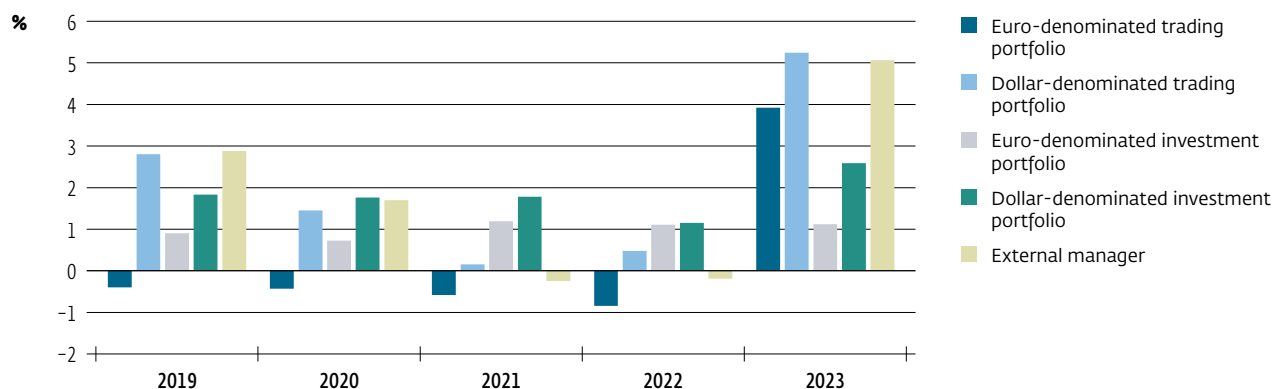
Financial markets in 2023 were marked by the continued cycle of hikes in key interest rates of leading central banks, which was halted towards the end of the year, as well as by ongoing changes in investors' expectations which led to severe market fluctuations. At the end of the year, the key ECB interest rates rose by 450 basis points from the levels recorded prior to the monetary policy tightening that started in 2022. Over the same period, the Fed upped its key rates by 525 basis points. This ended a ten-year period of historically low interest rates, which were also negative in the case of euro rates. Throughout this period, the CNB made a number of strategic and tactical decisions, and thus managed to maintain positive earnings from managing its financial assets, that is, the former international reserves, while it also strengthened financial risk buffers.

Even though at a certain point yields reached their highest level since 2007, they had decreased by the end of the year. An additional strain was inflicted on bond markets by an inverted yield curve, which meant that long-term investments carried lower yields than short-term investments. The banking turmoil in the USA, followed by the rescue of Credit Suisse, caused a large stress and volatility on the market over the first half of the year, even though markets suffered no lasting consequences on account of these events. Geopolitical risks associated with the existing and new global conflicts also severely affected the volatility in the prices of financial instruments and commodities in 2023. Equity markets, led by the technological sector, recorded outstanding results in 2023, while the US dollar weakened slightly against the euro.

Against the backdrop of the extremely volatile financial market conditions, income generated from the management of financial assets in 2023 reached a record

FIGURE 4.3 Financial asset portfolios had adequate rates of return

year-on-year rates of return, in percentage



Source: CNB.

high of EUR 611.2m, which is an increase of EUR 447.0m from the year before. The rate of return on the portfolio of financial assets also rose in 2023 from the levels recorded in previous years (Figure 4.3). Investment decisions were made by taking into account the Eurosystem's overall financial asset management framework, in view of the fact that some rules, obligations and guidelines impact the possibility and profitability of some investments.

1 The founding of Moneterra – Money Museum of the Croatian National Bank

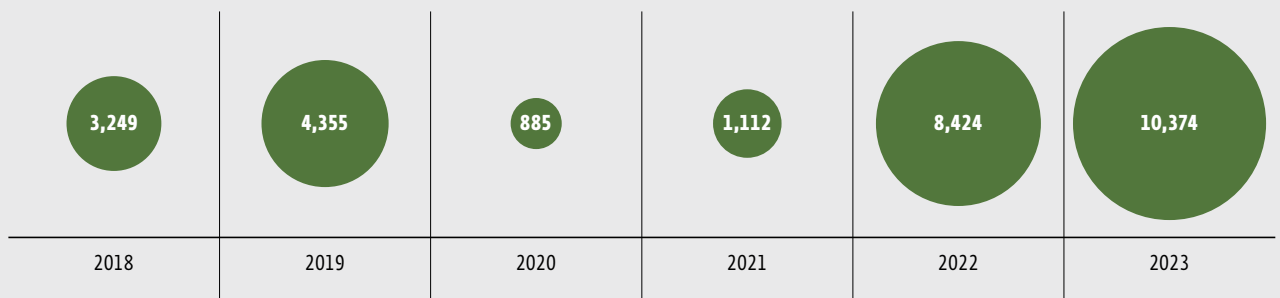
In 2023, preparations started for the establishment of the CNB's information and education centre. The centre has since been given a name: Moneterra – Money Museum of the Croatian National Bank. In Moneterra, citizens of all ages and levels of education will have an opportunity to learn about money and its history, monetary policy and central banking, banks and their development, financial crises and various topics concerning personal finance, in a straightforward and entertaining way.

The Croatian National Bank is the only central bank in the euro area without a dedicated place in which citizens can learn directly from the national central bank about money, monetary policy, banking supervision and the information needed to make well-informed personal financial decisions. This was a strong motive for finding, equipping and designing a modern space that would serve the above purpose. Our efforts were also driven by pronounced citizen interest in direct communication with the CNB. This is evident from the record number of pupils, students and other members of the public who visited the CNB in 2023, and from the more than 1100 visitors to the CNB's main building during the CNB Open Doors Day in October last year.

Moneterra has been in the making for a long time, while the establishment of the Visitor Centre was the first step towards its establishment. After Croatia joined the euro area and the Eurosystem, in early June 2023 Governor Boris Vujčić decided that it was the right time to start preparations for the establishment of this information and education centre.

Moneterra will be located in Zagreb city centre, in European Square. In addition to the history of money, banking and central banking, the centre will focus on modern topics and future challenges – ranging from further money dematerialisation and development of a central bank digital currency, the use of technology

FIGURE 1 Persistent growth in the number of attendees of CNB educational programmes



Source: CNB.

in banking and monetary policy amid technological, climate and demographic developments and changing geostrategic circumstances.

Moneterra will house a permanent collection and thematic exhibitions, host lectures and workshops and provide a space for public forums. Most of the content will also be available in English and virtually on the website.

After exploration of the ways in which other central banks approached the opening and managing of similar centres, our work was inspired by Deutsche Bundesbank Money Museum, the Museum of Saving in Turin, the Swiss Finance Museum and the Hungarian Money Museum and Visitor Centre. The open tendering procedure also included qualitative research, by applying the design thinking methodology with seven focus groups, which provided feedback on the described concept of exhibition material and its presentation from the perspective of different target groups.

Moneterra aims to show citizens that they too can understand economics and finance, and that they already know a lot from their lives, although they may not be able to express themselves in the language of the economic profession. Moneterra will encourage all citizens, regardless of their age and prior knowledge, to discover the world of finance, and present information about money, banking and central banking in a simple, comprehensible and stimulating way. It will shed light on the world of finance and make it attractive and intelligible to citizens, assisting them in making better decisions regarding their money and finance. A better understanding of economics and finance can also bring other personal and wider benefits. It can make it easier to follow economic news broadcast by the media, it can inspire children and young people to learn more about economics and finance, boost citizens' self-confidence and improve their inclusion in economic and community life.

5

Supervision

The activities of the Croatian National Bank's supervision were directed at banks' management of credit risk as a response to the financial crisis in the US in the first half of 2023, at credit risk management, digital transformation and cyber security activities and climate risk management. The banking system operates in a transparent environment, applying unique supervisory tools following Croatia's entry into the euro area, with the main characteristics of the system continuing to be high capitalisation and liquidity, and considerable resilience to negative shocks.

PRUDENTIAL REGULATION

Four acts affecting the operation of credit institutions were amended in 2023: two were amended because of the introduction of the euro as the official currency in the Republic of Croatia¹ and one because the CNB joined the Single Supervisory Mechanism², while another, the Act on the manner, conditions and procedure for the servicing and sale of claims, was adopted. This Act governs the joint framework and requirements in the sense of the rights and obligations of creditors in contracts on non-performing loans, more information is to be found in **Box 2**. The activities related to the establishment of the Office for the supervision of entities engaged in the sale of non-performing loans. All regulations in the field of supervision, including those on the manner, conditions and the procedure for the servicing and sale of claims are available at <https://www.hnb.hr/en/core-functions/supervision/regulations> ❶.

In the area of prudential regulation, four subordinate regulations were amended and one new subordinate legislation was adopted relating to the implementation of the Act on covered bonds.

Alignment with the supervisory procedures of the European Central Bank for credit institutions and participation in working groups and activities of the European Commission and the EU Council continued. Representatives of the CNB at the European Banking Authority (EBA) participated in working group meetings on the preparation of reports, guidelines and draft technical standards within the EBA's purview.

By sending out circular letters, the CNB, in accordance with EBA Guidelines, informed credit institutions of its supervisory expectations in the segments of recovery plans and interest risk.

In 2023, four horizontal analyses were conducted of the practices in credit institutions' operations:

- An analysis of the results of a questionnaire on diversity practices, diversity policies and gender pay gap at the level of the management body based on the EBA questionnaire was conducted on a sample of 12 credit institutions. The objective of the EBA's research was to obtain information to establish the relevant trends and practices in credit institutions relating to diversity in the management board and supervisory board, a comparison of the diversity policy and gender pay gap and to monitor the development of the diversity criteria from the publication of **EBA's last benchmarking report on diversity practices in February 2020** ❷. According to the data published in the report,

1 Act on Amendments to the Act implementing Regulation (EU) 2017/2402 and Act on Amendments to the Act implementing Regulation (EU) 2016/1011

2 Act on Amendments to the Financial Conglomerates Act


LINK NO ❶



LINK NO ❷



credit institutions from Croatia were at the very top in terms of the share of institutions that had adopted the guidelines for the management of the gender diversity policies but below the European average according to the share of women in management functions.

- The liquidity ratio analysis spurred by the discussion at the EBA was designed for all credit institutions in Croatia, based on the data banks submit within their reports on liquidity coverage ratios (LCR) and the net stable funding ratios (NSFR). Subject to analysis were the components of the liquidity coverage ratio, as well as the liquidity buffer, inflows, outflows and ratio amounts.
- The analysis of the report on the management of interest rate risk arising from non-trading book reviews the manner in which credit institutions report and manage risk arising from non-trading book activities.
- The Analysis of green loans is the part of research relating to the definition and the amounts of green loans that is conducted by EBA at the request of the European Commission within the framework of the initiative regarding the introduction of a voluntary EU green loan label. Three credit institutions from Croatia took part in the research. The EBA's opinion on green loans, research results and annex with the data are available [here](#) .

As members of the EBA's working group, prudential regulation employees participated in the mandatory Basel III monitoring exercise, which is carried out in cooperation with the Bank for International Settlements (BIS) for the purpose of assessing the effect of the application of the Basel III framework on banks.

The CNB also participated in the process of defining the regulatory positions of the Republic of Croatia regarding the changes to the regulatory framework for the operations of credit institutions.

The calculation of supervision fees for credit institutions was redesigned in 2023. The good practices applied by the ECB were embedded in the new concept, which is more thoroughly regulated and is also more transparent due to the publication of the structure of the basis for fee calculation and of the reference banking system data.

The Decision on statistical and supervisory reporting and the Decision on supervisory reports of credit institutions were amended as well. In addition to technical maintenance of the reporting framework, these amendments included the results of the regular review of the national reporting requirements: reporting on pandemic-related support measures and the obligation to submit additional information within the framework of credit institutions' financing plans were repealed.

LINK NO 



PRUDENTIAL RISK MODELLING

In 2023, prudential risk modelling was focused on activities related to the management and mitigation of credit risk and on the stress testing of credit institutions. The verification of internal models for credit risk management was conducted via four on-site inspections. One was related to important changes to the internal model for the calculation of capital requirements for credit risk at a credit institution that applies an internal ratings-based (IRB) approach. The other three were connected to the use of the model for the calculation of expected credit loss (ECL) at less significant credit institutions. Analyses of the models used by significant credit institutions for the purpose of internal capital calculation were carried out within the framework of the annual supervisory assessment.

The first supervisory stress testing for less significant institutions was also conducted in 2023. For the first time the solvency of these institutions was reviewed comprehensively and consistently in conditions of adverse economic developments and unfavourable trends in the financial markets. The exercise itself is based on the methodology of the European Banking Authority (EBA), which was additionally simplified to reflect the nature, the type and the complexity of the operations of less significant credit institutions in Croatia. It was concluded that less significant institutions are currently sufficiently capitalised to absorb even strong negative shocks. Compared to their capitalisation, measured by the CFT1 ratio at the end of 2022, of some 17%, macroeconomic scenarios over a three-year horizon resulted in an increase in capitalisation to 19.7% (baseline scenario), that is, a reduction to 14.5% (adverse scenario).

Risk modelling experts actively participated in the meetings of the working groups of the ECB and EBA and worked on the preparation of reports, guidelines and drafts of technical standards in the field of internal models, supervisory stress testing run by the ECB and on-site inspections of the use of the IRB approach at individual European banks within the ECB's purview.

PRUDENTIAL SUPERVISORY TEAMS

The supervisory business practices between the two institutions became fully aligned when the CNB and the European Central Bank entered into close cooperation in 2020. The intensive engagement in the work of the joint supervisory teams, composed of employees of the ECB and national authorities competent for the supervision of significant credit institutions, continued when the CNB joined the Eurosystem in 2023.

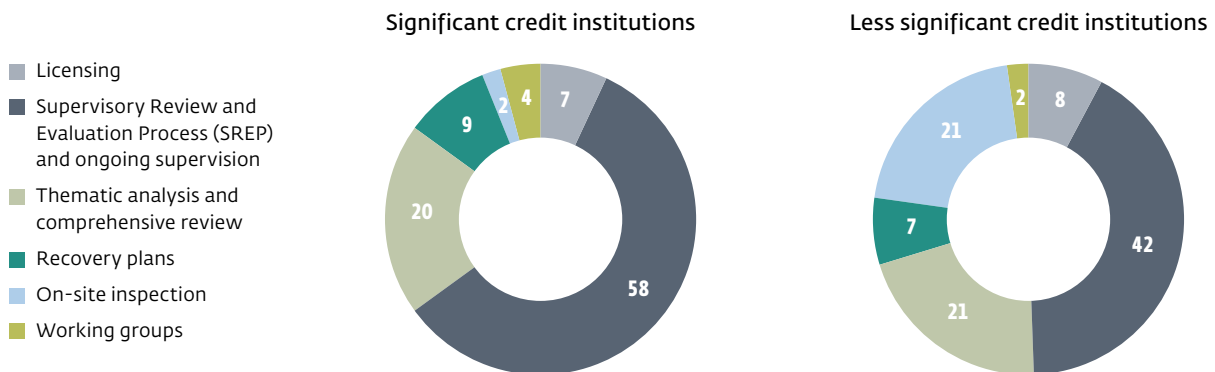
The CNB also continued to cooperate with ECB teams competent for monitoring the supervision of less significant credit institutions the objective of which is to ensure efficient and consistent supervision of these institutions in all Single Supervisory Mechanism member states.

The efforts of prudential supervision over the last year were directed at strengthening the resilience of credit institutions to macroeconomic and geopolitical shocks, digitalisation-related challenges and at steering credit institutions to undertake activities aimed at managing climate-related risks. In-depth analyses were conducted of credit risk management adjustments at the level of sector exposures and the level of sampled individual exposures in the context of adequate identification of business trends, determination of creditworthiness and recognition of negative elements that might affect the collective credit risk. The environment of rising interest rates required increased monitoring of interest-bearing positions and impacts on credit institutions' profitability.

A detailed analysis was conducted of the activities credit institutions had undertaken regarding climate-related risks at the level of less significant institutions. According to the areas that needed improvement credit institutions were issued individual recommendations. Based on the regular monthly and quarterly monitoring of key business indicators, the Supervisory Review and Evaluation Process, as well as on completed additional thematic analyses and assessment of the adequacy of the risk management system, including the new climate-related risk, and pursuant to on-site inspections 127 supervisory measures and recommendations were initiated in 2023 for credit institutions, aiming to eliminate identified deficiencies and, in some cases, illegalities in business operations. All credit institutions were covered by at least one of the six standard supervisory activities in 2023 (Figure 5.1).

The annual supervisory risk assessment for credit institutions was the central and most extensive supervisory activity and resulted in the determination of the capital requirements that credit institutions are obligated to maintain in 2024 to cover the risks to which they are or might be exposed. In 2023, prudential supervision covered all 20 institutions through the SREP process. No major concerns were identified at system level, and the level of capital requirements determined

FIGURE 5.1 Prudential supervision activities in 2023 by credit institution significance



Source: CNB.

by the SREP remained stable from the year before. The capital level maintained by credit institutions at system level remained satisfactory and above the set capital requirements.

This annual supervisory assessment also included the results of in-depth and thematic analyses, which, in addition to providing information on trends at banking system level, were used to formulate supervisory requirements for improvements that were put before credit institutions identified as displaying significant divergences, that is, that were recognised as outliers.

Credit risk management was monitored on an ongoing basis by analysing the quality of the loan portfolio and activities relating to the resolution of non-performing loans in the context of strategies implemented by credit institutions to reduce the level of these exposures. Semi-annual thematic analyses were carried out and developments in exposure to interest rate risk additionally monitored. The second phase of the analysis of individual segments of internal governance was carried out for all less significant credit institutions, as well as the analysis of compliance with supervisory recommendations in the part of climate-related risk management, which established the need for further improvements. The development dynamics of credit institutions' digital channels was also monitored, as well as the transition to digital operations, identifying intensive activities undertaken by significant credit institutions. The impact of potential Swiss franc borrower complaints regarding the operations of credit institutions and the adequacy of established systems for the management of this risk were monitored as well.

In cooperation with the ECB, prudential supervision employees participated in a joint on-site inspection of a significant credit institution, while they carried out their own inspection of target segments of risk and governance quality for three less significant credit institutions.

In 2023, a total of 45 requests for licensing were received, the majority of which were related to the licensing of candidates for membership in management boards and supervisory boards, mostly of less significant credit institutions.

In 2023, bankruptcy proceedings were initiated for one credit union, while for the remaining 16 credit unions regular three-monthly monitoring of legal restrictions was carried out on the basis of the data submitted, as was detailed prudential analysis within the framework of licensing of candidates for management boards, laying stress on credit risk management. In order to improve the existing legislative framework, special attention at the system level of credit unions was awarded to the analysis of deposit concentrations.

SPECIALIST SUPERVISION OF PREVENTION OF MONEY LAUNDERING AND TERRORIST FINANCING

The CNB checks whether the entities under its supervision implement the measures they are required to implement subject to the Act on the Prevention of Money Laundering and Terrorist Financing¹, aiming to prevent the use of the financial system for money laundering and terrorist financing (PMLTF). In addition, the CNB supervises whether the supervised entities apply international restrictive measures.

In all, six on-site inspections were carried out in 2023, with special attention being paid to the adequacy of risk management associated with criminal offences that represent a considerable threat of MLTF as identified by the National Risk Assessment of Money Laundering and Terrorist Financing in the RC. In accordance with the illegalities and irregularities established in the inspections, the CNB initiated nine supervisory measures with respect to supervised entities in 2023. MLTF risks were also analysed within the framework of licensing processes.

Assessment of the adequacy of the system and controls implemented by the supervised entities in order to apply international restrictive measures was at the centre of supervisory activities. Supervisory activities in 2023, as in 2022, were greatly influenced by the European Union introducing sanctions against Russia and Belarus.

In 2023, the CNB undertook important activities to further promote the understanding of the MLTF risks within the supervised sectors. Thematic training covering all supervised entities; regular annual interviews with selected entities and thematic interviews with several involved entities were held; and guidelines regarding the implementation of individual provisions of the Act on the Prevention of Money Laundering and Terrorist Financing were issued.

Cooperation with other national and international competent authorities, as well as participation in various forums of supervisors and in working groups for the coordination of activities of preventing MLTF, continued. In 2023, the CNB actively participated in the work of seven colleges for the prevention of MLTF in financial institutions active on a cross-border basis.

SPECIALIST ICT RISK SUPERVISION

The risk to cyber security has been growing uninterruptedly so digital operational resilience of credit institutions became one of the supervisory priorities of the Single Supervisory Mechanism. Therefore, ICT² supervision in 2023 focused on

¹ The acronym PMLTF is used for the prevention of money laundering and terrorist financing.

² The acronym ICT is used for information and communication technology.

this area by developing a new regulatory framework and carrying out off-site and on-site inspections. On-site inspections of ICT risk management were carried out in three banks, focusing on cyber security, business continuity management, and IT system and outsourcing management. Banks' compliance with the Decision on adequate information system management, which entered into force on 1 April 2023, was also evaluated as part of these inspections. As part of the Supervisory Review and Evaluation Process (SREP), supervisors assessed the ICT risk (the so-called IT SREP) at eight banks, which account for more than 90% of the banking system.

The CNB participated in the development of the detailed technical standards pursuant to the Digital Operational Resilience Act (DORA), which is to be applied as of the beginning of 2025, and which governs requirements on ICT risk management, ICT-related incident management, arrangements with service providers and digital resilience testing. In addition to participating in the work of the Single Supervisory Mechanism, the CNB also participated in the work of several European and Croatian working groups on ICT risks, ICT-related incidents and crises.

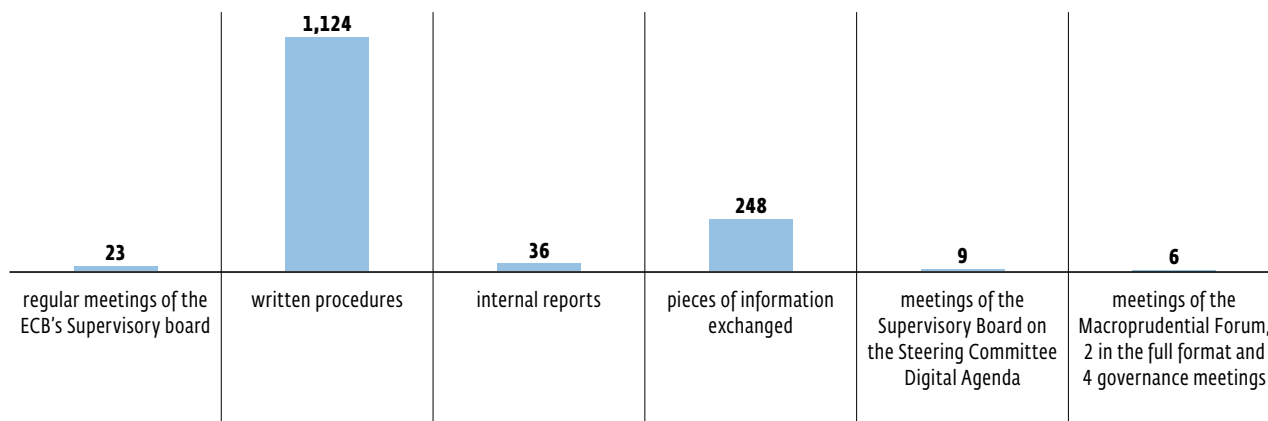
No incidents jeopardising the security of credit institutions' information systems were registered in 2023, as well as no major interruptions in the provision of key services, which bears witness to the effectiveness of the existing regulatory and supervisory framework and the preparedness of the institutions for possible unwanted events.

PRUDENTIAL COORDINATION

The introduction of the euro changed the manner in which the CNB functions in the Single Supervisory Mechanism. The decisions of the ECB became directly binding for significant credit institutions in Croatia and the ECB took over the task of notifying banks of these decisions. This enabled the Office for Coordination of Prudential Supervision, Oversight and Risk Management Activities to direct its activities in 2023 to key areas encompassing the preparations for the participation of vice-governors in the Supervisory Board and other bodies of the ECB's Supervisory Board, the coordination of the supervision and oversight activities and development of guidelines for supervisory training within the framework of the working groups of the Single Supervisory Mechanism.

In addition, the Office took over tasks related to the participation of the Governor in the activities of the Governing Council in matters of supervision and of the Macroprudential Forum, as well as the monitoring and exchange of information on written procedures of the Governing Council in the field of supervision. In 2023, the CNB, for the first time, participated in the Macroprudential Forum which pairs microprudential and macroprudential perspectives with the participation of all members of the Supervisory Board and the Governing Council, as

FIGURE 5.2 The tasks of the secretariat for the ECB's Supervisory Board performed by the CNB Office for Coordination

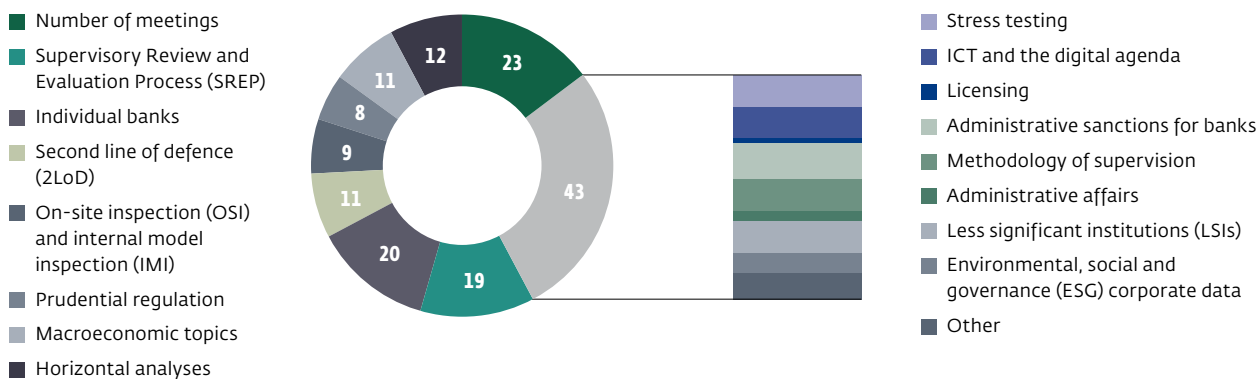


Source: CNB.

well as in the work of the Governing Council, which sets the tone and provides guidelines in the work of the ECB's Supervisory Board.

Thanks to the trust earned within the short period since close cooperation was begun, the Office was entrusted with the heading of a multi-disciplinary CNB and ECB team which successfully organised an ECB Supervisory Board meeting in Croatia. As part of the network of coordinators of the Single Supervisory Mechanism, the Office held numerous bilateral meetings and for the first time since the end of the COVID-19 pandemic organised a meeting of all coordinators of the Single Supervisory Mechanism in Croatia. The meetings were used to discuss current topics relevant for supervision, such as the results and the recommendations of the Supervisory Review and Evaluation Process (SREP), the findings of stress testing conducted by the European Central Bank and the European Banking

FIGURE 5.3 Topics of the ECB's Supervisory Board meetings



Source: CNB.

Authority, supervisory cooperation and the decision-making process, and horizontal issues.

During 2023, 23 meetings of ECB's Supervisory Board were held, during which about 120 individual topics were discussed, the most important being those on the consequences of the crisis in the US banking market in the spring of 2023 and lessons learned, the improvement of the SREP methodology, crisis management, developments in the real estate market, climate risks and digitalisation. Second line of defence (2LoD), the horizontal function that conducts a form of process and methodology quality control, played an important role.

The standard operational activities of the Office for Coordination encompassed the organisation of high-level meetings between supervisory organisation units and the ECB, the provision of support regarding the issues of the functioning of the SSM, work flow and decision-making processes, the role of ambassadors of the Supervisors Connect programme and participation in the annual procedure of identifying significant credit institutions.

Some of the Office's resources were directed towards the strategic issues of the training of supervisors and integration into the Single Supervisory Mechanism. New training programmes were established for all supervisors so the CNB joined six expert groups and the multidisciplinary training programme of the Single Supervisory Mechanism, the SSM Foundation. In addition, plans for the marking of the ten-year anniversary of the Single Supervisory Mechanism in 2024 were drafted and approved, via the programme 2024 Integration Year. The Office was the body in charge of activities combining training in the fields of climate change and bio-diversity, which was completed successfully by all supervision employees in the first quarter of 2023.

During the year, the Office cooperated with other supervisory authorities in Croatia and the region, coordinated the exchange of supervisory information, bilateral meetings, technical support in the relevant supervisory areas and the updating of cooperation agreements. Cooperation was established with the ECB's team competent for the direct provision of services and notification of subsidiaries and 49 single passport notifications were received for the provision of services by other banks in Croatia and three notifications of Croatian banks for the provision of services in other member states.

2

Activities related to the establishment of the Office for the supervision of entities engaged in the sale of non-performing loans

The CNB worked intensively on the establishment of a new office within its supervisory portfolio in order to prepare for the implementation of the Act on the manner, conditions and procedure for the servicing and sale of claims (hereinafter: Act) pursuant to which the CNB assumes the role of regulator of credit servicers. In doing so the CNB protects the interests of debtors subject to this Act and contributes to preserving the confidence in the financial market.

THE REGULATORY FRAMEWORK FOR NON-PERFORMING LOANS AND THE WORK PLAN OF THE OFFICE

In 2023, the CNB participated in the development of the Act on the manner, conditions and procedure for the servicing and sale of claims the aim of which is to govern the sale and purchase, and the servicing of claims of debtors that are sold to agencies specialised in collecting claims. The said Act transposes Directive (EU) 2021/2167 of the European Parliament and of the Council of 24 November 2021 on credit servicers and credit purchasers into the Croatian legal system. The Act entered into force on 30 December 2023 with the primary objective of protecting debtors and establishing a relationship of mutual respect and civility between debt servicers and debtors. The Act obligates debt servicers to adhere to the principles of equality, fair and professional conduct and prohibits unfair business practices and inappropriate communication with debtors and others. Within the framework of its competence the CNB will monitor its implementation in this context.

Simultaneously with participating in the working group for the preparation of this Act, the CNB also invested intensive efforts in organisational and operational preparations in order to ensure that at the moment when the Act enters into force it is ready to actively engage in all tasks within its competence under the law. A new organisation unit, the Office for the supervision of entities engaged in the sale of non-performing loans, was established within the supervisory portfolio, the strategic objective of which was to preserve financial stability. The initial tasks of the newly established office are the adoption of subordinate legislation pursuant to the adopted Act, that is, of the Decision on conducting oversight and imposing supervisory measures in connection with the provision of credit servicing, the Decision on authorisation of credit servicers, Decision on the content and the manner of notifying the CNB in the event of the purchase and sale of non-performing loans, Decision on the content of procedures for debtor complaint resolution and the Decision on the register of authorised debt servicers and the manner of submitting notifications concerning cross-border operation. All of the decisions listed above were adopted at the beginning of 2024.

Within its field of competence, the Office will carry out activities relating to the collection and processing of debtor complaints, granting authorisations to debt servicers and the establishment and maintenance of the national register of debt servicers.

The work plan of the Office was adopted according to the strategic objectives and encompasses a wide spectrum of activities directed at debtors within the field of their protection as provided pursuant to the Act, the oversight of the operation of debt services and cooperation with other competent authorities.

6

Resolution

In 2023, the participation of the Croatian National Bank in the Single Resolution Mechanism was marked by the preparation for the assessment of the feasibility of bank resolution plans and the development of the new multi-annual work strategy of the Single Resolution Board. As a result of the previously mentioned activities, the feasibility of resolution plans of our banks was assessed as satisfactory, with the greatest improvement being observed in the segment of the building up of own loss absorbing and recapitalisation capacity. Regulatory activities were marked by two events – the proposal of the legal framework for crisis management and deposit insurance (CMDI) in April and amendments to the Act on the Resolution of Credit Institutions and Investment Firms in the second half of the year.

OPERATING WITHIN THE SINGLE RESOLUTION MECHANISM

The third year of the participation of the Croatian National Bank in the Single Resolution Mechanism was marked by the preparations for the end of the year, that is for 31 December 2023, when it was planned that national resolution authorities headed by the Single Resolution Board would carry out the assessment of the feasibility of bank resolution plans.

Namely, late in 2020 the Single Resolution Board adopted a Multi-Annual Programme 2021–2023 putting an important objective before all national resolution authorities and all banks within its direct competence: the achievement of bank resolvability by 1 January 2024 ('All banks must be resolvable'). In order to achieve the said objective banks were required to undertake a series of activities directed at satisfying one of seven dimensions of resolvability¹ set by the Single Resolution Board for this purpose; the final deadline for completing these activities was 31 December 2023.

In the mentioned period, Croatian banks invested huge efforts in completing the required activities and achieved a satisfactory level of resolvability in 2023 satisfying the Single Resolution Board and the Croatian National Bank, the national resolution authority, with their progress.

Since the term of the Multi-Annual Programme 2023–2023 expired at the end of 2023, the Single Resolution Board and the national resolution authorities were hard at work in 2023 at developing their new multi-annual work strategy. As a result of these efforts, the Single Resolution Board announced the new work programme for the following four years entitled *SRM Vision 2028* at the beginning of 2024.

Pursuant to this new strategy the Single Resolution Board and national resolution authorities will shift the focus of their activity from key elements of resolution planning and preparation to their operational employment and testing. This will ensure that each plan and preferred resolution strategy can be implemented at short notice, making the entire Single Resolution Mechanism even more crisis-ready and resilient.

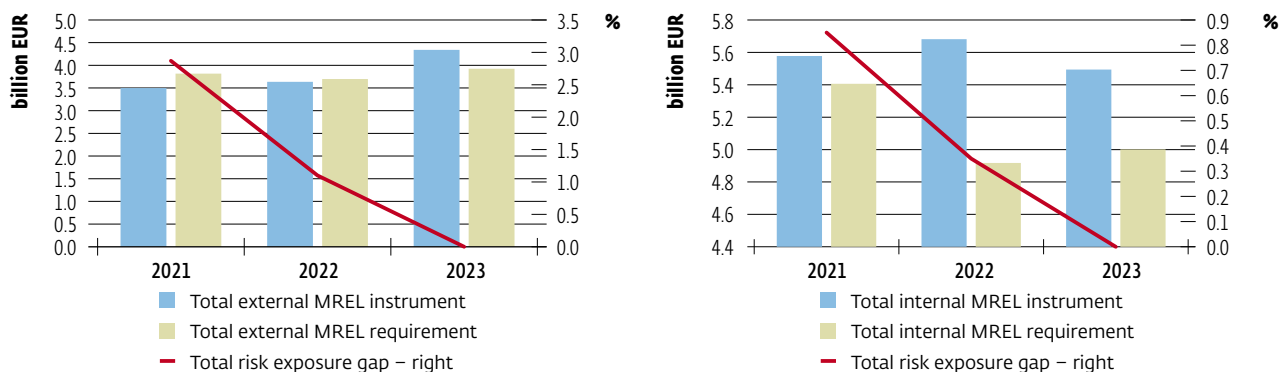
Despite the whole-year focus on strategic activities, the regular updating of resolution plans for Croatian banks was successfully completed in cooperation with the colleagues from the Single Resolution Board and other national resolution authorities.

¹ These dimensions are as follows: 1) governance, 2) loss absorbing and recapitalisation capacity, 3) liquidity and funding in resolution, 4) operational continuity in resolution and access to financial market infrastructure services, 5) information systems and data requirements, 6) communication and 7) separability and restructuring.

BUILDING UP LOSS ABSORBING AND RECAPITALISATION CAPACITY

One of the more important dimensions of resolvability is building up loss-absorbing and recapitalisation capacity, that is, ensuring the operational continuity of an institution that is facing serious financial difficulties. Croatian banks whose resolution, that is, operational continuity, is planned in their resolution plans when faced with such situations, were first made formally subject to requirements for building up their loss absorbing and recapitalisation capacity, the so-called, minimum requirement for own funds and eligible liabilities (MREL) in the course of 2021. In the transitional period until the end of 2023 banks were required to gradually build up sufficient MREL capacity to meet the final MREL requirement on 1 January 2024¹. And while some banks had sufficient instruments that met the requirements to be recognised as MREL instruments from the very beginning, this new regulatory requirement imposed on some banks the need to step up their activity in the capital markets. Some made a successful debut as issuers in the international market, which required them to previously obtain assessments of their credit ratings from internationally recognised rating agencies. The progress towards meeting the final MREL requirement, from the imposition of the first official binding MREL requirement to the end of the transition period is illustrated in the following infographics.

FIGURE 6.1 Progress towards meeting the final external and internal MREL requirement



Note: MREL is a minimum requirement for own funds and eligible liabilities.

Source: CNB.

When the transitional period expired, the Croatian banks for which the resolution plan envisages resolution, that is, the ensuring of their business continuity in the event of serious financial problems, built up sufficient loss-absorbing and recapitalisation capacity, and met their MREL requirements as at 1 January 2024. In addition, banks are required to permanently ensure sufficient MREL capacity

¹ A distinction is made between banks who as resolution entities had to meet sufficient MREL directly in the market (the so-called external MREL) and banks that are group members and are not resolution entities, who obtained their MREL capacity from their parent resolution entities (the so-called internal MREL).

in accordance with the defined MREL requirement, which is reassessed and officially imposed on an annual basis.

AMENDMENTS TO THE LEGISLATIVE FRAMEWORK

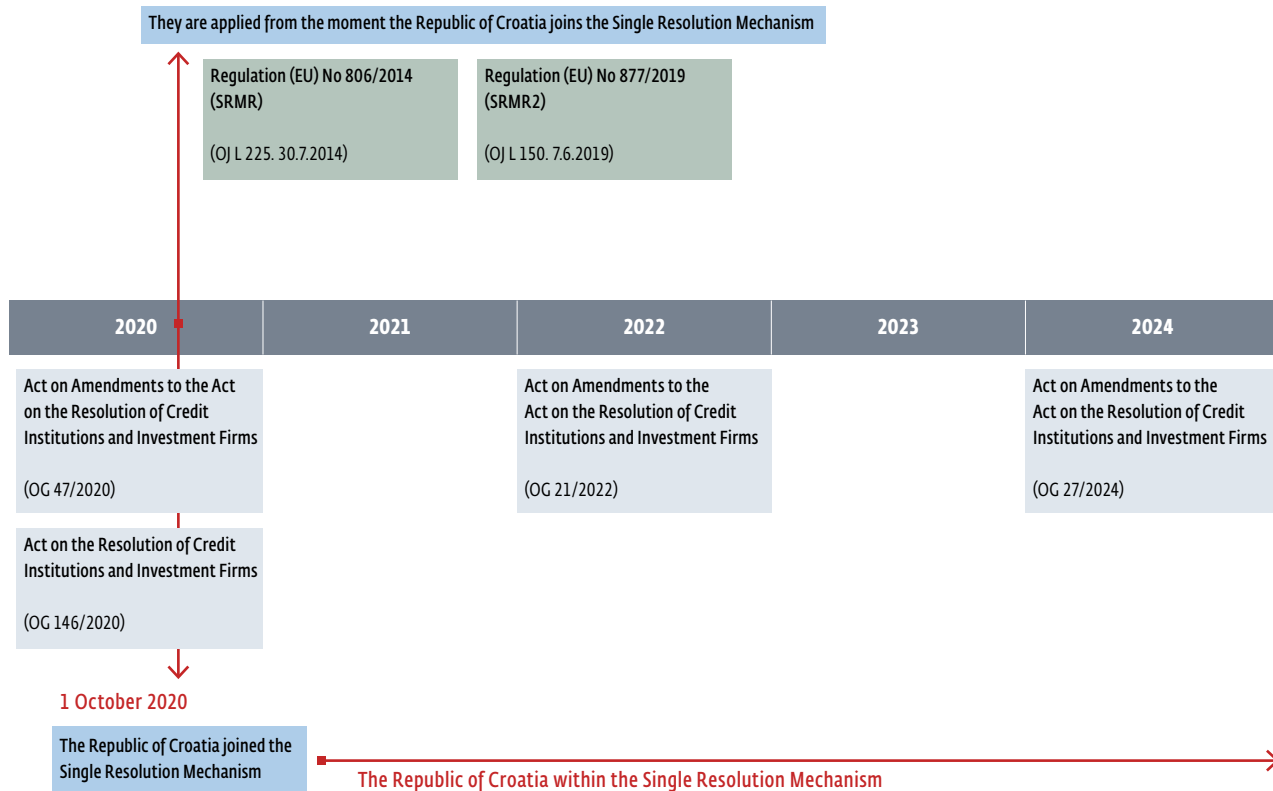
The European and the global banking markets in 2023 were marked by numerous bank failures, such as that of the European Credit Suisse and the American Silicon Valley Bank, which spurred regulatory authorities across the world, as well as the entire banking industry, to re-examine the suitability of the existing bank resolution framework. In consequence of the said review, on 18 April 2023 the European Commission publicly announced a package of proposals to amend the European Union bank crisis management and deposit insurance (CMDI) framework, which entailed amending Directive 2014/59/EU¹ (Bank Recovery and Resolution Directive, BRRD), Regulation (EU) 806/2014² (Single Resolution Mechanism Regulation, SRMR), Directive 2014/59/EU³ (Deposit Guarantee Schemes Directive, DGSD) and Regulation (EU) 2022/2036 (Regulation on so-called chain structures, that is, indirect subscription structures).

The European Commission strives to introduce a more consistent approach to resolution by reforming the crisis management and deposit insurance framework so that every bank facing a crisis may exit the market in an orderly manner, preserving financial stability, taxpayers' funds and depositors' confidence in the process. The main purpose of the envisaged amendments is to improve resolution funding (primarily by utilising the funds of the Single Resolution Fund and, where necessary, resources of the deposit guarantee scheme) aiming to protect depositors. However, it was stressed that the internal loss-absorbing capacities should remain the first line of defence. The proposal is aimed at ensuring that crisis management measures can also be applied to distressed small and medium-sized banks where this is more efficient in reaching the objectives of preserving financial stability and protecting taxpayers' funds.

Experts from the Croatian National Bank participated in a series of meetings that were held at the national and the European level in the period after the CMDI proposal was announced. The legislative process in connection with the proposal is

- ¹ Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012 of the European Parliament and of the Council (OJ L 173, 12.6.2014)
- ² Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No. 1093/2010 (OJ L 225, 30.7.2014)
- ³ Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (OJ L 173, 12.6.2014)

FIGURE 6.2 Development of the resolution regulatory framework from the moment of joining the Single Resolution Mechanism



Source: CNB.

currently under way in the European Parliament and the EU Council, except for the part of the proposal relating to the amendments of the Regulation on the so-called chain structures, regarding which an agreement was reached between the European Parliament and the EU Council in December 2023.

In accordance with the obligation of continued legislative alignment of the legislation of the Republic of Croatia with the EU acquis, in 2023 amendments were adopted to the Act on the Resolution of Credit Institutions and Investment Firms (Official Gazette 146/2020 and 21/2022) for the purpose of its alignment with amendments to the BRRD pursuant to the Regulation on so-called daisy chain structures and Directive (EU) 2022/2556 on Digital Operational Resilience Act, DORA).

The Croatian Parliament adopted the **Act on Amendments to the Act on the Resolution of Credit Institutions and Investment Firms** ¹ (Official Gazette 27/2024) at its session on 28 February 2024.

LINK NO ¹



7

Business operations of credit institutions

In 2023, the high capitalisation and ample liquidity of the banking system in the RC were paired with a strong growth in profitability.

SYSTEM STRUCTURE

At the end of the year, there were 20 credit institutions operating in Croatia (19 banks and one housing savings bank) but during the year Hrvatska poštanska banka merged with Nova hrvatska banka.¹ In addition, there was one branch of an EU credit institution operating in the country, BKS Bank AG, Main Branch Croatia, while more than 250 institutions from the EU and the European Economic Area had notified the CNB of their intentions regarding **the direct provision of mutually recognised services in the territory of the Republic of Croatia** . This merger affected the structural characteristics of ownership. Although the said merger reduced the number of credit institution in majority state ownership from three to two, the share of their assets in total bank assets increased noticeably – from 8.0% to 9.3%. In addition, the share of credit institutions in the majority ownership of foreign shareholders went down slightly, but remained dominant (87.4% of total banking system assets)


PERFORMANCE INDICATORS OF CREDIT INSTITUTIONS

Total banking system assets increased by EUR 2.6bn in 2023 (3.5%) to a record total of EUR 78.6bn.²

Financing sources increased as a result of the acceptance of deposits, although deposits were under downward pressure after the conversion of the kuna to the euro at the beginning of the year and due to investments (primarily of households) in government securities. All sectors save the financial sector grew. In contrast to the previous year, deposits in current accounts went down, while the largest share of the increase in deposits was related to deposits with agreed maturities – both developments were a result of the growth in bank interest rates on time deposits (primarily deposits of non-financial corporations and at the end of the year on those of households), motivating depositors to opt for fixed-term deposits.

On the assets side loans increased by EUR 2.8bn (6.6%), which is more than the growth of total assets, and the difference refers to the reduction in the cash of credit institutions. The predominant share of the lending activity was directed at households and was practically entirely related to housing loans but also to general-purpose cash loans (which started growing again at a more significant rate after the pandemic). The growth of the rest of the loan portfolio was related to financial institutions and non-financial corporations, while banks financed the government by investing in government bonds.

¹ The merger was completed on 3 July 2023.

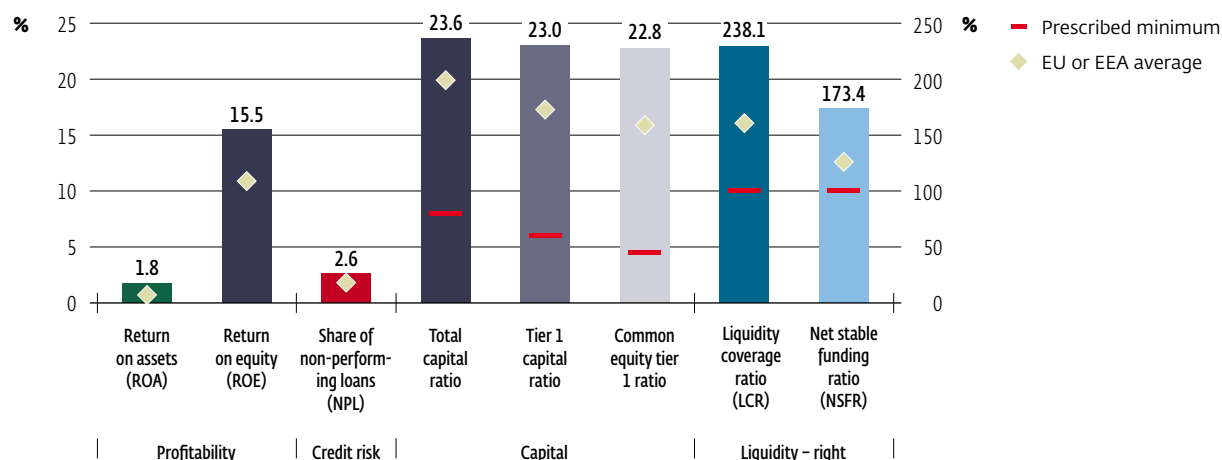
² This was the lowest growth rate in the last five years. However, it needs to be taken into consideration that 2022 saw a considerable rise in the balance sheet due to preparations for the introduction of the euro. See chapter 7 of the CNB's [Annual Report for 2022](#) .

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FIGURE 7.1 Key banking system indicators, as at 31 December 2023

Sources: CNB and EBA¹.

The asset quality of credit institutions continued improving. The uninterrupted decline in non-performing loans paired with the increase in total loans led to a continued decline in the share of NPLs in total loans to 2.6%, which was still less favourable than the EU average (1.8%). The decline in NPLs predominantly reflected their decrease in the portfolio of loans to non-financial corporations, and, at a slightly slower pace, in the portfolio of household loans, so the shares of NPLs in these sectors continued to improve (reaching 5.1% and 4.2% respectively).

The positive development in the non-performing share of the credit portfolio is contrasted with the situation in the performing share of the credit portfolio that is still not in default. The level of credit risk in this share of the portfolio is still higher than before the period of the COVID-19 pandemic and even grew in 2023. This was primarily affected by increased risk in the portfolio of loans to non-financial corporations, especially in the energy supply activity.

The said decrease in cash, resulting primarily from the decrease in funds in the settlement accounts with the CNB only slightly adversely affected the system liquidity indicators, which remained very high. The liquidity coverage ratio was 238.1%, much above the prescribed minimum of 100%. Structural liquidity measured by the Net Stable Funding Ratio averaged 173.4% since the requirements for stable funding sources in the light of the increase in loans are predominantly supported by the increase in deposits of households and non-financial corporations.

The change in the manner in which this liquidity surplus is used had a much more important effect than the reduction in cash funds. Namely, in 2023 banks


¹ Data on EU and EEA bank averages refer to the end of September 2023.

regularly made use of the CNB's overnight deposit facility for funds in the settlement account.¹ At the end of the year, almost the entire amount of funds in the account with the CNB was used in the overnight deposit facility, equalling 21% of the total assets of credit institutions, which had a key influence on system profitability.

Banking system profits almost doubled from 2022 – credit institutions generated a record EUR 1.4bn, which translates to an annual growth rate of 91.7%. This raised the value of profitability indicators to very high levels – the return on assets (ROA) totalled 1.8% and the return on equity ROE 15.5%. The greatest impact on the increase in profit came from the strong growth in interest income after more than a decade of continued decline. The greatest individual impact on the growth of interest income came from the said overnight deposits with the CNB. However, credit institutions managed to increase their interest income from other sources as well. The growth in deposit interest rates and the attraction of deposits led to a rise in interest expenses. However, it lagged considerably behind the growth in interest income, which ultimately resulted in a high growth of net interest income (63.3%).

Other types of income did not materially impact business results: net income from fees and commissions increased only slightly, while other non-interest income decreased, primarily as a consequence of the introduction of the euro and the consequently lower income from foreign exchange trading. General operating expenses increased as well, but at a much slower rate than total operating income, consequently improving the cost efficiency of the banking system.

Banking system capitalisation remained high, although the total capital ratio went down from 24.8% to 23.6%. This decline was primarily a result of dividend payouts from retained earnings (which reduced regulatory capital) and the mentioned lending activities (which increased risk exposure). The reduction in capital available to cover unexpected losses was additionally affected by the fact that credit institutions started setting aside capital to finance the countercyclical capital buffer.² However, the said capital ratio remained among the highest among EU member states, while nine credit institutions, which accounted for three quarters of the total system assets, boosted the total capital rate higher than 20%.

- 1 Overnight deposit is a category of standing facility offered within the scope of Eurosystem monetary policy operations, the access to which is enabled by the CNB in line with the objectives and the general stance of the ECB's monetary policy. The overnight deposit is subject to a previously set interest rate regularly determined by the Governing Council of the ECB. At the end of December 2023 the applied rate was 4.00% (Source: ECB .
- 2 Since March 2023, the countercyclical capital buffer rate applicable in the territory of the RC is 0.5% of the total amount of risk exposure, up from 0%.

LINK NO 

8


Statistics

In 2023, regular reporting of the European Central Bank on the new sets of statistical indicators developed over the past few years was established, with the aim of full integration of the CNB's statistical function into the Eurosystem. In addition, historical series of statistical indicators, now expressed in the new reporting currency, the euro, are published on the CNB website and delivered to the European Central Bank and the Statistical Office of the European Union (Eurostat). At the end of the year, the set of statistical releases with comments on selected statistical indicators was widened as well, these releases now covering all the main sets of statistical indicators regularly published by the CNB.

THE ECB'S STATISTICAL FUNCTION

As the second most important producer of official statistics of the Republic of Croatia, next to the Croatian Bureau of Statistics, the Croatian National Bank makes continuous efforts to improve the methods for data collection and processing, as well as for calculation and presentation of statistical indicators based on these data. All activities during 2023 were aimed at completing the full integration of CNB statistics into Eurosystem statistics. This process mostly took place during the first half of 2023 through the national publication and delivery to the ECB and Eurostat of completely new, as well as expanded and audited, sets of statistical indicators, now expressed for the first time in the new reporting currency, the euro, with the inclusion of the Republic of Croatia in a geographical sense in the euro area.

NEW AND IMPROVED STATISTICAL INDICATORS AND REPORTS

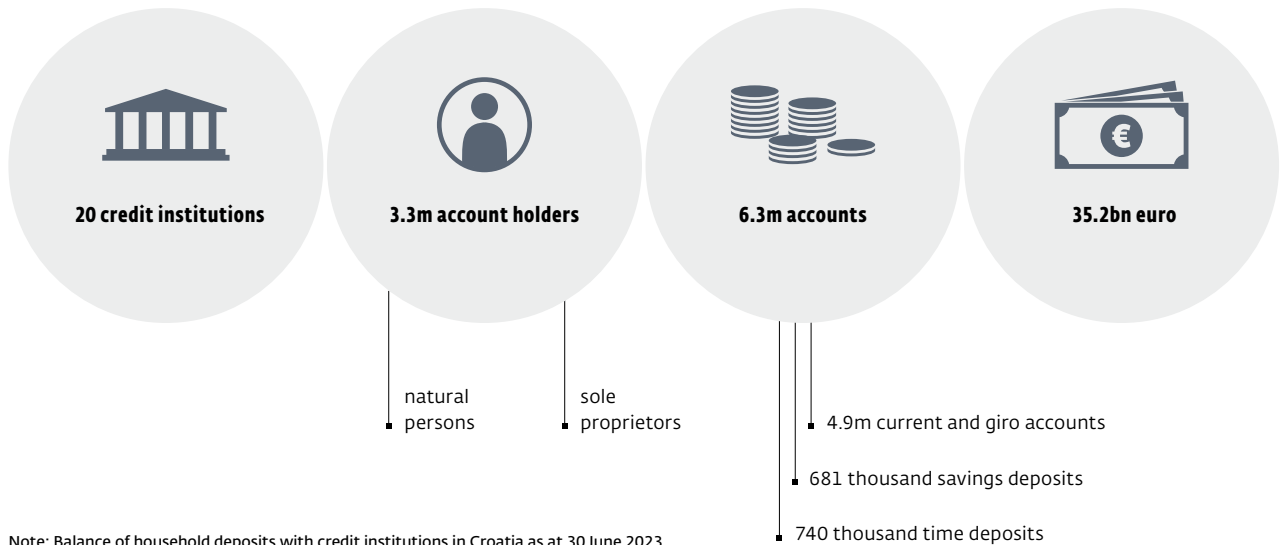
In January 2023, the CNB started publishing statistical indicators and reports in the euro. In its first such publication of a set of indicators, the CNB recalculated all previously published historical indicator values from the kuna to the euro, applying the fixed conversion rate of HRK 7.53450 for one euro. In the first half of 2023, it published statistical indicators in both currencies for dates and periods prior to 1 January 2023. As soon as the last data were published relating to dates and periods prior to 2023 for a certain set of indicators, this set of historical data was **archived**  and made available to the expert and the general public for the purpose of economic analyses of historic events.

AnaCredit, a detailed register on individual loans and credit risk, was completed and became operational. The register stores details of credit relationships made between credit institutions and their clients that are legal persons and includes information on individual loans and credit risk. It is very important that the content and format are harmonised in all euro area member states. The collection of additional detailed data started in line with the Recommendation of the European Systemic Risk Board on closing real estate data gaps (ESRB/2016/14), These data relate to the subset of loans from *AnaCredit* reports connected to the financing of the acquisition of commercial real estate or for which the creditor obtained collateral in the form of real estate.

The inclusion of statistical indicators regarding business activities of insurance companies and pension funds significantly improved the existing statistics of the financial sector, which was thus far oriented only to credit institutions. These indicators are connected to other statistical data from the scope of activities within the CNB's competence, that is, from the scope of the ESCB statistics, thus contributing to better comparability of related datasets. At the same time, the reporting burden was reduced as some of the national reporting requirements were eliminated.

LINK NO 



FIGURE 8.1 Challenges of collecting individual data on household deposits

Note: Balance of household deposits with credit institutions in Croatia as at 30 June 2023.
Source: CNB.

In addition, individual data started to be collected on deposits of the household sector (natural persons and craftsmen) with credit institutions. As a reminder, the monetary statistics data on retail deposits were thus far gathered collectively so it was necessary to establish a new system that will at the same time protect the personal data of citizens and enable the completion of the following important tasks: 1) monitoring of financial developments and assessment of systemic risks to financial stability and taking decisions on macroprudential policy measures, 2) participating in the defining and implementation of the EU monetary policy, and 3) calculating statistical indicators of financial wealth distribution for the institutional sector of households. The CNB published a preliminary release relating precisely to the calculation of the first **indicators of the financial wealth distribution** ¹ for the institutional sector households based on the data.

Following the years-long efforts invested in harmonising external statistical indicators with indicators of government finance statistics and of financial accounts statistics, the difference among the comparable values of these sets of indicators for three separate thematic fields was reduced to a minimum.

DEVELOPMENT OF NEW STATISTICAL DATA AND RELEASES

LINK NO ¹



The CNB continued publishing statistical releases with comments on selected statistical indicators. The statistical releases provide a quarterly analysis of the current debt developments, financial assets and liabilities of the institutional sectors of the Croatian economy and interest rates of credit institutions. Since the last quarter of 2023, the set has been expanded by two new statistical releases:

the release on the publication of statistical indicators of monetary developments (loans and deposits of credit institutions in Croatia) and the release on the publication of the balance of payments indicators (foreign trade) and internal investment position. As a result, statistical **releases 1** cover all major sets of statistical data regularly published by the CNB.

As part of the international investment position statistics, a method was developed to assess non-residents' investments in real estate in Croatia. This assessment builds on the data of the Tax Administration relating to the sale and purchase of real estate in the territory of the Republic of Croatia by non-residents and the official index of real estate price growth of the Croatian Bureau of Statistics.

In 2023, the CNB joined the implementation of a joint EU project entitled IReF (Integrated Reporting Framework) with the objective of preparing, in the short term, and realising, in the medium term, a harmonised and integrated system for collecting statistical, prudential and resolution data of credit institutions with registered offices in the EU. In the first phase the project's objective is the integration of the already existing ECB statistical requirements for credit institutions, that is, those reporting requirements connected to their balance sheets, interest rates, investments in securities and loans granted to legal persons. The key benefits that this initiative will yield are the standardisation of reporting requirements, avoidance of redundancies, reduction of the burden on reporting institutions and an increase in the quality of collected data.

As regards the CNB's strategic objective in 2024 of commitment to sustainable development, it is foreseen that intensive efforts will be invested in the development of the climate change statistic at the level of the European System of Central Banks, more specifically in the calculation of new climate-related statistical indicators, as well as in increasingly more active involvement in the development of climate-related indicators within the framework of ESCB working groups. Since climate changes are a pressing issue both for the general public and within the framework of central banking, a much wider scope of coverage of climate-related indicators is being developed for public disclosure and for the ESCB's internal use, and the adoption of new and amendments to the existing ECB regulations will constitute a necessary precondition for the achievement of this objective.

CONTINUED SURVEY EFFORTS

In 2023, CNB started conducting **the Household Finance and Consumption Survey 2**, in the context of the so-called "fifth wave" of this research at EU level. This survey enables economic policy makers and the academic community to better understand the impact of financial shocks and the effects of economic and other policies on certain groups of households in certain countries, as well as

LINK NO **1**



LINK NO **2**



at the euro area and the EU level. This is the third Survey conducted by the CNB, which is normally administered every three years due to its methodological and technical complexity. **The results of the 2017 and 2020 surveys ❶** are published on the CNB's website.

LINK NO ❶



The CNB also started conducting **the euro area bank lending survey ❷**. The survey is conducted in all euro area member states in line with the ECB's uniform methodology. Although there are certain methodological differences, the new survey builds on the same data content as the Bank lending survey the CNB conducted until Croatia joined the euro area. The objective of the survey is to obtain an insight into the changes to the lending standards and conditions of commercial banks and changes in the demand for loans in Croatia over time. The results of the survey serve as support in the making of monetary policy decisions while publication makes them available to the business community and the general public.

LINK NO ❷



9

Research

When Croatia joined the Eurosystem the importance of preparing analytical bases for the pursuit of the monetary policy, macroprudential policy and other central bank activities increased. As a result, the CNB's research and analytical activities in 2023 were directed at analysing the causes and consequences of high inflation, transmission of the joint monetary policy and an analysis of the banks' stability and lending policies.

RESEARCH OBJECTIVES OF THE CNB

The Croatian National Bank conducts research primarily for the purpose of supporting the fulfilment of its objectives and tasks. The bulk of the research focuses on monetary policy implementation, financial stability, supervision and payment operations. Research results are published in analytical articles in regular and occasional CNB publications, scientific journals and other professional and scientific publications, the HNBlog, and presentations at professional conferences and meetings. The conclusions obtained are integrated into the presentations of members of the CNB management, official announcements and regular publications.

RESEARCH AREAS IN 2023

The importance of quality research and analytical bases grew in importance when Croatia joined the Eurosystem and started participating in the joint management of monetary policy. At the same time, the change in the monetary policy framework redirected the priority research questions from focusing on external factors such as the exchange rate and capital flows to the direct transmission of the joint monetary policy to economic activity and prices. On the other hand, the high inflation observed over the previous year directed the efforts of analysts towards improving their understanding of the causes and consequences of high inflation in Croatia. The CNB continued researching other areas as well, especially issues related to financial stability and the banking sector, the real sector and public finances, with climate-related issues also gradually moving into focus.

LINK NO 1



Understanding the causes of high inflation was the priority focus of the CNB's research activities. Although the increase in prices was primarily spurred by external shocks, the possible domestic causes of inflation came to the foreground. Primarily, it was necessary to explore whether the introduction of the euro was contributing/had contributed to the growth in prices. The analyses based on micro data on prices of individual products indicated that **the impact of the introduction of the euro on prices was relatively mild 1**, with the changeover to the euro in Croatia being accompanied by the decline in consumer perception and expectation of inflation.. In addition, the visible increase in the share of corporate profit in the overall domestic income raised the issue of the extent to which market structures were affecting prices. Research showed that **profits were rising sharply even with stable markups 2** amid the increasing prices of energy, raw materials and intermediary goods. Finally, the research **of the impacts of mandated price ceilings relating to dairy products 3** revealed that the freezing of prices reduced prices without creating shortages while having a minimum impact on total inflation but a higher favourable impact on lower income households.

LINK NO 2



LINK NO 3



The impacts of high inflation on financial stability and public finances were analysed as well. The analysis of the **impact of inflation on households and their**

ability to repay their debts ❶ showed that the prices of food grew the most, which fell the hardest on households in the lower part of the income distribution that spend the most of their income on food. However, indebtedness was higher mostly in households in the higher part of the income distributions which were slightly less impacted by the increase in the prices of food so this did not have a more significant effect on financial stability. At the same time however **the impact of inflation on public finances ❷** is a bit more complex. The increase in inflation leads to the improvement of public finances in the short term due to the growth in the tax base and postponed adjustment of public spending to inflation, while the medium-term effect will probably be negative due to the subsequent higher growth in government expenses than in tax income.

The second priority issue was related to the membership in the Eurosystem which poses new challenges to the CNB as regards the better understanding of the direct impact of the joint monetary policy on the Croatian economy. Research shows that **the increase in key ECB interest rates is leading to the rise in interest rates ❸** on loans and deposits in Croatia but with a weak pass-through in comparison with other countries of the euro area, which can be attributed to one-off and structural factors, such as the fall in the risk premia and the rise in excess liquidity due to the introduction of the euro. An additional analysis of the regional effects of the monetary policy indicates the dominant influence of symmetric shocks and regional heterogeneity in responses to ECB's policies.

Apart from the transfer of interest rates, the important impact on economic activity and prices also stems from loan supply shocks from commercial banks. Research into the isolated **impact of loan supply shocks ❹** shows that unfavourable loan supply shocks lead to an increase in prices at corporate level due to higher financing costs. However, the aggregate effects of monetary policy tightening lead to a reduction in prices due to the dominant impact of interest rate growth on the decline in aggregate demand.

The CNB continuously analyses and develops a risk assessment system for financial stability, which was strongly influenced by price growth and the tightening of financing conditions in the past year. In addition, other specific issues closely linked to financial stability were analysed as well. In order to gain an insight into the possible effects of deteriorated macrofinancial conditions on banks, developments in the exposure of the financial system to potentially risky companies were analysed, as well as to those **undergoing bankruptcy proceedings ❺**. Research was launched regarding the transitional climate risk to which Croatian banks are exposed by lending to energy-intensive companies, and an analysis was made of key determinants that enable **the monitoring of the risk of a decline in prices on the real estate market ❻**. Finally, as part of monitoring the risk banks are exposed to, the impacts of changes in their environment were analysed, such as **the introduction of the euro ❼**, monetary policy tightening, one-off changes to the excess profit tax, **the impact of regulatory changes on bank yields ❸**, **capital requirements in the prudential and resolution regulatory framework ❹** and **the**

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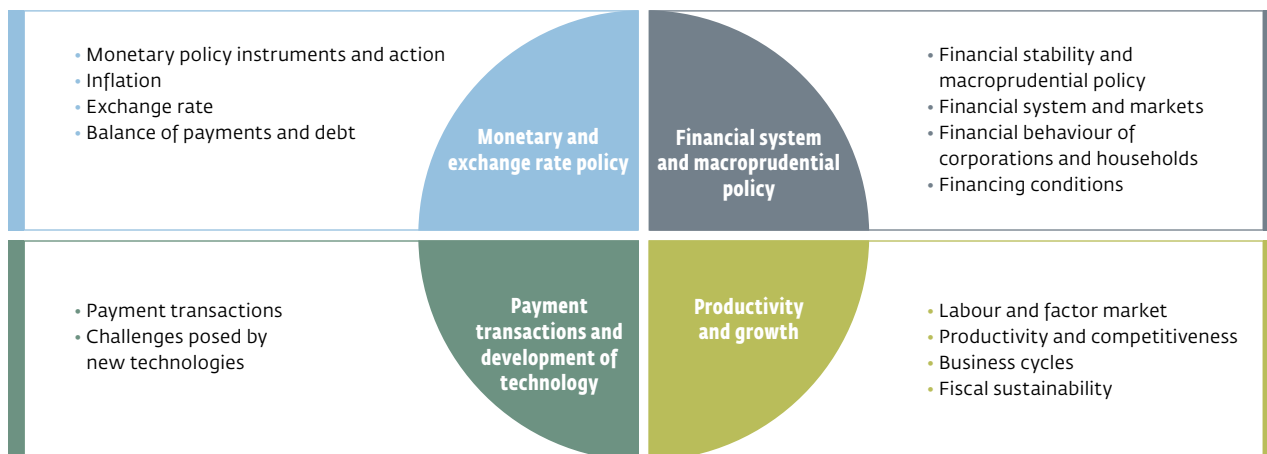


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FIGURE 9.1 Research areas of the CNB

Source: Croatian National Bank Research Priorities Programme ❶.

bank resolution system in Croatia ❷. In addition, the system of assessment of the macroprudential policy stance was developed ❸, and following Croatia's accession to the euro area the Croatian financial stress index was revised ❹.

LINK NO ❶



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In addition to those listed above, the CNB also conducts a series of other research projects important for the understanding of the Croatian economy. An **Analysis of the sustainability of Croatian public debt** ❺ was conducted to serve as the basis for the new economic governance framework in the EU. The **impact of foreign workers on potential GDP** ❻ was analysed. Finally, the CNB has stepped up the examination of issues related to climate changes and conducted **research of the impact of extreme weather events on the Croatian economy** ❼.

The CNB conducts the aforementioned research independently and in the context of international cooperation and in cooperation with the academic community and other central banks within the Eurosystem. CNB employees also participated in the work of research groups of the European System of Central Banks in the areas of monetary and fiscal policy, productivity, price movements, machine learning, business cycles, macroprudential policy, stress testing and climate change.

CONFERENCES AND PUBLICATIONS

The CNB publishes the results of research by employees and external contributors in different formats – from analytical annexes in **regular publications** ❽ and **occasional publications** ❾ where the first results of research are published, to publications of the European Central Bank and other central banks, scientific journals and other scientific publications, and the **author blog** ❿ on the central bank web site. In 2023, four occasional publications were released, four articles in

the CNBlog and ten papers authored by CNB employees were published in scientific journals and other types of scientific publications.

In 2023, the CNB intensified its organisation of scientific meetings and conferences. The CNB organised the traditional **Dubrovnik Economic Conference 1**, the 29th in the series, the main topic of which was monetary policy at times of high inflation and insecurity. The CNB also organised targeted sessions on inflation, monetary policy and fiscal stability within the framework of the conference **Challenges of Europe: Design for the Next Generation 2** organised by the Economic Faculty in Split at which some twenty papers were presented by authors from central banks. In addition, the CNB hosted the 9th Research Workshop of the Task Force on Banking Analysis for Monetary Policy. Six economic workshops open to the professional public were held, presenting the papers of CNB employees and guest speakers.

LINK NO 9



LINK NO 10



LINK NO 1



LINK NO 2



10

Protection of financial services consumers

The role of the CNB in consumer protection is to monitor and determine whether consumers have been adequately informed prior to contracting banking services, whether they have been enabled to compare similar services, in what manner they are protected from potential damage and whether the service providers apply good business practices in their operations. The market and the development of technology are rapidly transforming financial services, leading to changes in consumer habits and needs. The latest financial literacy survey shows progress in consumer knowledge, although there is still room for improvement in the area of digital financial literacy, which has become indispensable in the use of financial services. Furthermore, care is needed to ensure that segments of clients that have difficulties in adapting to rapid technological changes, primarily the vulnerable older age group, are able to use basic financial services independently.

FINANCIAL EDUCATION

The CNB is continuously involved in the improvement of financial and economic literacy. Activities take place in the form of lectures, publishing learning material, cooperating with the media and marking relevant domestic and international events. As part of the aforementioned activities, the CNB, in cooperation with the Croatian Financial Supervisory Agency (HANFA), conducted **the third cycle of the financial literacy survey in the Republic of Croatia** ¹ in line with OECD methodology. The findings show continuous improvement in the overall financial literacy of citizens as a result of the activities of all stakeholders – members of the operational group included in the implementation of the **National Strategic Framework for Consumer Financial Literacy** ² under the auspices of the Ministry of Finance, including CNB.

The CNB targets various age groups with its activities, but in particular children and young people. Taking part in educational programmes intended for this age group¹ were 2718 primary and secondary school pupils and 411 students. Marking the Global Money Week and European Money Week, educational workshops under the title “Više znamo, bolje razumijemo” (The more we know, the better we understand) were held in cooperation with the Croatian Chamber of Economy (CEE), followed by a large student debate in the CNB focusing on the topic “Does the system look after our financial future or do we have to do it ourselves?” in cooperation with the Croatian Debate Society while the student discussion “Sustainable finance and generation Z” was organised in cooperation with HANFA.

Activities targeted at the working age population included education for teachers covering 646 professors and teachers.

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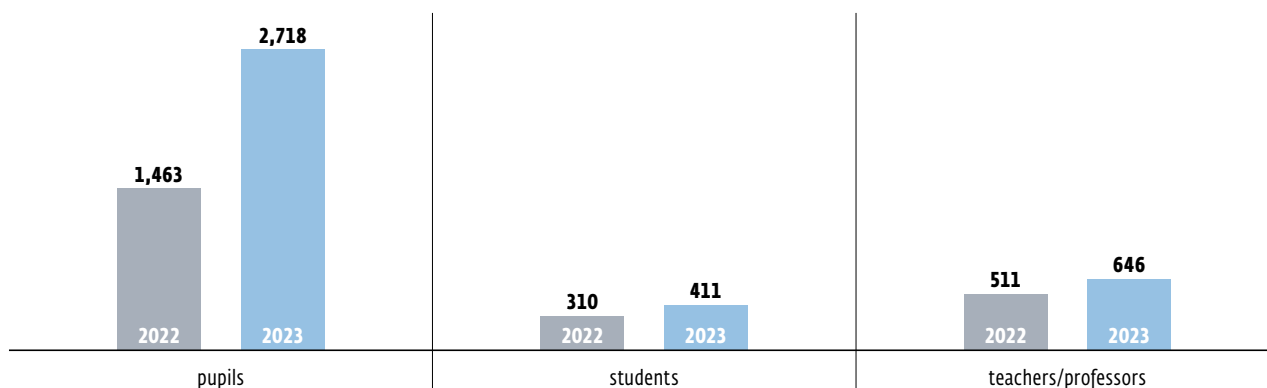


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Protection of financial services consumers

FIGURE 10.1 Educational programme participants at the CNB in 2023



Source: CNB.

¹ More information on education and other programmes for visitors are available in [chapter 16 Activities of the Visitors' Centre](#).

Representatives of the CNB participate in the radio show “Financial Alphabet” of the Croatian Catholic Radio and in the “Financial Literacy” section of the daily show “Good Morning, Croatia” on Croatian Radiotelevision, the content of which is aimed at all age groups.

INFORMING CONSUMERS

On its website, the CNB provides **important information ❶** on the products and services offered by credit institutions and **updated information ❷** on market events, good business practices in relations with consumers and activities within its competence aimed at higher-quality consumer protection. Two factsheets were published: **Investments, loans, insurance or pensions with a sustainable focus: what you need to know ❸** and **How do inflation and the rise in interest rates affect my money? ❹**, created at the level of European authorities for the supervision of financial institutions¹ and also published on their websites.

The CNB began with the publication of its **information sheet with the banks’ consumer deposit offers ❺**. The published data include the current offer for non-ear-marked savings in the euro, US dollar and Swiss franc. The list is regularly updated according to data received from banks and is also available via the mobile app mHNB.

In addition to the **information sheet ❻** with consumer loan offers and a **comparison of fees for the most frequently used payment services ❼**, which were previously available, the information sheet with the offer for deposits provides consumers with additional basic information that may be helpful in analysing banks’ offers and opting for a particular financial product.

CONSUMER COMPLAINTS

The CNB takes action based on notifications from consumers about complaints they have lodged which it accepts in cases in which consumers have received either no response from the credit institution or an unsatisfactory response. The CNB also collects and analyses information on the number and type of complaints directed by consumers to the credit institutions they are clients of. In 2023, the CNB amended the methodology of monitoring the notifications of complaints it receives to enable a comparison with the structure of complaints received by credit institutions; under the Consumer Protection Act, as of the second half of 2023, it also collects from credit institutions information about the number of complaints they deemed justified. These reports are a source of information for the supervision performed by the CNB of credit institutions in the area of consumer protection.

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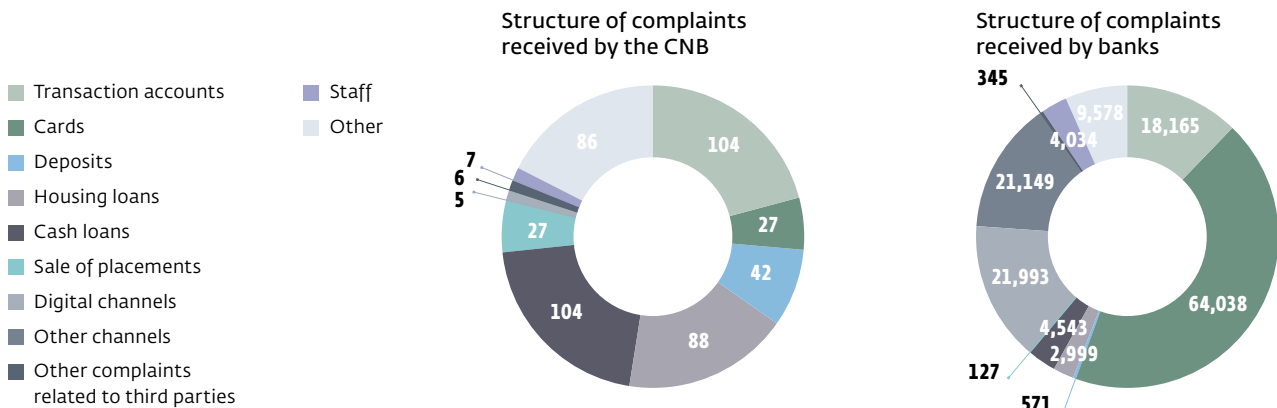
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¹ European Banking Authority (EBA), European Securities and Markets Authority (ESMA) and European Insurance and Occupational Pensions Authority (EIOPA).

FIGURE 10.2 Structure of consumer complaints in 2023

Source: CNB.

Most complaints received by the CNB, i.e., 42% of the total number of complaints received, relate to cash loans (21%) and transaction accounts (21%). In relation to cash loans, consumer complaints mostly concerned refusals to grant loans or loan refinancing, the issue of certificates or banks' requests for the delivery of various information. Complaints pertaining to transaction accounts mainly related to the manner or terms of opening accounts, account overdrafts, account freezing or the obligation to update data.

The number of complaints received by the CNB and the banks decreased from 2022. This suggests that consumers are better informed when contracting banking products and services and that credit institutions are more transparent when offering products and services.

In the structure of complaints received by credit institutions, as previously, complaints related to cards (credit cards, debit cards, revolving cards, charge cards) stand out, accounting for 43% of the total number of all complaints in the banking sector. The second most common group of complaints (29%) are complaints related to service provision channels (digital and other channels). While they constitute the largest group in the structure of complaints received by the CNB, complaints related to transaction accounts constitute only 12% and complaints related to cash loans make up only 3% of the total structure of complaints received by banks. The structure of complaints in the banking sector was similar in 2022, with the exception of an increase of 19% in complaints related to digital channels in 2023. Most complaints lodged with banks by clients in 2023 were related to the functionality of the contracted service, the terms of contract and the price of product or service. A drop in complaints related to cash loans, sale of placements and advertising was recorded for the fifth year in a row. It is worth noting that in the second half of 2023, only 46% of the total number of complaints received were deemed justified by banks.

The CNB also monitors complaints lodged with credit unions and credit intermediaries by their clients, but the number of complaints received in this area was not significant.

SUPERVISORY ACTIVITIES

The CNB monitors and assesses the risks that banks and other institutions falling within its competence impose on consumers in relation to the offer and sale of their products and services and the market conduct of such institutions.

The CNB conducted its supervisory activities aimed at credit institutions via on-site inspections (two banks), off-site inspections (five banks) and five thematic analyses (all banks). The focus of thematic analyses was, among other things, on the formation of interest rates on consumer loans, the application of caps on maximum allowed nominal and effective interest rates, bank practices in providing pre-contractual information and practices in the provision of consultancy services in consumer housing loans.

In relation to credit intermediaries, the CNB conducted two off-site inspections: one individual off-site inspection and one horizontal off-site inspection of the entire market aimed at verifying whether the information on the staff providing credit intermediation services was up to date.

Due to identified illegalities or operational deficiencies, the CNB issued six reports and one decision, in addition to 13 decisions on the provision of credit intermediation services and nine decisions on the revocation of the decision on the issuance of authorisation to provide credit intermediation services.

The CNB continued to monitor the implementation of its recommendations and expectations based on supervisory activities conducted in the preceding year. Special attention was given to monitoring the implementation of the Memorandum of Understanding Regarding Current Account Overdraft Facilities concluded in July 2022 between the Croatian government, the CNB and 13 banks.

Five circular letters were issued based on inspection findings. The CNB sent four circulars to all credit institutions to communicate, among other information, its expectations related to providing pre-contractual information to consumers in credit and deposit operations with customers and updating reference parameters used when forming interest rates on consumer loans. One circular letter was sent to all credit institutions and all credit intermediaries to communicate the CNB's expectations regarding the exchange of information provided to consumers in intermediation.

One of CNB's tasks is to make sure that financial products and services are available to all citizens. Therefore, after some banks announced that they would be

discontinuing the use of hardware tokens, the CNB pointed out that hardware tokens are usually preferred by elderly users, users that do not tend to use or who have only limited capacity to use digital devices and users unable to afford a smart phone or those that simply refuse to own one. The CNB warned banks that by completely discontinuing the use of hardware tokens they could jeopardise the access of such users to payment services and requested of banks to continue to use hardware tokens for now.

REGULATORY ACTIVITIES

Existing **regulations in the area of consumer protection** ❶ have been amended in the part pertaining to the law governing consumer credit and housing consumer credit. Amendments were largely a result of the transposition of the provisions of Directive (EU) 2021/2167 of the European Parliament and of the Council of 24 November 2021 on credit servicers and credit purchasers into the Croatian legal system. New requirements in relation to credit institutions concern the establishment of a relationship with consumers having difficulties in settling their obligations and the measures that the credit institutions are obligated to take in relation to such consumers to reach an agreement and facilitate loan repayment. The CNB actively cooperated with the Ministry of Finance in preparing the proposal for amendments to the **Consumer Credit Act** ❷ and the **Act on Consumer Housing Loans** ❸.

The CNB also takes pre-emptive action to prevent illegalities or deficiencies in the operation of entities falling within its competence. For this purpose, in response to the queries of credit institutions, it issued seven opinions on matters within its competence related to the application of certain provisions of the law governing consumer lending and consumer housing loans.

INTER-INSTITUTIONAL COOPERATION

Cooperating with other national and European stakeholders is an important element in the implementation of the CNB's consumer protection policy.

For example, the CNB participates in the work of the European Banking Authority (EBA) through its membership in the **Standing Committee on Consumer Protection and Financial Innovation** ❹. One of the key topics under discussion relates to the implementation of the Markets in Crypto-Assets Regulation (MiCA) and the future obligations of national competent authorities in the area of customer protection on the crypto-assets market¹. Further discussion topics include financial innovation and financial market digitalisation, the impact of artificial

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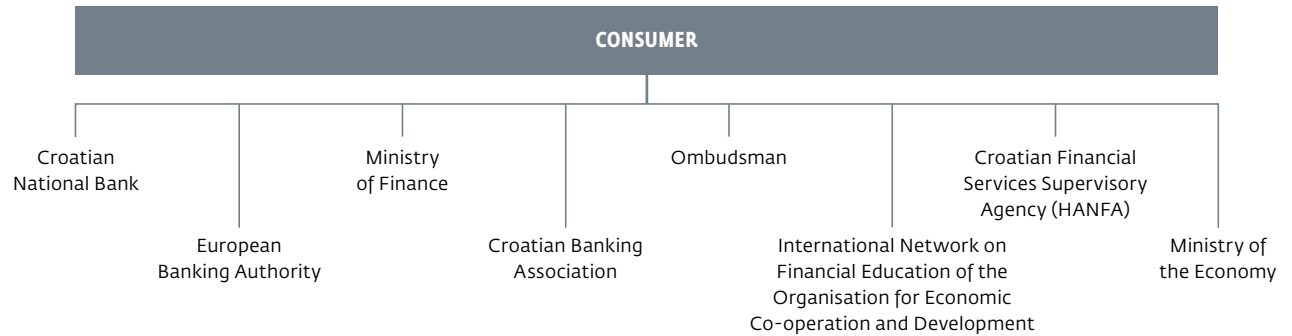
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¹ For more information on the Markets in Crypto-Assets Regulation and the Regulation on Digital Operational Resilience please see **Box 3 FinTech and central bank digital currency**.

FIGURE 10.3 Cooperation as the foundation of effective consumer protection

Source: CNB.

intelligence (AI), the technology used by institutions to manage their obligations related to regulatory compliance (RegTech) and the use of technology in supervisory processes (SupTech). In addition, the amendments to the Consumer Credit Directive (CCD) and their impact on the operations of supervised entities, the mystery shopping activities of national supervisory authorities and the practices of non-banking creditors in the area of consumer creditworthiness assessment were also discussed.

11

Payment transactions

One of the basic tasks of the Croatian National Bank is to ensure the smooth operation of the payment system. The CNB plays a central role in ensuring the application of regulations, particularly as regards the protection of payment system user rights. It also performs the function of payment system operator and supervisor of systemically important payment systems and facilitates safe and efficient payment flows. The payment system and the retail payment market are influenced by changes driven by regulatory amendments, innovations and the digitalisation process. Consequently, the role of the CNB is twofold: as a catalyst, it has to encourage the integration of innovation while promoting payment safety at the same time.

REGULATIONS GOVERNING PAYMENT OPERATIONS

The functioning of payment operations, which involves payment service providers, payment infrastructure, payment service users and regulations governing payment operations, is regulated by a series of regulations in Croatia, of which the **Payment System Act** ❶ and the **Electronic Money Act** ❷ are the most important.

These laws transpose the **Payment Services Directive (PSD2)** ❸ and the **Second Electronic Money Directive (EMD2)** ❹, applied in all member states of the European Union, into national legislation.

In 2023, the regulatory activities of the CNB in the area of payment operations included, for the most part, activities related to the drafting of amendments to existing EU regulations and the preparatory work related to the adoption of new EU regulations, namely the **SEPA** ❺ Instant Payments Regulation, the Third Payment Services Directive (PSD3), the Payment Services Regulation (PSR) and the Regulation on the Establishment of the Digital Euro.

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The work on the proposal of the Instant Payments Regulation continued in 2023. Under the regulation, banks are obligated to provide instant credit transfers in euro (for both national and cross-border transfers) in EU and European Economic Area (EEA) member states, enabling payment service users to make instant payments within 10 seconds 24 hours a day, 7 days a week and 365 days a year (24/7/365). In addition, the regulation imposes certain new obligations on payment service providers to improve their clients' user experience and reduce the possibility of error when initiating a payment order, including the verification of the payee's IBAN/name match for all credit transfers. It also lays it down that fees for sending and receiving instant credit transfers in euro must not exceed fees charged for regular credit transfers in euro.

In June 2023, a proposal was made for a new Payment Services Directive (PSD3) and Payment Services Regulation (PSR) with the aim of further increasing effectiveness, transparency and efficiency in providing payment services. Some of the changes include enabling non-bank payment service providers to participate in payment systems and introducing a mechanism for the monitoring of transactions for the purpose of applying reliable client authentication and more efficient prevention and detection of fraudulent transactions. The adoption of the aforementioned regulations is expected in late 2024 or early 2025.

BETTER NATIONAL COORDINATION THANKS TO THE NEW NATIONAL PAYMENT SYSTEM COMMITTEE

The new National Payment System Committee¹ was established on 14 June 2023 as a result of the dynamic developments in the EU payment market, the emergence

¹ The National Payment System Committee that was established on 24 February 2003 was dissolved on 16 May 2023.

of new stakeholders and trends in that market and the need for the CNB, which manages the Committee, to implement its role as the catalyst of change more vigorously. The aim of the Committee is to identify and improve the standard for the stable and secure provision of payment services by supporting a balanced and sustainable development of a secure, efficient, innovative and competitive payment service market in Croatia.

The new National Payment System Committee will, on a voluntary basis, enable various stakeholders on the payment market to cooperate, exchange opinions and agree on activities contributing to the better execution of payment operations in Croatia as a part of the Single Euro Payments Area and the euro area, ensuring their continuous development and improvement. The Committee's area of work is based on the [Retail Payments Strategy for the EU ①](#) of the European Commission and the [Eurosystem Retail Payments Strategy ②](#) of the European Central Bank.

NEW PAYMENT SERVICE PROVIDERS AND ELECTRONIC MONEY ISSUERS

The market of payment service providers has further expanded in 2023. Two authorisations for payment institutions were issued for providing the services of acquiring payment transactions. Three payment institutions expanded their operation to other member states. Currently, five payment institutions, five electronic money institutions, three registered account information service providers and one small electronic money institution are operating in Croatia.

The list of payment service providers and electronic money issuers, the types of services provided and the EU member states in which they operate is publicly available in the [Register of payment service providers and electronic money issuers ③](#) on the CNB's website, as well as in the [Central register of EBA ④](#).

INTEGRATION OF THE NATIONAL PAYMENT INFRASTRUCTURE WITH THE EUROPEAN PAYMENT INFRASTRUCTURE

Payment systems constitute the most significant payment infrastructure in Croatia. Payment systems enable the smooth and reliable functioning of the financial system, the accessibility of payment services and the execution of national and cross-border payment transactions. Thanks to payment systems, citizens and business entities are able to execute bank-to-bank transactions efficiently, quickly and safely. After Croatia entered the euro area on 1 January 2023, payment systems in kuna ceased to operate, and today, national and cross-border payment transactions are conducted via three payment systems in euro: TARGET-HR, EuroNCS and EuroNCSInst.

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TARGET-HR ① is a national component of the TARGET payment system that serves for the settlement of payment transactions of large amounts in euro in real time on a gross basis, consisting of national components operated by the central banks of the EU member states with a single technical platform that offers the same level of service to all participants. The operator of the TARGET-HR system is the CNB. On 20 March 2023, a new version of the TARGET2 system was inaugurated at the level of the entire Eurosystem as part of the T2-T2S consolidation project.

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EuroNCS ② is a payment system that executes the clearing of interbank SEPA credit transfers and direct debit payment transactions in euro that are of relatively low value. The system is interoperable with other retail payment systems in other EU member states, so that payment service users are able to execute, i.e. submit and receive cross-border SEPA credit transfers. The Financial Agency is the owner and operating manager of the EuroNCS system, while the CNB has the central role of bank (agent) for the settlement of cross-border payment transactions of EuroNCS participants.

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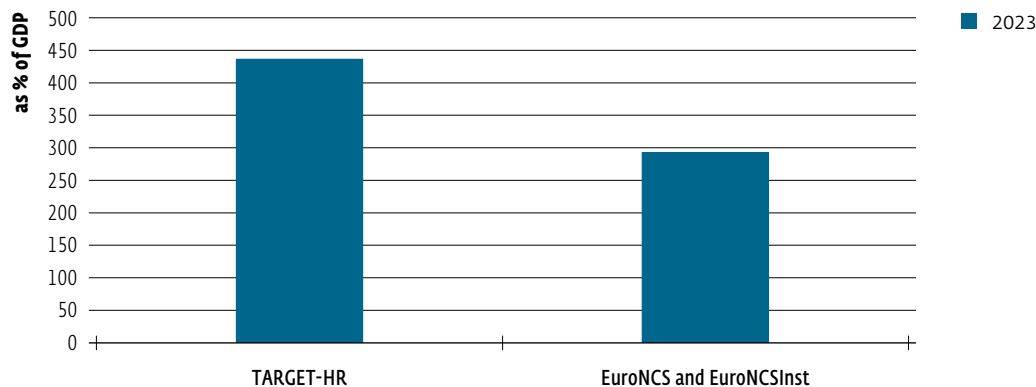


EuroNCSInst ③ is a payment system that enables so-called instant payment transactions that are executed in almost real time, i.e. within a standard period of no more than ten seconds. The maximum amount allowed per single payment transaction is EUR 100,000. EuroNCSInst enables the execution of payment transactions 24 hours a day, 7 days a week and 365 days a year (24/7/365). The instant payment service via mobile or internet banking may only be used by clients of seven banks participating in the EuroNCSInst system. The EuroNCSInst payment system is administered by the Financial Agency. On 24 June 2023, all EuroNCSInst participants joined the TARGET system TIPS service alongside the Financial Agency, which enabled the clients of the EuroNCSInst payment system participants to execute, i.e. submit and receive instant cross-border payment transactions within the EU.

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FIGURE 11.1 Payment systems in the Republic of Croatia – overview of turnover



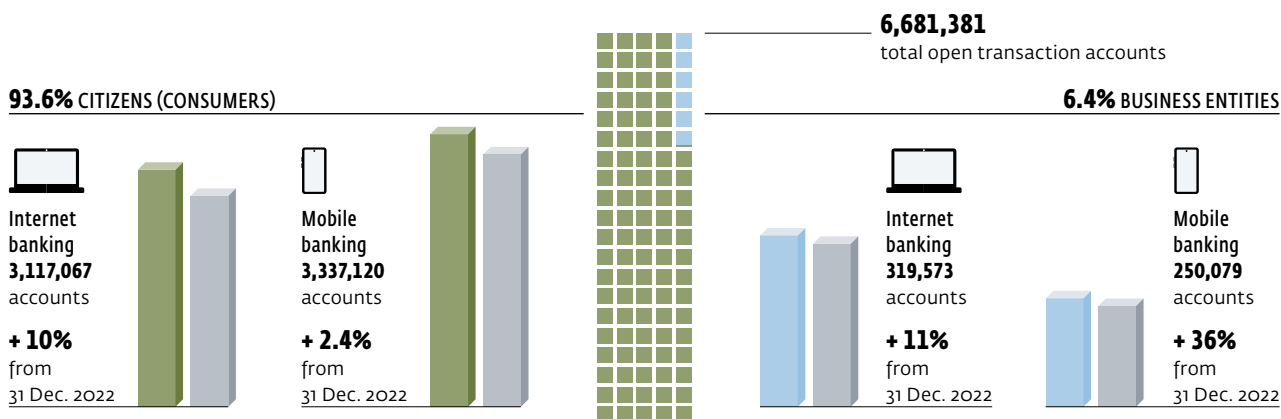
Source: CNB.

GROWTH IN MOBILE BANKING

As at 31 December 2023, payment service providers had a total of 799 business units, most of which were bank branches. They accepted payment transactions at 132,265 EFTPOS terminals and 4,277 ATMs. At the same time, at the end of 2023, individuals (consumers) and business entities held a total of 6,681,381 transaction accounts with banks¹. Of the total number of accounts, 93.6% were held by individuals, while the remaining 6.4% were held by business entities.

The habits of payment services users are changing in favour of a steady increase in the number and value of cashless payments. Over the past several years, this was mainly driven by the development of mobile banking and the development of card payments, primarily contactless payments.

FIGURE 11.2 Open transaction accounts and use of payment services in 2023



Note: Data do not include blocked transaction accounts
Source: CNB.

This is supported by the data as at the end of 2023, according to which individuals (consumers) had contracted internet banking for 3,117,067 accounts, an increase of 10% from 31 December 2022, while mobile banking was contracted for 3,337,120 accounts, an increase of 2.4% from the end of 2022. Business entities had contracted internet banking for 319,573 accounts (an increase of 11% from 31 December 2022), and mobile banking for 250,079 accounts (an increase of 36% from 31 December 2022).

The increase in the number of users of mobile banking was accompanied by an increase in the number of payment transactions executed through this channel. Thus in 2023, individuals initiated a total of 141,795,039 mobile banking transactions, which is an increase of 13.2% from 2022, with this type of transaction in

¹ Not including blocked transaction accounts.

TABLE 11.1 Channels and methods of initiation of payment transactions of individuals (consumers) for 2023

Channel/method	Number of transactions	Share ^b	Value of transactions (in billion EUR)	Value of transactions ^b (as % of GDP)	Share ^b
Over the counter ^a	49,156,138	19	14,975.9	20	34
Mobile banking	141,795,039	54	20,159.5	27	46
Internet banking	15,399,716	6	3,977.2	5	9
Direct debits	20,318,147	8	1,891.6	2	4
Standing orders	25,015,407	9	2,425.0	3	6
Bill-paying service	12,041,639	4	641.5	1	1
Total	263,726,086	100	44,070.7	58	100

^a Paper-based payment orders initiated over-the-counter at credit institutions or other persons that, on the basis of a contract, are acting on behalf of and for the account of credit institutions (e.g. FINA, HP, etc.) ^b Shares are rounded to the nearest whole number.

Note: GDP in current prices for 2023 is EUR 75,855.4bn.

Sources: CBS and CNB.

2023 accounting for 54% of the total number of transactions and 46% of the total value of payment transactions by channels of initiation shown in Table 11.1.

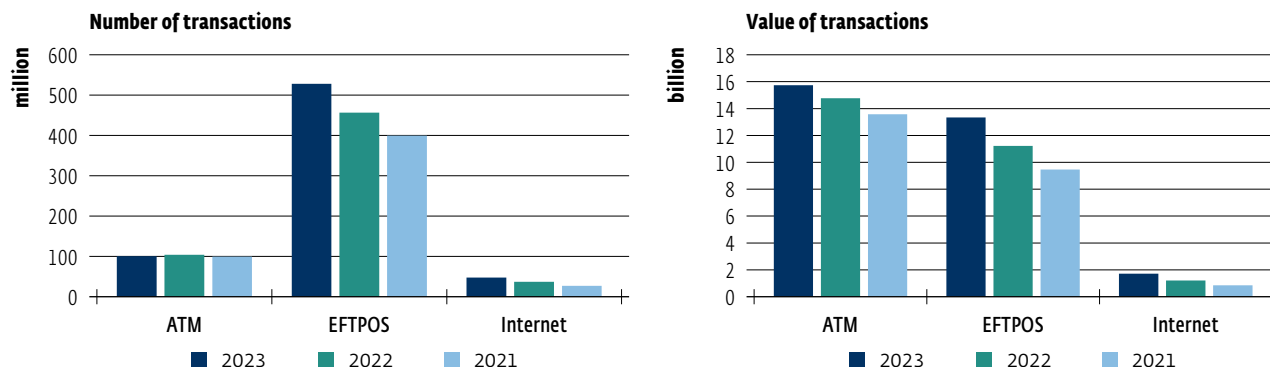
The second most commonly used channel for initiating payment transactions of individuals, after mobile banking, was still the over-the-counter channel, which accounted for 19% of the total number and 34% of the total value of transactions shown in Table 11.1, followed by transactions initiated through internet banking, which accounted for 6% of the total number and 9% of the total value of transactions. In the context of a comparison between internet banking transactions in 2023 and 2022, when they accounted for 7% of the total number and 10% of the total value of transactions, the data indicate that users prefer mobile banking to internet banking when initiating transactions.

Business entities in Croatia most often use electronic methods to initiate payment transactions as well. Thus, of all payment transactions initiated by business entities in 2023, 97% of them in terms of number and value were initiated electronically. Internet banking is still the most widely used channel for the initiation of transactions by business entities, although there is a noticeable increase in the use of mobile banking among business entities, which was used to initiate 26% more transactions in terms of number and 39% more transactions in terms of value in 2023 than in 2022.

The most frequently used payment instrument in Croatia is the payment card, with 8,539,216¹ payment cards in circulation in the Republic of Croatia as at 31 December 2023. Of the total number, 94.2% of payment cards were issued to individuals (consumers), and the remaining 5.8% to business entities.

¹ Includes used, unused and blocked payment cards in circulation.

FIGURE 11.3 Number and value of acquiring transactions in Croatia executed using payment cards issued in Croatia

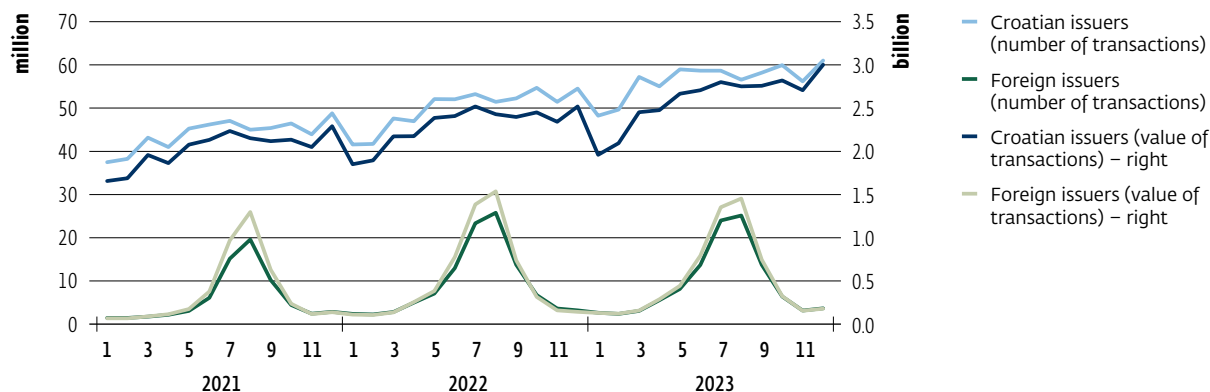


Note: Data refer to acquiring transactions using payment cards issued by Croatian issuers at accepting devices in Croatia (ATM, EFTPOS and the Internet). Source: CNB.

However, out of the total number of cards on 31 December 2023, 3,229,168 or 40% of them had not been used at all in the past year. Debit cards are still most widely used, accounting for 79% of the total number of all cards issued in the Republic of Croatia.

Data on the number and value of card transactions by accepting devices in the past three years confirm the status of the payment card as the most frequently used payment instrument in Croatia. The largest share in the number of transactions executed using issued payment cards (Figure 11.3) is accounted for by transactions at EFTPOS terminals (78% in terms of number and 43% in terms of value), followed by ATM transactions (15% in terms of number and 50% in terms of value) and internet transactions (7% in terms of number and 5% in terms of value).

FIGURE 11.4 Number and value of acquiring transactions in Croatia executed using payment cards issued by Croatian and foreign issuers



Source: CNB.

Although most card transactions in Croatia are executed by payment cards issued by Croatian issuers, the share of card transactions executed using cards issued by foreign issuers is not negligible. Of the total number of acquiring transactions in the reference period, 678 million transactions (85.9%) were executed through payment cards issued by Croatian issuers, with a total value of EUR 31,197.32m (83.6%), while the remaining 111.4 million transactions (14.1%) with a total value of EUR 6,137.26m (16.4%) were executed using payment cards issued by foreign issuers (Figure 11.4). The trends in the number and value of card transactions issued by foreign issuers are extremely seasonal.

CASH REMAINS DOMINANT DESPITE THE GROWTH IN CARD TRANSACTIONS

Payment in cash is still the most frequent means of payment in Croatia. According to the data of the Ministry of Finance of the RC – Tax Administration, of the total number of issued fiscalised invoices, invoices paid in cash accounted for 72.49% in 2022, while in 2023, the share of invoices paid in cash was 68.4%. At the same time, in the reference period, the share of the number of invoices paid by payment cards amounted to 23.18% in 2022 and 26.8% in 2023.

In the past period, approximately every fourth fiscalised invoice was paid by card and the other three by cash. However, fiscalisation system data indicate that the habits of consumers are developing towards a continuous and accelerated growth in the number and value of cashless payments, i.e. that consumers more frequently choose the payment card as a means of payment of invoices and, if this trend continues, the share of invoices paid by card in the total number of invoices paid could soon account for one third.

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According to the data of the Ministry of Finance of the RC – Tax Administration, of the total value of issued fiscalised invoices, 45% of the value was paid in cash in 2022, versus 45.3% in 2023. The share in the total value of invoices paid by cards in 2022 was 47.2%, while in 2023, it was 47.3%. The average value of a fiscalised invoice paid in cash in 2023 stood at EUR 10.7, while the average value of a fiscalised invoice paid by card stood at EUR 28.6. The above data indicate that consumers choose the payment card more frequently than cash when paying invoices with larger amounts.

A more detailed overview and an analysis of data compiled within the payment statistics are published in the publications [Payment Cards and Card Transactions 1](#), [Payment Transactions and Accounts 2](#), and [Cashless Payment Transactions 3](#).

3

FinTech and central bank digital currency

FinTech refers to the application of technological innovations in the provision of financial services and the development of new financial products. CNB activities in this area in 2023 were based on some previously undertaken regulatory initiatives, but some activities also moved in new directions. One of the most significant European regulatory initiatives is the Markets in Crypto-assets Regulation ¹ of June 2023 which will apply as of the end of 2024 and which governs crypto-assets issuers and service providers. The Digital Operational Resilience Act ² was adopted, to be applied as of January 2025, with the aim of consolidating and improving the requirements related to ICT-related risks with a focus on cyber risks. The proposal of the Regulation on a framework for Financial Data Access binds and at the same time authorises financial institutions to access the financial data of clients with their permission (the so-called 'open banking' initiative).

THE WORK OF CNB INNOVATION HUB

The CNB Innovation Hub is a communication and information platform established in 2019 with the aim of providing non-binding and informal support to business entities developing an innovative FinTech product or service. In 2023, the Innovation Hub continued to provide support to interested parties in writing or in person, by meeting with applicants that had applied via the Innovation Hub online form. Continued interest in alternative forms of payment and digital bank establishment has been noticed, and interest in new topics emerged, such as the use of advanced algorithms in data processing, including machine learning and artificial intelligence, for more efficient risk management and creditworthiness assessment in banking.

ISSUING OF CENTRAL BANK DIGITAL CURRENCY

The European Central Bank completed the investigation phase of the digital euro project and in November 2023, it entered the first part of the preparation phase, which will last for two years. While the preceding phase focused on exploring potential models of digital euro design and distribution, the preparation phase should see the completion of the digital euro scheme, the selection of providers for the components of the digital euro infrastructure, testing and experimentation.

The digital euro is planned to complement cash and should be widely accessible, free for basic use, available both online and offline and at the same time offer the highest level of privacy. It would allow users to settle payments instantly in

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central bank money, and efforts are being made to enable persons without access to a bank account or digital devices to access the digital euro. The digital euro project places emphasis on the protection of user privacy since the European Central Bank and national central banks would not be able to see users' personal data or link payment information to individuals. The digital euro would facilitate access to financial services and at the same time create opportunities for innovation and foster competitiveness in the retail payments market. To avoid the outflow of deposits from banks/payment service providers, individual digital euro holdings would be capped.

The **Proposal for a Regulation of the European Parliament and of the Council on the establishment of the digital euro** ❶ was published in June 2023. The goal of the proposal is the establishment of a digital euro as public digital money that will have the status of legal tender and act as a liability of the European Central Bank and national central banks towards digital euro holders.

Furthermore, in 2023, the CNB continued to monitor the topic of central bank digital currency as part of the Bank for International Settlements (BIS), within which it participates in the work of the BIS network of innovation hubs (**Bank for International Settlements Innovation Network, BISIN** ❷), specifically, in the working group dealing with the topic of central bank digital currency (CBDC). The CNB continued to participate in the work of the **European Forum for Innovation Facilitators** ❸ (EFIF), the joint forum of the three European financial market regulators EBA/ESMA/EIOPA, the European Commission and the European Central Bank, which is responsible for monitoring and establishing best practices related to innovation facilitators in the EU.

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12

Currency department operations

One of the tasks of the Croatian National Bank is to facilitate the smooth supply of banks in Croatia with the necessary amount of cash, which includes the manufacturing, delivery, storage, processing and organisation of the distribution of cash, its protection against counterfeiting and the destruction of cash unfit for circulation, and the management of logistic cash reserves. After the euro was introduced as the official currency in Croatia on 1 January 2023, citizens were able to exchange their remaining kuna in banks, the Financial Agency and the Croatian Post up to the end of the year. The CNB was in charge of the operational management of the entire process.

CASH ISSUANCE AND SUPPLY

The issuance of banknotes and coins and the supply of banknotes and coins in circulation in Croatia is one of the CNB's activities. The supply of banks with cash implies ensuring a sufficient amount of cash for banks and their clients (consumers and business entities), and it is based on the [Decision on the supply of banks with euro cash ❶](#). It is organised through eight cash supply centres, which cover all parts of Croatia.

Euro banknotes and euro coins supplied under the [Act on the Introduction of the Euro as the Official Currency in the Republic of Croatia ❷](#) for frontloading purposes towards the end of 2022 also met circulation needs in Croatia in the course of 2023.

On 1 January 2023, euro cash that banks received during frontloading was put into circulation. Specifically, this refers to 61.6 million euro banknotes with a total value of EUR 1.1bn and 388 million euro coins with a total value of EUR 159.8m, which includes coins contained in 1,126,939 starter kits for individuals and 125,059 starter kits for business entities.

Currency outside banks

On 31 December 2022, the value of kuna cash in circulation was HRK 26bn, while on 31 December 2023, there was HRK 4.7bn still in circulation. The drop of 82% is a result of the introduction of the euro as the official currency in Croatia and the fact that throughout 2023, banks, the Financial Agency and the Croatian Post received kuna cash and exchanged it for the euro, whether by exchange by means of a deposit into an account or by the exchange of kuna cash for euro cash. Cash in circulation means the amount of kuna cash outside the CNB and cash centres, i.e. the cash held by banks, business entities and citizens.

In contrast to kuna cash, euro cash in circulation is being monitored at euro area level. At the end of 2022, there was EUR 1,604.5bn in circulation, compared with EUR 1,600.7bn at the end of 2023.

In 2023, 271.1 million euro banknotes with a total nominal value of EUR 6.2bn and 613.5 million euro coins with a total nominal value of EUR 224.9m were issued from cash centres in Croatia, while in the same period, 240.9 million euro banknotes with a total nominal value of EUR 7.9bn and 140.7 million euro coins with a total nominal value of EUR 78.4m were deposited in cash centres.

Withdrawal of banknotes and coins

In 2023, banks, the Financial Agency and the Croatian Post exchanged kuna cash for the euro. Up to 31 December 2023, a total of 175.5 million kuna banknotes with a value of HRK 29.0bn and a total of 443 million kuna coins with a value of HRK 453m were withdrawn from circulation.

LINK NO ❶



LINK NO ❷



Issuance of the first commemorative 2-euro coin
 "Introduction of the euro, 2023" – commemorative 2-euro coin to commemorate the introduction of the euro as the monetary unit of Croatia on 1 January 2023



From 1 January 2024, kuna cash can be exchanged free of charge exclusively at the CNB. Banknotes can be exchanged indefinitely, while coins can be exchanged until 31 December 2025.

The CNB withdraws euro banknotes and euro coins unfit for circulation and replaces them with euro banknotes and euro coins fit for circulation. In 2023, 5.1 million unfit euro banknotes with a total value of EUR 10.6m and 6,052 unfit euro coins with a total value of EUR 7,700.3 were withdrawn from circulation.

ISSUANCE OF COMMEMORATIVE AND NUMISMATIC COINS

In 2023, the Croatian National Bank released into circulation the first commemorative 2-euro coin to commemorate the introduction of the euro as the monetary unit of Croatia. Only the 2 euro denomination can be used for commemorative coins. Technical specifications, the common side and the edge lettering on commemorative euro coins are the same as on the regular, i.e. circulation coins with a denomination of 2 euro. What makes them different is their motif on the national side specific for the Member State. Each euro area country may issue two 2-euro commemorative coins per year.

FIGURE 12.1 Gold and silver numismatic coins

a) Gold numismatic coin of 100 euro and silver numismatic coin of 6 euro "Contour necktie"



c) Gold numismatic coins of 100, 25 and 10 euro "Lace-making in Croatia"



b) Gold numismatic coin of 100 euro and silver numismatic coin of 4 euro "Faust Vrančić's Innovations"



Commemorative euro coins may be issued jointly by all euro area countries, in which case they have a common design on the national side. In that case, the design only differs in the segment of the name of the issuing country, which is different for each country and in the language variant of the text if it is implemented in the design.

In addition to the first commemorative coin, in the same year, the CNB issued various numismatic gold and silver coins with main motifs related to Croatia.

COUNTERFEIT BANKNOTES AND COINS AND THEIR PREVENTION

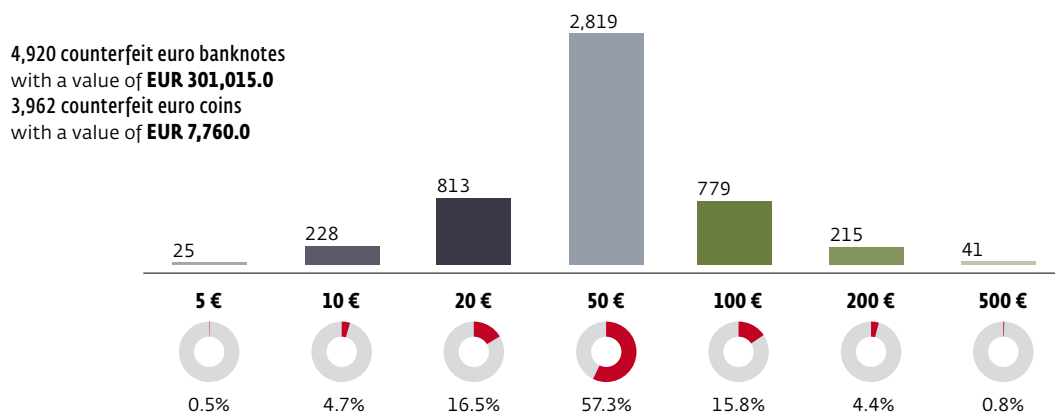
Over the course of 2023, The Croatian National Bank recorded 4920 counterfeit euro banknotes with a nominal value of EUR 301,015.0 and 3962 counterfeit euro coins with a nominal value of EUR 7,760.0.

In 2023, 33 counterfeit kuna banknotes with a nominal value of HRK 16,120.00 were registered, specifically, one 20 kuna banknote, eight 200 kuna banknotes, nineteen 500 kuna banknotes and five 1000 kuna banknotes. Counterfeit kuna coins were not registered in the observed period. The significant drop in registered counterfeit kuna banknotes from 2022, when 133 pieces were detected, is a result of the introduction of the euro as the official currency in Croatia.

As for the counterfeits of foreign currencies, 195 counterfeits were registered in 2023, of which 182 pieces were counterfeits of US dollar banknotes, followed by seven counterfeit pound sterling banknotes and six pieces of Australian dollar banknotes.

In order to educate individuals who handle cash as part of their core activity on a daily basis as well as the general public about cash, the Croatian National

FIGURE 12.2 Registered counterfeit euro banknotes in 2023



Source: CNB.



In **2023**, **33** counterfeit kuna banknotes were detected, a significant decline from **2022**, when **133** counterfeits were registered. This is a result of the introduction of the euro as the official currency in the Republic of Croatia.

Bank carries out the National Training Programme on Euro Banknote and Coin Authentication. The training contents and schedule are adjusted to the target groups and the training is conducted at several levels. The objective of the training is the acquisition of knowledge on the security features of euro banknotes and coins in order to successfully verify their authenticity and prevent the receipt of counterfeit cash as authentic.

In 2023, 2004 new participants entered the second level of the National Training Programme, intended for employees of banks and financial institutions, and a total of 8967 certificates of successful training completion were awarded (including renewals of previously acquired certificates and newly-acquired certificates). In the second half of 2023, workshops of the third level of the National Training Programme were held, which included practical training for 105 employees of banks and financial institutions. The training intended for the public and retailers is accessible at the website [Euro edukacija](#) free of charge, no registration required.

LINK NO 1



In 2023, the CNB held a series of lectures, workshops in more than 10 cities and several online seminars in cooperation with the Croatian Chamber of Commerce and will continue to provide training for target groups in Croatia.

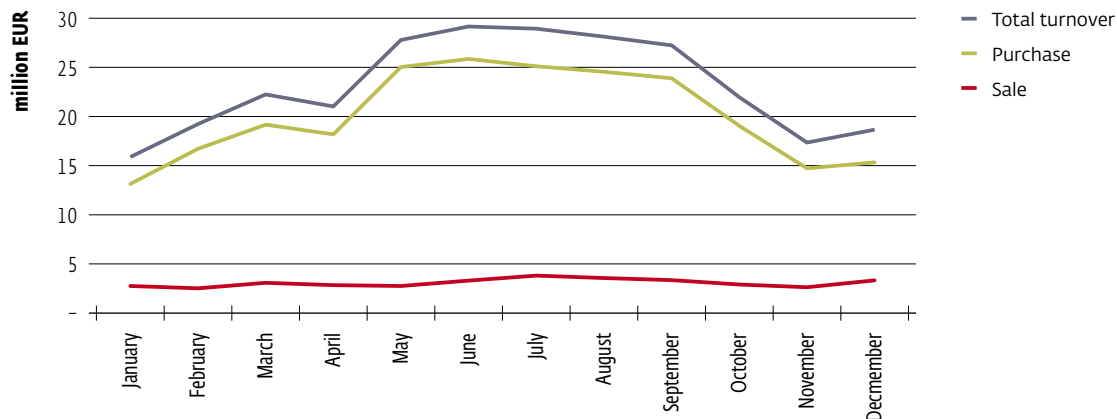
13

Authorised currency exchange offices

With the introduction of the euro as the official currency in Croatia, most authorisations to conduct currency exchange transactions that the Croatian National Bank began issuing in 2006 ceased to be valid. In 2023, the number of authorised currency exchange offices dropped to one quarter, from 1065 at the end of 2022 to 290 at the end of 2023. In 2023, most authorisations to conduct exchange transactions, 711 of them, ceased to be valid on 1 April as a matter of law, i.e., without administrative procedures being initiated. The number of authorised currency exchange offices remained almost unchanged from 2 April 2023 to the end of 2023, despite the significant decrease in the value of trade in foreign cash compared with the preceding year, particularly during the summer months. The number of authorised currency exchange offices that remained on the market is larger than expected as a result of a significant decrease in the value of trade in foreign cash, due to the intention of authorised exchange offices, particularly those providing hospitality and tourism services, to offer a full service, including the service of cash exchange.

In 2023, of a total of 290 authorised exchange offices, 240 offered currency exchange services. They traded in the foreign cash of 46 currencies and generated a turnover of EUR 277.61m, of which purchase accounts for EUR 240.77m or 86.73%. Almost 54% of the turnover was generated by trading in US dollar.

FIGURE 13.1 Movement of total turnover and purchase and sale of foreign cash in 2023

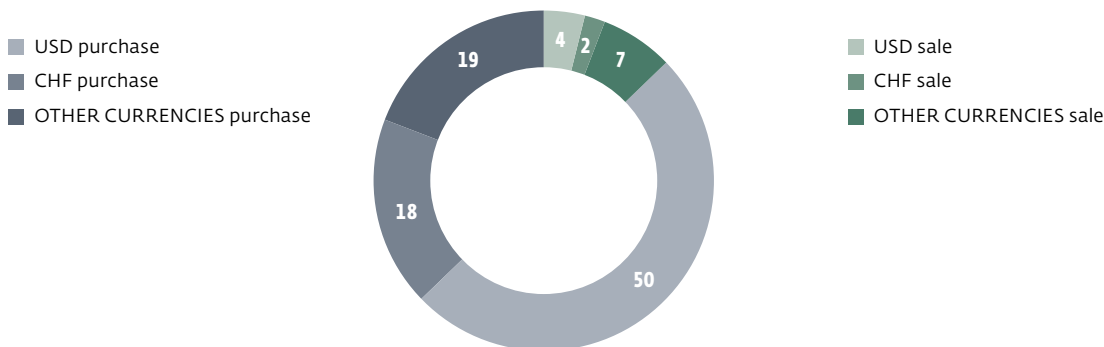


Source: CNB.

The turnover of authorised exchange offices fell by EUR 3,576.41m or 92.8% from 2022.

In 2023, the Croatian National Bank issued four authorisations to conduct currency exchange transactions, 56 decisions on the withdrawal of authorisation to conduct currency exchange transactions and also recorded 723 authorisations that ceased to be valid as a matter of law.

FIGURE 13.2 Share of purchase and sale of foreign cash by currency in total turnover in 2023



Note: Values are rounded to the nearest whole number.

Source: CNB.

14

CNB in the EU and the international environment

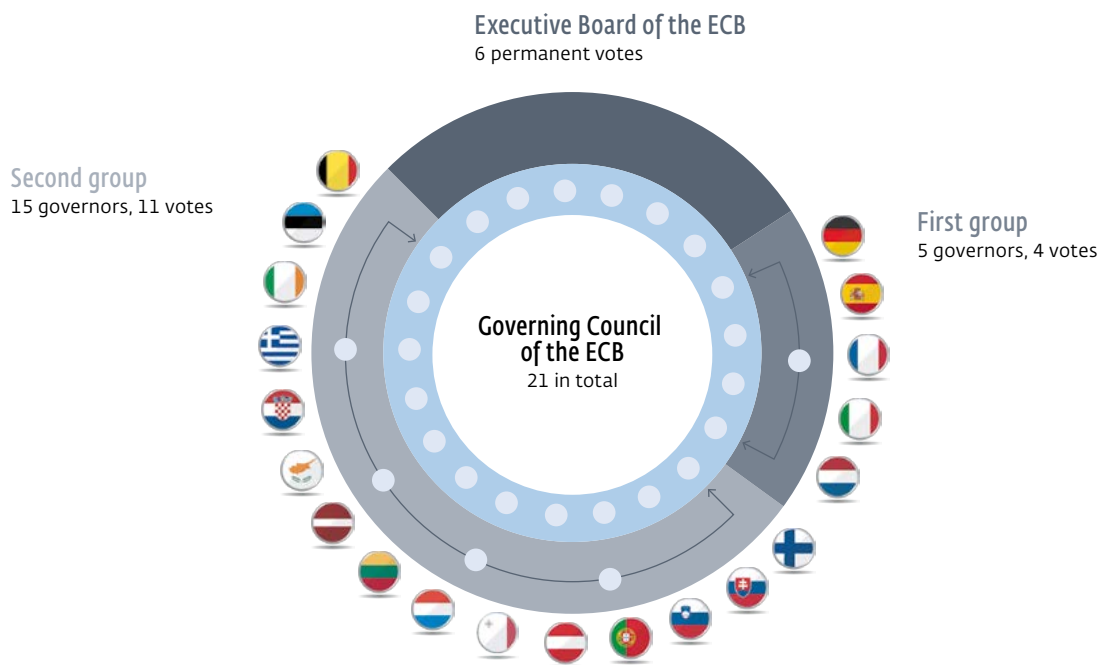
On 1 January 2023, the Croatian National Bank became part of the Eurosystem, and the Governor became a member of the ECB's Governing Council. As a member, the Governor of the CNB continues to participate in the work of the General Council of the ECB and the General Board of the European Systemic Risk Board. Within the banking union, i.e. within the Single Supervisory Mechanism and the Single Resolution Mechanism, CNB representatives are included in the work of the ECB's Supervisory Board and the Single Resolution Board and their working bodies. Vicegovernors and experts of the CNB are involved in the work of numerous working bodies of the Eurosystem, the ESCB and the European Banking Authority, as well as the working bodies of the Council of the European Union and the European Commission. The CNB's cooperation with the IMF, BIS and other international financial institutions continued in 2023, and cooperation with the OECD was especially intensified due to negotiations on the accession of the Republic of Croatia to that organisation.

ACTIVITIES CONNECTED WITH EU MEMBERSHIP

European System of Central Banks (ESCB)

By introducing the euro as the national currency on 1 January 2023, the Croatian National Bank became part of the Eurosystem¹, and the Governor of the CNB became a full member of the Governing Council of the European Central Bank. The ECB's Governing Council shapes the monetary policy of the euro area and adopts the guidelines and decisions necessary to ensure the execution of the tasks assigned to the ECB and the Eurosystem by the Treaty on the Functioning of the European Union. It comprises six members of the Executive Board of the ECB and the governors of the national central banks of the EU member states that have adopted the euro. The system of rotation of the voting rights of the governors of national central banks is applied in the Governing Council. Rotation helps the Governing Council to maintain its ability to take steps in parallel with the gradual increase in the number of euro area members, and thus also in the number of Governing Council members.²

FIGURE 14.1 The system of rotation of voting rights in the Governing Council of the ECB from 1 January 2024



Notes: Euro area member states are divided into two groups according to the size of the economy and the financial sector. The governors of the national central banks of the five largest member states share four votes among them, and the other 15 governors share 11 votes among them. The first group (clockwise) consists of: Germany, Spain, France, Italy and the Netherlands. The second group (counter-clockwise) consists of: Belgium, Estonia, Ireland, Greece, Croatia, Cyprus, Latvia, Lithuania, Luxembourg, Malta, Austria, Portugal, Slovenia, Slovakia and Finland. The governors' use of voting rights rotates among them every month.

Source: CNB.

¹ The Eurosystem consists of the ECB and the national central banks of the EU member states that have adopted the euro.

In 2023, seventeen meetings of the ECB's Governing Council were held (eight meetings dedicated to monetary policy and nine meetings dedicated to non-monetary issues). Hence, every six weeks, the Governing Council assesses economic and monetary developments and takes decisions on the common monetary policy. At other meetings the Governing Council mostly discusses issues related to other tasks and responsibilities of the ECB and the Eurosystem.

The Governor of the CNB participates not only in the meetings of the Governing Council, but also in those of the General Council of the ECB.¹ In 2023, four meetings of the General Council were held, at which macroeconomic, monetary and financial developments in the EU were discussed.

CNB experts took part in the work of 18 ESCB and Eurosystem committees, as well as numerous sub-committees and working groups that provide expert assistance to ECB decision-making bodies. As a member of the ESCB, the CNB also takes part in the formulation of ECB opinions concerning draft legislative proposals of the EU and individual member states.

European System of Financial Supervision

As a member of the European System of Financial Supervision, the CNB is actively involved in the work of the European Systemic Risk Board (ESRB). The Governor and the chief economist of the CNB participate in the regular quarterly meetings of the ESRB General Board that deals with systemic risks to the EU financial system and macroprudential policy measures. In 2023, the EU financial system was under the influence of continued monetary policy tightening by the ECB. The growth in borrowing costs led to a slowdown in economic growth and thus to a noticeable weakening of demand for bank loans.

The CNB also participates in the work of the European Banking Authority (EBA). The competent vice-governors are members of the Board of Supervisors and the Resolution Committee, and members of relevant expert teams participate in the meetings of numerous committees and working bodies of the EBA.

EU banking union

After Croatia entered the banking union, by which the Croatian National Bank became a participant in the Single Supervisory Mechanism, the Vice-Governor of the CNB in charge of bank supervision continued to participate in the work of the Supervisory Board of the ECB in 2023. As part of the Single Resolution

² Euro area member states are divided into two groups according to size of economy and financial sector. The governors of the national central banks of the five largest member states share four votes among them, and the other 15 governors share 11 votes among them. The governors' use of voting rights rotates among them every month.

¹ The General Council comprises the President and the Vice-President of the ECB and the governors of the national central banks of the EU member states.

Mechanism, CNB representatives participate in all plenary and executive meetings of the Single Resolution Board at which decisions related to resolution planning and Single Resolution Fund management are made. CNB experts also participate in the work of more than 30 committees and working groups that provide expert support to the Supervisory Board of the ECB and the Single Resolution Board.

EU Council and the European Commission (EC)

In 2023, CNB experts continued with their regular activities in the working bodies of the EU Council and the EC, which include discussions on draft legislation and other EU acts and participation in the preparation of the positions of the Republic of Croatia related to topics in the fields of competence of central banks, such as improving the quality of financial services and the stability of the EU financial system. The Governor and Deputy Governor took part in informal meetings of the EU Economic and Financial Affairs Council (ECOFIN). Designated CNB representatives participated in the work of the Economic and Financial Committee (EFC) of the EU Council, which promotes the coordination of national economic policies and discusses EU initiatives, such as building the capital market union.

A significant part of discussions in the EU Council in 2023 concerned the economic and financial consequences of the Russian aggression against Ukraine and the related geopolitical aspects. On several occasions, EU member states adopted decisions on the packages of sanctions against the Russian Federation and agreed on long-term financial assistance from the EU budget aimed at the recovery and reconstruction of Ukraine in the context of the review of the EU's multiannual financial framework for the 2021-2027 period. The improvement of the electricity market design in the EU was also discussed for the purpose of enhancing resilience to external disruptions and increasing the protection of consumers from sudden increases in energy prices.

In addition, working bodies of the EU Council discussed further measures for increasing banks' resilience to potential future shocks, as envisaged under the global Basel III standard. Work was continued on the mitigation of risks in the banking system, the focus being placed on completing the common EU framework for crisis management and further harmonisation of national rules for the winding up of banks. As regards the initiative to build a capital market union, discussions were intensified in relation to measures for the further development and integration of EU capital markets, such as improving the access to non-bank finance for European companies and increasing the citizens' interest in investing in the EU financial system and enhancing its safety. In that context, the Council adopted a regulation on the establishment of a single point of access where investors would have easier access to financial and non-financial information about EU companies.

Work on new rules to modernise the services of digital payments and transactions within the EU has begun with the aim of improving the safety of consumers, increasing choice when selecting new payment service providers and reducing

financial fraud. Discussions on the potential introduction of the digital euro to complement cash continued and new rules on crypto-asset markets were adopted.

In 2023, member states also frequently discussed changes to European fiscal rules comprised in the EU's common economic governance framework. The planned changes are aimed at ensuring greater transparency and predictability in national fiscal policies and contributing to the sustainable reduction of high public debt levels and the creation of balanced budgets of member states by taking into consideration specific national circumstances.

The Recovery and Resilience Facility is still in application in the EU, enabling member states to obtain funds to implement relevant reforms and investments based on their national recovery and resilience plans. In November 2023, the EC made a favourable assessment of the amendments to the Croatian national recovery and resilience plan, which, among other things, envisage the implementation of new measures within the European "REPowerEU" energy plan to increase energy savings and the use of renewable energy.

Other activities connected with the European Union

In 2023, the CNB continued to make contacts with representatives of EU member state central banks and representatives of the ECB and other EU institutions and bodies. Particularly worth noting were the meetings with the representatives of the European Commission and the seventeenth annual dialogue between the CNB and the Austrian central bank.

In early November 2023, the House of the Euro, a new shared space where the ECB and Eurosystem central banks will jointly promote Eurosystem interests, was inaugurated in Brussels. This primarily refers to issues related to the banking union, capital market union and other EU initiatives and policies of interest to Eurosystem central banks. The Croatian National Bank maintains regular contact with the staff of the ECB's office at the House of the Euro, which includes one expert from the CNB.

INTERNATIONAL MONETARY FUND (IMF)

The Croatian National Bank is the fiscal agent of the Republic of Croatia for the IMF and a depository of the IMF, which means that it represents Croatia in relations with the IMF, keeps deposit accounts of the IMF in the RC and executes payments based on IMF membership in the name and for the account of the RC. The quota of the Republic of Croatia in the IMF is SDR 717.4m (EUR 873.5m¹), according to which Croatia holds 0.17% of total voting rights in the IMF.

¹ According to the EUR/XDR exchange rate as at 31 December 2023.

Croatia is a member of the IMF constituency that comprises 16 countries¹ and is alternately headed by the Netherlands and Belgium. This constituency, with 5.46% of the total voices in the IMF, has the fourth largest voting power in the IMF Executive Board, preceded only by the US, Japan and China. Croatia has a permanent representative at the Office of the Executive Director of the constituency in the position of advisor to the Executive Director, the post being held by a CNB representative. The past year was particularly challenging for the Dutch-Belgian constituency because five of its members are using IMF financial assistance programmes, and also because of the military events in which several member countries were involved and the impact these events had on other member countries, particularly neighbouring ones.

As part of regular annual consultations with Croatia under Article IV of the IMF's Articles of Agreement, in May 2023, the IMF's expert team came for a two-week visit to Croatia, during which a series of meetings were held with the representatives of the CNB, the Ministry of Finance and other government administration bodies, government institutions and the private sector. The [press release](#) ¹ following the end of the consultations underlined that Croatia's accession to the euro area had improved Croatia's sovereign rating, eased access to capital markets and significantly reduced exchange rate risk. In addition, the IMF commended the resilience of the Croatian economy during the pandemic and the war in Ukraine and noted that the Croatian banking system remained profitable, well-capitalized and extremely liquid. IMF experts expect economic growth to slow down in 2023 due to weak external demand, tightening financial conditions and global uncertainties, while inflation should gradually fall towards the target of 2%, which it could reach towards the end of 2025. The IMF also stressed that the adoption of euro had had a very limited impact on inflation. The IMF warned that an expansionary fiscal stance could fuel inflationary pressures and hurt Croatia's competitiveness; it called for the continued implementation of structural reforms, including the thus far steadfast implementation of the National Recovery and Resilience Plan, noting that structural reforms are key to reap the full benefits of euro adoption. Raising productivity, advancing the green and digital transition, and finding the best approaches with respect to an ageing and declining population have been identified as priorities.

Cooperation and exchange of opinions with IMF experts in 2023 also took place through the participation of Croatian representatives in the regular Spring Meetings in April and the IMF and World Bank Annual Meeting held in October in Morocco.

Furthermore, in early June 2023, a two-day conference "Policymaking in Choppy Waters: Fostering Resilience in Central Eastern and Southeastern Europe (CESEE)" was held in Dubrovnik, organised jointly by the CNB and the IMF. At the conference, representatives of the government of the Republic of Croatia,

LINK NO ¹



¹ Andorra, Armenia, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Georgia, Israel, Luxembourg, Moldova, Montenegro, the Netherlands, North Macedonia, Romania and Ukraine.

central bank governors and ministers of finance from Central, Eastern and Southeastern Europe and representatives of the IMF, European Commission, European Investment Bank and other international institutions discussed key challenges and economic policies in the area, with a focus on enhancing energy security alongside the green transition, adjusting to ongoing shifts in trade and investment patterns, and steering macroeconomic and structural policies in a world of more frequent supply shocks.

As for international issues, in 2023, the most frequently discussed topics within the IMF included the 16th general review of quotas, adjustments to the IMF tools and instruments and channelling aid to the countries in greatest need. The IMF Board of Governors concluded the 16th general review of quotas on 15 December 2023, approving a 50% increase of quotas to a total of SDR 715.7bn. Member countries will participate in the increase in proportion to their existing shares in the total quota, which, for Croatia, implies a quota increase of SDR 358.7m, which will bring its quota to SDR 1,076.1m. These additional funds, and the review of IMF's instruments aimed at granting financial assistance to member countries, enable continuous support to countries in need, including Ukraine, to which a four-year loan of SDR 11.6bn was granted in March 2023.

Finally, it is worth noting that in June 2023, the goal of the global initiative to voluntarily channel USD 100bn to aid the world's most vulnerable countries was achieved. The collected funds were, by and large, directed to two IMF trusts: the Resilience and Sustainability Trust, established in 2022 with the purpose of the long-term financing of structural adjustments related to climate change and pandemic preparedness and the Poverty Reduction and Growth Trust, as part of which the poorest IMF member countries can be financed on preferential terms.

COOPERATION WITH THE BANK FOR INTERNATIONAL SETTLEMENTS (BIS) AND OTHER INTERNATIONAL FINANCIAL INSTITUTIONS

The Governor of the CNB also participated in the work of the BIS in 2023, where current issues in the area of international banking and finance were discussed by governors of BIS member central banks. At the BIS Annual General Meeting in June, a decision was made to pay a dividend of SDR 285 per share to BIS shareholders. Given that the CNB holds 2,441 BIS shares, on 29 June 2023 the CNB was paid a dividend in the equivalent of SDR 695,685, amounting to EUR 848,908.79.

In 2023, the Croatian National Bank continued to cooperate with other international financial institutions within the scope of its competence. Particularly worth noting in the context of this cooperation is the conference "Investments for Resilience and Structural Transformation" organised jointly by the CNB and the European Investment Bank (EIB) in February 2023, where topics such as hurdles to and incentives for investing in Croatia and the impact of the energy crisis and climate change on Croatian firms were discussed.

In addition to regular cooperation with multilateral development banks of which the Republic of Croatia is a member, cooperation with the Organisation for Economic Co-operation and Development (OECD) also continued. Specifically, in 2023, activities related to the process of Croatia's accession to the OECD, which began in 2022, intensified. Among other activities in the accession process, the CNB participates, within its competence, in four out of a total of 25 OECD committees assessing Croatia's alignment with OECD legal instruments and policies (Investment Committee, Committee on Financial Markets, Committee on Statistics and Economic and Development Review Committee). In December 2023, negotiations within the Committee on Financial Markets were successfully concluded. Croatia may join the OECD no earlier than 1 January 2026, subject to the condition that, in addition to a positive evaluation of its readiness for membership in the organisation by all 25 committees, two economic surveys, which the OECD prepares every two years, will have been made for Croatia, the first of which was released in September 2023.

OTHER ACTIVITIES

By adopting the Law on Ratification of the Agreement on Establishing the Center of Excellence in Finance (CEF Ljubljana), which entered into force on 25 May 2023, and by depositing the ratification instruments with the Ministry of Foreign and European Affairs of the Republic of Slovenia on 7 June 2023, Croatia officially became member of the CEF. The CEF is an international organisation serving as a "knowledge hub" for public officials in Southeastern Europe with the goal of strengthening cooperation and capacities in the management of public finance and central banking in these countries. CEF member countries participate in its work through its Governing Board, and Governing Board members are usually the minister of finance and the central bank governor. Thus, at its session on 7 June 2023, the CNB Council appointed the Governor as member of the Governing Board and the Deputy Governor as his official deputy. Shortly thereafter, CNB experts became involved in various CEF activities such as workshops, working groups and research, while the management participated in Governing Board meetings.

CNB representatives also participate in interdepartmental activities as part of the Working Group for Cooperation between the Republic of Croatia and Ukraine and the Commission for International Development Cooperation and Humanitarian Aid Abroad.

TECHNICAL COOPERATION PROGRAMMES

After the number of technical cooperation activities had increased again in 2022, following a period of slower activity in the preceding period due to the COVID-19 pandemic, there was a similar trend in 2023. What is more, in contrast to 2022,

when a significant number of meetings and consultations were held via online platforms, in 2023, most activities were held in person, mostly in the institution that initiated the cooperation.

Most of the realised activities were held bilaterally – based on a direct agreement between two institutions – and were therefore financed from own budgets. However, in 2023 a significant number of activities took place with the support of TAIEX (Technical Assistance and Information Exchange), an instrument of the European Commission for the transposition of legislation and familiarisation with the best practices of the EU. The majority of these activities were conducted for the Central Bank of Montenegro, mainly in the area of legislation, supervision and resolution of credit institutions.

In general, in 2023 the CNB's technical cooperation with the Central Bank of Montenegro was the most intensive, both in terms of the number and duration of activities, and the number of engaged experts. In addition, several activities with the National Bank of Ukraine (NBU) were undertaken. It should be noted that CNB experts were also engaged in the twinning project implemented by the National Bank of Poland for the NBU. The area of their work on the project was related to the transfer of know-how in preparation for joining the Single Euro Payments Area (SEPA), and, as part of the project, one CNB representative also participated in the professional forum on central bank preparation for membership in the EU/ESCB in February 2023.

In September 2022, the second stage of the Regional Programme for Strengthening the Central Bank Capacities in Six Western Balkan Countries with a View to the Integration to the European System of Central Banks began, and in 2023, the activities related to its implementation intensified. As in the first stage of the programme, in this stage too the CNB is participating in the programme alongside 19 other central banks of EU member states and the ECB, under the leadership of Deutsche Bundesbank. The programme is planned to last until September 2025, and its budget is EUR 3m. This programme also consists of two components: the first component provides for a total of 20 training events for experts from beneficiary countries and three high-level policy workshops on topics from the field of central banking; the second component provides for six bilateral measures and three internships in ESCB central banks for employees of each of the beneficiary institutions. CNB experts are expected to participate as lecturers in two training events, one workshop and as many as a dozen bilateral measures and internships, which makes the CNB one of the most active central banks in the programme.

4 Climate Strategy of the Croatian National Bank

The Croatian National Bank adopted its Climate Strategy for the period 2024–2026, defining the objectives and priorities with regard to adaptation to climate change and its mitigation. The inclusion of climate-related issues in the CNB's work is based on its statutory mandate and the objectives defined in the Treaty on the Functioning of the European Union and the Paris Agreement.

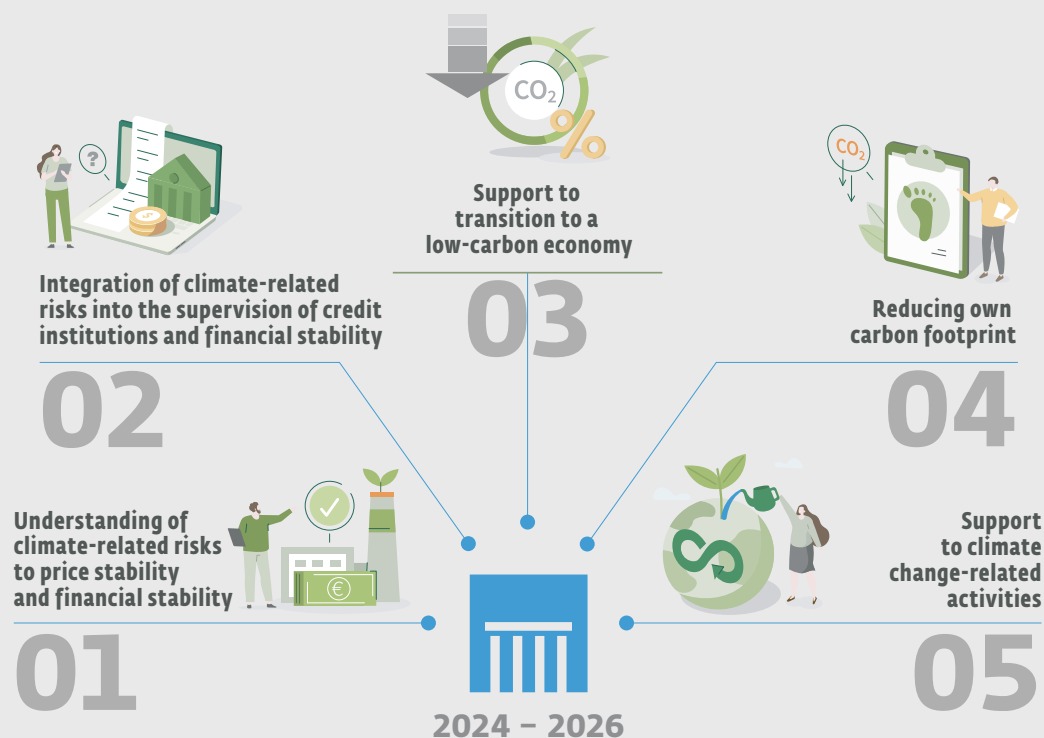
INTRODUCTION

The CNB, like other central banks of the Eurosystem, recognises and accepts its role in facing climate change, one of the greatest challenges that we face today. The Climate Strategy defines the CNB's objectives and priorities with regard to climate change and presents the activities planned in the three-year period from 2024 to 2026. It focuses on the identification and management of climate-related risks that may impact price stability and the financial system, as well as on support to the process of transition to a low-carbon economy and greening the financial system.

For a few years already the CNB has been proactive with regard to climate change and environmental protection. The Croatian central bank has been involved more vigorously in European and international activities since it joined the Network for Greening the Financial System (NGFS) in 2021. Joint supervision of systemically important credit institutions began with participation in the Single Supervisory Mechanism (SSM), which also included the consideration of climate-related risks. The CNB also participates in the joint activities of the working group on climate change of the Vienna Initiative. In 2021, the CNB adopted its Climate Pledge in which it committed to further incorporating climate change-related considerations into its operations. With the decision on Croatia's joining the euro area in July 2022, the CNB became a member of committees and groups in the Eurosystem that implement the comprehensive climate agenda of the European Central Bank (ECB). In the same year, the CNB began cooperation in the area of climate change with stakeholders in the Republic of Croatia – the European Investment Bank, the Croatian Banking Association, the Ministry of Finance, the Croatian Chamber of Economy and others. The CNB also started to evaluate the exposure of its portfolio to climate risks and assess the level of emissions it finances through its investments, and established a working group for reducing its own carbon footprint.

CLIMATE STRATEGY GOALS AND PRIORITIES

The CNB's Climate Strategy sets out the following goals and priorities for the forthcoming three-year period:

FIGURE 1 Climate strategy goals and priorities

The CNB will develop and regularly analyse and assess the impact of climate-related risks on price stability, economic developments and the stability of the financial system. The aim is to increase the understanding of possible consequences of climate change for the economy and the financial sector and develop appropriate strategies to manage, prevent and mitigate such risks. The CNB will strengthen its supervisory activities in the area of climate-related risks, including the assessment and monitoring of climate exposure of credit institutions in line with SSM activities and the regular conduct of climate stress tests. The CNB will strengthen its cooperation with external stakeholders and the financial sector and support the transition to a low-carbon economy in the area of financing the adaptation to and the fight against climate change as well as of environmental protection. It will promote the application of sustainable practices in the management of assets and resources and work on the achievement of climate-related objectives through activities, such as reducing greenhouse gas emissions, increasing energy efficiency and promoting sustainable transport options. The CNB will also intensify employee education in the area of climate change and carry out a set of other activities that will provide support to climate change-related processes, in particular in the segments of coordination and monitoring of such activities at the level of the CNB, communication with the public, the review of such processes or the development and monitoring of the execution of the objectives of this climate strategy.

FIGURE 2 Implementation of the climate strategy and the accompanying action plans includes five key areas

In order to achieve these objectives, the CNB has adopted action plans for specific areas and functional units, as well as plans concerning the support to climate change-related processes.

In conclusion, through the identification and management of climate-related risks, the strengthening of supervisory activities, support to the transition to a low-carbon economy and reducing own carbon footprint, the CNB will actively contribute to the sustainability and resilience of the financial system. In the forthcoming three-year period, the emphasis of the strategy is on climate-related activities, while activities related to environmental objectives will be gradually integrated into the CNB's operations. Cooperating with other institutions and actively participating at the national, European and global levels, in accordance with its mandate, the CNB will be a dependable partner in the confrontation of the climate crisis.

15

Public relations


Croatia's accession to the euro area was the focal point of Croatian National Bank's communication activities in the first half of 2023, together with the end of the national information campaign on the changeover to the euro, which the CNB had conducted together with the Government of the Republic of Croatia. In addition to communication activities associated with the euro changeover, in 2023, the focus was placed on informing the public about the monetary policy of the European Central Bank and its impact on inflation, the economy and interest rates in Croatia.

COMMUNICATION ACTIVITIES

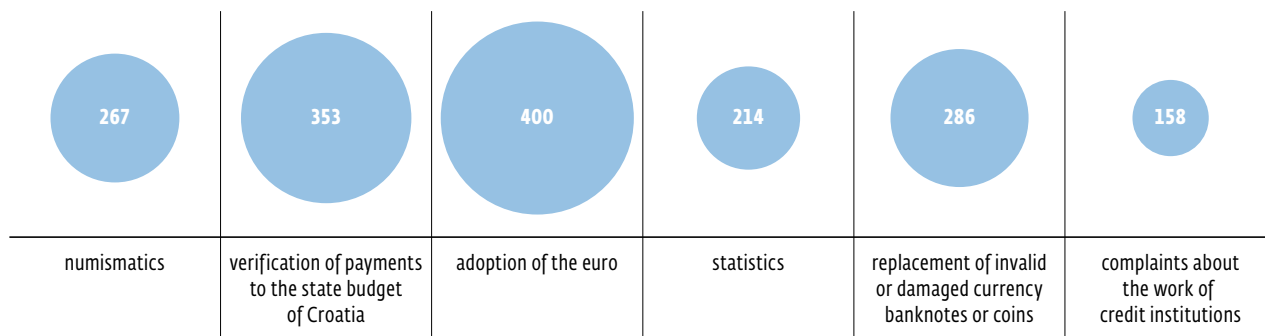
The CNB continued to inform and educate the public on a regular basis in 2023. It published 90 press releases about various topics in the fields of the central bank's competence, ranging from regular press releases on the decisions of the CNB Council that were published after the sessions held, to reports on the operations of the CNB. The monetary policy decisions of the European Central Bank have been important for Croatia since accession to the euro area. The ECB's Governing Council, of which the Governor of the Croatian National Bank is a member, assesses economic and monetary developments every six weeks and adopts monetary policy decisions; the CNB notifies the Croatian public of the decisions through press releases, its website and social media.

Comments and analyses of data collected by the CNB are also published regularly, and the public is informed about them in a simple way. The media follow these publications and often request further information and analyses. The CNB also responds to numerous queries from journalists to acquaint them with the work of the central bank and of the European Central Bank and of all details related to the accession to the euro area. Officials and employees of various organisational units of the CNB made frequent high-profile appearances in the media and attended thematic meetings during 2023, with the aim of informing the general public not only about the euro changeover, but also about numerous tasks within the scope of the Croatian National Bank.

News regarding CNB work, regulations and measures related to central bank areas of operation, alongside regular publications and the research and working papers of CNB's analysts, were regularly published in 2023 on the CNB website, and on official accounts on social media, YouTube, Facebook, X, LinkedIn and Flickr, where 332 posts were released, providing information to the public about the work of the CNB. Topics related to the introduction of the euro, commemorative coins, recruitment and climate change sparked the most interest. The mHNB mobile application providing users with service information – exchange rate list, information list with the consumer loan offers and comparisons of bank fees – was installed on a total of 18,750 devices from its launch to the end of 2023. Over the course of 2023, the CNB answered more than 3600 queries submitted to the central bank by citizens, corporations, media representatives, government institutions, embassies, and others.

After Croatia's entry into the euro area on 1 January 2023, the focus of the national information campaign on the changeover, which was in full swing in 2022, shifted to informing the public about exchanging kuna cash and the impact of the euro adoption on inflation. Important information about the euro changeover was published at the euro.hr  website and on the official campaign accounts on social media as well as all CNB channels. Over the course of 2023, citizens installed and used the mobile application euroHR that assisted them in the changeover. By the end of 2023, the application was installed on more than 436,000 devices, and 60,000 physical conversion calculators were distributed to elderly fellow citizens and especially vulnerable groups.

LINK NO 

FIGURE 15.1 Citizen queries lodged with the CNB according to the most prominent topics in 2023

Source: CNB.

The successful communication campaign contributed significantly to the better dissemination of information among citizens about the euro changeover; in its official report on the conversion, the European Commission noted that 61% of Croatian citizens assessed the changeover as effective and of high quality, while 88% of them considered that they had been well informed about the single currency. This was also confirmed by an independent survey conducted towards the end of the campaign, showing that 90% of citizens were well or very well informed. It is worth noting that this was the first time that the euro changeover took place in an environment of high inflation, which further raised public concerns over possible price increases.

The CNB continued to publish articles by CNB experts on its HNBlog. The topics discussed in the texts and other communication formats that received most attention were the impact of the European Central Bank's monetary policy on inflation, the pass-through of ECB interest rates on the deposit and lending rates for households and corporations in Croatia, and the distribution of household deposits across credit institutions¹. Significant attention was also paid to the impact of increases in wages and corporate profits on inflation and the impact of labour shortages on the overall economic situation in Croatia. The topic of central bank activities to combat climate change also became the focus of public attention in 2023.

Specific communication activities were undertaken to inform the public about important events and conferences organised by the CNB. For example, in May 2023, we reported on a meeting of the Supervisory Board of the European Central Bank, which was for the first time hosted by the Croatian National Bank.

A large student debate was held in the same month. The debate, which took place in the Round Hall of the Croatian National Bank, gathered almost two hundred students and professors of 17 schools from 15 Croatian cities and towns. Members of the Croatian Debating Society discussed the topic "Trebali se o našoj financijskoj budućnosti brinuti sustav ili to moramo činiti sami?" (Does the system look after

¹ For more information, see chapter 9 Research.


our financial future or do we have to do it ourselves?). They were joined by high school pupils from Zagreb, Dubrovnik, Vukovar, Županja, Virovitica, Čakovec, Glina, Knin, Zadar, Vrgorac, Ploče, Split, Krk, Labin and Otočac who actively stated their opinions and raised questions.

In late May, the 29th international economic conference was held in Dubrovnik. The topics discussed included current financial operating conditions and risks to the economic outlook, reasons for high and (more) persistent inflation, monetary policy, climate change, labour markets and fiscal and monetary policies in the context of high inflation.

In early June, there was intensive reporting on the conference “Policymaking in Choppy Waters: Fostering Resilience in Central Eastern and Southeastern Europe (CESEE),” organised jointly by the CNB and the IMF. This conference, organised for the third time, was co-hosted by the IMF Managing Director Kristalina Georgieva and the Governor of the CNB, Boris Vujčić. It provided a forum to discuss key challenges and policy options for the region, focusing on enhancing energy security in the context of the green transition, adjusting to ongoing shifts in trade and foreign direct investment patterns, and steering macroeconomic and structural policies in a world of more frequent supply shocks.

In June, the CNB and the Croatian Financial Supervisory Agency (HANFA) presented the results of the third survey on financial literacy in the Republic of Croatia. The aim of the survey was to gather information on financial behaviour and attitudes and the knowledge of Croatian citizens about finances. Croatia achieved an overall financial literacy score of 62%; the survey showed that the financial behaviour of Croatian respondents is below the OECD average, although the financial knowledge of citizens is constantly growing.

The first CNB Open Day organised after the COVID-19 pandemic and the earthquakes has shown that citizens are keenly interested both in the work of the central bank and in its building. Throughout the day, members of the public had the opportunity to participate in expert workshops and take a tour of the Round Hall. More than 1100 people visited the CNB, and some of them took part in the workshops entitled “Zašto vrijedi štedjeti?” (Why should you save?), “Pobliže upoznajte euronovčanice” (Get to know euro banknotes) and “Hrvatska narodna banka u Eurosustavu” (The Croatian National Bank in the Eurosystem). As part of the Open Day, students and representatives of associations also had an opportunity to meet Governor Vujčić and Deputy Governor Sandra Švaljek. The Governor delivered a lecture on the topic of monetary policy decision-making and the functioning of the ECB’s Governing Council and on his role in that body, while the Deputy Governor spoke about central banking in the context of climate change.

In the first half of December, the CNB adopted its Climate Strategy for the period 2024–2026, which had been widely promoted through all communication channels; in late December the public was **informed about the visit**  of the Deputy Club of the Croatian Peasant Party and the Workers’ Front to the CNB.

LINK NO 

16

Activities of the Visitors' Centre

During 2023, the Croatian National Bank continued to educate interested citizen groups, mostly young people, on topics within its purview in the Visitors' Centre, striving to contribute to the strengthening of general economic literacy. CNB presentations and workshops were an opportunity for pupils and students to meet central bank experts and receive information about their work, which can help young people in their professional orientation. For CNB employees – lecturers at the Visitors' Centre these were opportunities to have conversations with attendees of the educational programmes as well as to get to know their ideas and attitudes better.

TRAINING

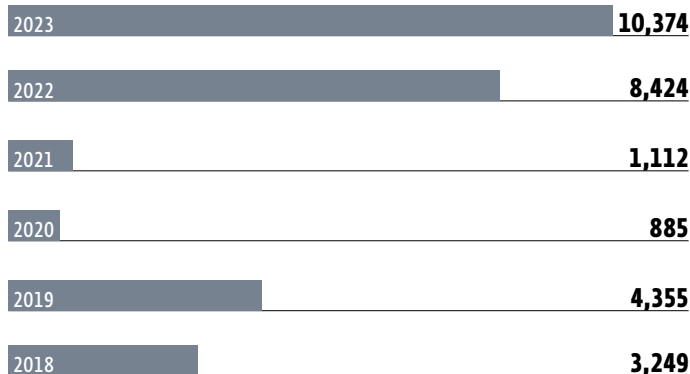
In 2023, the interest in the training events organised by the CNB Visitors' Centre continued to be extraordinarily high: a total of 10,374 participants attended them, up on the 8424 in 2022 and 4355 in the pre-pandemic year of 2019. The majority of attendees of presentations and workshops by CNB experts were secondary school and primary school pupils from various parts of Croatia¹.

Lectures by CNB experts also raised the interest of visitors from abroad, so that several presentations were held for students from Belgium, the Netherlands, Spain, the US and other countries.

CNB lecturers were also engaged in schools in Slavonski Brod, Tordinci, Komarevo, Đakovo, Štitar, Drniš, Marčana, Kastav, Macinec, Rijeka, Hrvatska Dubica, Čakovec, Barban, Sv. Lovreč, Posedarje, Seget Donji and other places. Several lectures were held at faculties in Osijek, Split and Zagreb.

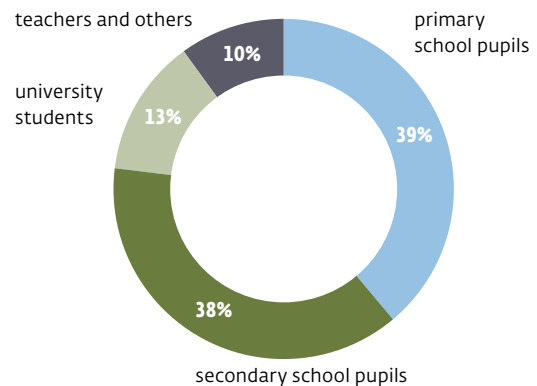
FIGURE 16.1 Number and structure of attendees of CNB educational programmes

Number of attendees of educational programmes by years:



Source: CNB.

Structure of attendees of educational programmes in 2023:



Topics related to the euro attracted the interest of the largest number of attendees, mostly primary and secondary school pupils, and their teachers. The two most visited training events were:

- “Euro – naš novac” (Euro – our currency), a training session on the tasks of the CNB, the euro changeover process, and the features of euro banknotes

¹ From Šibenik, Korčula, Lovinac, Metković, Vinkovci, Vukovar, Pazin, Ogulin, Novska, Split, Glina, Drniš, Varaždin, Virovitica, Slavonski Brod, Biograd na Moru, Makarska, Hrvatska Kostajnica, Poreč, Čakovec, Zadar, Križevci, Rovinj, Novi Marof, Plitvička Jezera, Opatija, Koprivnica, Trogir, Pula, Rab, Smiljevci, Županja, Brdovec, Moravice, Ravna Gora, Ivanić-Grad, Drnje, Bedekovčina, Dugo Selo, Budaševno, Zabok, Ivanec, Vis, Osijek and Zagreb.

- and coins, with an emphasis on the security features, conducted by experts from the Currency Area and the Visitors' Centre; and
- “Uvođenje eura u Republici Hrvatskoj” (Introduction of the Euro in the Republic of Croatia), a presentation organised by the European Relations Department, which explains the process of introducing the euro, the determinants of that process, as well as the benefits and costs of joining the euro area.

In addition to attracting schoolchildren and students, this topic was also of interest to teachers, including inter-county expert councils of teachers of economics and other subjects. Given the rising interest in improving financial literacy in the narrower sense, attendees were instructed about personal finance management, money development and banking basics, banking products and services, and the risks of internet and mobile payments.

Current economic trends, inflation, the CNB's role in preserving financial system stability, developments in the real estate market, prevention of money laundering and terrorist financing, crypto-assets, digital currency, supervision of credit institutions, the state of the banking system and cash management were also topics of interest to the attendees of the CNB's educational programmes.

Most of the educational programmes were held live at the Croatian National Bank, while a few were held online.

17

Human resources and organisation

Key human resources functions include attracting and finding new employees, hiring, training and career development, assisting and supporting employees, and modernising and improving the organisational set-up in such a way that its changes follow the changes in the narrow and/or wider environment. Organisational and employee development in 2023 was equally focused on acquiring knowledge and skills to improve organisational effectiveness and on the required organisational adjustment related to the introduction of the euro. Employees of CNB organisational units and of the whole of the CNB as institution were able, because of their particular knowledge, skills and abilities, to respond successfully to the demands and business dynamics of the very challenging and turbulent period of the first year of the euro as the new national currency.

IMPORTANCE OF EMPLOYEE WORK-LIFE BALANCE

Employees' efforts to meet the requirements of their different roles at the same time can be reflected in their concentration, focus on work, efficiency, and increased level of stress, all of which can undermine employees' health. Given the fact that employees are a key factor in success, in 2023 the CNB continued to take efforts to recognise employees' need for a work-life balance. Attention thus focused on the care for children and other immediate family members, as well as maintenance of the health of employees. The right to a break for breastfeeding, paternity leave, parental leave and leave for caring for a child with severe developmental disabilities are some of the rights fully supported by Human Resources. Furthermore, another benefit provided to employees is remote working, that is, the option to work from home for five days in a calendar month.

Under the new [Act on Amendments to the Labour Act](#) ¹ (Official Gazette 151/2022), employees may request amendments to their employment contracts under which they could work from home for more than five days per month for a limited period of time in situations provided for under the law.

In 2023, the CNB continued its long-standing tradition of organising flu vaccinations for its employees and it also organised three voluntary blood donation campaigns.

CHANGES IN INTERNAL ORGANISATION

The CNB in 2023 continued to adjust its internal organisation in order to successfully achieve its goals and tasks, and thus improve business processes. During 2023 amendments to the Rules on internal organisation encompassed ten organisational units at the level of areas and offices.

In view of the CNB's role and Croatia's accession to the euro area, the changes mostly focused on amendments to descriptions of specific job positions and functional units as well as terminology adjustment related to the change in the official currency.

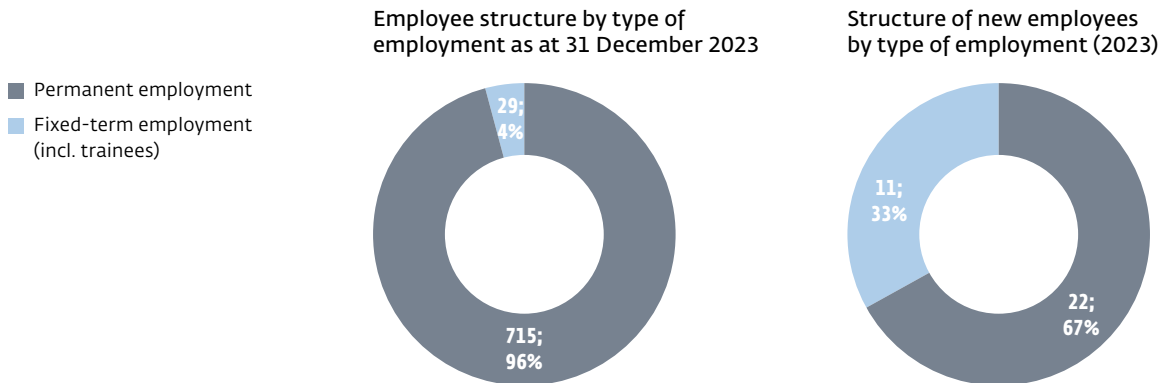
RECRUITMENT AND EMPLOYMENT RELATIONSHIPS

As at 31 December 2023, the CNB had a staff of 744, which is 1% more than at the end of 2022. Of this number, 96% employees were in permanent employment and 4% in fixed-term employment.

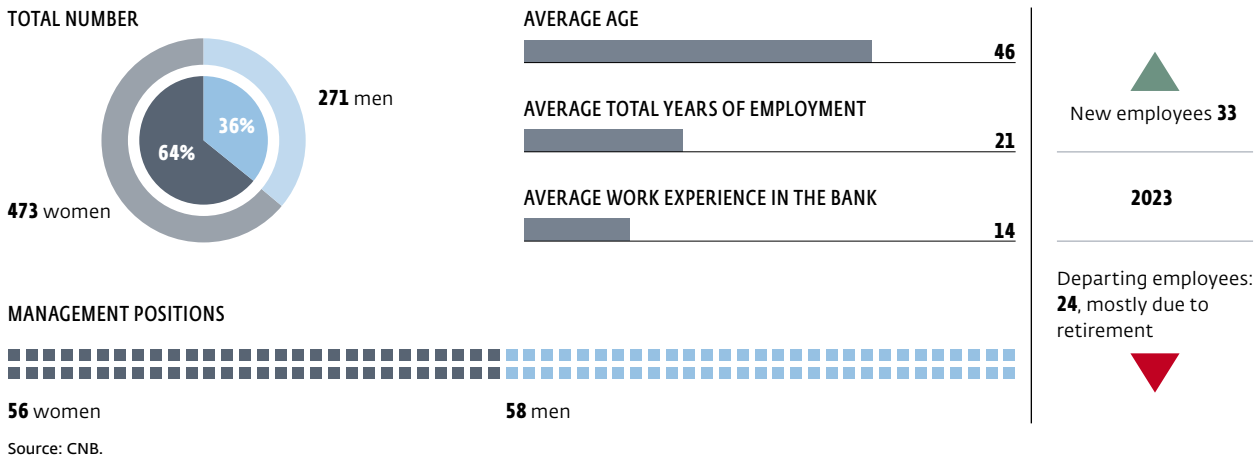
Women still account for the majority of employees, so that the CNB remains one of the few central banks in the European System of Central Banks that has a higher share of women in the structure of employees according to gender.

LINK NO ¹



FIGURE 17.1 Employee number and structure according to type of employment

Source: CNB.

FIGURE 17.2 Employee structure at the CNB in 2023

Women work in all types of jobs: research, analytical, supervisory, legal, IT, etc. and hold a fair share of management positions.

After 2022, when a large number of new employees came from technical callings, mainly due to the need for employment in the storage, processing and supply of banknotes and coins, in 2023, new employees were again, by and large, professional economists.

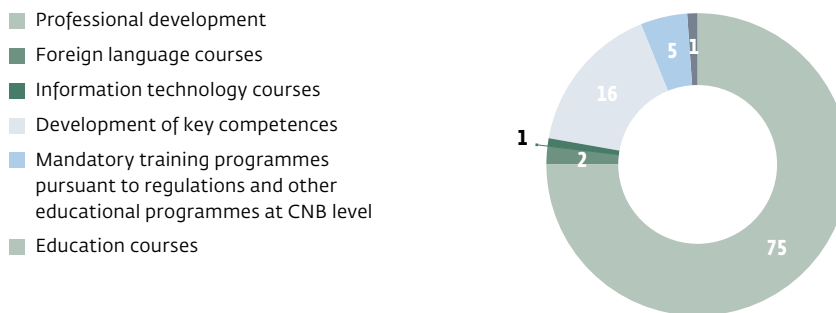
Over the course of 2023, a total of 24 employees left the CNB permanently, mostly due to retirement. The average age of employees is 46 years, the average total years of employment is 21, with the average number of years of work experience in the CNB being 14.

Given that the CNB supports and fosters an interdisciplinary approach to work, although most of the employees with higher education qualifications are professionals who come from the economics profession, the CNB employs a relatively large number of professionals from other natural, technical, social, and other disciplines. As in the previous years, a large share of employees with higher education qualifications have completed doctoral studies, master's studies or another type of postgraduate study.

Employee development

The number of employees that participated in various educational programmes was larger than in the previous years. Most of the employees engaged in professional development programmes, while a smaller share of employees took part in foreign language courses, development of competences, education courses, information technology courses, and the like.

FIGURE 17.3 Employee development by type of education (2023)



Source: CNB.

It should be noted that in 2023, in addition to basic information technology courses (Word, Excel, Access, etc.), there were training courses for specific business needs, e.g. training in Tableau, a tool for data processing and presentation, programme languages R, PYTHON, SQL, and the like.

Development and improvement of competences continue

In 2023, the CNB hosted several workshops for targeted large groups of employees from different organisational units in efforts to further improve their competences.

The workshop “Klimatski kolaž” (Climate collage), including lectures on climate change and biodiversity, was organised and conducted for supervisors. Through interactive participation, the workshop provided an easy-to-understand presentation of a broader picture of causes and consequences of climate change and

potential climate disasters; at the lectures, participants learned about European and Croatian climate policies and the Croatian contribution to the fight against climate change and biodiversity preservation in the Plitvice Lakes National Park.

Employees of the Statistics Area and the Credit Institutions Resolution Office participated in the workshop “Organizacijska kultura i spremnost na promjene” (Organisational culture and readiness for change). The workshop drew attention to the human side of the change process and guided participants through techniques that enable successful cooperation and active participation of individuals and groups in that process. In addition to learning about the best practices of successful companies undergoing organisational changes, participants took part in the brainstorming exercise entitled “Prilika za poboljšanje moje karijere u Hrvatskoj narodnoj banci” (An opportunity to advance my career at the Croatian National Bank), which produced numerous new, high quality ideas that were grouped into four key areas of the CNB that may benefit from changes (training, mobility, well-being at work and improvement of business processes).

The workshop “Upravljanje vremenom i stresom” (Time and stress management) was organised for employees of the International and European Relations Area. It aimed to provide practical illustrations of time management situations and point to personal and external factors that “steal” time, and help with better time management. Participants also learned about causes of stress and practical and easy-to-use techniques that can help in managing personal stress.

Employees of the Central Banking Operations Area and the Internal Audit Office participated in the workshop “Učinkovita komunikacija” (Efficient communication). Among other things, the workshop aimed at raising awareness about how to communicate, receive and provide information efficiently and formulate messages that convey mutual respect and understanding.

Employees of the Currency Area took part in internal training on the topic of “Kako prepoznati krivotvorene novčanice i kovanice” (How to recognise counterfeit banknotes and coins). A lecture on the topic of “Transhuman agenda – sljedećih 50 godina” (The transhuman agenda – the next 50 years) was organised to raise awareness about the importance of key technologies and individual readiness for new challenges. A targeted group of department directors was also provided an opportunity for continued advancement of basic competences through annual access to online programmes in the field of competences in soft skills and business foreign languages.

The CNB hosted foreign lecturers from the European Systemic Risk Board at a seminar entitled Eurosystem Accounting and Reporting Framework. A total of 17 participants from different central banks took part in the seminar, where, in addition to acquiring new knowledge and information, they exchanged work experience and good practices.

Student internship

In late May 2023, the CNB invited applications for student internships for a maximum duration of 25 days. Out of a total of 19 students that met the requirements (17 from the field of economics, one from the field of mathematics and one from the field of IT), six students were selected (five majoring in economics and one majoring in mathematics).

5 Ethics and integrity

The highest standards of ethical conduct and integrity for Croatian National Bank employees are established in the Code of Conduct of the Croatian National Bank. The Code incorporates the principles of the Eurosystem Ethics Framework and the Ethics Framework for the Single Supervisory Mechanism, in particular the principles of independence, accountability, transparency and the maintenance of the highest standards of professional ethics and integrity including lack of tolerance for inappropriate behaviour and harassment.

THE NEW ETHICS FRAMEWORK OF THE CROATIAN NATIONAL BANK

The new ethics framework of the CNB, which came into effect on 6 June 2023, comprises the following:

- 1) the **Code of Conduct of the Croatian National Bank** ❶ (hereinafter: the Code of Conduct);
- 2) the Decision on restrictions on critical private financial transactions of employees of the Croatian National Bank;
- 3) the Decision on exemptions from the prohibition on receiving advantages; and
- 4) the Decision on managing conflicts of interest.

LINK NO ❶



The new ethics framework of the CNB incorporates the principles of the Eurosystem Ethics Framework and the Ethics Framework for the Single Supervisory Mechanism, i.e. it transposes the provisions of **Guideline (EU) 2021/2253 of the European Central Bank** ❷ of 2 November 2021 laying down the principles of the Eurosystem Ethics Framework (ECB/2021/49) and **Guideline (EU) 2021/2256 of the European Central Bank** ❸ of 2 November 2021 laying down the principles of the Ethics Framework for the Single Supervisory Mechanism (ECB/2021/50).

LINK NO ❷



The guidelines lay down measures aimed at developing minimum standards and rules aimed at preventing insider trading and the misuse of non-public information, preventing and managing conflicts of interests, as well as avoiding even any appearance of such forms of unethical behaviour. The national central banks have a certain latitude in defining the most appropriate framework for such measures.

LINK NO ❸



Accordingly, the Code of Conduct lays down the highest standards of ethical conduct and integrity for employees, classified into the following six areas: a) protection of dignity and prohibition of discrimination; b) avoidance of conflicts of interest; c) communication, including communication among employees, and between employees and third parties as well as in public appearances, teaching

and opinion writing; d) professional secrecy and prohibition on the misuse of non-public information; e) impartiality; and f) treatment of the CNB's property and resources. The Code of Conduct also lays down the following core ethical principles promoted by the CNB: acting responsibly, honestly, independently and impartially, with respect and discretion, avoiding any form of inappropriate behaviour, as well as maintaining professionalism, transparency, equality, diversity and inclusion.

Given its importance and scope, the issue of avoiding conflicts of interest is also regulated in the remaining three internal bylaws that are, together with the Code of Conduct, part of the CNB's ethics framework. The Decision on restrictions on critical private financial transactions contains a list of critical private financial transactions that may not be executed and a list of critical private financial transactions that employees are required to report subsequently to the Compliance Office (hereinafter: the Office). The Decision on exemptions from the prohibition on receiving advantages specifies cases in which employees may receive advantages despite the general prohibition of soliciting, receiving and accepting advantages. Finally, the Decision on managing conflicts of interest contains procedural provisions for reporting and handling of conflicts of interest.

EDUCATION AND COUNSELLING OF EMPLOYEES

Provision of education and counselling to employees, preparation of opinions and interpretation of the acts constituting the CNB's ethics framework as well as preventive action are the tasks of the Office and are implemented with a view to ensuring a uniform and consistent application of the Code of Conduct.

In order to acquaint employees with the new Code of Conduct, in the course of 2023, the Office conducted training focused on the Code and it will continue to do so in 2024.

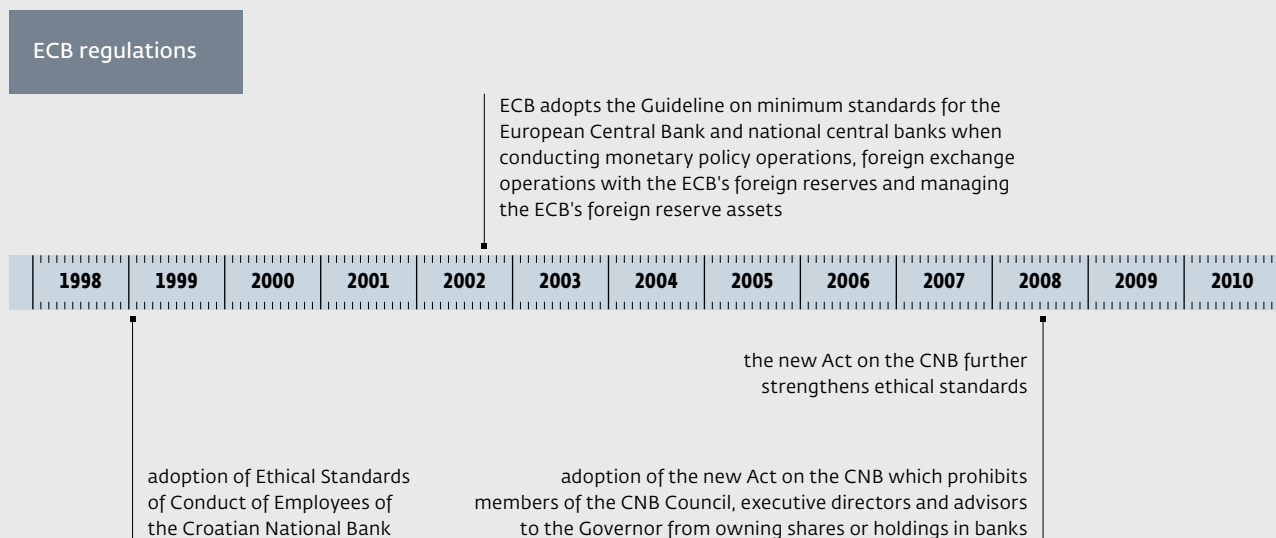
Furthermore, the Office also organises and conducts training courses for new employees of the CNB within the programme entitled "Razgovarajmo o etici" (Let's talk about ethics) in efforts to provide them with basic information about the CNB's ethics framework and acquaint them with the highest standards of ethical behaviour and integrity and the core ethical principles promoted by the CNB. Three training courses took place in 2023, with 16 new employees completing the training.

To provide a closer look at the topic of ethics in investment, four specialised training courses were held in 2023 under the title "Osnove tržišta kapitala i etički aspekti usklađenosti" (Fundamentals of capital markets and ethical aspects of compliance), pursuant to the contract on training on the fundamentals of capital markets and ethics in investment concluded between the CNB and the Zagreb Stock Exchange Academy. The training was conducted by lecturers engaged by the Zagreb Stock Exchange Academy.

In addition to organising and/or conducting planned courses, the Office provides counselling and instructions to employees, and prepares opinions and interpretations of individual provisions of the acts constituting the CNB's ethics framework, based on individual inquiries of both employees and organisational units. Inquiries most often relate to work for another employer, restrictions on critical private financial transactions of employees, prevention of conflicts of interest in the recruitment process and exemptions from the prohibition of receiving advantages, but they may relate to any other area covered by the Code of Conduct.

Finally, through internal communication channels, the Office informed employees about the entry into force of the new CNB's ethics framework and about obligations and restrictions under that framework.

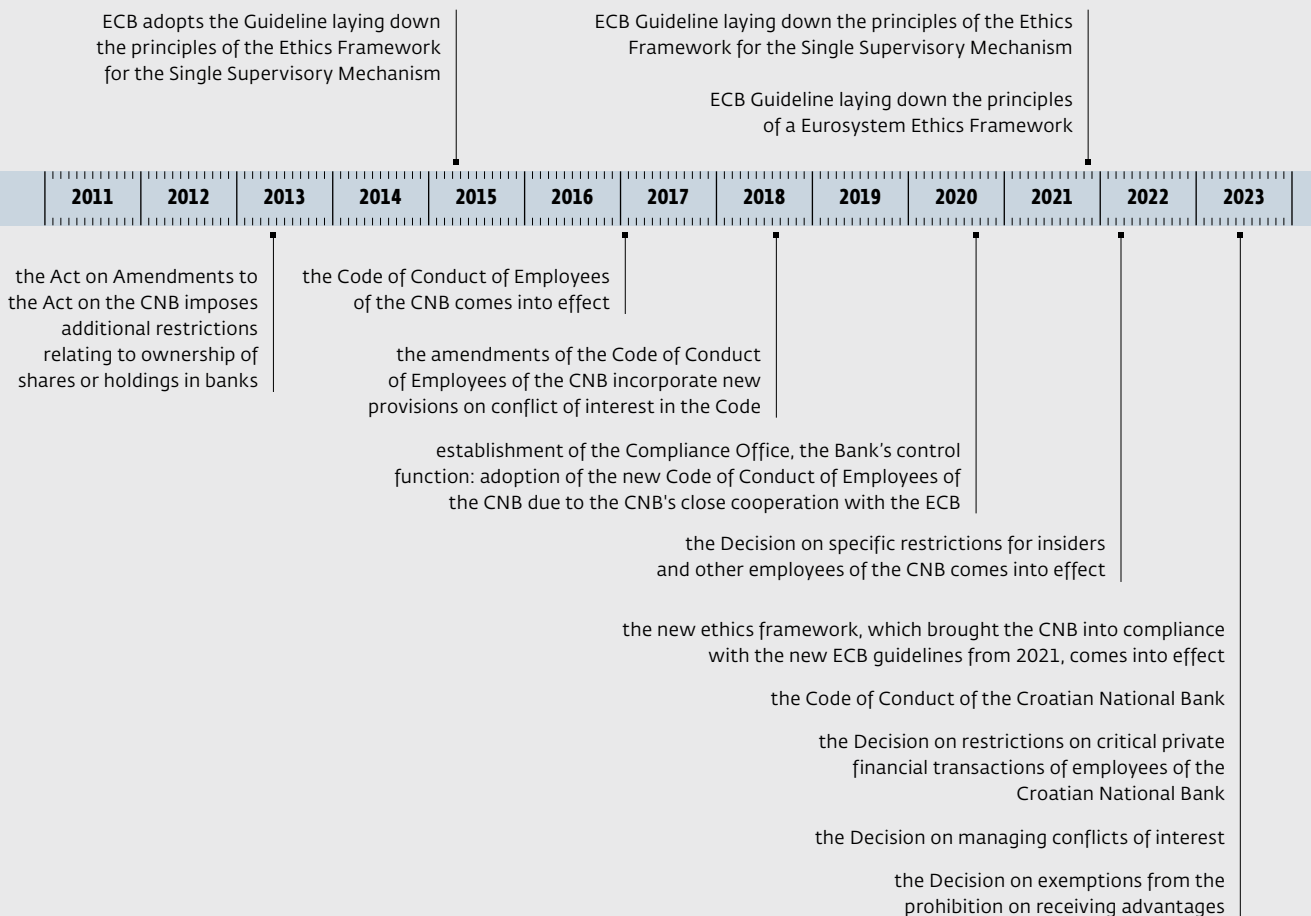
FIGURE 1 Development of ethical standards in the CNB



SUPERVISION OF ETHICAL COMPLIANCE

The Office supervises ethical compliance on a regular basis in order to detect, identify, monitor and reduce or eliminate the risk of ethical non-compliance and exposure to that risk. Supervision is carried out on the basis of the Annual plan of supervision; in the course of supervision, the Office is provided open access to information, information systems and other resources of the CNB and it may obtain statements and testimonies of employees in relation to the subject of supervision.

The Annual plan of supervision for 2023 served as a basis for regular supervision of the application of the Code of Conduct, the Decision on restrictions on critical



Source: CNB.

private financial transactions of employees and the Decision on exemptions from the prohibition on receiving advantages. The supervision covered 71 employees from 30 organisational units. The Office provided questionnaires to employees covered by the supervision and requested additional information from individual employees for further verification purposes.

In the future, the Office will continue to carry out activities aimed at familiarising all employees with the provisions of the new CNB ethics framework, as well as regular supervision in order to identify and reduce or eliminate the risk of ethical non-compliance and exposure to that risk.

Members of the Council and management of the Croatian National Bank



Members of the Council of the Croatian National Bank

Boris Vujčić, Governor
Sandra Švaljek, Deputy Governor
Michael Faulend, Vicegovernor
Bojan Fras, Vicegovernor
Tomislav Ćorić, Vicegovernor
Slavko Tešija, Vicegovernor
Roman Šubić, Vicegovernor
Ivana Jakir-Bajo, Vicegovernor

Chief Economist: Vedran Šošić
Chief Operating Officer: Tomislav Presečan

Executive directors

Research Area
 Controlling, Finance and Accounting Area
 Information Technology Area
 Support Services Area
 Central Banking Operations Area
 Communications Area
 Statistics Area
 Prudential Regulation and Methodology Area
 Expert Supervision and Oversight Area
 Prudential Supervision Area
 Legal Area
 Payment Operations Area
 International and European Relations Area
 Currency Area

Davor Kunovac
Diana Jakelić
Mario Žgela
Boris Zaninović
Irena Kovačec
Alemka Lisinski
Tomislav Galac
Sanja Petrinić Turković
Damir Blažeković
Renata Samodol
Dražen Odorčić
Ivan Biluš
Sanja Tomičić
Tihomir Mavriček

Directors of the Offices

Security Office
 Internal Audit Office
 Foreign Exchange Regulation Office
 Compliance Office
 Consumer Protection Monitoring Office
 Credit Institutions Resolution Office
 Succession Issues Coordination Office
 Office of the Governor
 Office for Coordination of Prudential Supervision,
 Oversight and Risk Management Activities

Zoran Bogdanović
Ivana Krečak
Zoran Jurak
Vjekoslav Kozina
Snježana Levar
Lidija Pranjić
Snježana Raić
Nina Srkalović

Mario Varjačić

Director of the Visitors' Centre

Visitors' Centre

Dejana Rebernik

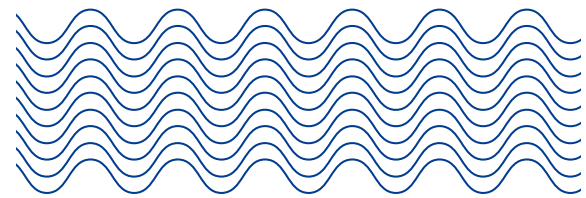
Organisational scheme



GOVERNOR		Deputy Governor	Vicegovernor
Chief Economist	Chief Operating Officer	Central Banking Operations Area	Statistics Area
Research Area	Controlling and Accounting Area	Monetary Operations Department Liquidity Forecasts Division Open Market Operations Division Transactions Processing Division	Monetary and Financial Statistics Department Monetary Financial Institutions Statistics Division Securities and Non-Monetary Financial Institutions Statistics Division Financial Accounts and Government Finance Statistics Division
Economic Analysis Department Real Sector and Budget Analysis Division External Sector Analysis Division	Controlling Department	International Reserves and Foreign Exchange Liquidity Department Foreign Exchange Trading and Investment Division (front office) Foreign Exchange Settlement Division (back office) Investment Research and Performance Evaluation Division (middle office) Market Strategy Division	External Statistics Department Balance of Payments Statistics Division External Debt and International Investment Position Statistics Division
Monetary Policy Department	Finance and Accounting Department Central Accounting Division Monetary and Payment Operations Accounting Division International Reserves and Other Financial Assets Accounting Division Internal Accounting Operations Division Finance and Administrative Accounting Division		General Economic Statistics and Statistical Information Systems Department
Macroprudential Policy and Financial Stability Department			Credit Institutions Resolution Office
Compliance Office	Information Technology Area	Communications Area	
Payment Operations Area	Application Systems Development Department Data Warehouse Division Business Application Systems Development Division Quality Assurance Division	External, Internal and Digital Communications Department External and Internal Communications Division Digital Communications Division	
Payment Operations Regulation and Development Department	IT Operations Department Network and Operating Systems Management Division User Support Division Information System Security and Protection Division Database, Enterprise Reporting Systems and Document Management Division	Publications Department	
Payment Operations Supervision Department Payment Operations Supervision Division Payment Operations Statistics Division		Language and Documentation Department Translating and Language-Editing Division Information and Documentation Division	
Payment Systems Operations Department Payment Systems Division Client Operations Division		Office of the Governor	
	Support Services Area	Internal Audit Office	
	Human Resources Department	Visitors' Centre	
	Technical Services Department Technical Support Services Division Maintenance Division		
	General Services Department General Support Services Division Mail Services Division Facilities Supply and Storage Services Division		
	Procurement Department		
	Business Protocol Department		
	Security Office		

Vicegovernor	Vicegovernor	Vicegovernor	Vicegovernor	Vicegovernor
Prudential Regulation and Methodology Area	International Relations Area	Legal Area	Foreign Exchange Regulation Office	Currency Area
Prudential Regulation and Crisis Management Department	European Relations Department ESCB and Eurosystem Division EU Policies Division	Financial and Supervisory Law Department Financial Law Division Supervisory Law Division	Succession Issues Coordination Office	Currency Operations Regulation, Development and Control Department Currency Operations Regulation and Development Division Currency Operations Control Division
Risk Modelling Department	International Financial Institutions Department International Financial Institutions Policies Division Division for Financial Relations with International Financial Institutions	General Legal Affairs Department		Currency Safekeeping, Processing and Supply Department Currency Safekeeping and Supply Division Currency Processing Division
Prudential Reporting, Methodology and Analysis Department Prudential Reporting Division Prudential Methodology and Analysis Division		Consumer Protection Monitoring Office		National Counterfeit, National Analysis and Coin National Analysis Centres National Counterfeit Centre National Analysis and Coin National Analysis Centres
Prudential Supervision Area				
Supervision Department I Supervision Department II Supervision Department II On-site Supervision Department				
Expert Supervision and Oversight Area				
Information Systems Supervision Department Anti-Money Laundering and Terrorist Financing Supervision Department				
Office for Coordination of Prudential Supervision, Oversight and Risk Management Activities				

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Climate Report **2023**



Climate Report

This report is the second climate-related financial disclosure for non-monetary portfolios of the Croatian National Bank. By reporting on climate metrics, the CNB contributes to enhancing transparency regarding potential climate risks and climate compatibility at Eurosystem level.

Climate change and the transition to a sustainable economy affect financial asset valuation not only through interest rates, inflation rates, employment, investment and other macroeconomic indicators, but also through financial stability and the transmission of monetary policy. This is why the transition towards a climate-neutral economy requires comprehensive efforts from the entire society, market participants, governments and central banks.

Eurosystem central banks have agreed on a common framework for climate-related disclosures for non-monetary portfolios, accepting the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), the Partnership for Carbon Accounting Financials (PCAF) and the Network for Greening the Financial System (NGFS). Towards the end of the first quarter of 2023, Eurosystem central banks published their first climate-related financial disclosures and committed themselves to publishing them annually.

In its Annual Report for 2022, the Croatian National Bank published climate metrics for the portfolio of net international reserves, i.e. its non-monetary portfolio.

As mentioned above, this report follows TCFD recommendations and therefore covers the following four thematic areas: a) governance, b) strategy, c) risk management, and d) metrics and targets.

1 GOVERNANCE

The governance of the Croatian National Bank is laid down in the Act on the CNB, the Treaty on the Functioning of the European Union and the Statute of the ESCB and of the ECB. Within its mandate, the CNB incorporates climate-related issues into its operations and adapts its activities in accordance with the objectives and tasks defined in the Treaty on the Functioning of the European Union and the Paris Agreement. As the central bank of the Republic of Croatia and a Eurosystem member, the Croatian National Bank supports climate-related objectives, without compromising price and financial stability.

In 2021, the CNB adopted its Climate Pledge, became involved more intensively in European and international activities and joined the Network for Greening the Financial System (NGFS). The CNB

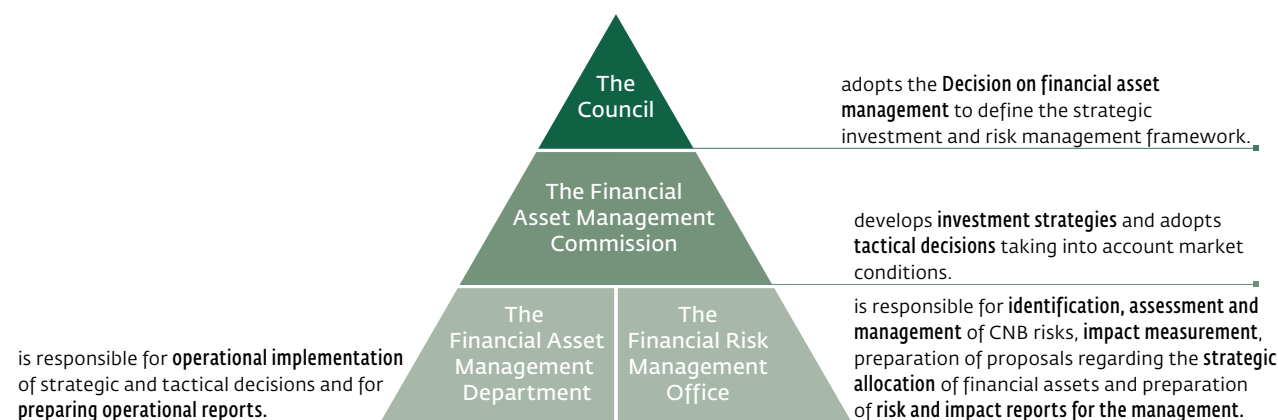
also participates in the joint activities of the working group on climate change of the Vienna Initiative. After joining the Single Supervisory Mechanism (SSM) it also started consideration of climate-related risks within the framework of the supervision of credit institutions. Croatia's accession to the euro area has led to intensified cooperation with Eurosystem committees and working groups that implement the climate agenda of the European Central Bank (ECB). One of the results of this cooperation was the CNB's first disclosure on the climate impact of its own financial assets in the Annual Report for 2022.

The CNB also established a working group whose task is to propose measures to reduce greenhouse gas emissions and to protect the environment in the operations of the Croatian National Bank. The group prepared the first report on the carbon footprint of the Croatian National Bank, including a calculation of the CNB's carbon footprint for 2019 and 2022. A working group for the coordination of climate-related activities was established in late 2023 with a view to coordinating climate-related activities and monitoring the implementation of the CNB's Climate Strategy.

In December 2023, the CNB adopted the Climate Strategy for the period from 2024 to 2026, defining the objectives and priorities with regard to adaptation to and mitigation of climate change. In the strategy the CNB not only defines its long-term vision, but it also incorporates climate- and environment-related issues in all aspects of its work. It focuses on the identification and management of climate-related risks and on support to the transition to a low-carbon economy. The Climate Strategy sets the following main goals for the forthcoming three-year period: the understanding of climate risks for price stability and financial stability, integration of climate risks into the supervision of credit institutions, support to the transition to a low-carbon economy, reducing own carbon footprint and active support to climate change-related initiatives.

Financial assets managed by the CNB consist of the foreign currency assets of the Republic of Croatia 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. These assets also include the portfolio, which is not actively managed, of Croatian government bonds purchased during the COVID-19 pandemic to mitigate economic consequences and market disturbances. In managing financial assets, the CNB aims to support monetary policy, financial stability and confidence in the financial system and is primarily governed by the principles of liquidity and safety of investment.

The Council of the CNB formulates the strategy and policy of financial asset management. The Decision on financial asset management specifies the guidelines, criteria and limits on risk exposures. In accordance with the objectives and criteria set by the Council of the CNB, the Financial Asset Management Commission develops investment strategies and adopts tactical decisions taking into account market conditions. The Financial Asset Management Department is responsible for investing financial assets on a daily basis, while the Financial Risk Management Office is responsible for assessing and measuring risks, impact measurement and drafting proposals for strategic allocation of financial assets. The Financial Asset Management Department and the Financial Risk Management Office are responsible for preparing reports for the Commission, Management and Council. In financial asset management, the CNB maintains appropriate risk exposure and, within the given restrictions, attempts to ensure favourable rates of return on its investments.

FIGURE 1 Strategy and decisions regarding the management of CNB's financial assets

Source: CNB.

Analyses of risks and options related to climate change are considered in the context of the existing governance structure and investment strategies.

2 STRATEGY

With the publication of its Climate Pledge in 2021, the Croatian National Bank highlighted the importance of the need to act with the objective of adapting to climate change, palliating climate change and supporting the climate transition. Among the goals specified in the Pledge, the CNB mentions developing and subsequently implementing its own climate strategy in different areas of its competence, including financial asset management.

The Croatian National Bank manages financial assets that consist of:

- euro-denominated domestic assets not related to monetary policy, and
- foreign currency assets that have not been transferred to the European Central Bank.

Without interfering with the common monetary policy of the Eurosystem, in managing financial assets, the CNB supports monetary policy, financial stability and confidence in the financial system and is governed primarily by the principles of liquidity and the safety of investment.

The largest share of financial assets is invested in government and government institution securities, the safest and most liquid instruments. This also means that the behaviour of the governments issuing these securities significantly affects the sustainability of the financial asset portfolio itself. In addition, financial assets are invested in the securities of international financial institutions and in covered bonds.

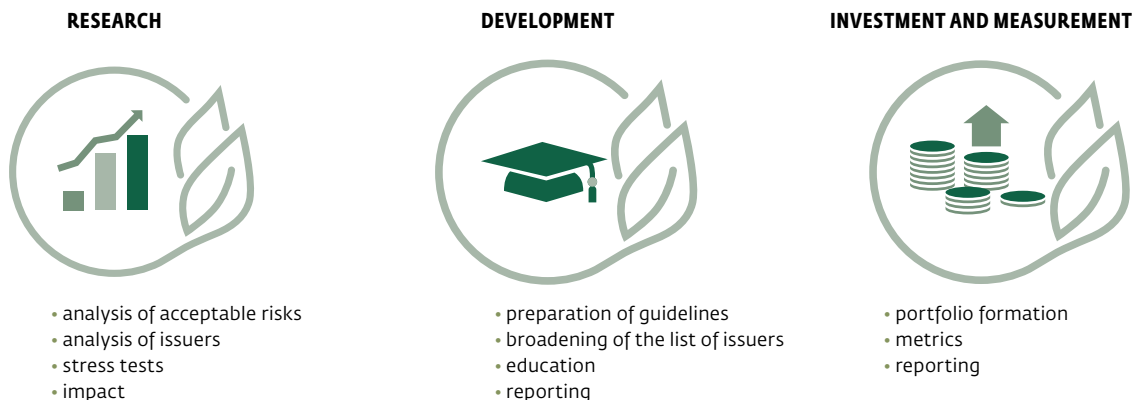
The negative impact of climate change on financial assets (e.g. a fall in asset prices, a deterioration in portfolio credit quality, etc.) might materialise over a medium to long term. For this reason, in

In addition to climate-related indicators, the financial asset management strategy will include the sustainability criterion in line with acceptable risks, adequate asset types and operational capabilities. The inclusion of the sustainability criterion in the strategy implies the recognition of issues related to environmental protection, social issues and corporate governance, as well as enhancement of risk management. The criteria of acceptable risks and asset types, as well as investment concentration, must be taken into account in this context. Furthermore, special attention is paid to the transparency and quality of climate-related financial disclosures.

The CNB directs a portion of its investments towards bonds associated with projects having a positive environmental impact, the so-called ESG investments. Eligible ESG issues by type of securities include green bonds, social bonds, sustainability bonds and sustainability performance-linked bonds. By investing in ESG bonds, investors become indirectly involved in the processes of reducing greenhouse gas emissions of their issuers, although the carbon footprint of investors themselves remains unchanged.

The definition of the ratio of eligible ESG securities under the sustainability criterion to total securities depends on market conditions and the quantity of ESG issues in total issues of eligible issuers.

FIGURE 2 Activities to be taken for the purpose of greening financial assets



Source: CNB.

3 RISK MANAGEMENT

The CNB recognises the importance of a thorough understanding of climate change risks for financial asset management and has therefore adopted the terminology and methodology to identify, assess and reduce climate-related risks proposed by the TCFD. The CNB also actively works on the incorporation of long-term climate risks in financial asset management, as well as on the acquisition of new knowledge and methodology improvement on an ongoing basis.

CNB financial assets not related to monetary policy are exposed to climate-related risks, which might lead to undesirable consequences in the event of gradual changes in risk drivers (e.g. temperature increases) or acute risk drivers, such as extreme weather events (e.g. droughts or floods).

Climate change may give rise to two types of risks to financial stability: transition and physical risks. Transition risks refer to the probability and impacts of the economic consequences of climate transition, such as regulatory changes and technological transformation. Physical risks, on the other hand, refer to the probability and impacts of severe weather events or natural disasters.

Integration of climate-related risks in the process of comprehensive risk management is currently under way; these risks will not be assigned to a separate risk category, instead they will be considered as factors adding to existing categories of financial risks: market and credit risk as well as liquidity risk and operational risk. Financial risks are monitored through a system of daily limits on financial assets investment within the established risk management framework. The impact of climate-related risks on the CNB's financial assets will not be significant in the short and medium run, but it will increase as the horizon lengthens.

Metrics used in the monitoring of climate-related risks that are harmonised within the Eurosystem comprise the following: weighted average carbon intensity (WACI), total carbon emissions (TCE), carbon footprint (CF) and carbon intensity (CI) for traditional types of instruments, such as bonds of governments and government institutions, bonds of international financial institutions, covered bonds, and corporate bonds and shares. These metrics are published on an annual basis. As government and government institution securities account for the largest share of the CNB's financial assets investments, the behaviour of their issuers significantly affects risks, including those associated with climate change.

4 METRICS AND TARGETS

In accordance with the recommendations of the Eurosystem and TCFD, the following metrics are calculated for the purpose of measuring climate risks:

- **Weighted average carbon intensity (WACI)** measures a portfolio's exposure to issuers, i.e. their greenhouse gas emission intensity, and is expressed in tons of CO₂e¹ per million euro of revenue (for corporate issuers, supranational institutions and agencies) or per million euro of GDP according to purchasing power parity or per population or per million euro of final general government spending (for government issuers), the value being normalised by the specified parameters. Data on the emission intensity of corporate, supranational and agency issuers include Scope 1² and Scope 2³ data, but not Scope 3 data⁴. The metric is used to compare corporations, states and sectors, or to make a comparison with a reference portfolio. It provides the so-called outside-in perspective, which provides an insight into the portfolio's exposure to climate transition risks, i.e. their financial significance.

- 1 Carbon dioxide equivalent or CO₂e equivalent (CO₂e) is a metric used to compare the emissions of different greenhouse gases based on their global warming potential, by converting amounts of other gases into an equivalent amount of carbon dioxide with the same global warming potential. The Kyoto Protocol covers seven categories of greenhouse gases: carbon dioxide, methane, nitrous oxide, fluorinated hydrocarbons and sulphur hexafluoride. Carbon dioxide makes up about 74% of global greenhouse gas emissions, methane about 17%, nitrous oxide about 6%, and other gases about 2%.
- 2 Scope 1 includes emissions for which an organisation is directly responsible by using its resources. Most often, these are related to natural gas for heating, the use of own vehicles, etc.
- 3 Scope 2 includes indirect emissions generated by the generation of electricity or heat used by an organisation (e.g. how many gases are released to generate the amount of electricity consumed).
- 4 Scope 3 includes all other indirect emissions that occur throughout the entire value chain used by an organisation (ranging from resources used by suppliers to emissions that will occur as customers use the products).

- **Total carbon emissions (TCE)** measures the total carbon emissions of a portfolio, and is expressed in tons of CO₂e. This metric is not normalised and cannot be used for comparison, and the size of the portfolio itself mostly affects the level of this metric. It provides the so-called inside-out-perspective, i.e. an insight into the environmental footprint of a portfolio, i.e. its environmental significance.
- **Carbon footprint (CF)** serves to normalise the total carbon emissions (TCE) by portfolio market value, expressed in tons of CO₂e per one million of investment. It allows for a comparison between portfolios of different sizes over time.
- **Carbon intensity (CI)** serves to normalise the total carbon emissions (TCE) by revenue or GDP according to purchasing power parity or the population or the value of central government spending, expressed in tonnes of CO₂e per one million of revenue/GDP. This metric measures the carbon efficiency of a portfolio in financing economic activity.

All four metrics are based on a standardised methodology and are often used in financial sector climate reports. The normalised metrics (WACI, CF and CI) and the absolute metric (TCE) complement each other and together provide a high degree of transparency in terms of determining a portfolio's exposure to climate risks.

Metrics for government investments are interpreted separately from metrics for non-government investments due to different emission allocation methods. The common framework for climate-related disclosures of the Eurosystem includes, for the purpose of achieving a higher level of transparency, three different methods for allocation of emissions for government issuers:

- **Production emissions**, which consist of greenhouse gas emissions on the domestic market, and include domestic consumption and export. This definition is based on the territorial approach to emissions adopted by the United Nations Framework Convention on Climate Change (UNFCCC) for annual national emission inventories.
- **Consumption emissions** that include all emissions related to domestic demand, which is adjusted so that the emission of imported goods is added and the emission of exported goods is subtracted. This metric gives a broader view of countries' emissions and solves the problem of carbon leakage, which arises as a result of shifting production away from countries in which the goods are subsequently consumed.
- **Central government emissions** include direct emissions (e.g. from buildings, vehicles) and indirect emissions (e.g. emissions related to energy consumption, but also costs, subsidies and investments) of the central government.

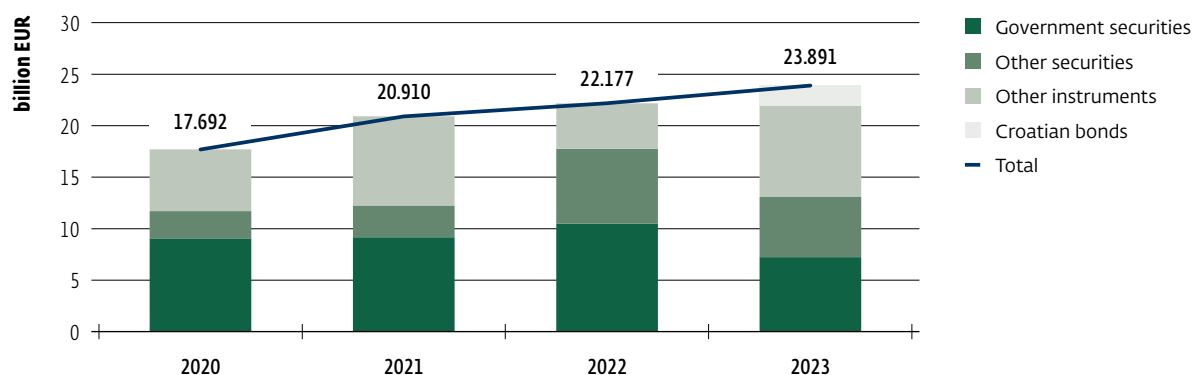
The CNB uses data from two climate data providers: ISS Institutional Shareholder Services, Inc. (ISS) and Carbon4 Finance (C4F). The guiding rule is to use data published by the issuer, and if these data are not available, modelled data from the specified providers is used. In addition, World Bank data for countries (GDP according to purchasing power parity, population, central government spending) are also used. This ensures comparability of data within the Eurosystem. All data included in the calculation of the metrics should have the same reference years, but the disclosures of greenhouse gas emissions and economic data are published with a lag and are inherently late, so the reference years do not match for newer reporting periods (e.g. the latest available data refer to 2021 for government issuers and to 2022 for other issuers). In addition, data on greenhouse gas emissions are not fully available for all issuers, therefore the comparability of individual metrics is reduced. Data coverage is

greater for government issuers, while data availability for supranational institutions and agencies is limited. The percentage of data coverage is expressed as a percentage next to each metrics.

Climate metrics

In the investment structure of Croatian National Bank's financial assets, the safest and highly liquid instruments, such as government securities, make up the largest share of investments. This also means that the behaviour of the governments issuing these securities significantly affects the carbon footprint of the portfolio itself.

FIGURE 3 Financial assets and their structure



Notes: Financial assets in 2023 include Croatian bonds purchased during the COVID-19 pandemic under the bond purchase programme, which ceased to be part of CNB's monetary assets following Croatia's entry into the euro area. The amortised value of that portfolio stood at EUR 1,975m as at 31 December 2023.

Source: CNB.

In the period under observation, a strong growth of financial assets was recorded, which reached EUR 23,891m at the end of 2023, including Croatian bonds purchased during the COVID-19 pandemic under the bond purchase programme, which ceased to be part of CNB's monetary assets following Croatia's entry into the euro area. Investments in government securities were reduced to around a third of financial assets, while the shares of other securities and other instruments fluctuated due to preparations for entry into the euro area and adjustments to the Eurosystem's framework for financial asset management. In the currency structure, the euro accounted for 90%, while the rest was accounted for by the US dollar.

In late 2023, the share of investments in green bonds in financial assets reached 1.9%, while the share of total investments that take ESG criteria into account was 6.8%.

As the calculation of climate metrics included only securities, it covered around EUR 15bn of financial assets in nominal terms.

As at 31 December 2023, **WACI** for government issuers was 153.4 tCO₂e per EUR million of GDP according to purchasing power parity (production emissions excluding LULUCF), while the same metric for production emissions including LULUCF was 139.7 tCO₂e. WACI for consumption emissions was 12.0

TABLE 20.1 Climate metrics of financial assets as at 31 December 2023

	Government issuers				Other issuers		
	Government and government institution securities				Securities of int. fin. inst. and agencies	Covered bonds	Total
	Production emission (excl. LULUCF)	Production emission (incl. LULUCF)	Consump- tion emis- sion	Central government emission			
Portfolio size in nominal terms (EUR billion)		9.2			5.4	0.4	5.8
WACI (tCO ₂ e per EUR million of revenue, PPP of GDP, per capita or consumption)	153.4 100%	139.7 100%	12.0 100%	83.3 100%	1.5 87%	0.8 100%	1.5 88%
TCE (tCO ₂ e)	1,417,688 100%	1,291,573 100%	1,908,710 100%	140,039 100%	101.0 73%	18.6 78%	119.6 74%
Carbon footprint (tCO ₂ e per EUR million of investment)	153.4 100%	139.7 100%	206.5 100%	15.1 100%	0.0 73%	0.0 78%	0.0 74%
Carbon intensity (tCO ₂ e per EUR million of revenue, PPP of GDP, per capita or consumption)	153.4 100%	139.7 100%	11.2 100%	74.7 100%	0.5 73%	1.0 78%	0.6 74%

Notes: Portfolio size excludes deposits, funds in the accounts, funds entrusted to the management of an international financial institution and others. The percentage of data coverage is expressed as a percentage next to each metrics.

Abbreviation LULUCF refers to land use, land-use change and forestry. For example, afforestation reduces, while deforestation increases greenhouse gas emissions.

Sources: ISS, C4F, World Bank, Bloomberg, ECB and CNB.

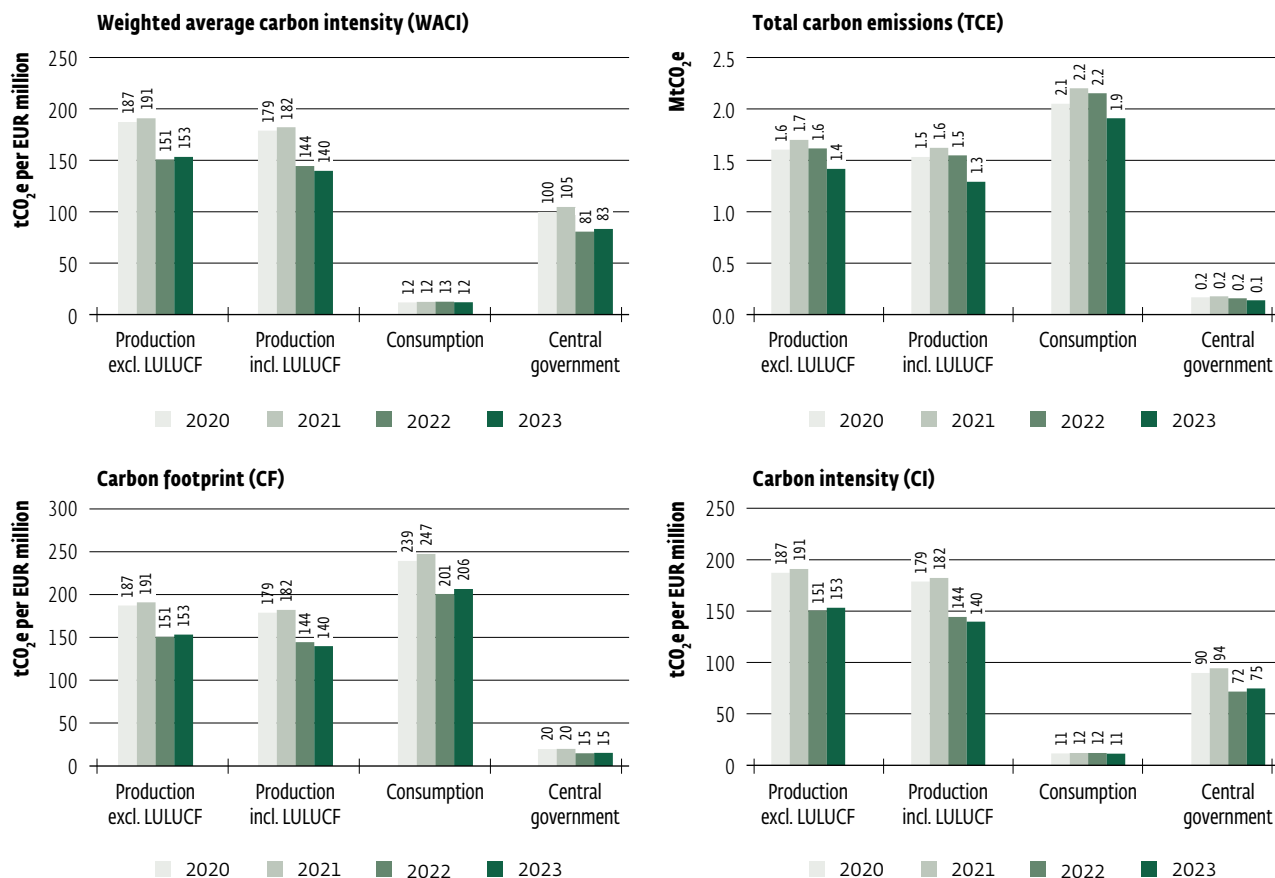
tCO₂e per capita, while central government emissions stood at 83.3 tCO₂e per EUR million of central government spending. The total WACI for other issuers, based on Scope 1 and Scope 2 emissions, was 1.5 tCO₂e per one million of revenue.

Total carbon emissions (TCE) for government issuers at the end of 2023 amounted to 1.42 million tCO₂e by production emissions excluding LULUCF, while TCE for production emissions including LULUCF was lower (1.29 million tCO₂e). TCE for consumption emissions stood at 1.91 million tCO₂e and at 0.14 million tCO₂e for central government emissions. The total TCE for other issuers was 119.6 tCO₂e.

As at 31 December 2023, the **carbon footprint (CF)** for government issuers was 153.4 tCO₂e per EUR million of investment by production emissions excluding LULUCF, and 139.7 tCO₂e by production emissions including LULUCF. The carbon footprint by consumption emissions was 206.5 tCO₂e per EUR million of investment and 15.1 tCO₂e per EUR million of investment by central government emissions. The total carbon footprint for other issuers was close to zero.

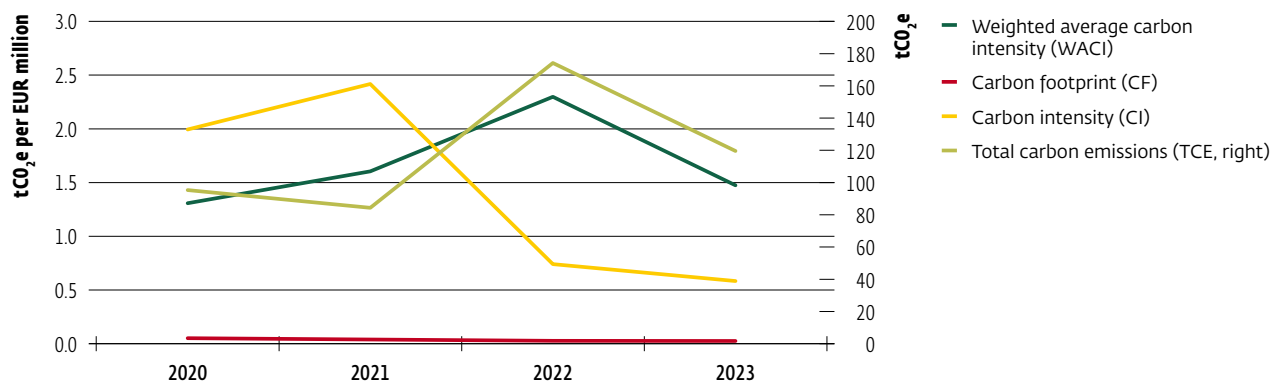
As at 31 December 2023, **carbon intensity (CI)** for government issuers was 153.4 tCO₂e per EUR million of GDP according to purchasing power parity (production emissions excluding LULUCF) and 139.7

FIGURE 4 Developments in climate metrics of financial assets for government issuers



Sources: ISS, C4F, World Bank, Bloomberg, ECB and CNB.

FIGURE 5 Developments in climate metrics of financial assets for other issuers



Sources: ISS, C4F, World Bank, Bloomberg, ECB and CNB.

tCO₂e for production emissions including LULUCF. Carbon intensity of consumption emissions was 11.2 tCO₂e per capita and 74.7 tCO₂e per EUR million of central government spending (central government emissions). The total carbon intensity for other issuers was 0.6 tCO₂e per EUR million of revenue.

Figure 4 shows developments in climate metrics in the period from 2020 to 2023. The WACI, TCE, CF and CI metrics for government issuers recorded a decline in 2022 and 2023 as the data for the allocation of emissions in these two years were the same as in 2021, and the data used for normalisation grew. In addition, data for previous years have been revised and updated, while data availability has improved since the first disclosure.

The WACI and TCE metrics for other issuers, i.e. securities of international financial institutions and agencies and covered bonds, recorded a fall in 2023 following a rise in 2022 and a change in the portfolio structure during the preparations and adjustments that had to be carried out due to the entry into the euro area on 1 January 2023. The CF metric remained stable, while the CI metric recorded a decline in 2022 and 2023 due to the increase in data availability.

Objectives

Under the European Climate Law and the Paris Agreement, the objective of the EU member states is that the European economy and society become climate neutral by the end of 2050 and that greenhouse gas emissions be reduced by at least 55% by 2030 compared to 1990 levels. Neutrality implies the achievement of a zero net emission through emission reduction, investment in green technologies and environmental protection.

The CNB invests in green, social, sustainability and sustainability performance-linked bonds to support the transition to a low-carbon economy in line with the acceptable risk framework and market conditions.

Within its mandate, the CNB will support decarbonisation in efforts to attain objectives of the Paris Agreement and the EU's climate neutrality. To that end, the CNB will deepen the understanding of the effects of climate change on financial asset portfolios it manages, verify the availability and reliability of data and methodologies used in the metrics calculation and work on the improvement of the methodology used in assessment of exposure to climate-related risks.

With its further reporting on climate metrics for financial assets, the CNB will ensure a high level of transparency and accountability to the public.

APPENDIX – COMMON EUROSISTEM METRICS

METRIC 1 Weighted average carbon intensity (WACI)

$$\text{WACI} = \sum_n^i \left(\frac{\text{current value of investment}_i}{\text{current portfolio value}} \right) \times \left(\frac{\text{issuer's GHG emissions}_i}{\text{issuer's €M revenue or PPP adj GDP, population, total consumption expenditure}_i} \right)$$

METRIC 2 Total carbon emissions (TCE)

$$\text{TCE} = \sum_n^i \left(\frac{\text{current value of investment}_i}{\text{EVIC or PPP adj GDP}_i} \right) \times \text{issuer's GHG emissions}_i$$

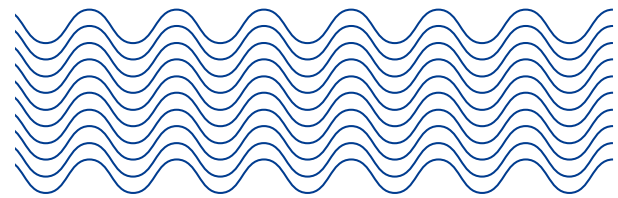
METRIC 3 Carbon footprint (CF)

$$\text{CF} = \frac{\sum_n^i \left(\frac{\text{current value of investment}_i}{\text{EVIC or PPP adj GDP}_i} \right) \times \text{issuer's GHG emissions}_i}{\text{current portfolio value (€M)}}$$

METRIC 4 Carbon intensity (CI)

$$\text{CI} = \frac{\sum_n^i \left(\frac{\text{current value of investment}_i}{\text{EVIC or PPP adj GDP}_i} \right) \times \text{issuer's GHG emissions}_i}{\sum_n^i \left(\frac{\text{current value of investment}_i}{\text{EVIC or PPP adj GDP}_i} \right) \times \left(\frac{\text{issuer's €M revenue or PPP adj GDP, population, total consumption expenditure}_i}{\text{total consumption expenditure}_i} \right)}$$

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FINANCIAL STATEMENTS

For the year ended 31 December 2023



Independent Auditors' Report to the Council of the Croatian National Bank

Opinion

We have audited the financial statements of the Croatian National Bank, which comprise the balance sheet as at 31 December 2023, the profit and loss account for the year then ended, and notes, comprising material accounting policies and other explanatory information.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Croatian National Bank as at 31 December 2023, and of its financial performance for the year then ended, in accordance with Article 60 of the Act on the Croatian National Bank (Official Gazette 75/2008, 54/2013 and 47/2020), which regulates the application of Guideline (EU) 2016/2249 of the European Central Bank of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2016/34), with amendments ("the basis of preparation").

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing. Our responsibilities under those standards are further described in *the Auditors' Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Croatian National Bank in accordance with the ethical requirements that are relevant to our audit of the financial statements in Croatia and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Council of the Croatian National Bank for the Financial Statements

The Council of the Croatian National Bank is responsible for the preparation of the financial statements that give a true and fair view in accordance with the basis of preparation, and for such internal control as the Council of the Croatian National Bank determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Council of the Croatian National Bank is responsible for assessing the Croatian National Bank's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting in accordance with the relevant legislation.

The Council of the Croatian National Bank is responsible for overseeing the Croatian National Bank's financial



Independent Auditors' Report to the Council of the Croatian National Bank (continued)

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Croatian National Bank's internal controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Council of the Croatian National Bank.
- Conclude on the appropriateness of the Council of the Croatian National bank's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Croatian National Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Croatian National Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.



Independent Auditors' Report to the Council of the Croatian National Bank (continued)

Auditors' Responsibilities for the Audit of the Financial Statements (continued)

We communicate with the Council of the Croatian National Bank regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

KPMG Croatia d.o.o. za reviziju

Ivana Lučića 2a
10000 Zagreb
Hrvatska

For and on behalf of KPMG Croatia d.o.o.:

Goran Horvat **KPMG Croatia**
President of the Management Board.
Croatian certified auditor, Eurotower, 17. kat
Ivana Lučića 2a, 10000 Zagreb

Zagreb, 23 February 2024

BALANCE SHEET

(All amounts are expressed in thousands of euro)

Assets	31/12/2023	1/1/2023
1 Gold and gold receivables	841	106,545
2 Claims on non-euro area residents denominated in foreign currency	2,868,200	3,711,987
2.1 Receivables from the International Monetary Fund (IMF)	1,205,572	1,243,122
2.2 Balances with banks and security investments, external loans and other external assets	1,662,628	2,468,865
3 Claims on euro area residents denominated in foreign currency	486,471	576,035
4 Claims on non-euro area residents denominated in euro	852,849	2,764,498
4.1 Balances with banks, security investments and loans	852,849	2,764,498
4.2 Claims arising from the credit facility under ERM II	–	–
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	55,000	–
5.1 Main refinancing operations	55,000	–
5.2 Longer-term refinancing operations	–	–
5.3 Fine-tuning reverse operations	–	–
5.4 Structural reverse operations	–	–
5.5 Marginal lending facility	–	–
5.6 Credits related to margin calls	–	–
6 Other claims on euro area credit institutions denominated in euro	366,317	6,337,134
7 Securities of euro area residents denominated in euro	12,554,465	17,058,001
7.1 Securities held for monetary policy purposes	–	–
7.2 Other securities	12,554,465	17,058,001
8 General government debt denominated in euro	–	–
9 Intra-Eurosystem claims	29,951,399	13,075,368
9.1 Participating interest in ECB	420,517	71,391
9.2 Claims equivalent to the transfer of foreign reserves	327,152	–
9.3 Claims related to the issuance of ECB debt certificates	–	–
9.4 Net claims related to the allocation of euro banknotes within the Eurosystem	13,347,239	10,501,967
9.5 Other claims within the Eurosystem (net)	15,856,491	2,502,010
10 Items in course of settlement	–	–
11 Other assets	364,204	1,064,714
11.1 Coins of euro area	–	–
11.2 Tangible and intangible fixed assets	110,045	91,459
11.3 Other financial assets	15,675	868,040
11.4 Off-balance-sheet instruments revaluation differences	2,196	–
11.5 Accruals and prepaid expenses	212,161	78,733
11.6 Sundry	24,127	26,482
12 Loss for the year	–	–
Total	47,499,746	44,694,282

The notes on pages 161 to 212 form an integral part of these financial statements.

(All amounts are expressed in thousands of euro)

Liabilities	31/12/2023	1/1/2023
1 Banknotes in circulation	12,081,286	14,887,495
2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	17,638,981	18,662,198
2.1 Current accounts (covering the reserve requirement system)	880,569	18,662,198
2.2 Deposit facility	16,758,412	–
2.3 Fixed-term deposits	–	–
2.4 Fine-tuning reverse operations	–	–
2.5 Deposits related to margin calls	–	–
3 Other liabilities to euro area credit institutions denominated in euro	9,428,593	3,307,609
4 Debt certificates issued	–	–
5 Liabilities to other euro area residents denominated in euro	4,629,859	3,670,800
5.1 General government	3,912,926	2,796,238
5.2 Other liabilities	716,933	874,562
6 Liabilities to non-euro area residents denominated in euro	70,877	119,508
7 Liabilities to euro area residents denominated in foreign currency	259,353	214,065
8 Liabilities to non-euro area residents denominated in foreign currency	–	–
8.1 Deposits, balances and other liabilities	–	–
8.2 Liabilities arising from the credit facility under ERM II	–	–
9 Counterpart of special drawing rights allocated by the IMF	1,204,434	1,240,100
10 Intra-Eurosystem liabilities	–	–
10.1 Liabilities equivalent to the transfer of foreign reserves	–	–
10.2 Liabilities related to the issuance of ECB debt certificates	–	–
10.3 Net liabilities related to the allocation of euro banknotes within the Eurosystem	–	–
10.4 Other liabilities within the Eurosystem (net)	–	–
11 Items in course of settlement	–	45
12 Other liabilities	423,147	474,171
12.1 Off-balance-sheet instruments revaluation differences	9,482	20,059
12.2 Accruals and income collected in advance	45,701	5,701
12.3 Sundry	367,964	448,411
13 Provisions	495,927	499,936
14 Revaluation accounts	783,405	1,147,890
15 Capital and reserves	483,884	470,465
15.1 Capital	331,807	331,807
15.2 Reserves	152,077	138,658
16 Profit for the year	–	–
Total	47,499,746	44,694,282

The notes on pages 161 to 212 form an integral part of these financial statements.

PROFIT AND LOSS ACCOUNT

(All amounts are expressed in thousands of euro)

	2023	2022
1.1 Interest income	879.384	285.252
1.2 Interest expense	(876.568)	(154.277)
1 Net interest income/expense	2.816	130.975
2.1 Realised gains/losses arising from financial operations	305.398	75.133
2.2 Write-downs on financial assets and positions	–	(21.959)
2.3 Transfer to/from provisions for financial risks	–	(26.545)
2 Net result of financial operations, write-downs and risk provisions	305.398	26.629
3.1 Fees and commissions income	17.396	9.076
3.2 Fees and commissions expense	(9.975)	(5.475)
3 Net income/expense from fees and commissions	7.421	3.601
4 Income from equity shares and participating interests	849	849
5 Net result of pooling of monetary income	(224.667)	–
6 Other income	6.324	1.413
Total net income	98.141	163.467
7 Staff costs	(35.046)	(32.882)
8 Administrative expenses	(30.071)	(23.977)
9 Depreciation of tangible and intangible fixed assets	(9.763)	(7.273)
10 Costs of production of banknotes and coins	(23.173)	(35.179)
11 Other costs	(88)	(154)
Total operating expenses	(98.141)	(99.465)
12 Profit/(loss) for the year	–	64.002

The financial statements set out on pages 158 do 212 were approved on 23 February 2024:

Director of the Finance and Accounting Department:

Mario Varović



Governor:

Boris Vujčić



Note 1 – General information and accounting policies

1.1 GENERAL INFORMATION

The Croatian National Bank is the central bank of the Republic of Croatia with headquarters in Zagreb, Trg hrvatskih velikana 3. Its status has been defined by the Act on the Croatian National Bank (Official Gazette 75/2008, 54/2013 and 47/2020). The Croatian National Bank forms part of the European System of Central Banks (ESCB).

Council Decision (EU) 2022/1211 of 12 July 2022 on the adoption by Croatia of the euro on 1 January 2023 (OJ L 187, 14.7.2022) stipulates that Croatia fulfils the necessary conditions for the adoption of the euro and that the derogation referred to in Article 5 of the 2012 Act on Accession is abrogated with effect from 1 January 2023.

Pursuant to Article 5 of the Act on the Introduction of the Euro as the Official Currency in the Republic of Croatia (Official Gazette 57/2022 and 88/2022), and in connection with Council Decision (EU) 2022/1211 of 12 July 2022 on the adoption by Croatia of the euro on 1 January 2023 and Council Regulation (EU) 2022/1208 of 12 July 2022 amending Regulation (EC) No 2866/98 as regards the conversion rate to the euro for Croatia (OJ L 187, 14.7.2022), the Government of the Republic of Croatia adopted the Decision on the announcement of the introduction of the euro in the Republic of Croatia (Official Gazette 85/2022). The Decision on the announcement of the introduction of the euro in the Republic of Croatia stipulates that the euro becomes the official currency and legal tender in the Republic of Croatia on 1 January 2023. The Croatian National Bank becomes part of the Eurosystem on 1 January 2023. The Eurosystem comprises the European Central Bank (ECB) and the national central banks of those states that have adopted the euro. The euro area consists of EU states that have introduced the euro as their currency.

The Croatian National Bank is owned by the Republic of Croatia. The Croatian National Bank is autonomous and independent in fulfilling its objective and carrying out its tasks. The primary objective of the Croatian National Bank is maintaining price stability.

In accordance with the Treaty on the Functioning of the European Union and the Statute of the ESCB and of the ECB, the Croatian National Bank carries out the following tasks:

- 1) participates in the definition and implementation of monetary policy of the European Union;
- 2) conducts foreign exchange operations (transactions) as set out in Article 219 of the Treaty on the Functioning of the European Union; and
- 3) ensures the smooth operation of payment systems.

Without prejudice either to its tasks referred to in Article 88 of the Act on the Croatian National Bank or to its independence, the Croatian National Bank, acting in accordance with the relevant legal acts of the European Union, its institutions and bodies, carries out the following tasks:

- 1) manages the foreign reserves of the Republic of Croatia that have not been transferred to the ECB, as well as other assets of the Republic of Croatia recorded in the Croatian National Bank balance sheet as at the date of the introduction of the euro as the official currency of the Republic of Croatia;

- 2) issues and withdraws or revokes authorisations and approvals and adopts other decisions in accordance with the laws governing the operation of credit institutions and the operation of credit unions, payment service providers, electronic money issuers and payment systems, payment operations, the issuance of electronic money, foreign exchange operations and the operation of authorised foreign exchange offices;
- 3) exercises supervision and oversight in accordance with the laws governing the operation of credit institutions and the operation of credit unions, payment service providers, electronic money issuers and payment systems, payment operations and the issuance of electronic money;
- 4) opens credit institutions' accounts and accepts deposits from credit institutions, executes payment transactions across these accounts and grants loans to credit institutions;
- 5) collects and processes statistical data;
- 6) regulates and improves payment operations and ensures their smooth operation;
- 7) acts as fiscal agent for the Republic of Croatia and performs other operations on behalf of the Republic of Croatia, as provided by law;
- 8) adopts subordinate legislation on the operations within its competence;
- 9) implements macroprudential policy for the purpose of contributing to maintaining the stability of the financial system as a whole within its competence;
- 10) performs other operations as provided by other regulations.

The bodies of the Croatian National Bank are the Council of the Croatian National Bank and the Governor of the Croatian National Bank. The Council of the Croatian National Bank comprises eight members: Governor, Deputy Governor and six Vicegovernors of the Croatian National Bank. The Council of the Croatian National Bank is competent and responsible for the achievement of the objective and for the carrying out of the tasks of the Croatian National Bank and defines policies with respect to the activities of the Croatian National Bank.

Members of the Council of the Croatian National Bank:

- Prof. D. Sc. Boris Vujčić, Governor
- D. Sc. Sandra Švaljek, Deputy Governor
- D. Sc. Michael Faulend, Vicegovernor
- Bojan Fras, Vicegovernor
- M. Sc. Slavko Tešija, Vicegovernor
- D. Sc. Roman Šubić, Vicegovernor
- M. Sc. Ivana Jakir-Bajo, Vicegovernor
- D. Sc. Tomislav Ćorić, Vicegovernor.

The consolidated financial statements are not prepared and the financial statements of the Croatian National Bank do not comprise the financial statements of the subsidiary Croatian Mint because they are not material for the financial statements of the Croatian National Bank.

1.2 ACCOUNTING POLICIES

1.2.1 Basis of preparation

The financial statements of the Croatian National Bank for 2023 have been prepared in accordance with Article 60 of the Act on the Croatian National Bank, which regulates the application of Guideline (EU) 2016/2249 of the European Central Bank of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2016/34), as amended (hereinafter: ECB Guideline). Article 60 of the Act on the Croatian National Bank states that the Croatian National Bank prepares the financial statements in accordance with the ECB Guideline and reports on transactions that are not regulated by the ECB Guideline applying, providing that there is no contrary decision of the Council of the Croatian National Bank, valuation principles in accordance with the International Financial Reporting Standards as adopted in the European Union that are material for the operations and reports of the Croatian National Bank. In the reporting period there were no decisions of the Council of the Croatian National Bank under Article 60 of the Act on the Croatian National Bank.

The layout of the balance sheet and profit or loss account is presented in accordance with the structure prescribed by the ECB Guideline.

The financial statements of the Croatian National Bank are presented in euros. The data in the financial statements as at 31 December 2022 are recalculated in euro on 1 January 2023 by applying the fixed conversion rate of kuna to euro: EUR 1 = HRK 7.53450.

The comparative information for all amounts presented in the balance sheet at the end of the reporting period are the data at the beginning of the reporting period valued and presented in accordance with the valuation rules and the structure prescribed by the ECB Guideline and expressed in euro.

1.2.2 Changes to accounting policies

Certain comparative information has been reclassified in order to be in accordance with the presentation of the current year. The aforementioned reclassifications are only presentational in nature and have no effect on net result for the year or capital and reserves.

The accounting policies of the Croatian National Bank were changed due to the introduction of the euro as the official currency in the Republic of Croatia and the entry of the Croatian National Bank into the Eurosystem. The most significant changes are the following:

- 1) In the balance sheet and the profit and loss account the terms “Croatia” and “kuna” are replaced by the terms “euro area” and “euro”.
- 2) The financial statements of the Croatian National Bank contain all line items prescribed by the ECB Guideline, which was not possible in the period until Croatia introduced the euro as the official currency.
- 3) After the introduction of the euro as the official currency of the Republic of Croatia, banknotes are reported under the balance sheet item Banknotes in circulation and coins under Other liabilities according to the ECB Guideline. Kuna coins in circulation were reported together with banknotes in circulation within the balance sheet item Banknotes and coins in circulation.

Pursuant to Article 29 of the ECB Guideline, national central banks must revalue all financial assets and liabilities as at the date on which they become members of the Eurosystem. Unrealised gains which arose before or on that date are separated from any unrealised revaluation gains that may arise thereafter, and remain with the national central banks. Accordingly, the Croatian National Bank established pre-entry revaluation accounts from unrealised gains arisen before or on the date of the entry of the Croatian National Bank into the Eurosystem:

- 1) The pre-entry revaluation account from the revaluation of the euro against the kuna (hereinafter: EUR/HRK pre-entry revaluation account) established from the balance in the EUR/HRK revaluation account as at 1 January 2023 in the total amount of EUR 38,468 thousands arisen from the revaluation of on-balance-sheet and off-balance-sheet items expressed in euros against the kuna.
- 2) The pre-entry revaluation account from the revaluation of the US dollar against the kuna (hereinafter: USD/HRK pre-entry revaluation account) established from the balance in the USD/HRK revaluation account as at 1 January 2023 in the total amount of EUR 296,252 thousands arisen from the revaluation of on-balance-sheet and off-balance-sheet items expressed in US dollars against the kuna.
- 3) The pre-entry revaluation account from unrealised gains from the revaluation of financial assets, liabilities and off-balance sheet items arisen before or on the date of the entry of the Croatian National Bank into the Eurosystem (hereinafter: the pre-entry revaluation account for the coverage of losses) established from the balance as at 1 January 2023 in revaluation accounts from the revaluation of financial assets, liabilities and off-balance sheet items (other than those from the revaluation of the euro against the kuna and the revaluation of the US dollar against the kuna) and the revaluation accounts established, pursuant to the Decision of the CNB Council and adopted under the provisions of the Act on the CNB, on transition to reporting in accordance with the ECB Guideline in the total amount of EUR 769,138 thousands.

1.2.2.1 Impact of the entry into the Eurosystem on the balance sheet

(All amounts are expressed in thousands of euro)

Assets	31/12/2022	Note*	Impact of the entry into the Eurosystem 1/1/2023	1/1/2023 following the entry into the Eurosystem
1 Gold and gold receivables	106,798	(a)	(253)	106,545
2 Claims on non-euro area residents denominated in foreign currency	30,062,827	–	(26,350,840)	3,711,987
2.1 Receivables from the International Monetary Fund (IMF)	1,244,497	(b)	(1,375)	1,243,122
2.2 Balances with banks and security investments, external loans and other external assets	28,818,330	(c)	(26,349,465)	2,468,865
3 Claims on euro area residents denominated in foreign currency	17,086	(d)	558,949	576,035
4 Claims on non-euro area residents denominated in euro	–	(e)	2,764,498	2,764,498
4.1 Balances with banks, security investments and loans	–	–	2,764,498	2,764,498
4.2 Claims arising from the credit facility under ERM II	–	–	–	–
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	375,207	(f)	(375,207)	–
5.1 Main refinancing operations	–	–	–	–

Assets	31/12/2022	Note*	Impact of the entry into the Eurosysteem 1/1/2023	1/1/2023 following the entry into the Eurosysteem
5.2 Longer-term refinancing operations	375,207	–	(375,207)	–
5.3 Fine-tuning reverse operations	–	–	–	–
5.4 Structural reverse operations	–	–	–	–
5.5 Marginal lending facility	–	–	–	–
5.6 Credits related to margin calls	–	–	–	–
6 Other claims on euro area credit institutions denominated in euro	–	(g)	6,337,134	6,337,134
7 Securities of euro area residents denominated in euro	2,150,942	(h)	14,907,059	17,058,001
7.1 Securities held for monetary policy purposes	2,150,942	–	(2,150,942)	–
7.2 Other securities	–	–	17,058,001	17,058,001
8 General government debt denominated in euro	–	–	–	–
9 Intra-Eurosysteem claims	–	–	13,075,368	13,075,368
9.1 Participating interest in ECB	–	(i)	71,391	71,391
9.2 Claims equivalent to the transfer of foreign reserves	–	–	–	–
9.3 Claims related to the issuance of ECB debt certificates	–	–	–	–
9.4 Net claims related to the allocation of euro banknotes within the Eurosysteem	–	(j)	10,501,967	10,501,967
9.5 Other claims within the Eurosysteem (net)	–	(k)	2,502,010	2,502,010
10 Items in course of settlement	–	–	–	–
11 Other assets	198,808	(l)	865,906	1,064,714
11.1 Coins of euro area	–	–	–	–
11.2 Tangible and intangible fixed assets	91,459	–	–	91,459
11.3 Other financial assets	17,132	–	850,908	868,040
11.4 Off-balance-sheet instruments revaluation differences	–	–	–	–
11.5 Accruals and prepaid expenses	78,733	–	–	78,733
11.6 Sundry	11,484	–	14,998	26,482
12 Loss for the year	–	–	–	–
Total	32,911,668	–	11,782,614	44,694,282

* The notes in which the differences in the balance sheet as at 31 December 2022 and 1 January 2023 are explained, asset items are marked with an A and liability items with an L.

(a) Item A 1 Gold and gold receivables decreased from 31 December 2022 due to the revaluation of gold according to the ECB exchange rate on 1 January 2023.

(b) Item A 2.1 Receivables from the International Monetary Fund (IMF) decreased from 31 December 2022 due to the revaluation of special drawing rights (XDR) according to the ECB exchange rate on 1 January 2023.

(c) Item A 2.2 Balances with banks and security investments, external loans and other external assets decreased by the amount of EUR 26,349,465 thousands from 31 December 2022 due to the reclassification of securities, current accounts, deposits, reverse repo agreements with regard to the currency (euro) and belonging to the euro area, to the following items: A 3 Claims on euro area residents denominated in foreign currency, the amount of EUR 576,035 thousands, A 4 Claims on non-euro area residents denominated in euro, EUR 2,764,498 thousands, A 6 Other claims on credit institutions from Croatia denominated in euro, EUR 4,662,489 thousands, A 7 Securities of euro area residents denominated in euro, EUR 14,907,059 thousands, A 9 Intra-Eurosysteem claims, EUR 2,570,724 thousands and A 11 Other assets, EUR 868,556 thousands.

The remaining amount refers to the derecognition of euro banknotes and coins from cash on hand to off-balance sheet accounts in the total amount of EUR 104 thousands, by which item L 1 Euro banknotes in circulation decreased in the amount of EUR 102 thousands and item L 12 Other liabilities decreased in the amount of EUR 2 thousands.

(d) The amount of EUR 576,035 thousands was reclassified from item A 2 Balances with banks and security investments, external loans and other external assets to item A 3 Claims on euro area residents denominated in foreign currency, and the amount of EUR 17,086 thousands was reclassified from item A 3 Claims on euro area residents denominated in foreign currency to item A 6 Other claims on euro area credit institutions denominated in euro, so that the total impact of the entry into the Eurosystem on this item stood at EUR 558,949 thousands.

(e) The total amount of the increase in item A 4 Claims on non-euro area residents denominated in euro is the result of the reclassification from item A 2.2 Balances with banks and security investments, external loans and other external assets in the amount of EUR 2,764,498 thousands.

(f) The amount in item A 5 Lending to euro area credit institutions related to monetary policy operations denominated in euro decreased in the amount of EUR 375,207 thousands (lending related to monetary policy before the entry into the Eurosystem) and was transferred to item A 6 Other claims on euro area credit institutions denominated in euro.

(g) Item A 6 Other claims on euro area credit institutions denominated in euro increased by the amount of EUR 6,337,134 thousands. It consists of the amounts reclassified from item A 2.2 Balances with banks and security investments, external loans and other external assets in the amount of EUR 4,662,489 thousands, EUR 17,086 thousands from item A 3 Claims on euro area residents denominated in foreign currency, EUR 375,207 thousands from item A 5 Lending to euro area credit institutions related to monetary policy operations denominated in euro and the booking of the amount of EUR 1,282,352 thousands of claims on banks for frontloaded euro cash (counterpart of euro banknotes in circulation and euro coins in circulation).

(h) The amount in item A 7 Securities of euro area residents denominated in euro increased by EUR 14,907,059 thousands that were reclassified from item A 2.2 Balances with banks and security investments, external loans and other external assets. Sub-items under item A 7 were also reclassified, so that the amount of EUR 2,150,942 thousands was reclassified from sub-item A 7.1 to sub-item A 7.2.

(i) On 1 January 2023, the amount of EUR 71,391 thousands was recorded under item A 9.1 Participating interest in ECB, i.e. EUR 2,648 thousands reclassified from item A 11 Other assets, followed by the remaining paid-up capital to the ECB in the amount of EUR 68,714 thousands and EUR 29 thousands from revaluation according to the exchange rate on 1 January 2023.

(j) On 1 January 2023, a net claim in the amount of EUR 10,501,967 thousands, related to the allocation of euro banknotes within the Eurosystem, was recorded under item A 9.4 Net claims related to the allocation of euro banknotes within the Eurosystem (counterpart L 1 Banknotes in circulation).

(k) On 1 January 2023, item A 9.5 Other claims within the Eurosystem (net) increased due to the reclassification from item A 2.2 Balances with banks and security investments, external loans and other external assets in the amount of EUR 2,570,724 thousands, and decreased due to the booking of the liability for the payment of capital to the ECB in the amount of EUR 68,714 thousands.

(l) Item A 11 Other assets increased by EUR 865,906 thousands because EUR 2,648 thousands of paid-up ECB capital were reclassified to item A 9.1 Participating interest in ECB. The amount of EUR 868,556 thousands was reclassified from item A 2.2 Balances with banks and security investments, external loans and other external assets, and the amount of EUR 2 thousands relates to the negative effects of revaluation according to the ECB's exchange rate on 1 January 2023.

(All amounts are expressed in thousands of euro)

Liabilities	31/12/2022	Note	Impact of the entry into the Eurosystem 1/1/2023	1/1/2023 following the entry into the Eurosystem
1 Banknotes in circulation	3,453,162	(m)	11,434,333	14,887,495
2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	16,327,272	(n)	2,334,926	18,662,198
2.1 Current accounts (covering the reserve requirement system)	16,327,272	–	2,334,926	18,662,198
2.2 Deposit facility	–	–	–	–
2.3 Fixed-term deposits	–	–	–	–
2.4 Fine-tuning reverse operations	–	–	–	–
2.5 Deposits related to margin calls	–	–	–	–
3 Other liabilities to euro area credit institutions denominated in euro	1,473,799	(o)	1,833,810	3,307,609
4 Debt certificates issued	–	–	–	–

Liabilities	31/12/2022	Note	Impact of the entry into the Eurosysteem 1/1/2023	1/1/2023 following the entry into the Eurosysteem
5 Liabilities to other euro area residents denominated in euro	1,243,100	(p)	2,427,700	3,670,800
5.1 General government	1,222,094	–	1,574,144	2,796,238
5.2 Other liabilities	21,006	–	853,556	874,562
6 Liabilities to non-euro area residents denominated in euro	118,047	(r)	1,461	119,508
7 Liabilities to euro area residents denominated in foreign currency	3,937,778	(s)	(3,723,713)	214,065
8 Liabilities to non-euro area residents denominated in foreign currency	2,871,955	(t)	(2,871,955)	–
8.1 Deposits, balances and other liabilities	2,871,955	–	(2,871,955)	–
8.2 Liabilities arising from the credit facility under ERM II	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	1,241,472	(u)	(1,372)	1,240,100
10 Intra-Eurosysteem liabilities	–	–	–	–
10.1 Liabilities equivalent to the transfer of foreign reserves	–	–	–	–
10.2 Liabilities related to the issuance of ECB debt certificates	–	–	–	–
10.3 Net liabilities related to the allocation of euro banknotes within the Eurosysteem	–	–	–	–
10.4 Other liabilities within the Eurosysteem (net)	–	–	–	–
11 Items in course of settlement	–	(v)	45	45
12 Other liabilities	62,564	(z)	411,607	474,171
12.1 Off-balance-sheet instruments revaluation differences	20,059	–	–	20,059
12.2 Accruals and income collected in advance	5,701	–	–	5,701
12.3 Sundry	36,804	–	411,607	448,411
13 Provisions	499,936	–	–	499,936
14 Revaluation accounts	1,148,116	(aa)	(226)	1,147,890
15 Capital and reserves	470,465	–	–	470,465
15.1 Capital	331,807	–	–	331,807
15.2 Reserves	138,658	–	–	138,658
16 Profit for the year	64,002	(ab)	(64,002)	–
Total	32,911,668		11,782,614	44,694,282

(m) Item L 1 Banknotes in circulation increased due to the recording of frontloaded euro banknotes and the adjustment of euro banknotes within the Eurosysteem on 1 January 2023 in the amount of EUR 11,641,582 thousands, and decreased due to the derecognition of euro banknotes from cash on hand to off-balance sheet accounts in the amount of EUR 102 thousands and the reclassification of kuna coins in the amount of EUR 207,147 thousands to item L 12 Other liabilities.

(n) Item L 2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro increased by the amount of EUR 2,334,926 thousands, which was reclassified from item L 7 Liabilities to euro area residents denominated in foreign currency, relating to the accounts of TARGET participants before the entry into the Eurosysteem.

(o) Item L 3 Other liabilities to euro area credit institutions denominated in euro increased by EUR 1,833,810 thousands due to the reclassification according to the euro area status and booking currency in the amount of EUR 20,100 thousands from item L 7 Liabilities to euro area residents denominated in foreign currency and the amount of EUR 1,813,710 thousands from item L 8 Liabilities to non-euro area residents denominated in foreign currency.

(p) The increase in item L 5 Liabilities to other euro area residents denominated in euro in the amount of EUR 2,427,700 thousands was the result of the reclassification according to the euro area status and booking currency from item L 7 Liabilities to euro area residents denominated in foreign currency in the amount of EUR 1,571,913 thousands, from item L 8 Liabilities to non-euro area residents denominated in foreign currency in the amount of EUR 853,556 thousands and from item L 12 Other liabilities in the amount of EUR 2,231 thousands.

(r) The amount of EUR 1,461 thousands of the difference in item L 6 Liabilities to non-euro area residents denominated in euro relates to the funds of the European Commission and the European Development Fund, which were reclassified from item L 8 Liabilities to non-euro area residents denominated in foreign currency.

(s) Due to the entry into the Eurosystem, item L 7 Liabilities to euro area residents denominated in foreign currency decreased by the amount of EUR 3,723,713 thousands from 31 December 2022. The amount of EUR 2,334,926 thousands was reclassified to item L 2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro, the amount of EUR 1,571,913 thousands was reclassified to item L 5 Liabilities to other euro area residents denominated in euro, the amount of EUR 20,100 thousands was reclassified to item L 3 Other liabilities to euro area credit institutions denominated in euro, and the amount of EUR 203,228 thousands was reclassified from item L 8 Liabilities to non-euro area residents denominated in foreign currency. In addition to the aforementioned reclassifications, the decrease was also under the effect of the exchange rate difference due to the conversion of balance sheet items to the ECB's exchange rate on 1 January 2023 in the amount of EUR 2 thousands.

(t) The difference in the amount of EUR 2,871,955 thousands in item L 8 Liabilities to non-euro area residents denominated in foreign currency is the result of the reclassification to item L 3 Other liabilities to euro area credit institutions denominated in euro in the amount of EUR 1,813,710 thousands, to item L 5 Liabilities to other euro area residents denominated in euro in the amount of EUR 853,556 thousands, to item L 6 Liabilities to non-euro area residents denominated in euro in the amount of EUR 1,461 thousands and to item L 7 Liabilities to euro area residents denominated in foreign currency in the amount of EUR 203,228 thousands.

(u) Item L 9 Counterpart of special drawing rights allocated by the IMF varies by the amount of EUR 1,372 thousands due to the XDR revaluation according to the ECB's exchange rate on 1 January 2023.

(v) The amount of EUR 45 thousands in item L 12 Other liabilities was reclassified to item L 11 Items in course of settlement.

(z) Item L 12 Other liabilities increased by the amount of EUR 411,607 thousands because of the following reclassifications: kuna coins in the amount of EUR 207,147 thousands reclassified from item L 1 Banknotes in circulation, the amount of EUR 64,002 thousands was reclassified from item L 16 Profit for the year, the amount of EUR 2,231 thousands was reclassified to item L 5 Liabilities to other euro area residents denominated in euro, and the amount of EUR 45 thousands was reclassified to item L 11 Items in course of settlement. The amount of EUR 142,736 thousands of frontloaded euro coins was also booked, and euro coins were derecognised from cash on hand to off-balance sheet accounts in the amount of EUR 2 thousands.

(aa) Item L 14 Revaluation accounts increased due to the positive effects of the conversion of balance sheet line items to the ECB's exchange rate on 1 January 2023.

(ab) The realised profit for 2022 in the amount of EUR 64,002 thousands was reclassified from item L 16 Profit for the year to item L 12 Other liabilities.

1.2.3 Qualitative characteristics and accounting assumptions

In the preparation of the financial statements, the following quantitative characteristics and accounting assumptions are applied: economic reality and transparency, prudence, materiality, consistency and comparability, going concern basis, accruals principle and post-balance sheet events.

1.2.4 Basis of measurement

The financial statements have been prepared under the accrual basis of accounting and using the historical cost convention, except for marketable securities (other than those held to maturity and for monetary policy purposes), gold and other precious metals and assets under management with international institutions, which are measured at their market value and land and buildings measured at revalued amount, which is their fair value at the revaluation date less subsequent accumulated depreciation of buildings and subsequent accumulated impairment losses, if any.

1.2.5 Recording of transactions

The economic approach is used as the basis for recording foreign exchange transactions, financial instruments denominated in foreign currency and related accruals, which is implemented using the regular approach.

Securities transactions including equity instruments denominated in foreign currency are recorded according to the cash/settlement approach. The related accrued interest, including premiums or discounts, are recorded on a daily basis from the spot settlement date.

All specific euro-denominated transactions, financial instruments and related accruals are recorded according to the cash/settlement approach.

1.2.6 Recognition of assets and liabilities

A financial or other asset or liability is recognised in the CNB balance sheet only if all of the following conditions are met:

- it is probable that any future economic benefit associated with the asset or liability item will flow to or from the CNB;
- substantially all of the risks and rewards associated with the asset or liability are transferred to the CNB;
- the cost or value of the asset to the CNB or the amount of the obligation can be measured reliably.

1.2.7 Balance sheet valuation rules

The revaluation of gold, foreign currency instruments, securities (other than securities classified as held-to-maturity, non-marketable securities, and securities held for monetary policy purposes that are accounted for at amortised cost), as well as financial instruments, both on-balance-sheet and off-balance-sheet, is performed at mid-market rates and prices at the reporting date.

No distinction is made between price and currency revaluation differences for gold, but a single gold revaluation difference is accounted for, based on the euro price per defined unit of weight of gold at the reporting date.

For foreign exchange, including on-balance-sheet and off-balance-sheet transactions, revaluation takes place on a currency-by-currency basis. Holdings of special drawing rights, including designated individual foreign exchange holdings underlying the XDR basket, are treated as one holding.

The exchange rates of major foreign currencies in the reporting period were as follows:

Currency	31/12/2023 (1 euro)	1/1/2023 (1 euro)	Change %
USD	1.10500	1.06660	3.60
XDR	0.82257	0.79891	2.96

For securities, revaluation takes place on a code-by-code basis, i.e. same International Securities Identification Number/type, while any embedded options will not be separated for valuation purposes. Securities held for monetary policy purposes or included in the items Other financial assets or Sundry are treated as separate holdings.

Marketable securities held for monetary policy purposes are treated as separate holdings and valued at amortised cost (subject to impairment).

Held-to-maturity securities are securities with fixed or determinable payments and a fixed maturity, which the Croatian National Bank intends to hold until maturity. Securities classified as held-to-ma-

turity are treated as separate holdings and valued at amortised cost (subject to impairment). The same treatment applies to non-marketable securities. Securities classified as held-to-maturity may be sold before their maturity when any of the following occurs:

- a) if the quantity sold is considered not significant in comparison with the total amount of the held-to-maturity securities portfolio;
- b) if the securities are sold during one month before maturity date;
- c) under exceptional circumstances, such as a significant deterioration of the issuer's creditworthiness.

1.2.8 Recognition and valuation of financial assets

Financial asset is any asset that is:

- a) cash;
- b) a contractual right to receive cash or another financial instrument from another undertaking;
- c) a contractual right to exchange financial instruments with another undertaking under conditions that are potentially favourable; or
- d) another undertaking's equity instrument.

Gold is valued at market value.

Foreign currency marketable debt securities other than held-to-maturity are valued at the market price and market rate, with all premiums or discounts amortised.

Foreign currency marketable debt securities classified as held-to-maturity are valued at cost subject to impairment and market rate, with all premiums or discounts amortised.

Marketable debt securities currently held for monetary policy purposes are valued at amortised cost subject to impairment.

Marketable securities (other than debt securities currently held for monetary policy purposes and those classified as held-to-maturity) and similar assets are valued either at mid-market prices or on the basis of the relevant yield curve prevailing on the balance sheet date, on a security-by-security basis. Options embedded in securities are not separated for valuation purposes. For the year ending 31 December 2023, mid-market prices on 31 December 2023 were used.

Marketable debt securities classified as held-to-maturity and non-marketable securities are valued at amortised cost, which is subject to impairment. Illiquid equity shares and any other equity instruments held as permanent investments are valued at cost subject to impairment.

Receivables, balances with banks and loans are valued at nominal value, and foreign currencies are translated at market rate.

Investments in subsidiaries or significant interests are valued under the net asset value principle. Net value of these assets is calculated and recorded in the accounts once a year, at the end of a business year, based on the data available at the time.

Assets under management with international financial institutions are valued at the market price and market rate. The revaluation is performed on a net basis, and not on the underlying assets.

Market price

Market price is the price that is quoted for a gold, foreign exchange or securities instrument usually excluding accrued or rebate interest either on an organised market, e.g. a stock exchange, or a non-organised market, e.g. an over-the-counter market.

Impairment of financial assets

Financial assets are reviewed at the balance sheet date to determine whether there is objective evidence of impairment. Impairment is a decline of the recoverable amount below the carrying amount.

1.2.9 Repo agreements

The Croatian National Bank enters into securities purchase/sale agreements under which it agrees to resell/repurchase the same instrument on a specific future date at a fixed price.

A reverse transaction conducted under a reverse repo agreement is recorded as a collateralised outward loan on the assets side of the balance sheet for the amount of the loan. Securities acquired under reverse repo agreements are not revalued and no profit or loss arising thereon is taken to the profit and loss account by the Croatian National Bank.

A reverse transaction conducted under a repo agreement is recorded as a collateralised inward deposit on the liabilities side of the balance sheet, while the item that has been provided as collateral remains on the assets side of the balance sheet. Securities sold which are to be repurchased under repo agreements are treated by the Croatian National Bank as if the assets in question were still part of the portfolio from which they were sold.

1.2.10 Recognition and valuation of liabilities

Liability is a present obligation of the Croatian National Bank arising from past events, the settlement of which is expected to result in an outflow from the Croatian National Bank of resources embodying economic benefits, while the amount of such settlement can be measured reliably.

Financial liability is any liability that is a legal obligation to deliver cash or another financial instrument to another undertaking or to exchange financial instruments with another undertaking under conditions that are potentially unfavourable.

Banknotes and coins in circulation, liabilities on deposits received, current account liabilities, liabilities to suppliers, liabilities on salaries and other employee liabilities as well as other liabilities are recorded in the business books and reported in the financial statements at the nominal value of a transaction based on a contract or another authentic document confirming the occurrence of a liability.

The costs of production of euro banknotes and coins are reported in the profit and loss account when they are invoiced or occur in any other way.

1.2.11 Banknotes in circulation

The ECB and the euro area national central banks (NCBs), which together comprise the Eurosystem, issue euro banknotes^{1,2}. The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month in accordance with the banknote allocation key.³

The ECB has been allocated an 8% share of the total value of euro banknotes in circulation, whereas the remaining 92% has been allocated to national central banks according to their weightings in the capital key of the ECB. The share of banknotes allocated to each national central bank is disclosed in the balance sheet under liability item “Banknotes in circulation”.

The difference between the value of the euro banknotes allocated to each national central bank in accordance with the banknote allocation key and the value of the euro banknotes that it actually puts into circulation also gives rise to remunerated⁴ intra-Eurosystem balances. These claims (or liabilities) are disclosed under the item “Net claims (liabilities) related to the allocation of euro banknotes within the Eurosystem” (see “Intra-ESCB balances/Intra-Eurosystem balances” in the notes on accounting policies).

From the euro cash changeover year⁵ until five years following the euro cash changeover year the intra-Eurosystem balances arising from the allocation of euro banknotes are adjusted in order to avoid significant changes in national central banks’ relative income positions as compared to previous years. The adjustments are affected by taking into account the differences between the average value of banknotes in circulation of each national central bank in the reference period⁶ and the average value of banknotes that would have been allocated to them during that period under the ECB capital key. The adjustments will be reduced in annual stages until the first day of the sixth year after the euro cash changeover year when income on banknotes will be allocated fully in proportion to the national central banks’ paid-up shares in the ECB’s capital. In the year under review the adjustments resulted from the accession of the Croatian National Bank (in 2023) and will terminate at the end of 2028.

The interest income and expense on these balances is cleared through the accounts of the ECB and is disclosed under item “Net interest income” in the profit and loss account.

1.2.12 Intra-ESCB balances/Intra-Eurosystem balances

Intra-Eurosystem balances result primarily from cross-border payments in the European Union (EU) that are settled in central bank money in euro (these transactions are for the most part initiated by private entities). They are primarily settled in TARGET – the Trans-European Automated Real-time Gross Settlement Express Transfer system – and give rise to bilateral balances in the TARGET accounts of EU central banks. Payments conducted by the ECB and the NCBs also affect these accounts. All settlements are automatically aggregated and adjusted to form part of a single position of each NCB vis-à-vis the ECB. The movements in TARGET accounts are reflected in the accounting records of the ECB and the NCBs on a daily basis. Intra-Eurosystem balances of the Croatian National Bank vis-à-vis the ECB arising from TARGET, as well as other intra-Eurosystem balances denominated in euro (e.g. interim ECB profit distributions to national central banks, if any, monetary income results), are

- 1 Decision of the ECB of 13 December 2010 on the issue of euro banknotes (ECB/2010/29) (2011/67/EU) (OJ L 35, 9.2.2011, p. 26), as amended. The unofficial consolidated text with the list of amendments can be found [here](#).
- 2 The Croatian National Bank has participated in the Eurosystem since 2023.
- 3 “Banknote allocation key” means the percentages that result from taking into account the ECB’s share in the total euro banknote issue and applying the subscribed capital key to the national central banks’ share in that total.
- 4 Decision (EU) 2016/2248 of the ECB of 3 November 2016 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (ECB/2016/36), OJ L 347, 20.12.2016, p. 26, as amended. The unofficial consolidated text with the list of amendments can be found [here](#).
- 5 Euro cash changeover year refers to the year in which the euro banknotes are introduced as legal tender in the respective Member State, for the Croatian National Bank, this is 2023.
- 6 The reference period refers to the 24 months which start 30 months before the day on which euro banknotes become legal tender in the respective Member State, for the Croatian National Bank this is the period from July 2020 to June 2022.

presented on the balance sheet of the Croatian National Bank as a single net asset or liability position under “Other claims within the Eurosystem (net)” or “Other liabilities within the Eurosystem (net)”. Intra-ESCB balances versus non-euro area NCBs not arising from TARGET are disclosed either under “Claims on non-euro area residents denominated in euro” or “Liabilities to non-euro area residents denominated in euro”.

Intra-Eurosystem claims arising from the Croatian National Bank’s participating interest in the ECB are reported under “Participating interest in ECB”. In particular, this balance sheet item includes: (i) the NCBs’ paid-up share in the ECB’s subscribed capital, (ii) any net amount paid by the NCBs due to the increase in their shares in the ECB’s equity value⁷ resulting from all previous ECB capital key adjustments, and (iii) contributions in accordance with Article 48.2 of the Statute of the ESCB with respect to central banks of Member States whose derogations have been abrogated.

Intra-Eurosystem claims arising from the transfer of foreign reserve assets to the ECB by the Croatian National Bank at the time of joining the Eurosystem are denominated in euro and reported under “Claims equivalent to the transfer of foreign reserves”.

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are included as a single net asset (liability) under “Net claims (liabilities) related to the allocation of euro banknotes within the Eurosystem” (see “Banknotes in circulation” in the notes on accounting policies).

1.2.13 Income recognition

The following rules apply to income recognition:

- a) realised gains and realised losses are taken to the profit and loss account;
- b) unrealised gains are not recognised as income, but recorded directly in a revaluation account;
- c) at year end, unrealised losses are taken to the profit and loss account if they exceed previous revaluation gains registered in the corresponding revaluation account;
- d) unrealised losses taken to the profit and loss account are not reversed in subsequent years against new unrealised gains;
- e) there is no netting of unrealised losses in any one security, or in any currency or in gold holdings against unrealised gains in other securities or currencies or gold;
- f) at year end, impairment losses are taken to the profit and loss account and must not be reversed in subsequent years, unless the impairment decreases and the decrease can be related to an observable event that occurred after the impairment was first recorded.

Foreign exchange gains/losses on IMF accounts linked to foreign currency (XDR) and expressed in euro, if all foreign exchange gains/losses are borne by the Ministry of Finance, are recognised in the profit and loss account.

Premiums or discounts arising on issued and purchased securities are calculated and presented as part of interest income and are amortised over the remaining contractual life until the maturity of the securities according to the internal rate of return method (effective interest rate).

⁷ Equity value means the total of the ECB’s reserves, revaluation accounts and provisions equivalent to reserves, minus any loss carried forward from previous periods. In the event of capital key adjustments taking place during the financial year, the equity value also includes the ECB’s accumulated net profit or net loss until the date of the adjustment.

Accruals denominated in foreign currencies are translated at the exchange rate of the recording date and have an impact on the foreign currency position.

Currency outflows that entail a change in the holding of a given currency may give rise to realised foreign exchange gains or losses.

1.2.14 Cost of transactions

The average cost method is used on a daily basis for gold, foreign currency instruments and securities, to compute the acquisition cost of items sold, having regard to the effect of exchange rate and/or price movements.

The average cost of the asset or liability is reduced or increased by unrealised losses taken to the profit and loss account at year end.

For the purpose of calculating the average purchase cost of a security, all purchases made during the day are added, at their purchase price, to the previous day's holding to produce a new weighted average cost before applying the sales for the same day.

Where a long position exists, net inflows of currencies and gold made during the day are added to the previous day's holding, at the average rate or gold price of the inflows of the day for each respective currency and gold, to produce a new weighted average cost. In the case of net outflows, the calculation of the realised gain or loss is based on the average cost of the respective currency or gold holding for the preceding day, so that the average cost remains unchanged. Differences in the average rate/gold price between inflows and outflows made during the day also result in realised gains or losses. Where a liability situation exists in respect of a foreign currency or gold position, the reverse treatment applies to the abovementioned approach.

1.2.15 Revaluation accounts

The Croatian National Bank establishes revaluation accounts for the purpose of revaluation of assets and liabilities. Revaluation accounts are established from unrealised gains on the revaluation of assets and liabilities. In addition to the abovementioned revaluation accounts, the Croatian National Bank also established pre-entry revaluation accounts from unrealised gains arisen before or on the date of the entry of the Croatian National Bank into the Eurosystem (Note 1.2.2 Changes to accounting policies and Note 3 under 14 Revaluation accounts).

1.2.16 Provisions

Provisions for future liabilities

The Croatian National Bank recognises a provision if it has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources will be required to settle the obligation, and when a reliable estimate can be made of the obligation. No provision is recognised unless all of these conditions have been met.

Provisions are reviewed at the end of each reporting period and adjusted to reflect current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed. Income or expenses arising from provisions are recognised in the profit and loss account at the end of the accounting period to which they relate.

Provisions for financial risks

The Croatian National Bank may establish provisions for financial risks in accordance with a decision of the Council of the Croatian National Bank.

The amount of provisions for financial risks and the further need for them is reviewed once a year on the basis of the Croatian National Bank's assessment of its own exposure to these risks. The decision to increase or decrease provisions for financial risks is made by the Council of the Croatian National Bank. Income and/or expenses from risk provisions are recorded on the reporting date in accordance with the Decision of the Council of the Croatian National Bank.

1.2.17 Accounting rules for off-balance sheet instruments

Foreign exchange forward transactions, forward legs of foreign exchange swaps and other currency instruments involving an exchange of one currency for another at a future date are included in the net foreign currency positions for calculating average costs and foreign exchange gains and losses.

Gains and losses arising from off-balance-sheet instruments are recognised and treated in a similar manner to on-balance-sheet instruments.

Foreign exchange forward transactions

Forward purchases and sales are recognised in off-balance-sheet accounts from the trade date to the settlement date at the spot rate of the forward transaction. Realised gains and losses on sale transactions are calculated using the average cost of the foreign currency position on the trade date in accordance with the daily netting procedure for purchases and sales.

The difference between the spot and the forward rates is treated as interest payable or receivable on an accruals basis. At the settlement date the off-balance-sheet accounts are reversed. The foreign currency position is affected by forward transactions from the trade date at the spot rate.

The forward positions are valued in conjunction with the spot position of the same currency, offsetting any differences that may arise within a single foreign currency position. A net loss balance is debited to the profit and loss account when it exceeds previous revaluation gains recorded in the revaluation account. A net profit balance is credited to the revaluation account.

Foreign exchange swaps

Forward and spot purchases and sales are recognised in on-balance-sheet accounts at the respective settlement date.

Forward and spot purchases and sales are recognised in off-balance-sheet accounts from the trade date to the settlement date at the spot rate of the forward transaction.

Sale transactions are recognised at the spot rate of the transaction. Therefore no gains or losses arise.

The difference between the spot and the forward rates is treated as interest payable or receivable on an accruals basis for both purchases and sales. At the settlement date the off-balance-sheet accounts are reversed. The foreign currency position changes only as a result of accruals denominated in foreign currency.

The forward position is valued in conjunction with the related spot position.

1.2.18 Taxation

In accordance with relevant legislation the Croatian National Bank is not subject to the Croatian income tax.

1.2.19 Tangible and intangible fixed assets

Tangible and intangible fixed assets are recognised in the balance sheet at cost less accumulated depreciation and impairment losses. The exceptions are land and buildings which are carried at revalued amount, representing their fair value at the revaluation date, decreased by accumulated depreciation for buildings and any impairment losses. Depreciation is provided under the straight-line method. Fair value of land and buildings was determined based on appraisals performed by independent experts and certain significant inputs for valuation were not observable market data.

Gains on revaluation of land and buildings are included as a separate item in the Revaluation accounts. Losses on revaluation are charged to the revaluation reserve account to the extent of the revaluation surplus previously recognised in equity, and any loss in excess of the previously recognised surplus is charged to the profit and loss account for the reporting period.

The revaluation surplus is transferred as the asset is used. In such a case, the amount of the surplus transferred is the difference between depreciation based on the revalued carrying amount of the asset and depreciation based on the asset's original cost. The revaluation surplus included in equity in respect of land and buildings is transferred directly to general reserves when the asset is derecognised. This includes transferring the whole of the surplus when the asset is retired or disposed of. Transfers from revaluation surplus to general reserves are not made through profit or loss.

Useful life of tangible and intangible fixed assets is shown in the table below:

Asset class	Expected useful life in 2023 (number of years)	Expected useful life in 2022 (number of years)
Property	20 – 50	20 – 50
Computers and computing infrastructure	5 – 8	5 – 8
Furniture and equipment	2 – 20	2 – 20
Motor vehicles	4	4
Software and licences	up to 10	up to 10

Leases

At the commencement date, the Croatian National Bank recognises a right-of-use asset and a lease liability.

At the commencement date the right-of-use asset is measured at cost and lease liability is measured at the present value of the lease payments that are not paid at that date. The present value of the lease liability is calculated using the ECB's main refinancing operations rate. After the commencement date the right-of-use asset is measured applying a cost model.

The Croatian National Bank does not recognise the right-of-use assets for short-term leases and leases for which the underlying asset is of low value. The lease payments associated with short-term leases and leases for which the underlying asset is of low value are recognised as an expense on a straight-line basis over the lease term.

Non-lease components are not separated from lease components and instead each lease component and any associated non-lease components are accounted for as a single lease component.

The right-of-use asset is depreciated under the straight-line method, from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

Impairment of non-financial assets

The net carrying amount of non-financial assets is assessed at the end of each reporting period to determine whether there is any indication that the assets may be impaired. If any such indication exists, the recoverable amount of those assets is estimated. For assets with indefinite useful life and intangible assets not yet available for use, the recoverable amount is estimated on every reporting date.

An impairment loss is recognised if the net carrying amount of an asset or cash-generating unit is greater than its recoverable amount. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The cash-generating unit for the Croatian National Bank is the Croatian National Bank as a whole. Impairment loss is recognised in profit or loss.

The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs of disposal and its value in use. Value in use is the present value of the future cash flows expected to be derived from an asset or cash-generating unit. Value in use is estimated by discounting expected future cash flows with the discount rate that reflects current market assessments of time value of money and the risks specific to these assets.

An impairment loss recognised in prior periods is assessed on every reporting date to determine if there is any indication that impairment may have decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the asset's recoverable amount. An impairment loss is reversed only up to the carrying amount of an asset net of accumulated amortisation or depreciation that would have been determined had no impairment loss been recognised.

1.3 USE OF JUDGEMENTS AND ESTIMATES

In preparing the financial statements for 2023, the management made judgements, estimates and assumptions that affect the application of accounting policies and reported amounts of assets and liabilities, income and expense. The estimates are based on the management's best estimate of current events and operations, and actual results may differ from these estimates. The estimates are used to assess the useful life of tangible and intangible fixed assets, the amount of provisions for future liabilities and the exposure of the Croatian National Bank to financial risks for the purpose of establishing provisions for financial risks.

1.4 ALLOCATION OF PROFIT AND COVERAGE OF LOSSES

The allocation of profit and the coverage of losses of the Croatian National Bank are performed in accordance with Article 57 of the Act on the Croatian National Bank. The profit of the Croatian National Bank reported in the financial year is allocated to general reserves and to the State Budget in accord-

ance with the decision of the Council of the Croatian National Bank in such a manner that 20% of the profit is allocated to general reserves and 80% of the profit constitutes revenue to the State Budget. By way of exception, if the amount of general reserves on the last day of the financial year is lower than the lower bound of general reserves established pursuant to Article 55, paragraph (2) of the Act on the Croatian National Bank, the Council of the Croatian National Bank adopts a decision stipulating that the required amount of profit is allocated to general reserves until their lower bound is reached, while the remaining profit is allocated in such a manner that 20% of the profit is allocated to general reserves and 80% of the profit constitutes revenue to the State Budget.

The loss of the Croatian National Bank is firstly covered from general reserves and if the loss of the Croatian National Bank is higher than the amount of general reserves, the loss amount exceeding the amount of general reserves is covered from the profit of the following years. The profit of the Croatian National Bank to be reported in the following years is firstly used for the coverage of loss from the previous years.

If the total capital of the Croatian National Bank decreased by the loss from the previous years is over a longer period lower than the capital of the Croatian National Bank, the required amount up to the amount of the capital is covered from the State Budget in the following medium-term period. Within the meaning of this provision, the total capital of the Croatian National Bank is constituted of the capital, general reserves, revaluation accounts and provisions for financial risks.

Note 2 – Items of assets

1 GOLD AND GOLD RECEIVABLES

	31/12/2023	1/1/2023	Change	
			Absolute	%
Quantity in gold ounces	450.25	62,450.25	(62,000.00)	(99.28)
<i>Price</i>				
EUR/gold ounce	1,867.828	1,706.075	161.753	9.48
Carrying amount in thousands of euro	841	106,545	(105,704)	(99.21)

Article 48.1 in conjunction with Article 30.1 of the Statute of the ESCB and of the ECB prescribes that the national central bank of a Member State whose derogation has been abrogated must transfer foreign reserve assets to the ECB. On 30 December 2022, the ECB adopted Decision (EU) 2023/135 on the paying-up of capital, transfer of foreign reserve assets, and contributions by Hrvatska narodna banka to the European Central Bank's reserves and provisions (ECB/2022/51).

The foreign reserve assets expressed in euro at the exchange rate applicable on 30 December 2022 that were transferred to the ECB amounted to EUR 639,850 thousands, with the structure of the transfer defined as follows: 15% in gold and 85% in US dollars. Accordingly, 15% of the amount of EUR 639,850 thousands was transferred in gold, which at the exchange rate applicable on 30 December 2022 amounted to EUR 95,978 thousands, i.e., 56,256.29 ounces of gold, and 85% was transferred in US dollars, which at the stated exchange rate amounted to EUR 543,872 thousands, i.e., USD 580,094

thousands. For this purpose, the Croatian National Bank purchased gold in 2022, and the remaining amount of the purchased gold, after the transfer to the ECB, was sold in January 2023 (EUR 9,998 thousands).

2 CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

2.1 Receivables from the International Monetary Fund (IMF)

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
<i>Euro-denominated balances with the IMF:</i>				
Membership quota	872,143	897,970	(25,827)	(2.88)
Euro-denominated bills of exchange	(869,360)	(895,261)	25,901	(2.89)
IMF account no. 1	(2,272)	(2,247)	(25)	1.11
<i>Reserve position with the IMF</i>	511	462	49	10.61
IMF account no. 2	(31)	(14)	(17)	121.43
Total	480	448	32	7.14
<i>Balances with the IMF denominated in special drawing rights</i>				
Foreign currency current account with the IMF	1,204,461	1,242,024	(37,563)	(3.02)
PRG-HIPC fund deposit	631	650	(19)	(2.92)
Total	1,205,092	1,242,674	(37,582)	(3.02)
Total	1,205,572	1,243,122	(37,550)	(3.02)

The Croatian National Bank is the fiscal agent of the Republic of Croatia for the International Monetary Fund and the International Monetary Fund's depository.

The current account and deposit as well as net cumulative allocations with the International Monetary Fund are denominated in special drawing rights (XDR) and measured at their nominal value.

The membership quota, bills of exchange and International Monetary Fund accounts number 1 and 2 are measured at cost, denominated in euro and linked to XDR (they are revalued on the reporting date at the XDR exchange rate applicable on that date).

Pursuant to the Decision on granting approval to conclude the new Agreement on the non-interest bearing deposit with the International Monetary Fund (IMF) for the Poverty Reduction and Growth-Heavily Indebted Poor Countries Trust (PRG-HIPC Trust), adopted by the Government of the Republic of Croatia at the meeting held on 20 December 2018, the Agreement on the non-interest bearing deposit was signed between the Croatian National Bank and the IMF as the manager of the PRG-HIPC Trust, which provides for depositing a non-interest bearing amount of XDR 519,161 thousands for the PRG-HIPC Trust. The PRGT - Poverty Reduction and Growth Trust is a special fund within the IMF that provides financial support to low-income countries under very favourable (concessional) conditions.

2.2 Balances with banks and security investments, external loans and other external assets

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Securities	1,348,200	1,597,057	(248,857)	(15.58)
Balances with banks, external loans and other external assets	314,428	871,808	(557,380)	(63.93)
Total	1,662,628	2,468,865	(806,237)	(32.66)

2.2.1 Securities

The table below shows investments in securities outside the euro area denominated in foreign currency.

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Marketable debt securities other than held-to-maturity	627,683	585,868	41,815	7.14
Marketable held-to-maturity debt securities	720,517	1,011,189	(290,672)	(28.75)
Total	1,348,200	1,597,057	(248,857)	(15.58)

Investments in securities by currency

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
USD	1,210,636	1,341,073	(130,437)	(9.73)
Other currencies	137,564	255,984	(118,420)	(46.26)
Total	1,348,200	1,597,057	(248,857)	(15.58)

Investments in securities decreased because funds, at maturity, were redirected to covered foreign exchange swaps.

2.2.2 Balances with banks, external loans and other external assets

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Cash and current accounts	2,536	6,282	(3,746)	(59.63)
Deposits with other banks	18,099	18,751	(652)	(3.48)
Reverse repo agreements	112,579	659,947	(547,368)	(82.94)
Assets under management with international financial institutions	181,214	186,828	(5,614)	(3.00)
Total	314,428	871,808	(557,380)	(63.93)

At the beginning of the year, funds obtained by foreign currency reverse repo agreements in US dollars were directed to current accounts, and funds in current accounts decreased at the time of transfer of foreign reserve assets to the ECB in the amount of EUR 543,872 thousands (USD 580,094 thousands).

Balances with banks, external loans and other external assets by currency

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
USD	312,175	867,186	(555,011)	(64.00)
Other currencies	2,253	4,622	(2,369)	(51.25)
Total	314,428	871,808	(557,380)	(63.93)

3 CLAIMS ON EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Marketable held-to-maturity securities	232,424	372,803	(140,379)	(37.66)
Balances with banks, loans and other assets	254,047	203,232	50,815	25.00
Total	486,471	576,035	(89,564)	(15.55)

Investments in securities decreased because funds, at maturity, were redirected to covered foreign exchange swaps. All investments in this item are in US dollars.

4 CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN EURO

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Marketable held-to-maturity debt securities	852,849	844,498	8,351	0.99
Balances with banks, loans and other assets	–	1,920,000	(1,920,000)	(100.00)
Total	852,849	2,764,498	(1,911,649)	(69.15)

Balances with banks, loans and other assets decreased in 2023 because funds that were invested in deposits with the BIS were transferred to the Croatian National Bank accounts.

5 LENDING TO EURO AREA CREDIT INSTITUTIONS RELATED TO MONETARY POLICY OPERATIONS DENOMINATED IN EURO

The total Eurosystem holding of monetary policy assets amounts to EUR 410,289,869 thousands (total amount reported under asset item 5 in the Eurosystem's consolidated balance sheet), of which the Croatian National Bank holds EUR 55,000 thousands.

In accordance with Article 32.4 of the Statute of the ESCB and of the ECB, losses from monetary policy operations, if they were to materialise, are shared, by decision of the Governing Council, in full by the Eurosystem NCBs, in proportion to the applicable ECB capital key shares (Note 3, under 13 Provisions). Losses can only materialise if both the counterparty fails and the recovery of funds received from the resolution of the collateral provided by the counterparty is not sufficient. For specific collateral which can be accepted by NCBs at their own discretion, risk sharing has been excluded by the Governing Council of the ECB.

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Main refinancing operations	55,000	–	55,000	–
Longer-term financing operations	–	–	–	–
Fine-tuning reverse operations	–	–	–	–
Structural reverse operations	–	–	–	–
Marginal lending facility	–	–	–	–
Credits related to margin calls	–	–	–	–
Total	55,000	–	55,000	–

5.1 Main refinancing operations

Main refinancing operations are executed through liquidity providing reverse transactions with a frequency and a maturity of normally one week, on the basis of standard tenders. Since October 2008, these operations were conducted as fixed rate tender procedures. These operations play a key role in achieving the aims of steering interest rate, managing market liquidity and signalling the monetary policy stance.

5.2 Longer-term financing operations

These operations aim to provide counterparties with additional longer-term refinancing. These operations were conducted at fixed rate with allotment of the total amount bid.

In addition to the series of seven quarterly targeted longer-term refinancing operations (TLTRO III) introduced in 2019, the Governing Council added three further operations to this series in December 2020, which were conducted between June and December 2021. These operations have a three-year maturity. For all TLTROs-III, starting 12 months after the settlement of each operation, participants have the option on a quarterly basis of terminating or reducing the amount of TLTRO III concerned before maturity. Borrowing rates in these operations can be as low as 50 basis points below the average interest rate on the deposit facility over the period from 24 June 2020 to 23 June 2022, but in any case may not become less negative than -1%, and as low as the average (for the relevant period) interest rate on the deposit facility during the rest of the life of the same operation⁸.

The actual interest rates can only be known at the maturity or early repayment of each operation and before that a reliable estimate is used for calculating the TLTRO III interest accruals. For the financial statements for 2023, the interest rate for the accruals was indexed to the average applicable key ECB interest rate since the beginning of the last interest period of these operations, which began on 23 November 2022.

Furthermore, of the four additional pandemic emergency longer-term refinancing operations (PELTROs) allotted in 2021 on a quarterly basis, each with a tenor of approximately one year, the last operation matured in the course of 2023. These operations provided a liquidity backstop to the euro area banking system and contributed to preserving the smooth functioning of the money market

⁸ On 27 October 2022 the Governing Council decided that, 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.

during the extended pandemic period. The PELTROs were conducted as fixed rate tender procedures with full allotment. The interest rate was 25 basis points below the average rate applied in the Eurosystem's main refinancing operations over the life of the respective PELTRO.

5.3 Fine-tuning reverse operations

Fine-tuning reverse operations aim to regulate the market liquidity situation and steer interest rates, particularly to smooth the effects on interest rates caused by unexpected market fluctuations. Owing to their nature, they are executed on an ad-hoc basis.

5.4 Structural reverse operations

These are reverse open-market transactions through standard tenders to enable the Eurosystem to adjust its structural liquidity position vis-à-vis the financial sector.

5.5 Marginal lending facility

Marginal lending facilities may be used by counterparties to obtain overnight liquidity from national central banks at a pre-specified interest rate against eligible assets.

5.6 Credits related to margin calls

This item refers to cash paid to counterparties in those instances where the market value of the collateral exceeds an established trigger point implying an excess of collateral with respect to outstanding monetary policy operations.

6 OTHER CLAIMS ON EURO AREA CREDIT INSTITUTIONS DENOMINATED IN EURO

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Current accounts and deposits	2	142	(140)	(98.59)
Reverse repo agreements	–	4,662,348	(4,662,348)	(100.00)
Monetary operations before the entry into the Eurosystem	366,315	375,207	(8,892)	(2.37)
Claims related to euro cash frontloading	–	1,299,437	(1,299,437)	(100.00)
Total	366,317	6,337,134	(5,970,817)	(94.22)

Investments in reverse repo agreements decreased in 2023 due to the diversion of funds to the Croatian National Bank accounts.

On the date of the entry into the Eurosystem, the Croatian National Bank recorded a claim on banks for the frontloaded euro cash, which was settled from financial collateral in accordance with the linear debiting model, in three equal instalments, on the settlement date of the first, fourth and fifth Eurosystem main refinancing operations (Note 3, under 3 Other liabilities to euro area credit institutions denominated in euro).

7 SECURITIES OF EURO AREA RESIDENTS DENOMINATED IN EURO

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Other securities	12,554,465	17,058,001	(4,503,536)	(26.40)
Total	12,554,465	17,058,001	(4,503,536)	(26.40)

7.1 Securities held for monetary policy purposes

	Start date	End date	Decision	Universe of eligible securities ⁹
Completed/Terminated programmes				
CBPP1	July 2009	June 2010	ECB/2009/16	Covered bonds of euro area residents
CBPP2	November 2011	October 2012	ECB/2011/17	Covered bonds of euro area residents
SMP	May 2010	September 2012	ECB/2010/5	Public and private debt securities issued in the euro area ¹⁰
Asset purchase programme (APP)¹¹				
CBPP3	October 2014	active	ECB/2020/8, as amended	Covered bonds of euro area residents
ABSPP	November 2014	active	ECB/2014/45, as amended	Senior and guaranteed mezzanine tranches of asset-backed securities of euro area residents
PSPP	March 2015	active	ECB/2020/9	Bonds issued by euro-area central, regional or local governments or recognised agencies as well as by international organisations and multilateral development banks located in the euro area
CSPP	June 2016	active	ECB/2016/16, as amended	Bonds and commercial paper issued by non-bank corporations established in the euro area
Pandemic emergency purchase programme (PEPP)				
PEPP	March 2020	active	ECB/2020/17, as amended	All asset categories eligible under the APP

Until the end of February 2023¹² the Eurosystem continued reinvesting, in full, the principal payments from maturing securities purchased under the asset purchase programme (APP)¹³. Subsequently, the APP portfolio declined at a measured and predictable pace. Until the end of June 2023, the decline amounted to EUR 15 billion per month on average, as the Eurosystem did not reinvest all of the principal payments from maturing securities. In June 2023 the Governing Council decided to discontinue the reinvestments under the APP as of July 2023.¹⁴ Thereafter, the APP portfolio was declining due to maturities.

As concerns the PEPP¹⁵, the Eurosystem continued reinvesting, in full, the principal payments of maturing securities purchased throughout the year. The Governing Council intends to continue to reinvest, in full, the principal payments of securities purchased under the PEPP maturing during the

⁹ Further eligibility criteria for the specific programmes can be found in the Governing Council's decisions.

¹⁰ Only public debt securities issued by five euro area treasuries were purchased under the SMP.

¹¹ The reinvestments under the APP were discontinued as of 1 July 2023.

¹² See the press release of 15 December 2022 of the Governing Council's decisions.

¹³ Further details on the APP can be found on the [ECB's website](#).

¹⁴ See the press release of 15 June 2023 of the Governing Council's decisions.

¹⁵ Further details on the PEPP can be found on the [ECB's website](#).

first half of 2024. It also intends to reduce the PEPP portfolio by EUR 7.5 billion per month on average over the second half of 2024 and to discontinue reinvestments under the PEPP at the end of the same year. The Governing Council¹⁶ will further, for the purpose of reducing risks to the monetary policy transmission mechanism related to the pandemic, flexibly reinvest the matured amounts in the PEPP portfolio.

The Governing Council assesses on a regular basis the financial risks associated with the securities held under these programmes. In this context, impairment tests are conducted on an annual basis, using data as at the year-end and are approved by the Governing Council. In these tests, impairment indicators are assessed separately for each programme. In cases where impairment indicators are observed, further analysis is performed to confirm that the cash flows of the underlying securities have not been affected by an impairment event.

At the end of 2023, the total Eurosystem NCBs' holdings of securities held for monetary policy purposes amounted to EUR 4,268,996,153 thousands. The Croatian National Bank held no securities reported under asset item 7.1 on the NCB's balance sheet. In accordance with the decision of the Governing Council taken under Article 32.4 of the Statute of the ESCB, losses from holdings of securities, if they were to materialise, are shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares, excluding government securities under the PSPP and PEPP programmes.

In accordance with the decision of the Governing Council taken under Article 32.4 of the Statute of the ESCB, losses from Corporate Sector Purchase Programme (CSPP) and the Pandemic Emergency Purchase Programme (PEPP-CORP), if they were to materialise, are shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares. As a result of an impairment test conducted on securities under this programme, the Governing Council has deemed it appropriate to establish a buffer against credit risks in monetary policy operations during 2023 (see Note 3, under 13 Provisions).

7.2 Other securities

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Securities not held to maturity	–	4,033,464	(4,033,464)	(100.00)
Held-to-maturity securities	10,594,369	10,873,595	(279,226)	(2.57)
Republic of Croatia bonds	1,960,096	2,150,942	(190,846)	(8.87)
Total	12,554,465	17,058,001	(4,503,536)	(26.40)

In the course of 2023, investments in securities not held to maturity were diverted to Croatian National Bank accounts.

This line item shows securities purchased for monetary policy purposes before the entry into the Eurosystem, that is bonds of the Republic of Croatia purchased by the Croatian National Bank in an effort to maintain liquidity and stability of the financial system due to the coronavirus pandemic (COVID-19).

In 2023, the Croatian National Bank sold EUR 98,000 thousands (nominal value) of securities from its held-to-maturity portfolio, due to adjustments related to a limited framework.

¹⁶ See the press release of 14 December 2023 of the Governing Council's decisions.

9 INTRA-EUROSYSTEM CLAIMS

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Participating interest in ECB	420,517	71,391	349,126	489.03
Claims equivalent to the transfer of foreign reserves	327,152	–	327,152	–
Net claims related to the allocation of euro banknotes within the Eurosystem	13,347,239	10,501,967	2,845,272	27.09
Other claims within the Eurosystem (net)	15,856,491	2,502,010	13,354,481	533.75
Total	29,951,399	13,075,368	16,876,031	129.07

9.1 Participating interest in the ECB

Pursuant to Article 28 of the Statute of the ESCB, the ESCB national central banks are the sole subscribers to the capital of the ECB. Subscriptions depend on shares which are fixed in accordance with Article 29 of the Statute of the ESCB and are subject to adjustment every five years or whenever there is a change in composition of the ESCB national central banks. For the Croatian National Bank this balance sheet item includes the paid-up share in the ECB's subscribed capital in the amount of EUR 71,391 thousands and contributions in accordance with Article 48.2 of the Statute of the ESCB in the amount of EUR 349,126 thousands.

Council Decision (EU) 2022/1211 of 12 July 2022 on the adoption by Croatia of the euro on 1 January 2023 stipulates that Croatia fulfils the necessary conditions for the adoption of the euro and that the derogation referred to in Article 5 of the 2012 Act on Accession is abrogated with effect from 1 January 2023.

Pursuant to Article 48.1 of the Statute of the ESCB and of the ECB the national central bank of a Member State whose derogation has been abrogated must pay up its subscribed share of the capital of the ECB to the same extent as the national central banks of other Member States whose currency is the euro. The ECB's liability item 15 "Capital and reserves" increased by EUR 68,714 thousands to EUR 8,948,335 thousands due to the paying up of the remainder of the Croatian National Bank's share in the subscribed capital of the ECB.

TABLE 1 CONTRIBUTIONS OF NATIONAL CENTRAL BANKS TO THE ECB CAPITAL

NCB	Capital subscription key %	Paid-up capital (in thousands of euro)
Nationale Bank van België/Banque Nationale de Belgique	2,9630	320.745
Deutsche Bundesbank	21,4394	2.320.817
Eesti Pank	0,2291	24.800
Central Bank of Ireland	1,3772	149.082
Bank of Greece	2,0117	217.767
Banco de España	9,6981	1.049.820
Banque de France	16,6108	1.798.120
Hrvatska narodna banka	0,6595	71.391
Banca d'Italia	13,8165	1.495.637

NCB	Capital subscription key % (in thousands of euro)	Paid-up capital (in thousands of euro)
Central Bank of Cyprus	0,1750	18.944
Latvijas Banka	0,3169	34.304
Lietuvos bankas	0,4707	50.953
Banque centrale du Luxembourg	0,2679	29.000
Central Bank of Malta	0,0853	9.234
De Nederlandsche Bank	4,7662	515.941
Oesterreichische Nationalbank	2,3804	257.679
Banco de Portugal	1,9035	206.054
Banka Slovenije	0,3916	42.391
Národná banka Slovenska	0,9314	100.824
Suomen Pankki – Finlands Bank	1,4939	161.715
Subtotal for euro area NCBs	81,9881	8.875.218
Българска народна банка (Bulgarian National Bank)	0,9832	3.991
Česká národní banka	1,8794	7.629
Danmarks Nationalbank	1,7591	7.141
Magyar Nemzeti Bank	1,5488	6.287
Narodowy Bank Polski	6,0335	24.492
Banca Națională a României	2,8289	11.484
Sveriges Riksbank	2,9790	12.093
Subtotal for non-euro area NCBs	18,0119	73.117
TOTAL	100,00	8.948.335

9.2 Claims equivalent to the transfer of foreign reserves

The amount of EUR 327,152 thousands represents the Croatian National Bank's claims arising from the transfer of foreign reserve assets to the ECB, when the Croatian National Bank joined the Eurosystem. In line with Article 30.2 of the Statute of the ESCB, these contributions are fixed in proportion to NCBs' share in the subscribed capital of the ECB. The remuneration of these claims is calculated daily at the latest available (marginal) interest rate used by the Eurosystem in its tenders for main refinancing operations (MRO)¹⁷, adjusted to reflect a zero return on the gold component.

9.4 Net claims related to the allocation of euro banknotes within the Eurosystem

This item consists of the claims of the Croatian National Bank vis-à-vis the Eurosystem relating to the allocation of euro banknotes within the Eurosystem (see "Banknotes in circulation" and "Intra-ESCB balances/Intra-Eurosystem balances" in the notes on accounting policies). The increase, when compared with 1 January 2023, was due to the decrease in the amount of euro banknotes, which the Croatian National Bank released into circulation in 2023 (Note 3., under 1 Banknotes in circulation).

The remuneration of these claims is calculated daily at the latest available (marginal) interest rate used by the Eurosystem in its tenders for main refinancing operations.

¹⁷ Further details on the ECB's interest rates can be found [here](#).

9.5 Other claims within the Eurosystem (net)

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Due to/from ECB in respect of TARGET	16,080,813	2,570,724	13,510,089	525.54
Due to/from ECB in respect of monetary income	(224,322)	–	(224,322)	–
Other claims/(liabilities) within the Eurosystem (net)	–	(68,714)	68,714	(100)
Total	15,856,491	2,502,010	13,354,481	533.75

The balance of EUR 15,856,491 thousands as at 31 December 2023 represents the sum of three components: (1) the position of the Croatian National Bank vis-à-vis the ECB in respect of the transfers issued and received through TARGET by the ESCB national central banks, including the ECB; (2) the position vis-à-vis the ECB in respect of the pooling and allocation of monetary income within the Eurosystem pending settlement; and (3) the Croatian National Bank's position vis-à-vis the ECB in respect of any amounts receivable or refundable.

Regarding the first component, the year-end net transfers via TARGET, the Croatian National Bank had a credit balance of EUR 16,080,813 thousands as at 31 December 2023. The remuneration of this position is calculated daily at the latest available (marginal) interest rate used by the Eurosystem in its tenders for main refinancing operations.

Regarding the second component, i.e. the position vis-à-vis the ECB in respect of the annual pooling and allocation of monetary income within the Eurosystem national central banks, the Croatian National Bank had a debit balance of EUR 224,322 thousands at year-end (Note 6, under 5 Net result of pooling of monetary income).

11 OTHER ASSETS

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Tangible and intangible fixed assets	110,045	91,459	18,586	20.32
Other financial assets	15,675	868,040	(852,365)	(98.19)
Off-balance-sheet instruments revaluation differences	2,196	–	2,196	–
Accruals and prepaid expenses	212,161	78,733	133,428	169.47
Sundry	24,127	26,482	(2,355)	(8.89)
Total	364,204	1,064,714	(700,510)	(65.79)

11.2 Tangible and intangible fixed assets

(All amounts are expressed in thousands of euro)

	Property owned by the CNB (land and buildings)	Right-of-use buildings (office buildings)	Computers and equipment	Furniture and equipment	Motor vehicles	Assets under development – property, plant, equipment	TOTAL PROPERTY, PLANT AND EQUIPMENT	Soft-ware and licences	Assets under development – intangible assets	TOTAL INTANGIBLE ASSETS	TOTAL property, plant, equipment and intang. assets
Balance as at 1 January 2023											
Cost or revaluation	64,138	7,152	34,393	7,237	1,182	4,041	118,143	9,462	2,918	12,380	130,523
Accumulated value	(2,925)	(1,475)	(21,106)	(5,766)	(1,159)	–	(32,431)	(6,633)	–	(6,633)	(39,064)
Net book value	61,213	5,677	13,287	1,471	23	4,041	85,712	2,829	2,918	5,747	91,459
For the year ended 31 December 2023											
Opening net book amount	61,213	5,677	13,287	1,471	23	4,041	85,712	2,829	2,918	5,747	91,459
Additions	124	3,692	6,958	2,607	27	3,457	16,865	–	–	–	16,865
Brought into use	171	–	2,165	37	–	(2,373)	–	897	(897)	–	–
Revaluation	11,484	–	–	–	–	–	11,484	–	–	–	11,484
Impairment	–	–	–	–	–	–	–	–	–	–	–
Net written off	–	–	–	–	–	–	–	–	–	–	–
Depreciation/amortisation (charge for the year, Note 6 under 7)	(982)	(2,090)	(5,212)	(728)	(15)	–	(9,027)	(736)	–	(736)	(9,763)
Closing net book amount	72,010	7,279	17,198	3,387	35	5,125	105,034	2,990	2,021	5,011	110,045
Balance as at 31 December 2023											
Cost or revaluation	72,010	10,844	43,067	9,380	1,209	5,125	141,635	10,359	2,021	12,380	154,015
Accumulated value	–	(3,565)	(25,869)	(5,993)	(1,174)	–	(36,601)	(7,369)	–	(7,369)	(43,970)
Net book value	72,010	7,279	17,198	3,387	35	5,125	105,034	2,990	2,021	5,011	110,045

11.3 Other financial assets

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
BIS shares	5,563	5,563	–	–
SWIFT shares	10	10	–	–
Investment in the Croatian Mint	10,102	8,911	1,191	13.37
Reverse repo deposits with other banking institutions	–	853,556	(853,556)	(100.00)
Total	15,675	868,040	(852,365)	(98.19)

In accordance with the Statute of the BIS, 25% of the shares subscribed was paid, while the remaining 75% is payable upon call for payment. In 2023 the Croatian National Bank received a dividend in the amount of EUR 849 thousands (2022: EUR 849 thousands).

The Croatian Mint is a domestic company whose core operation is the production of coins and medals of gold and other precious metals, production of coins and commemorative circulation coins, manufacturing of jewellery and related products, trade in gold and other precious metals, trade in jubilee coins and in medals of gold and other precious metals. The share ownership of the Croatian National Bank in the capital of the Croatian Mint is 100%, valued under the net asset value principle. Net value of these assets is calculated and recorded in the accounts once a year, at the end of a business year, based on the data available at the time. The consolidated financial statements are not prepared as the investment in the Croatian Mint is not significant from either a qualitative or quantitative perspective.

(All amounts are expressed in thousands of euro)

Net asset value as at 1/1/2023	8,911
Revaluation in 2023	1,191
Net asset value as at 31/12/2023	10,102

In 2023, investments in reverse repo deposits with other banking institutions were diverted to the Croatian National Bank account.

11.4 Off-balance-sheet instruments revaluation differences

This line item shows the net results of the valuations of off-balance sheet instruments in foreign currencies from the trading date to the settlement date. The table below shows the revaluation differences of derivative instruments by instrument and currency that are recognised in the balance sheet.

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Foreign exchange swaps (FX SWAP) in JPY	2,196	–	2,196	–
Total	2,196	–	2,196	–

11.5 Accruals and prepaid expenses

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Deposits with other banks	89	495	(406)	(82.02)
Foreign currency denominated securities not held to maturity	1,561	1,111	450	40.50
Euro denominated securities not held to maturity	–	2,286	(2,286)	(100.00)
Foreign currency denominated securities held to maturity	5,523	7,451	(1,928)	(25.88)
Euro denominated securities held to maturity	36,401	37,712	(1,311)	(3.48)
Securities held for monetary policy purposes before the entry into the Eurosystem	14,974	15,229	(255)	(1.67)
Lending to credit institutions from RC related to monetary policy operations	28	–	28	–
Lending to credit institutions from RC related to monetary policy operations before the entry into the Eurosystem	3,411	2,921	490	16.78
Foreign currency reverse repo agreements	561	7,134	(6,573)	(92.14)
Foreign exchange swaps (FX SWAP)	4,761	1,896	2,865	151.11
Remuneration for intra-Eurosystem claims	141,151	–	141,151	–
Prepaid expenditure	3,699	2,341	1,358	58.01
Other	2	157	(155)	(98.73)
Total	212,161	78,733	133,428	169.47

Sub-item A 11.5 shows accrued interest on various bases, with the largest part of this item referring to accrued remuneration for intra-Eurosystem claims, that is, EUR 55,038 thousands arising from TARGET, EUR 75,417 thousands based on the adjustment of euro banknotes within the Eurosystem (see Note 1.2.11 Banknotes in circulation) and EUR 10,696 thousands for foreign reserve assets transferred to the ECB.

11.6 Sundry

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Numismatics	1,341	1,429	(88)	(6.16)
Receivables	1,342	976	366	37.50
Advances given	19,790	22,394	(2,604)	(11.63)
Other tangible assets	1,285	1,310	(25)	(1.91)
Other	369	373	(4)	(1.07)
Total	24,127	26,482	(2,355)	(8.89)

The largest amount within Advances given was accounted for by advances given for the production of euro coins in the amount of EUR 19,719 thousands (1 January 2023: EUR 7,285 thousands). As at 1 January 2023 advances given also included collateral given for the frontloading of euro coins in the amount of EUR 15,000 thousands.

Note 3 – Liability items

1 BANKNOTES IN CIRCULATION

The item banknotes in circulation consists of the Croatian National Bank's share of the total euro banknotes in circulation and kuna banknotes in circulation.

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Total value of euro banknotes put into circulation by the Croatian National Bank	(1,749,759)	1,139,513	(2,889,272)	(253.55)
Liability resulting from the ECB's share of euro banknotes in circulation	(1,008,523)	(1,012,349)	3,826	(0.38)
Claim according to the Croatian National Bank's weighting in the ECB capital key	14,355,762	11,514,316	2,841,446	24.68
<i>Total euro banknotes in circulation</i>	<i>11,597,480</i>	<i>11,641,480</i>	<i>(44,000)</i>	<i>(0.38)</i>
Kuna banknotes in circulation	483,806	3,246,015	(2,762,209)	(85.10)
Total banknotes in circulation	12,081,286	14,887,495	(2,806,209)	(18.85)

During 2023, the total value of banknotes in circulation within the Eurosystem decreased by 0.38%. According to the allocation key, the Croatian National Bank had euro banknotes in circulation worth EUR 11,597,480 thousands at the end of the year, compared with EUR 11,641,480 thousands at the beginning of 2023. The value of the euro banknotes actually issued by the Croatian National Bank in 2023 decreased. As this was less than the allocated amount, the difference of EUR 13,347,239 thousands (compared to EUR 10,501,967 thousands as at 1 January 2023) is shown under asset item 9.4 "Net claims related to the allocation of euro banknotes within the Eurosystem".

In addition to euro banknotes in circulation, in the cash changeover year, this position also shows kuna banknotes in circulation. Euro and kuna coins in circulation are reported under sub-item L 12.3 Sundry. Kuna banknotes are exchanged without a time limit, and kuna coins until the expiry of three years from the date of the introduction of the euro.

2 LIABILITIES TO EURO AREA CREDIT INSTITUTIONS RELATED TO MONETARY POLICY OPERATIONS DENOMINATED IN EURO

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Current accounts (covering the minimum reserve system)	880,569	18,662,198	(17,781,629)	(95.28)
Deposit facility	16,758,412	–	16,758,412	–
Fixed-term deposits	–	–	–	–
Fine-tuning reverse operations	–	–	–	–
Deposits related to margin calls	–	–	–	–
Total	17,638,981	18,662,198	(1,023,217)	(5.48)

2.1 Current accounts (covering the minimum reserve system)

Current accounts contain the credit balances on the transaction accounts of credit institutions that are required to hold minimum reserves, excluding funds of credit institutions that are not freely disposable and accounts of credit institutions exempt from minimum reserve requirements, which are disclosed separately under Liability item 3 “Other liabilities to euro area credit institutions denominated in euro”.

Banks’ minimum reserve balances were remunerated at the latest available (marginal) interest rate used by the Eurosystem in its tenders for main refinancing operations until 20 December 2022, and at the Eurosystem’s deposit facility (overnight deposit) rate between 21 December 2022 and 19 September 2023. On 27 July 2023 the Governing Council decided that, starting from 20 September 2023, these balances will be remunerated at zero percent.

2.2 Deposit facility

The deposit facility refers to overnight deposits placed by Croatian banks that access the Eurosystem’s liquidity absorbing standing facility at the pre-specified rate.

2.3 Fixed-term deposits

Fixed-term deposits are fine-tuning liquidity absorbing operations that take the form of deposits.

2.4 Fine-tuning reverse operations

Fine-tuning reverse operations are used to offset high liquidity imbalances.

2.5 Deposits related to margin calls

This item refers to deposits made by counterparties in those instances where the market value of the collateral pledged falls short of an established trigger point.

3 OTHER LIABILITIES TO EURO AREA CREDIT INSTITUTIONS DENOMINATED IN EURO

	31/12/2023	1/1/2023	Change	
			Absolute	%
Repo deposits of banks	9,423,063	1,813,710	7,609,353	419.55
Bank accounts for EuroNCSInst limits	–	20,100	(20,100)	(100.00)
Cash deposits – collateral for the frontloading of euro cash	–	1,464,311	(1,464,311)	(100.00)
Court-mandated deposits	5,530	9,488	(3,958)	(41.72)
Total	9,428,593	3,307,609	6,120,984	185.06

The item Other liabilities to euro area credit institutions denominated in euro includes funds of credit institutions that are not freely disposable and accounts of credit institutions exempt from minimum reserve requirements.

Pursuant to the Act on the Introduction of the Euro as the Official Currency in the Republic of Croatia credit institutions concluded frontloading agreements in 2022 with the Croatian National Bank, after which the Croatian National Bank started frontloading euro cash to credit institutions. For the purpose of establishing financial collateral on funds, credit institutions were obliged to transfer funds in the kuna to the account of the Croatian National Bank for the amount of the euro to be received in the frontloading as well as for fulfilling the obligations assumed under the agreement. Financial collateral is considered financial collateral in the sense of the regulation governing financial collaterals, which is based on the transfer of these funds to the account of the Croatian National Bank, and these funds may not be subject to enforcement. The amount of funds transferred by a credit institution to the account of the Croatian National Bank for the purpose of establishing financial collateral on those funds as well as the use and return of funds are regulated by the stated agreement between the Croatian National Bank and the credit institution. After the cash changeover date, the total amount of euro cash received by banks during the frontloading period was settled to the Croatian National Bank from financial collateral at face value, in accordance with the linear debiting model, in three equal instalments, on the settlement date of the first, fourth and fifth Eurosystem main refinancing operations.

Court-mandated deposits are assets foreclosed pursuant to the Act on the Execution of Enforcement over Monetary Assets.

5 LIABILITIES TO OTHER EURO AREA RESIDENTS DENOMINATED IN EURO

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
General government	3,912,926	2,796,238	1,116,688	39.94
Other liabilities	716,933	874,562	(157,629)	(18.02)
Total	4,629,859	3,670,800	959,059	26.13

The item General government includes funds in government accounts, while Other liabilities includes repo agreements and deposits of financial institutions not subject to minimum reserve requirements.

6 LIABILITIES TO NON-EURO AREA RESIDENTS DENOMINATED IN EURO

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Liabilities to European Commission	70,867	119,498	(48,631)	(40.70)
Other liabilities	10	10	-	-
Total	70,877	119,508	(48,631)	(40.69)

Liabilities to the European Commission include euro transaction accounts: the EUR transaction account and the European Development Fund Account.

7 LIABILITIES TO EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Liabilities to financial sector counterparties	254,041	203,229	50,812	25.00
General government	5,312	10,836	(5,524)	(50.98)
Total	259,353	214,065	45,288	21.16

Liabilities to financial sector counterparties refer to repo deposits of euro area financial institutions denominated in foreign currency.

9 COUNTERPART OF SPECIAL DRAWING RIGHTS ALLOCATED BY THE IMF

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Net cumulative allocations	1,204,434	1,240,100	(35,666)	(2.88)
Total	1,204,434	1,240,100	(35,666)	(2.88)

This balance sheet line item is the euro equivalent of XDR 990,733 thousands (1 January 2023: XDR 990,733 thousands).

12 OTHER LIABILITIES

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Off-balance-sheet instruments revaluation differences	9,482	20,059	(10,577)	(52.73)
Accruals and income collected in advance	45,701	5,701	40,000	701.63
Sundry	367,964	448,411	(80,447)	(17.94)
Total	423,147	474,171	(51,024)	(10.76)

12.1 Off-balance-sheet instruments revaluation differences

This line item shows the net results of the valuations of off-balance sheet instruments in foreign currencies from the trading date to the settlement date. The table below shows the revaluation differences of derivative instruments by instrument and currency that are recognised in the balance sheet.

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Foreign exchange swaps (FX SWAP) in USD	9,482	15,012	(5,530)	(36.84)
Foreign exchange swaps (FX SWAP) in JPY	–	5,047	(5,047)	(100.00)
Total	9,482	20,059	(10,577)	(52.73)

12.2 Accruals and income collected in advance

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Deposits of RC	13,530	310	13,220	4,264.52
Repo agreements	26,754	2,000	24,754	1,237.70
Overnight deposits of credit institutions	3,724	–	3,724	–
Foreign exchange swaps (FX SWAP)	792	–	792	–
Negative interest on current accounts	–	4	(4)	(100.00)
Other	901	3,387	(2,486)	(73.40)
Total	45,701	5,701	40,000	701.63

12.3 Sundry

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Euro coins	146,651	159,820	(13,169)	(8.24)
Kuna coins	148,723	207,146	(58,423)	(28.20)
Amounts due to employees	1,592	2,642	(1,050)	(39.74)
Taxes and contributions	1,316	1,683	(367)	(21.81)
Trade payables	6,703	6,971	(268)	(3.84)
Bank cash accounts of TARGET participants	54,971	–	54,971	–
Other	8,008	70,149	(62,141)	(88.58)
Total	367,964	448,411	(80,447)	(17.94)

The bank's cash account is the bank's dedicated account opened with the Croatian National Bank for the purpose of supplying banks with cash through cash supply centres that is not a transaction account in the sense of the regulation governing payment operations. The transfers of funds for the purpose of supplying banks with euro cash are made through the TARGET system.

The item Other comprises the present value of the lease liability in the amount of EUR 7,391 thousands (1 January 2023: EUR 5,728 thousands) and on 1 January 2023 undistributed profit from the previous year amounting to EUR 64,002 thousands.

13 PROVISIONS

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Provisions for securities held for monetary policy purposes	345	–	345	–
Provisions for financial risks	491,074	491,074	–	–
Provisions for court cases	88	4,849	(4,761)	(98.19)
Provisions for employee benefits	4,420	4,013	407	10.14
Total	495,927	499,936	(4,009)	(0.80)

As a result of an impairment test conducted on corporate sector securities held under the CSPP/PEPP-CORP programme, the Governing Council has deemed it appropriate to establish a buffer totalling EUR 42,918 thousands against credit risks in monetary policy operations during 2023.

In accordance with Article 32.4 of the Statute of the ESCB, this buffer will be funded by all the national central banks of participating Member States (NCBs) in proportion to their subscribed capital key shares in the ECB applicable in 2023. As a result, a provision of EUR 345 thousands equivalent to 0.80439% of the total provision was created.

Pursuant to the decision of the Council of the Croatian National Bank, provisions for financial risks as at 31 December 2023 remained unchanged from the amount of provisions for financial risks as at 31 December 2022.

The amount of provisions for financial risks and the further need for them is reviewed once a year on the basis of the Croatian National Bank's assessment of its own exposure to financial risks. The amount of provisions for financial risks of the Croatian National Bank is assessed taking into account risk assessment models, the expectations of changes in risk exposure due to new investments or the reduction of existing investments as well as expectations of interest rate trends, currency exchange rates and other market factors, and other expert assessments.

The exposure of the Croatian National Bank to financial risks is described in more detail in Note 7 - Risk management.

Provisions for court cases decreased by the amount of EUR 4,761 thousands due to the termination of court proceedings in favour of the Croatian National Bank.

14 REVALUATION ACCOUNTS

The table below shows revaluation account balances.

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Securities	1,166	–	1,166	–
Foreign currency positions	5	–	5	–
Assets under management with international financial institutions	878	–	878	–
Gold	73	–	73	–
Significant interests	1,191	–	1,191	–
Revaluation reserves for fixed assets	54,898	44,032	10,866	24.68
Pre-entry revaluation accounts	725,194	1,103,858	(378,664)	(34.30)
Total	783,405	1,147,890	(364,485)	(31.75)

Revaluation reserves for fixed assets increased on account of the revaluation of tangible fixed assets (land and buildings) carried out in 2023 and based on appraisals by independent experts.

The table below shows pre-entry revaluation account balances:

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
EUR/HRK pre-entry revaluation account	–	38,468	(38,468)	(100.00)
USD/HRK pre-entry revaluation account	158,161	296,252	(138,091)	(46.61)
Pre-entry revaluation account for the coverage of losses	567,033	769,138	(202,105)	(26.28)
Total	725,194	1,103,858	(378,664)	(34.30)

Unrealised gains from the EUR/HRK pre-entry revaluation account are recognised in the profit and loss account for 2023 after the entry of the Croatian National Bank into the Eurosystem, while unrealised gains from the USD/HRK pre-entry revaluation account are recognised in the profit and loss account at the time of transfer of Croatian National Bank's foreign reserve assets to the European Central Bank and are also recognised at the time of sale of US dollars after the entry of the Croatian National Bank into the Eurosystem and were used to cover year-end unrealised foreign exchange losses arising from USD revaluation. Unrealised gains from the pre-entry revaluation account for the coverage of losses were used for the coverage of unrealised foreign exchange losses, the coverage of losses from the change in the prices of securities not held to maturity and the negative net result of pooling of monetary income of the Croatian National Bank (see Note 6, under 2 Net result of financial operations, write-downs and risk provisions).

15 CAPITAL AND RESERVES

(All amounts are expressed in thousands of euro)	31/12/2023	1/1/2023	Change	
			Absolute	%
Initial capital	331,807	331,807	–	–
General reserves	152,077	138,658	13,419	9.68
Total	483,884	470,465	13,419	2.85

The initial capital in the amount of EUR 331,807 thousands may not be transferred or pledged. General reserves are established to cover general business risks of the Croatian National Bank. The lower bound of general reserves was determined by the Decision on the determination of the lower bound of the general reserves of the Croatian National Bank, adopted by the Council of the Croatian National Bank, in the amount of EUR 66,361 thousands.

The increase in general reserves was due to the transfer of revaluation reserves for fixed assets (buildings) to general reserves (realisation of the revaluation reserve due to depreciation) in the amount of EUR 618 thousands and the allocation of profits for 2022 according to which a share of the profit for 2022 in the amount of EUR 12,801 thousands was allocated to general reserves.

Note 4 – Post-balance-sheet events

Pursuant to Article 29 of the Statute of the ESCB, the weightings assigned to the national central banks in the key for subscription to the ECB's capital are adjusted every five years and whenever there is a change in the number of NCBs that contribute to the ECB's capital (these are the NCBs of EU Member States). The ninth such adjustment following the establishment of the ECB was made on 1 January 2024, as follows:

NCB	Capital subscription key from 1/1/2024, %	Capital subscription key until 31/12/2023, %
Nationale Bank van België / Banque Nationale de Belgique	3.0005	2.9630
Deutsche Bundesbank	21.7749	21.4394
Eesti Pank	0.2437	0.2291
Central Bank of Ireland	1.7811	1.3772
Bank of Greece	1.8474	2.0117
Banco de España	9.669	9.6981
Banque de France	16.3575	16.6108
Hrvatska narodna banka	0.6329	0.6595
Banca d'Italia	13.0993	13.8165
Central Bank of Cyprus	0.1802	0.1750
Latvijas Banka	0.3169	0.3169
Lietuvos bankas	0.4826	0.4707
Banque centrale du Luxembourg	0.2976	0.2679
Central Bank of Malta	0.1053	0.0853
De Nederlandsche Bank	4.8306	4.7662
Oesterreichische Nationalbank	2.4175	2.3804
Banco de Portugal	1.9014	1.9035
Banka Slovenije	0.4041	0.3916
Národná banka Slovenska	0.9403	0.9314
Suomen Pankki – Finlands Bank	1.4853	1.4939
Subtotal for euro area NCBs	81.7681	81.9881
Българска народна банка (Bulgarian National Bank)	0.9783	0.9832
Česká národní banka	1.9623	1.8794
Danmarks Nationalbank	1.7797	1.7591
Magyar Nemzeti Bank	1.5819	1.5488
Narodowy Bank Polski	6.0968	6.0335
Banca Națională a României	2.8888	2.8289
Sveriges Riksbank	2.9441	2.9790
Subtotal for non-euro area NCBs	18.2319	18.0119
TOTAL	100.00	100.00

On 1 January 2024, the share of the Croatian National Bank in the subscribed capital of the ECB decreased from 0.6595% to 0.6329% so that the asset item 9.1 “Participating interest in the ECB” decreased by EUR 2,880 thousands and now stands at EUR 68,511 thousands.

Pursuant to Article 30.2 of the Statute of the ESCB, the contributions of the NCBs to the transfer of foreign reserve assets to the ECB are determined in proportion to their share in the ECB’s subscribed capital. Given the decrease in the weighting of the Croatian National Bank in the ECB’s subscribed capital, the claim equivalent to this transfer was also adjusted accordingly. This resulted in a reduction of EUR 13,195 thousands on 1 January 2024, which was paid by the ECB.

After 31 December 2023 there were no other significant events that would have an impact on the financial statements of the Croatian National Bank.

Note 5 – Off-balance-sheet accounts and treasury inventory system

FOREIGN EXCHANGE SWAPS (FX SWAP)

In 2023, the Croatian National Bank concluded foreign exchange swaps, and the amounts of claims and liabilities arising from these transactions as at 31 December 2023 and 1 January 2023 are shown in tables below.

(All amounts are expressed in thousands of euro)

Foreign exchange swaps	31/12/2023			
	USD	JPY	EUR	Total
Claims	715,356	–	–	715,356
Liabilities	–	(137,643)	(585,000)	(722,643)
Total	715,356	(137,643)	(585,000)	(7,287)

(All amounts are expressed in thousands of euro)

Foreign exchange swaps	1/1/2023		
	USD	JPY	Total
Claims	236,013	–	236,013
Liabilities	–	(256,072)	(256,072)
Total	236,013	(256,072)	(20,059)

COLLATERAL

Total fair value of collateral obtained for monetary policy operations of the Eurosystem as at 31 December 2023 amounted to EUR 66,204 thousands.

Total fair value of collateral obtained for collateralised credits associated with monetary policy before the entry into the Eurosystem as at 31 December 2023 amounted to EUR 434,801 thousands (1 January 2023: EUR 460,796 thousands).

Total fair value of collateral obtained by foreign currency reverse repo agreements (sovereign bonds and bonds of state institutions rated AAA to A) as at 31 December 2023 amounts to EUR 396,574 thousands (1 January 2023: EUR 5,758,666 thousands).

Total fair value of collateral given in foreign currency repo agreements as at 31 December 2023 amounts to EUR 10,489,418 thousands (1 January 2023: EUR 2,816,596 thousands).

CONTINGENT ASSETS

In the previous civil proceedings terminated by a final judgement, in which the claimant was the Croatian National Bank, the Supreme Court of the Republic of Croatia issued a decision annulling the final judgement and the case was referred back to the first instance court for retrial. As the outcome of the reopened civil proceedings is uncertain, these contingent assets were recorded in off-balance sheet records in the amount of EUR 22,667 thousands (1 January 2023: EUR 22,667 thousands).

CONTINGENT LIABILITIES AND COMMITMENTS

Legal actions: As at 31 December 2023, there were several legal actions outstanding against the Croatian National Bank. In the opinion of the management and internal legal advisers of the Croatian National Bank, the Bank may lose certain cases. As a result, provisions for potential losses on such cases were made by the Bank in the amount of EUR 88 thousands (see Note 3, under 13 Provisions).

Capital commitments: As at 31 December 2023 the capital commitments of the Croatian National Bank amounted to EUR 4,908 thousands (1 January 2023: EUR 2,473 thousands).



Note 6 – Notes to the Profit and Loss Account

1 NET INTEREST INCOME/EXPENSE

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Foreign currency interest income:				
Foreign currency deposits	4,072	7,773	(3,701)	(47.61)
Foreign currency reverse repo agreements	12,570	22,068	(9,498)	(43.04)
Foreign currency denominated securities not held to maturity	30,986	29,138	1,848	6.34
Foreign currency denominated securities held to maturity	18,455	129,832	(111,377)	(85.79)
Foreign exchange swaps	27,164	4,857	22,307	459.28
Loans to domestic banks	5	–	5	–
Foreign currency repo agreements (negative interest)	–	10,907	(10,907)	(100.00)
Remuneration of TARGET2 HR component	–	185	(185)	(100.00)
Other	–	16,467	(16,467)	(100.00)
Total	93,252	221,227	(127,975)	(57.85)
Domestic currency interest income:				
Monetary policy operations	133	1,294	(1,161)	(89.72)
Intra-Eurosystem claims for:				
TARGET	338,116	–	338,116	–
Allocation of euro banknotes within the Eurosystem	182,227	–	182,227	–
Transfer of foreign reserve assets to the ECB	10,696	–	10,696	–
Securities not held to maturity	3,069	–	3,069	–
Held-to-maturity securities	150,411	–	150,411	–
Reverse repo agreements	39,645	–	39,645	–
Securities held for monetary policy purposes before the entry into the Eurosystem	60,442	62,731	(2,289)	(3.65)
Monetary policy operations before the entry into the Eurosystem	1,031	–	1,031	–
Other	362	–	362	–
Total	786,132	64,025	722,107	1,127.85
Total interest income	879,384	285,252	594,132	208.28
Foreign currency interest expense:				
Ministry of Finance deposits	–	(326)	(326)	(100.00)
Foreign currency repo agreements	(12,215)	(15,813)	(3,598)	(22.75)

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Amortised premium on securities not held to maturity	(43)	(33,308)	(33,265)	(99.87)
Amortised premium on held-to-maturity securities	(3,837)	(38,014)	(34,177)	(89.91)
Foreign exchange swaps (FX SWAP)	(5)	(200)	(195)	(97.50)
Foreign exchange forward (FX FORWARD)	–	–	–	–
Current accounts of CNB clients	–	(3,314)	(3,314)	(100.00)
Foreign currency deposits (negative interest)	–	(7,163)	(7,163)	(100.00)
Foreign currency reverse repo agreements (negative interest)	–	(11,400)	(11,400)	(100.00)
Other	–	(32)	(32)	(100.00)
Total	(16,100)	(109,570)	(93,470)	(85.31)
Domestic currency interest expense:				
Ministry of Finance deposits	(102,680)	(153)	102,527	67,011.11
Other government deposits	(10,028)	–	10,028	–
Repo agreements	(165,665)	–	165,665	–
Banks' minimum reserve requirements (MRR)	(11,999)	–	11,999	–
Overnight deposits of banks	(478,926)	–	478,926	–
Amortised premium on securities not held to maturity	(5)	–	5	–
Amortised premium on held-to-maturity securities	(36,103)	–	36,103	–
Foreign exchange swaps (FX SWAP)	(11,497)	–	11,497	–
Foreign exchange forward (FX FORWARD)	–	–	–	–
Current accounts of CNB clients	–	–	–	–
Foreign currency deposits (negative interest)	–	–	–	–
Foreign currency reverse repo agreements (negative interest)	–	–	–	–
Amortisation premium on securities held for monetary policy purposes before the entry into the Eurosystem	(42,687)	(44,447)	(1,760)	(3.96)
Leases	(186)	(107)	79	73.83
Other	(692)	–	692	–
Total	(860,468)	(44,707)	815,761	1,824.68
Total interest expense	(876,568)	(154,277)	722,291	468.18
Total net interest income/(expense)	2,816	130,975	(128,159)	(97.85)

2 NET RESULT OF FINANCIAL OPERATIONS, WRITE-DOWNS AND RISK PROVISIONS

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Realised gains/(losses) arising from financial operations:				
Foreign exchange differences	171	66,321	(66,150)	(99.74)
Securities	2,668	8,812	(6,144)	(69.72)
Assets under management with international financial institutions	8,242	–	8,242	–
Losses from sales of held-to-maturity securities	(2,838)	–	(2,838)	–
Other gains:				
Income from the release of the EUR/HRK and USD/HRK pre-entry revaluation accounts	95,542	–	95,542	–
Income from the release of the pre-entry account for the coverage of losses (negative net result of pooling of monetary income)	201,613	–	201,613	–
Total	305,398	75,133	230,265	306.48
Write-downs on financial assets and positions:				
Foreign exchange:				
Foreign exchange differences	(81,037)	(4)	(81,033)	2,025,825.00
Income from the release of the pre-entry revaluation account for USD/HRK and for the coverage of foreign exchange losses/revaluation reserves for foreign exchange differences	81,037	4	81,033	2,025,825.00
<i>Total foreign exchange differences:</i>	–	–	–	–
Change in prices:				
Securities	(443)	(65,166)	64,723	(99.32)
Assets under management with international financial institutions	–	(349)	349	(100.00)
Other precious metals	(29)	–	(29)	–
Income from the release of the pre-entry account for the coverage of losses from changes in prices	472	43,556	(43,084)	(98.92)
<i>Total change in prices:</i>	–	(21,959)	21,959	(100.00)
Total	–	(21,959)	21,959	(100.00)
Transfer to/from provisions for financial risks:				
Provisions for financial risks	–	(26,545)	26,545	(100.00)
Total	–	(26,545)	26,545	(100.00)
Total net result of financial operations, write-downs and risk provisions	305,398	26,629	278,769	1,046.86

The item Realised gains/losses arising from financial operations also includes realised losses arising from the sale of securities in the held-to-maturity portfolio, due to adjustments related to a limited framework.

Unrealised gains from the EUR/HRK pre-entry revaluation account amounting to EUR 38,468 thousands are recognised in the profit and loss account for 2023 after the entry of the Croatian National Bank into the Eurosystem, while EUR 57,074 thousands from the USD/HRK pre-entry revaluation account are recognised in the profit and loss account for 2023 at the time of transfer of foreign reserve

assets to the ECB. The net negative result of pooling of monetary income was partially covered from the pre-entry revaluation account for the coverage of losses in the amount of EUR 201,613 thousands.

Foreign exchange losses and losses for 2023 were covered completely from the USD/HRK pre-entry revaluation account (EUR 81,017 thousands) and the pre-entry revaluation account for the coverage of losses (EUR 20 thousands), and losses from changes in the prices of securities and other precious metals for 2023 were covered completely from the pre-entry revaluation account for the coverage of losses (EUR 472 thousands).

In 2022 foreign exchange losses were covered completely and losses from changes in the prices of securities were covered partially from revaluation accounts established pursuant to the decision of the CNB Council, adopted under the provisions of the Act on the CNB on transition to reporting in accordance with the ECB Guideline.

3 NET INCOME/EXPENSE FROM FEES AND COMMISSIONS

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Fees and commissions income				
Fees for the supervision of credit institutions	14,742	7,737	7,005	90.54
Cash handling for banks	2,569	–	2,569	–
Other	85	1,339	(1,254)	(93.65)
Total	17,396	9,076	8,320	91.67
Fees and commissions expense				
Securities deposit and custody costs	(1,124)	(1,755)	(631)	(35.95)
Obligatory contribution to EBA budget	(683)	(652)	31	4.75
Cash handling – FINA GS	(7,623)	(2,065)	5,558	269.15
Other	(545)	(1,003)	(458)	(45.66)
Total	(9,975)	(5,475)	4,500	82.19
Net fees and commissions income/(expense)	7,421	3,601	3,820	106.08

The Croatian National Bank charges a fee for the supervision of credit institutions pursuant to the Credit Institutions Act. Entities subject to supervision fees are credit institutions with registered offices in the Republic of Croatia and branches of credit institutions with registered offices outside the Republic of Croatia. The level, base, calculation method and payment method for the supervision fee is determined by the Decision on supervision fees for credit institutions, issued by the Governor of the Croatian National Bank.

For the services provided under the Decision on supplying banks with euro cash, banks are charged a fee in accordance with the Fees Tariff issued by the Governor of the Croatian National Bank. The supplying of banks with euro cash for the Croatian National Bank is carried out by FINA gotovinski servisi d.o.o., for which the Croatian National Bank pays a fee.

Regulation (EU) No 1093/2010 establishing a European Banking Authority (EBA) defines that competent authorities form part of the European System of Financial Supervision (ESFS), which also comprises the European Banking Authority (EBA). In accordance with the above Regulation, the Croatian

National Bank, as the authority competent for the supervision of credit institutions, forms part of the European System of Financial Supervision (ESFS) and a representative of the Croatian National Bank participates as a member in the Board of Supervisors (BoS), the EBA's managing authority. Every year, the Board of Supervisors, in the manner prescribed by Article 63 of the said Regulation, adopts the EBA's budget. The revenues of the EBA funding the budget consist, among other things, of obligatory contributions from the national competent authorities, which are made in accordance with a formula based on the weighting of votes.

4 INCOME FROM EQUITY SHARES AND PARTICIPATING INTERESTS

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
BIS dividend income	849	849	-	-
Total	849	849	-	-

5 NET RESULT OF POOLING OF MONETARY INCOME

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Net monetary income pooled by the Croatian National Bank	(552,186)	-	(552,186)	-
Net monetary income allocated to the Croatian National Bank	327,864	-	327,864	-
Monetary income reallocation for the year	-	-	-	-
Share of provisions against risks	(345)	-	(345)	-
Total	(224,667)	-	(224,667)	-

This item contains the net result of pooling of monetary income for 2023, amounting to an expense of EUR 224,667 thousands, together with the Croatian National Bank's share of the net result of the provisioning against risks in monetary policy operations of the Eurosystem amounting to an expense of EUR 345 thousands (see Note 3, under 13 Provisions). The net loss reported in this item was covered partially from the pre-entry revaluation account for the coverage of losses (see Note 6, under 2 Net result of financial operations, write-downs and risk provisions).

The amount of each Eurosystem NCB's monetary income is determined by measuring the annual income that derives from the earmarkable assets held against its liability base. The liability base consists mainly of the following items: banknotes in circulation; liabilities to euro area credit institutions related to monetary policy operations denominated in euro; net intra-Eurosystem liabilities resulting from TARGET transactions; net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem, accrued interest recorded at quarter-end by each NCB on monetary policy liabilities the maturity of which is one year or longer; liabilities vis-à-vis the ECB backing the claim in relation to swap agreements that earn net income for the Eurosystem; deposit liabilities to defaulted Eurosystem counterparties which have been reclassified from liability item 2.1 Current accounts (covering the minimum reserve system). Any interest paid on liabilities included within the liability base is to be deducted from the monetary income to be pooled.

The earmarkable assets consist mainly of the following items: lending to euro area credit institutions related to monetary policy operations denominated in euro; securities held for monetary policy purposes; intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB; net intra-Eurosystem claims resulting from TARGET transactions; net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem; claims on euro area counterparties related to swap agreements between the ECB and non-Eurosystem central banks that earn net income for the Eurosystem; accrued interest recorded at quarter-end by each NCB on monetary policy assets the maturity of which is one year or longer; a limited amount of each NCBs' gold holdings in proportion to each NCB's capital key share.

The amount of each Eurosystem NCB's monetary income shall be determined by measuring the actual income that derives from the earmarkable assets recorded in its books. As an exception to this, gold is considered to generate no income and the following are considered to generate income at the latest available (marginal) interest rate used by the Eurosystem in its tenders for main refinancing operations: (i) securities held for monetary policy purposes under Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bonds purchase programme, (ii) securities held for monetary policy purposes under Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bond purchase programme and (iii) debt instruments issued by central, regional and local governments and recognised agencies and substitute debt instruments issued by public non-financial corporations under Decision ECB/2020/9 of 3 February 2020 on the implementation of a secondary markets public sector asset purchase programme or Decision ECB/2020/17 of 24 March 2020 on a temporary pandemic emergency purchase programme. Where the value of an NCB's earmarkable assets exceeds or falls short of the value of its liability base, the difference shall be offset by applying to the value of the difference the latest available (marginal) rate for the Eurosystem's main refinancing operations.

The monetary income pooled by the Eurosystem is allocated among NCBs according to the subscribed ECB capital key. The pooling and reallocation of monetary income to NCBs leads to certain net reallocation effects. One reason is that the yields earned on certain earmarkable assets and the interest expense paid on certain liability base items may differ to a varying degree among the Eurosystem NCBs. In addition, usually each Eurosystem NCB's share of earmarkable assets and in the liability base deviates from its share in the subscribed capital of the ECB. The difference between the monetary income pooled by the Croatian National Bank amounting to EUR 552,186 thousands and reallocated to the Croatian National Bank amounting to EUR 327.864 thousands is the net result arising from the calculation of monetary income.

The breakdown of the net result of monetary income pooling into its various components is shown in the following table:

(All amounts are expressed in thousands of euro)	Net MI pooled CNB	Net MI Total NCBs	MI redistribution according to the Eurosystem key	Net result of the pooling of MI 2023
Lending to euro area credit institutions	133	26,849,936	215,977	215,844
Securities held for monetary policy purposes subject to risk sharing	–	8,483,281	68,238	68,238
Securities held for monetary policy purposes not subject to risk sharing	–	127,854,247	1,028,440	1,028,440
Intra-Eurosystem claims equivalent to the transfer of foreign reserves to the ECB	10,696	1,334,524	10,735	39
Net claims (liabilities) related to the allocation of euro banknotes	182,227	(4,816,858)	(38,746)	(220,973)
Claims related to TARGET transactions	338,021	14,159,899	113,900	(224,121)
GAP (difference between earmarkable assets and liability base)*	512,034	(2,718,135)	(21,864)	(533,898)
Liabilities to euro area credit institutions	(490,925)	(130,387,326)	(1,048,816)	(557,891)
Total	552,186	40,759,568	327,864	(224,322)

* For presentational purposes residual income related to claims arising from liquidity providing arrangements to non-Eurosystem central banks and amounting to EUR 4,317 thousands is included in this line item.

6 OTHER INCOME

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Sale of numismatics and investment gold	399	307	92	29.97
Other income	5,925	1,106	4,819	435.71
Total	6,324	1,413	4,911	347.56

The item Other income shows income from reversed provisions for court cases in the amount of EUR 4,761 thousands.

7 TOTAL OPERATING EXPENSES

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Staff costs	(35,046)	(32,882)	2,164	6.58
Administrative expenses	(30,071)	(23,977)	6,094	25.42
Depreciation of tangible and intangible fixed assets	(9,763)	(7,273)	2,490	34.24
Costs of production of banknotes and coins	(23,173)	(35,179)	(12,006)	(34.13)
Other costs	(88)	(154)	(66)	(42.86)
Total	(98,141)	(99,465)	(1,324)	(1.33)

Administrative expenses include the costs of maintenance of office buildings and other fixed assets, overheads, network programmes maintenance costs, office supplies costs, small inventory costs, professional development costs, provisions for court cases and other current costs. Depreciation costs for the right-of-use assets amounted to EUR 2,090 thousands (2022: EUR 1,208 thousands) and are reported under Depreciation and amortisation costs.

7.1 Staff costs

(All amounts are expressed in thousands of euro)	2023	2022	Change	
			Absolute	%
Net salaries	(18,088)	(17,432)	656	3.76
Contributions from and contributions on salaries	(9,583)	(8,701)	882	10.14
Taxes and surtaxes	(3,666)	(3,215)	451	14.03
Other employee related expenses	(3,302)	(3,144)	158	5.03
Provisions for employee benefits	(407)	(390)	17	4.36
Total	(35,046)	(32,882)	2,164	6.58

The average number of employees during 2023 was 745 (2022: 727).

12 PROFIT/(LOSS) FOR THE YEAR

The Croatian National Bank realised profit for 2023 in the amount of zero euro after covering the losses from pre-entry revaluation accounts (Note 6, under 2 Net result of financial operations, write-downs and risk provisions). The Decision on the financial statements of the Croatian National Bank for 2023 is adopted by the Council of the Croatian National Bank.

In accordance with the decision of the Council of the Croatian National Bank on the financial statements of the Croatian National Bank for 2022, the realised profit in the amount of EUR 64,002 thousands was allocated as follows: 20% of the profit, i.e., the amount of EUR 12,801 thousands, was allocated to general reserves and 80% of the profit, i.e., the amount of EUR 51,201 thousands constitutes revenue to the State Budget.

Note 7 – Risk management

The Croatian National Bank manages non-monetary financial assets (own funds in euro and international reserves in foreign currency), where the level of risk is also significantly influenced by monetary policy implementation which is reflected in the monetary part of the balance sheet of the Croatian National Bank.

The Croatian National Bank manages non-monetary financial assets based on the principles of liquidity and safety, which means that it maintains high liquidity of financial assets and appropriate risk exposures and seeks to achieve favourable return on its investments within the defined limits.

Risks inherent to managing non-monetary financial assets consist primarily of financial risks such as credit risk, liquidity risk and market risk. However, considerable attention is given also to operating risk.

Operating risk is the risk of loss due to inappropriate or inefficient internal processes, employees or systems or due to the events external to the Bank. Operating risk is managed by strict segregation of duties and responsibilities, formalised methodologies and procedures and by conducting regular internal and external audits.

The revaluation accounts and provisions for financial risks are risk buffers, with the revaluation accounts used as the first level of protection against the risk of a fall in prices and exchange rates, while provisions for financial risks and the pre-entry revaluation account for the coverage of losses can be used to cover the negative impacts on the profit and loss account arising from all financial risks.

7.1 Credit risk

Credit risk is the risk that the counterparty will not settle its liability i.e. the possibility that invested funds will not be recovered in full or within the planned schedule.

The Croatian National Bank manages its credit risk exposure by investing its financial assets into high-quality instruments with minimum risk, such as government bonds, government guaranteed bonds, bank bonds with government guarantees and guaranteed bonds, into instruments of international financial institutions with high credit rating and into both collateralised and non-collateralised deposits. Collateralised deposits represent deposits secured by government bonds in the amount equal to or in excess of the value of the deposit. Uncollateralised deposits are invested only with central banks and international financial institutions. Financial assets investments are limited per types of issuer and per types of financial institutions, which diversifies credit risk.

Its assessment of financial institutions' creditworthiness is based on the ratings of major internationally recognised rating agencies (Moody's, Standard & Poor's, and Fitch).

The Croatian National Bank invests financial assets in government bonds and government guaranteed bonds of countries rated Aaa to Baa3 (Moody's), guaranteed bonds with ratings from Aaa to Aa2, reverse repo agreements with commercial banks with ratings of Aaa to Baa3, deposits with central banks rated Aaa to Baa3, instruments with international financial institutions rated Aaa to A2, and deposits placed with commercial banks rated Aaa to A3 for the purpose of carrying out foreign currency transactions.

7.2 Liquidity risk

Liquidity risk is the risk of inability to settle all the liabilities and obligations arising from the operations of the Croatian National Bank as they fall due. Hence, the Croatian National Bank has to ensure, through its strategy, sufficient liquid funds on a daily basis to settle all of its liabilities and commitments. Liquidity risk is controlled by investing financial assets into demand deposits, highly marketable bonds and partly in deposit instruments with short maturities.

Liquid funds include all assets that are convertible into cash within a period of one to three days. The Croatian National Bank invests total financial assets into deposits with maturities of up to three months and into securities. At 31 December 2023, 40% of financial assets were liquid and at 31 December 2022 approximately 18.5% of financial assets were liquid.

7.3 Market risk

Market risk is the risk of fluctuations in the fair value or future cash flows of a financial instrument due to changes in market prices. Market risk includes foreign exchange risk, interest rate risk and other price risks.

Foreign exchange risk (risk of changes in value of one currency against another) is the risk of fluctuation in fair value or future cash flows of a financial instrument due to changes in foreign exchange rates.

Interest rate risk is the risk of fluctuations in fair value or future cash flows of a financial instrument due to changes in market interest rates.

Other price risks include the risk of fluctuations in fair value or future cash flows of financial instruments due to changes in market prices that do not arise from interest rate or foreign exchange risk.

7.3.1 Foreign exchange risk

The Croatian National Bank holds a portion of its assets in foreign currencies, which exposes it to foreign exchange risk in terms of fluctuations in the exchange rates of the euro against the US dollar. These cross-currency changes affect the balances of revaluation accounts in the balance sheet and the profit and loss account result.

The Croatian National Bank takes on exposure to foreign exchange risk only in respect of financial assets it manages in accordance with its own guidelines (excluding the Ministry of Finance funds, XDR holdings with the IMF and investments in repo agreements). Although VaR analysis for foreign exchange risk and various stress tests are made, the currency structure is not defined by these measures, but primarily by the currency structure of debt and imports. Accordingly, VaR limits are not set, nor is back-testing implemented.

The portion of financial assets formed out of the Ministry of Finance funds, repo deals and funds in special drawing rights (XDR) is managed passively by the central bank, based on the currency structure of foreign currency obligations; hence, there is no exposure to foreign exchange risk on this basis.

Currency VaR for a period of one year with a confidence level of 95% is EUR 296 million.

7.3.2 Interest rate risk

Interest rate risk is the risk of a decline in the value of the Croatian National Bank's portfolio of financial assets due to possible changes in interest rates on the fixed-yield instrument markets.

Financial assets, which are managed in accordance with the CNB's own guidelines, are invested in trading and investment portfolios. An investment portfolio of securities may be formed as a not held to maturity portfolio and as a held to maturity portfolio. Both of such portfolios serve as long-term sources of stable income and are of long average maturity.

The Croatian National Bank has, through the profit and loss account, an open exposure to interest rate risk only with the trading portfolios, while with the investment portfolios it almost has no exposure to interest rate risk.

The part of the financial assets that consists of the Ministry of Finance funds, funds based on repo agreements with banks, the membership in the IMF and other property owned by other legal

entities, is operated by the Croatian National Bank in accordance with commitments, in order to protect it against interest rate risk.

7.3.3 Other price risks

The Croatian National Bank is exposed to other price risks on funds entrusted to the management of international financial institutions and precious metals since price risks affect the change in value of these financial instruments.



Abbreviations and symbols



ABBREVIATIONS

2LoD	second line of defence
AIS	account information service
AMLSCO	Standing Committee on anti-money laundering and countering terrorist financing
AMLTF	Anti-Money Laundering and Terrorist Financing Act
AnaCredit	analytical credit database
API	application programming interface
APN	Agency for Transactions and Mediation in Immovable Properties
BCBS	Basel Committee for Bank Supervision
BIS	Bank for International Settlements
BISIN	Bank for International Settlements Innovation Network
bn	billion
BRRD	Bank Recovery and Resolution Directive (Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms)
C4F	Carbon4 Finance
CBDC	central bank digital currency
CBRD	Croatian Bank for Reconstruction and Development
CBS	Croatian Bureau of Statistics
CCD	Consumer Credit Directive
CDCC	Central Depository and Clearing Company
CDIA	Croatian Deposit Insurance Agency
CEF	Center of Excellence in Finance
CESEE	Central, Eastern and Southeastern Europe
CF	carbon footprint
CHF	Swiss franc
CI	carbon intensity
CIR	cost-to-income ratio
CLVPS	Croatian Large Value Payment System
CMDI	crisis management and deposit insurance
CNB	Croatian National Bank
CO2e	carbon dioxide equivalent or CO2 equivalent
CPII	Croatian Pension Insurance Institute
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CSDB	Centralised Securities Database
DFR	deposit facility rate
DGSD	Deposit Guarantee Schemes Directive
DLT	distributed ledger technology
DORA	Digital Operational Resilience Act
DWH	Data Warehouse
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Development

ECB	European Central Bank
ECC	Ethics and Compliance Committee
EC	European Commission
ECL	expected credit loss
ECOFIN	Economic and Financial Affairs Council
EDIS	European deposit insurance scheme
EEA	European Economic Area
EER-41	nominal effective exchange rate index of the euro against 41 major trading partners of the euro area
EFC	Economic and Financial Committee
EFIF	European Forum for Innovation Facilitators
EFTPOS	electronic funds transfer at point of sale
EIOPA	European Insurance and Occupational Pension Authority
ERM II	Exchange Rate Mechanism
ESCB	European System of Central Banks
ESG	environmental, social, governance
ESMA	European Securities and Markets Authority
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
€STR	euro short-term rate
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
Euro-NCS	Euro National Clearing System
Fed	Federal Reserve System
FINA	Financial Agency
FinRep	FinTech repository
FinTech	financial technology
GDP	gross domestic product
GDPR	General Data Protection Regulation
GVA	gross value added
HANFA	Croatian Financial Services Supervisory Agency
HFCN	Household Finance and Consumption Network
HICP	harmonised index of consumer prices
HLTF	High Level Task Force on Digital Euro
HRK	Croatian kuna
ICT	Information and Communication Technology
IFRS	International Financial Reporting Standards
ILAAP	Internal Liquidity Adequacy Assessment Process
IMFC	International Monetary and Financial Committee
IMF	International Monetary Fund
IMI	internal model inspection
IRB	Internal Ratings Based Approach
IReF	Integrated Reporting Framework
IRT	Internal Resolution Team
ISS	Institutional Shareholder Services, Inc.

IT	information technology
LCR	liquidity coverage ratio
LGD	loss given default
MF	Ministry of Finance
MiCA	Markets in Crypto-Assets Regulation
MLF	marginal lending facility
m	million
MREL	minimum requirement for own funds and eligible liabilities
MRO	main refinancing operations
NBU	National Bank of Ukraine
NCA	National Classification of Activities
NCS	National Clearing System
NGFS	Network for Greening the Financial Systems
NPE	non-performing exposures
NPL	non-performing loans
NRR	national reference rate
NRRP	National Recovery and Resilience Plan
NSFR	net stable funding ratio
O-SIIs	other systemically important institutions
OECD	Organisation for Economic Co-operation and Development
OSI	on-site inspection
PCAF	Partnership for Carbon Accounting Financials
PD	probability of default
PIS	payment initiation service
PMB	Program Monitoring with Board Involvement
PMLTF	prevention of money laundering and terrorist financing
PRGT	Poverty Reduction and Growth
PSD2	Second Payment Services Directive
PSD3	Third Payment Services Directive
PSR	Payment Services Regulation
RC	Republic of Croatia
RFI	Rapid Financing Instrument
RIAD	Register of Institutions and Affiliates Data
RIAD TS	RIAD transaction system
ROAA	return on average assets
ROAE	return on average equity
RRF	Resilience and Recovery Fund
RST	Resilience and Sustainability Trust
RTA	Resident Twinning Advisor
SCTInst	SEPA Credit Transfer Instant
SCT	SEPA Credit Transfer
SDR	special drawing rights
SEPA	Single Euro Payment Area
SHSDB	Securities Holdings Statistics Database
SMS	short message system
SRB	Single Resolution Board

SREP	Supervisory Review and Evaluation Process
SRMR	Single Resolution Mechanism Regulation
SRMR	Single Resolution Mechanism Regulation (Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions)
SRM	Single Resolution Mechanism
SudReg	Court Register
TAIEX	Technical Assistance and Information Exchange
TARGET2-HR	national component of the TARGET2 system
TARGET2	Trans-European Automated Real-time Gross Settlement Express Transfer system
TCE	total carbon emissions
TCFD	Task Force on Climate-related Financial Disclosures
tCO ₂ e	tonnes of carbon dioxide equivalent or CO ₂ equivalent
thous.	thousand
TIPS DCA	TARGET Instant Payment Settlement Dedicated Cash Account
TIPS	TARGET Instant Payment Settlement
TREA	total risk exposure amount
UNFCCC	United Nations Framework Convention on Climate Change
UN	United Nations
USA	United States of America
USD	US dollar
WACI	weighted average carbon intensity

SYMBOLS

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

PUBLISHER

Croatian National Bank
Trg hrvatskih velikana 3
10000 Zagreb

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Those using data from this publication
are requested to cite the source.

Any additional corrections that might be
required will be made in the website version.

ISSN 1331-6397 (print)

ISSN 1334-0107 (online)



CROATIAN NATIONAL BANK: ANNUAL REPORT 2023

ISSN 1334-0107

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