



HNB

2021

ANNUAL REPORT

CROATIAN NATIONAL BANK

ANNUAL REPORT 2021

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BEZDRVNI PAPIR



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FOREWORD

The past year, 2021, was marked by post-pandemic economic recovery, growth in employment and decrease in pandemic fiscal support to enterprises. Domestic demand and exports of goods recovered, in particular exports of services. Investment activity, household consumption and government consumption increased. Amid very high liquidity, the decline in interest rates continued for all financing purposes, both of households and of enterprises. The recovery in real activity resulted in the improvement of the general government budget balance and in a reduction in the public debt-to-GDP ratio.

However, global recovery spurred a growth in the prices of energy and other raw materials, which by the end of the year had already started spilling over to a rise in manufacturing and consumer prices. The growth in the prices of food resulting from unfavourable weather conditions that reduced the supply of agricultural products and interrupted supply chains contributed to the rise in total inflation. As we know now, soon thereafter, Russia invaded Ukraine, which additionally speeded up inflation. In 2021, however, inflationary pressures were still relatively subdued so the average annual rate of inflation of consumer prices totalled 2.6%.

The CNB, like the majority of central banks, continued its expansionary monetary policy, predominantly by purchasing foreign exchange. International reserves recorded the highest ever annual increase, totalling EUR 25bn at the end of the year, which is, for comparison, sufficient to cover 10 months of imports of goods and services. Under the conditions of large kuna liquidity surplus there was no need for structural operations, placement of funds via



Boris Vujčić,
Governor of
the Croatian
National
Bank

regular weekly operations or for the purchase of government bonds.

The Croatian kuna continued participating in the ERM II in 2021. The exchange rate of the kuna against the euro was very stable, fluctuating negligibly around the central exchange rate. The Croatian kuna was included in the ERM II exchange rate mechanism on 10 July 2020, with the central exchange rate set at HRK 7.53450 for one euro. Entry into the ERM II has been preceded by the establishment of close cooperation between the Croatian National Bank and the European Central Bank, which enabled the ECB to supervise significant credit institutions with head offices in Croatia directly, and the CNB to participate in the banking union, in the process

of adopting decisions relating to supervision of the operation of European credit institutions. Finally, from today's perspective it is clear that direct participation in the Single Resolution Mechanism was crucial for the successful resolution of the liquidity crisis at Sberbank d.d.

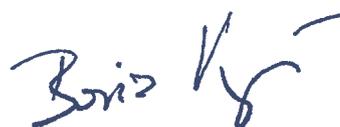
Digitalisation and improvement of the payment system infrastructure in accordance with the needs of a contemporary economy continued. Payment systems, of which there are five in Croatia, ensured quality and diversified services of transaction calculation and settlement to households and enterprises over the last year. We continued to monitor the needs of consumers and enterprises for ever faster and more secure services, constantly ensuring that consumers are informed and protected.

Activities related to the procurement of euro banknotes and minting of Croatian euro coins intensified, while consumer protection was kept in mind. The key operational goal is for the kuna changeover to euro to be free of charge and uncomplicated for citizens, avoiding costs for business entities.

We have made important steps in including climate change and care for environmental sustainability in different areas of our operations. I would like to single out the assessment of exposure of Croatian banks to climate risks, membership in the Network for Greening the Financial System and the CNB's climate pledge.

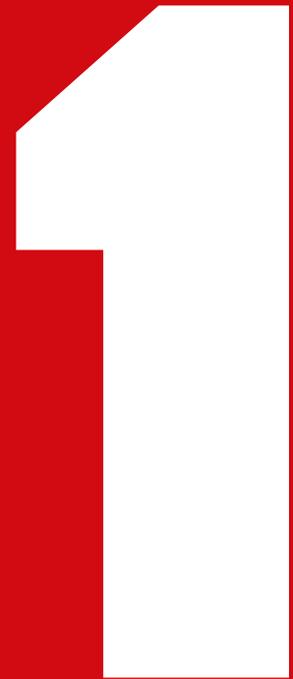
We marked the 30th anniversary of a modern and independent central bank of the Republic of Croatia. During that time we have built and continuously improved this institution, achieved and preserved price stability and strengthened the resilience of the banking system.

Joining the European System of Central Banks, membership in the Banking Union and pending membership in the Eurosystem have additionally strengthened our belief that, as a euro area central bank, we will contribute to the development of the Croatian and the common European economy and society.



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PREPARATIONS FOR THE INTRODUCTION OF THE EURO

The participation of the Croatian kuna in the ERM II exchange rate mechanism continued in 2021. Preparations for the production of the Croatian euro coins intensified, as well as the preparation of the draft Act on the introduction of the euro as the official currency in the Republic of Croatia. The Act was passed in the Croatian Parliament on 13 May 2022.

A LOOK AT 2021: PREPARATIONS FOR THE INTRODUCTION OF THE EURO

1

**CITIZENS' RESPONSE TO
THE INVITATION TO RATE
MOTIFS**

50,000

Almost 50 thousand citizens participated in the rating of motifs proposed for the national side of the future Croatian euro coins.

MORE ON PAGE 5

2

**TOP-RANKED NATIONAL
MOTIFS**

5

The proposed motifs for the national side of the euro coin: the Croatian chequerboard, a map of the Republic of Croatia, the marten, Nikola Tesla and the Glagolitic script.

MORE ON PAGE 5

3

**EURO FRONTLOADING TO
BANKS**

-4 and -3

Four months before the date of the introduction of the euro, euro banknotes will be frontloaded to banks and euro coins will be frontloaded a month later.

MORE ON PAGE 4

4

CASH CHANGEOVER

+12

Banks, the Financial Agency (Fina) and HP-Hrvatska pošta d.d. will stop exchanging kuna cash twelve months after the date of the introduction of the euro, while the CNB will start exchanging cash, free of charge.

MORE ON PAGE 5

PREPARATIONS FOR THE INTRODUCTION OF THE EURO

Activities connected to the implementation of the National Euro Changeover Plan intensified in 2021, and the CNB's experts, among other things, participated in activities linked to the preparations for cash changeover and preparation of the draft proposal of the Act on the introduction of the euro as the official currency in the Republic of Croatia.

The objective of joining the euro area is to make the best use of all the advantages of the single market, the pillars of which are the free movement of persons, goods and services. Participation in the European economic and monetary union will benefit Croatia due to its strong trade and financial connections with the euro area, reflected also in the high degree of synchronisation of Croatia's business cycle and the business cycles of the largest euro area countries. In these conditions it is expected that the monetary policy pursued by the European Central Bank will meet the needs of the Croatian economy. The euro will ensure Croatian citizens and enterprises lower transaction costs, lower currency risks and more favourable borrowing conditions, positively contributing to investments, employment and economic growth. The preparations for the introduction of the euro started in 2017 with the analysis of the economic costs and benefits of the adoption of the euro as the national currency, which showed that the advantages of the introduction of the euro in Croatia will undoubtedly significantly outweigh the expected costs and drawbacks.

The conclusions were presented in the [Strategy for the Adoption of the Euro in Croatia](#)¹ jointly drafted by the Government of RC and the CNB.

The participation of the Croatian kuna in ERM II continued in 2021. The exchange rate of the kuna against the euro, in accordance with the rules of participation in the Exchange Rate Mechanism, was very stable, fluctuating only slightly around the central exchange rate. The Croatian kuna was included in the ERM II exchange rate mechanism on 10 July 2020 and the central exchange rate of the kuna was set at 7.53450 to one euro. The participation of the kuna in the ERM II for at least two years under the conditions of a stable exchange rate against the euro is one of the four nominal convergence criteria that the Croatia needs to meet in order to be able to adopt the euro. The other three criteria relate to price stability, the stability and sustainability of public finances and the convergence of long-term interest rates.

Activities regarding the implementation of the [National Euro Changeover Plan](#)² adopted by

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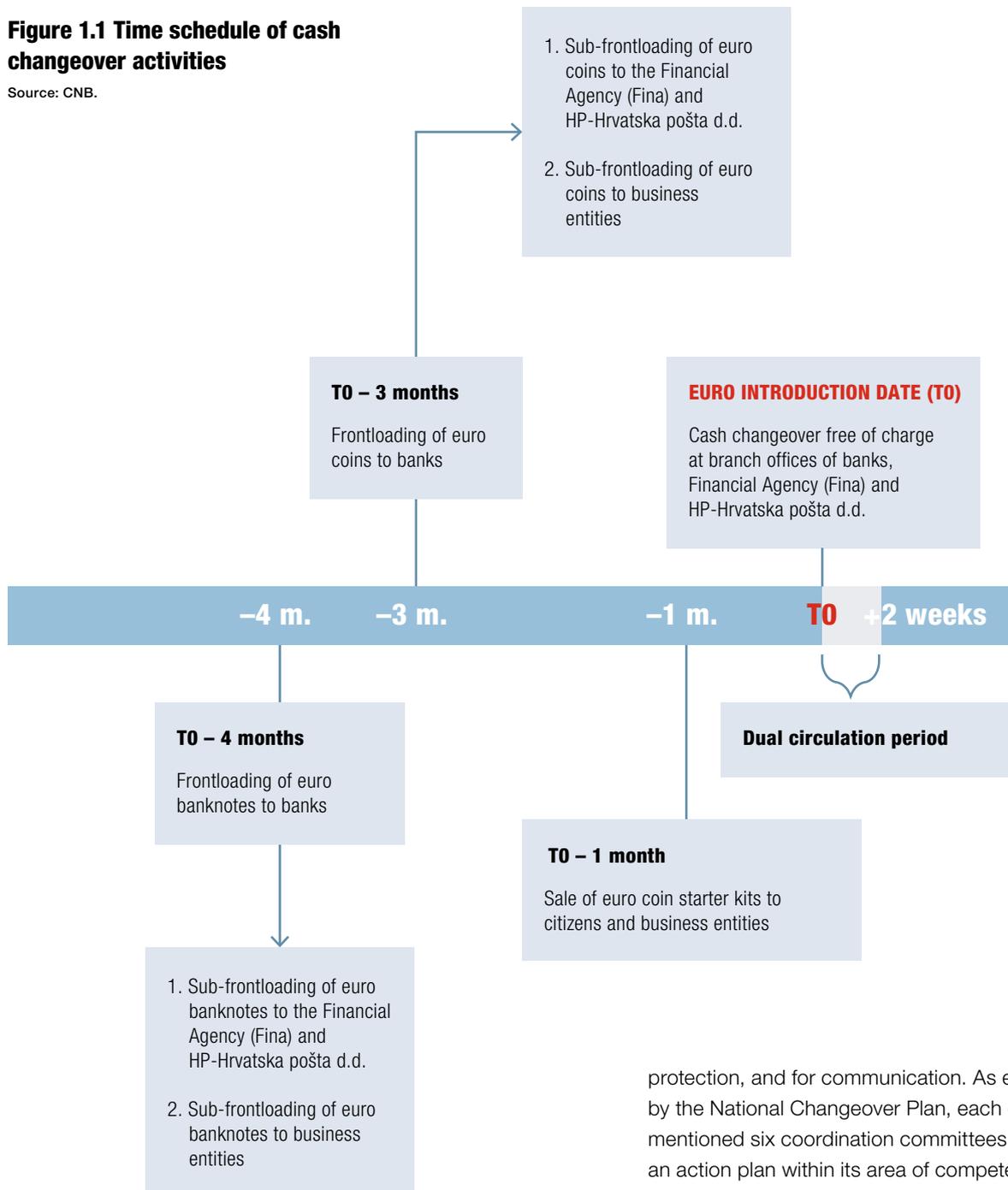


LINK NO ²



Figure 1.1 Time schedule of cash changeover activities

Source: CNB.



the Government of the Republic of Croatia in December 2020 intensified during the year. CNB experts actively participated in the work of all six coordination committees – for the cash changeover, for legislative adjustments, for the adjustment of the general government, for the adjustment of the financial system, for the adjustment of the economy and consumer

protection, and for communication. As envisaged by the National Changeover Plan, each of the mentioned six coordination committees prepared an action plan within its area of competence in the first half of the year and started with its implementation.

Among the activities in the implementation of which CNB experts actively participated were the preparations for the production of the euro coin with the Croatian national side and the preparation of the draft Act on the introduction of the euro as the official currency in the Republic of Croatia.

In 2021, the CNB started activities directed at the procurement of euro banknotes and production of euro coins with the national side, each euro area member state having the right to put into circulation euro coins, accepted as legal means of payment in the entire euro area, with national motifs of its own on the coin's reverse. The Commission for the Selection of Design Proposals for the National Side of the Republic of Croatia on Euro Circulation Coins was established as an expert body for the purpose of creating proposals for the Croatian side of the euro coin which, in addition to the representatives of the Government of the

selection of the design of the reverses of the coins, in which the entrants could submit their own designs for the selected motifs.

With regard to the draft proposal of the Act on the introduction of the euro, the CNB experts contributed significantly in the part relating to

T0 + 12 months

Banks, Financial Agency (Fina) and HP-Hrvatska pošta d.d. stop exchanging cash

+12 m.

Republic of Croatia and the CNB, included artists, designers, coin collectors and experts from various other areas. After considering the solutions proposed by the Commission, the CNB Currency Committee decided to present several of the best-ranked proposals of motif to the general public and organise a vote. Almost 50 thousand citizens participated in the vote conducted on-line in the first half of July, with each participant who voted for one of the proposed motifs being able to propose one of his or her own. Taking into consideration the results of the vote, the CNB Currency Committee decided on the final proposal of the motif of the national side of future Croatian euro coins, which was supported by the National Council for the Introduction of the Euro as Official Currency in the Republic of Croatia. Accordingly, the motifs featured on the reverse of the euro coins of five different denominations are as follows: the recognisable Croatian chequerboard, a map of the Republic of Croatia, the marten, the world-renowned scientist born in Croatia, Nikola Tesla and the old Croatian Glagolitic script. Then, in August, a competition was announced for the

T0 + 12 months

CNB starts exchanging cash free of charge

- coins up to T0 + 3 yrs.
- banknotes up to T0 + ∞

the areas within the competence of the CNB, such as the cash changeover, adjustments in the payment system, protection of consumers – users of banking services, conversion of deposits and loans and other adjustments in the banking system. Care was taken for the changeover to the euro to be free of charge for Croatian citizens and as simple as possible, without leading to costs for business entities. The schedule of the cash changeover which will be regulated by the Act on the introduction of the euro is presented in Figure 1.1.

2

MONETARY POLICY, MACROPRUDENTIAL POLICY AND INTERNATIONAL RESERVES MANAGEMENT

The strong recovery in real economic activity in 2021 resulted in a rise in employment paired with still low inflation. Systemic risks remained higher than in the pre-pandemic period, primarily as a result of the strong growth in residential real estate prices. The CNB continued its expansionary monetary policy, while international reserves saw the most robust annual growth, reaching EUR 25 billion at the end of the year. Earnings from the investment of international reserves in 2021 were EUR 70.8 million or HRK 532 million.

A LOOK AT 2021: MONETARY POLICY, MACROPRUDENTIAL POLICY AND INTERNATIONAL RESERVES MANAGEMENT

1**ANNUAL GROSS
DOMESTIC PRODUCT
GROWTH****+10.4%**

Following a sharp fall in economic activity in 2020, the annual real gross domestic product increased by 10.4% in 2021 thus exceeding its pre-crisis level.

MORE ON PAGE 9**2****ACCELERATING
CONSUMER PRICE
INFLATION****2.6%**

The average annual consumer price inflation accelerated in 2021 to 2.6% primarily due to the strengthening of imported inflationary pressures.

MORE ON PAGE 11**3****SURPLUS IN THE CURRENT
ACCOUNT****5.8%**

The current and capital account surplus in the balance of payments increased strongly, primarily due to the recovery in revenues from tourism.

MORE ON PAGE 13**4****RESIDENTIAL PROPERTY
PRICES****+7.3% and +40%**

Residential property prices grew by 7.3% on an annual level in 2021, reflecting slight differences among different Croatian regions with the rise being slightly higher on the coast, the overall rise in the last five years reaching some 40%.

MORE ON PAGE 21**5****COUNTERCYCLICAL
CAPITAL BUFFER****0%**

The CNB did not lift the rate of its countercyclical capital buffer to be applied in 2022 from 0% in order to facilitate banks' credit activity during economic recovery from the pandemic crisis.

MORE ON PAGE 23**6****LEVEL OF INTERNATIONAL
RESERVES****EUR 25bn**

International reserves ended the year at EUR 25,021.2m, up 32.1% from the end of 2020.

MORE ON PAGE 24

MONETARY POLICY AND ECONOMIC DEVELOPMENTS

Real gross domestic product increased in 2021 from the year before, when it saw a record decrease caused by the corona virus pandemic. The average annual consumer price inflation accelerated in 2021, spurred by the strengthening of imported inflationary pressures, that is, the increase in prices of raw materials and some intermediate goods in the world's markets. The recovery in tourism revenues contributed the most to the increase in the current and capital account surplus, although favourable developments were offset by the increase in merchandise trade deficit and higher profits of foreign-owned banks and enterprises. The CNB continued its expansionary monetary policy; due to stable conditions in domestic financial markets, there was no need for extraordinary measures. The recovery in economic activity resulted in the improvement of the general government budget balance and a reduction in the public debt-to-GDP ratio.

Strong recovery in real economic activity in 2021

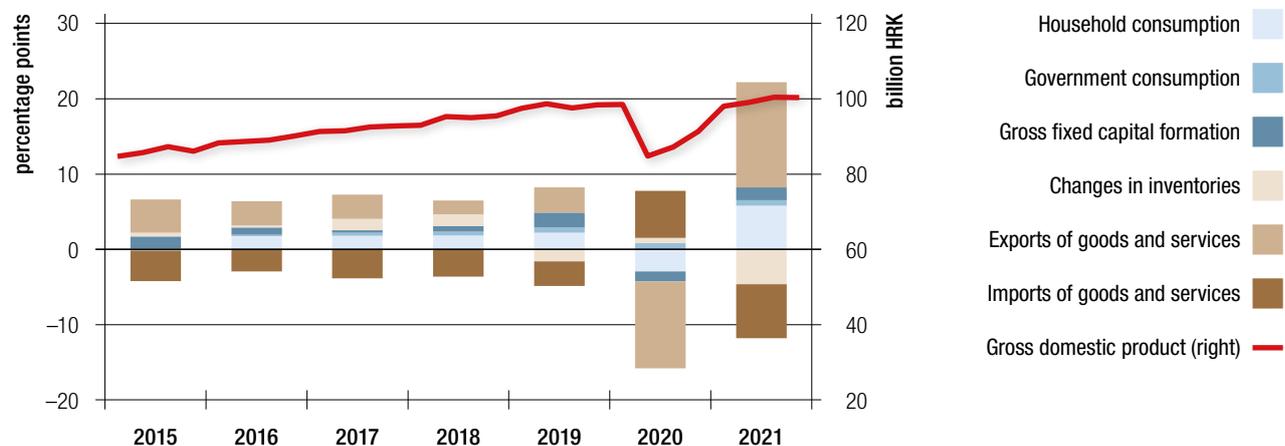
Following a sharp decline in economic activity at the onset of the pandemic, the second half of 2020 saw a recovery that continued throughout 2021. The real gross domestic product increased by 10.2% in 2021, after having fallen by 8.1% in 2020, thus exceeding the pre-pandemic economic activity level. Observed on a quarterly basis, economic recovery was especially pronounced in the first and the third quarter of 2021, in the latter under the influence of good performance in the tourist season. On the other hand, new waves of the pandemic and disturbances in global supply chains slowed down recovery in the second and the fourth quarter.

In addition to the gradual adaptation to work amid the circumstances of the pandemic, recovery was also spurred by favourable developments, the still present fiscal supports, as well as favourable financing conditions that reflected the expansionary monetary policy.

In 2021, domestic demand recovered and the increase in foreign demand was quite prominent. Exports of goods exceeded the 2019 levels and good performance during the tourist season resulted in strong increase in the exports of services, although they still did not reach pre-crisis levels. Household consumption increased due to employment and salaries, although its dynamics weakened towards the end of the year under the influence of strengthening inflationary pressures and deterioration in consumer optimism. Investment activity also grew, especially at the beginning of the year, slowing down gradually towards the end of the year. Government spending grew as well, primarily due to the growth in expenditures connected with alleviating the negative effects of the pandemic. The recovery in foreign and domestic demand spurred the growth in imports, but at a slower intensity than the growth of exports so in 2021 net foreign demand made a highly positive contribution to the overall economic growth (Figure 2.1).

Figure 2.1 Recovery in domestic and foreign demand in 2021

Contributions by GDP components and seasonally adjusted real GDP level



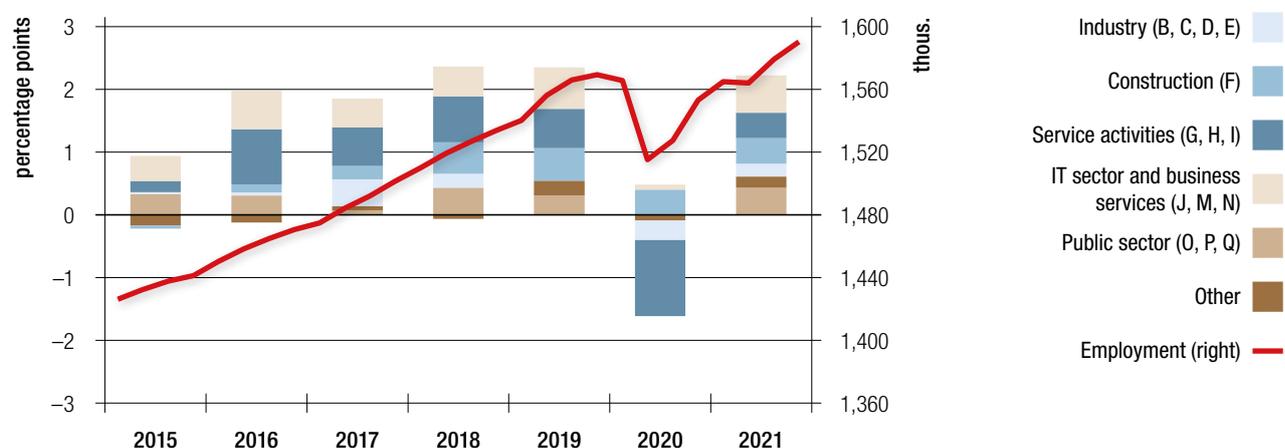
Source: CBS.

Employment grew by 2.2% in 2021 (CPII data), thus surpassing pre-crisis levels. All sectors of the economy contributed to the growth in total employment with the largest individual contribution coming from the IT sector and business services (Figure 2.2), and so did the employment of workers from third (non-EU) countries, who are employed primarily in construction. The internationally comparable

ILO unemployment rate amounted to 7.6% of the work force and was only slightly above the previous year's rate of 7.5%. At the same time, the administrative unemployment rate reduced to 8.0% of the work force in 2021 (8.9% in 2020). As regards wages, the growth in nominal gross wages accelerated in 2021 to 4.1% (2.5% in 2020), reflecting higher wages in the public sector as well as in the remainder

Figure 2.2 Recovery in the labour market accompanied by wage growth

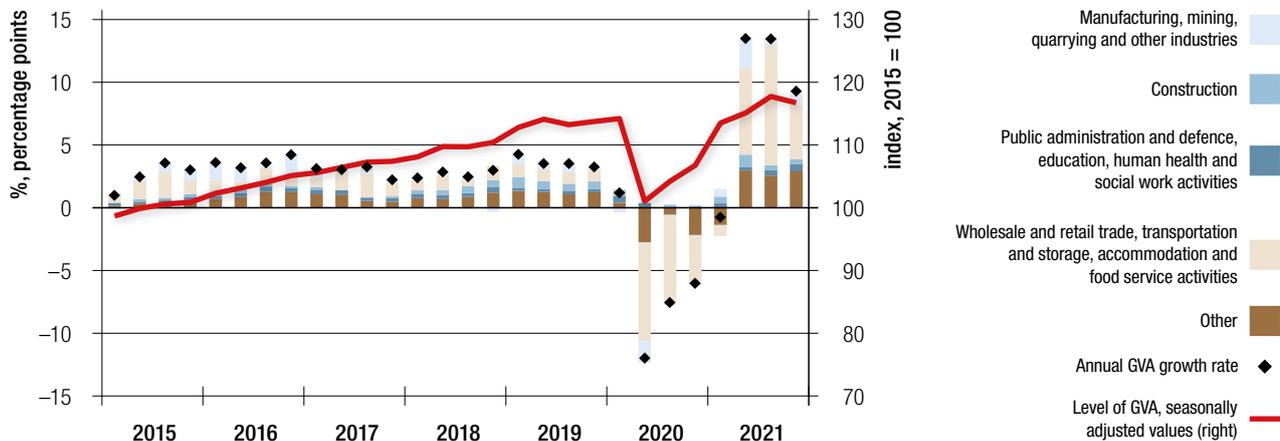
employment broken down by NCA activities, contributions to the annual rate of change



Source: CPIA (seasonally adjusted by the CNB).

Figure 2.3 Strong and broad-based growth of real GVA

contributions by components



Source: CBS.

of the economy. Nominal net wages increased at the rate of 5.4%, more strongly than gross wages, due to the reduction in tax burden on income from labour. However, the increase in the inflation rate made the growth in real net wages only slightly more marked than in the year before (2.7% in comparison to 2.3% in 2020).

Real gross value added increased at a slower pace than overall GDP. The largest increase came in activities whose operations are characterised by close physical contact (wholesale and retail trade, transport and storage, accommodation and food service activities, in which the fall was most prominent in 2020). Other activities also made a positive contribution to the growth of total GVA, except for real estate operations (Figure 2.3.)

Inflation accelerating due to strong growth in the prices of energy and food

Consumer price inflation accelerated considerably in Croatia in 2021, from the average

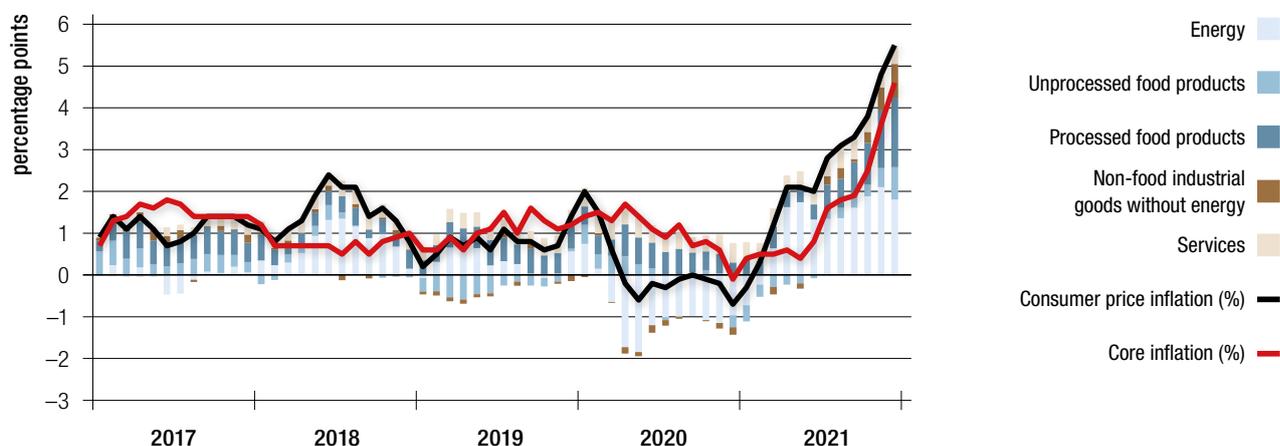
of 0.1% in 2020 to 2.6% in 2021. The rise was continuous throughout the year so the annual rate of inflation went up from -0.7% in December 2020 to 5.5% in December 2021. Initial support to inflation came from the increase in crude oil prices on world markets resulting from the recovery in demand amid the re-opening of the economy world-wide as well as from the agreement of OPEC+ countries to limit supply. The annual rate of change in energy prices (primarily oil derivatives) increased from -5.7% in December 2020 to 11.0% in December 2021 (Figure 2.4). Rising prices of refined petroleum products also increased the prices of goods in the production of which they constitute a significant component.

The strengthening of inflationary pressures was also affected by the growth in the prices of other raw materials in the world's markets, as well as by the difficulties experienced by global supply chains, which resulted in a shortage of certain semi-products and finished products. Imported

Initial support to inflation came from the increase in crude oil prices on world markets resulting from the recovery in demand amid the re-opening of the economy world-wide as well as from the agreement of OPEC+ countries to limit supply.

Figure 2.4 Consumer price inflation accelerated

contributions to annual inflation



Notes: Core inflation does not include agricultural product prices, energy prices and administered prices. Processed food includes alcoholic beverages and tobacco.

Sources: CBS and CNB calculations.

inflationary pressures were also spurred by the growth in freight rates in sea transport, especially *en route* from Asian countries to Europe, which resulted from the shortage of containers and labour in seaports and on ships, caused by new waves of the pandemic and workers needing to be isolated. Adverse weather conditions in Croatia resulted in poorer yields of individual crops. Inflation also increased in 2021 due to statistical reasons, that is, the fact that current prices are compared to prices from a year before, which were reduced due to market disturbances caused by the pandemic and closing of the economy.

As a rule, by reducing their profit margins, enterprises try to avoid frequent price rises for their products in response to increased production costs, in order not to disrupt business relationships with their buyers. This was made easier by agreements with suppliers which are usually contracted for longer periods. As domestic demand recovered and the growth in the prices of raw materials and intermediary goods in the world markets proved not to be temporary as initially expected, domestic companies started passing on the increase in costs to the prices of their products.

While accelerating inflation in the first half of 2021 was predominantly a consequence of the increase in the price of energy, in the second half of the year, in addition to energy, it was spurred by the prices of food. The annual rate of change in food prices (including beverages and tobacco) increased from 0.9% in June to 7.5% in December. This was predominantly the result of the spillover of imported cost pressures, that is, the increase in prices of food raw materials, mineral fertilisers and energy in the world's markets, onto consumer prices. In December 2021, food (including beverages and tobacco) contributed the most to total inflation (2.4 percentage points), while energy contributed 2.0 percentage points.

The annual rate of change in industrial products also accelerated in 2021 but slightly less pronouncedly (excluding food and energy) from -0.7% in December 2020 to 3.1% in December 2021, which was a consequence of the spillover of the increase in the prices of energy, industrial raw materials and intermediary goods in the world's markets onto domestic prices. While demand recovered quickly from pandemic disturbances, effects on supply were more long term, so difficulties in the functioning of global

supply chains caused shortages in certain semi-products (semiconductors) and the finished products of which they are components, such as cars and IT equipment. At the same time, behavioural changes caused by the pandemic, such as WFH and avoidance of public transport increased demand for IT equipment and cars which additionally spurred the growth in their prices.

Amid recovered demand and increased imported cost pressures the annual rate of core inflation (which excludes agricultural product prices, energy prices and administered prices) gradually accelerated from -0.1% in December 2020 to 4.6% in December 2021. This was mainly a result of the rise in the contribution of food products (except agricultural products), clothing and footwear, motor vehicles, furniture and household equipment. The annual rate of growth in market-based service prices was relatively low and stable in 2021, remaining around 2.0%.

The increase in the current and capital account surplus paired with noticeable improvement in indicators of foreign liabilities

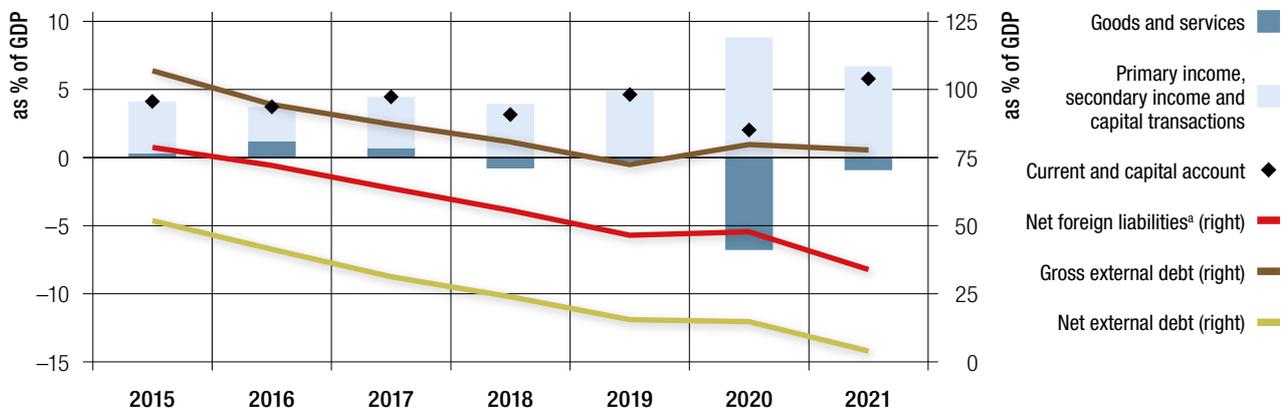
Recovery in revenues from tourism consumption of foreign guests contributed the most to the

strong increase in the current and capital account of the balance of payments, which totalled 5.8% of GDP in 2021 in comparison with 2.0% of GDP in 2020 (Figure 2.5). After revenues from tourism plunged in 2020 following the outbreak of the pandemic and the introduction of the consequent restrictive measures, their recovery in 2021 was supported by a relatively favourable epidemiological situation, progress in the vaccination of the population in key outbound markets and introduction of certificates that made travel easier. Croatia's tourism results were much better than those of other Mediterranean countries, which was aided by the structural factors of Croatian tourism, such as the highly seasonal character, geographic proximity of the main tourist-generating markets and travellers relying predominantly on road infrastructure, as well as high share of private accommodation units in total accommodation facilities. Although less prominently, the growth of the surplus in the capital account was also aided by higher net exports of other services, the growth of net income from personal remittances, as well as more intensified absorption of EU funds.

The recovery in domestic and foreign demand, partial restoration of supply chains and a

Figure 2.5 Growth in the current and capital account surplus in 2021

Current and capital account and the balance of foreign liabilities



^a Net foreign liabilities are defined as the difference between total foreign liabilities and total foreign assets (based on debt instruments, financial derivatives, equity investments and similar), which is equal to the negative value of the net international investment position (-34.0% of GDP at the end of 2021).

Source: CNB.

stronger recovery of manufacturing relative to the service sector spurred foreign trade in goods, as well as a considerable increase in the price of energy in the world's market, which contributed the most to the growth of total imports, exports and deficit. Exports of goods increased by 29.5%, and imports by 25.2%, thus widening the deficit in foreign trade in goods by 19.2% and offsetting the growth in the surplus in the current and capital account. The growth in the profit of domestic banks and foreign-owned enterprises (primarily in manufacturing, in real estate activities and trade) also made an adverse contribution to the surplus in the current and capital account.

In accordance with growth in the current and capital account surplus, the financial account of the balance of payments saw a considerably higher net capital outflow than in the previous year, which primarily reflected a sharp increase in international reserves. In addition to the CNB, other sectors, except for the government, continued to reduce their net debt liabilities. Unlike net debt liabilities, net equity liabilities of domestic sectors increased due to retained

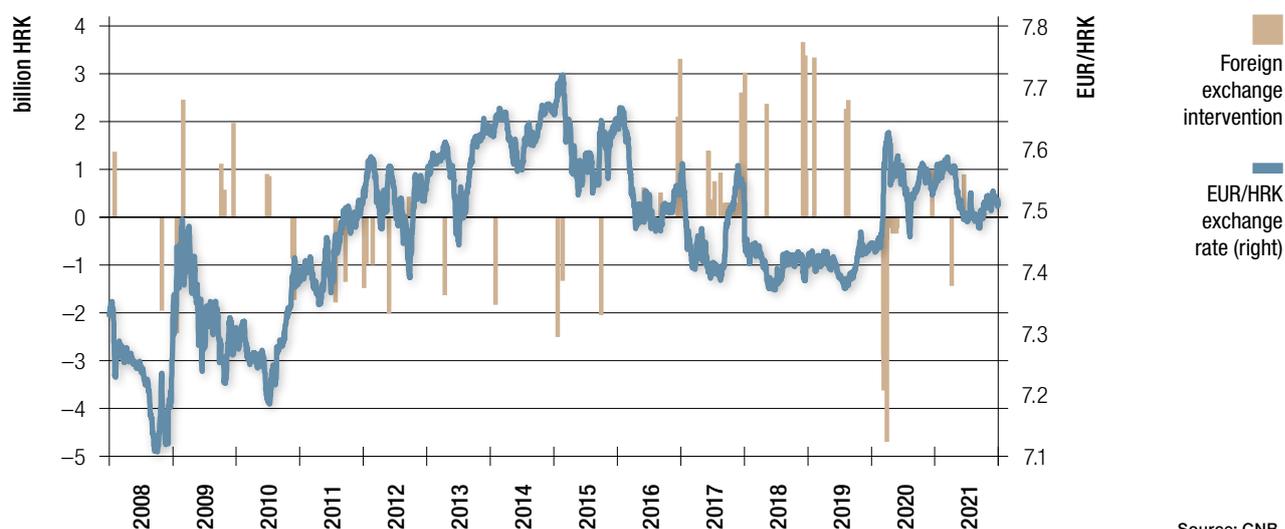
earnings of domestic banks and foreign-owned enterprises and direct equity investments in Croatia, which were higher than over the previous few years.

The relative indicators of external debt noticeably improved. Despite the growth in gross debt in the absolute amount, strong GDP growth improved the relative indicator of gross external debt to 77.9% of GDP at the end of 2021 from 79.8% of GDP at the end of 2020. This continued a years-long trend of improvement in this indicator, which was temporarily interrupted in the previous year. Net external debt and the international investment position improved, both in the absolute and in the relative amount. Net external debt decreased from 14.8% of GDP at the end of 2020 to 4.0% of GDP at the end of 2021, and the international investment position from -47.7% of GDP to -34.0% of GDP.

Expansionary monetary policy continued

The CNB continued to pursue an expansionary monetary policy in 2021 predominantly by increasing international reserves through foreign exchange purchase.

Figure 2.6 The kuna/euro exchange rate was relatively stable so the CNB rarely participated in the market
amounts of foreign exchange interventions and EUR/HRK exchange rate



Source: CNB.

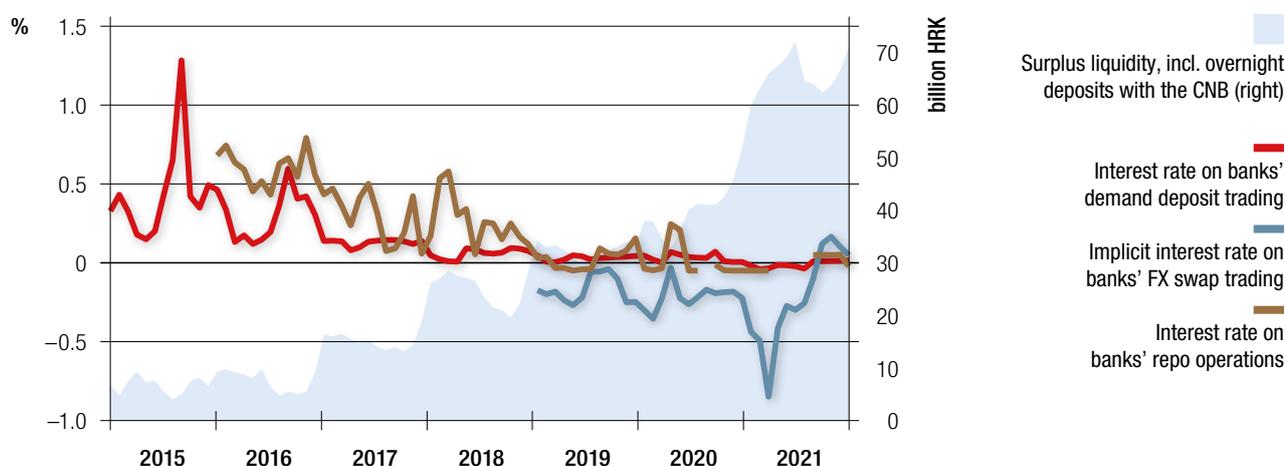
The daily exchange rate of the kuna against the euro moved within a narrow range around the average exchange rate of EUR/HRK 7.5345, the central parity determined at the time of Croatia's entry into the exchange rate mechanism in July 2020.

There were no significant pressures in the foreign exchange market in 2021. Therefore, CNB interventions were infrequent. In a foreign exchange intervention in early April the CNB sold EUR 190m to banks and in mid-June it purchased EUR 120m (Figure 2.6). It purchased large amounts of foreign exchange inflows from the Ministry of Finance of the Republic of Croatia, mostly associated with EU funds. If total foreign exchange transactions are observed, the CNB purchased net EUR 3.1bn in 2021, creating HRK 23.5bn in reserve money. The daily exchange rate of the kuna against the euro moved within a narrow range around the average exchange rate of EUR/HRK 7.524, which was only slightly lower than the level of the central parity determined at the time of Croatia's entry into the exchange rate mechanism in July 2020.

The CNB continued to conduct regular weekly operations at a fixed interest rate of 0.05%. However, due to the low interest shown by banks, under the conditions of very large kuna liquidity surpluses, the CNB did not place any funds through this instrument of monetary policy in 2021. No structural operations were used to create additional kuna liquidity either and at the end of June their stock fell by HRK 1.5bn. There was no need for further purchases of government bonds in the second half of the year, the stability in the government securities market in 2020 thus being preserved, and maturities for some government bonds from the CNB portfolios diminished the balance of the total volume of subscribed RC bonds by HRK 1.5bn, that is, to HRK 18.5bn.

Figure 2.7 Kuna liquidity surplus at an all-time high

kuna liquidity surplus and overnight money market interest rates



Note: The interest rate on bank demand deposit trading by the end of 2015 refers to the overnight interbank interest rate.

Source: CNB.

Lending standards for households were continuously relaxed throughout the year and were matched with growing demand for loans and favourable financing conditions supported by expansionary monetary policy.

The repurchase of foreign currency from the government in 2021 contributed to the rise in banks' free reserves to historical highs. Thus, kuna liquidity in 2021 averaged HRK 65.9bn, up 64% from the liquidity surplus in 2020. This, at the same time, contributed to the decline in interest rates in the money market to their all-time low (Figure 2.7).

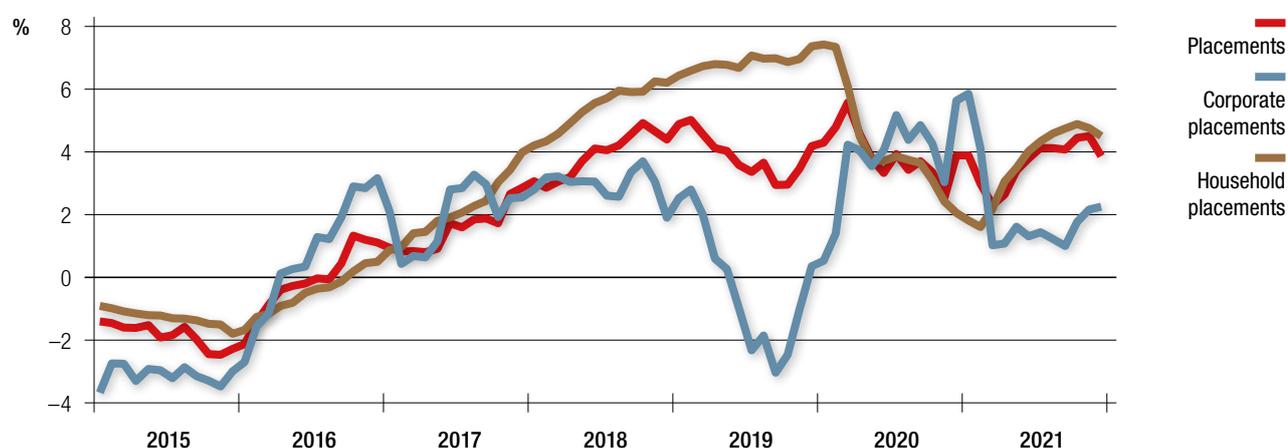
Amid the conditions of very high liquidity, interest rates on the borrowing of domestic sectors continued to decrease in 2021. The costs of short-term government borrowing that were closely linked to the conditions in the money market thus decreased and other costs of long-term financing of the government remained favourable. Domestic financing conditions also reflected favourable conditions in the international market, so at the end of February the government issued two tranches of eurobonds in the foreign capital market with relatively low yields and maturities of 12 and 20 years. The maturity period for issued eurobonds was, for the first time, extended to 20 years, by which Croatia acquired funds for the longest term in its history of borrowing in the international capital market. Favourable financing conditions were also a reflection of low and relatively stable credit default swaps for Croatia. Favourable financing conditions for the government were also supported by the progress in the euro introduction process, as a result of which Fitch upgraded Croatia's BBB- rating to BBB with a positive outlook, two grades above the speculative grade.

The downward trend in bank interest rates on corporate and household loans mostly continued throughout 2021. The interest rate on pure new corporate loans decreased in December 2021 to the lowest recorded level of 1.3% from 2.2% in the year before. Interest rates for all financing purposes and sizes of enterprises decreased.

Nevertheless, interest rates on loans for working capital and interest rates for large enterprises that are, on average, less risky and consequently enjoy lower interest rates, decreased the most. With regard to households, the interest rate on pure new loans to that sector rose from 3.6% at the end of 2020 to 3.9% at the end of 2021. This was primarily a result of the financing structure of this sector, that is, of large amounts of housing loans granted late in 2020 under the housing loans subsidy programme when loans were granted at lower rates. At the end of 2021, there was no impact of the loans subsidy programme on interest rates on housing loans since only one round of subsidies was granted in the first half of the year. Interest rates on housing loans at the end of 2021 were thus slightly higher than in the same period of 2020. Interest rates on general-purpose cash loans declined, with interest rates on other loans also decreasing.

Financing conditions mostly improved in the segment of corporate lending standards after having tightened slightly in the first quarter. This was predominantly caused by competition among banks and by their high liquidity resulting from the expansionary monetary policy. In addition to favourable lending conditions banks faced increased demands for loans that grew almost during the entire year, except in the first quarter. Lending standards for households were continuously relaxed throughout the year and were matched with growing demand for loans. The recovery in demand for consumer and other loans was especially evident, driven by the revival in the consumption of consumer goods and recovery in consumer confidence. Demand for housing loans remained high due to the subsidy programme support.

Growing optimism and favourable financing conditions were beneficial for bank lending activity, primarily in the segment of household

Figure 2.8 Household lending intensified in 2021year-on-year rate of change, transaction-based^a

^a The transactions show changes net of the changes in the exchange rate, reclassifications, price adjustments of securities and loan write-offs, including the sale of placements to the amount of their value adjustments.

Source: CNB.

lending (Figure 2.8). On an annual level, the growth of total placements to domestic sectors totalled 3.9% at the end of 2021, the same as at the end of 2020. Household loans grew the most, with their growth rate more than doubling, from 2.1% at the end of 2020 to 4.5% at the end of 2021. The years-long acceleration in the growth of housing loans continued, spurred by the new cycle of the government subsidy programme. The demand for general-purpose cash loans increased as well. In contrast, corporate borrowing from banks was subdued, with the annual growth of placements to corporates slowing down from 5.6% at the end of 2020 to 2.3% at the end of 2021. The growth rate in 2020 was elevated as a result of increased borrowing of non-financial corporations at the beginning of the pandemic, as well as certain refinancing of foreign debt by borrowing with domestic credit institutions. Corporate demand for investment loans also increased, while loans for working capital and other loans decreased.

The upward trend in kuna lending continued but at a reduced intensity compared to 2020. The reason for this was the rise in housing loans that are more often granted with a currency clause than general-purpose cash loans. In addition, more kuna loans were granted to enterprises in 2021 in contrast to previous years when enterprises were financed more by loans with a currency clause. Kuna lending continues to be spurred by strong growth in kuna sources of funds in banks' liabilities, especially funds in transaction accounts.

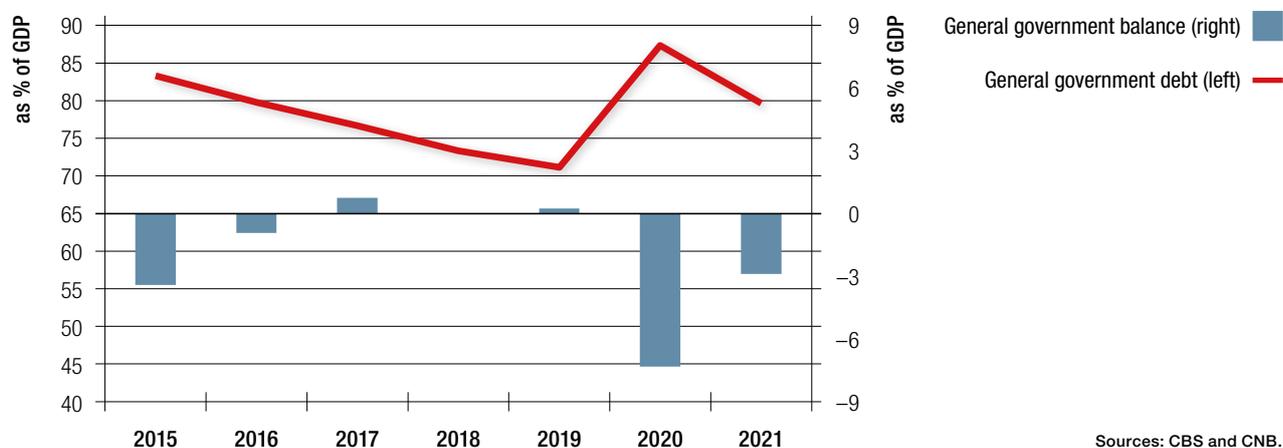
Recovery of economic activity favourably affected public finance indicators

Fiscal indicators in 2021 were favourable as a result of strong recovery in economic activity. According to the internationally comparable methodology of the European System of National and Regional Accounts (ESA 2010) the general government deficit in 2021 decreased to 2.9% of GDP which was a noticeable improvement

The downward trend in bank interest rates on corporate and household loans mostly continued throughout 2021, with interest rates decreasing for all financing purposes and sizes of enterprises.

Figure 2.9 Improvement of fiscal indicators

fiscal indicators as % of GDP



Sources: CBS and CNB.

over 2020 when the realised deficit was 7.3% of GDP. At the same time, general government debt expressed as public debt-to-GDP ratio decreased considerably. However, this indicator remained well above the pre-pandemic level.

The improvement in the balance was a consequence primarily of the strong growth in economic activity, which favourably impacted the revenue side of the budget but also of the decrease in fiscal supports introduced in 2020 to mitigate the negative effects of the pandemic.

As a result, total revenues rose considerably, by 11.8% on annual level, while total expenditures grew at a noticeably slower pace and increased by 2.8%.

Strong recovery in economic growth and favourable budget outturn resulted in a prominent decrease in the public debt-to-GDP ratio, the relative public debt indicator declining to 79.8% of GDP at the end of 2021 from 87.3% of GDP at the end of 2020.

FINANCIAL STABILITY AND MACROPRUDENTIAL POLICY

Risks to financial stability gradually decreased in 2021 due to the economic recovery and good adjustment of enterprises to pandemic conditions. Growth in the income of households enabled a recovery in credit demand, while domestic demand and growing foreign demand continued to push up residential property prices.

The CNB's 2021 macroprudential policy was focused on maintaining the high capitalisation of credit institutions to boost their resilience to possible losses. At the beginning of the year, the CNB thus temporarily restricted credit institutions' distributions, keeping capital buffers at the previous year's level. The CNB made a detailed analysis of the growth in housing loans and warned against excessive borrowing by certain groups of consumers.

Overall assessment of the main risks and challenges to financial stability

Amid the economic growth of 2021 facilitated by the gradual relaxing of pandemic containment measures and adjustment to coexisting with the virus, the exposure of the financial system to systemic risks decreased¹. Nevertheless, the cyclical risk remained elevated compared to the pre-pandemic period due to uncertainty regarding the time when the pandemic might be overcome and its overall effect on the economy, as well as the growing mismatch between real estate prices and the factors that usually determine them, which was at the end of the year amplified by accelerating consumer price inflation

and appearance of the Omicron variant of the coronavirus. Structural vulnerabilities, primarily reflected in the relatively high share of public debt in GDP and the high exposure of banks to the public sector slightly decreased, although remaining elevated.

Since corporate revenues increased in 2021, returning to approximately the pre-pandemic level, risks to the operations of non-financial corporations subsided. This, paired with continued favourable financing conditions, provided for a gradual decrease in fiscal supports and continued regular repayment of financial obligations after moratoriums had

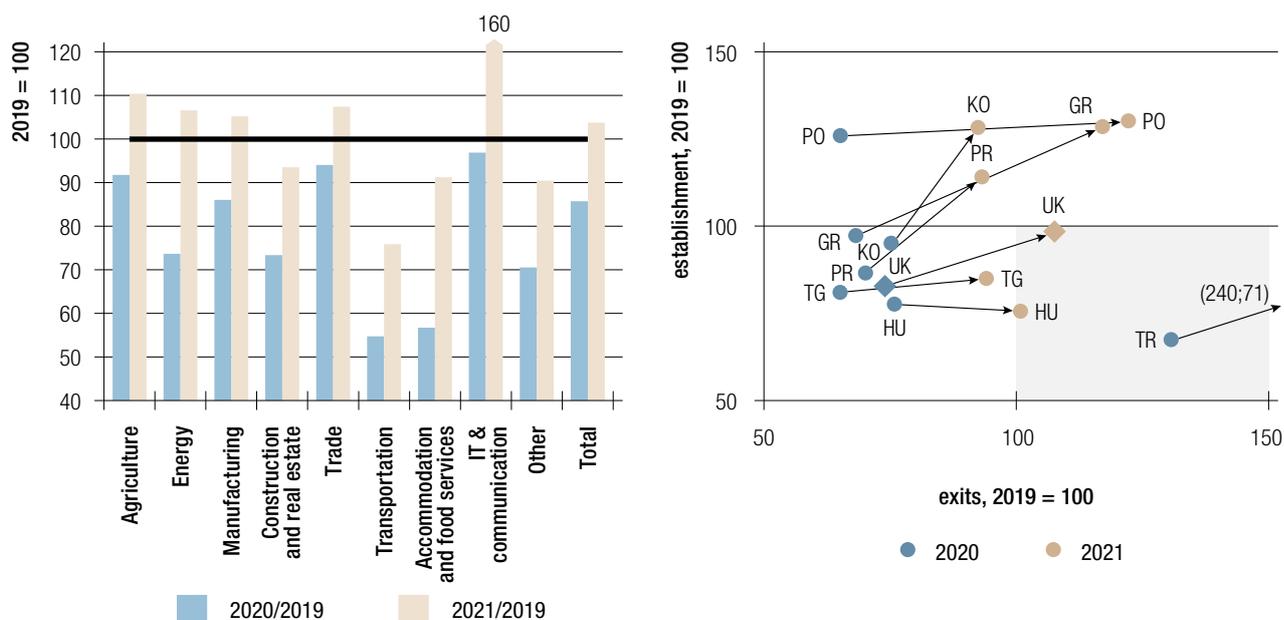
¹ Systemic risk is defined as the risk of events that might, through various channels, disrupt the provision of financial services or result in an increase in their prices, as well as jeopardise the smooth functioning of a larger part of the financial system, thus negatively affecting real economic activity. Systemic risk has two components: structural vulnerabilities that may make the system less resilient to possible shocks and and/or amplify the negative consequences of such shocks and a cyclical component, usually accumulated in the period of favourable economic developments, which arises from relatively loose financing conditions and a growth of indebtedness.

expired, which contributed to an improvement in the quality in banks' loan portfolio. Further market entries and exits of companies returned to their usual levels, after a greater-than-usual number of them remained present in the market in 2020, supported by ample support measures to mitigate the negative effects of the pandemic on their operations (Figure 2.10 right panel). Nevertheless, in contact-intensive activities (accommodation, food service activities, passenger transport and other service activities) revenues recovered less successfully than in other activities (Figure 2.10 left panel), new enterprises continued to be established more slowly and existing ones were quicker to exit the market than in 2019.

In the sector of households, recovery in income reduced their debt burden, which contributed to the decrease in structural risks. On the other hand, the rise in new indebtedness of a significant portion of consumers paired with increased indebtedness ratios points towards

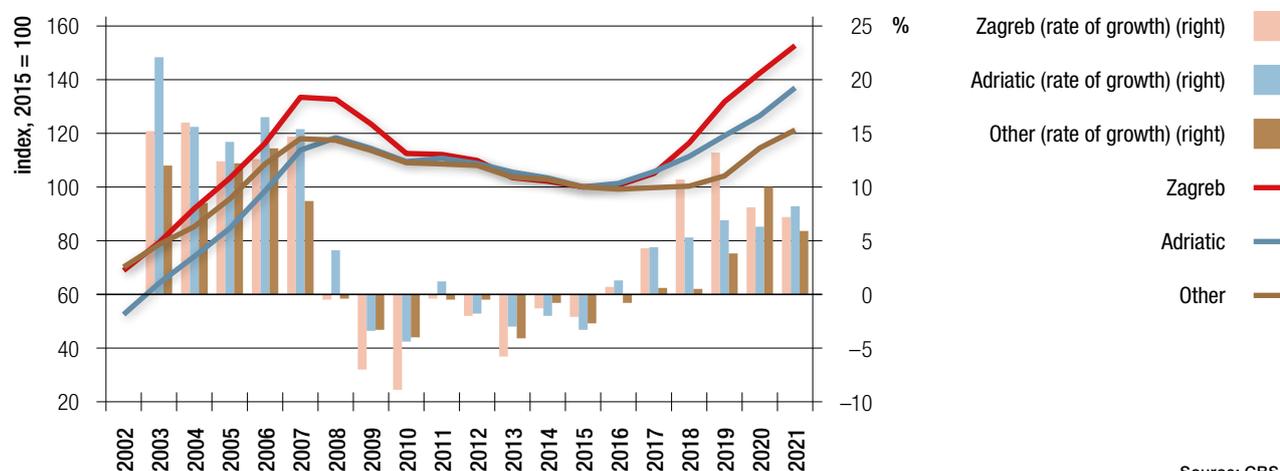
the gradual build-up of cyclical risks. Half the housing loans were thus approved at a debt service-to-income ratio higher than 40% and an elevated ratio of loan amount to pledged real estate value (this ratio being especially high in the segment of housing loans aided by the APN subsidy programme). At the same time, interest rates continued to decline, which led to further decrease in the debt repayment burden despite the increase in debt. In the financial stability risk analysis, special attention is paid to monitoring debt indicators and financing conditions on individual levels because consumers with elevated debt indicators are particularly exposed to the risk of more difficult debt servicing in the face of an unfavourable income shock or other disturbances arising from changes in the macroeconomic environment. For example, the expected increase in benchmark rates would quickly negatively affect a third of loan users, those that have loans with interest rates variable within the following year.

Figure 2.10 Corporate revenues (left panel) and their establishment and market exits (right panel)



Notes: EN: Energy; CRE: Construction and real estate, ITC: IT & communication; AGR: Agriculture; MAN: Manufacturing; TRANS: Transportation; TRAD: Trade; AFS: Accommodation and food services; TOTAL: Non-financial corporations total. Exits mean pre-bankruptcy, bankruptcy and winding-up proceedings including voluntary dissolution without liquidation. In Transport exits in 2021 reached 240% of those in 2019.

Sources: Commercial Court Registry, Tax Administration and CNB.

Figure 2.11 Residential property prices

Source: CBS.

The continued growth in residential property prices that are becoming increasingly more disproportionate to their economic fundamentals contributed the most to the increase in cyclical risk. Residential property prices went up by 7.3% on an annual level in 2021, with only small differences across different parts of Croatia and slightly higher price growth of prices on the Adriatic coast (Figure 2.11). After the temporary halt at the beginning of the pandemic, market liquidity recovered as well. In the last five years prices increased by some 40% and real estate affordability decreased due to the price of property growing faster than income, although such developments were to a degree mitigated by the decrease in interest rates and in the debt repayment burden for households.

Market developments continued to be affected by many factors. Demand for real estate from non-residents was particularly strong in the coastal regions of Croatia, spurred by negative interest rates in euro area countries and the increasingly more widespread practice of work from home. Domestic demand is considerably

affected not only by the historically low interest rates that facilitate borrowing but also by the government programme of subsidised housing loans. Although the growth of demand is accompanied by recovery on the side of supply, construction activity and the number of completed dwellings remain much below the numbers prior to the global financial crisis when construction activity was quite robust. The acceleration in the growth of prices of raw materials and limited labour force in the country contributed to the increase in construction prices and consequently real estate prices.

During the period of economic recovery in 2021, the gradual termination of temporary supervisory and other economic measures directed at mitigating the consequences of the pandemic did not result in the deterioration of credit institutions' asset quality, which enabled them to recover their profitability while maintaining high capitalisation. In the first half of the year, when it still was not clear that economic and bank recovery would be as strong, system capitalisation was supported by

The continued growth in residential property prices that are becoming increasingly more disproportionate to their economic fundamentals contributed the most to the increase in cyclical risk.

the CNB's Decision on a temporary restriction of distributions in force from January to October 2021 after the comparable micro-supervisory order in the previous year. The shares of performing loans with increased credit risk and non-performing loans (loans in stage 2 and 3), which had risen in 2020, gradually decreased, predominantly due to the improvement in the portfolio of loans to non-financial corporations. Nevertheless, in accordance with the differences in the recovery of enterprises from different activities, unfavourable developments in quality were recorded by loans granted to enterprises from most affected activities (transport and tourism-related activities). In addition, bank operations were also challenged by the growth in the share of liquid asset and balance sheet volumes and the continuation of the fall in interest rates. So despite recovery in earnings, return on equity and return on assets was slightly lower than in 2019 under the influence of the decline in value adjustments. In addition, continued decline in interest rates led to a continuously declining interest margin significantly limiting future bank profitability.

Macprudential activities of the CNB in 2021

Amid growing uncertainty regarding the effects of the pandemic, in January 2021 the CNB adopted a decision temporarily restricting distributions of profits of credit institutions in 2021, which was repealed on 1 October. Regular macroprudential policy measures relating to capital buffers did not change. In addition, work was continued on the completion of the analytical basis for the assessment of systemic risks that may arise from consumer over-indebtedness.

a) Decision on a temporary restriction of distributions

In mid-January 2021, the CNB adopted a macroprudential Decision on a temporary restriction of distributions (hereinafter referred to as Decision), temporarily preventing credit institutions, until the end of 2021, from making dividend distributions, creating the obligation to make dividend distributions, redeeming

own shares, awarding variable remuneration to employees whose activities have a considerable impact on the risk profile of the institution and making other forms of distributions. The purpose of the Decision was to preserve the capitalisation of credit institutions amid high uncertainties regarding the impact of the pandemic on their operation, which received substantial support from both public support measures and temporary regulatory amendments. By adopting this Decision, the CNB complied with the provisions of the Recommendation of the European Systemic Risk Board (hereinafter referred to as ESRB) on the restriction of distributions during the COVID-19 pandemic¹. Since the Decision was adopted amid extreme health-related and economic circumstances, it contained provisions providing for its revocation before the date of expiry, if the CNB assesses that the said circumstances have been sufficiently mitigated in the meantime. Accordingly, following the September review the CNB decided to revoke the Decision on 1 October 2021, before its expiry, when the mentioned ESRB Recommendation also ceased to be valid.

b) Capital buffers

In 2021, the CNB did not change credit institutions' capital buffers so the combined capital buffer remained at the same level as in the year before, i.e. between 4% and 6%, depending on the systemic importance of each particular credit institution.

In addition to the capital conservation buffer of 2.5% of total risk exposures, credit institutions were required to maintain a structural systemic risk buffer of 1.5% of their total risk exposure amount. In addition, those credit institutions identified by the CNB as systemically important were also obligated to maintain the capital buffer for other systemically important credit institutions (hereinafter referred to as O-SIIs). In 2021, the analysis identified **seven**¹ O-SII credit institutions in the RC, which, in accordance with their importance, the CNB assigned a capital

LINK NO



¹ Recommendations ESRB/2020/7 and ESRB/2020/15

In order to support lending to households and corporations during the recovery from the crisis caused by the pandemic, the CNB did not raise the countercyclical capital buffer rate.

buffer rate of 0.5% or 2% of the total amount of risk exposure. The actual rate to be maintained by O-SIIs whose parent institution is an O-SII or a global systemically important institution in the EU also depends on the buffer rate of the parent institution, so for two O-SIIs it totalled less than the rate set by the CNB.

Although the second half of 2021 recorded the beginning of the phase of accumulation of cyclical systemic risks associated with economic recovery, due to the acceleration of credit activity and developments in the real estate market, the CNB did not raise the countercyclical capital buffer rate to be applied in 2022 from 0%, in order to support bank lending activity during the recovery of the economy from the pandemic.

In June 2021, the CNB conducted a regular annual review of the importance of credit institutions' exposures to third countries (non-EU countries)². Bosnia and Herzegovina and Montenegro have been confirmed as substantially important third countries for the banking system of the Republic of Croatia due to the exposure of domestic banks to these countries. In an analysis of available data on banks' operations in these countries, it was found that there is currently no risk of excessive credit growth that would require regulatory measures to be taken for Croatian banks exposed to these markets.

c) Other macroprudential activities

In 2021, the CNB continued collecting data on standards of lending to consumers, which it started in 2020, aiming to improve the analytical basis for the assessment of risks to financial stability. Collection of these data

also meets the requirements from the ESRB Recommendation on closing real estate data gaps³. The first analyses² published in the CNB's regular publications indicate that there are groups of vulnerable consumers with high debt repayment burden and high loan to value ratios. The CNB continues to monitor the development of systemic risks associated with consumer lending and, if necessary, it will react by employing macroprudential measures within its competence.

Cooperation in the field of macroprudential policy

Representatives of the CNB participated in the work of the Financial Stability Council, which held two meetings in 2021, chaired by the Governor of the CNB. Presented at the meetings were assessments of the main risks and challenges to financial stability and activities related to the implementation of macroprudential policy, with particular emphasis on the rise in systemic risks related to the residential real estate market. CNB representatives took part in the work of the ESCB committees and working groups, which was, again in 2021, directed at the analysis of risk associated with the effects of the pandemic and vulnerabilities in the real estate market. As part of the close cooperation with the ECB, the CNB formulated and implemented macroprudential policy measures governed by harmonised European regulation in cooperation and in coordination with the European Central Bank (ECB). The representatives of the CNB joined the work of the Financial Stability Committee consisting of the countries participating in the SSM, and its standing working groups⁴, in which financial stability risks and national macroprudential policy measures are discussed.

LINK NO 2



LINK NO 3



2 In accordance with Recommendation ESRB/2015/1³

3 Recommendations ESRB/2016/3 and ESRB/2019/3

4 See chapter 7 CNB in the EU and the international environment for more details.

INTERNATIONAL RESERVES MANAGEMENT

In 2021, international reserves increased strongly to their record high. The primary objectives of the management of international reserves – liquidity and safety – were successfully achieved. Investment and tactical decisions ensured adequate earnings despite the unfavourable environment of a prolonged period of low and negative yields on the financial markets.

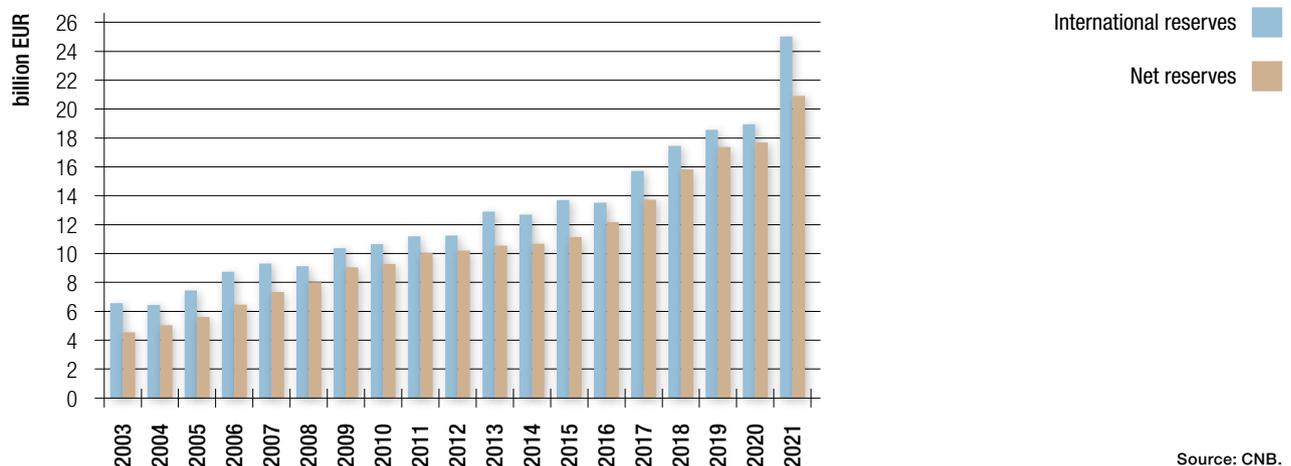
International reserves in 2021

International reserves totalled EUR 25,021.2m at the end of 2021, up EUR 6,076.7m or 32.1% on the end of 2020 (Figure 2.12). During the same period, net reserves, excluding the funds

of the Ministry of Finance and the European Commission, the funds with the IMF, special drawing rights and investments in repo operations, increased by EUR 3,218.4m, or 18.2%, reaching EUR 20,910.3m.

Figure 2.12 Highest ever recorded annual increase in international and net reserves

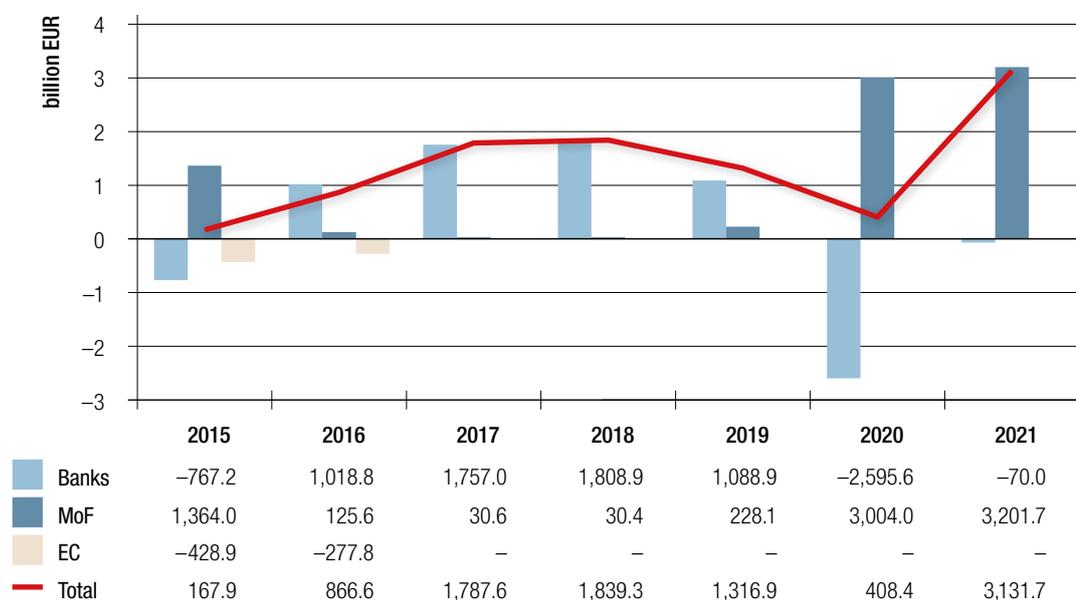
end of period, million EUR



Source: CNB.

Figure 2.13 High purchases of foreign exchange from MoF in 2021, the second year in a row

net purchases of foreign exchange from the CNB, from 2015 to 2021, in million EUR



Note: Positive values refer to the purchase and negative to the sale of foreign exchange by the CNB.

Source: CNB.

The strong growth of international reserves in 2021 was mostly driven by foreign currency inflows to the Ministry of Finance account, predominantly purchased by the CNB, while the increase in reserves was also driven by the inflow from the IMF as under a general allocation of SDR¹ due to the pandemic.

The CNB purchased EUR 3,201.7m from the Ministry of Finance, while in net foreign exchange transactions with banks the CNB sold a net worth of EUR 70.0m. Thus, net purchases of foreign currency by the CNB during the year amounted to EUR 3,131.7m, creating HRK 23,512.7bn.

Structure of international reserves investment

International reserves managed by the CNB independently and in line with its own guidelines comprise the held-for-trading portfolios,

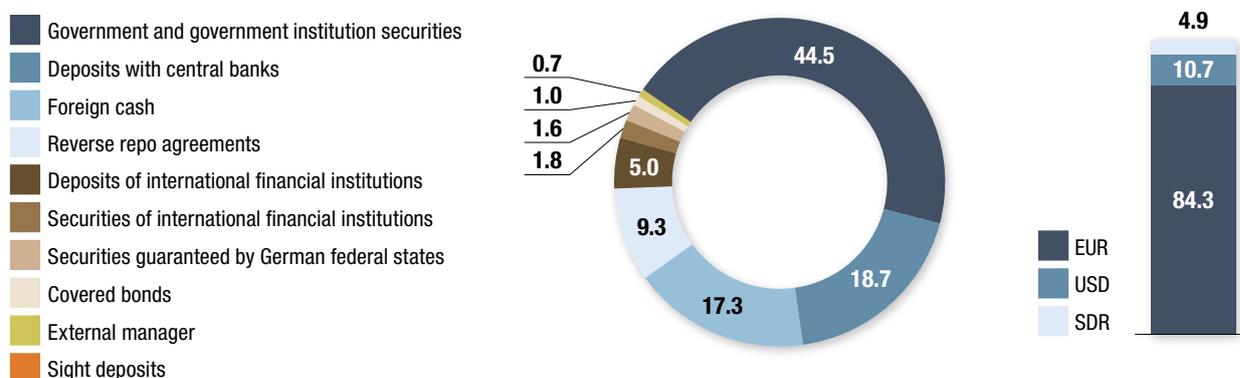
investment portfolios, funds entrusted for management to an international financial institution and foreign cash in the vault. Securities of governments and government institutions, deposits with central banks and foreign cash accounted for the largest share in the structure of international reserves investment at the end of 2021 (Figure 2.14). A share of international reserves was made up of the sustainable, so-called ESG investments, into green bonds, social bonds and sustainability bonds, whose share in total reserves totalled 1.2% at the end of 2021.

International reserves funds are invested in instruments with an investment grade rating, with investments in individual financial institutions and countries and in individual instruments being limited, which diversifies credit risk. At the end of 2021, 70% of international reserves was invested in the safest instruments – instruments by issuers within the two highest credit rating categories,

¹ See chapter 7 [CNB in the EU and the international environment](#) for more details.

Figure 2.14 In the structure of investments of international reserves, investments in the safest instruments accounted for the largest share (left panel), and by currency structure those in the euro (right panel)

shares in percentage, at the end of 2021



Source: CNB.

BIS instruments and foreign cash in the CNB vault.

Currency structure of international reserves

In the currency structure of international reserves the euro accounts for the greatest share, decreasing slightly in 2021, from 85.0% at the end of 2020 to 84.3%. This was predominantly aided by the increase in the share of SDRs due to high inflow under the IMF's allocation and weakening of the euro against the US dollar, i.e. SDRs. The share of the US dollar decreased as well, from 13.0% to 10.7%, among other things because amid the growth in net reserves the nominal amount of dollar investments remained stable. The share of SDRs in international reserves increased from 1.9% to 4.9% as a result of assets received on the basis of a general allocation of 687.6m SDRs as assistance in the face of the pandemic and with the objective of supplementing the existing foreign exchange reserves of IMF member countries.

Financial markets and international reserves management results in 2020

Financial market developments in 2021 were marked by high volatility due to constant changes in the global fight against the COVID-19 pandemic. The recovery in global demand was accompanied by problems in the world's supply

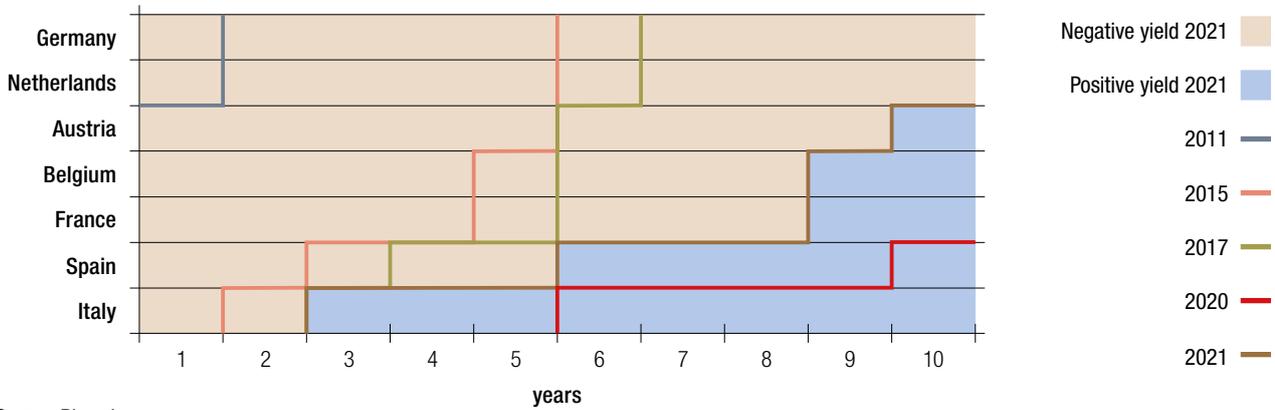
chains, which, paired with the strong increase in energy prices, led to the highest jump in inflation in most developed economies for the past several decades. This strengthened expectations regarding the reduction in the expansionary nature of monetary policy by leading central banks, as was then announced at the end of the year. Amid these conditions, the yield on European and especially on US government bonds went up. The US dollar strengthened against the euro, while the majority of leading equity indices reached their all time highs.

In 2021, yields on European government securities increased, the most for longer maturities. However, at the end of the year 53% of government securities of euro area member states had negative yields. The German yield curve was in the negative territory for bonds up to maturity of 14 years.

The American yield curve for maturities up to ten years rose in 2021 from the end of 2020 by 60 basis points on average, spurred by expectations of the tightening of monetary policy amid the conditions of robust economic recovery and sharp acceleration of inflation.

In these conditions of rising yields but still predominantly negative rates on the European

Figure 2.15 Yields on euro government bonds of selected countries by years to maturity as at 31 December in the period from 2011 to 2021

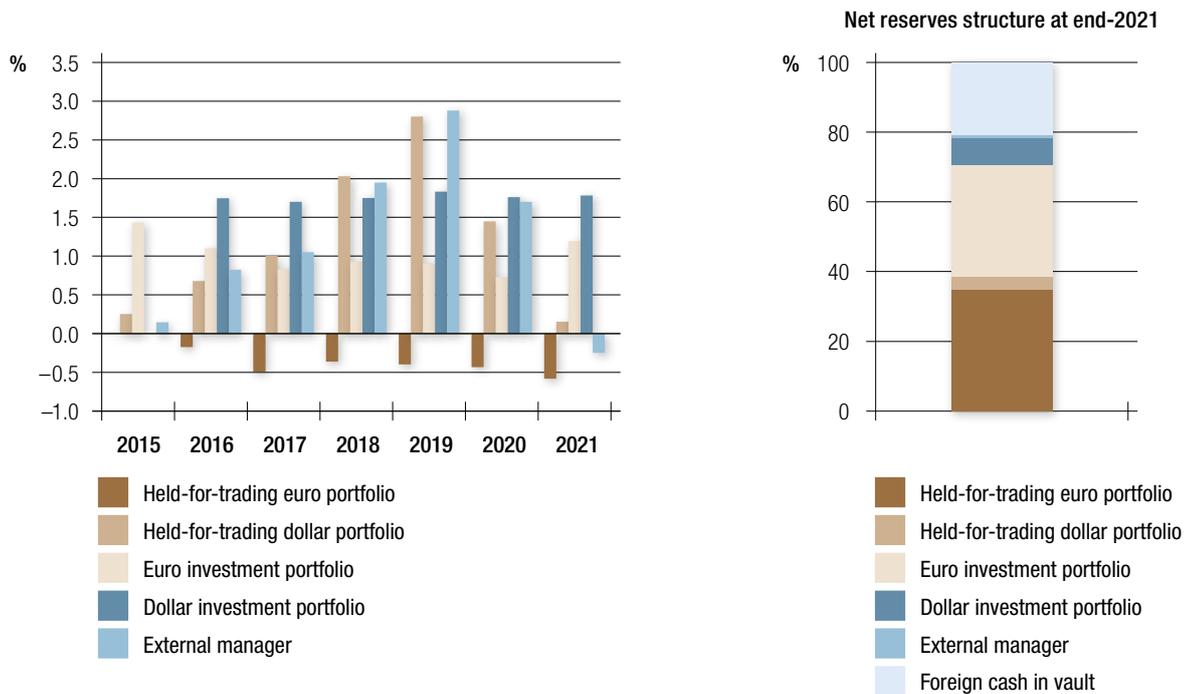


Source: Bloomberg.

securities market, 2021 saw adequate earnings from international reserve management. This continued the string of positive results achieved

over the previous years. The earnings from 2021 investments were EUR 70.8m or HRK 532.0m. Investment and tactical decisions in 2021, as well

Figure 2.16 International reserve investment portfolios secure adequate rates of return in the period of historically low yields (left panel), despite the sizeable share of held-for-trading portfolio (right panel) year-on-year rates of return, in percentage (left panel) and the structure in percentages (right panel)



Source: CNB.

as those over the previous years, contributed to positive results, and the primary objective of international reserves management, namely to ensure liquidity and safety, was successfully achieved.

The entire euro portfolio of net reserves generated a rate of return of 0.24% in 2021, while the rate of return on the entire dollar portfolio stood at 1.20%. If held-for-trading and investment portfolios are observed separately, the euro held-for-trading portfolio generated a rate of return of -0.58%, while the dollar held-for-trading portfolio generated a rate of return of 0.15% in 2021. In 2021, the euro-denominated investment portfolio

yielded a return of 1.19%, while the dollar-denominated investment portfolio yielded 1.78%. In 2021, the rate of return on the US dollar funds entrusted for management to an international financial institution was -0.25% (Figure 2.16).

The held-for-trading portfolios, which account for approximately 39% of net reserves, are used to maintain the country's foreign currency liquidity position. Investment portfolios, which account for approximately 40% of net reserves, generated the bulk of the CNB's earnings, while foreign cash, which accounts for 21% of net reserves, is used to reduce the impact of the negative yield of the euro held-for-trading portfolio on earnings.

3

BANKING UNION

In 2021, the first year of supervision under the format of close cooperation with the ECB, CNB supervisors were fully integrated in joint supervisory teams while credit institutions were subject to the supervisory review and evaluation process under the methodology of the Single Supervisory Mechanism for the first time. The year was also marked by full participation of Croatian representatives in the work of the governing structure of the Single Resolution Board. Strong capitalisation and ample liquidity of the banking system ensured stable and smooth operation of credit institutions.

A LOOK AT 2021: BANKING UNION

1**PRUDENTIAL
SUPERVISION****149**

The undertaking of supervisory measures with respect to 149 credit institutions was initiated and was aimed at eliminating illegalities established.

MORE ON PAGE 32**2****REGISTERED CYBER
INCIDENTS****0**

Despite rising cyber risks, no incidents were registered with significant negative consequences to the information systems of banks.

MORE ON PAGE 33**3****ASSESSMENT OF ML/TF****34**

Supervisory measures were undertaken in relation to money laundering (ML) and terrorist financing (TF) risks in the RC.

MORE ON PAGE 34**4****RESOLVABILITY
DIMENSIONS****7**

Banks are required to undertake a series of activities aimed at meeting one of the seven dimensions of resolvability.

MORE ON PAGE 39**5****NUMBER OF CREDIT
INSTITUTIONS****23 + 1**

At the end of 2021, there were 23 credit institutions operating in the Republic of Croatia: 20 banks and 3 housing savings banks as well as a branch of an EU credit institution.

MORE ON PAGE 41**6****ASSETS OF CREDIT
INSTITUTIONS****HRK 500.8m**

The assets of credit institutions increased to a record high of HRK 500.8bn in 2021.

MORE ON PAGE 41

SUPERVISION

CNB supervision continued to direct banks towards further adjustment to challenges in the pandemic environment, aiming at maintaining security, stability and confidence in the banking system. The main characteristics of the banking system continue to be high capitalisation and liquidity and considerable resilience to negative shocks. The year 2021 was the first year in which supervision functioned in the format of close cooperation with the ECB. The CNB's supervisors were fully integrated in joint supervisory teams and the supervisory review and evaluation process for significant credit institutions was carried out for the first time in accordance with the methodology of the Single Supervisory Mechanism.

Prudential regulation

Numerous subordinate regulations in the segment of prudential regulation were adopted in 2021. Some needed to be amended, while a few needed to be adopted anew¹. Alignment with the supervisory procedures of the European Central Bank (ECB) for credit institutions and participation in working groups and activities of the European Commission and EU Council continued.

Representatives of the CNB at the European Banking Authority (EBA) actively participated in working group meetings on the preparation of reports, guidelines and draft technical standards within the EBA's purview.

Several internal horizontal analyses were made for the purpose of assessing the adequacy of legal frameworks in 2021, in particular in the

segment of large exposures, crisis management, application of the definition of default, models of expected risks, and climate and environmental risk management. In several circular letters, the CNB, in accordance with EBA guidelines, informed credit institutions of its supervisory expectations in the segment of loan approval and monitoring, cases of large exposure limits being exceeded, climate risk management, application of the definition of a small and non-complex credit institution, reporting on securities-financing transactions, assessment of probability of default (PD), assessment of loss given default (LGD) and treatment of defaulted exposures.

Prudential risk modelling

In cooperation with the ECB, risk modelling experts participated in cross-border supervisions, as well as in the on-site examination of a credit institution authorised by

¹ Annex 1 Amendments and new subordinate legislation from the segment of prudential regulation.

the CNB to use the IRB approach for calculating capital requirements for credit risk. Prudential risk modelling focused on credit risks, including risks caused by the COVID-19 pandemic. In addition to the analysis of expected credit loss (ECL models) and models used by credit institutions for the purpose of internal capital calculation, frameworks for management of data quality and IT systems connected with credit risk modelling in significant credit institutions were additionally analysed.

Risk modelling experts, in cooperation with other organisational units competent for supervision, continued to participate in monthly monitoring of exposures of credit institutions based on loans to clients whose business operations were affected by the pandemic, and they also participated in the monitoring of the balance and changes in general-purpose cash loans granted to households and monitoring of measures approved for clients suffering from the consequences of devastating earthquakes in Croatia. Two *ad-hoc* analyses were carried out, in connection with the credit institutions' strategies for non-performing exposures and for collateral when approving housing loans.

LINK NO

1



LINK NO

2



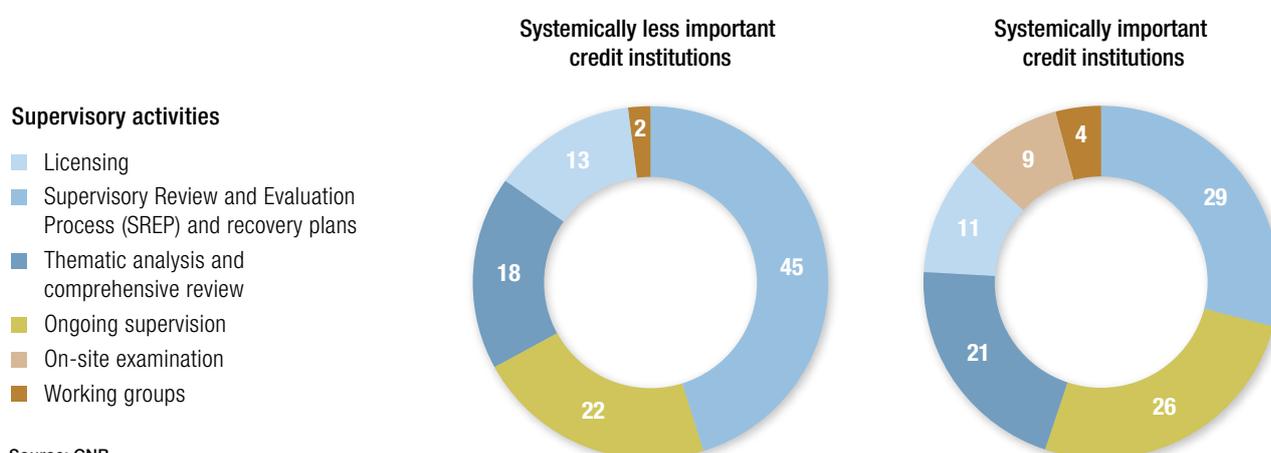
Prudential supervisory teams

Prudential supervision activities in 2021 were undertaken to ensure a safe and stable banking

system. Supervisory activities were for the first time directed at the strategic guidelines and **supervisory priorities of the Single Supervisory Mechanism**¹ embedded in the supervisory agenda pursuant to the principle of risk materiality and proportionality. The first year of the close cooperation with the ECB required considerable ongoing efforts to be invested in the work of joint supervisory teams for significant credit institutions and cooperation with ECB teams for monitoring the supervision of less significant credit institutions. The undertaking of 149 supervisory measures with respect to credit institutions was initiated to eliminate illegalities or weaknesses established in their operations. All credit institutions were covered by at least one of the six standard supervisory activities in 2021 (Figure 3.1).

The easing of the pandemic led to the assessment at the level of European supervisors that all conditions had been met to abandon the pragmatic SREP approach and return to the usual **SREP assessment in 2021**², which was conducted in accordance with regular supervisory procedures and resulted in formal imposition of capital requirements to be complied with from March 2022. Prudential supervision covered 21 institutions by the SREP process, imposing additional credit requirements for all and issuing qualitative recommendations for the

Figure 3.1 Prudential supervision activities in 2021 by credit institution systemic importance



Source: CNB.

The prudential supervision activities in 2021 were aimed at ensuring a safe and stable banking system.

improvement of the risk management process for some. Favourable epidemiological developments in 2021 and revocation of the macroprudential measure to restrict distributions in October 2021 led a significant number of European credit institutions to consider substantial profit distribution. With a view to still possible vulnerabilities regarding the earnings and capital for credit institutions, prudential supervision continued to pay special attention to monitoring the capitalisation of the Croatian banking system and ensuring its adequacy.

The quality of the credit portfolio and credit risk management in the context of expiry of moratoriums approved to mitigate the effects of the pandemic on bank clients are under special scrutiny. A comprehensive review was carried out of credit institutions' compliance with the EBA guidelines, primarily in the areas relating to credit and interest rate risks and a thematic analysis initiated of the conditions for granting housing loans. In cooperation with the ECB, thematic analyses were carried out of individual segments of internal governance, credit risk and liquidity management for less significant credit institutions.

In 2021, a total of 61 requests for licensing were received, of which the majority were related to the licensing of candidates for membership of management boards and supervisory boards and the requests were evenly distributed among credit institutions. Credit institutions were given recommendations on achieving or maintaining gender equality, providing ongoing training or avoiding conflict of interest or ensuring time allocated to the performance of functions.

The monitoring of the impact of potential Swiss franc borrower complaints regarding the

operations of credit institutions and the adequacy of established systems for managing this risk continued. Regular quarterly monitoring of legal restrictions on the basis of data submitted was conducted for all 17 credit unions.

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

Specialist ICT risk supervision

The assessment of the adequacy of managing cyber risk in the banking system was in the focus of the ICT¹ supervision in 2021. As part of the SREP process, supervisors assessed the ICT risk (the so-called IT SREP) in 17 banks in the system, focussing on assessing the adequacy of cyber risk management and ICT externalisation. Horizontal reviews were carried out in addition to IT SREP – comparison of the situation across banks as well as tests of the security of banks' ICT systems, with the aim of getting a better overview of inherent risk as well as of the adequacy of the control environment in place. Nine measures to improve the condition of the IT system have been issued to banks designated as operators of essential services in the banking system in accordance with the Act on Cybersecurity of Operators of Essential Services and Digital Service Providers. Despite the steadily growing cyber risk, no incidents with major negative effects on IT systems of banks were registered in 2021 and there were no significant interruptions in the provision of key services.

Monitoring and supervision of ICT risks connected with the adjustment of banks' ICT

1 Information and Communication Technology.

systems due to the adoption of the euro will be the key activity of ICT supervisors in the upcoming period, so the CNB commenced supervisory activities related to this risk in 2021.

In addition to supervising ICT risk in Croatian institutions, ICT supervisors also participated in the work of the Single Supervisory Mechanism and the work of four European and four Croatian working groups on ICT risks. They also participated in the drafting of the Regulation of the European Parliament and of the Council on digital operational resilience for the financial sector, which aims to establish a comprehensive and detailed framework for digital operational resilience of the financial system.

Specialist supervision of prevention of money laundering and terrorist financing (PMLTF)

The CNB is, among institutions that participate in the fight against money laundering and terrorist financing (ML/TF), entrusted with a role to check whether entities under its supervision implement measures subject to the Act on the Prevention of Money Laundering and Terrorist Financing, aiming to prevent the use of the financial system in ML/TF. All credit institutions, electronic money institutions and payment institutions were subject to ML/TF risk profile assessment.

In 2021, the CNB's supervisory activities in the ML/TF segment were directed at ensuring that supervised entities have in place an efficient and effective ML/TF prevention system, both at sector and at individual entity level. The epidemiological situation caused most on-site examinations in 2021 to be carried out via video-conferencing with supervised entities.

In all, seven on-site examinations were carried out in 2021, with special attention being paid to the adequacy of risk management associated with criminal offences that represent a considerable threat of ML/TF as identified by the

National Risk Assessment of Money Laundering and Terrorist Financing in the RC. In accordance with the established illegalities and irregularities, the CNB initiated the undertaking of 34 supervisory measures with respect to supervised entities in 2021. ML/TF risks were also assessed in licensing procedures.

Cooperation with other competent authorities continued, both national and international, as well as participation in supervisory forums and working groups for coordination of prevention of ML/TF.

Starting in 2021, the CNB actively participates in the work of seven colleges for the prevention of ML/TF in financial institutions active on a cross-border basis. The CNB continued to participate in the evaluation process by the special committee of the Council of Europe – MONEYVAL, and also in the process of evaluating the compliance of the national regulatory framework with Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing,

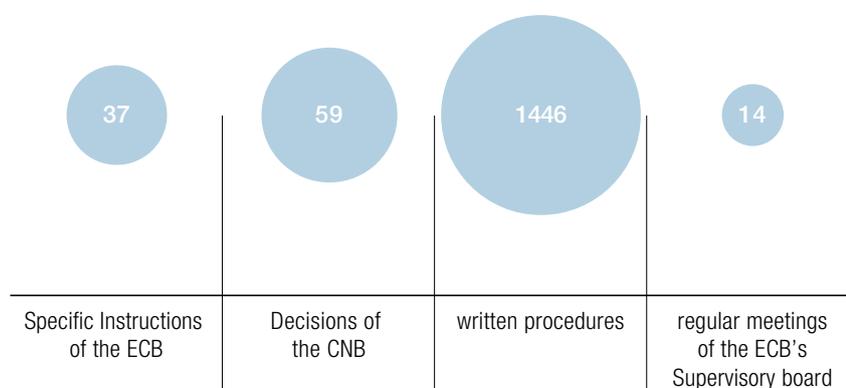
Prudential coordination

The CNB's supervisors used 2021 to continue to implement the single methodology and supervisory tools of the Single Supervisory Mechanism and in cooperation with colleagues from the ECB achieved considerable synergy in team work and integrated supervision. The Office for Coordination of Prudential Supervision, Oversight and Risk Management Activities directed its activities in 2021 at providing support to decision-making in the format of close cooperation with the ECB, managing information and coordinating bilateral and multilateral with the ECB's expert bodies.

The Office organised the visit of the chairman of the Supervisory Board of the ECB, Andrea Enria to the CNB in February 2021. The main topics

Despite steadily growing cyber risk, no incidents with major negative effects on IT systems of banks were registered in 2021.

Figure 3.2 The tasks of the secretariat for the ECB's Supervisory Board performed by the CNB Office for Coordination



Source: CNB.

of the visit were the supervisory challenges in the circumstances of the COVID-19 pandemic, bank digitalisation, capital allocation and the functioning of joint supervisory teams. In addition to the CNB's management the meeting was attended by the management boards of significant credit institutions.

The tasks of the secretariat for the Supervisory Board within the Single Supervisory Mechanism (SSM) were successfully accomplished, as was

the full integration of the CNB into the ECB's decision-making bodies.

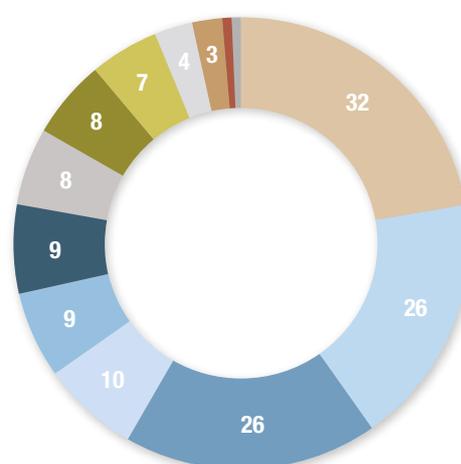
The Office is included in the network of SSM coordinators, it participates in the preparation of all meetings of the Supervisory Board, holds a large number of bilateral meetings and it established long-term cooperation with the SSM coordinators of several competent national bodies.

Figure 3.3 Topics of ECB's Supervisory Board meetings

Topics

- Supervisory Review and Evaluation Process (SREP)
- Stress testing
- Individual banks
- COVID-19
- Cooperation agreements
- On-site inspection (OSI) and internal model inspection (IMI)
- IT, cyber and digital agenda
- Licensing
- Administrative sanctions
- Prudential regulation
- Methodology of supervision
- Administration
- Other

Number of meetings, 144 in total



Source: CNB.

The Office is especially oriented towards the improvement of processes and training of supervisors within the SSM and it participated in several SSM strategic projects, such as SupTech Innovation (the project of automated technology-based supervision) and SSMnet. The SSMnet is a joint intranet platform of the SSM serving as a portal for learning, exchange of information and supervisory tasks for cooperation and integration of supervisors. Currently, according to all key indicators, the CNB is among the top three national supervisory authorities in terms of the use of the SSMnet portal, and the CNB's 80 supervisors participated in 275 ECB training programmes in different areas of supervision.

In addition, the Office coordinated the exchange of information on operative and strategic issues with other supervisory authorities in the RC and the region including the BSCEE (the non-profit banking association of supervisors from Central and Eastern Europe).

An internal register of all instructions received from the ECB as well as of all CNB decisions adopted according to these instructions was established, while the single passport register, which contains data on EU institutions that directly provide services in the RC and have their head office in another member state was regularly updated.

Annex 1 Amendments and new subordinate regulations in the segment of prudential regulation

Amendments to subordinate regulation:

1. Decision implementing Regulation (EU) No 575/2013 was amended in the part pertaining to the valuation of assets and off-balance sheet items and the calculation of own funds and capital requirements and Decision on detailed conditions for the establishment, operation, reporting and dissolution of branches of third-country credit institutions in the Republic of Croatia;
2. Decision on governance arrangements;
3. Decision on staff remuneration;
4. Decision on the sale of placements by credit institutions.

New decisions:

5. Decision on the assessment of the suitability of the chairperson of the management board, members of the management board, members of the supervisory board and key function holders in a credit institution;
 6. Decision on the method of exercising supervision of credit institutions and imposing supervisory measures;
 7. Decision on the approval procedure for the methodology for determining the aggregate risk weight for credit institutions in the calculation of contributions to the deposit guarantee scheme;
 8. Decision on the cessation of effect of the Decision on the chart of accounts for credit institutions;
 9. Decision on resecuritisation, the disclosure of information on private securitisations, websites and supervisory fees.
-

RESOLUTION

After comprehensive and extensive preparations that marked 2019 and the beginning of 2020, in October 2020 the Republic of Croatia started participating in the Single Resolution Mechanism via the representatives of the Croatian National Bank. In 2021, Croatian representatives fully participated in the work of the governing structures of the Single Resolution Board, as well as in the series of working groups, and also performed resolution planning tasks for Croatian banks. At the same time, Croatian banks were for the first time ordered to comply with binding MREL requirements, aimed at ensuring their prospective resolution should the need arise.

Operating within the Single Resolution Mechanism

After comprehensive and extensive preparations that marked 2019 and the beginning of 2020, the Republic of Croatia joined the Single Resolution Mechanism in October 2020 via representatives of the Croatian National Bank. The Single Resolution Mechanism is a mix of unambiguous rules and interaction and joint operation of the Single Resolution Board and the national resolution authorities, of which the CNB is member, applying the said rules to Croatian banks. In this context, the CNB representatives participated in the Single Resolution Mechanism on three main levels of its operation:

- on the highest, governing level – by participating in all plenary and executive meetings of the Single Resolution Board;
- on a horizontal level – by participating in numerous working groups operating within the Single Resolution Board; and

- on a vertical level – by participating in the work of Internal Resolution Teams.

In addition to successful updating and adoption of resolution plans for all banking groups as part of which Croatian banks operate and for which the Single Resolution Board is directly responsible, in this way Croatian representatives actively participated in the creation of different policies and acts pursuant to which all banks operating within the banking union will function and do business.

As a result of Croatia's participation in the Single Resolution Mechanism, Croatian banks now directly participate in the accomplishment of objectives and priorities set before them by the Single Resolution Board at the beginning of each 12-month resolution cycle. The resolution planning cycle at the level of the Single Resolution Board, as well as at the level of national resolution authorities, begins early in the second quarter of each calendar year.

Figure 3.4 Expectations of the Single Resolution Board for banks by 2024

	2020	2021
Governance	Governance arrangements supporting resolution preparedness	
Loss absorbing and recapitalisation capacity	MREL:	Fulfil intermediate MREL targets by 1 January 2022
	Operationalisation of bail-in (Bail-in playbooks)	
Liquidity and funding in resolution	Ability to estimate liquidity and funding needs in resolution	
Operational continuity in resolution and access to FMI services	Assessment of operational continuity risk and actions to mitigate risks	
	Identification, mapping and assessing of dependencies	
Information systems and data requirements	MIS for bail-in execution	
	MIS for valuation	
Communication	Communication plan	
Separability and Restructuring	Separability and business reorganisation measures	

Note: FMI is financial market infrastructure and MIS stands for management information systems

Source: Adjustment in accordance with [SRB Multi-annual programme 2021 – 2023](#).

At the end of 2020, the Single Resolution Board adopted its *Multi-Annual Work Programme 2021-2023*, placing before all banks within its competence the important objective of achieving bank resolvability by 1 January 2024. Banks and competent supervisory authorities are expected to invest additional efforts in the said period in the integration and specification of data and information in resolution plans in order for resolution proceedings with respect to all banks within the direct competence of the Single

Resolution Board, should the need arise, to be practically feasible.

To achieve this objective, for the second year in a row the Single Resolution Board published the document *Expectations for banks* at the beginning of the resolution cycle in which it laid down numerous activities banks are expected to undertake in order to achieve one of seven dimensions of resolvability. These are: 1) governance, 2) loss absorbing

	2022	2023	
	Governance arrangements supporting resolution preparedness		Governance
		Fulfil final MREL target by 1 January 2024	Loss absorbing and recapitalisation capacity
	Capabilities to (1) measure, report and forecast liquidity in resolution, and (2) identify and monitor assets (collateral) to obtain funding in resolution		Liquidity and funding in resolution
	and measures to improve preparedness for resolution		Operational continuity in resolution and access to FMI services
	and FMI contingency plan		
	MIS for valuation		Information systems and data requirements
	Communication plan		Communication
	Separability and business reorganisation measures		Separability and Restructuring

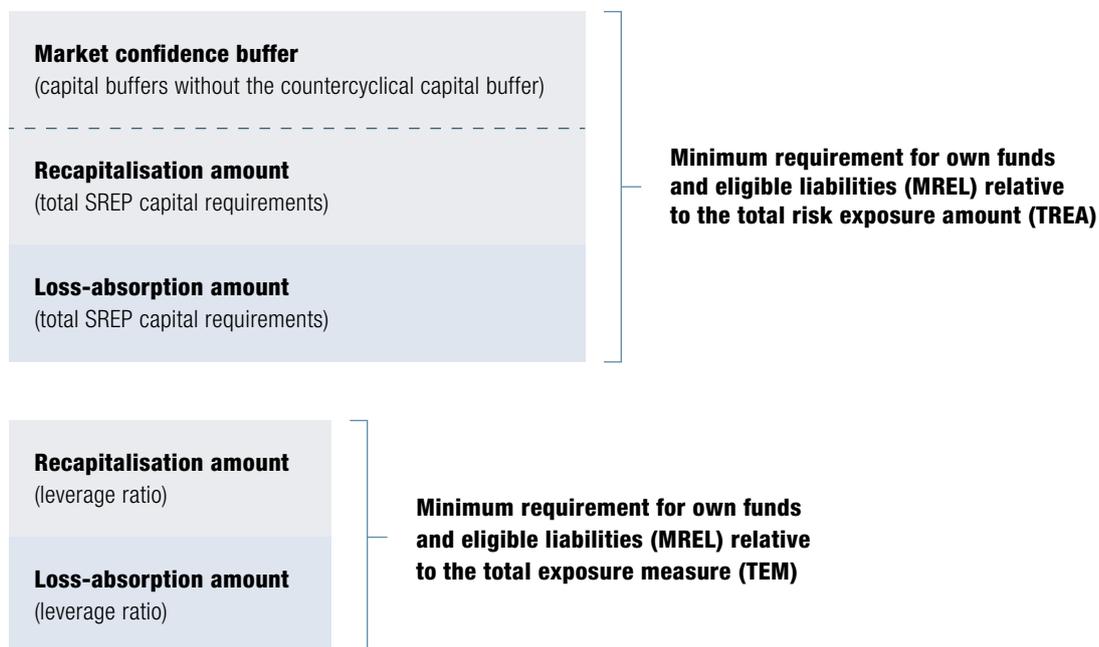
and recapitalisation capacity, 3) liquidity and funding in resolution, 4) operational continuity in resolution and access to financial market infrastructure services, 5) information systems and data requirements, 6) communication and 7) separability and restructuring

Building up loss absorbing and recapitalisation capacity

One of the more important dimensions of resolvability is the building up of the loss

absorbing and recapitalisation capacity of each individual bank the resolution plan of which envisages the implementation of resolution should it face serious financial difficulties. In a regulatory sense, the need to maintain such a capacity was laid down with the entry into force of the BRRD Directive¹ in 2015 with the introduction of the requirement to maintain the so-called minimum requirement for own funds and eligible liabilities (hereafter referred to as

Figure 3.5
Layers of
MREL
requirements



Source: CNB.

'MREL requirement'). The concept did not come to life in practice until 2019.

In the same year, the Single Resolution Board, as the central resolution authority within the Banking Union, laid down the first binding MREL requirements on a consolidated basis for all banking groups under its direct remit, and the first binding MREL requirements on an individual basis were imposed on banks in 2020. Because the Republic of Croatia joined the Single Resolution Mechanism at the end of

2020, Croatian banks the resolution plans of which envisage resolution as the procedure to be applied in case they find themselves in serious financial difficulties had mandatory compliance with MREL requirements first imposed on them in 2021. While some banks already had sufficient assets to meet the imposed MREL requirements at that time, aiming at full compliance in 2024, the introduction of the new regulatory requirements forced some banks to increase their activity in the capital market.

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) as amended.

BUSINESS OPERATIONS OF CREDIT INSTITUTIONS

The high liquidity and capitalisation of the banking system ensured stable and uninterrupted operations in the second year of the COVID-19 pandemic and the operating results recovered in 2021 after having been burdened by the costs of increased credit risk arising from the pandemic.

System structure

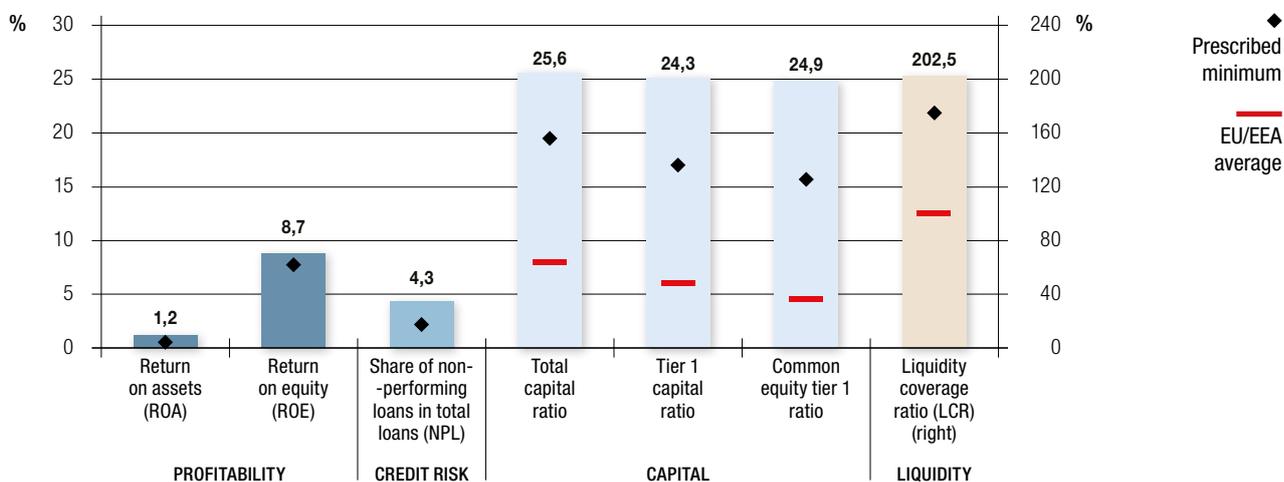
At the end of 2021, there were 23 credit institutions operating in the Republic of Croatia: 20 banks and 3 housing savings banks, the same number as at the end of each of the previous two years. In addition, there was one branch of an EU credit institution operating in the country, of BKS Bank AG, Main Branch Croatia, while around 200 institutions from the EU and the European Economic Area had notified the CNB of the intention to directly provide mutually recognised services in the territory of the Republic of Croatia.

Bank assets were concentrated in the banking system, accounting for 99.0% of the total assets of credit institutions, while the share of assets of housing saving banks continued to decrease, accounting for the remaining 1.0%. The dominant share of credit institutions' assets, 90.6% of total banking system assets, was in the majority ownership of foreign shareholders.

The years-long moderate decline in the number of employees continued, and at the end of the year 2021 the credit institutions system had 18,403 employees.

Performance indicators of credit institutions

The assets of credit institutions rose to a record high of HRK 500.8bn in 2021 and the key source of their growth was the increase in deposits on the current accounts of households and non-financial corporations. The uncertainties of the pandemic prompted credit institutions to caution in assuming additional risks, which was reflected in the increase of assets in the form of highly liquid monetary assets. The strengthening of these assets in total assets of credit institutions additionally pushed up the high level of the liquidity coverage ratio (LCR) to 202.5%, double the percentage of the prescribed 100%-minimum. The impact of these assets on the improvement in the quality of total assets

Figure 3.6 Key banking system indicators, as at 31 December 2021

Source: CNB.

was also favourable, contributing to maintaining the total capital ratio of all credit institutions of 25.6%, one of the highest ratios among EU member states. All credit institutions boasted total capital ratios higher than the prescribed minimum of 8%, with 10 of them, accounting for two thirds of total assets in the system, boasting total capital ratios above 20%.

Credit activity in 2021 resulted in a 2.3% increase in loans. This increase was predominantly related to households, especially to the financing of housing loans facilitated by credit institutions participating in the government programme for subsidising these loans.

Credit institutions upped their investments in securities of government units and backed non-financial corporations with guarantees and increase in the assumption of (contingent) liabilities.

The quality of credit institutions' assets measured by the non-performing loans ratio, continued to improve, although this ratio, totalling 4.3%, continues to be less favourable than the EU average. Non-performing loans to non-financial corporates and households decreased, the

improvement in the quality of loans to these sectors partly resulting from the sale in non-performing claims. The share of NPLs in total loans to non-financial corporations decreased by 9.9%, thanks to the increase in loan quality in all more important activities of this sector, except for transportation and accommodation and food service activities, especially susceptible to current economic disturbances. The share of NPLs in total loans to households totalled 6.6%, with the size of this share being primarily influenced by difficulties in the collection of general-purpose cash loans.

Despite the improvement in the situation with NPLs, it became evident that in the performing share of the loan portfolio, which is not yet in default, the level of credit risk was high compared to the pre-pandemic period.

Credit institutions' operations in 2021 generated HRK 5.6bn in profit, twice as much as in 2020. Profitability indicators increased as well – ROA totalled 1.2% and ROE 8.7%. In addition to value impairment costs significantly decreasing in 2021 from 2020, the increase in non-interest income, especially dividends, favourably affected profit. The main source of income, interest income,

continued to decline under the influence of low interest rates, contained credit activity and strengthening of monetary assets in the assets of credit institutions. Credit institutions saved on general expenses, and this contributed not only to the increase in profit, but also to the better cost efficiency of their operations since they used less than a half of their total net income to settle these expenses.

Business operations of credit unions

At the end of 2021, 17 credit unions had assets of HRK 620.4m at their disposal. This is the same number of unions as at the end of 2020, with their total assets exceeding 1.2%. Total assets of credit unions are equivalent to 0.1% of the assets of all credit institutions.



STATISTICS AND RESEARCH

Existing statistical tools and processes were improved and new statistical tools and processes were developed in 2021; they are necessary, on the one hand, for the successful implementation of the complex integration of CNB statistics into the statistical function of the Eurosystem and on the other, for further acquainting the general public with the results of the statistical research of the CNB. In accordance with the post-pandemic recovery in economic activity, research activities in 2021 focused on the analysis of monetary policy normalisation and growing inflation.

A LOOK AT 2021: STATISTICS AND RESEARCH

1

PUBLICATION OF NEW FEATURES OF LOANS

3

The newly published statistical indicators show the breakdown of loans by size, county of the debtors' head office and their activity (NCA).

MORE ON PAGE 49

2

PUBLICATION OF NEW RELEASES

3

They relate to public debt, financial liabilities and assets of institutional sectors and interest rates of credit institutions.

MORE ON PAGE 49

3

HOUSEHOLD FINANCE AND CONSUMPTION SURVEY

2

The Household Finance and Consumption Survey was conducted for the second time in the context of the so-called "fourth wave" of this research conducted on the EU level.

MORE ON PAGE 49

4

NEW PUBLICATIONS ISSUED

7 + 4

In 2021, seven new occasional publications were released, of which five were Working Papers and two were Surveys, while there were four articles in the CNBlog.

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5

SCIENTIFIC CONFERENCES

2

The CNB organised the traditional Dubrovnik Economic Conference, the 27th in the series, and the 4th CNB Research Conference on the topic of 30 years of the independent monetary policy of the CNB.

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STATISTICS

In 2021, the Statistics Area of the CNB went on with heightened activities with the aim of achieving full statistical compliance with the requirements that will be placed before the CNB as a member of the Eurosystem. New statistical indicators and reports were developed and interlinked statistics aligned. The release of new results of statistical research continued and the publication of detailed statistical indicators in the framework of the regular publication of statistical data was initiated. In 2021, the CNB launched the publication of summary statistical releases with comments on selected statistical indicators to familiarise the professional audiences and the general public with the results.

The role of the Statistics Area of the Croatian National Bank

As the second most important producer of official statistics of the Republic of Croatia, next to the Central Bureau of Statistics, the Croatian National Bank makes continuous efforts to improve the methods for the collection, processing, analysing and publication of data. The CNB's Statistics Area collects data from statistical reporting entities and administrative data holders and processes them to produce and publish indicators of official statistics of the Republic of Croatia within its area of competence. It was for this reason that the existing statistical tools and processes were improved and new statistical tools and processes developed in 2021. They are necessary on the one hand for the successful implementation of the complex integration of CNB statistics into the statistical function of the Eurosystem and on the other, for further acquainting the general public with the results of the statistical research of the CNB.

Development of new and alignment of existing statistics

In mid-2021, the CNB started with the preparation of credit institutions for new reporting on the details of credit relationships they maintain with their legal entity customers, in the framework of the so-called *AnaCredit* reporting obligation to the ECB, starting from 2023. Even though, in the framework of statistical and supervisory reporting, credit institutions already report to the CNB very detailed information on credit exposure to legal persons, the new reporting will provide the CNB and the ECB a more precise and detailed insight into the credit risk of these exposures.

In 2021, the Statistics Area launched preparatory activities aimed at collecting statistically processed data on insurance companies and pension funds collected for supervisory purposes by the Croatian Financial Services Supervisory Agency, HANFA. These data will be used in 2022 and 2023 to start producing,

releasing and submitting to the ECB detailed statistics on insurance companies and pension funds. By doing so the CNB will not only fulfil its new obligation stemming from the CNB's joining the Eurosystem but it will also greatly expand and enhance the existing financial sector statistics, thus far traditionally oriented primarily to the subgroup of credit institutions (banks, savings banks and housing savings banks). In the meantime, to this same end, in 2021 the CNB delivered to the ECB for the first time a historical series of statistical data on so-called other financial intermediaries and the statistics on investments in securities by investor sector,

which marked the beginning of the regular reporting of these data.

Individual indicators of external statistics, national accounts statistics and the financial accounts statistics were aligned in 2021. This helped reduce the gap in sources of data and assessment methods, particularly as regards the assessment of the value of investments abroad and the amount of funds received from EU funds. Before this alignment, the value of investments in companies with continuous losses was included in one set of statistics as the estimated negative investment value and in other as a zero value.

Figure 4.1 Loans to households and enterprises in CNB statistics – tables

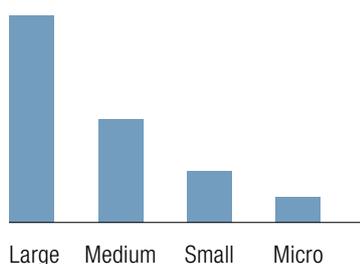
Sectors



Currency

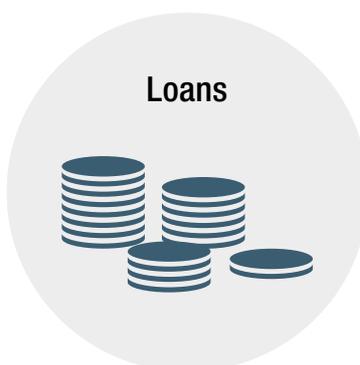


Enterprise size

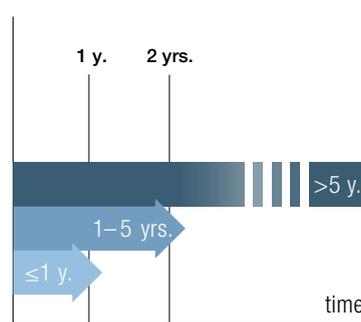


New in 2021:

corporate loan statistics according to enterprise size and loan purpose



Duration



Loan purpose



Source: CNB.

As of 2021, corporate loans statistics broken down by the county of head office, activity and size of the enterprise are available.

Following the alignment, both statistics use the same method to estimate the value of such investments.

Publication of new statistical data and statistical reports

Towards the end of May, the CNB started publishing an item of information unknown until that time, about loans granted by credit institutions to non-financial corporations, i.e. the breakdown of these loans by corporation size. The newly published table of statistical indicators shows the breakdown of these loans to loans granted to micro, small, medium-sized and large enterprises in addition to another breakdown by purpose, currency and maturity structure, including historical data dating back to 2010. The publication of these data was challenging since it required alignment of several registers to determine the size of each individual enterprise. The flows of loans to small and medium-sized and particularly micro enterprises are key to ensuring the quality and reliability of statistics.

Starting with data for September 2021, the CNB also publishes the breakdown of loans granted and deposits received by county of debtor and depositor head office as well as the breakdown of all loans granted to non-financial corporations by their activity, in accordance with the National Classification of Economic Activities (NCEA). In the same way as loan statistics by enterprise size, this new statistics will enhance the quality of economic analyses of credit flows by regions and activities.

And lastly, towards the end of March, the CNB started publishing statistical releases with comments on selected statistical indicators earlier commented on only occasionally. The new [statistical releases](#)¹ provide an analysis of the current developments in the values of statistical indicators on public debt, financial liabilities and assets of the institutional sectors of the Croatian

economy and interest rates of credit institutions, in addition to the existing comments on [monetary developments, international trade and external debt](#)².

Continued survey efforts

In 2021, the CNB conducted [The Household Finance and Consumption Survey](#)³, in the context of the so-called “fourth wave” of this research at EU level. Interviews with households in the selected statistical sample were conducted in 2020, partly face-to-face and partly remotely, due to the pandemic. Final survey results will be released towards the end of 2022 and will provide economic policy makers and academia with a better understanding of the financial decisions of households and thus a better assessment of the impacts of financial shocks and the effects of economic and other policies on individual household groups. This is the second survey of this type conducted by the CNB; the [results of the previous wave](#)⁴ were published in 2020.

In the second half of 2021, the CNB conducted the third [Survey on the access to finance of small and medium-sized enterprises](#)⁵, which examines the financial needs of this segment of the economy and the obstacles it faces. The first results of the survey were published in the publication *Macroeconomic Developments and Outlook 11* of December 2021 in [Box 5 Survey on the access to finance of small and medium-sized enterprises](#)⁶.

And lastly, in 2021 the CNB participated in the eighth wave of the updating of the microdata database on the competitiveness of enterprises in 19 European countries in the framework of the [Competitiveness Research Network, CompNet](#)⁷ to provide users of these data an adequate basis for analyses of the effects of productivity and competitiveness of enterprises on exports, employment and economic growth.

LINK NO 1



LINK NO 2



LINK NO 3



LINK NO 4



LINK NO 5



LINK NO 6



LINK NO 7



RESEARCH

The focus of CNB's research activities shifted in mid-2021 from the analysis of the effects of the pandemic to rising inflation although research continued in other areas such as introduction of the euro, financing conditions, real estate market, international financial relations, indebtedness of Croatian citizens and enterprises, public finances, new technologies and climate change.

Research objectives of the CNB

The Croatian National Bank conducts research primarily for the purpose of support for fulfilling its objectives and tasks. The bulk of the **research**¹ focuses on monetary policy implementation, financial stability, supervision and payment operations. The conclusions obtained are woven into the presentations of members of CNB management, official announcements and regular publications. 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.

Research areas in 2021

Research activities in 2021 covered many areas of interest to the CNB, their focus changing throughout the year.

In the first half of the year research focused on the understanding of the effects of the pandemic and exit from the recession so research activities included measuring of the intensity of the pandemic and the impact on CNB objectives, price and financial stability. The models developed in the year before for monitoring economic activity in real time were enhanced so as to facilitate **monitoring current developments**² and **measuring potential GDP**³. Developments in goods trade during the pandemic were analysed, while the unexpected **tourism recovery**⁴ contributed to a full recovery in economic activity following the fall in the previous year. The pandemic had a big impact on the financial sector and financing conditions. New models were developed for factoring macroeconomic conditions in the forecasting of non-performing loans, the problem of the so-called zombie firms and risks to financial stability were analysed and the **systemic stress**

LINK NO

1



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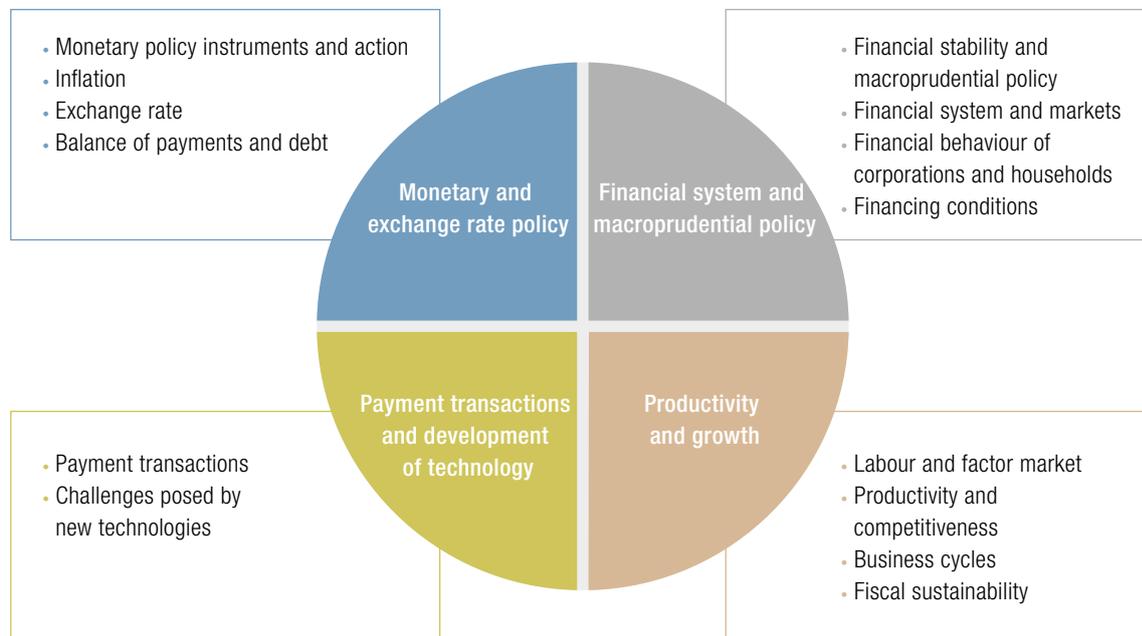
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LINK NO

5



Figure 4.2 Research areas of the Croatian National Bank

Source: Research objectives and priorities of the Croatian National Bank

index⁵ was presented. The impact of the pandemic on inequality and household savings and payment methods was also analysed.

After data suggested a certain recovery in economic activity, the focus of research activities shifted to the impact of monetary policy normalisation on interest rate developments, with the problem of rising inflation returning to the centre of research activities of the central bank. Thus we looked into the impact of the spillover of growing prices of energy products in the international market onto retail prices in Croatia and the perception of inflation as a potential trigger for rising inflationary expectations.

Further research related to the pursuit of monetary policy was made. A paper was published on the equilibrium exchange rate of the kuna and a macroeconomic model was presented that is used to prepare analytical bases for the pursuit of monetary policy.

To enhance financial stability monitoring, we analysed developments in the real estate market, which witnessed a steep rise in prices, reflecting the general upward trend in asset prices amid favourable financing conditions globally. We analysed the specific characteristics of the Croatian real estate market in terms of regional differences, the terms of housing lending and the effects of subsidies on their prices. We included commercial real estate in the analysis of the real estate market.

We also analysed developments in the profitability of banks and enterprises in light of the introduction of new technologies, capital markets and topics in the area of public finances.

Last year we stepped up central bank activities on the understanding of the effects of climate changes, which affect all the areas of activity of the central bank. We assessed domestic credit institutions' exposure to the risks associated with climate change, analysing their exposure to enterprises in the sectors that are expected to

LINK NO 1



see the biggest physical and transition climate risks, as well as the supply of credit instruments intended for financing **energy transition**.

LINK NO 2



The CNB conducts the aforementioned research independently, but also in the context of international cooperation and in cooperation with the academic community. Last year, a research project was conducted with a visiting researcher from the Austrian National Bank in the field of corporate financing during the pandemic. CNB employees also participated in the work of research groups of the European System of Central Banks in the areas of productivity, price movements, machine learning, business cycles and climate change.

LINK NO 3



LINK NO 4



Conferences and publications

The CNB publishes the results of research by employees and external contributors in different formats – from analytical annexes in **regular publications** 1 and **occasional publications** 2 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** 3 on the central bank web site. In 2021, seven new occasional publications were

LINK NO 5



published, five Working Papers and two Surveys, and four articles in the HNBlog.

Some of the papers by CNB employees were also published in scientific journals and other publications. In 2021, some twenty papers authored by CNB employees were published in scientific journals and other types of scientific publications (Table 5.1).

In 2021, the Croatian National Bank organised two scientific conferences. The traditional, 27th in the series, **Dubrovnik Economic Conference** 4 was held in July, having as its main topic the analysis of European economy in the aftermath of the crisis caused by the coronavirus and the design and role of joint economic policies in the period ahead. The **4th CNB Research Conference** 5 on the topic of 30 years of independent monetary policy of the CNB was held in December; the selection of and changes in the monetary and exchange rate regime in the previous period were explained and climate changes, digital currencies and inequality presented as new challenges for the central banks. In 2021, five Economic Workshops were held and lectures and workshops were held jointly by the Institute of Public Finance and Joint Vienna Institute.

Table 4.1 Selected papers according to priority areas published in 2021

Priority area 1: Monetary and exchange rate policy

Deskar-Škrbić, M., Kotarac, K., Kunovac, D. and Nadoveza Jelić, O. (2021): **Pristupanje Republike Hrvatske tečajnom mehanizmu ERM II i procjena ravnotežnog (realnog) tečaja**, CNB Working Papers, I-64

Deskar-Škrbić, M. and Kunovac, D. (2021): **Twentieth anniversary of the euro: Why are some countries still not willing to join? Economists' view**, CNB Surveys, S-39

Lukinić Čardić, G. and Šelebaj, D. (2021): **Trgovinski tijekovi između Hrvatske i inozemstva od ulaska u EU do izbijanja pandemije koronavirusa**, CNB Surveys, P-47

Nadoveza Jelić, O. and Ravnik, R. (2021): **Introducing Policy Analysis Croatian MAcroecoNometric Model (PACMAN)**, CNB Surveys, S-41

Palić, I., Palić, P. and Banić, F. (2021): *The pre-pandemic role of customer online satisfaction in price determination: evidence from hotel industry*, Croatian Review of Economic, Business & Social Statistics, 7(2)

Priority area 2: Financial system and macroprudential policy

Allinger, K. and Huljak, I. (2022): *Operating leverage and its importance during the Covid-19 pandemic*, SUERF Policy Brief, 256

Bošnjak, M., Vukas, J. and Šverko, I. (2021): *Predicting NPLs for Croatia with macroeconomic variables*, Economic Thought and Practice, 12(2)

Duraković, E. (2021): *Hrvatski indeks sistemskog stresa*, Istraživanja HNB-a, I-61

Huljak, I., Martin, R. and Moccero, D. (2021): *Bank productivity in CESEE countries*, Focus on European Economic Integration, Q2/21

Kunovac, D. and Žilić, I. (2021): *The effect of housing loan subsidies on affordability: Evidence from Croatia*, Journal of Housing Economics, 55(1)

Škrinjarić, T. (2021): *Profiting on the Stock Market in Pandemic Times: Study of COVID-19 Effects on CESEE Stock Markets*, Mathematics, 9(17)

Škrinjarić, T., Quintino, D. and Ferreira, P. (2021): *Transfer Entropy Approach for Portfolio Optimization: An Empirical Approach for CESEE Markets*, Journal of Risk & Financial Management, 14(8)

Škrinjarić, T. (2021): *Grey Incidence Analysis as a Tool in Portfolio Selection*. In: Zopounidis C., Benkraiem R., Kalaitzoglou I. (eds): *Financial Risk Management and Modeling. Risk, Systems and Decisions*, Springer, Cham

Žigman, A., Ridzak, T. and Dumičić, M. (2021): *Crisis management in public institutions – Croatian financial system and the Covid-19 pandemic*, Management, 26

Priority area 3: Productivity and growth

Arčabić, V. and Banić, F. (2021): *Characteristics of fiscal policy in Croatia: does it depend on the phase of the business cycle?*, Public Sector Economics, 45(2)

Brkić, M. (2021): *Costs and benefits of government borrowing in foreign currency: is it a major source of risk for EU member states outside the Euro?*, Public Sector Economics, 45(1)

Buljan, A., Švaljek, S. and Deskar-Škrbić, M. (2021): *In search of the optimal size for local government: an assessment of economies of scale in local government in Croatia*, Istraživanja HNB-a, I-62

Čižmešija, M. and Škrinjarić, T. (2021): *Economic sentiment and business cycles: A spillover methodology approach*, Economic Systems, 45(3)

Deskar-Škrbić, M., Grdovic Gnip, A. and Šimović, H. (2021): *Macroeconomic Effects of Exogenous Tax Changes in a Small Open Economy: Narrative Evidence from Croatia*, Post-Communist Economies, 33(6)

Deskar-Škrbić, M. and Milutinović, D. (2021): [Design of fiscal consolidation packages and model-based fiscal multipliers in Croatia](#), Public Sector Economics, 45(1)

Grgurić, L., Nadoveza Jelić, O. and Pavić, N. (2021): [The interplay of supply and demand shocks: measuring potential output in the COVID-19 pandemic](#), Public Sector Economics, 45(2)

Šelebaj, D. and Bule, M. (2021): [Effects of grants from EU funds on business performance of non-financial corporations in Croatia](#), Public Sector Economics, 45(2)

Priority area 4: Payment operations and technological development

Hrbić, R. and Grebenar, T. (2021): [Assessment of Readiness of Croatian Companies to Introduce I4.0 Technologies](#), CNB Working Papers, W-63

Škrinjarić, T. (2021): [Ranking Environmental Aspects of Sustainable Tourism: Case of Selected European Countries](#), Sustainability, 13(10)

Source: CNB, [Research news](#)

5

CONSUMER PROTECTION

In the area of protection of consumers of financial services, in 2021, the CNB mainly supervised the existing banking practices related to the supply of and demand for consumer products and services. The CNB exerted significant efforts to enhance financial literacy and consumer information on products and services on the market.

A LOOK AT 2021: CONSUMER PROTECTION

1

COMPLAINTS RECEIVED
BY THE CROATIAN
NATIONAL BANK

906

The CNB received and processed 906 notifications of complaint, mostly related to contracts governing loans and deposits.

MORE ON PAGE 58

2

COMPLAINTS RECEIVED BY
CREDIT INSTITUTIONS

138,427

Credit institutions received 138,427 complaints, which is an increase of 3.7% from 2020. Most of the complaints were related to payment cards.

MORE ON PAGE 59

3

COMPLAINTS RECEIVED BY
CREDIT UNIONS AND CREDIT
INTERMEDIARIES

0

Credit unions and credit intermediaries did not receive any consumer complaints.

MORE ON PAGE 59

4

REPORTS ISSUED TO
CREDIT INSTITUTIONS

9

On account of established illegalities, the CNB issued nine reports, most of which were based on consumer complaints.

MORE ON PAGE 60

5

CIRCULAR LETTERS TO
CREDIT INSTITUTIONS

2

The CNB issued two circular letters concerning tacit overdraft facilities and the obligation of updating data on loans.

MORE ON PAGE 60

CONSUMER PROTECTION

The CNB supervises on an ongoing basis the implementation by financial services providers of regulations in the area of consumer protection and monitors and processes consumer complaints. Financial education and communication with the public are also an integral part of consumer protection. The main objective of these activities is to increase the level of protection of the rights and interests of consumers and to raise consumer awareness about products and services offered to them.

Banking practices in focus of activity

In the second year of the pandemic, in the area of consumer protection, the CNB focused primarily on the examination of banking practices and business processes associated with the offer and sale of products and services intended for consumers.

The activities covered the entire banking market and were conducted on the basis of publicly available information, questionnaires and bilateral communication with credit institutions. To determine compliance with the existing regulatory requirements, the CNB examined the contents and presentation of information and advertising on credit institutions' web sites and the conditions for granting and using overdraft facilities, and also launched activities in the field of responsible and sustainable consumer lending, the account freezes used by credit institutions to collect due debts and the functionality of individual services offered to consumers on the basis of debit and credit cards.

Significant departures from good practices were observed in the area of granting overdraft facilities. Namely, the CNB determined that some 70% of current accounts were granted overdraft facilities, of which 95% were tacit overdraft facilities. Even though tacit overdraft facilities imply only slightly higher costs for the consumer than authorised overdraft facilities, the latter provide greater protection for the consumer, which prompted the **CNB to initiate amendments to the Consumer Credit Act** ¹ and put forward its expectations for banks' immediate compliance with the announced legislative provisions.

Consumer complaints

Any statement of dissatisfaction that a consumer submits to the institution of which they are a client, and which refers to banking and financial services, contracts governing loans, credit intermediation and the like, is considered a complaint. Pursuant to the Credit Institutions Act, consumers may file a notification of complaint to the CNB if they have not received a response

LINK NO ¹



In 2021, the CNB received and processed 906 notifications of complaints. The dynamics and range of complaints suggest that consumers are now better informed of their rights and more active in exercising those rights.

from the credit institution to the complaint lodged or are not satisfied with the answer they receive. The CNB is not authorised to act as an arbitrator in the exercise of consumer rights that may arise from individual contractual relationships, but it does monitor the actions of credit institutions.

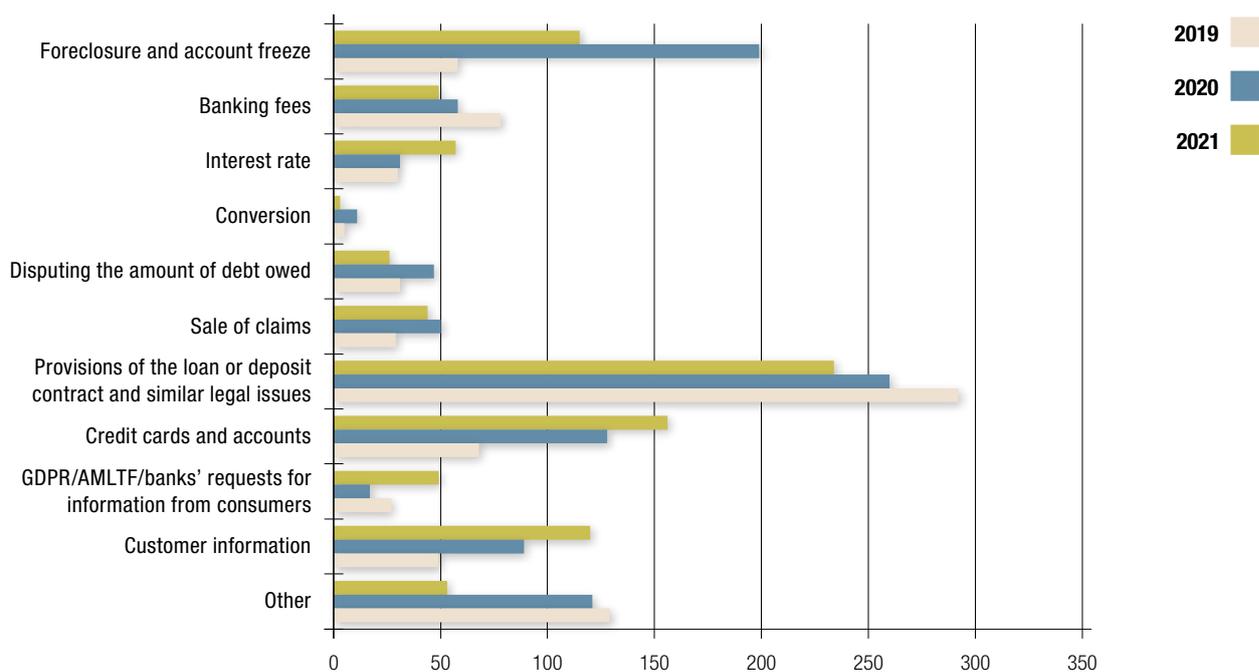
Complaints received by the CNB

In 2021, the CNB received and processed 906 notifications of complaints. Even though the number of complaints considerably exceeds the number of complaints received in 2019, it was down 11.6% from the previous 2020. The largest number of complaints in 2021 were those related to the provisions of contracts governing loans and deposits concluded with credit institutions (25.8%). There was a sharp

reduction in the number of complaints related to account freezes or foreclosure proceedings initiated (down from 199 to 115 complaints, a 73% fall), but the number of consumer complaints related to information provided to them rose from 89 to 120, an increase of 35%). The growing requirements for different types of information placed by banks on consumers have spurred an almost threefold increase in this type of complaint. Complaints related to credit cards and payment accounts have been rising steadily by approximately 4% per year in the past three years, accounting in 2021 for 17.2% of the total complaints received.

Typical complaints in 2021 questioned the level of interest rate or the interest rate used in the case

Figure 5.1 Complaints received by the CNB



Source: CNB.

of revolving loans, account freezes due to failure to update data, the fees charged on individual types of payment transactions, withdrawal of the overdraft facility, terms of moratoria, loan cancellation, refusal to reschedule loans, etc.

The dynamics and range of complaints suggest that consumers are now better informed of their rights and more active in exercising those rights.

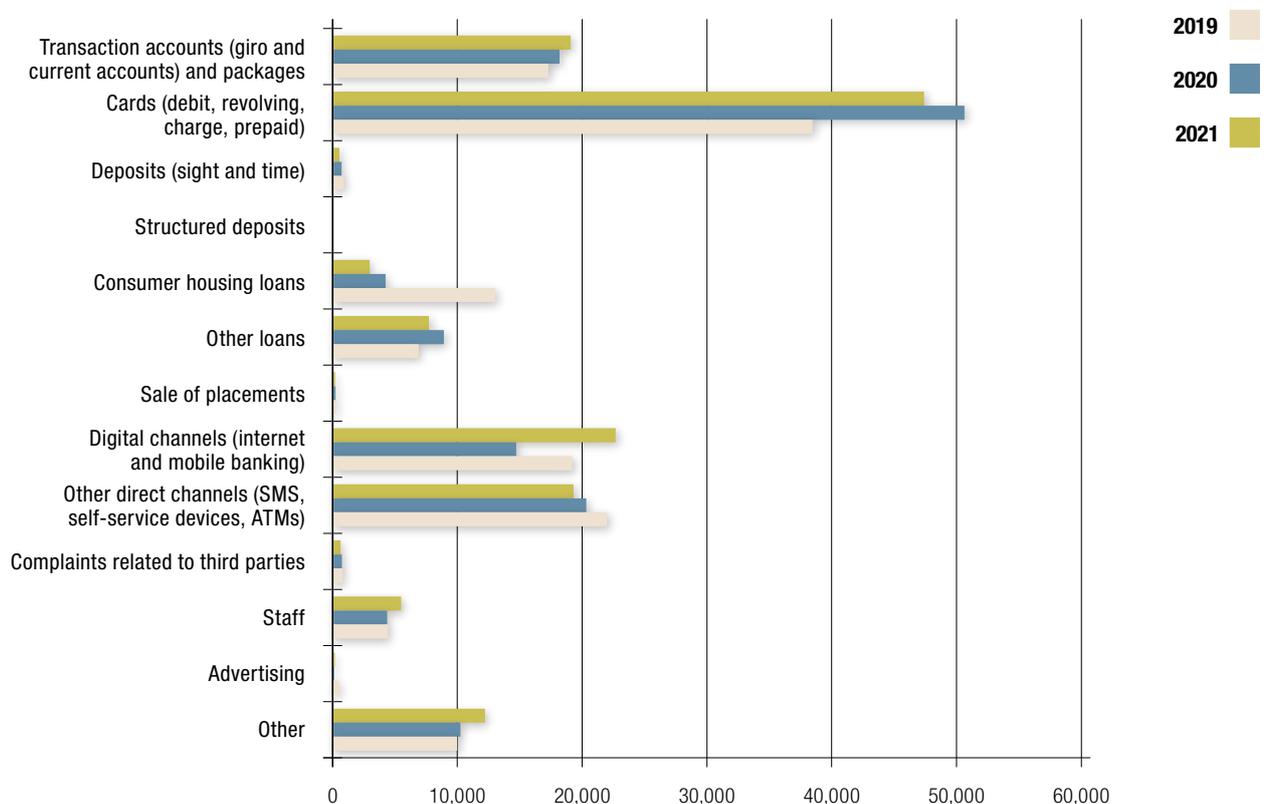
Complaints received by institutions within the CNB's competence

In 2021, credit institutions received a total of 138,427 complaints, up 3.7% from the year before. As regards the structure of complaints, complaints relating to credit, debit and other cards prevailed (34.2%), followed by complaints relating to digital provision of services (internet

and mobile banking), which accounted for 16% of all complaints, having risen from 14,719 complaints in 2020 to 22,677 in 2021 or by a high 54%. As in the year before, complaints relating to direct channels such as ATMs, self-service devices, etc. and complaints relating to transaction account accounted for 14% of the total number of complaints. Although accounting for a relatively smaller share of total complaints, complaints relating to credit institutions' staff rose evidently by a high 27.7%.

In 2020, the CNB began collecting data on complaints to credit unions and credit intermediaries. However, in both 2020 and 2021 these institutions reported to the CNB that they had not received any customer complaints from their clients.

Figure 5.2 Complaints received by credit institutions



Source: CNB.

Supervisory activities

In 2021, supervisory activities in the field of protection of financial services customers again took place exclusively off-site in the premises of the CNB due to the circumstances caused by the pandemic, and were based on reports and information received from supervised entities, contents found on their web sites, questionnaires and complaints.

In 2021, the CNB issued a total of nine reports of established illegalities, of which seven were based on handling of consumer complaints and two were the result of supervision of consumer-related banking practices. One credit institution was issued a Decision to eliminate illegalities, weaknesses or deficiencies. Two circular letters were also issued, informing the credit institutions

LINK NO **1**



LINK NO **2**



of CNB's expectations as regards business practices relating to tacit overdraft facilities and the obligation of submitting up-to-date information for the purposes of the **information list with the offer of loans to consumers**¹ that is published on CNB's web site.

LINK NO **3**



Credit intermediaries

In 2021, the CNB issued 18 decisions on the provision of credit intermediation services and nine decisions on the revocation of the decision on the issuance of authorisations to provide credit intermediation services.

LINK NO **4**



Regulatory activities

CNB's regulatory activities² take place through a continuous improvement of the legal framework, adoption of new or amendment of the existing regulations and ensuring uniform implementation of applicable laws and other legislation by all institutions, as well as through giving opinions and responding to queries related to individual provisions. In 2021, most opinions on the implementation of legal and other provisions intended for credit institutions related to consumer lending. Some of the opinions issued related to the manner of calculation of the effective interest rate.

LINK NO **6**



The CNB also took part in examinations carried out on EBA level for the purpose of

harmonisation of supervisory practices of national competent authorities as regards the assessment of the efficacy of the existing provisions regulating the remuneration of sales staff of credit institutions and setting the fees charged to consumers.

Since significant departures were established in practices of granting overdraft facilities, an initiative was sent to the Ministry of Finance to make an appropriate amendment to the existing regulatory framework. The CNB also participates in the work of the working group for the amendment of the EU directive the provisions of which have been transposed in the legislative framework of the Republic of Croatia by means of the Consumer Credit Act.

Financial education

The COVID-19 pandemic had a great impact on CNB activities in the education of young people and children. To continue raising the level of financial literacy of these future users of financial services, in 2021 the CNB offered new content via digital channels.

The CNB web site provides educational videos consisting of four modules covering key topics such as **banking products and services**³, **loans**⁴, **savings**⁵ and **payment accounts**⁶. Information leaflets on internet security are also available. During the Global Money Week in 2021, the CNB organised a student debate entitled: "Should the Banks Be Socially Responsible?", that was broadcast live on YouTube and CNB Facebook, and in cooperation with Hanfa, a student online debate was held on the topic of "Alternative vs. Bank Funding". Traditional lectures for secondary and primary school pupils and their teachers were also organised on online platforms. Although held throughout the year, the lectures were more frequent in the period marking the Global and European Money Week. Lectures were also held in the context of programmes of cooperation with the Croatian Chamber of Commerce. A total of 1992 participants took part in the lectures held last year.

As regards the structure of complaints, complaints relating to credit, debit and other cards prevailed, followed by complaints relating to the digital channels for the provision of services.

In 2021, the CNB commenced cooperation with Croatian Television in a daily TV show “Good Morning, Croatia”, addressing diverse topics of interest for consumers and also continued to broadcast a cycle of short educational radio shows in cooperation with Croatian Catholic Radio.

Representatives of the CNB regularly participated in virtual forums, round tables, workshops, educational meetings and seminars on financial literacy.

Inter-institutional cooperation

The CNB’s contribution to improving consumer protection is also evidenced in its participation in the work of the European Banking Authority (EBA), through its membership in the [Standing Committee on Consumer Protection and Financial Innovation](#)⁷. In 2021, this Committee continued to work on the harmonisation of supervisory practices of national competent authorities of member states and also addressed financial education, digital platforms and fees and costs associated with products and services intended for consumers.

In addition, the CNB participates in the work of the national working group for the implementation of the Regulation on cooperation

among national authorities responsible for the enforcement of consumer protection laws and also in the activities of the European Commission regarding the evaluation of the EU Directive (in the field of housing consumer loans). Last year, the CNB also cooperated with the Ministry of the Economy on the introduction of amendments to the Consumer Protection Act and the Ministry of Social Policy and Youth on open issues related to the management of the assets of minors.

The CNB is a member of the National Council for Consumer Protection and regularly reports on consumer rights through the [Central Consumer Portal – All for Consumers](#)⁸.

The CNB actively cooperates with the Croatian Banking Association and the Ombudsman, and it participates in the activities of the regional working group for financial education and financial inclusion, as well as in the work of the National Council for Consumer Protection and other institutions and consumer associations dealing with the protection of a broad spectrum of consumer rights and in the work of the Ministry of Finance operational working group responsible for monitoring the implementation of measures and activities in the field of financial education.

LINK NO **7**



LINK NO **8**





PAYMENT OPERATIONS, CURRENCY DEPARTMENT OPERATIONS AND CURRENCY EXCHANGE OFFICES

In 2021, the CNB continued to work on digital transition in payment operations while continuing to ensure secure and effective payment flows. New legal frameworks were implemented, aimed at consumer protection and improvement of the quality of payment services. Despite comprehensive final activities related to the euro changeover, all regular currency operations, such as issuing and supply of currency, issuing of commemorative coins and numismatic sets and prevention of counterfeits were completed successfully. There were around 850 authorised currency exchange offices trading in 31 currencies and generating a turnover of HRK 25.1bn.

A LOOK AT 2021: PAYMENT OPERATIONS, CURRENCY DEPARTMENT OPERATIONS AND CURRENCY EXCHANGE OFFICES

1**OPEN TRANSACTION
ACCOUNTS****6,983,435**

At the end of 2021, individuals and business entities held a total of 6,983,435 transaction accounts in banks.

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2**CONTACTLESS PAYMENT
CARDS ISSUED****5,832,567**

As at 31 December 2021, there were 5,832,567 contactless payment cards issued (67% of the total number of cards issued).

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3**CASH IN CIRCULATION****HRK 36,3bn**

As at 31 December 2021, there was HRK 36.3bn in circulation. In the past ten years, cash in circulation has doubled.

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4**REGISTERED
COUNTERFEITS****198 and 0.7**

A total of 198 counterfeit banknotes worth HRK 62 thousand and 0.7 counterfeits per million banknotes in circulation were registered.

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5**MOST COMMON
BANKNOTE
DENOMINATIONS****200 kuna and 10
kuna**

Outside the CNB and cash supply centres, 200 kuna and 10 kuna banknotes are most widely represented, their value being HRK 20.9bn.

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6**TURNOVER OF
AUTHORISED CURRENCY
EXCHANGE OFFICES****HRK 25.1bn**

There were around 850 authorised exchange offices trading in 31 currencies and generating a turnover of HRK 25.1bn, predominantly in the euro.

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PAYMENT OPERATIONS

One of the basic tasks of the Croatian National Bank is to ensure smooth operation of the payment system, which includes payment services providers, payment system infrastructure, payment services users and regulations governing the payment system. The CNB plays a central role in ensuring the use of regulations, particularly as regards the protection of the rights of payment system users. It also performs the function of a payment system operator and supervisor of systemically important payment systems and facilitates safe and efficient payment flows. The role of the Croatian National Bank is twofold: as a catalyst, it has to encourage the integration of innovation into the existing payment system, but at the same time it has to promote payment safety.

Development of payment operations: implementation of new legal frameworks, payment service providers and payment system

Growing cross-border payments in the euro in the European Union have led to the need for continuous improvement and harmonisation of the conditions for carrying out these transactions in order to protect consumers.

Digital transition in the EU is ongoing and several new EU regulations are being prepared that, in addition to adequately addressing security risks, support the potential of digital finance, innovation and market competition. A [Proposal for a Regulation on Markets in Crypto-assets¹](#) is being prepared, which would provide for one form of crypto-assets to qualify as electronic money, and to protect holders, it would regulate the terms for its issuing. Also being prepared is a [Proposal for a Regulation on digital operational resilience for the financial sector²](#), which would regulate the mitigation of risks that may emerge

in connection with digital, information and communication technology.

In 2021, the CNB stepped up its planning and preparation of amendments to regulations governing payment operations required for the introduction of the euro as the official currency of the Republic of Croatia.

The list of all providers of payment services and issuers of electronic money established in the Republic of Croatia, the types of services they provide and the EU member states in which they provide cross-border services can be found in the [register of payment service providers and electronic money issuers³](#) on the CNB web site.

In 2021, one electronic money institution and two registered account information service providers from the Republic of Croatia started providing cross-border payment services in other EU member states and the electronic money institution also started distributing electronic

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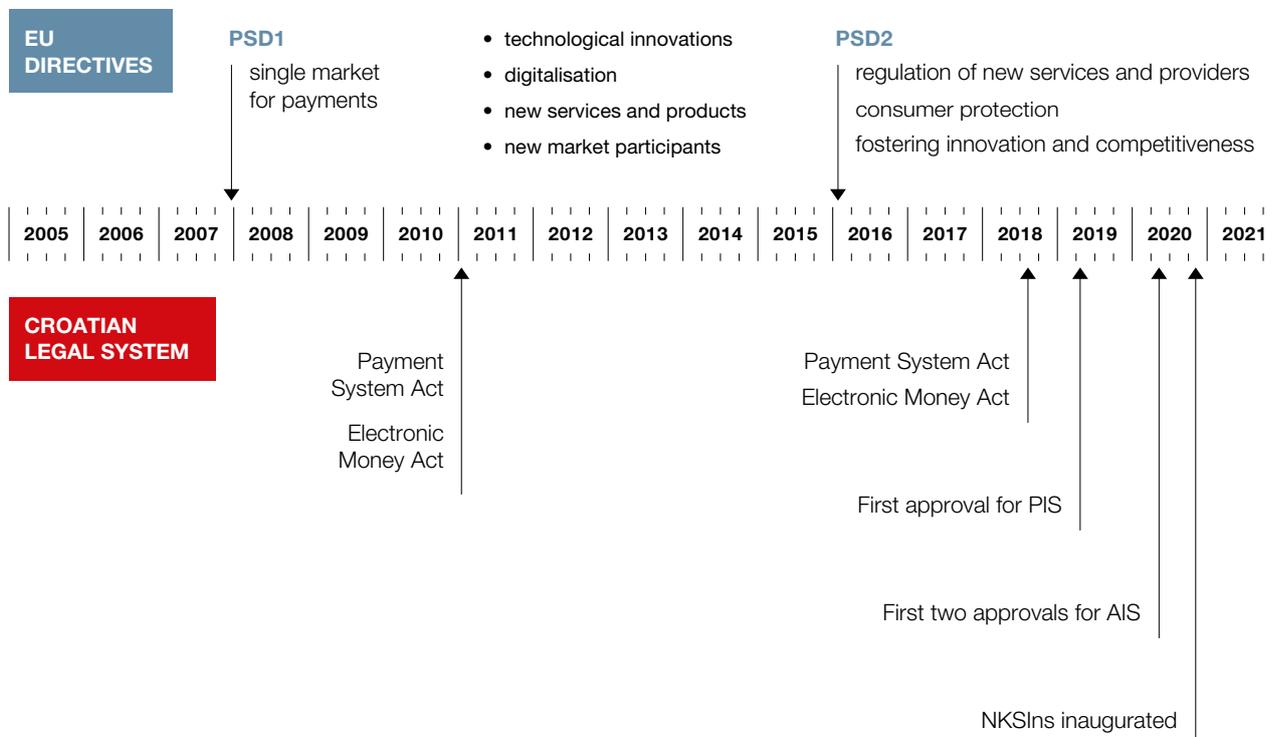


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Figure 6.1 Selected regulations governing payment operations

Note: PSD is short for Payment Service Directive; AIS stands for account information service, PIS means payment initiation service, NKSIns is a payment system for executing instant payments.

Source: CNB.

LINK NO **1**



money through distributors from other member states.

member state, free of charge, information on total currency conversion charges electronically (e-mail, mobile banking application notification, SMS messages, etc.)².

LINK NO **2**



The CNB received a number of applications for authorisations to issue electronic money and to provide payment initiation services and account information services, which suggests a possible widening of the offer of new services to payment service users, market development and the process of digitalisation.

Consumers can access information on main bank charges and compare them via the CNB's website, as well as via the mHNB smartphone application, free of charge, which provides a comparison of the most commonly used payment services.

LINK NO **3**



A codified [Regulation \(EU\) No 2021/1230](#)¹ has entered into force, under which the banks issuing payment cards are obligated to provide their customers using cards in another EU

Three banks joined the NKSInst³ in 2021 so the total number of participating banks at the end of the year was six (Hrvatska poštanska banka d.d.,

LINK NO **4**



1 See [Obavijest o stupanju na snagu nove Uredbe \(EU\) 2021/1230 Europskog parlamenta i Vijeća od 14. srpnja 2021. o prekograničnim plaćanjima u Uniji – kodificirani tekst](#)².

2 See [Sve o naknadama za usluge preračunavanja valuta](#)³.

3 See [Announcement on the beginning of operation of the NKSInst payment system](#)⁴.

Figure 6.2 SMS message on total currency conversion charge

Source: CNB.

Zagreb, Partner banka d.d., Zagreb, Privredna banka Zagreb d.d., Zagreb, Istarska banka Umag d.d., Umag, BKS Bank AG, Glavna podružnica Hrvatska, Zagrebačka banka d.d., Zagreb), and several banks announced their joining in 2022. The NKSInst facilitates the execution of payment transactions 24 hours a day, 7 days a week and 365 days a year. The NKSInst payment system and the increase in the number of its participants confirm that the Republic of Croatia keeps pace with the trends and developments in modern payment services.

Payment infrastructure – payment systems

The payment infrastructure allows settlement of financial obligations among participants by providing the services of clearing and settlement of payment transactions in a secure and standardised manner.

As payment infrastructure, payment systems are the key component of any financial system since they provide the services necessary for a smooth and efficient functioning of payment operations. Payment systems function according to regulations, operational procedures, business

processes and technical solutions that enable the transfer of cash among system participants. Payment infrastructure in the Republic of Croatia comprises five payment systems: the Croatian Large Value Payment System (CLVPS), the National Clearing System (NCS), NKSInst, TARGET2-HR and EuroNCS systems.

The Croatian Large Value Payment System (CLVPS)⁵ is a payment system for the settlement of large value payment transactions in kuna among its participants (banks, CNB, Central Depository and Clearing Company (CDCC) and SKDD-CCP Smart Clear d.d.) in which payment transactions are settled in real time on a gross basis. The CLVPS is administered by the CNB. Payment transactions are settled in the CLVPS for the purpose of implementing the monetary policy measures of the CNB, the supply of cash to banks, the final settlement of other payment systems, the execution of payment transactions linked to participation in the capital market and other payment transactions of system participants. Pursuant to Regulation on improving securities settlement and on central securities depositories (Central Securities

LINK NO

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LINK NO

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Depositories Regulation, CSDR), the CDCC has made adjustments to its operations so as to be able to join the TARGET2-Securities (T2S). Also, a company, SKDD-CCP Smart Clear d.d., was established to provide central counterparty clearing services. In December 2021, accounts were opened in the CLVPS for SKDD-CCP Smart Clear d.d., which had been granted authorisation by the Croatian Financial Services Supervisory Agency in November 2021 to provide central counterparty clearing services and the company became operational in January 2022, executing payment transactions through the CLVPS.

LINK NO

2



The National Clearing System (NCS) ¹ is a payment system for the clearing of a large number of credit transfer and direct debit payment transactions in kuna that are of relatively low value, based on a multilateral net principle, processed in accordance with the national scheme that adheres to SEPA standards. The Financial Agency (FINA) is the operating manager of the NCS, and the CNB has a special role of a bank – settlement agent in the NCS, since the settlement of clearings from the NCS is carried out in the CLVPS.

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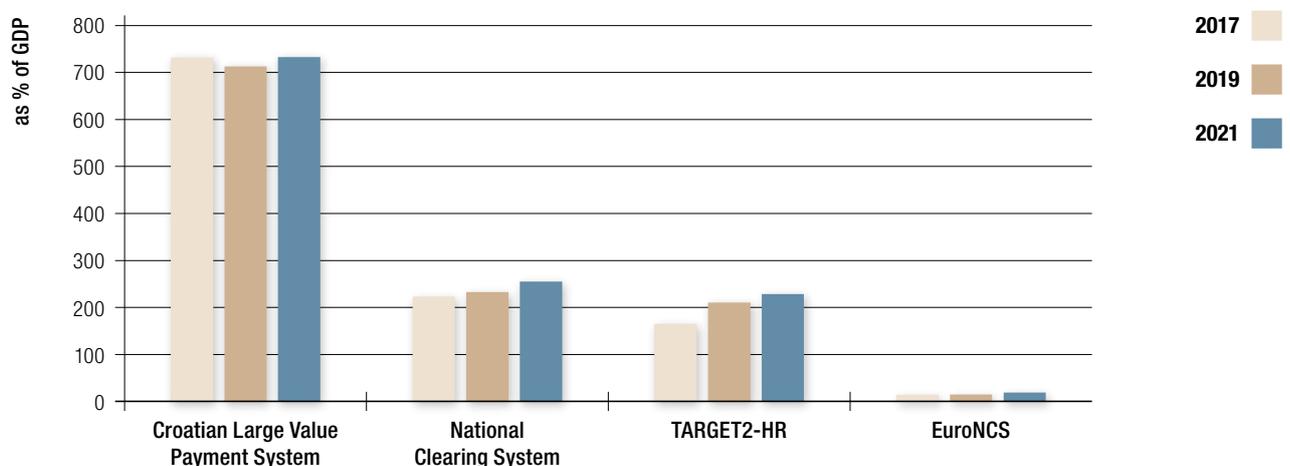
3



NKSIInst ² is a payment system that enables the execution of the 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 of an individual instant payment transaction is set at HRK 100,000. NKSIInst enables execution of payment transactions 24 hours a day, 7 days a week and 365 days a year (24/7/365). The NKSIInst payment system is administered by the Financial Agency. Towards the end of 2021, NKSIInst had only six banks participating and accounted for a negligible share of total payments.

TARGET2-HR ³ is a component of the TARGET2 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 CNB is the TARGET2-HR operator. In 2021, all participants in the TARGET2-HR system went ahead with the preparations for the launch of the T2-T2S consolidated platform that will replace the existing TARGET2 payment system and the TARGET2-Securities platform (T2S) with the aim of offering enhanced services of payment transaction and securities settlement and

Figure 6.3 Payment systems in the Republic of Croatia – overview of turnover



Note: EuroNCS became operational in May 2016.

Source: CNB.

NKSInst 2 is a payment system enabling the execution of instant payment transactions that are executed in almost real time, i.e. within a standard period of no more than ten seconds.

liquidity management to its participants. The platform is expected to become operational in November 2022.

EuroNCS⁴ is a payment system that processes SEPA credit transfer payment transactions of relatively low value in euro. The Financial Agency is the operating manager of the EuroNCS. The CNB has the special role of the bank – settlement agent in the EuroNCS, since the settlement of clearings from the EuroNCS is carried out in TARGET2-HR.

In 2021, the CNB and the CDCC continued to cooperate with the ECB on the activities necessary for joining the T2S. T2S is a support service for central securities depositories, intended to provide central and neutral securities settlement service, which, together with TARGET2 will be consolidated into a single platform T2-T2S in November 2022.

As of the date of introduction of the euro as the official currency in the Republic of Croatia, the execution of payment transactions by means of payment systems in euro will continue (TARGET and EuroNCS, where direct SEPA debit transactions will also be processed) while the execution of kuna payment transactions in payment systems (CLVPS, NCS and NKSInst) will be terminated.

TIPS¹ is a new service, available from 30 November 2018 within TARGET2-HR, enabling its users to settle instant transactions, i.e. payment transactions in euro, within seconds, at any time of the day, throughout the year (24/7/365). Thus far, no bank has joined the TIPS.

Payment statistics reports

In accordance with the Decision on the obligation to submit data on the payment system and electronic money, the Croatian National Bank collects from payment service providers statistical data in the area of payment operations and processes and publishes those data.

As at 31 December 2021, payment service providers had a total of 874 business units, most of which were bank branches. They accepted payment transactions at 118,731 EFTPOS terminals and 4,692 ATMs. At the same time, at the end of 2021, individuals (consumers) and business entities held a total of 6,983,435 transaction accounts with banks². Of the total number of accounts, 94.2% were held by individuals, while the remaining 5.8% 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. This can largely be attributed to the development of internet and mobile banking and card payments.

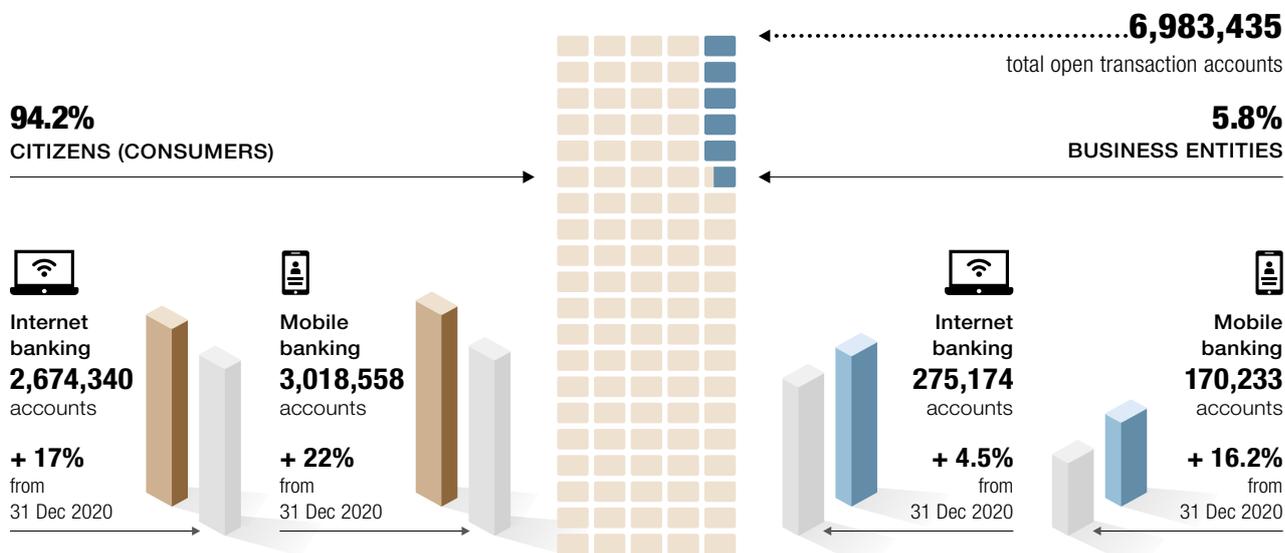
This is supported by the data as at 31 December 2021, according to which individuals (consumers) contracted internet banking for 2,674,340 accounts, an increase of 17% from 31 December 2020, while mobile banking was contracted for 3,018,558 accounts, an increase of 22% from 31 December 2020. Business entities had contracted internet banking for 275,174 accounts (an increase of 4.5% from 31 December 2020), and mobile banking for 170,233 accounts (an increase of 16.2% from 31 December 2020).

LINK NO ⁴



1 TARGET Instant Payment Settlement

2 Not including blocked transaction accounts.

Figure 6.4 Open transaction accounts and use of payment services in 2021

Data does not include blocked transaction accounts.

Source: CNB.

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 2021, individuals in the Republic of Croatia initiated a total of 106,883,063 mobile banking transactions, which is an increase of 24.5% from 2020, with this type

of transactions accounting for 43% of the total number of transactions and 41% of the total value of payment transactions by channels of initiation shown in Table 6.1.

The second most commonly used channel by individuals for initiating payment transactions

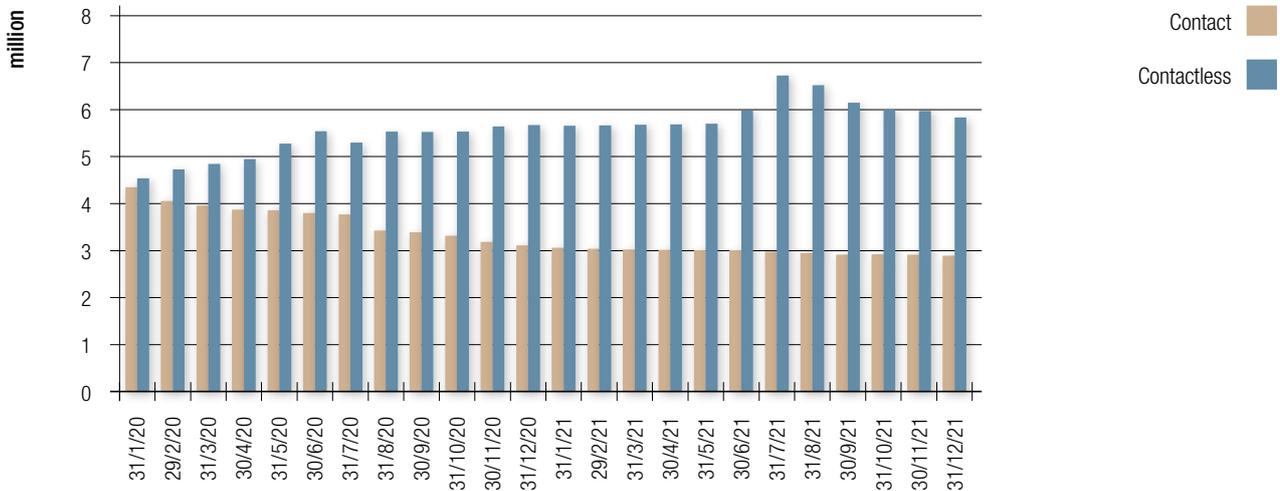
Table 6.1 Channels and methods of initiation of payment transactions of individuals (consumers) for 2021

Channel/method	Number of transactions	Share	Value of transactions (in HRK billion)	Value of transactions (as % of GDP)	Share
Over-the-counter*	60,421,591	25	61.03	14	30
Mobile banking	106,883,063	43	83.12	19	41
Internet banking	21,733,267	9	25.95	6	13
Direct debits	19,973,945	8	12.65	3	6
Standing orders	23,952,788	10	15.66	4	8
Bill-paying service	12,813,576	5	4.56	1	2
Total	245,778,230	100	202.97	47	100

* 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.).
Note: GDP in current prices for 2021 stood at HRK 430.6bn.

Sources: CBS and CNB.

Figure 6.5 Number of contact and contactless payment cards issued in the Republic of Croatia



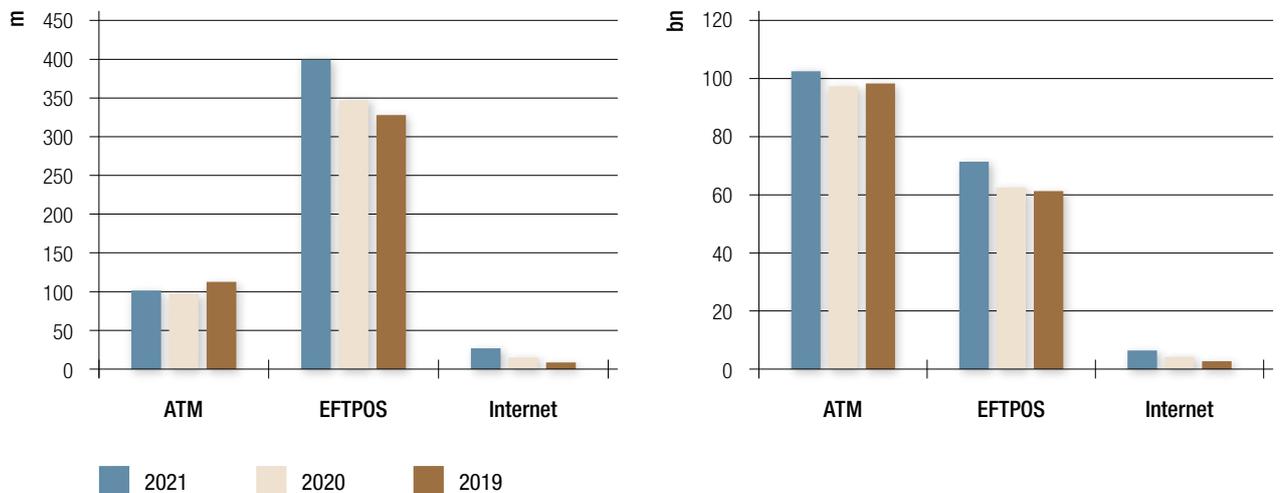
Notes: Data refer to the total number of contact and contactless payment cards on the last day of each reporting month. Includes used, unused and blocked payment cards.

Source: CNB.

was still the over-the-counter channel, which accounted for 25% of the total number and 30% of the total value of transactions shown in Table 7.1, followed by transactions initiated through internet banking and standing orders.

Business entities in the Republic of Croatia, as well as individuals, most often use electronic methods to initiate payment transactions. Thus, of all payment transactions initiated by business entities in 2021, 96% of them in number and

Figure 6.6 Number and value of acquiring transactions in the Republic of Croatia executed using payment cards issued in the RC



Note: Data refer to acquiring transactions using payment cards issued in the Republic of Croatia at accepting devices in the Republic of Croatia (ATM, EFTPOS and the Internet).

Source: CNB.

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 considerable increase in the use of mobile banking, which was used to initiate 36% more in number and 54% more in the value of transactions in 2021 than in 2020.

The most frequently used payment instrument in the Republic of Croatia is the payment card, with 8.722,727¹ payment cards in circulation in the Republic of Croatia as at 31 December 2021. Of the total number, 94.6% of payment cards were issued to individuals (consumers), and the remaining 5.4% to business entities.

LINK NO

1



LINK NO

2



However, out of the total number of cards on 31 December 2021, 3,491,367, or 40%, had not been used at all in the past year. These data indicate that debit cards are still the most widely used cards, accounting for 78.4% of the total number of all cards issued in the Republic of Croatia.

LINK NO

3



The card market in the Republic of Croatia has undergone technology-related and functionality-related changes in the past two years. One

of these changes is a marked increase in the number of contactless payment cards, with 5,832,567 such cards being issued as at 31 December 2021 in the Republic of Croatia, accounting for 67% of the total payment cards issued.

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 the Republic of Croatia. Transactions at EFTPOS terminals account for the largest share of the number of transactions executed using payment cards issued in the Republic of Croatia (77.6% of the number and 40% of the value), followed by ATM transactions (18.2% of the number and 54.8% of the value) and internet transactions (3.9% of the number and 3.2% of the value).

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.

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

CURRENCY DEPARTMENT OPERATIONS

One of the tasks of the Croatian National Bank is to facilitate the smooth supply 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 management of the logistic and strategic cash reserves. Important preparations for the switch from kuna to euro were made in 2021, including the selection of the motif for the Croatian side of euro coins.

Cash issuance and supply

The issuance of banknotes and coins and the supply of banknotes and coins in circulation in the Republic of Croatia is one of the CNB's main tasks. 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 cash](#)⁴. It is organised through eight cash supply centres, which cover all parts of the Republic of Croatia.

Pursuant to the [National Euro Changeover Plan](#)⁵, the Croatian National Bank, in cooperation with the Government of the Republic of Croatia and Croatian citizens selected the motifs for the national side of the future Croatian euro coins. The selected motifs are the Croatian checkerboard, a map of Croatia, the marten, the Glagolitic script and Nikola Tesla. The

checkerboard motif as the most distinctive part of the coat of arms of the Republic of Croatia will be used as a background for all coins, while other motifs will be used for coins of different denominations: the 2 euro coin will show a map of Croatia, the 1 euro coin the marten, the 50, 20 and 10 cent coins will feature Nikola Tesla, and 1, 2 and 5 cent coins the Glagolitic script. Following the selection of motifs, the CNB launched an open competition for the selection of the design of the national side of euro and cent coins in circulation, scheduled for completion in 2022. An operational action plan was adopted to be implemented before and after the introduction of the euro and an action plan was prepared for the cash changeover.

Currency outside banks

Despite a sharp rise in cashless payments¹, currency outside banks has trended upwards

LINK NO 4



LINK NO 5



1 For more details, see [Payment operations](#)

steadily since 2011. As at 31 December 2021, there was HRK 36.3bn in circulation, which is an increase of 6.3% from the end of 2020. From the beginning of 2011 to the end of 2021, cash in circulation doubled. Circulation is the amount of cash outside the CNB vault and cash centres (CC) less the amount of cash in bank cash desks.

Withdrawal of banknotes and coins

The CNB withdraws banknotes and coins unfit for circulation and replaces them. A total of 46.3 million banknotes were processed in 2021, of which 99.2% or 45.9 million banknotes were destroyed as they failed to meet the quality standards required for circulation banknotes. In addition, 296,847 million banknotes or 0.64%

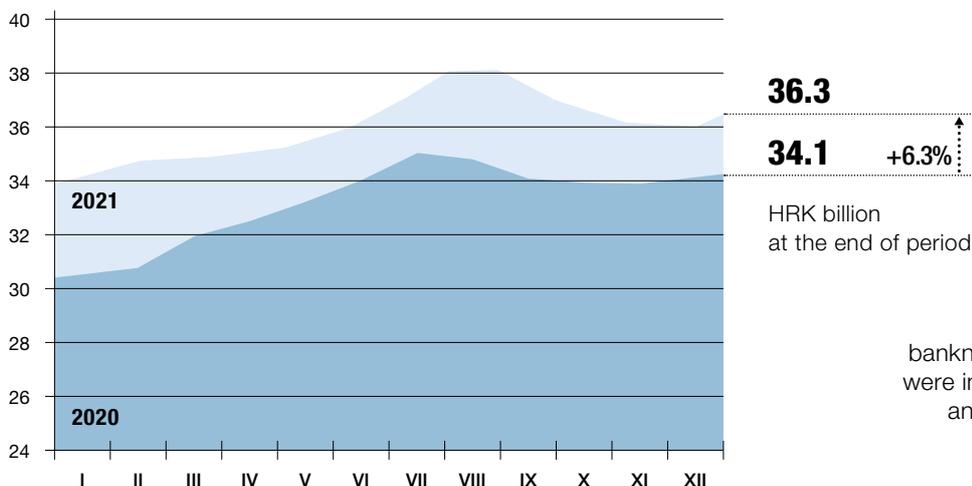
of the processed banknotes were sorted as damaged, to be destroyed subsequently.

If the balance at banks' cash desks and in their vaults is added to the circulation, on 31 December 2021, there were 291.7 million banknotes outside the CNB vault and CCs, worth HRK 42.5bn. In 2021, the quantity of banknotes outside the CNB vault and CCs rose by 5.7% and their total value increased by 6% from the end of 2020.

Of banknotes outside the CNB vault and CCs, 200 kuna banknotes, with a share of 34.8%, and 10 kuna banknotes, with a share of 19.1%, were the most numerous in 2021 and accounted for HRK 20.9bn, or 49% of the total value of banknotes that year.

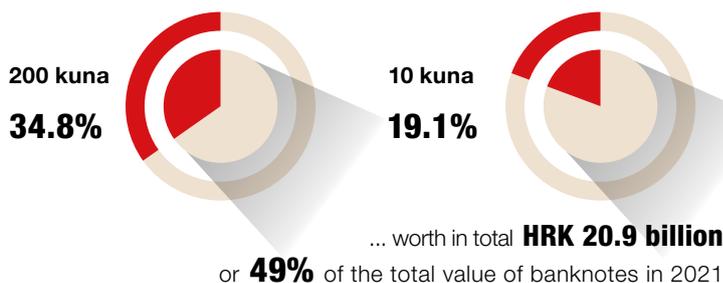
Figure 6.7 Cash in circulation

CASH IN CIRCULATION AT THE END OF PERIOD

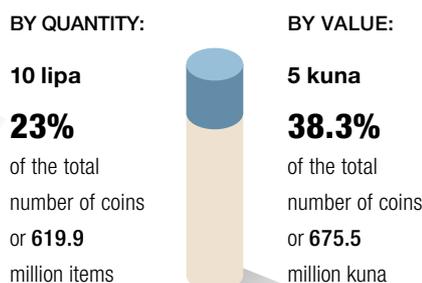


As at 31 Dec 2021, **291.7 million** banknotes worth **HRK 42.5 billion** were in circulation outside the CNB and its cash centres, including the balance at banks' cash desks and in their vaults

MOST REPRESENTED BANKNOTES IN 2021



MOST REPRESENTED COINS IN 2021



Source: CNB.

The large share of 200 kuna banknotes in total banknotes outside the CNB vault and CCs is due to their widespread use in ATM withdrawals.

Of coins in circulation, the most numerous were 10 lipa coins (619.9 million pieces, or 23% of the total number of coins outside the CNB vault and CCs). In terms of value, 5 kuna coins accounted for the largest share (HRK 675,5m, or 38.3% of the total value of coins outside the CNB vault and CCs).

Issues of commemorative coins and numismatic coin sets

In 2021, the CNB released two issues of 25 kuna commemorative circulation coins, one marking the “World Children's Day, 20 November 2021”

and the other marking the “75th Anniversary of the Founding of the Croatian Association of Technical Culture, 1946 – 2021”.

In addition to the 25 kuna commemorative circulation coin, the CNB also released several issues of commemorative gold and silver coins marking important historical, political, scientific and cultural events for the Republic of Croatia.

Following the Golden Kuna in 2020, commemorative gold coins of 2 kuna are the second issue of coins in the investment gold series featuring a motif of circulation coins.

The Croatian National Bank also issued numismatic sets of commemorative gold and

Figure 6.8 Numismatic sets and commemorative coins

COMMEMORATIVE
COLOURED SILVER
COINS OF
20 kuna
and
10 kuna
featuring the motif
“Dalmatian Dog”



COMMEMORATIVE
GOLD COINS OF
2 kuna



COMMEMORATIVE
GOLD COINS OF
1,000, 250,
50 kuna
and
1,000 kuna
coloured gold coins
featuring the motif
“Dalmatian Dog”



Source: CNB.

Issues of
commemorative
coins



25 kuna

“World Children’s Day, 20 November 2021”

silver coins of nominal value of 5, 2 and 1 kuna and 50, 20, 10, 5, 2 and 1 lipa with motifs of nine denominations of circulation coins in the Republic of Croatia with the year of mint and issue 2021 “Independence Day, 25 June 2021”.

The year 2021 was concluded with the issue of a numismatic set of Croatian coins in circulation with the year of issue 2021, which contains all kuna and lipa coins.

Counterfeit banknotes and coins and their prevention

In 2021, a total of 198 counterfeit kuna banknotes, worth a total of HRK 61,830.00, were registered, of which 96% were counterfeits of low reproduction quality. The number of registered counterfeit kuna banknotes increased by 26.1% from 2020. In 2021, the number of banknotes outside the CNB vault and CCs averaged 291.1m, and 0.7 counterfeits were detected per 1 million kuna circulation banknotes. In 2020, 0.6 counterfeits were detected per 1 million kuna banknotes.

In 2021, one counterfeit and in 2020 three counterfeits of 5 kuna coins were detected (5 kuna denomination).

With regard to foreign currencies, 609 counterfeits were registered in 2021 of which



25 kuna

“75th Anniversary of the Founding of the Croatian Association of Technical Culture, 1946 – 2021”.

346 were counterfeits of the US dollar, 228 of the euro, 19 of the Swiss franc, 14 of the pound sterling and one counterfeit each of the German mark and Swedish krona. The number of registered counterfeit euro banknotes decreased by nine pieces or 3.8% from 2020. The share of counterfeit euro banknotes of poor quality was 29.8%, or 68 banknotes, the share of those of medium quality was 42.1% or 96 banknotes and the share of good quality counterfeits was 25.9% or 59 banknotes, while five banknotes or 2.2% were of very good quality.

In 2021, there were 8,074 counterfeit euro coins registered, which is an increase of 7,257 coins or 888.3%.

In order to further familiarise the public with banknote authenticity checking, the Croatian National Bank released a series of [educational videos on the security features of kuna banknotes](#)¹. For each kuna banknote denomination, the CNB has made a video that explains in detail the authenticity checking procedure.

In 2021, an educational web application was developed under the title of National training programme for employees of banks and financial institutions for banknote and coin authentication, which consists of four educational programmes.

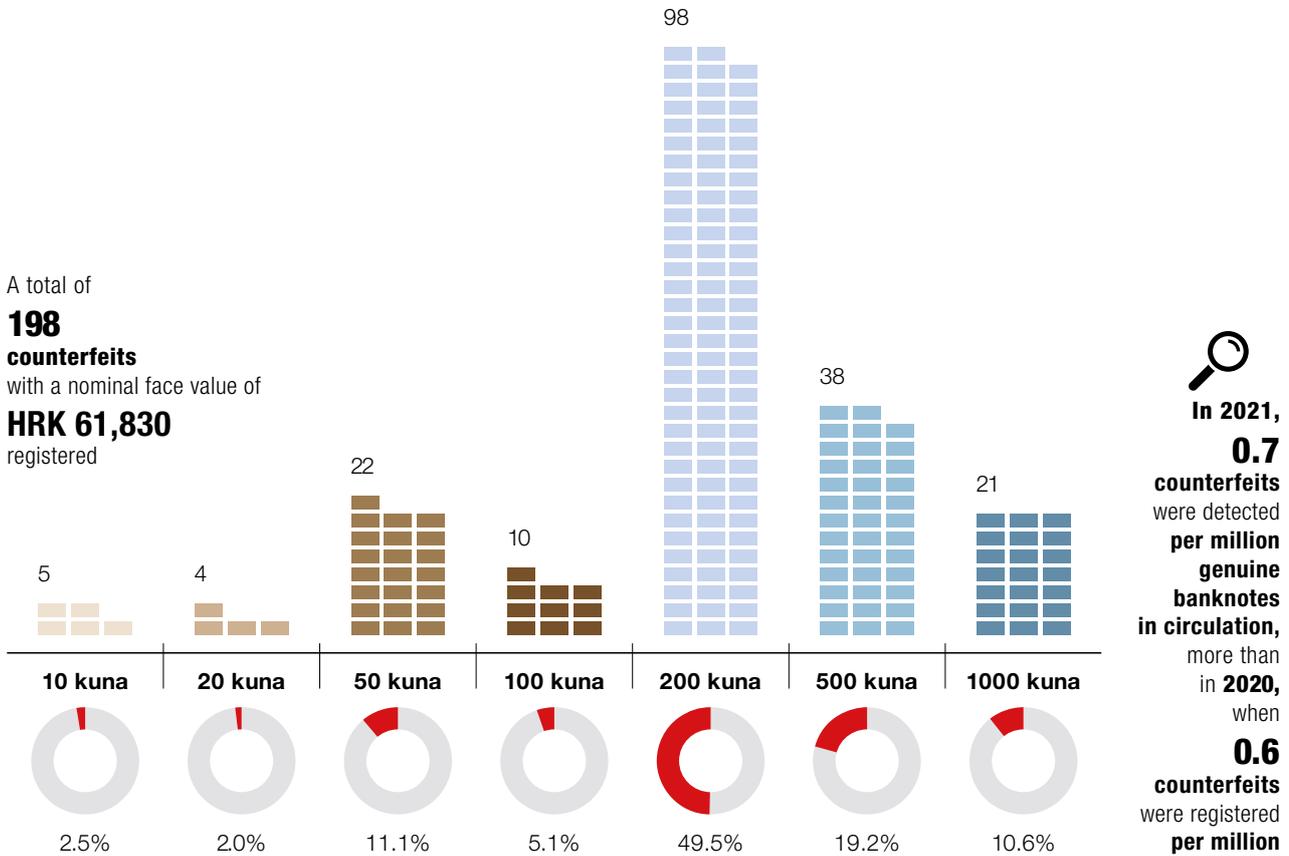
LINK NO

1



Following the Golden Kuna in 2020, commemorative gold coins of 2 kuna are the second issue of coins in the investment gold series featuring a motif of circulation coins.

Figure 6.9 Registered counterfeit kuna banknotes in 2021



Source: CNB.

Thus far, educational programmes for bodies subject to the **Decision on handling of unfit and suspect cash** ² and specialist training for employees of the Ministry of the Interior have been put into operation. The method and duration of training is suited to target specific

groups with the aim of achieving successful training in counterfeit currency identification and preventing attempts to release such currency into circulation. Training of employees working in retail and of the public will begin in mid-2022.

LINK NO **2**



FINTECH AND CENTRAL BANK DIGITAL CURRENCY

In the broadest sense of the word, FinTech means innovative technology-based financial products and services. It covers a wide range of topics in different areas of financial activity, which are widely influenced by constant, dynamic and market-driven changes. The development of central bank digital currency is one of the more popular economic topics to have been discussed in recent years and refers to digital currency that may be issued by central banks and used for payments by the public at large.

Development and activity of CNB Innovation Hub

The year 2021 saw further activities relating to CNB Innovation Hub, the communication and information platform set up in 2019 with the aim of providing non-binding and informal support to business entities developing an innovative FinTech product or service. The CNB monitors on an ongoing basis market trends in Croatia, the EU and globally so as to help interested business entities to determine if their innovative

financial solution is legally regulated and can be further elaborated in the framework of the Innovation Hub.

Last year, the Innovation Hub proved to be a place where regulators and new companies in banking and payment services could meet to consider FinTech business ideas and check their compliance with the existing regulations. As evident from queries and meetings held in the framework of the Innovation Hub, there

01

continues to be a growing interest in activities related to the provision of payment services, in particular regarding the possibility of providing payment services by including the purchase and sale of crypto assets or directly through crypto-assets as a means of payment (Figure 7.10).

As regards queries related to FinTech topics received by the CNB, the interest in crypto-assets, particularly for authorisations for the provision of services related to crypto-assets rose steeply in 2021, almost doubling from 2020 (Figure 7.11). Given great interest of the public in this topic and the association of crypto-assets with the CNB, the CNB issued warnings on several occasions of the risks related to investments in crypto-assets. Among others, it issued a press release [Upozorenje na rizike povezane s kriptoimovinom](#)¹ warning of the speculative nature of investments in

crypto-assets and a number of elements that investors (consumers) should take note of.

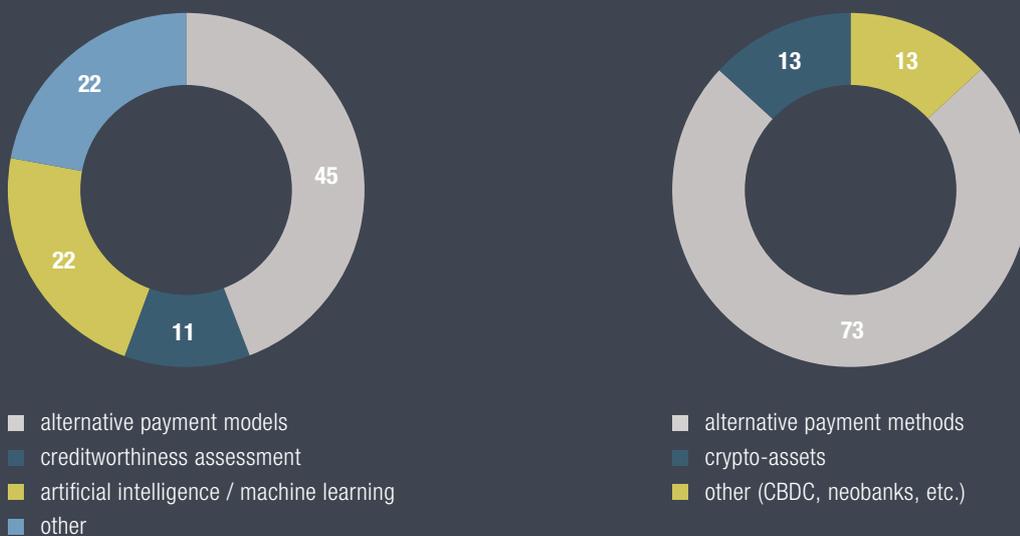
Issuing of central bank digital currency

The question of a possible issuing of central bank digital currency has become an important topic in recent years. It involves the possibility of issuing money in a digital form that would be directly guaranteed by the central bank. Many central banks have pilot projects underway and in 2021 we saw the first examples of actual placement of central bank digital currency in the Bahamas and Jamaica and pilot projects in China, Nigeria, Uruguay and Russia.

In 2021, the CNB applied for access to and participation in the digital euro project launched in 2021 by the European Central Bank (ECB), first as a two-year investigation phase during which it will aim to examine all the aspects and design options of the digital



Figure 6.10 Structure of topics covered in the Innovation Hub (left panel) and structure of queries of the public



Notes: The total number of FinTech topics covered in the Innovation Hub in 2021 is six. The total number of FinTech-related queries of the public is 15. CBDC refers to central bank digital currency.

Source: CNB.

LINK NO 1



euro and ultimately to consider a possible decision on its introduction. A **High Level Task Force on Digital Euro (HLTF)**¹, was set up within the ECB, consisting of representatives of the ECB and all euro area central banks, with the task of scrutinising the topic of digital euro design and reaching agreement on it. The CNB participates in the work of the HLTF as a standing observer.

LINK NO 2



The CNB is also included in the monitoring of the topic of central bank digital currency within the Bank for International Settlements. The CNB has joined the work of the **Bank for International Settlement Innovation Network, BISIN**², by taking part in a working group dealing specifically with the issue of central bank digital currency, CBCD. This work

LINK NO 3



involves setting problem tasks and trying to analyse them in a comprehensible manner so as to be able to use the knowledge acquired in the operation of the Innovation Hub and present it to the public appropriately.

The CNB continued to participate in the work of the **European Forum for Innovation Facilitators (EFIF)**³, a joint forum of three European financial market regulators, EBA/ESMA/EIOPA, the European Commission and the European Central Bank. Its activities were mainly directed towards setting up a joint digital platform, **EU Digital Finance Platform**⁴, to serve as a place of cooperation, information sharing and as a single contact point for FinTech reporting throughout the EU.

LINK NO 4



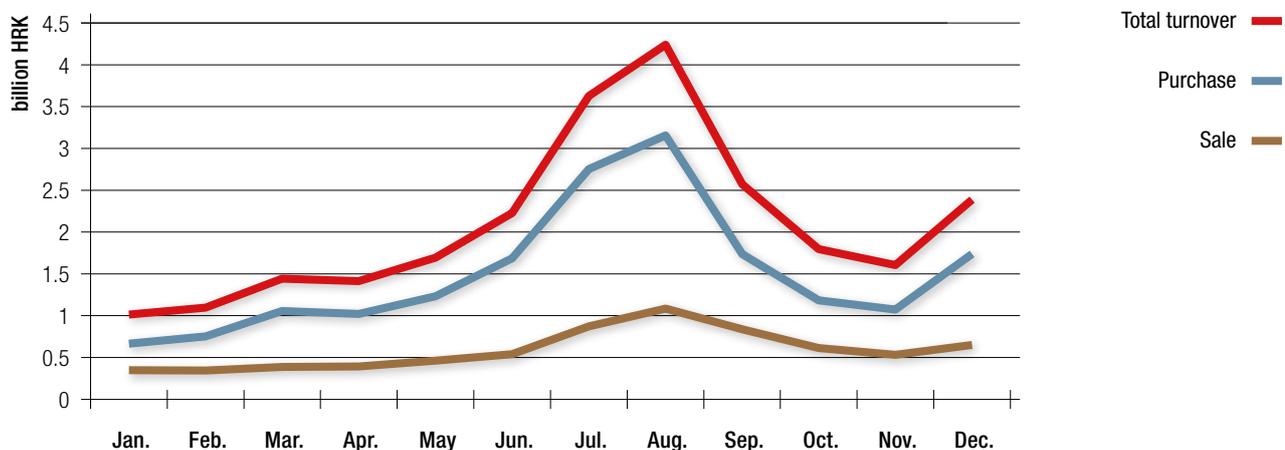
AUTHORISED CURRENCY EXCHANGE OFFICES

Towards the end of 2021, there were approximately 850 authorised currency exchange offices operating in Croatia, which traded in 31 currencies and generated a turnover of HRK 25.1bn, more than 87% of it in euro.

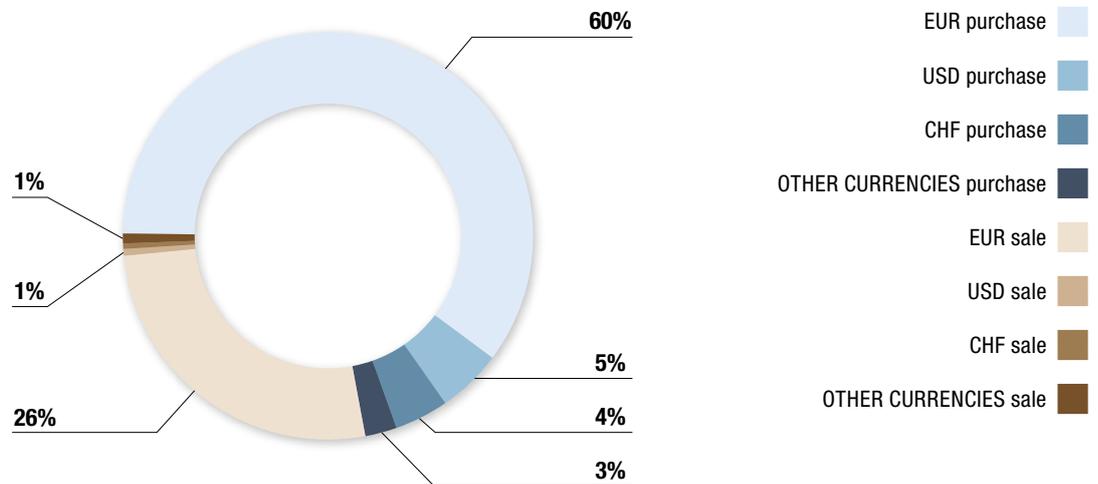
As at 31 December 2021, a total of 1,146 authorised exchange offices, to which the Croatian National Bank had issued authorisations to conduct currency exchange transactions, operated in the Republic of Croatia. About 850

of them actively provided the service of foreign cash exchange transactions, both throughout the year or seasonally, at about 3,500 exchange locations.

Figure 6.11 Movement of total turnover and purchase and sale of foreign cash in 2021



Source: CNB.

Figure 6.12 Share of purchase and sale of foreign cash by currency in total turnover in 2021

Source: CNB.

In 2021, the Croatian National Bank issued a total of 28 authorisations to conduct currency exchange transactions, 31 decisions on the withdrawal of authorisation to conduct currency exchange transactions and also recorded 39 authorisations that ceased to be valid as a matter of law, most frequently because a currency exchange office had been removed from the court register. In 2021, authorised currency exchange offices traded in 31 currencies and purchased from or sold to natural persons

foreign cash equivalent to HRK 25.11bn. Of that amount, purchase accounted for HRK 18.05bn, or 71.88%. The bulk of total authorised currency exchange offices' transactions (87.61%) were in euro. The kuna equivalent of the authorised currency exchange offices' total turnover in foreign cash was HRK 5.88bn greater (30.54%) than the year before, while the share of the euro in total turnover rose by 0.22 percentage points (an increase from 87.39% to 87.61%).



CNB IN THE EU AND THE INTERNATIONAL ENVIRONMENT

The CNB is a member of the European System of Central Banks, which supervises credit institutions with head offices in Croatia in close cooperation with the European Central Bank. CNB representatives also participate in the work of the European Systemic Risk Board, the European Banking Authority, the Single Supervisory Board and the working bodies of the Council of the European Union and the European Commission. The cooperation between the CNB and the IMF, BIS and other international financial institutions was intensive throughout 2021 as well, and technical cooperation activities continued.

A LOOK AT 2021: CNB IN THE EU AND THE INTERNATIONAL ENVIRONMENT

1

EU GRANTS

EUR 818.4m

In September 2021, Croatia received an advance payment of EUR 818.4m from the Recovery and Resilience Facility, out of a total of EUR 6.3bn of EU grants put at Croatia's disposal.

MORE ON PAGE 87

2

NEW GENERAL SDR ALLOCATION

SDR 687.6m

In August 2021, the IMF approved a new general SDR allocation, under which member countries received SDR 456.5bn (USD 650bn, the highest amount of allocated funds to date), of which SDR 687.6m were granted to Croatia.

MORE ON PAGE 89

3

CROATIA'S CONTRIBUTIONS TO IMF INITIATIVES

SDR 1.3m

The RC participated in two IMF initiatives aimed at providing support to low-income countries in 2021 by donating to the IMF fund to provide debt relief to heavily indebted countries and by making a donation to help Sudan.

MORE ON PAGE 89

INTERNATIONAL RELATIONS

The Croatian National Bank is a member of the European System of Central Banks and actively participates in the execution of the tasks falling within the competence of the General Council of the European Central Bank. Following Croatia's accession to the banking union in 2020 and the establishment of close supervisory cooperation with the ECB, CNB representatives were included in the work of the ECB Supervisory Board and the Single Resolution Board. The Governor of the CNB participates in the work of the European Systemic Risk Board, and CNB vice governors and experts are involved in the work of the European Banking Authority and working bodies of the Council of the European Union and the European Commission. The cooperation of the CNB with the IMF, BIS and other international financial institutions continued in 2021. The key event in the area of international cooperation in 2021 was the highest general allocation of IMF special drawing rights to date, under which Croatia received SDR 687.6m (EUR 832.3m¹).

Activities connected with EU membership European System of Central Banks (ESCB)

The CNB is an integral part of the European System of Central Banks (ESCB), and the CNB Governor is a fully-fledged member of the General Council of the European Central Bank (ECB). In 2021, the Governor participated in the regular quarterly meetings of the General Council, which dealt with macroeconomic, monetary and financial developments in the EU, monetary policy measures and imbalances and vulnerabilities in non-euro area member states and the functioning of the ERM II. In June 2021, the Governor presented the findings of research into the synchronisation of business cycles and the relative importance of symmetric and asymmetric shocks, carried out by CNB experts, at a General Council seminar.

CNB experts took part in the work of 15 ESCB committees, numerous sub-committees and

working groups that provide expert assistance to the General Council and other 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 participant 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 another CNB representative participate in regular quarterly meetings of the ESRB General Board. General Board meetings include discussions on systemic risks to the EU financial system and macroprudential policy measures, and the overall level of systemic risks in 2021 was, again, assessed as elevated.

1 According to the EUR/SDR exchange rate as at 23 August 2021, when the allocation was implemented.

Figure 7.1 European Central Bank, Eurosystem and the European System of Central Banks and decision-making bodies



Notes: Member states that have introduced the euro are Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain. Member states that have not introduced the euro are: Bulgaria, Croatia, the Czech Republic, Denmark, Hungary, Poland, Romania and Sweden.

Source: CNB.

One of the main sources of systemic risk is the high prices of financial assets that considerably diverge from factors that usually define them. A possible shift in monetary policy or a sudden withdrawal of fiscal economic support measures aimed at mitigating the consequences of the pandemic could reinforce any correction in the prices of financial assets. Significant risk also arises from the high levels of public debt, whose sustainability may be jeopardised if financing conditions tighten and economic recovery slows down. Prices of real estate increased further in 2021 under the influence of growing demand and favourable financing conditions, so the risk that they will be corrected is elevated.

LINK NO

1



CNB experts are involved in the work of the European Banking Authority (EBA) and take part in the meetings of EBA committees and working bodies. Competent vice governors also actively participate in the meetings of the **Board of Supervisors**¹ and the Resolution Committee.

LINK NO

2



EU banking union

After Croatia joined the banking union in 2020 as part of the preparations for the introduction of the euro, a designated CNB representative continued to participate in the work of the **Supervisory Board**² of the ECB with full voting rights. Furthermore, 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 are included in the work of more than 30 committees and working groups providing expert assistance to the Supervisory Board of the ECB and the Single Resolution Board.

EU Council and the European Commission (EC)

In 2021, CNB experts continued with their regular activities in the working bodies of the EU Council and the European Commission. The activities included the discussion of draft legislation and other EU acts and the participation in the preparation of the positions of the RC 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). The designated CNB representatives participated in the work of the Economic and Financial Committee (EFC), which promotes the coordination of national economic policies and discusses EU initiatives, such as completing the establishment of the banking union and building a capital market union.

Discussions about measures aimed at mitigating risk in the banking system and the proposal for establishing the European Deposit Insurance Scheme as the third pillar of the banking union continued in the working bodies of the Council, and negotiations regarding the proposed implementation of the remaining segments of the globally agreed upon regulatory framework for banks (Basel III) began. Within the context of European digital transition policy, new legislation that would support the increase in the operational resilience of financial systems and the introduction of regulations for the functioning of the crypto-assets market was discussed in the Council. Discussions on new measures for preventing money laundering and terrorist financing, including the proposal to establish a new European agency with supervisory powers at EU level, continued. In relation to the European green transition policy, member states continued to discuss sustainability in the area of financial services, with an emphasis on the further development of taxonomy and the adjustment of financial systems to climate risks.

In 2021, the implementation of the EU Recovery and Resilience Facility (RRF) began, under which member states are granted substantial financial aid in the form of grants and soft loans to finance the recovery from the crisis caused by the pandemic. In July 2021, the European Commission approved Croatia's National

Recovery and Resilience Plan and placed a total of EUR 6.3bn at Croatia's disposal, of which an advance payment of EUR 818.4m was disbursed to Croatia in September 2021. To finance the Recovery and Resilience Facility, in mid-2021, the European Commission started borrowing on capital markets and proposed changes in the EU's own funds system that include a gradual introduction of new European taxes.

Republic of Croatia and coordination of economic policies within the European Union

In 2021, the European Commission introduced certain changes to the European Semester process, the annual cycle of economic policy coordination of EU member states, by adjusting the manner of reporting on the economic situation in member states to the implementation of the Recovery and Resilience Facility. The usual Council recommendations to member states thus focused exclusively on fiscal policy in 2021. Under such circumstances, the general escape clause, allowing member states to depart from budgetary requirements, remained in force in 2021, providing more fiscal space to implement measures aimed at stimulating economic recovery.

In June 2021, the EU Council recommended that Croatia maintain a supportive fiscal stance in 2022 and, when economic conditions allow, that it pursue a fiscal policy aimed at ensuring fiscal sustainability in the medium term, at the same time enhancing investment to boost growth potential. In addition, it recommended that Croatia should implement fiscal structural reforms, including healthcare and social welfare system reforms, and prioritise investments supporting green and digital transition.

Upon performing a detailed analysis of the Croatian economy, in June 2021, the European Commission established that Croatia was still facing macroeconomic imbalances arising from

CNB representatives are included in the work of the ECB Supervisory Board and the Single Resolution Board.

The cooperation of the CNB with the IMF, BIS and other international financial institutions continued in 2021.

the high stocks of external, private and public debt in the context of low potential growth. The Commission considers that ambitious structural reforms are needed to contribute to productivity growth, increase public sector efficiency and improve the business environment. The banking sector is well capitalized and its asset quality improved over the past years, although the share of non-performing placements is still considered relatively high¹. In late 2021, at the beginning of the new European Semester, the EC concluded that in 2022 in-depth reviews of national economies would be conducted for Croatia and 11 other member states.

Other activities connected with the European Union

In addition to participating in the work of EU institutions and bodies, in 2021, 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 ECB and European Commission, particularly those related to preparations for the introduction of the euro, and the fifteenth annual dialogue between the CNB and the Austrian central bank.

International Monetary Fund (IMF)

The Republic of Croatia is a member of the constituency that is alternately headed by the Netherlands and Belgium. This constituency comprises 16 countries: Andorra, Armenia, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Georgia, Israel, Luxembourg, Moldova, Montenegro, the Netherlands, North Macedonia, Romania and Ukraine. This constituency, with 5.46% of the total votes in the Fund, has the fourth largest voting power in the IMF Executive Board, which consists of 24

Executive Directors. Furthermore, Croatia has the right to appoint a permanent representative to the position of advisor to executive director in the Executive Director Office. A representative of the CNB was appointed to that position in April 2021.

The CNB 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 887.8m²), based on which Croatia holds 0.17% of total voting rights in the IMF.

As part of the IMF's supervisory activities, in June 2021, the expert team in charge of Croatia conducted regular consultations with Croatia under Article IV of the IMF's Articles of Agreement and the [staff report on the Republic of Croatia](#)¹ was adopted at the meeting of the IMF Executive Board of Directors in late August. In the conclusion of the meeting, executive directors emphasised the resilience of the Croatian economy despite the challenges brought about by the pandemic and the consequences of two severe earthquakes. According to IMF staff projections adopted at the meeting, GDP increases of 5.4% and 5.8% were anticipated for 2021 and 2022 respectively, while over the medium term, growth was expected to ease closer to 3%. The report stresses a slower-than-expected recovery of Croatia's trading partners, slower EU funds absorption and failure to implement announced reforms as the most significant risks, while a more rapid and successful vaccination campaign would enable the economy to rebound faster. As regards

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1 For details, see chapter 3 Banking union: [Business operations of credit institutions](#)

2 According to the EUR/SDR exchange rate as at 31 December 2021.

fiscal policy, executive directors commended the efforts to achieve a balance between supporting recovery and maintaining a prudent fiscal policy as well as the readiness to continue providing support if necessary; on the other hand, they stressed the importance of avoiding further tax cuts. In the context of structural reforms, executive directors called for enhancing the capacity to absorb EU structural funds, particularly in the area of public investment management. They welcomed joining the ERM II in July 2020 and assessed the expansionary monetary stance as appropriate considering that the economy still needs to recover, but highlighted the need to remain vigilant over risks associated with the real estate market.

Cooperation and exchange of opinions with IMF experts during 2021 took place through the participation of Croatian representatives in regular Spring Meetings in April and the IMF and World Bank Annual Meeting in October (held in virtual form). As in the year before, the most discussed topics were the economic consequences of the pandemic and increased financial needs of member states.

The most significant move by the IMF in 2021 was the new general allocation of special drawing rights – SDR³, totalling SDR 456.5bn, the largest SDR allocation in history, aimed at meeting the increased global demand for reserves and supporting economic recovery. The funds were allocated to IMF member countries on 23 August, and the Republic of Croatia received SDR 687,595,635 (EUR 832.3m⁴). The new allocation, like all previous SDR allocations,

constitutes an integral part of the international reserves of the RC⁵.

Considering that the bulk of the SDR allocation was directed at developed countries, IMF is working on proposals for redirecting SDR to the most vulnerable member countries. A framework agreement on voluntary SDR channelling from countries with strong external positions to low-income and vulnerable countries via the new IMF fund, the Resilience and Sustainability Trust (RST), was achieved at the IMF and World Bank Annual Meeting. The establishment of the fund and its application is expected in 2022, and its purpose is to provide long-term funding for structural adjustments primarily associated with climate change and pandemic preparedness.

In 2021, the IMF continued to actively support heavily-indebted poor member countries and debt relief initiatives. Upon invitation by the IMF, Croatia participated in two such initiatives in 2021. In May, the Government of the RC adopted a decision on the donation of SDR 301,886 to the PRG-HIPC⁶ fund, and in July, SDR 1m was donated to support Sudan in settling its arrears to the IMF.

Cooperation with the Bank for International Settlements (BIS) and other international financial institutions

The Governor of the Croatian National Bank also participated in the work of the BIS in 2021, at which current issues in the area of international banking and finance were discussed by governors of BIS member central banks. In June 2021, the Governor participated in the

3 The SDR is an international reserve asset created by the IMF in 1969 to supplement international foreign reserves. Funds are allocated by general allocation to IMF member countries in proportion to each country's quota. SDR value is based on a basket of five currencies – the US dollar, euro, yuan renminbi, yen and pound sterling. SDR also serves as a unit of account by the IMF and some other international institutions.

4 According to the EUR/SDR exchange rate as at 23 August 2021.

5 For more details, see the chapter "International reserves management".

6 *Poverty Reduction and Growth – Heavily Indebted Poor Countries* (PRG-HIPC) Trust is a fund designed to assist heavily-indebted poor countries. The fund is managed by the IMF and used to finance debt relief for eligible member countries with arrears to the IMF under the Heavily Indebted Poor Countries – HIPC initiative (IMF and World Bank initiative aimed at aiding highly-indebted poor countries bring their debt down to a sustainable level).

The most significant move by the IMF in 2021 was the largest general allocation of IMF special drawing rights in history, as a part of which Croatia received SDR 687,6m (EUR 832.3m).

BIS Annual General Meeting, where it was decided that the BIS would pay out a “double” dividend of SDR 520 per share to its members: a regular dividend of SDR 265 and an extra dividend of SDR 255 to compensate for the dividend not paid out in 2020 due to low profit and circumstances caused by the pandemic. As a result, a dividend of SDR 1,269,320 was paid out to the CNB in July, which, according to the exchange rate applicable at the time, amounted to EUR 1.5m or HRK 11.4m. BIS dividends are normally paid out to all member central banks, i.e. BIS shareholders, and the CNB owns 2,441 shares or 0.43% of the total number of BIS shares.

In 2021, the Croatian National Bank, within its competence, continued to cooperate with other international financial institutions and organisations, primarily with multilateral development banks of which the Republic of Croatia is a member. Furthermore, in December 2021, the Republic of Croatia became a full member of the Asian Infrastructure Investment Bank (AIIB), and, as was the case with other international financial institutions of which the RC is a member, the CNB was appointed depository for the AIIB.

Other activities

In October 2021, the CNB hosted the annual conference of the **Vienna 2.0 Initiative**¹ in Split, where numerous current topics were discussed, including challenges faced by central banks amid the pandemic and the role of financial institutions in supporting green transition. The Vienna Initiative, whose Steering Committee is chaired by the Governor of the CNB, is a unique private-public sector platform bringing together international financial institutions, home and host country supervisory authorities and principal banking groups operating in Central, Eastern and South-eastern Europe, established to contribute

to the preservation of financial stability in the region. The Vienna Initiative was established at the peak of the global financial crisis with the aim of preventing a sudden outflow of capital from the banking systems of the countries of Central and Eastern Europe, and in the post-crisis period, it proved to be a useful platform for cross-border supervisory cooperation.

CNB representatives also participate in interdepartmental activities within the initiative promoting cooperation between 16 Central, Eastern and South-eastern European countries and China, the working group for the cooperation between the Republic of Croatia and Ukraine and the Commission for Development Cooperation and Humanitarian Aid Abroad.

Technical cooperation programmes

In 2021, CNB experts continued to transfer knowledge and experience to other institutions, primarily the central banks of EU candidate and potential candidate countries. However, the activities were slightly reduced in scope compared with the previous years. Aside from the diminished interest of potential beneficiaries due to the COVID-19 pandemic, the scope of technical cooperation was reduced mainly because two twinning projects in which the CNB participated were completed (support for financial services regulation in Montenegro and the strengthening of the institutional capacities of the National Bank of Serbia in the process of EU accession).

The third twinning project in which the CNB experts participated (the strengthening of the institutional capacity of the National Bank of the Republic of North Macedonia in the process of its accession to the ESCB) ended in March 2021. Despite the fact that due to the pandemic, most activities had to be performed virtually, the project was successfully completed, with

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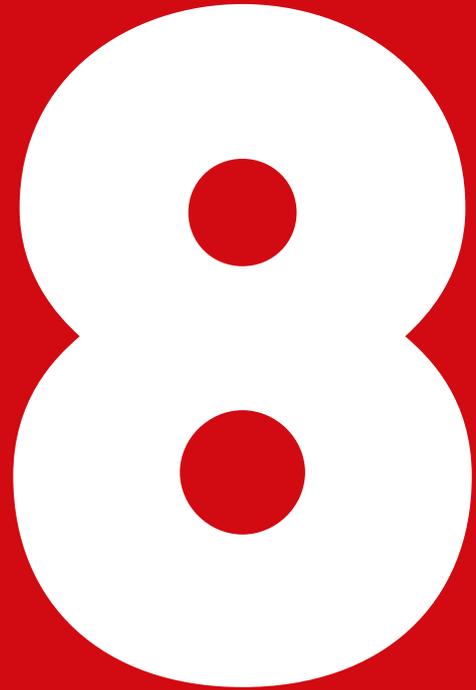


In 2021, the implementation of the EU Recovery and Resilience Facility began, under which member states are granted substantial financial aid to finance the recovery from the crisis caused by the pandemic.

CNB experts performing approximately 45% of all activities planned in the project in terms of expert days. The CNB was engaged in financial accounts statistics and in one part in activities related to payment systems and the application of banking regulations and practices related to the internal liquidity adequacy assessment process (ILAAP) and non-performing loans. In addition, a representative of the CNB was appointed Resident Twinning Advisor, in charge of coordinating all main project activities. As in other twinning projects thus far, the CNB participated as a junior partner, while Deutsche Bundesbank had the leading role.

In December 2021, the Regional Programme for Strengthening the Central Bank Capacities in the

Western Balkans with a View to the Integration to the European System of Central Banks, in which the CNB participated together with 19 other central banks of EU member states and the ECB, was successfully completed. In addition to three (out of a total of 20) training events on topics from the area of central banking hosted earlier by the CNB, CNB experts were included in two bilateral measures, of which one focused on monetary statistics for the central bank of Montenegro and the other on strengthening the international cooperation function of the central bank of North Macedonia. Preparations for the continuation of the programme, planned for the second half of 2022, are currently underway.



PUBLIC RELATIONS

The CNB continued to inform and educate the public about its activities by issuing press releases and publications, posting on social media, answering media queries and participating in conferences. In 2021, the CNB celebrated the 30th anniversary of its work as the central bank of the Republic of Croatia and preparations for Croatia's accession to the euro area continued, which intensified the communication with the public and the media. The first analysis of the susceptibility of credit institutions in Croatia to climate risk was made and the CNB made its Climate Pledge, strengthening its role as catalyst in fostering climate transition in the Republic of Croatia.

A LOOK AT 2021: PUBLIC RELATIONS

1**PRESS RELEASES
PUBLISHED****96**

A total of 96 press releases were published about CNB Council meetings, informing the public about economic and financial developments.

MORE ON PAGE 95**2****SOCIAL MEDIA****321**

A total of 321 posts were published via the CNB's official YouTube, Facebook, Twitter, LinkedIn and Flickr accounts.

MORE ON PAGE 95**3****QUERIES TO THE CNB****2,500**

The CNB answered almost 2,500 queries submitted to the central bank by citizens, corporations, media representatives and others.

MORE ON PAGE 97**4****FREE PROPOSALS OF
EURO COIN MOTIFS****11,000**

When rating the motifs on the national side of euro coins, citizens put forward more than 11,000 proposals, with the image of Nikola Tesla as the dominant motif.

MORE ON PAGE 97**5****EURO COIN DESIGN
PROPOSALS****1,299**

A total of 1,299 individual design proposals were submitted to the competition for the selection of euro coin national side designs.

MORE ON PAGE 97**6****COMPREHENSIVE
CLIMATE STRATEGY****2/20**

Out of 20 surveyed banks, only two had incorporated a climate strategy in their business strategy by the beginning of 2021.

MORE ON PAGE 99

PUBLIC RELATIONS

Communication activities in 2021 were marked by the celebration of the 30th anniversary of the CNB's work as the central bank of the Republic of Croatia. Other communication activities included regularly informing and educating the public about the CNB's work and objectives and measures to achieve them. Furthermore, after the National Euro Changeover Plan was adopted in late 2020 and the Steering Committee and coordination committees were established to administer its implementation, the Croatian National Bank continued with preparations for the introduction of the euro and intensified communication on the subject.

In 2021, the Croatian National Bank continued to inform and educate the public about its activities. Press releases on CNB Council decisions were regularly issued after Council meetings, informing the public about economic and financial developments in the country and the still relevant effect of the pandemic on the economy. A total of 96 press releases were published in 2021: in addition to press releases from the CNB Council meetings, the media received timely reports on all other CNB areas of operation. In order to present the work of CNB experts in the best way possible, special efforts were made to present the data, analyses and publications published by the CNB to the media. Press releases related to events and conferences organised by the CNB were regularly published as well.

The CNB responded to numerous queries from the press to acquaint them with the work of the central bank and the activities preceding the introduction of the euro. Officials and employees appeared in the media and participated in conferences to introduce such topics to the wider public.

The main communication channel used in 2021 was the website of the Croatian National Bank, www.hnb.hr¹. News regarding CNB work, regulations and measures related to central bank areas of operation are published on the website, alongside research and working papers of bank employees. The CNB also put in special efforts in communicating via the bank's official YouTube, Facebook, Twitter, LinkedIn and Flickr accounts, with a total of 321 posts in 2021. The greatest impact and the largest number of comments were achieved by posts related to the invitation of citizens to participate in the selection of the euro coin national side motif and the information on the repeated competition for the selection of euro coin national side design, which indicates the keen interest of the wider public in the topic of euro adoption.

Furthermore, the mHNB mobile application providing users with service information (exchange rate list, information list with the offer of loans to consumers and bank fee comparison) was installed on a total of 16,647 devices from its launch to the end of 2021, 2,812 in 2021.

LINK NO ¹





Boris Vujčić



Željko Rohatinski



Marko Škreb

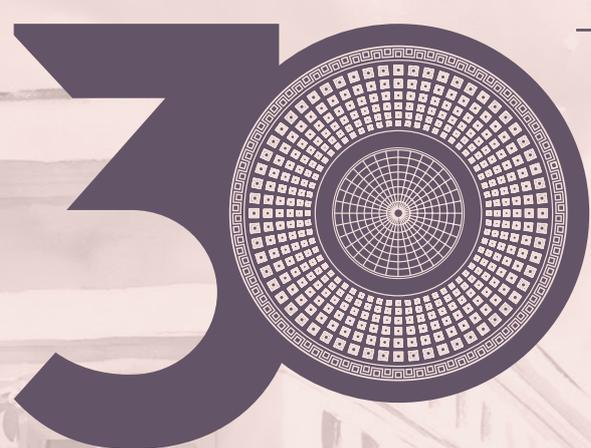


Pero Jurković



Ante Čičin-Šain

THIRTY YEARS OF THE CROATIAN NATIONAL BANK



In 2021, the Croatian National Bank celebrated its 30th anniversary. The Constitution defined the National Bank of Croatia as the central bank in 1990, and the Regulation on the National Bank of Croatia was adopted in 23 December 1991. A central bank was thus established that has shaped and steered the monetary policy of independent Croatia ever since. A publication on the thirty years of challenge marking the history of the central bank was published by the CNB, and the fourth CNB Research Conference, held on 16 December, was dedicated to the CNB's 30th anniversary. Speakers and panellists discussed the monetary policy in the first thirty years of the central bank and gave their views of the future, forecasting the new challenges that await. The anniversary was celebrated by a formal ceremony with speeches held by the President of the Republic of Croatia Zoran Milanović, the Prime Minister of the Government of the Republic of Croatia Andrej Plenković, the Vice-President of the Croatian Parliament Željko Reiner, the Governor of the Croatian National Bank Boris Vujčić and the former governor Marko Škreb.



THIRTY YEARS OF CHALLENGE

CROATIAN NATIONAL BANK

maintaining the general liquidity of payments in the country and abroad. Pursuant to the Constitutional Act on Amendments to the Constitution of the Republic of Croatia of 25 December 1991, the name of the central bank was changed to the Croatian National Bank.

Introducing the Croatian national currency

On 23 December 1991, the Yugoslav dinar was replaced by the Croatian dinar, as a transitional and interim currency of the Croatian state. The exchange rate was set at a rate of 1:1, and on 1 January 1992, the Croatian dinar became the sole legal tender in the Republic of Croatia. At the same time, the National Bank of Croatia also established and published the first daily exchange rate list, with the rate set at 55 Croatian dinars for 3 German marks. This meant a devaluation of the currency, since the official rate in late 1991 stood at 13 dinars for 1 German mark, while the price of 1 mark on the free market was approximately 57 dinars.

The Croatian dinar was a temporary and interim solution to create a solid foundation for introducing a stable national currency. Since inflation was extremely high at the time, the Croatian dinar was issued by the Ministry of Finance instead of the central bank, bearing the signature of the Minister of Finance. Coins were not issued due to high inflation.

Kuna – the official currency of the Republic of Croatia since 30 May 1994

Stabilising prices, building international reserves and creating the conditions for the development of the economy paved the way for the introduction of the kuna. The kuna was introduced as the official currency of the Republic of Croatia on Saturday, 30 May 1994, being heralded, then Governor, observed on the occasion that, with its national emblem, flag, coat of arms and official currency, the Republic of Croatia was furnished with the most important symbols of its sovereignty and independence.

At the time of the kuna's introduction, prices had been stable for seven months, while international reserves reached USD 800 million. 1 kuna stood at 1,000 Croatian dinars, and in addition to banknotes, 1,000 kuna and 100 kuna coins were introduced. At the time, the kuna and 100 kuna coins were introduced, the kuna was the official currency of the Republic of Croatia from the Croatian dinar to the kuna was smoothly.

During the last 30 years, the CNB has printed over 1.3 billion banknotes, with a total value exceeding HRK 186 billion, and minted 2.8 billion pieces of coins, with a total value of HRK 1.9 billion.

Croatian Dalmatian Region – the first release of the commemorative 25 kuna circulation coin

It was not until the peaceful reintegration of occupied territories that the process of introducing the kuna across the entire territory of the Republic of Croatia was completed. On 19 May 1997, the kuna was introduced to the Croatian Dalmatian Region as the official means of payment, followed by the establishment of a payments system in that region.

On this occasion, Marko Škreb, Governor of the CNB at the time, in his address to the deputies of the Croatian Parliament said:

Without doubt, the most important event of 1997 was the full integration of the Croatian Dalmatian Region into the economic and financial system of the Republic of Croatia. Through the introduction of the kuna as the legal means of payment, as well as the integration of the payments system across the country, our Croatian kuna has become the only legal currency. Financial integration was done rapidly and professionally. The Croatian National Bank, along with other institutions, made a considerable contribution to this historic event.

The commemorative 25 kuna circulation coin was in fact first issued on 26 May 1997 to mark the completion of peaceful reintegration, under the name of "Croatian Dalmatian Region".

In addition to commemorative circulation coins, and to cater to the demands of collectors and sellers of numismatics, the CNB also issues and sells sets of the Croatian dinar and the Croatian kuna sets of coins, commemorative gold banknotes, sets of coins, commemorative gold

and silver coins, gold medals and souvenir coins, most often to celebrate important anniversaries or events.

The past 30 years saw the release of:

- 8,000 gold medals
- 20,000 pieces of commemorative silver coins
- 58,550 numismatic sets of kuna and 100 kuna circulation coins
- 50,000 sets of kuna and 100 kuna circulation coins (issue from 1997)
- 6,000 numismatic sets of commemorative 25 kuna circulation coins.



25 KUNA - Croatian Dalmatian Region

The choice of motifs on Croatian euro coins sparked great public interest – 50,000 citizens rated the motifs and proposed 11,000 motifs of their own choosing.

Over the course of 2021, the CNB answered a total of 2,500 queries submitted to the central bank by citizens, corporations, media representatives, government institutions, embassies, and others.

The public showed the greatest interest in Croatia's preparations for accession to the euro area, most notably in euro coins, as euro coins vary from country to country and include information on the country of issue, i.e., the reverse of the coin shows the country's national symbols. In July 2021, after the Commission for the Selection of Design Proposals for the National Side of the Republic of Croatia on Euro Circulation Coins and the Currency Committee of the Croatian National Bank published their selection, citizens were invited to rate the proposed motifs. The choice of motif is particularly important because coins containing motifs symbolising Croatia will be used outside of Croatia's borders. The highest average rating was awarded to the chequer board, followed by the map of Croatia, Glagolitic script, the marten and Dubrovnik. Citizens put forward more than 11 000 proposals of their own, the bulk of which were for the image of Nikola Tesla. Following the rating process, the motif of the geographical map of Croatia was chosen for the reverse of the 2 euro coin, the marten for the reverse of the 1 euro coin, Nikola Tesla for the reverse of the 50, 20 and 10 cent coins and the Glagolitic script for the reverse of the 5, 2 and 1 cent coins. The chequer board as the most prominent feature of Croatia's coat of arms will be used as a background for all coins. The competition for the design of the national side of euro coins was launched in August, and a total of 1,299 individual design proposals were received by its end in September 2021.

The signing of the Memorandum of Understanding between the Republic of Croatia, euro area member states and the

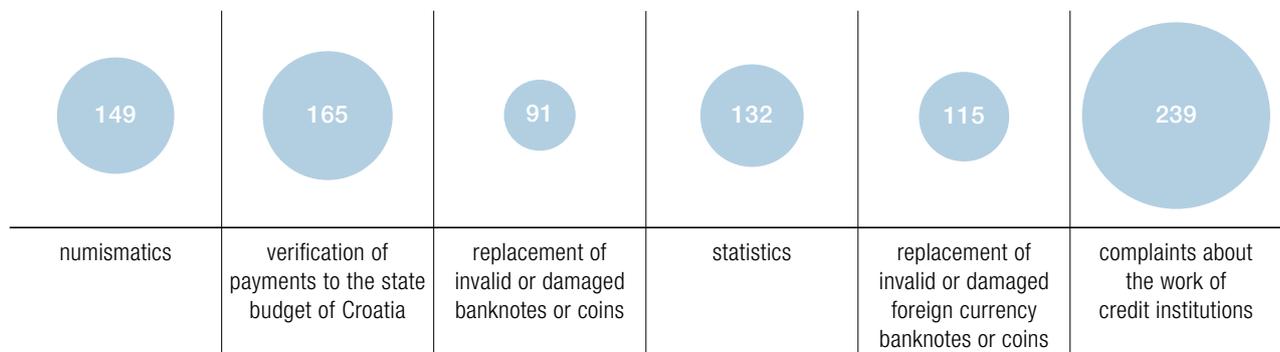
European Commission on the beginning of euro coin production and the preparatory activities ahead of the beginning of the production in September 2021 was an important milestone. "The Memorandum enables us to continue with preparatory activities related to the production of euro coins with the Croatian national side. It also marks an important step towards achieving our goal of making everything ready for the introduction of the euro in 2023, following the decision by the EU Council. We remain fully committed to attaining our goal of euro adoption," governor Boris Vujčić said on the occasion.

In 2021, the Croatian National Bank celebrated its 30th anniversary. The Constitution defined the National Bank of Croatia as the central bank in 1990, and the Regulation on the National Bank of Croatia was adopted in 23 December 1991. A central bank was thus established that has shaped and steered the monetary policy of independent Croatia ever since. A [publication](#) ¹ on the thirty years of challenge marking the history of the central bank was published by the CNB, and the fourth CNB Research Conference, held on 16 December, was dedicated to the CNB's 30th anniversary. Speakers and panellists discussed the monetary policy in the first thirty years of the central bank and gave their views of the future, forecasting the new challenges that await. The anniversary was celebrated by a formal ceremony with speeches given by the President of the Republic of Croatia Zoran Milanović, the Prime Minister of the Government of the Republic of Croatia Andrej Plenković, the Vice-President of the Croatian Parliament Željko Reiner, the Governor of the Croatian National Bank Boris Vujčić and the former governor Marko Škreb.

In 2021, the CNB continued to publish professional articles by CNB employees in its HNBlog. Articles covering current topics, such as the effect of the COVID-19 pandemic on payment habits in Croatia, GDP monitoring during the pandemic, central

LINK NO ¹



Figure 8.1 Citizen queries lodged with the CNB according to the most prominent topics in 2021

Source: CNB.

bank response to climate challenges and inflation and inflation perception in Croatia, have drawn great attention from the media and the public. Furthermore, four economic workshops were held in 2021, at which authors presented their papers.

LINK NO 1



The traditional annual **Dubrovnik Economic Conference**¹, the 27th in a row, was held in July. Papers and discussions dedicated to the European economy in the aftermath of the crisis caused by the coronavirus pandemic and the role of EU funds in its recovery were the central themes of the conference alongside changes in the labour market brought about by the crisis. Conference participants discussed the relation between fiscal and monetary policy in the new circumstances, the role of the European exchange rate mechanism, the role of sovereign ratings on the cost of private sector borrowing and bankruptcy proceedings in the corporate sector.

LINK NO 2



LINK NO 3



LINK NO 3



In September, the CNB organised the 4th international conference "**Balkan Network for Euro Protection**²", which gathered representatives of European institutions (European Commission, European Central Bank, Europol) and representatives of central banks,

the police, the judiciary and customs who are actively involved in the fight against banknote and coin counterfeiting.

Furthermore, the CNB hosted the annual conference organised by the European Bank Coordination **Vienna Initiative**³, held in October 2021 in Split. The Vienna Initiative is a unique public and private sector platform that brings together key international financial institutions, the European Commission, the ECB and relevant EU institutions, major cross-border banking groups and home and host country authorities. Their goal is to work to safeguard financial stability in countries of Central, Eastern and Southeastern Europe.

The CNB also stepped up its efforts in addressing the topic that central banks have recently greatly focused on – climate change and environmental degradation. In early 2021, the CNB carried out research into sustainability risks among Croatian banks and presented the results at the online conference "**The Role of Banks in Greening Our Economies**⁴", organised by the Croatian National Bank and the European Bank for Reconstruction and Development in April 2021.

CNB'S CONTRIBUTION TO TACKLING CLIMATE CHANGE

In 2021, the CNB took several significant steps towards incorporating climate change and caring about environmental sustainability into various area of its activity. Among other activities, it conducted a survey among domestic credit institutions on their climate-related and environmental risk management, held a conference on the role of banks in greening our economies, assessed the exposure of Croatian banks to climate risks, became a member of the Network for Greening the Financial System, made preparations for the establishment of a working group of the Vienna Initiative for climate risk evaluation and consideration in banking supervision and published its Climate Pledge.

Attitude of banks to climate-related and environmental risks

In early 2021, the CNB carried out a survey among all domestic credit institutions to explore the extent to which they are familiar with climate-related and environmental risks, whether they take such risks into account in their decision making and how they manage them. The survey has shown that banks assess their understanding of such risks as sufficient, but that most banks consider their exposure to such risks moderate or negligible. Only two banks had incorporated a comprehensive

climate strategy into their business strategy by the beginning of 2021, and most banks did not include climate risks in the categories of risks they usually monitor and report on. None of the institutions had conducted an analysis or a quantitative assessment of exposure to climate-related and environmental risks by the time the survey was carried out. Almost half of the banks included sustainable products in their offer, mostly green loans or loans for financing renewable energy sources, while the other half of the banks intend to do so. The survey has shown that credit

02

Banks assess that their exposure to climate-related and environmental risks is moderate or negligible.

institutions expect the regulatory authority to implement measures aimed at stimulating the development of sustainable products and to provide additional guidelines, training and partnership in adjusting their operations to climate transition.

Conference on the role of banks in greening our economies

In April, the CNB cooperated with the European Bank for Reconstruction and Development in hosting the online conference “**The Role of Banks in Greening Our Economies** ¹”, whose goal was to increase the understanding of the importance of sustainable financing and the role of banks and regulators in supporting climate transition and green economic growth. In his **introductory speech** ² at the conference, Governor Vujčić emphasised that it was the job of central bankers to be vigilant about all the risks that might jeopardize the stability of the financial system. He maintained that it was an obligation to understand the risks relating to climate change and the channels through which they might affect the pursuit of central bankers’ main aims. Furthermore, the Governor stressed that it was necessary to make sure that the participants in the financial system were equally aware of those risks. The keynote speech was delivered by Frank Elderson, member of the Executive Board of the ECB, vice-chair of the Supervisory Board of the ECB and chair of the Network for Greening the Financial System at the time. A video was shown at the conference presenting the main findings of the survey on the attitude of Croatian banks to climate-related and environmental risks.

LINK NO **1**



LINK NO **2**



LINK NO **3**



LINK NO **4**



LINK NO **5**



Assessment of banks’ exposure to climate risks

Applying the approach of Battiston et al.¹ the CNB assessed the exposure of **credit institutions in Croatia to physical and transition risks** ³ for the first time. The exposure to physical risk has been assessed based on the direct links to corporations in the sectors of energy, agriculture, fishery, forestry and tourism-related activities, and according to the results, such corporations accounted for 6% of total exposures of credit institutions or 27.5% of total exposures to non-financial corporations in 2020. The exposure to transition risk was assessed based on the credit institutions’ links to corporations grouped into five areas: fossil fuels, energy intensive activities, housing, utilities and transportation. The results have shown that the exposure of credit institutions to corporations engaged in the aforementioned activities accounted for 9% of total exposures or as much as 39% of all exposures to non-financial corporations in 2020. When exposures to corporations engaged in other activities with registered CO₂ emissions are added to the exposures mentioned above, the total exposure of credit institutions in 2020 climbs to 11%. This is the first ever analysis of sensitivity of credit institutions in Croatia to climate risks, and the CNB intends to include more granular data on climate change factors that may be associated with bank exposures into its analysis of risks to financial stability.

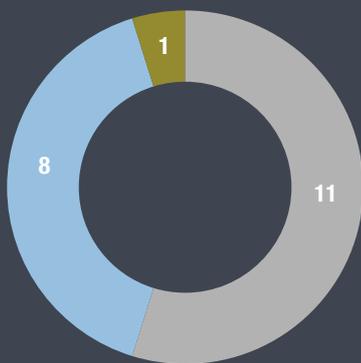
Membership in the Network for Greening the Financial System

In June 2021, the Croatian National Bank became a member of the **Network of Central Banks and Supervisors for Greening the Financial System** ⁴ in order to cooperate with other global central banks, supervisory

1 Battiston, S., A. Mandel, I. Monasterolo, F. Schütze and G. Visentin (2017): *A climate stress-test of the EU financial system*, *Nature Climate Change* 7, pp. 283-288.

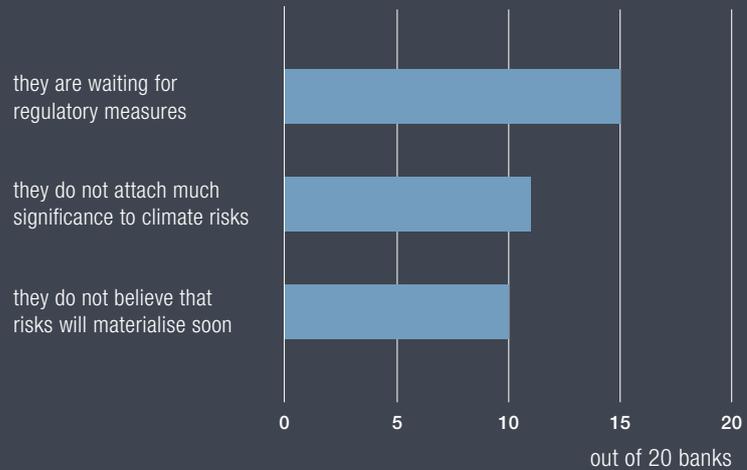
Figure 8.2 Climate changes and their importance to credit institutions

Banks assess that the effect of climate changes on their operations is:

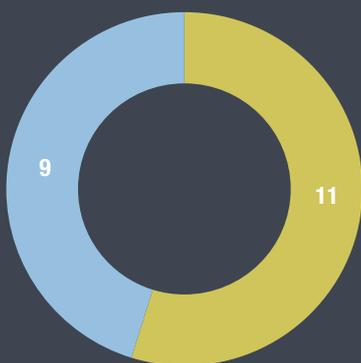


- significant
- moderate
- negligible

Banks still have not incorporated climate risks in their business strategy because:

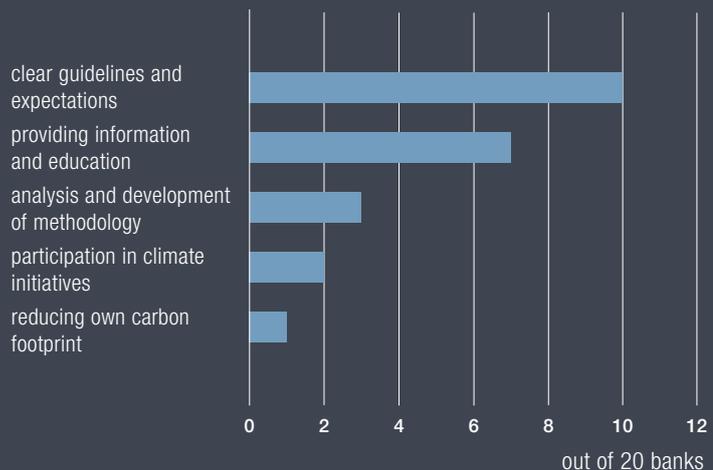


Although the “green” offer of banks has been modest for now,



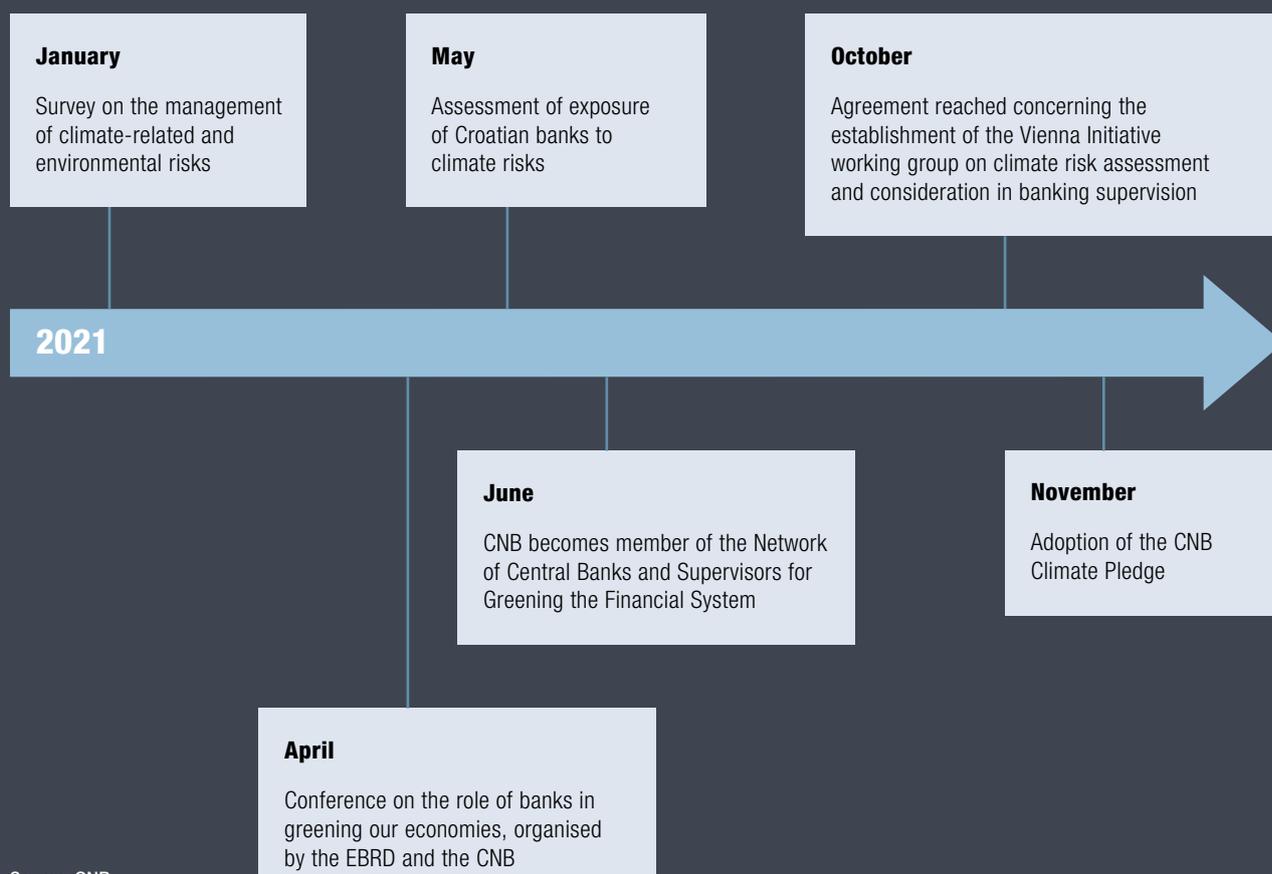
- the remaining banks intend to include “green” products into their offers soon
- almost half of the banks, accounting for 90% of total bank assets, have incorporated at least one “green” product into their offer

Banks expect the central bank to act as a partner in identifying, assessing and managing climate-related and environmental risks, i.e.:



* Green products include loans for energy-efficient construction and energy renovation, the purchase of electrical vehicles and investments undertaken to transition to sustainable sources of energy.

Figure 8.3 Timeline of CNB's activities addressing climate change



LINK NO

1



Box 5 Climate changes and their importance for credit institutions, Financial Stability No. 22, p. 53, May 2021¹

LINK NO

2



The Role of Banks in Greening Our Economies – "Climate and environmental risks as perceived by Croatian banks"²

LINK NO

3



Box 4 Action against climate change and greening of financial systems – the role of central banks, CNB Annual Report 2020, p. 124³

authorities and international financial institutions in the joint effort to shape an adequate response to the challenges posed by climate change and meet the goals set by the Paris Agreement. The Network currently includes 108 members and 17 observers. Its activities are distributed across five work streams, dedicated to the inclusion of climate change in important areas of central bank and supervisor competence – research, supervision, monetary policy and central bank investment, collection of statistical data, financial stability and the assessment of macroeconomic implications of climate change. The CNB has its representatives in four working groups.

Vienna Initiative working group for climate risk assessment and consideration in banking supervision

Green transition and fostering sustainable growth were some of the central topics of the [conference](#)⁴ held by the CNB in October in cooperation with the Vienna Initiative. The occasion was used to announce the establishment of the working group of the Vienna Initiative dedicated to climate risk assessment and consideration in banking supervision. The Croatian National Bank supported the establishment of the working group and announced that its establishment

and the CNB's engagement within the working group would be one of the CNB's Climate Pledge goals. The Vienna Initiative brings together key international financial institutions, the European Commission, the ECB and other relevant EU institutions, major cross-border banking groups and home and host country authorities of central, eastern and south eastern Europe. As such, the Vienna Initiative is an ideal platform for the exchange of information and know-how, cooperation, support and achieving consensus in terms of a harmonised approach to identifying and assessing climate-related and environmental risks and coordinating policies to contain them.

CNB Climate Pledge

In November 2021, on the occasion of the UN Climate Change Conference in Glasgow, the CNB published its [Climate Pledge](#)⁵, expressing its commitment to strengthening its catalytic role in fostering climate transition in Croatia. The Climate Pledge defines medium-term climate-related goals which reflect the CNB's commitment to encourage the adequate consideration of climate-related and environmental risks necessary to preserve financial stability against the backdrop of climate crisis, its support to directing financial flows towards a climate-neutral economy and its efforts to reduce its own carbon footprint.

LINK NO **4**



LINK NO **5**





HUMAN RESOURCES, ORGANISATION, MEMBERS OF THE COUNCIL AND INTERNAL ORGANISATION

The CNB continued to successfully adapt its human resources management and organisation of operations to the conditions of the pandemic and the consequences of the earthquakes throughout 2021. It carried on with its activities aimed at preserving the health of all employees and ensuring business continuity. Due to the increased workload, 41 new employees were hired; education continued, mostly in virtual form; scholarships and internships were awarded. The CNB promotes integrity and the highest ethical standards, as defined by its Code of Conduct. The purpose of the Code is to create the preconditions for ethical behaviour and responsible business conduct and promote organisational culture values.

A LOOK AT 2021: HUMAN RESOURCES, ORGANISATION, MEMBERS OF THE COUNCIL AND INTERNAL ORGANISATION

1**TOTAL NUMBER OF
PEOPLE EMPLOYED****711**

As at the end of 2021, the CNB had a staff of 711, which is 3% more than at the end of 2020. Of this number, 679 employees were in permanent employment and 32 in fixed-term employment.

MORE ON PAGE 108**2****SHARE OF WOMEN IN
THE TOTAL NUMBER OF
EMPLOYEES****65%**

The share of women in the total number of employees did not change from 2020, i.e., it still exceeds the share of men.

MORE ON PAGE 108**3****AVERAGE EMPLOYEE
AGE AND YEARS OF
EMPLOYMENT****46 and 21**

The average age of CNB employees is 46. The average years of work experience at the CNB and the average total years of employment amount to 15 and 21 respectively.

MORE ON PAGE 109**4****HIGHLY EDUCATED
EMPLOYEES****563**

Out of a total of 563 highly educated employees (79%), 141 have completed postgraduate studies.

MORE ON PAGE 109

HUMAN RESOURCES MANAGEMENT AND ORGANISATION

The goal of human resource management at the CNB is, as before, to attract, select, develop and retain experts of various profiles whose professional approach to work, knowledge, skills and competences coupled with a high level of commitment will contribute to the fulfilment of CNB operational objectives. Since, for the second consecutive year, the CNB had to operate in the conditions of the pandemic and the consequences of earthquakes, we adjusted the organisation of work to preserve our employees' health and ensure continuity in meeting all CNB obligations.

Organisation of operations in the conditions of the pandemic continues

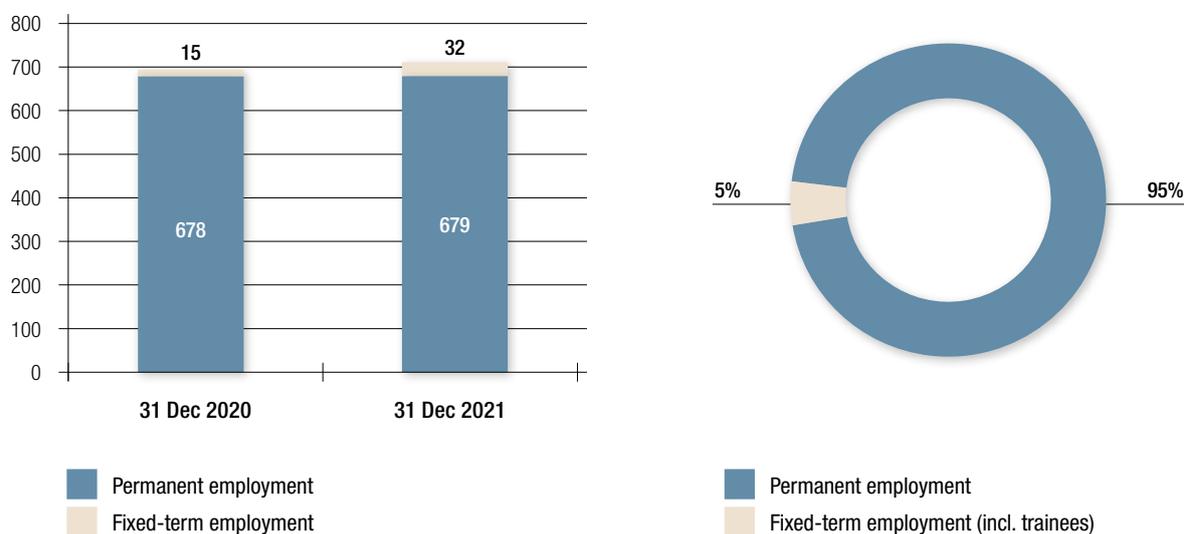
As the COVID-19 pandemic did not end in 2021 either, the CNB continued with the previously introduced activities aimed at preserving employees' health and ensuring business continuity. The application of unique rules in terms of working from home and implementing protection measures continued, and records were continuously kept of the infection among employees in order to prevent local transmission within the CNB. In June and July 2021, the CNB organised vaccination against COVID-19 in cooperation with the Croatian Institute of Public Health. These activities ensured the business continuity of all CNB functions, particularly those directed at citizens and the economy, and the epidemiological situation in CNB was sustainable and controlled.

Amendments to the Rules on internal organisation

The CNB is constantly adjusting its internal organisation in order successfully to meet its goals and perform the tasks arising from its ever-expanding and increasingly complex mandate. Amendments to the Rules on internal organisation, introduced in 2021, covered the Information Technology Area (Application Systems Development Department), the Research Area (Financial Stability Department), the Credit Institutions Resolvability Assessment Office and the Compliance Office.

In the Information Technology Area, or more precisely, the Application Systems Development Department, amendments referred to the change in the names of two divisions within the Department and to the description and

The CNB ensured operational continuity of all of its functions, particularly those directed at citizens and the economy, in the second year of the pandemic.

Figure 9.1 Employee number and structure according to type of employment

Source: CNB.

demarcation of jobs performed by the divisions. Design Division was thus renamed Data Warehouse Division and the Programming Division now bears the name Business Application Systems Development Division.

In the Research Area, or more precisely, the Financial Stability Department, amendments referred to more clearly defined job descriptions and functional unit names. Amendments were driven by regulatory changes (obligations assumed as a result of entry into the ERM II, the introduction of the CRD V regulatory package) and requirements from the Bank's external environment.

The Credit Institutions Resolvability Assessment Office was renamed Credit Institutions Resolutions Office as a result of the change in the role and activities of the Bank as the designated resolution authority. The name was changed in response to changes in regulations related to the resolution of credit institutions.

In the Compliance Office, responsibilities within the Office were defined in more detail and the number of core functional units was increased

as a result of the extended scope of operations which now includes money laundering and terrorism financing prevention at Bank level.

Recruitment and employment relationships

As at 31 December 2021, the Croatian National Bank had a staff of 711, or 3% more than at the end of 2020 (693). Of this number, 679 employees were in permanent employment and 32 in fixed-term employment, accounting for 5% of the total number of employees.

The majority of employees are women (459 or 65%). Given this circumstance, the CNB remains one of the few central banks in the ESCB that has a higher share of women in the structure of employees according to gender. A high percentage of women participate in management at all levels, and they work in almost all types of jobs (research, analytical, supervisory, legal, IT, etc.).

The effect of euro adoption on human resources

In 2021, mainly as a result of new jobs arising from the close cooperation with the ECB and the introduction of the euro, the CNB took on 41 new employees, of which 21 were employed

permanently and 20 for a fixed term. New employees are, by and large, professional economists and have been assigned jobs characterised by a lower level of complexity. A significant increase in the employment of IT specialists and graphic technology experts was recorded in 2021, which is attributable to the anticipated need to perform technical analyses (authentication) of banknotes and coins following euro adoption. This is due to the fact that combined application of special printing techniques in banknote production is one of the primary security features of banknotes, and currency authentication is performed exclusively at the CNB as the national anti-counterfeiting authority.

In 2021, a total of 20 employees left the CNB permanently, mostly due to retirement.

The average age of CNB employees is 46. They have an average of 21 years of employment

and the average years of work experience at the Bank remained unchanged from 2020, amounting to 15 years.

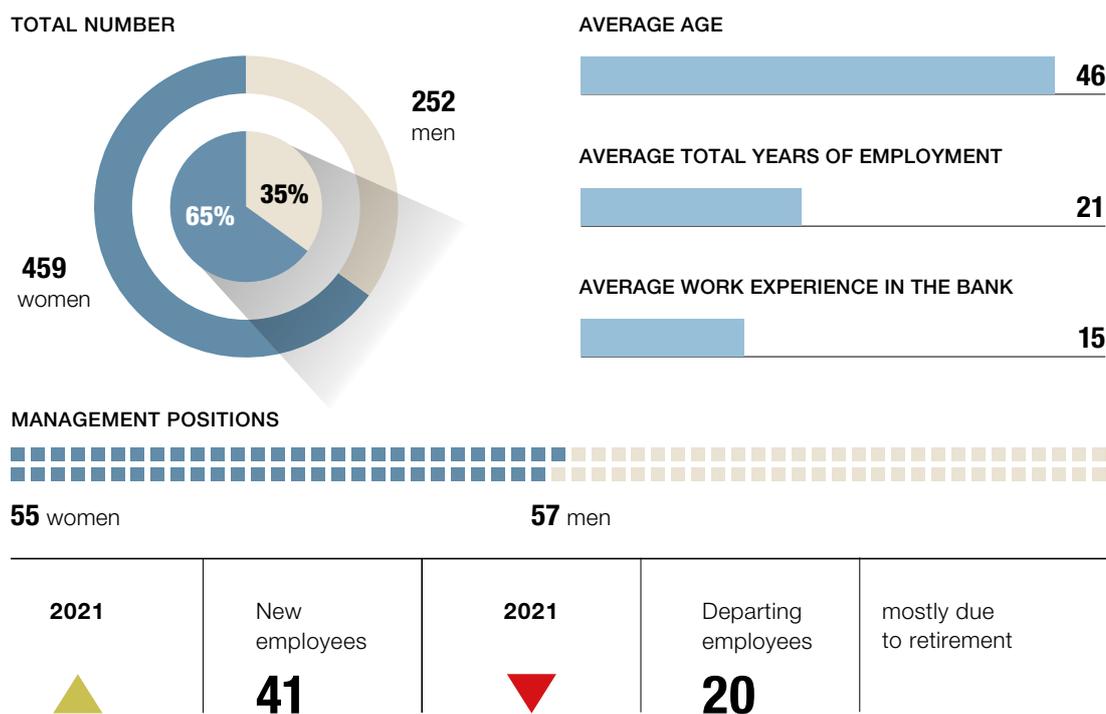
Given that the CNB supports and fosters an interdisciplinary approach to work, although most of the employees with higher education qualifications are professionals who come from the economics profession, the Bank employs a relatively large number of professionals from other social, natural, technical and other disciplines.

Out of a total of 563 employees with higher education qualifications, 141 have completed doctoral studies, master’s studies or another type of postgraduate study.

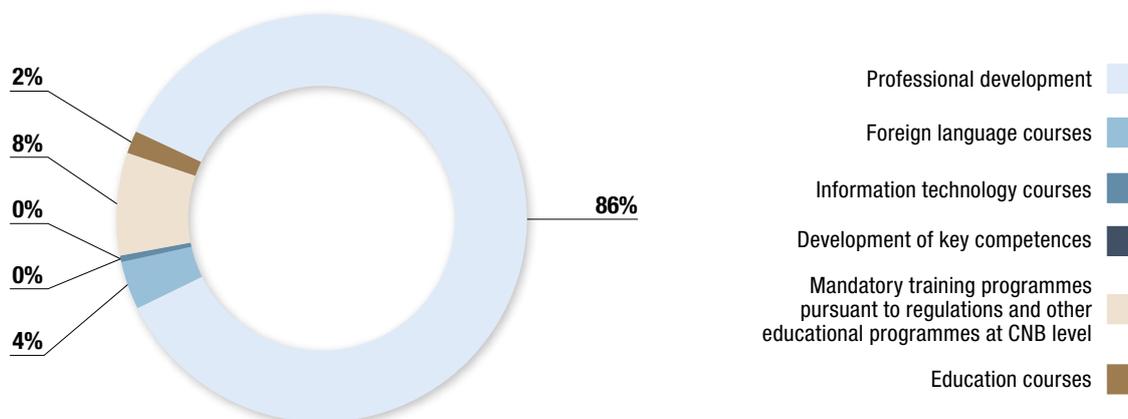
Employee development – employee education remained mostly virtual in 2021

The participation in educational programmes remained mostly virtual in 2021. A small number

Figure 9.2 Employee structure at the Croatian National Bank



Source: CNB.

Figure 9.3 Employee development by type of education

Source: CNB.

of educational activities was performed in person. This mainly refers to the participation of Bank employees in programmes taking place either within the Bank (e.g., training in Tableau, etc.) or in Croatia, under the mandatory application of prevention measures. The international programmes that CNB employees participated in also mainly took place online and the programmes were mostly organised by the ECB and the SSM.

The situation was similar with the participation in foreign language courses and other types of education, which were mainly conducted online as well.

Student scholarships and internship

Award of CNB scholarships

The CNB continued to award student scholarships in 2021, which proved to be one of the most successful ways to attract and obtain the appropriate profile of employees to work at the Bank.

In October 2021, the Croatian National Bank launched a competition for eight scholarships of the Croatian National Bank in the fields of economics, mathematics, information technology and graphic technology.

The competition attracted a total of 133 candidates (89 candidates from the field of economics, 16 candidates from the field of mathematics, 19 candidates from the field of information technology and nine from the field of graphic technology). After a comprehensive selection process, which included testing, expert interview and psychological assessment, the Human Resources Department, in cooperation with other organisational units, recommended Croatian National Bank scholarships be awarded to eight candidates.

Performing student internship at the CNB

Regardless of the pandemic, 45 applications were received for the competition for student internships (36 from the field of economics, eight from the field of mathematics and one from the field of information technology). Ten students were selected to carry out internship at the Croatian National Bank. Internship proved to be a successful means for familiarising students with central bank functions and operations and sparking their interest in working at the Bank.

CODE OF CONDUCT

As the central bank of the Republic of Croatia and a member of the European System of Central Banks, the Croatian National Bank promotes integrity and the highest ethical standards. Ethical values paramount to its independent, professional and public role are set out in the **Code of Conduct of the Employees of the Croatian National Bank**¹. The purpose of the Code is to create the preconditions for ethical behaviour and responsible business conduct and promote organisational culture values.

Principles of the Code

The Bank promotes responsible conduct, professionalism, independence, impartiality and transparent conduct among its employees, while the ethical rules and principles also apply, as appropriate, to all external agents participating in the performance of activities connected with the Bank's tasks. The Code of Conduct incorporates the provisions of the **Guideline of the European Central Bank laying down the principles of an Ethics Framework for the Single Supervisory Mechanism**^{2 1} containing ethics standards applying to all the central banks comprising the Single Supervisory Mechanism, including the Croatian National Bank.

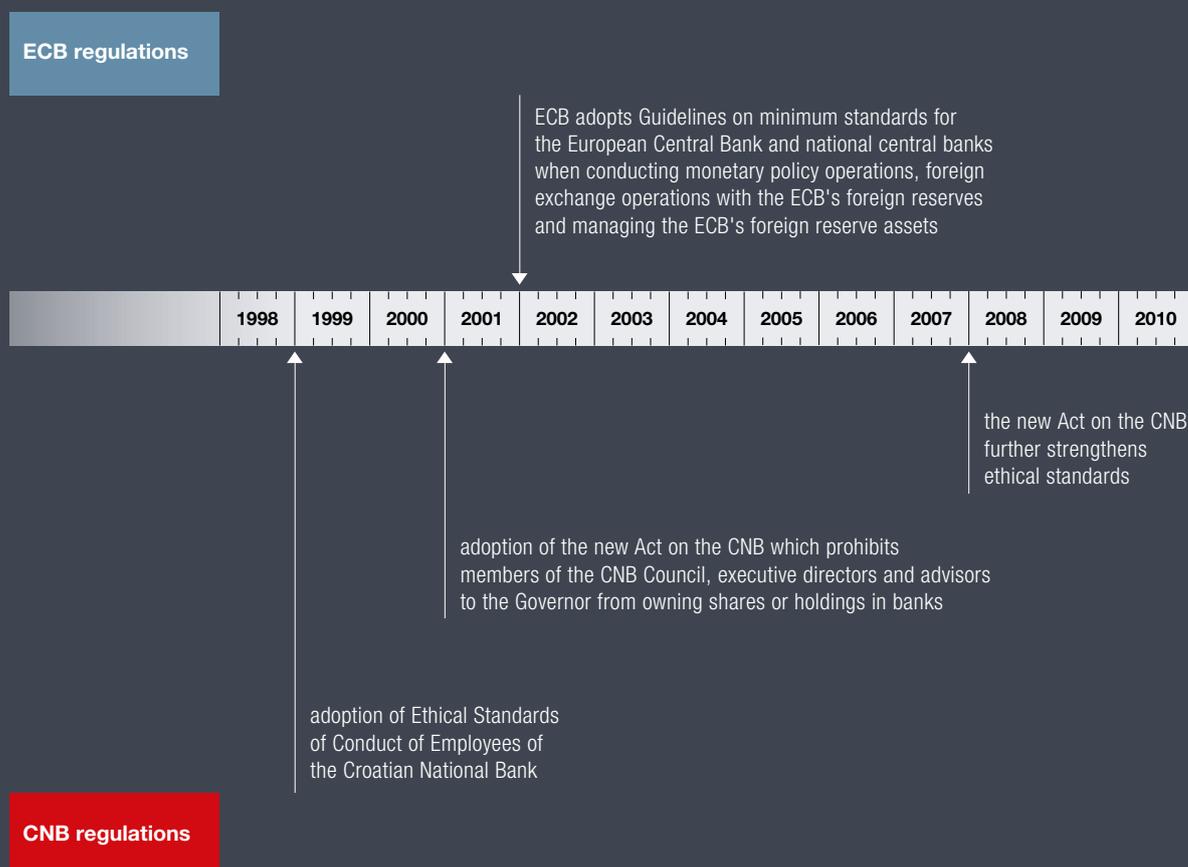
Promoting employee compliance and supervising the implementation of the Code of Conduct is the responsibility of the Compliance Office, the Bank's control function that reports directly to the Governor. The Office was established in September 2019 in line with the ECB good practice related to ethical compliance matters in order to implement various activities designed to familiarise employees with ethical rules and principles through education about ethics in the form of workshops, presentations, e-learning applications and individual counselling.

In 1999, the CNB adopted the Ethical Standards of Conduct of Employees of the

LINK NO **1**LINK NO **2**

1 (EU) 2015/856

Figure 9.4 Timeline of the introduction and development of CNB ethical standards



Croatian National Bank, and in 2001 the new Act on the Croatian National Bank was adopted, which prohibited members of the CNB Council, executive directors and advisors to the Governor as well as their spouses and children who are members of their household from owning shares or holdings in banks. These provisions were adopted one year before the European Central Bank adopted the [Guideline on minimum standards for the European Central Bank and national central banks when conducting monetary policy operations, foreign exchange operations with the ECB's foreign reserves and managing the ECB's foreign reserve assets](#)¹.

LINK NO

1



LINK NO

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3



The system for promoting ethical standards was further enhanced by the [Act on the Croatian National Bank](#)² from 2008 and the [Act on Amendments to the Act on the Croatian National Bank](#)³ from 2013, in which

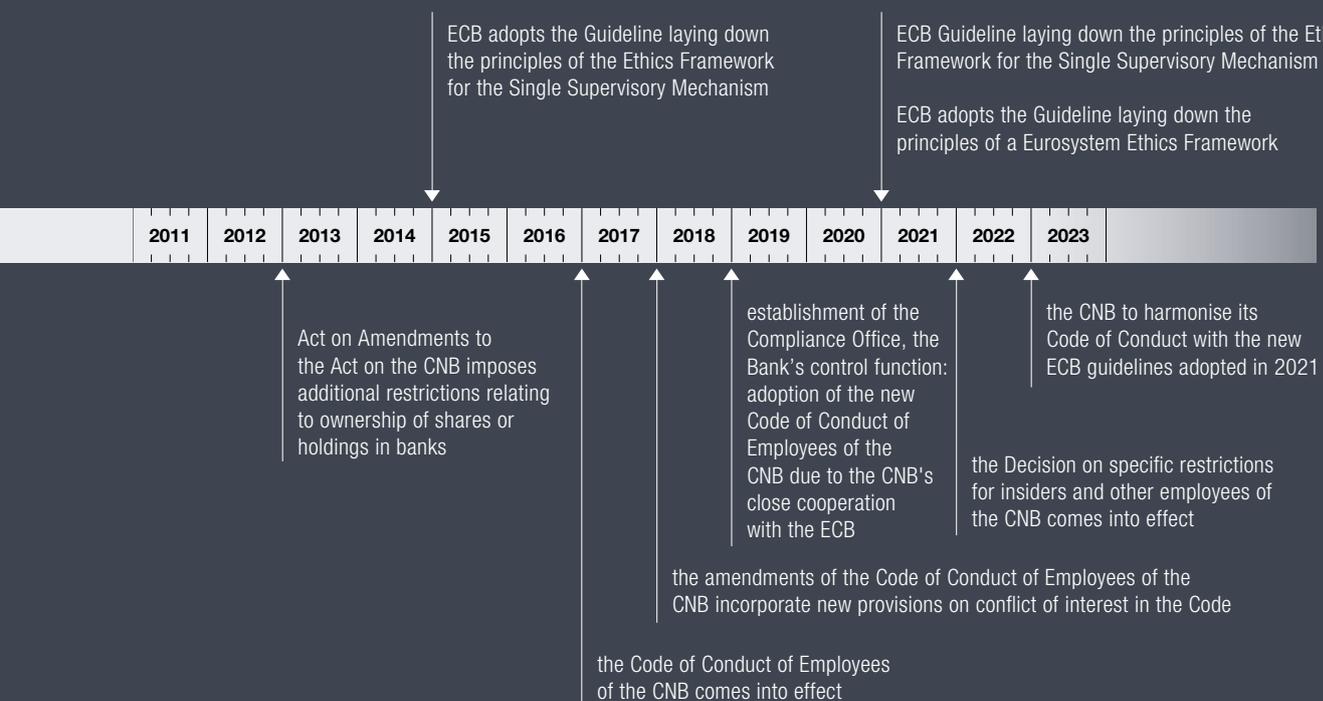
further restrictions were introduced relating to ownership of shares or holdings in Banks for members of the CNB Council and executive directors, with restrictions applicable, as of 2008, to all legal persons which are authorised by or whose operation is supervised by the Croatian National Bank.

Activities related to the application of the Code

The period from 2017 onwards was marked by intensified activities aimed at enhancing ethical principles and rules, their understanding and the supervision of their application. As a result, on 1 January 2017, the Code of Conduct of the Employees of the Croatian National Bank came into effect, and in August 2018, the Code of Conduct was amended to incorporate new provisions on conflict of interest. Furthermore, the Statute of the Croatian National Bank of 2018 extends the prohibition of ownership of

Activities related to the application of the Code

Further restrictions were introduced relating to ownership of shares or holdings in Banks for members of the CNB Council and executive directors, with restrictions applicable, as of 2008, to all legal persons which are authorised by or whose operation is supervised by the Croatian National Bank.



Source: CNB.

shares or holdings in legal persons which are authorised by the CNB or whose operations are supervised by the CNB to the chief operating officer and the chief economist.

By entering close cooperation with the European Central Bank in 2020, the [Guideline laying down the principles of an Ethics Framework for the Single Supervisory Mechanism](#)^{4,2} began applying to the CNB, which is why in late 2020, the new Code of Conduct of Employees of the CNB was adopted. In March 2022, the Decision on specific restrictions for insiders and other employees of the CNB came into effect. The Decision lays down the rule on the prohibition of misuse of inside information by governing in detail the specific restrictions for entering into critical private financial transactions applicable to employees having access to inside information (insiders and employees having

access). This means that, in comparison with the earlier regulations, the circle of persons to which the restrictions apply has been expanded further. New ECB guidelines from 2021, the [Guideline laying down the principles of an Ethics Framework for the Single Supervisory Mechanism](#)^{5,3} and the [Guideline laying down the principles of the Eurosystem Ethics Framework](#)^{6,4} additionally increase the transparency of the work of central banks and restrict investments in insurance firms or securities purchased by Eurosystem banks, and the CNB will harmonise its internal regulations with the guidelines by June 2023 by adopting a new Code of Conduct and a new Decision on specific restrictions for insiders and other employees of the CNB.

1 ESB/2002/6; 2 (EU) 2015/856; 3 (EU) 2021/2256; 4 (EU) 2021/2253

LINK NO 4



LINK NO 5



LINK NO 6



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, Vice-Governor

Bojan Fras, Vice-Governor

Martina Drvar, Vice-Governor (until 30 September 2021)

Slavko Tešija, Vice-Governor

Roman Šubić, Vice-Governor

Ivana Jakir-Bajo, Vice-Governor

Chief Economist: **Vedran Šošić**

Chief Operating Officer: **Tomislav Presečan**

Executive directors

Research Area

Controlling 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 Relations Area

Currency Area

Ljubinko Jankov

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

Boris Bušac

Zoran Jurak

Vjekoslav Kozina

Snježana Levar

Lidija Pranjić

Snježana Raić

Nina Srkalović

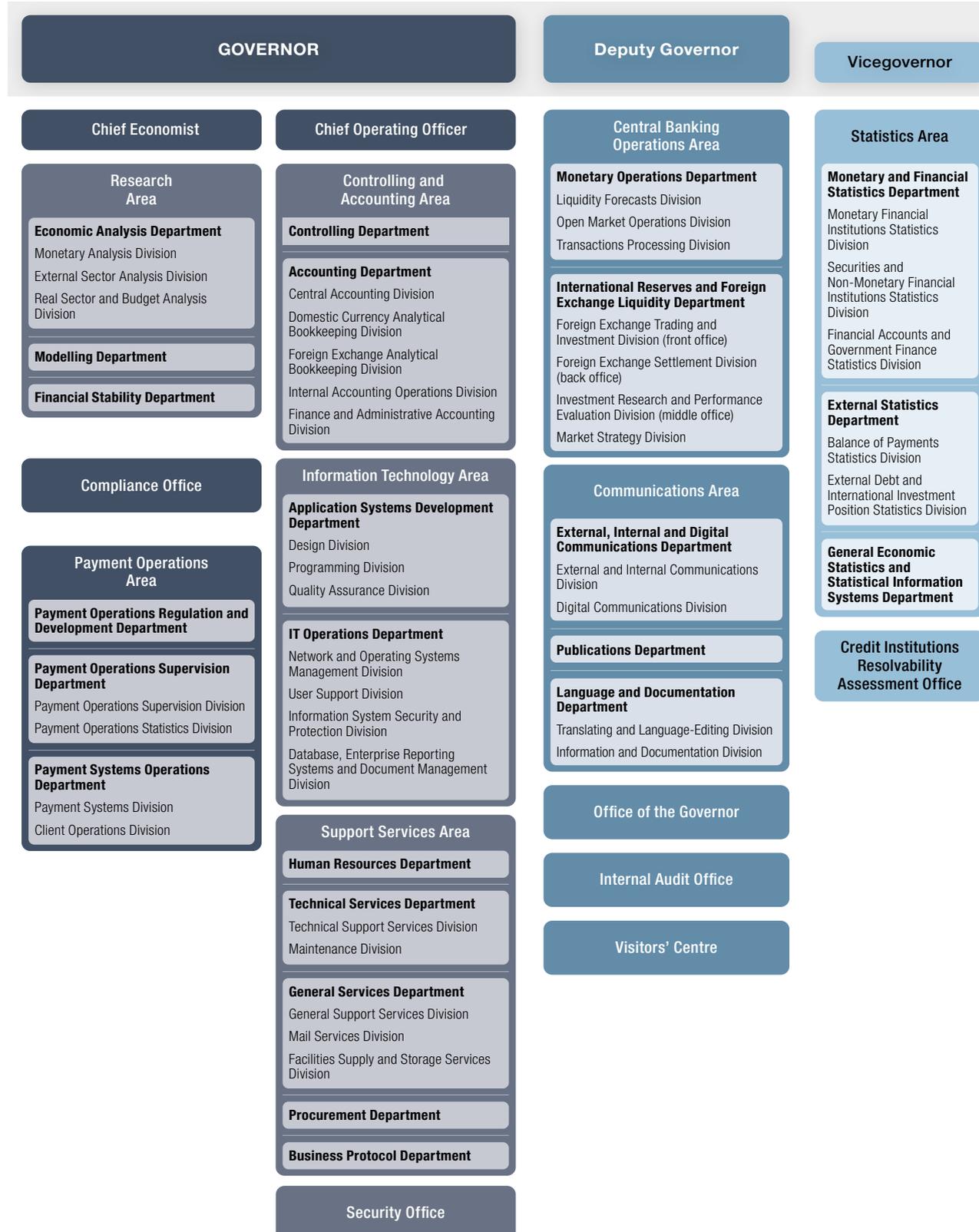
Mario Varjačić

Director of the Visitors' Centre

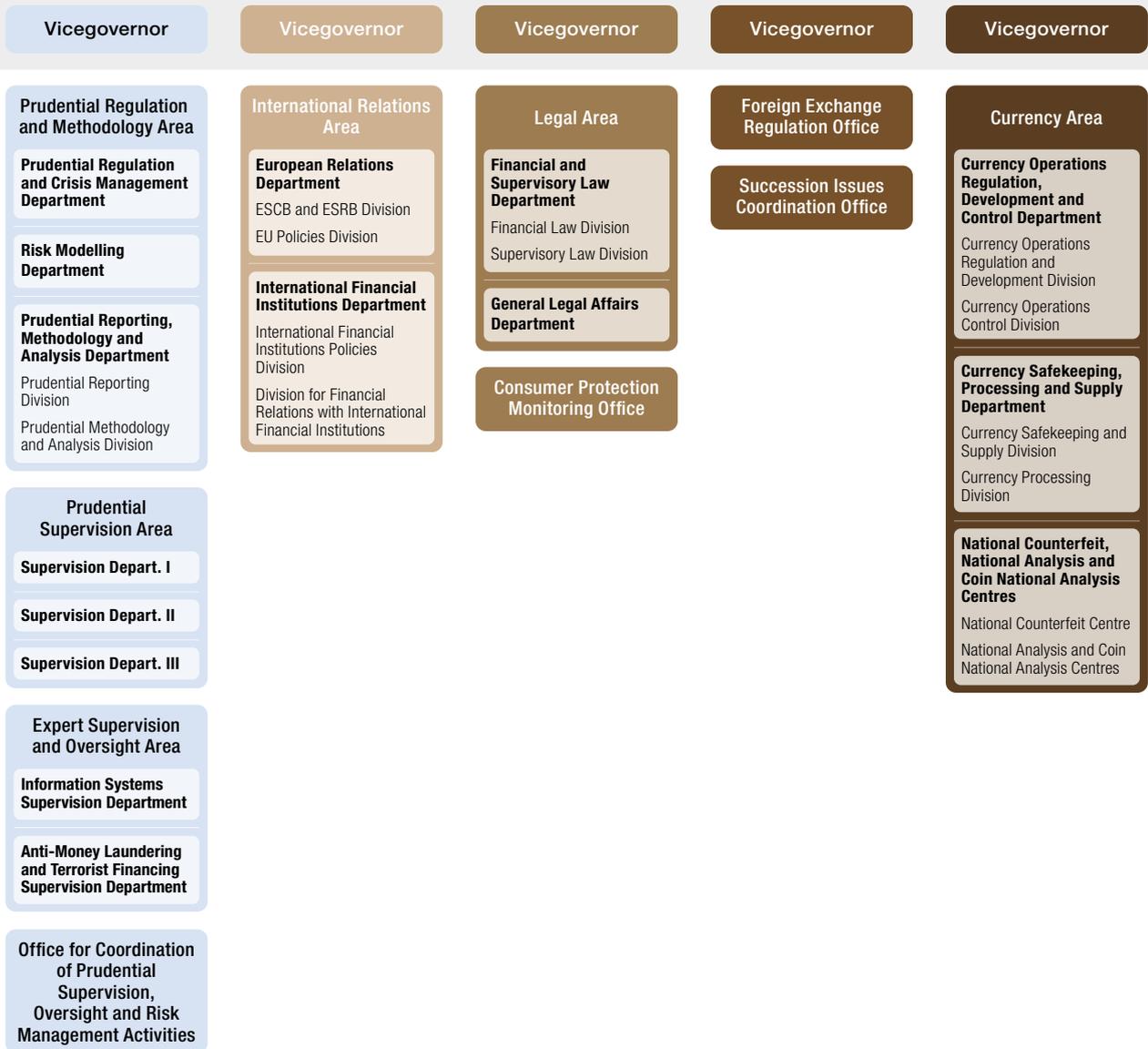
Visitors' Centre

Dejana Rebernik

Figure 9.5 Internal organisation of the Croatian National Bank



Source: CNB.



FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2021

This version of the financial statements and Auditors' report is a translation from the original, which was prepared in the Croatian language. All possible care has been taken to ensure that the translation is an accurate representation of the original. However, in all matters of interpretation of information, views or opinions, the original language version of the financial statements and Auditors' report takes precedence over translation.



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 2021, the profit and loss account for the year then ended, and notes, comprising significant 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 2021, 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.

Emphasis of Matter

We draw attention to note 1.2.1 *Basis of preparation*, which explains that the accompanying financial statements are the first financial statements of the Croatian National Bank prepared in accordance with the basis of preparation stated in that note. Transition to the new basis of preparation is further explained in notes 1.2.2 *Amendments to the Act on the Croatian National Bank related to the transition to the ECB Guideline*, 1.2.3 *The most significant changes in accounting policies* and 1.2.4 *Impact of changes in the accounting policies on the balance*. Our opinion is not modified in respect of this matter.

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 reporting process.



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 scepticism 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 control.
- 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 control.
- 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.

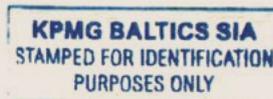


Independent Auditors' Report to the Council of the Croatian National Bank (continued)

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 1
Eurotower, 17. kat
Ivana Lučića 2a, 10000 Zagreb 1



KPMG Croatia d.o.o. za reviziju
Ivana Lučića 2a
10000 Zagreb
Croatia

KPMG Baltics AS
Vesetas iela 7
Rīga, LV 1013
Latvia

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

For and on behalf of KPMG Baltics AS

Goran Horvat
*President of the Management Board,
Croatian certified auditor*

Armine Movsisjana
Managing Partner

Zagreb, 15 March 2022

Rīga, 15 March 2022

BALANCE SHEET

(All amounts are expressed in thousands of kuna)

Assets	31/12/2021	1/1/2021
1. Gold and gold receivables	4,601	4,405
2. Claims on residents outside Croatia denominated in foreign currency	200,179,428	147,846,407
2.1 Receivables from the International Monetary Fund (IMF)	9,253,337	2,703,837
2.2 Balances with banks and security investments, external loans and other external assets	190,926,091	145,142,570
3. Claims on residents in Croatia denominated in foreign currency	–	–
4. Claims on residents outside Croatia denominated in kuna	–	–
4.1 Balances with banks, security investments and loans	–	–
4.2. Claims arising from the credit facility under Exchange Rate Mechanism (ERM) II	–	–
5. Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna	3,067,000	4,517,000
5.1 Regular operations	–	–
5.2 Structural operations	3,067,000	4,517,000
5.3 Fine-tuning operations	–	–
5.4 Overnight credits	–	–
6 Other claims on credit institutions from Croatia denominated in kuna	–	–
7 Securities of residents in Croatia denominated in kuna	18,357,930	19,842,649
7.1 Securities held for monetary policy purposes	18,357,930	19,842,649
7.2 Other securities	–	–
8 Other assets	1,332,428	1,335,408
8.1 Tangible and intangible fixed assets	645,652	610,168
8.2 Other financial assets	120,224	113,024
8.3 Off-balance-sheet instruments revaluation differences	27,336	–
8.4 Accruals and prepaid expenditure	506,635	527,469
8.5 Sundry	32,581	84,747
9 Loss for the year	–	–
Total	222,941,387	173,545,869

The notes on pages 127 to 174 form an integral part of these financial statements.

(All amounts are expressed in thousands of kuna)

Liabilities	31/12/2021	1/1/2021
1 Banknotes and coins in circulation	44,260,230	41,792,678
2 Liabilities to credit institutions from Croatia related to monetary policy operations denominated in kuna	103,934,113	83,235,638
2.1 Current accounts (covering the reserve requirement system)	103,934,113	83,235,638
2.2 Overnight deposits	–	–
2.3 Fixed-term deposits	–	–
2.4 Deposits related to margin calls	–	–
3 Other liabilities to credit institutions from Croatia denominated in kuna	92,888	270,124
4 Debt securities of the Croatian National Bank	–	–
5 Liabilities to other residents in Croatia denominated in kuna	14,385,151	16,342,330
5.1 General government	14,142,448	16,230,669
5.2 Other liabilities	242,703	111,661
6 Liabilities to residents outside Croatia denominated in kuna	474,754	287,910
7 Liabilities to residents in Croatia denominated in foreign currency	16,843,088	8,715,990
8 Liabilities to residents outside Croatia denominated in foreign currency	17,224,820	3,757,361
8.1 Deposits, balances and other liabilities	17,224,820	3,757,361
8.2 Liabilities arising from the credit facility under ERM II	–	–
9 Counterpart of special drawing rights allocated by the IMF	9,227,912	2,688,716
10 Other liabilities	1,472,000	2,277,216
10.1 Off-balance-sheet instruments revaluation differences	–	–
10.2 Accruals and income collected in advance	17,811	9,996
10.3 Sundry	1,454,189	2,267,220
11 Provisions	3,563,833	3,562,703
12 Revaluation accounts	7,877,426	7,092,014
13 Capital and reserves	3,528,784	3,523,189
13.1 Capital	2,500,000	2,500,000
13.2 Reserves	1,028,784	1,023,189
14 Profit for the year	56,388	–
Total	222,941,387	173,545,869

The notes on pages 127 to 174 form an integral part of these financial statements.

PROFIT AND LOSS ACCOUNT

(All amounts are expressed in thousands of kuna)

	2021
1.1 Interest income	1,777,024
1.2 Interest expense	(1,478,329)
1 Net interest income/expense	298,695
2.1 Realised gains/losses arising from financial operations	380,961
2.2 Write-downs on financial assets and positions	(3,489)
2.3 Transfer to/from provisions for financial risks	–
2 Net result of financial operations, write-downs and risk provisions	377,472
3.1 Fees and commissions income	64,115
3.2 Fees and commissions expense	(23,505)
3 Net income/expense from fees and commissions	40,610
4 Income from equity shares and participating interests	11,425
5 Other income	7,962
Total net income	736,164
6 Staff costs	(218,756)
7 Administrative expenses	(110,992)
8 Depreciation of tangible and intangible fixed assets	(40,045)
9 Costs of production of kuna banknotes and coins	(161,664)
10 Other costs	(148,319)
Total operating expenses	(679,776)
11 Profit/(loss) for the year	56,388

The financial statements set out on pages 4 to 71 were approved on 15 March 2022:

Director of the 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.

The Republic of Croatia entered the European Exchange Rate Mechanism (ERM II) on 10 July 2020, which is a key step in the process of introducing the euro in the Republic of Croatia. At the same time, the European Central Bank adopted a decision to establish close cooperation with the Croatian National Bank, which made the CNB part of the Single Supervisory Mechanism (SSM). As of the date of entry into force of the decision of the European Central Bank on close cooperation, the Republic of Croatia has also taken part in the Single Resolution Mechanism (SRM).

The Croatian National Bank is owned by the Republic of Croatia, which guarantees for all its obligations. 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. The Croatian National Bank reports to the Croatian Parliament on the financial condition, the degree of price stability and the fulfilment of monetary policy goals, and is represented by the Governor of the Croatian National Bank.

The tasks performed by the Croatian National Bank include:

- determining and implementing monetary and foreign exchange policies;
- maintaining and managing international reserves of the Republic of Croatia;
- issuing banknotes and coins;
- issuing and withdrawing authorisations and approvals as well as adopting other decisions in accordance with laws regulating the operations of credit institutions, credit unions, payment service providers, electronic money issuers and payment systems as well as payment operations, electronic money issuance, foreign exchange operations and the operations of authorised foreign exchange offices;
- performing supervision and oversight in accordance with laws regulating the operations of credit institutions, credit unions, payment service providers, electronic money issuers and payment systems as well as payment operations and electronic money issuance;
- exercising resolution powers in accordance with regulations on the resolution of credit institutions;
- maintaining accounts of credit institutions and performing payment transactions on those accounts, issuing loans to and receiving deposit funds from credit institutions;
- regulating and improving payment operations and ensuring their smooth functioning;
- performing tasks on behalf of the Republic of Croatia as defined by law;
- promulgating subordinate regulations from its area of competence;
- implementing macroprudential policy to preserve the stability of the whole financial system;
- performing other tasks specified by law.

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. Martina Drvar, Vicegovernor (until 1 October 2021)
- M. Sc. Ivana Jakir-Bajo, 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 2021 have been prepared 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 all amendments (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 valuation principles of International Financial Reporting Standards as adopted in the European Union for the purpose of preparation of these financial statements include measurement and impairment principles.

These are the first financial statements prepared in accordance with the new basis of preparation.

The accounting policies of the Croatian National Bank in the part that is not applicable until Croatia introduces the euro as the official currency, are the following:

1. In the balance sheet and the profit and loss account the terms “euro area” and “euro” are replaced by the terms “Croatia” and “kuna”.
2. In the period until Croatia introduces the euro as the official currency, the financial statements of the Croatian National Bank cannot contain all line items prescribed by the ECB Guideline, so that line items in the financial statements are adjusted with the current operation of the CNB.
3. Balance sheet line items related to monetary policy operations are adjusted with the Decision on monetary policy implementation of the Croatian National Bank.
4. Kuna coins in circulation are reported together with banknotes in circulation within the balance sheet item Banknotes and coins in circulation. After the introduction of the euro as the official currency of the Republic of Croatia, banknotes shall be reported under the balance sheet item Banknotes in circulation and coins under Other liabilities according to the ECB Guideline.

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

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 presented in accordance with the structure prescribed by the ECB Guideline.

Comparative information are not presented for profit and loss account. This is due to the fact that the Act on the Croatian National Bank does not require restatement of profit or loss comparative information, and their presentation due to the significant valuation changes and changes to the structure of the balance sheet is not possible without undue cost and effort.

Additionally, in accordance with Article 35 of the Act on Amendments to the Act on the Croatian National Bank (Official Gazette 47/2020) the allocation of profit for the financial year 2020 was performed pursuant to the provisions of the Act on the Croatian National Bank (Official Gazette 75/2008 and 54/2013). As of the financial year 2021, the preparation of financial statements, the calculation of profit (loss) and the allocation of profit or the coverage of loss of the Croatian National Bank shall be performed pursuant to the provisions of the Act on Amendments to the Act on the Croatian National Bank (Official Gazette 47/2020).

The separate financial statements of the Croatian National Bank for 2020 have been prepared in accordance with the International Financial Reporting Standards, which comprise the International Accounting Standards (IAS), together with the related Amendments and Interpretations, and the International Financial Reporting Standards (IFRS), together with the related Amendments and Interpretations, as adopted by the European Commission, published in the Official Journal of the European Union.

The Financial Statements of the Croatian National Bank are presented in kunas.

1.2.2 Amendments to the Act on the Croatian National Bank related to the transition to the ECB Guideline

Article 35, paragraph (1) of the Act on Amendments to the Act on the Croatian National Bank (Official Gazette 47/2020) prescribes that, from the part of the general reserves as at 1 January 2021 related to unrealised gains arising from the revaluation of assets and liabilities in the previous years, revaluation accounts are to be established in accordance with Article 13 of the Act, in the part adding Article 55a to the Act on the Croatian National Bank (Official Gazette 75/2008 and 54/2013), in the amount to be determined by the Council of the Croatian National Bank. Article 35, paragraph (2) of the Act on Amendments to the Act on the Croatian National Bank, prescribes that, from the part of the general reserves as at 1 January 2021, provisions for risks are to be established in accordance with Article 13 of the Act, in the part adding Article 55b to the Act on the Croatian National Bank (Official Gazette 75/2008 and 54/2013), in the amount to be determined by the Council of the Croatian National Bank. In line with the above, the Council of the Croatian National Bank adopted the Decision on the general reserves of the Croatian National Bank as at 1 January 2021 (for detailed information please see 1.2.4 under (i) to (k)), pursuant to which:

- due to a change in the accounting policy for the recognition of the costs of production of kuna banknotes and coins arising from the application of the ECB Guideline, the existing balance of the non-deferred costs of production of banknotes and coins as at 1 January 2021 is to be debited in the full amount to the general reserves of the CNB;
- the balance of recognised loss allowances for expected credit losses on the financial assets of the CNB that in accordance with the International Financial Reporting Standards used to be measured at amortised cost and at fair value through other comprehensive income and are not recognised as loss allowances for financial assets pursuant to the ECB Guideline, but only pursuant to the International Financial Reporting Standards, as at 1 January 2021, is to be credited in the full amount to the general reserves of the CNB;
- provisions for financial risks in the amount of HRK 3,500,000 thousands are to be established from the part of the general reserves of the CNB as at 1 January 2021; and
- a revaluation account is to be established for the revaluation of securities not held to maturity in the amount of HRK 700,000 thousands, and a revaluation account for the revaluation of all items of assets, liabilities and equity as well as of off-balance-sheet items denominated in foreign currencies or linked to foreign currencies in the amount of HRK 6,050,000 thousands, from the part of the general reserves of the CNB as at 1 January 2021.

1.2.3 The most significant changes in accounting policies

The most significant changes in accounting policies are set out below:

- In line with the new accounting policies, the financial statements comprise the Balance Sheet, Profit and Loss Account and Notes to the Financial Statements. As of the financial year 2021, the Croatian National Bank no longer prepares the Statement of Cash Flows and the Statement of Changes in Equity.

- Debt securities are classified into the following categories: marketable securities held for monetary policy purposes, marketable debt securities other than held-to-maturity and marketable debt securities classified as held-to-maturity.
- In accordance with the ECB Guideline and the asymmetric valuation approach, unrealised foreign exchange gains and gains from price changes are not recognised in the profit and loss account, but are recorded in revaluation accounts. Unrealised foreign exchange losses and losses from price changes are taken at year end to the profit and loss account if they exceed previous revaluation gains registered in the corresponding revaluation account.
- The average cost of the foreign currency is calculated for each currency and the comparison of the transaction exchange rate and the average cost of the foreign currency provides for the calculation of realised foreign exchange gains/losses, while the comparison of the average cost of the foreign currency and the mid-market rate of the currency (CNB middle exchange rate) provides for the calculation of unrealised foreign exchange gains/losses. The exchange rate revaluation is carried out separately for each individual currency, because positive revaluation effects from one currency must not be offset against the negative effects of revaluation from another currency. According to IFRS, gains and losses arising from trading in foreign currencies were included in realised income and expenses in the period in which they occurred. All other foreign exchange differences were reported as unrealised gains or losses in the period in which they occurred. The positive revaluation effects from one currency were offset against the negative effects of revaluation from another currency.
- The costs of production of kuna banknotes and coins are no longer deferred, but are recognised in the profit and loss account when they are invoiced or occur in any other way.
- Accrued interest is shown in a separate line item in the balance sheet.

1.2.4 Impact of changes in the accounting policies on the balance sheet

(All amounts are expressed in thousands of kuna)

Assets	31/12/2020	Note	Impact of the application of the ECB Guideline 01/01/2021	01/01/2021, following the implementation of the ECB Guideline
1 Gold and gold receivables	4,405	–	–	4,405
2 Claims on residents outside Croatia denominated in foreign currency	154,517,053	–	(6,670,646)	147,846,407
2.1 Receivables from the International Monetary Fund (IMF)	9,064,146	(a)	(6,360,309)	2,703,837
2.2 Balances with banks and security investments, external loans and other external assets	145,452,907	(b)	(310,337)	145,142,570
3 Claims on residents in Croatia denominated in foreign currency	–	–	–	–
4 Claims on residents outside Croatia denominated in kuna	–	–	–	–
4.1 Balances with banks, security investments and loans	–	–	–	–
4.2 Claims arising from the credit facility under Exchange Rate Mechanism (ERM) II	–	–	–	–
5 Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna	4,515,683	–	1,317	4,517,000
5.1 Regular operations	–	–	–	–
5.2 Structural operations	4,515,683	(c)	1,317	4,517,000
5.3 Fine-tuning operations	–	–	–	–
5.4 Overnight credits	–	–	–	–
6 Other claims on credit institutions from Croatia denominated in kuna	–	–	–	–
7 Securities of residents in Croatia denominated in kuna	19,825,464	–	17,185	19,842,649
7.1 Securities held for monetary policy purposes	19,825,464	(d)	17,185	19,842,649
7.2 Other securities	–	–	–	–
8 Other assets	1,801,010	–	(465,602)	1,335,408
8.1 Tangible and intangible fixed assets	610,168	–	–	610,168
8.2 Other financial assets	113,024	–	–	113,024
8.3 Off-balance-sheet instruments revaluation differences	–	–	–	–
8.4 Accruals and prepaid expenditure	993,111	(e)	(465,642)	527,469
8.5 Sundry	84,707	(f)	40	84,747
9 Loss for the year	–	–	–	–
Total	180.663.615		(7.117.746)	173.545.869

(All amounts are expressed in thousands of kuna)

Liabilities	31/12/2020	Note	Impact of the application of the ECB Guideline 01/01/2021	01/01/2021, following the implementation of the ECB Guideline
1 Banknotes and coins in circulation	41,792,678	–	–	41,792,678
2 Liabilities to credit institutions from Croatia related to monetary policy operations denominated in kuna	83,235,638	–	–	83,235,638
2.1 Current accounts (covering the reserve requirement system)	83,235,638	–	–	83,235,638
2.2 Overnight deposits	–	–	–	–
2.3 Fixed-term deposits	–	–	–	–
2.4 Deposits related to margin calls	–	–	–	–
3 Other liabilities to credit institutions from Croatia denominated in kuna	270,124	–	–	270,124
4 Debt securities of the Croatian National Bank	–	–	–	–
5 Liabilities to other residents in Croatia denominated in kuna	16,342,330	–	–	16,342,330
5.1 General government	16,230,669	–	–	16,230,669
5.2 Other liabilities	111,661	–	–	111,661
6 Liabilities to residents outside Croatia denominated in kuna	287,910	–	–	287,910
7 Liabilities to residents in Croatia denominated in foreign currency	8,715,990	–	–	8,715,990
8 Liabilities to residents outside Croatia denominated in foreign currency	3,757,361	–	–	3,757,361
8.1 Deposits, balances and other liabilities	3,757,361	–	–	3,757,361
8.2 Liabilities arising from the credit facility under Exchange Rate Mechanism (ERM) II	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	9,049,025	(g)	(6,360,309)	2,688,716
10 Other liabilities	287,327	–	1,989,889	2,277,216
10.1 Off-balance-sheet instruments revaluation differences	–	–	–	–
10.2 Accruals and income collected in advance	9,996	–	–	9,996
10.3 Sundry	277,331	(h)	1,989,889	2,267,220
11 Provisions	62,703	(i)	3,500,000	3,562,703
12 Revaluation accounts	2,668,769	(j)	4,423,245	7,092,014
13 Capital and reserves	14,193,760	–	(10,670,571)	3,523,189
13.1 Capital	2,500,000	–	–	2,500,000
13.2 Reserves	11,693,760	(k)	(10,670,571)	1,023,189
14 Profit for the year	–	–	–	–
Total	180,663,615		(7,117,746)	173,545,869

- (a) Receivables from the International Monetary Fund have decreased by the amount of HRK 6,360,309 thousands due to a difference in the method of reporting transactions with the IMF according to the ECB Guideline in relation to the IFRS rules. According to the ECB Guideline, reserve tranche is reported net under asset item 2.1 while according to the IFRS, there is no netting and the balances on the promissory note account, International Monetary Fund accounts number 1 and 2 are reported within liabilities.
- (b) Balances with banks and security investments, external loans and other external assets have decreased by the amount of HRK 310,337 thousands, comprising the reversal of Loss allowances for expected credit losses that used to be calculated in accordance with IFRS 9 Financial Instruments, in the amount of HRK 15,985 thousands, the adjustment to fair value of securities that used to be classified in accordance with IFRS 9 as financial assets at amortised cost and are in accordance with the ECB Guideline classified as debt securities not held to maturity and valued at market prices, with the result that their value increased by HRK 311,283 thousands, and the derecognition of the positive effect of value adjustment for debt securities that used to be classified in accordance with IFRS 9 at fair value through other comprehensive income and are in accordance with the ECB Guideline classified as securities held to maturity and valued at amortised cost, in the amount of HRK 637,605 thousands.

- (c) Structural operations within the line item Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna have increased by the amount of HRK 1,317 thousands due to the reversal of Loss allowances for expected credit losses for collateralised credits that used to be calculated in accordance with IFRS 9.
- (d) Securities of residents held for monetary policy purposes have increased by the amount of HRK 17,185 thousands, which is related to the reversed Loss allowances for expected credit losses for securities of the Republic of Croatia that used to be calculated in accordance with IFRS 9.
- (e) The line item Accruals and prepaid expenditure within Other assets has decreased due to a change in the accounting policy for the recognition of the costs of production of kuna banknotes and coins, so that the existing balance of the non-deferred costs of production of banknotes and coins as at 1 January 2021 in the amount of HRK 465,642 thousands is debited in the full amount to the general reserves of the CNB.
- (f) The increase in the amount of HRK 40 thousands in the line item Sundry within Other assets has resulted from the reversal of Loss allowances for expected credit losses that used to be calculated in accordance with IFRS 9.
- (g) The balances on the promissory note account, International Monetary Fund accounts number 1 and 2 in the amount of HRK 6,360,309 thousands as at 31 December 2020 are reported within the position Counterpart of special drawing rights allocated by the IMF, since the balances on these accounts, according to IFRS rules, are reported within liabilities, and according to the ECB Guideline they are reported as stated under (a).
- (h) The increase in the line item Sundry within Other liabilities, in the amount of HRK 1,989,889 thousands, is accounted for by the existing unrealised gains from the revaluation of securities that used to be measured in accordance with IFRS at fair value through other comprehensive income and are in accordance with the Regulation classified as securities not held to maturity, in the amount of HRK 1,678,606 thousands, and the existing unrealised gains in the amount of HRK 311,283 thousands that occurred when adjusting to fair value securities that used to be classified in accordance with IFRS as financial assets at amortised cost and are in accordance with the ECB Regulation classified in the category of securities not held to maturity. The existing unrealised gains and losses are amortised under the straight-line method until the maturity or sale of the security and the accrued amortisation is reported as interest income or expense.
- (i) Provisions have increased by the amount of HRK 3,500,000 thousands because, pursuant to the Decision on the general reserves of the Croatian National Bank as at 1 January 2021, provisions for financial risks were established in the amount of HRK 3,500,000 thousands from the part of the general reserves of the CNB as at 1 January 2021.
- (j) Revaluation accounts have increased by HRK 4,423,245 thousands, of which HRK 10,544 thousands is accounted for by the reversal of Loss allowances for expected credit losses, and the amount of HRK 637,605 thousands by the derecognition of value adjustment for debt securities that used to be classified in accordance with IFRS 9 at fair value through other comprehensive income and are in accordance with the ECB Guideline classified as securities held to maturity and valued at amortised cost. In addition, the decrease of revaluation accounts in the amount of HRK 1,678,606 thousands is accounted for by the existing unrealised gains on securities that used to be measured in accordance with IFRS at fair value through other comprehensive income and are in accordance with the Regulation classified as debt securities not held to maturity. Revaluation accounts increased because in accordance with the Decision on the general reserves of the Croatian National Bank as at 1 January 2021, a revaluation account has been established for the revaluation of securities not held to maturity in the amount of HRK 700,000 thousands, and a revaluation account for the revaluation of all items of assets, liabilities and equity as well as of off-balance-sheet items denominated in foreign currencies or linked to foreign currencies in the amount of HRK 6,050,000 thousands, from the part of the general reserves of the CNB as at 1 January 2021.
- (k) Reserves decreased by HRK 10,670,571 thousands because, in accordance with the Decision on the general reserves of the Croatian National Bank as at 1 January 2021, the balance of the non-deferred costs of production of banknotes and coins as at 1 January 2021 in the amount of HRK 465,642 thousands has been debited to the general reserves of the CNB, the balance of recognised loss allowances for expected credit losses as at 1 January 2021 in the amount of HRK 45,071 thousands has been credited to the general reserves of the CNB, provisions for financial risks have been established in the amount of HRK 3,500,000 thousands and revaluation accounts have been established in the amount of HRK 6,750,000 thousands.

1.2.5 Qualitative characteristics and accounting assumptions

The following qualitative characteristics apply in line with the ECB Guideline:

- The accounting methods and financial reporting reflect economic reality, are transparent and respect the qualitative characteristics of understandability, relevance, reliability and comparability. Transactions are accounted for and presented in accordance with their substance and economic reality and not merely with their legal form.
- The valuation of assets and liabilities and income recognition are carried out prudently, which implies that unrealised gains are not recognised as income in the profit and loss account, but are recorded directly in a revaluation account and that unrealised losses are taken at year end to the profit and loss account if they exceed previous revaluation gains registered in the corresponding revaluation account. Hidden reserves or the deliberate misstatement of items in the balance sheet and in the profit and loss account are inconsistent with the assumption of prudence.
- Deviations from the accounting rules are only allowed if they can be reasonably considered as immaterial in the overall context and presentation of the reporting entity's financial accounts.
- The criteria for balance sheet valuation and income and expense recognition are applied consistently to ensure the comparability of data in the financial statements.

The following accounting assumptions apply:

- Accounts are prepared on a going concern basis.
- Income and expenses are recognised in the accounting period in which they are earned or incurred and not in the period in which they are received or paid.
- Assets and liabilities are adjusted for events that occur between the annual balance sheet date and the date on which the financial statements are approved by the Council of the Croatian National Bank if they affect the condition of assets or liabilities at the balance sheet date. No adjustment is made for assets and liabilities, but disclosure is made of those events occurring after the balance sheet date if they do not affect the condition of assets and liabilities at the balance sheet date, but which are of such importance that non-disclosure would affect the ability of the users of the financial statements to make proper evaluations and decisions.

1.2.6 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, assets under management with international institutions and silver 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.

1.2.7 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. The accrued interest, including premiums or discounts, on securities held for monetary policy purposes are recorded on a monthly basis.

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

1.2.8 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.

1.2.9 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 kuna price per defined unit of weight of gold, derived from the HRK/US dollar exchange rate 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 at 31 December 2021 were as follows:

1 USD = 6.643548 HRK (2020: 6.139039 HRK)
 1 EUR = 7.517174 HRK (2020: 7.536898 HRK)
 1 XDR = 9.314231 HRK (2020: 8.869642 HRK).

Market prices and foreign exchange rates valid on 31.12.2020, which were applied in the opening balance sheet on 1.1.2021, at the start of the application of the ECB Guidelines, are considered as initial average cost of assets and liabilities of the Croatian National Bank.

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 reporting entity intends to hold until maturity. Securities classified as held-to-maturity 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.

1.2.10 Recognition and valuation of financial assets

Financial asset is any asset that is:

- (d) cash;
- (e) a contractual right to receive cash or another financial instrument from another undertaking;
- (f) a contractual right to exchange financial instruments with another undertaking under conditions that are potentially favourable; or
- (g) 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 held for monetary policy purposes are valued at cost subject to impairment, with all premiums or discounts amortised.

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

Participating interests, illiquid equity shares and all other equity instruments held as permanent investments are valued at cost subject to impairment.

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

Assets under management with international financial institutions are valued at the market price and market rate. The re-valuation 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. The recoverable amount is the present value of estimated future cash flows discounted at the financial investment's original effective interest rate.

1.2.11 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 re-valued 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.

1.2.12 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 loans taken and 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 kuna banknotes and coins are reported in the profit and loss account when they are invoiced or occur in any other way.

1.2.13 Income recognition

Realised gains and realised losses are taken to the profit and loss account.

Unrealised gains are not recognised as income, but recorded directly in a revaluation account.

At year end, unrealised losses are taken to the profit and loss account if they exceed previous revaluation gains recorded in the corresponding revaluation account. Unrealised losses taken to the profit and loss account are not reversed in subsequent years against new unrealised gains. 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.

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 kuna as well as foreign exchange gains or losses on deposits for housing loans with a currency clause 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 expense or 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).

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.

Accrued interest on financial assets with negative interest rate is reported as interest expense.

Accrued interest on financial liabilities with negative interest rate is reported as interest income.

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.

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 unrealized gains on the revaluation of assets and liabilities.

1.2.16 Provisions

Provisions for future liabilities

The Croatian National Bank recognizes 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 recognized 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 decision to increase or decrease provisions for financial risks is made by 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. 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.

Profits 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:

Asset class	Expected useful life in 2021 (number of years)	Expected useful life in 2020 (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	do 10	do 10

Leases

At the commencement date, 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 discount rate of the Croatian National Bank. 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 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 2021, 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 accordance 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

	31/12/2021	1/1/2021	Change	
			Absolute	%
Quantity in gold ounces	378.78	378.78	–	–
Price				
USD/gold ounce	1,828.45	1,894.13	(65.68)	(3.47)
HRK/USD	6.643548	6.139039	0.50	8.22
Carrying amount in thousands of kuna	4,601	4,405	196	4.45

2 Claims on residents outside Croatia denominated in foreign currency

2.1 Receivables from the International Monetary Fund (IMF)

(All amounts are expressed in thousands of kuna)

	31/12/2021	1/1/2021	Change	
			Absolute	%
Kuna-denominated balances with the IMF				
Membership quota	6,682,066	6,363,088	318,978	5.01
Kuna-denominated bills of exchange	(6,662,142)	(6,344,334)	317,808	5.01
IMF account no. 1	(16,705)	(15,908)	797	5.01
<i>Reserve position with the IMF</i>	3,219	2,846	373	13.11
IMF account no. 2	(72)	(67)	5	7.46
<i>Total</i>	3,147	2,779	368	13.24
Balances with the IMF denominated in special drawing rights				
Foreign currency current account with the IMF	9,245,354	2,696,453	6,548,901	242.87
PRG-HIPC fund deposit	4,836	4,605	231	5.02
<i>Total</i>	9,250,190	2,701,058	6,549,132	242.47
Total	9,253,337	2,703,837	6,549,500	242.23

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 kuna and linked to XDR (they are revalued on the reporting date at the XDR exchange rate applicable on that date).

The Executive Board of the International Monetary Fund (IMF), at the meeting held on 8 July 2021, supported the proposal for a general allocation of special drawing rights (XDR) in the amount of XDR 456,485,292 thousands, in order to meet the global need for foreign exchange reserves. Consequently, the IMF's Managing Director invited the Board of Governors to vote in favour of the general allocation and the voting was completed on 2 August 2021. The general allocation of XDR 456,485,292 thousands was made in response to the biggest ever health and economic crisis in order

to meet the global needs for foreign exchange reserves in the long term. The allocation was performed on 23 August 2021, 21 day after the Resolution of the Board of Governors approving the allocation came into effect, and Croatia was allocated an approximate amount of XDR 687,596 thousands. On 23 September 2021, the Government of the Republic of Croatia adopted the Decision on the acceptance of funds based on the general allocation of special drawing rights of the International Monetary Fund. Accordingly, the balance in the foreign currency current account with the IMF increased by XDR 687,596 thousands.

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 until 31 December 2023. 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 kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Securities	91,745,493	87,614,886	4,130,607	4.71
Balances with banks, external loans and other external assets	99,180,598	57,527,684	41,652,914	72.40
Total	190,926,091	145,142,570	45,783,521	31.54

2.2.1 Securities

The table below shows investments in securities outside Croatia denominated in foreign currency.

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Marketable debt securities other than held-to-maturity	54,365,256	60,733,004	(6,367,748)	(10.48)
Marketable held-to-maturity securities	37,380,237	26,881,882	10,498,355	39.05
Total	91,745,493	87,614,886	4,130,607	4.71

Investments in securities by currency

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
EUR	74,326,039	71,823,038	2,503,001	3.48
USD	15,757,524	15,791,848	(34,324)	(0.22)
Other currencies	1,661,930	–	1,661,930	–
Total	91,745,493	87,614,886	4,130,607	4.71

2.2.2 Balances with banks, external loans and other external assets

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Cash and current accounts	59,659,098	33,701,622	25,957,476	77.02
Deposits with other banks	8,164,056	12,076,502	(3,912,446)	(32.40)
Reverse repo agreements	17,569,486	4,729,855	12,839,631	271.46
Assets under management with international financial institutions	1,326,339	1,228,635	97,704	7.95
Balance of CNB's TARGET2 account	70,134	64,615	5,519	8.54
Balances of other TARGET2 participants	12,391,485	5,726,455	6,665,030	116.39
Total	99,180,598	57,527,684	41,652,914	72.40

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

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
EUR	95,995,230	54,969,144	41,026,086	74.63
USD	3,107,730	2,532,092	575,638	22.73
Other currencies	77,638	26,448	51,190	193.55
Total	99,180,598	57,527,684	41,652,914	72.40

5 Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Regular operations	–	–	–	–
Structural operations	3,067,000	4,517,000	(1,450,000)	(32.10)
Fine-tuning operations	–	–	–	–
Overnight loans	–	–	–	–
Total	3,067,000	4,517,000	(1,450,000)	(32.10)

In accordance with the Decision on monetary policy implementation of the Croatian National Bank, the Croatian National Bank conducts monetary policy by means of: monetary policy operations, reserve requirements, in accordance with the decision on reserve requirements, and other instruments and measures in accordance with special decisions of the Croatian National Bank.

The monetary policy operations of the CNB are open market operations and standing facilities. Open market operations are initiated by the CNB, while standing facilities are initiated by a counterparty.

The CNB conducts open market operations by means of reverse and outright transactions to regulate credit activities and liquidity of credit institutions, as well as money supply. The types of open market operations are: regular operations, fine-tuning operations and structural operations.

5.1 Regular operations

Regular operations are conducted weekly, they normally have a one week maturity and are conducted by means of standard tenders.

5.2 Structural operations

Structural operations are of non-standardised frequency and maturity, they are conducted by means of standard tenders, quick tenders or bilateral procedures, depending on the CNB decision.

5.3 Fine-tuning operations

Fine-tuning operations are of non-standardised frequency and maturity, they are as a rule conducted by means of quick tenders, but the CNB may decide to conduct fine-tuning operations by means of other procedures (standard tenders or bilateral procedures).

5.4 Overnight credits

The CNB enables access to standing facilities by means of overnight credit. An overnight credit is a collateralised credit with one business day maturity. The amount of liquidity that may be provided by an overnight credit is limited only by the value of the pool of eligible assets.

7 Securities of residents in Croatia denominated in kuna

7.1 Securities held for monetary policy purposes

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Bonds of the Republic of Croatia	18,357,930	19,842,649	(1,484,719)	(7.48)
Total	18,357,930	19,842,649	(1,484,719)	(7.48)

In an effort to maintain the liquidity and stability of the financial system, the Croatian National Bank responded to the coronavirus pandemic (COVID-19) by implementing a set of monetary policy measures, including the purchase of bonds of the Republic of Croatia.

8 Other assets

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Tangible and intangible fixed assets	645,652	610,168	35,484	5.82
Other financial assets	120,224	113,024	7,200	6.37
Off-balance-sheet instruments revaluation differences	27,336	–	27,336	–
Accruals and prepaid expenditure	506,635	527,469	(20,834)	(3.95)
Sundry	32,581	84,747	(52,166)	(61.55)
Total	1,332,428	1,335,408	(2,980)	(0.22)

8.1 Tangible and intangible fixed assets

(All amounts are expressed in thousands of Kuna)

	Property owned by the CHB (land and buildings)	Right-of-use buildings (office buildings)	Furniture and equipment	Motor vehicles	Assets under development – property, plant, equipment	TOTAL TANGIBLE FIXED ASSETS	Software and licences	Assets under development – intangible assets	TOTAL INTANGIBLE FIXED ASSETS	TOTAL TANGIBLE AND INTANGIBLE FIXED ASSETS
Balance at 1 January 2021										
Cost or revaluation	481,443	9,170	49,283	8,977	10,208	811,596	100,965	18,725	119,690	931,286
Accumulated depreciation/ amortisation	(7,384)	(3,745)	(40,344)	(8,674)	–	(248,293)	(72,825)	–	(72,825)	(321,118)
Net book value	474,059	5,425	8,939	303	10,208	563,303	28,140	18,725	46,865	610,168
For the year ended 31 December 2021										
Opening net book amount	474,059	5,425	8,939	303	10,208	563,303	28,140	18,725	46,865	610,168
Additions	–	13,414	–	–	56,477	69,891	–	6,563	6,563	76,454
Brought into use	322	–	38,339	235	(43,937)	–	3,388	(3,388)	–	–
Revaluation	–	–	–	–	–	–	–	–	–	–
Impairment	–	–	–	–	–	–	–	–	–	–
Net written off	(905)	–	(1)	(19)	–	(925)	–	–	–	(925)
Depreciation/amortisation (charge for the year, Note 5 point 6)	(7,370)	(3,715)	(2,854)	(205)	–	(32,463)	(7,582)	–	(7,582)	(40,045)
Closing net book amount	466,106	15,124	84,388	333	22,748	599,806	23,946	21,900	45,846	645,652
Balance as at 31 December 2021										
Cost or revaluation	480,779	22,145	53,516	8,906	22,748	802,739	68,422	21,900	90,322	893,061
Accumulated depreciation/ amortisation	(14,673)	(7,021)	(42,409)	(8,573)	–	(202,933)	(44,476)	–	(44,476)	(247,409)
Net book value	466,106	15,124	11,107	333	22,748	599,806	23,946	21,900	45,846	645,652

8.2 Other financial assets

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
BIS shares	41,914	41,914	–	–
SWIFT shares	80	80	–	–
ECB paid-up capital	19,954	19,954	–	–
Investment in the Croatian Mint	58,276	51,076	7,200	14.10
Total	120,224	113,024	7,200	6.37

Based on the ownership holding of 2,441 shares of the Bank for International Settlements (BIS), in the nominal value of XDR 5,000 per share, the Croatian National Bank is a member of the BIS, which enables it to use services the BIS provides to central banks and other financial organisations. 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 2021 the Croatian National Bank received a dividend in the amount of HRK 11,425 thousands.

The Croatian National Bank is also a member of the Society for Worldwide Interbank Financial Telecommunication (SWIFT). Based on this membership, the Croatian National Bank participates in international transfers of financial messages. Six SWIFT shares in the nominal value of EUR 125 per share which the Croatian National Bank holds are fully paid in.

The paid-up capital of the European Central Bank (ECB) represents the participating interest of the Croatian National Bank in the ECB. Pursuant to Article 28 of the Statute of the European System of Central Banks (ESCB), the national central banks (NCBs) of the ESCB are the sole subscribers to the ECB's capital. The subscriptions of capital depend on the shares established in accordance with Article 29 of the Statute of the ESCB, which are adjusted every five years and whenever there is a change in the number of NCBs that contribute to the ECB's capital. Since the Republic of Croatia is not part of the euro area, transitional provisions of Article 47 of the ESCB's Statute apply, according to which the Croatian National Bank had an obligation to pay 3.75% of the subscribed capital as a contribution to the ECB's operational costs. The Croatian National Bank, as a non-euro area national central bank, is not entitled to receive an appropriate share of the ECB's profit distribution and there is no obligation to cover the ECB's loss.

As a result of the departure of the United Kingdom from the European Union on 31 January 2020 and the consequent withdrawal of the Bank of England from the European System of Central Banks, the weightings assigned to the remaining NCBs in the key for subscription of the ECB's capital were adjusted with effect from 1 February 2020.

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	298,518
Deutsche Bundesbank	21.4394	2,159,988
Eesti Pank	0.2291	23,081
Central Bank of Ireland	1.3772	138,751
Bank of Greece	2.0117	202,676
Banco de España	9.6981	977,070
Banque de France	16.6108	1,673,514
Banca d'Italia	13.8165	1,391,992
Central Bank of Cyprus	0.1750	17,631
Latvijas Banka	0.3169	31,927
Lietuvos bankas	0.4707	47,422
Banque centrale du Luxembourg	0.2679	26,991
Central Bank of Malta	0.0853	8,594
De Nederlandsche Bank	4.7662	480,188
Oesterreichische Nationalbank	2.3804	239,822
Banco de Portugal	1.9035	191,775
Banka Slovenije	0.3916	39,453
Národná banka Slovenska	0.9314	93,837
Suomen Pankki – Finlands Bank	1.4939	150,508
Subtotal for euro area NCBs	81.3286	8,193,738
Българска народна банка (Bulgarian National Bank)	0.9832	3,991
Česká národní banka	1.8794	7,629
Danmarks Nationalbank	1.7591	7,141
Croatian National Bank	0.6595	2,677
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	18.6714	75,794
Total	100.00	8,269,532

The ECB's total subscribed capital comes from the national central banks of all EU member states and amounts to EUR 10,825,007 thousands. The amounts of the subscribed capital of individual euro area national central banks, increased due to the withdrawal of the Bank of England from the European System of Central Banks, were divided into two annual instalments. The first instalment was paid at the end of 2021, and the remaining one is due at the end of 2022.

The share of the Croatian National Bank in the subscribed capital of the European Central Bank is 0.6595%. The Croatian National Bank thus subscribed EUR 71,391 thousands of the ECB's capital and paid up EUR 2,677 thousands.

The Croatian Mint (on 21 October 2021, the Croatian Monetary Institute changed its name to the Croatian Mint) is a domestic company whose core operations are the production of coins and medals of gold and other precious metals, the production of coins and commemorative circulation coins, the manufacturing of jewellery and related products, trade in gold and other precious metals, trade in jubilee coins and trade 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 kuna)

Net asset value as at 1 January 2021	51,076
Revaluation in 2021	7,200
Net asset value as at 31 December 2021	58,276

8.3 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 valuation differences of derivative instruments by instrument and currency that are recognised in the balance sheet.

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021
Foreign exchange swaps (FX SWAP) in JPY	15,195	–
Foreign exchange swaps (FX SWAP) in USD	8,552	–
Foreign exchange swaps (FX SWAP) in EUR	3,589	–
Total	27,336	–

8.4 Accruals and prepaid expenditure

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Deposits with other banks	95	310	(215)	(69.35)
Foreign currency denominated securities not held to maturity	139,279	168,855	(29,576)	(17.52)
Foreign currency denominated securities held to maturity	178,825	174,096	4,729	2.72
Securities held for monetary policy purposes	136,796	151,521	(14,725)	(9.72)
Lending to credit institutions from RC related to monetary policy operations	23,576	16,333	7,243	44.35
Foreign currency reverse repo agreements	61	14	47	335.71
Foreign exchange swaps (FX SWAP)	795	–	795	–
Negative remuneration for TARGET2 participants	1,779	1,744	35	2.01
Negative interest rates (repo deposits)	8,047	583	7,464	1,280.27
Prepaid expenditure	15,801	10,836	4,965	45.82
Other	1,581	3,177	(1,596)	(50.24)
Total	506,635	527,469	(20,834)	(3.95)

8.5 Sundry

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Cash on hand	286	379	(93)	(24.54)
Numismatics	11,180	11,377	(197)	(1.73)
Receivables	6,840	26,015	(19,175)	(73.71)
Advances given	2,520	34,614	(32,094)	(92.72)
Other tangible assets	9,351	9,563	(212)	(2.22)
Other	2,404	2,799	(395)	(14.11)
Total	32,581	84,747	(52,166)	(61.55)

Note 3 – Items of liabilities

1 Banknotes and coins in circulation

(All amounts are expressed in thousands of kuna)	2021	Change %
Banknotes and coins in circulation – as at 1 January	41,792,678	
Increase/(decrease)	2,467,552	5.90
Banknotes and coins in circulation – total as at 31 December	44,260,230	

The table below shows the denomination structure of banknotes and coins in circulation:

In HRK	Nominal value	31/12/2021		1/1/2021	
		Pieces	Value in thousands of kuna	Pieces	Value in thousands of kuna
Coins	0.01	128,917,880	1,289	128,096,234	1,281
Coins	0.02	85,940,198	1,719	85,746,912	1,715
Coins	0.05	433,722,399	21,686	418,770,808	20,939
Coins	0.10	619,830,928	61,983	602,359,529	60,236
Coins	0.20	488,997,610	97,800	470,993,381	94,199
Coins	0.50	283,957,151	141,979	273,545,238	136,773
Coins	1	320,952,373	320,952	308,756,200	308,756
Coins	2	201,374,879	402,750	190,830,614	381,661
Coins	5	135,057,778	675,289	129,006,476	645,032
Coins	25	1,404,104	35,103	1,364,201	34,105
Banknotes	5	4,120,763	20,604	4,122,545	20,613
Banknotes	10	55,801,984	558,020	53,218,620	532,186
Banknotes	20	40,265,969	805,319	37,639,522	752,790
Banknotes	50	20,012,423	1,000,621	18,722,968	936,148
Banknotes	100	50,303,499	5,030,350	47,539,398	4,753,940
Banknotes	200	101,430,201	20,286,040	96,089,661	19,217,932
Banknotes	500	9,698,321	4,849,160	9,461,267	4,730,634
Banknotes	1,000	9,949,566	9,949,566	9,163,738	9,163,738
Total			44,260,230		41,792,678

2 Liabilities to credit institutions from Croatia related to monetary policy operations denominated in kuna

2.1 Current accounts (covering the reserve requirement system)

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Reserve requirements	22,550,089	19,956,987	2,593,102	12.99
Settlement accounts	68,031,877	53,434,695	14,597,182	27.32
Accounts for National Clearing System (NCS) limits	675,000	575,000	100,000	17.39
Cash accounts	12,677,147	9,268,956	3,408,191	36.77
Total	103,934,113	83,235,638	20,698,475	24.87

3 Other liabilities to credit institutions from Croatia denominated in kuna

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Court-mandated deposits	92,888	270,124	(177,236)	(65.61)
Total	92,888	270,124	(177,236)	(65.61)

Court-mandated deposits are assets foreclosed pursuant to the Act on the Execution of Enforcement over Monetary Assets.

5 Liabilities to other residents in Croatia denominated in kuna

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
General government	14,142,448	16,230,669	(2,088,221)	(12.87)
Other liabilities	242,703	111,661	131,042	117.36
Total	14,385,151	16,342,330	(1,957,179)	(11.98)

6 Liabilities to residents outside Croatia denominated in kuna

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Due to European Commission	474,611	287,636	186,975	65.00
Other liabilities	143	274	(131)	(47.81)
Total	474,754	287,910	186,844	64.90

Liabilities to residents outside Croatia denominated in kuna include deposits and transaction accounts of other banks, central banks and international/supranational institutions, including the European Commission. The European Commission has opened HRK transaction account with the Croatian National Bank for the performance of payment transactions.

7 Liabilities to residents in Croatia denominated in foreign currency

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Due to the State and State institutions	4,434,304	2,981,934	1,452,370	48.71
Foreign currency accounts of TARGET2 participants	12,391,485	5,726,455	6,665,030	116.39
Other liabilities	17,299	7,601	9,698	127.59
Total	16,843,088	8,715,990	8,127,098	93.24

Liabilities to residents in Croatia denominated in foreign currency comprise foreign currency accounts of participants in the TARGET2 system. TARGET2 (Trans-European Automated Real-time Gross Settlement Express Transfer system) is a payment system for the settlement of payment transactions in euro on a gross basis in real time. TARGET2 is a system with the Single Shared Platform (SSP), jointly administered by Banca d'Italia, Banque de France and Deutsche Bundesbank on behalf of the Eurosystem. In addition to this Note to the financial statements, business activities related to TARGET2 are presented in Note 2 under 2.2.2. Balances with banks, external loans and other external assets.

The largest share in other liabilities is accounted for by the Ministry of Finance deposit for the XDR funds received from the IMF within the burden-sharing mechanism in the amount of HRK 12,435 thousands.

8 Liabilities to residents outside Croatia denominated in foreign currency

8.1 Deposits, balances and other liabilities

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Foreign currency repo agreements	17,224,021	3,756,698	13,467,323	358.49
Due to European Commission	799	663	136	20.51
Total	17,224,820	3,757,361	13,467,459	358.43

The European Commission has opened the EUR transaction account and the European Development Fund Account in euro with the Croatian National Bank.

9 Counterpart of special drawing rights allocated by the IMF

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Net cumulative allocations	9,227,912	2,688,716	6,539,196	243.21
Total	9,227,912	2,688,716	6,539,196	243.21

This balance sheet line item is the kuna equivalent of XDR 990,733 thousands (1 January 2021: XDR 303,137 thousands) and the increase in 2021 resulted from funds received on the basis of a general allocation of special drawing rights of the International Monetary Fund, as described in Note 2, under 2.1 Receivables from the International Monetary Fund (IMF).

10 Other liabilities

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Off-balance-sheet instruments revaluation differences	–	–	–	–
Accruals and income collected in advance	17,811	9,996	7,815	78.18
Sundry	1,454,189	2,267,220	(813,031)	(35.86)
Total	1,472,000	2,277,216	(805,216)	(35.36)

10.2 Accruals and income collected in advance

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Deposits of RC	994	653	341	52.22
Foreign exchange swaps (FX SWAP)	316	–	316	–
Negative remuneration in TARGET2	1,811	1,771	40	2.26
Negative interest rates	13,291	2,697	10,594	392.81
Other	1,399	4,875	(3,476)	(71.30)
Total	17,811	9,996	7,815	78.18

Negative interest includes accrued negative interest on current accounts, deposits and reverse repo agreements.

10.3 Sundry

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Amounts due to employees	9,869	9,011	858	9.52
Taxes and contributions	7,956	8,073	(117)	(1.45)
Due to the Ministry of Finance	16,341	229,240	(212,899)	(92.87)
Trade payables	49,885	23,338	26,547	113.75
Other	1,370,138	1,997,558	(627,420)	(31.41)
Total	1,454,189	2,267,220	(813,031)	(35.86)

The item Other in 2021 comprises the present value of the lease liability of HRK 14,885 thousands (1 January 2021: 4,864 thousands). The present value of the lease liability is calculated using the discount rate of the Croatian National Bank, which stood at 3% on 31 December 2021 (on 1 January 2021 it was 3%).

The item Other also includes the existing unrealised gains on financial assets at fair value through other comprehensive income and financial assets at amortised cost in the amount of HRK 1,353,165 thousands (1 January 2021: 1,989,889 thousands), generated during transition to the ECB Guideline and amortised under the straight-line method until the derecognition of the corresponding assets.

11 Provisions

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Provisions for financial risks	3,500,000	3,500,000	–	–
Provisions for court cases	36,535	36,535	–	–
Provisions for employee benefits	27,298	26,168	1,130	4.32
Total	3,563,833	3,562,703	1,130	0.03

Pursuant to the decision of the Council of the Croatian National Bank, provisions for financial risks as at 31 December 2021 did not change from the amount of provisions for financial risks as at 1 January 2021 on the basis of the Croatian National Bank's assessment of its own exposure to financial risks.

The exposure of the Croatian National Bank to financial risks is described in more detail in Note 6 – Risk management.

12 Revaluation accounts

The table below shows revaluation account balances.

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Securities	2,149	–	2,149	–
Foreign currency positions	1,431,162	–	1,431,162	–
Gold	197	–	197	–
Significant interests	7,200	–	7,200	–
Revaluation reserves for fixed assets	336,419	342,014	(5,595)	(1.64)
Revaluation accounts pursuant to the CNB Act	6,100,299	6,750,000	(649,701)	(9.63)
Total	7,877,426	7,092,014	785,412	11.07

The table below shows revaluation accounts for foreign currency positions by currency.

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021
EUR	–	–
USD	1,430,887	–
XDR	238	–
Other currencies	37	–
Total	1,431,162	–

The table below shows balances in the revaluation accounts established pursuant to the Decision of the Council of the Croatian National Bank, adopted under the provisions of the Act on the Croatian National Bank on transition to reporting in accordance with the ECB Guideline.

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Securities	328,168	700,000	(371,832)	(53.12)
Foreign currency positions	5,772,131	6,050,000	(277,869)	(4.59)
Total	6,100,299	6,750,000	(649,701)	(9.63)

The revaluation accounts are used to cover the negative impacts of changes in prices and exchange rates, and the exposure of the Croatian National Bank to these risks is described in more detail in Note 6 – Risk management.

13 Capital and reserves

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Initial capital	2,500,000	2,500,000	–	–
General reserves	1,028,784	1,023,189	5,595	0.55
Total	3,528,784	3,523,189	5,595	0.16

The initial capital in the amount of HRK 2,500,000 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 HRK 500,000 thousands.

General reserves as at 31 December 2021 amounted to HRK 1,028,784 thousands which is an increase of HRK 5,595 thousands from 1 January 2021, when they stood at HRK 1,023,189 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 and disposal of assets).

Note 4 – Off-balance-sheet accounts and treasury inventory system

Foreign exchange swaps

In 2021 the Croatian National Bank concluded foreign exchange swaps, and the amounts of receivables and payables arising from these transactions as at 31 December 2021 are shown in table below.

(All amounts are expressed in thousands of kuna)

Foreign exchange swaps	31/12/2021			1/1/2021	
	USD	EUR	JPY	Total	Total
Receivables	1,224,530	464,989	–	1,689,519	–
Payables	–	–	(1,662,183)	(1,662,183)	–
Total	1,224,530	464,989	(1,662,183)	27,336	–

Collateral

Total fair value of collateral obtained for collateralised credits as at 31 December 2021 amounted to HRK 3,539,437 thousands (1 January 2021: HRK 5,160,822 thousands).

Total fair value of collateral obtained by foreign currency reverse repo agreements (sovereign bonds of countries and state institutions rated AAA to A– and securities of international financial institutions rated AAA to AA+) as at 31 December 2021 amounts to HRK 17,542,969 thousands (1 January 2021: HRK 4,689,013 thousands).

Total fair value of collateral given in repo agreements as at 31 December 2021 amounts to HRK 17,182,851 thousands (1 January 2021: HRK 3,752,077 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 HRK 170,788 thousands.

Contingent liabilities and commitments

Legal actions: As at 31 December 2021, there were several legal actions outstanding. 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 HRK 36,535 thousands (see Note 3, under 11 Provisions).

Capital commitments: As at 31 December 2021, capital commitments of the Croatian National Bank amounted to HRK 7,298 thousands (1 January 2021: HRK 2,977 thousands).

Treasury inventory system

(All amounts are expressed in thousands of kuna)	31/12/2021	1/1/2021	Change	
			Absolute	%
Banknotes and coins not in circulation	52,440,227	46,494,179	5,946,048	12.79
Inventory of government stamps and bill-of-exchange forms	89,828	54,375	35,453	65.20
Total	52,530,055	46,548,554	5,981,501	12.85

Note 5 – Notes to the Profit and Loss Account

1 Net interest income/expense

(All amounts are expressed in thousands of kuna)

2021

Foreign currency interest income:

Foreign currency deposits	558
Foreign currency reverse repo agreements	1,369
Foreign currency denominated securities not held to maturity	299,299
Foreign currency denominated securities held to maturity	494,549
Foreign exchange swaps	797
Foreign currency repo agreements (negative interest)	79,158
Other	367,260
Total	1,242,990

Kuna interest income:

Loans to domestic banks	11,721
Securities held for monetary policy purposes	522,311
Other	2
Total	534,034

Total interest income

1,777,024

Foreign currency interest expense

Foreign currency repo agreements	(26)
Amortised premium on securities not held to maturity	(615,157)
Amortised premium on held-to-maturity securities	(254,613)
Foreign exchange swaps	(315)
Foreign exchange forward	(108)
Foreign currency deposits (negative interest)	(81,062)
Foreign currency reverse repo agreements (negative interest)	(144,188)
Other	(419)
Total	(1,095,888)

Kuna interest expense:

Ministry of Finance deposits	(7,744)
Amortised premium on securities held for monetary policy purposes	(374,476)
Leases	(221)
Total	(382,441)

Total interest expense

(1,478,329)

Total net interest income/(expense)

298,695

2 Net result of financial operations, write-downs and risk provisions

(All amounts are expressed in thousands of kuna)

2021

Realised gains/(losses) arising from financial operations

Foreign exchange differences	42,558
Securities	338,403
Total	380,961

Write-downs on financial assets and positions:

Foreign exchange:

Foreign exchange differences	(277,869)
Income from the release of revaluation reserves for foreign exchange differences	277,869

Total foreign exchange differences

–

Change in prices:

Securities	(371,832)
Income from the release of revaluation reserves for change in the prices of securities	371,832
Assets under management with international financial institutions	(3,266)
Gold	–
Other precious metals	(223)
Significant interests	–

Total change in prices

(3,489)

Total

(3,489)

Transfer to/from provisions for financial risks

Income from the release of provisions for financial risks	–
Provisions for financial risks	–

Total

–

Total net result of financial operations, write-downs and risk provisions

377,472

Foreign exchange losses and changes in the prices of securities were completely covered 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 kuna)

2021

Fees and commissions income

Fees for the supervision of credit institutions	55,426
Other	8,689
Total	64,115

Fees and commissions expense

Securities deposit and custody costs	(11,402)
Obligatory contribution to EBA budget	(4,881)
Other	(7,222)

Total

(23,505)

Net fees and commissions income/(expense)

40,610

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 head offices in the Republic of Croatia and branches of credit institutions with head offices outside the Republic of Croatia. The level, 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.

Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (*European Banking Authority* – EBA) defines that competent authorities form part of a 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 kuna)	2021
BIS dividend income	11,425
Total	11,425

5 Other income

(All amounts are expressed in thousands of kuna)	2021
Sale of numismatics and investment gold	1,653
Other income	6,309
Total	7,962

6 Operating expenses

(All amounts are expressed in thousands of kuna)	2021
Staff costs	(218,756)
Administrative expenses	(110,992)
Depreciation of tangible and intangible fixed assets	(40,045)
Costs of production of kuna banknotes and coins	(161,664)
Other costs	(148,319)
Total	(679,776)

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 asset amounted to HRK 3,715 thousands in 2021 and are reported under Depreciation and amortisation costs.

The largest share in Other costs is accounted for by the cost related to the civil proceeding in the amount of HRK 147,979 thousands. Namely, in previous years, on the basis of a final judgment in a civil proceeding in its favour, the Croatian National Bank had received payments from the defendant and after the final judgement was annulled by the Supreme Court of the Republic of Croatia in 2021 the Croatian National Bank had to return all received payments to the payer.

6.1 Staff costs

(All amounts are expressed in thousands of kuna)

	2021
Net salaries	114,635
Contributions from and contributions on salaries	58,954
Taxes and surtaxes	21,060
Other employee related expenses	22,977
Provisions for employee benefits	1,130
Staff costs	218,756

The average number of employees during 2021 was 696.

11 Profit/(loss) for the year

The Croatian National Bank realised profit for 2021 in the amount of HRK 56,388 thousands. The allocation of profit will be performed in the next financial year in compliance with the decision of the Council of the Croatian National Bank on the financial statements of the Croatian National Bank for 2021.

Note 6 – Risk management

The Croatian National Bank manages international reserves of the Republic of Croatia based on the principles of liquidity and safety, which means that it maintains high liquidity of international reserves and appropriate risk exposures and seeks to achieve favourable return on its investments within the defined limits.

Risks inherent to managing international reserves consist primarily of financial risks such as credit risk, liquidity risk and market risk. However, 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 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 can be used to cover the negative impacts on the profit and loss account arising from all financial risks.

6.1 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 international reserve funds 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.

Its assessment of financial institutions' creditworthiness is based on ratings of major internationally recognized rating agencies (Moody's, Standard & Poor's, and Fitch).

International reserves placements are limited per types of issuer and per types of financial institutions, which diversifies credit risk.

The Croatian National Bank invests the international reserve funds 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 sight deposits placed with commercial banks rated Aaa to A3 for the purpose of carrying out foreign currency transactions.

6.1.1 Maximum balance sheet exposure to credit risk

The tables below show maximum exposure to credit risk based on the amounts recognised in the balance sheet.

(All amounts are expressed in thousands of kuna)

Balance sheet line item					
Description	Code	Amount	Accrued interest (Balance sheet line item A8.4)	Accrued negative interest (Balance sheet line item L10.2)	Maximum exposure to credit risk as at 31 December 2021
As at 31 December 2021					
Receivables from the International Monetary Fund	2.1	9,250,190	–	–	9,250,190
Foreign currency denominated securities not held to maturity	2.2				
Government securities		52,431,707	134,506	–	52,566,213
Guaranteed bonds		60,471	76	–	60,547
Securities of international financial institutions		774,566	3,131	–	777,697
Bank bonds with government guarantees		1,098,512	1,566	–	1,100,078
Total foreign currency denominated securities not held to maturity		54,365,256	139,279	–	54,504,535
Foreign currency denominated securities held to maturity	2.2				
Government securities		30,997,487	154,372	–	31,151,859
Guaranteed bonds		1,815,087	1,941	–	1,817,028
Securities of international financial institutions		2,588,303	18,208	–	2,606,511
Bank bonds with government guarantees		1,979,360	4,304	–	1,983,664
Total foreign currency denominated securities held to maturity		37,380,237	178,825	–	37,559,062
Foreign currency deposits	2.2				
Current accounts		27,041,120	–	(2,058)	27,039,062
Deposits with other banks		8,164,056	95	(4,014)	8,160,137
Funds in TARGET2		12,461,619	–	–	12,461,619
Total foreign currency deposits		47,666,795	95	(6,072)	47,660,818
Foreign currency reverse repo agreements	2.2	17,569,486	61	(7,219)	17,562,328
Foreign exchange swaps	8.3	27,336	795	(316)	27,815
Other foreign currency financial assets	8.4 i 8.5	10,905	–	–	10,905
Kuna loans	5.2	3,067,000	23,576	–	3,090,576
Securities of the Republic of Croatia held for monetary policy purposes	7.1	18,357,930	136,796	–	18,494,726
Other kuna financial assets	8.4 i 8.5	6,928	–	–	6,928
Total		187,702,063	479,427	(13,607)	188,167,883

(All amounts are expressed in thousands of kuna)

Balance sheet line item					
Description	Code	Amount	Accrued interest (Balance sheet line item A8.4)	Accrued negative interest (Balance sheet line item P10.2)	Maximum exposure to credit risk as at 1 January 2021
As at 1 January 2021					
Receivables from the International Monetary Fund	2.1	2,701,058	–	–	2,701,058
Foreign currency denominated securities not held to maturity	2.2				
Government securities		57,143,376	163,236	–	57,306,612
Guaranteed bonds		179,587	183	–	179,770
Securities of international financial institutions		2,054,377	3,866	–	2,058,243
Bank bonds with government guarantees		1,355,664	1,570	–	1,357,234
Total foreign currency denominated securities not held to maturity		60,733,004	168,855	–	60,901,859
Foreign currency denominated securities held to maturity	2.2				
Government securities		21,538,262	151,030	–	21,689,292
Guaranteed bonds		1,706,915	1,860	–	1,708,775
Securities of international financial institutions		2,414,227	17,630	–	2,431,857
Bank bonds with government guarantees		1,222,478	3,576	–	1,226,054
Total foreign currency denominated securities held to maturity		26,881,882	174,096	–	27,055,978
Foreign currency deposits	2.2				
Current accounts		8,534,873	–	–	8,534,873
Deposits with other banks		12,076,502	310	(1,886)	12,074,926
Funds in TARGET2		5,791,070	–	–	5,791,070
Total foreign currency deposits		26,402,445	310	(1,886)	26,400,869
Foreign currency reverse repo agreements	2.2	4,729,855	14	(811)	4,729,058
Other foreign currency financial assets	8.4 i 8.5	2,552	–	–	2,552
Kuna loans	5.2	4,517,000	16,333	–	4,533,333
Securities of the Republic of Croatia held for monetary policy purposes	7.1	19,842,649	151,521	–	19,994,170
Other kuna financial assets	8.4 i 8.5	27,505	–	–	27,505
Total		145,837,950	511,129	(2,697)	146,346,382

6.2 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 the international reserve funds into 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 international reserves into deposits with maturities of up to three months and into securities, provided that securities not held to maturity are readily convertible into cash at any time. At 31 December 2021, approximately 66% of net international reserves were liquid and at the beginning of 2021 approximately 68% of net international reserves were liquid.

In accordance with the accounting policies of the Croatian National Bank, the tables below show the exposure of the Croatian National Bank to foreign currency liquidity risk. The tables classify the financial liabilities of the Croatian National Bank into relevant groupings by remaining contractual maturity from the reporting date. The tables have been drawn up

based on the undiscounted cash flows of financial liabilities in foreign currency on the earliest date on which payment could be required, and include both interest and principal cash flows as well as future interest expenses.

(All amounts are expressed in thousands of kuna)	Up to 1 month	1 to 3 months	From 3 months to 1 year	From 1 to 5 years	Over 5 years	Total	Book value
As at 31 December 2021							
7 Liabilities to residents in Croatia denominated in foreign currency	16,843,088	–	–	–	–	16,843,088	16,843,088
8 Liabilities to residents outside Croatia denominated in foreign currency	17,209,728	–	–	–	–	17,209,728	17,224,820
8.1 Deposits, balances and other liabilities	17,209,728	–	–	–	–	17,209,728	17,224,820
8.2 Liabilities arising from the credit facility under ERM II	–	–	–	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	–	–	–	–	9,227,912	9,227,912	9,227,912
10 Other liabilities	1,359,325	–	–	–	–	1,359,325	1,372,616
10.1 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–
10.2 Accruals and income collected in advance	2,403	–	–	–	–	2,403	15,694
10.3 Sundry	1,356,922	–	–	–	–	1,356,922	1,356,922
Total liabilities	35,412,141	–	–	–	9,227,912	44,640,053	44,668,436

(All amounts are expressed in thousands of kuna)	Up to 1 month	1 to 3 months	From 3 months to 1 year	From 1 to 5 years	Over 5 years	Total	Book value
As at 1 January 2021							
7 Liabilities to residents in Croatia denominated in foreign currency	8,715,990	–	–	–	–	8,715,990	8,715,990
8 Liabilities to residents outside Croatia denominated in foreign currency	3,755,004	–	–	–	–	3,755,004	3,757,361
8.1 Deposits, balances and other liabilities	3,755,004	–	–	–	–	3,755,004	3,757,361
8.2 Liabilities arising from the credit facility under ERM II	–	–	–	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	–	–	–	–	2,688,716	2,688,716	2,688,716
10 Other liabilities	1,997,329	–	–	–	–	1,997,329	2,000,022
10.1 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–
10.2 Accruals and income collected in advance	5,468	–	–	–	–	5,468	8,161
10.3 Sundry	1,991,861	–	–	–	–	1,991,861	1,991,861
Total liabilities	14,468,323	–	–	–	2,688,716	17,157,039	17,162,089

Note: Liabilities to residents outside Croatia denominated in foreign currency comprise accrued negative interest reported as assets in the balance sheet line item A8.4 Other liabilities do not include accrued negative interest on financial assets reported as liabilities in the balance sheet line item L10.2.

6.3 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.

6.3.1 Foreign exchange risk

The Croatian National Bank holds most of its assets in foreign currencies, which exposes it to foreign exchange risk in terms of fluctuations in the exchange rates of the kuna against the euro and 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 net international reserves, covering part of the reserves it manages in accordance with its own guidelines (net international reserves exclude the Ministry of Finance and European Commission funds, XDR holdings with the IMF and investments in repo agreements). A high proportion of the euro contributes to reducing volatility due to the stable exchange rate of the euro against the kuna. 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 international reserves formed out of the allocated foreign exchange reserve requirement, 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 HRK 4.4 billion.

6.3.1.1 Sensitivity analysis – impact of percentage fluctuations in exchange rates on the profit and loss account and balance sheet

Sensitivity analysis at 31 December 2021

(All amounts are expressed in thousands of kuna)

31/12/2021	USD	EUR
Exchange rate appreciation/depreciation	±5%	±1%
Effect of change in exchange rates on the revaluation account /profit and loss account	982,390/(982,390)	1,422,068/(1,422,068)

The table above shows the sensitivity of the Croatian National Bank balance sheet and profit and loss account result in the case of an increase/decrease in the EUR/HRK exchange rate by ±1% and in the case of an increase/decrease in the USD/HRK exchange rate by ±5%. Historically, the yearly volatility of the USD/HRK exchange rate has been five times higher than the EUR/HRK exchange rate volatility.

A positive figure denotes an increase in the revaluation account in the balance sheet if the kuna exchange rate appreciates against the relevant currency by the selected percentage (i.e. the kuna value depreciates in relation to the relevant currency), and if the kuna exchange rate depreciates against the relevant currency (i.e. the kuna value appreciates in relation to the relevant currency) the negative figure denotes a decrease in the profit and loss account result (if it exceeds previous revaluation gains registered in the corresponding revaluation account).

In the case of a 1% decrease in the EUR/HRK exchange rate as at 31 December 2021, negative impact would be lower by approximately HRK 1,422,068 thousands, while in the case of a 5% decrease in the USD/HRK exchange rate, the negative impact would be lower by approximately HRK 982,390 thousands.

Calculation methodology

The amount of the net euro and net US dollar international reserves as at balance sheet date is multiplied by the difference between the EUR/HRK exchange rate or the USD/HRK exchange rate valid at that date and those rates increased/decreased by the relevant percentages.

Sensitivity analysis at 1 January 2021

(All amounts are expressed in thousands of kuna)

1/1/2021	USD	EUR
Exchange rate appreciation/depreciation	±5%	±1%
Effect of change in exchange rates on the revaluation account /profit and loss account	924,931/(924,931)	1,199,195/(1,199,195)

6.3.1.2 CNB exposure to foreign exchange risk – analysis of assets and liabilities by currency

(All amounts are expressed in thousands of kuna)

	EUR	HRK linked to EUR	USD	XDR	HRK linked to XDR	Other foreign currencies	HRK	Total
As at 31 December 2021								
Assets								
1 Gold and gold receivables	–	–	–	–	–	–	4,601	4,601
2 Claims on residents outside Croatia denominated in foreign currency	170,321,269	–	18,865,254	9,250,190	3,147	1,739,568	–	200,179,428
2.1 Receivables from the International Monetary Fund (IMF)	–	–	–	9,250,190	3,147	–	–	9,253,337
2.2 Balances with banks and security investments, external loans and other external assets	170,321,269	–	18,865,254	–	–	1,739,568	–	190,926,091
3 Claims on residents in Croatia denominated in foreign currency	–	–	–	–	–	–	–	–
4 Claims on residents outside Croatia denominated in kuna	–	–	–	–	–	–	–	–
4.1 Balances with banks, security investments and loans	–	–	–	–	–	–	–	–
4.2 Claims arising from the credit facility under Exchange Rate Mechanism (ERM) II	–	–	–	–	–	–	–	–
5 Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	–	–	–	–	3,067,000	3,067,000
5.1 Regular operations	–	–	–	–	–	–	–	–
5.2 Structural operations	–	–	–	–	–	–	3,067,000	3,067,000
5.3 Fine-tuning operations	–	–	–	–	–	–	–	–
5.4 Overnight credits	–	–	–	–	–	–	–	–
6 Other claims on credit institutions from Croatia denominated in kuna	–	–	–	–	–	–	–	–
7 Securities of residents in Croatia denominated in kuna	–	3,260,725	–	–	–	–	15,097,205	18,357,930
7.1 Securities held for monetary policy purposes	–	3,260,725	–	–	–	–	15,097,205	18,357,930
7.2 Other securities	–	–	–	–	–	–	–	–
8 Other assets	251,423	25,449	78,835	–	–	314	976,407	1,332,428
8.1 Tangible and intangible fixed assets	–	–	–	–	–	–	645,652	645,652
8.2 Other financial assets	–	–	–	–	–	–	120,224	120,224
8.3 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	27,336	27,336
8.4 Accruals and prepaid expenditure	251,281	23,930	78,835	–	–	314	152,275	506,635
8.5 Sundry	142	1,519	–	–	–	–	30,920	32,581
9 Loss for the year	–	–	–	–	–	–	–	–
Total assets	170,572,692	3,286,174	18,944,089	9,250,190	3,147	1,739,882	19,145,213	222,941,387

(All amounts are expressed in thousands of kuna)	EUR	HRK linked to EUR	USD	XDR	HRK linked to XDR	Other foreign currencies	HRK	Total
As at 31 December 2021								
Liabilities								
1 Banknotes and coins in circulation	–	–	–	–	–	–	44,260,230	44,260,230
2 Liabilities to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	–	–	–	–	103,934,113	103,934,113
2.1 Current accounts (covering the reserve requirement system)	–	–	–	–	–	–	103,934,113	103,934,113
2.2 Overnight deposits	–	–	–	–	–	–	–	–
2.3 Fixed-term deposits	–	–	–	–	–	–	–	–
2.4 Deposits related to margin calls	–	–	–	–	–	–	–	–
3 Other liabilities to credit institutions from Croatia denominated in kuna	–	–	–	–	–	–	92,888	92,888
4 Debt securities of the Croatian National Bank	–	–	–	–	–	–	–	–
5 Liabilities to other residents in Croatia denominated in kuna	–	–	–	–	–	–	14,385,151	14,385,151
5.1 General government	–	–	–	–	–	–	14,142,448	14,142,448
5.2 Other liabilities	–	–	–	–	–	–	242,703	242,703
6 Liabilities to residents outside Croatia denominated in kuna	–	–	–	–	–	–	474,754	474,754
7 Liabilities to residents in Croatia denominated in foreign currency	16,712,369	–	37,452	17,299	–	75,968	–	16,843,088
8 Liabilities to residents outside Croatia denominated in foreign currency	16,590,222	–	634,598	–	–	–	–	17,224,820
8.1 Deposits, balances and other liabilities	16,590,222	–	634,598	–	–	–	–	17,224,820
8.2 Liabilities arising from the credit facility under ERM II	–	–	–	–	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	–	–	–	9,227,912	–	–	–	9,227,912
10 Other liabilities	1,221,382	14,885	151,228	–	–	6	84,499	1,472,000
10.1 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–	–
10.2 Accruals and income collected in advance	15,688	–	–	–	–	6	2,117	17,811
10.3 Sundry	1,205,694	14,885	151,228	–	–	–	82,382	1,454,189
Total liabilities	34,523,973	14,885	823,278	9,245,211	–	75,974	163,231,635	207,914,956
Net position	136,048,719	3,271,289	18,120,811	4,979	3,147	1,663,908	(144,086,422)	15,026,431

(All amounts are expressed in thousands of kuna)	EUR	HRK linked to EUR	USD	XDR	HRK linked to XDR	Other foreign currencies	HRK	Total
As at 1 January 2021								
Assets								
1 Gold and gold receivables	–	–	–	–	–	–	4,405	4,405
2 Claims on residents outside Croatia denominated in foreign currency	126,792,182	–	18,323,940	2,701,058	2,779	26,448	–	147,846,407
2.1 Receivables from the International Monetary Fund (IMF)	–	–	–	2,701,058	2,779	–	–	2,703,837
2.2 Balances with banks and security investments, external loans and other external assets	126,792,182	–	18,323,940	–	–	26,448	–	145,142,570
3 Claims on residents in Croatia denominated in foreign currency	–	–	–	–	–	–	–	–
4 Claims on residents outside Croatia denominated in kuna	–	–	–	–	–	–	–	–
4.1 Balances with banks, security investments and loans	–	–	–	–	–	–	–	–
4.2 Claims arising from the credit facility under Exchange Rate Mechanism (ERM) II	–	–	–	–	–	–	–	–
5 Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	–	–	–	–	4,517,000	4,517,000
5.1 Regular operations	–	–	–	–	–	–	–	–
5.2 Structural operations	–	–	–	–	–	–	4,517,000	4,517,000
5.3 Fine-tuning operations	–	–	–	–	–	–	–	–
5.4 Overnight credits	–	–	–	–	–	–	–	–
6 Other claims on credit institutions from Croatia denominated in kuna	–	–	–	–	–	–	–	–
7 Securities of residents in Croatia denominated in kuna	–	3,297,577	–	–	–	–	16,545,072	19,842,649
7.1 Securities held for monetary policy purposes	–	3,297,577	–	–	–	–	16,545,072	19,842,649
7.2 Other securities	–	–	–	–	–	–	–	–
8 Other assets	271,639	26,104	77,297	–	–	20	960,348	1,335,408
8.1 Tangible and intangible fixed assets	–	–	–	–	–	–	610,168	610,168
8.2 Other financial assets	–	–	–	–	–	–	113,024	113,024
8.3 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–	–
8.4 Accruals and prepaid expenditure	271,405	24,001	77,297	–	–	20	154,746	527,469
8.5 Sundry	234	2,103	–	–	–	–	82,410	84,747
9 Loss for the year	–	–	–	–	–	–	–	–
Total assets	127,063,821	3,323,681	18,401,237	2,701,058	2,779	26,468	22,026,825	173,545,869

(All amounts are expressed in thousands of kuna)

	EUR	HRK linked to EUR	USD	XDR	HRK linked to XDR	Other foreign currencies	HRK	Total
As at 1 January 2021								
Liabilities								
1 Banknotes and coins in circulation	–	–	–	–	–	–	41,792,678	41,792,678
2 Liabilities to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	–	–	–	–	83,235,638	83,235,638
2.1 Current accounts (covering the reserve requirement system)	–	–	–	–	–	–	83,235,638	83,235,638
2.2 Overnight deposits	–	–	–	–	–	–	–	–
2.3 Fixed-term deposits	–	–	–	–	–	–	–	–
2.4 Deposits related to margin calls	–	–	–	–	–	–	–	–
3 Other liabilities to credit institutions from Croatia denominated in kuna	–	–	–	–	–	–	270,124	270,124
4 Debt securities of the Croatian National Bank	–	–	–	–	–	–	–	–
5 Liabilities to other residents in Croatia denominated in kuna	–	–	–	–	–	–	16,342,330	16,342,330
5.1 General government	–	–	–	–	–	–	16,230,669	16,230,669
5.2 Other liabilities	–	–	–	–	–	–	111,661	111,661
6 Liabilities to residents outside Croatia denominated in kuna	–	–	–	–	–	–	287,910	287,910
7 Liabilities to residents in Croatia denominated in foreign currency	8,597,392	–	85,941	7,601	–	25,056	–	8,715,990
8 Liabilities to residents outside Croatia denominated in foreign currency	3,757,361	–	–	–	–	–	–	3,757,361
8.1 Deposits, balances and other liabilities	3,757,361	–	–	–	–	–	–	3,757,361
8.2 Liabilities arising from the credit facility under ERM II	–	–	–	–	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	–	–	–	2,688,716	–	–	–	2,688,716
10 Other liabilities	1,828,914	4,864	171,102	–	–	6	272,330	2,277,216
10.1 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–	–
10.2 Accruals and income collected in advance	8,153	–	2	–	–	6	1,835	9,996
10.3 Sundry	1,820,761	4,864	171,100	–	–	–	270,495	2,267,220
Total liabilities	14,183,667	4,864	257,043	2,696,317	–	25,062	142,201,010	159,367,963
Net position	112,880,154	3,318,817	18,144,194	4,741	2,779	1,406	(120,174,185)	14,177,906

Note 6.3.2 Interest rate risk

Interest rate risk is the risk of a decline in the value of the Croatian National Bank's foreign currency portfolios of international reserves due to possible changes in interest rates on the fixed-yield instrument markets.

Net international reserves, 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 an available for sale 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 reserves that consists of the Ministry of Finance funds, funds based on repo agreements with banks, swap interventions in the domestic foreign exchange market, the membership in the IMF and other property owned by other legal entities, is operated by the CNB in accordance with commitments, in order to protect it against interest rate risk.

6.3.2.1 Sensitivity analysis – exposure of the CNB's net international reserves to fluctuations in interest rates

Sensitivity analysis at 31 December 2021

(All amounts are expressed in thousands of kuna)

31/12/2021	USD	EUR
Yield curve increase/decrease	±1 b. p.	±1 b. p.
Effect of change in the level of the yield curve on the revaluation account and profit and loss account	(551)/551	(4,615)/4,615

Should as at 31 December 2021 the entire USD yield curve increase by 1 basis point (0.01%), the Croatian National Bank profit and loss account result would be lower by approximately HRK 551 thousands, while in the case of the EUR yield curve increasing by 1 basis point, the result would be lower by approximately HRK 4,615 thousands.

In the case of a 1 basis point decrease of the yield curve, the result in the revaluation account in the Balance Sheet would be higher by approximately the same amounts.

Calculation methodology

The values of USD and EUR trade portfolios as at balance sheet date were multiplied by modified duration and by 1 basis point (0.01%). Modified duration denotes by how many basis points the value of the portfolio will decrease should the interest rate curve increase by 1 percentage point.

Sensitivity analysis at 1 January 2021

(All amounts are expressed in thousands of kuna)

1/1/2021	USD	EUR
Yield curve increase/decrease	±1 b. p.	±1 b. p.
Effect of change in the level of the yield curve on the revaluation account and profit and loss account	(567)/567	(4,148)/4,148

6.3.2.2 Interest rate risk analysis

(All amounts are expressed in thousands of kuna)

	Up to 1 month	1 to 3 months	From 3 months to 1 year	From 1 to 5 years	Over 5 years	Non-interest bearing	Total
As at 31 December 2021							
Assets							
1 Gold and gold receivables	–	–	–	–	–	4,601	4,601
2 Claims on residents outside Croatia denominated in foreign currency	124,450,033	7,480,611	2,832,804	15,968,322	15,495,358	33,952,300	200,179,428
2.1 Receivables from the International Monetary Fund (IMF)	9,245,354	–	–	–	–	7,983	9,253,337
2.2 Balances with banks and security investments, external loans and other external assets	115,204,679	7,480,611	2,832,804	15,968,322	15,495,358	33,944,317	190,926,091
3 Claims on residents in Croatia denominated in foreign currency	–	–	–	–	–	–	–
4 Claims on residents outside Croatia denominated in kuna	–	–	–	–	–	–	–
4.1 Balances with banks, security investments and loans	–	–	–	–	–	–	–
4.2 Claims arising from the credit facility under Exchange Rate Mechanism (ERM) II	–	–	–	–	–	–	–
5 Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	150,000	2,917,000	–	–	3,067,000
5.1 Regular operations	–	–	–	–	–	–	–
5.2 Structural operations	–	–	150,000	2,917,000	–	–	3,067,000
5.3 Fine-tuning operations	–	–	–	–	–	–	–
5.4 Overnight credits	–	–	–	–	–	–	–
6 Other claims on credit institutions from Croatia denominated in kuna	–	–	–	–	–	–	–
7 Securities of residents in Croatia denominated in kuna	–	1,436,668	407,683	9,248,791	7,264,788	–	18,357,930
7.1 Securities held for monetary policy purposes	–	1,436,668	407,683	9,248,791	7,264,788	–	18,357,930
7.2 Other securities	–	–	–	–	–	–	–
8 Other assets	–	–	–	–	–	1,332,428	1,332,428
8.1 Tangible and intangible fixed assets	–	–	–	–	–	645,652	645,652
8.2 Other financial assets	–	–	–	–	–	120,224	120,224
8.3 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	27,336	27,336
8.4 Accruals and prepaid expenditure	–	–	–	–	–	506,635	506,635
8.5 Sundry	–	–	–	–	–	32,581	32,581
9 Loss for the year	–	–	–	–	–	–	–
Total assets	124,450,033	8,917,279	3,390,487	28,134,113	22,760,146	35,289,329	222,941,387

(All amounts are expressed in thousands of kuna)

	Up to 1 month	1 to 3 months	From 3 months to 1 year	From 1 to 5 years	Over 5 years	Non-interest bearing	Total
As at 31 December 2021							
Liabilities							
1 Banknotes and coins in circulation	–	–	–	–	–	44,260,230	44,260,230
2 Liabilities to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	–	–	–	103,934,113	103,934,113
2.1 Current accounts (covering the reserve requirement system)	–	–	–	–	–	103,934,113	103,934,113
2.2 Overnight deposits	–	–	–	–	–	–	–
2.3 Fixed-term deposits	–	–	–	–	–	–	–
2.4 Deposits related to margin calls	–	–	–	–	–	–	–
3 Other liabilities to credit institutions from Croatia denominated in kuna	–	–	–	–	–	92,888	92,888
4 Debt securities of the Croatian National Bank	–	–	–	–	–	–	–
5 Liabilities to other residents in Croatia denominated in kuna	10,665,261	–	–	–	–	3,719,890	14,385,151
5.1 General government	10,665,261	–	–	–	–	3,477,187	14,142,448
5.2 Other liabilities	–	–	–	–	–	242,703	242,703
6 Liabilities to residents outside Croatia denominated in kuna	–	–	–	–	–	474,754	474,754
7 Liabilities to residents in Croatia denominated in foreign currency	12,391,485	–	–	–	–	4,451,603	16,843,088
8 Liabilities to residents outside Croatia denominated in foreign currency	17,224,021	–	–	–	–	799	17,224,820
8.1 Deposits, balances and other liabilities	17,224,021	–	–	–	–	799	17,224,820
8.2 Liabilities arising from the credit facility under ERM II	–	–	–	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	9,227,912	–	–	–	–	–	9,227,912
10 Other liabilities	–	–	4,025	10,860	–	1,457,115	1,472,000
10.1 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–
10.2 Accruals and income collected in advance	–	–	–	–	–	17,811	17,811
10.3 Sundry	–	–	4,025	10,860	–	1,439,304	1,454,189
Total liabilities	49,508,679	–	4,025	10,860	–	158,391,392	207,914,956
Net position	74,941,354	8,917,279	3,386,462	28,123,253	22,760,146	(123,102,063)	15,026,431

(All amounts are expressed in thousands of kuna)	Up to 1 month	1 to 3 months	From 3 months to 1 year	From 1 to 5 years	Over 5 years	Non-interest bearing	Total
As at 1 January 2021							
Assets							
1 Gold and gold receivables	–	–	–	–	–	4,405	4,405
2 Claims on residents outside Croatia denominated in foreign currency	93,078,911	2,164,785	357,276	17,670,829	8,171,838	26,402,768	147,846,407
2.1 Receivables from the International Monetary Fund (IMF)	2,696,453	–	–	–	–	7,384	2,703,837
2.2 Balances with banks and security investments, external loans and other external assets	90,382,458	2,164,785	357,276	17,670,829	8,171,838	26,395,384	145,142,570
3 Claims on residents in Croatia denominated in foreign currency	–	–	–	–	–	–	–
4 Claims on residents outside Croatia denominated in kuna	–	–	–	–	–	–	–
4.1 Balances with banks, security investments and loans	–	–	–	–	–	–	–
4.2 Claims arising from the credit facility under Exchange Rate Mechanism (ERM) II	–	–	–	–	–	–	–
5 Lending to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	–	4,517,000	–	–	4,517,000
5.1 Regular operations	–	–	–	–	–	–	–
5.2 Structural operations	–	–	–	4,517,000	–	–	4,517,000
5.3 Fine-tuning operations	–	–	–	–	–	–	–
5.4 Overnight credits	–	–	–	–	–	–	–
6 Other claims on credit institutions from Croatia denominated in kuna	–	–	–	–	–	–	–
7 Securities of residents in Croatia denominated in kuna	–	–	1,123,124	6,119,324	12,600,201	–	19,842,649
7.1 Securities held for monetary policy purposes	–	–	1,123,124	6,119,324	12,600,201	–	19,842,649
7.2 Other securities	–	–	–	–	–	–	–
8 Other assets	–	–	–	–	–	1,335,408	1,335,408
8.1 Tangible and intangible fixed assets	–	–	–	–	–	610,168	610,168
8.2 Other financial assets	–	–	–	–	–	113,024	113,024
8.3 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–
8.4 Accruals and prepaid expenditure	–	–	–	–	–	527,469	527,469
8.5 Sundry	–	–	–	–	–	84,747	84,747
9 Loss for the year	–	–	–	–	–	–	–
Total assets	93,078,911	2,164,785	1,480,400	28,307,153	20,772,039	27,742,581	173,545,869

(All amounts are expressed in thousands of kuna)

	Up to 1 month	1 to 3 months	From 3 months to 1 year	From 1 to 5 years	Over 5 years	Non-interest bearing	Total
As at 1 January 2021							
Liabilities							
1 Banknotes and coins in circulation	–	–	–	–	–	41,792,678	41,792,678
2 Liabilities to credit institutions from Croatia related to monetary policy operations denominated in kuna	–	–	–	–	–	83,235,638	83,235,638
2.1 Current accounts (covering the reserve requirement system)	–	–	–	–	–	83,235,638	83,235,638
2.2 Overnight deposits	–	–	–	–	–	–	–
2.3 Fixed-term deposits	–	–	–	–	–	–	–
2.4 Deposits related to margin calls	–	–	–	–	–	–	–
3 Other liabilities to credit institutions from Croatia denominated in kuna	–	–	–	–	–	270,124	270,124
4 Debt securities of the Croatian National Bank	–	–	–	–	–	–	–
5 Liabilities to other residents in Croatia denominated in kuna	10,501,815	–	–	–	–	5,840,515	16,342,330
5.1 General government	10,501,815	–	–	–	–	5,728,854	16,230,669
5.2 Other liabilities	–	–	–	–	–	111,661	111,661
6 Liabilities to residents outside Croatia denominated in kuna	–	–	–	–	–	287,910	287,910
7 Liabilities to residents in Croatia denominated in foreign currency	5,726,455	–	–	–	–	2,989,535	8,715,990
8 Liabilities to residents outside Croatia denominated in foreign currency	3,756,698	–	–	–	–	663	3,757,361
8.1 Deposits, balances and other liabilities	3,756,698	–	–	–	–	663	3,757,361
8.2 Liabilities arising from the credit facility under ERM II	–	–	–	–	–	–	–
9 Counterpart of special drawing rights allocated by the IMF	2,688,716	–	–	–	–	–	2,688,716
10 Other liabilities	–	–	2,317	2,547	–	2,272,352	2,277,216
10.1 Off-balance-sheet instruments revaluation differences	–	–	–	–	–	–	–
10.2 Accruals and income collected in advance	–	–	–	–	–	9,996	9,996
10.3 Sundry	–	–	2,317	2,547	–	2,262,356	2,267,220
Total liabilities	22,673,684	–	2,317	2,547	–	136,689,415	159,367,963
Net position	70,405,227	2,164,785	1,478,083	28,304,606	20,772,039	(108,946,834)	14,177,906

Note 6.3.3 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.

6.3.3.1 Sensitivity analysis – impact of changes in prices of financial instruments on the balance sheet and the profit and loss account

Sensitivity analysis at 31 December 2021 – assets under management with international financial institutions

(All amounts are expressed in thousands of kuna)

31/12/2021

Financial assets price exposed to price risk increase/decrease	±1%
Effect of change in the level of price on the revaluation account and the profit and loss account	13,263/(13,263)

The table shows the sensitivity of the balance sheet and profit and loss account result in the case of a rise or fall of prices of financial instruments by $\pm 1\%$.

A positive number implies an increase in the balance sheet revaluation accounts if there is an increase in the prices of financial instruments by the selected percentage, while a negative number implies a reduction in the profit and loss account result if the prices of financial instruments fall.

Should the prices of a financial instrument increase by 1% compared to the prices recorded on 31 December 2021, the balance sheet revaluation account would be higher by approximately HRK 13,263 thousands, while the fall in prices by 1% would result in the profit and loss account result being lower by approximately HRK 13,263 thousands.

Sensitivity analysis at 31 December 2021 – gold and other precious metals

(All amounts are expressed in thousands of kuna)

31/12/2021

Financial assets price exposed to price risk increase/decrease	±5%
Effect of change in the level of price on the revaluation account and the profit and loss account	469/(469)

The table shows the sensitivity of the balance sheet and profit and loss account result in the case of a rise or fall of prices of precious metals by $\pm 5\%$.

A positive number implies an increase in the balance sheet revaluation accounts if there is an increase in the prices of financial instruments by the selected percentage, while a negative number implies a reduction in the profit and loss account result if the prices of financial instruments fall.

Should the prices of precious metals increase by 5% compared to the prices recorded on 31 December 2021, the balance sheet revaluation account would be higher by approximately HRK 469 thousands, while a fall in prices of 5% would result in the profit and loss account result being lower by approximately HRK 469 thousands.

Calculation methodology

Investments in financial assets exposed to price risks as at balance sheet date have been increased or reduced by the selected percentage change in the price of financial instruments.

Sensitivity analysis at 1 January 2021 – assets under management with international financial institutions

(All amounts are expressed in thousands of kuna)

1/1/2021

Financial assets price exposed to price risk increase/decrease	±1%
Effect of change in the level of price on the revaluation account and the profit and loss account	12,286/(12,286)

Sensitivity analysis at 1 January 2021 – gold and other precious metals

(All amounts are expressed in thousands of kuna)

1/1/2021

Financial assets price exposed to price risk increase/decrease	±5%
Effect of change in the level of price on the revaluation account and the profit and loss account	471/(471)

Note 7 – Events after the reporting period

The outbreak of the war in Ukraine and the imposing of sanctions against Russia do not have a significant negative impact on the financial statements of the Croatian National Bank because the Croatian National Bank has no exposures to Ukraine and Russia.

After 31 December 2021 there were no other significant events that would have an impact on the financial statements of the Croatian National Bank.

ABBREVIATIONS AND SYMBOLS

Abbreviations

AIIB	Asian Infrastructure Investment Bank
AIS	account information service
AMLSCO	Standing Committee on anti-money laundering and countering terrorist financing
	AnaCredit analytical credit database
API	application programming interface
AMLTF	Anti-Money Laundering and Terrorist Financing Act
APMLTF	Act on the Prevention of Money Laundering and Terrorist Financing
APN	Agency for Transactions and Mediation in Immovable Properties
AQR	asset quality review
BIS	Bank for International Settlements
BISIN	Bank for International Settlements Innovation Network
bn	billion
CBDC	central bank digital currency
CBS	Croatian Bureau of Statistics
CDCC	Central Depository and Clearing Company
CDIA	Croatian Deposit Insurance Agency
CESEE	Central, Eastern and Southeastern Europe
CHF	Swiss franc
CIR	cost-to-income ratio
CLVPS	Croatian Large Value Payment System
CNB	Croatian National Bank
CompNet	Competitiveness Research Network
CPII	Croatian Pension Insurance Institute
CSDB	Centralised Securities Database
DLT	distributed ledger technology
DWH	Data Warehouse
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECB	European Central Bank
ECL	expected credit loss
EDIS	European deposit insurance scheme
EEA	European Economic Area
EFC	Economic and Financial Committee
EFIF	European Forum for Innovation Facilitators
EFTPOS	electronic funds transfer at point of sale
EGMLTF	Expert group on Money Laundering and Terrorist Financing
EIOPA	European Insurance and Occupational Pension Authority

ESCB	European System of Central Banks
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
EU	European Union
EUR	euro
Euro-NCS	Euro National Clearing System
Fed	Federal Reserve System
FINA	Financial Agency
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
HLTF	High Level Task Force on Digital Euro
HRK	Croatian kuna
IFRS	International Financial Reporting Standards
ILAAP	Internal Liquidity Adequacy Assessment Process
IMF	International Monetary Fund
IMFC	International Monetary and Financial Committee
IMI	internal model inspection
IReF	Integrated Reporting Framework
IRT	Internal Resolution Team
IT	information technology
LCR	liquidity coverage ratio
LGD	loss given default
m	million
MF	Ministry of Finance
MREL	minimum requirement for own funds and eligible liabilities
NCA	National Classification of Activities
NCS	National Clearing System
NGFS	Network for Greening of the Financial Systems
NPE	non-performing exposures
NPL	non-performing loans
OSI	on-site inspection
O-SIIs	other systemically important institutions
PD	probability of default
PIS	payment initiation service
PMLTF	prevention of money laundering and terrorist financing

PRG-HIPC	Poverty Reduction and Growth – Heavily Indebted Poor Countries
PSD2	Second Payment Services Directive
RC	Republic of Croatia
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
SCT SEPA	SEPA Credit Transfer
SCTInst	SEPA Credit Transfer Instant
SDR	special drawing rights
SEPA	Single Euro Payment Area
SGRE	Sub-Group on Resolution Execution
SGRPP	Sub-Group on Resolution Planning Preparedness
SHSDB	Securities Holdings Statistics Database
SMS	short message system
SRB	Single Resolution Board
SREP	Supervisory Review and Evaluation Process
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
SudReg	Court Register
TARGET2-HR	national component of the TARGET2 system
TARGET2	Trans-European Automated Real-time Gross Settlement Express Transfer system
Thous.	thousand
TIPS	TARGET Instant Payment Settlement
TREA	total risk exposure amount
USA	United States of America
USD	US dollar

Symbols

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

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