



# Annual Report 2017

ZAGREB, JUNE 2018



CROATIAN NATIONAL BANK

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CROATIAN NATIONAL BANK

# ANNUAL REPORT 2017

Zagreb, June 2018



# Foreword by the Governor

'You fix the roof when the sun is shining' is a saying that springs to mind at this moment.

Despite daily challenges, last year was a successful one, in macroeconomic terms. The international environment was favourable. Croatia's neighbouring countries, as well as trading partners grew. The domestic economy grew, although at a slower pace than in peer countries. Personal consumption and exports continued to be the main growth generators. However, investment growth is still expected. Positive trends continued in the labour market, employment increased and unemployment decreased. Inflation returned to positive territory. The current account surplus levelled out, supported by growing exports, while external vulnerability indicators have been improving. Expansionary monetary policy continued to aid economic recovery and financing conditions improved as well: interest rates fell and lending recovered. There was a considerable improvement in the fiscal situation.

It is in just such circumstances that the Croatian National Bank remains watchful of potential external and domestic risks in order for Croatian households and the Croatian economy to be best prepared when they come, so that their negative effects can be contained as far as possible. The only limited impact of the Agrokor crisis on economic activity and financial stability confirms the validity of this approach.

Let us recall that the CNB ensured long-term consequent implementation of regulations that limit the exposure of domestic banks to Agrokor and that it is thanks to the CNB that the current situation surrounding the Agrokor Group did not spill over to a full-blown systemic banking crisis.

In the course of its supervisory examinations of credit institutions, the CNB identified the unrecognised and sometimes even unlawful exposures of some banks to Agrokor. By exercising its regulatory powers the CNB ensured that these exposures are recognised and brought back to below statutory limits. Special efforts were invested in identifying and monitoring economic links among suppliers and creditors.

Banks exposures towards factoring institutions were classified into one risk with Agrokor, except for those that could have clearly be identified as independent.

The overall risk of Croatian banks to Agrokor and its associated persons at the moment when the Act on Extraordinary Administration Procedure in Companies of Systemic Importance for the Republic of Croatia was adopted was **below 20% of the capital** of these banks, which prevented the spillover of the Agrokor crisis into a banking crisis. Today, the risk is recognised in full and entered in the books, value adjustments have been made, reducing the impact of the risk on the banking system. Had it not been for the CNB's timely and consistent reaction, the exposure of domestic banks to Agrokor could have had devastating consequences.

With respect to measures undertaken in 2017, we developed the Strategy for the Adoption of the Euro in Croatia, adopted interest rate recommendations and started publishing an informative bank list, to single out only a few.

In 2017, the CNB adopted the previously mentioned Strategy in co-operation with the Government. The adoption of the euro would eliminate currency risk and considerably reduce the vulnerabilities of the Croatian economy because total foreign currency debt exceeds HRK 500bn or some 150% of GDP. Each time the kuna weakens debt repayments for households, companies and the Government grow proportionally. In contrast, predictability in the context of exchange rate developments contributes positively to long-term business and investment planning, which in turn boosts employment growth.

The recommendation to mitigate credit risk was issued in 2017 precisely with a view to increasing predictability. Banks were recommended to offer clients the possibility of redefining the financing conditions of existing loans with variable interest rates as a way of protecting themselves against interest risk.

We started publishing a searchable Information list, comprising all relevant information about the loans currently offered to consumers in domestic currency with or without a currency clause in euro.

However, in order for Croatia's economic progress to be comprehensive and in order for the problems that place it at the bottom of the scale among peer countries to be systematically resolved, it is necessary to increase potential growth rates in the long run. I have already often mentioned the related structural challenges that need to be overcome – from education, public administration, poor regulation and the justice system to the pension and health care systems. What I would like to add here is the need to develop the capability to accept and develop technology, i.e. new technologies that build on artificial intelligence and automation, which bring important changes to the labour market and in the competitive global market. Society needs to adapt and offer solutions in the segment of education, retraining, taxation policy, income distribution, pensions, etc. Technological development may also considerably reduce Croatia's future problems arising from unfavourable demographic developments. However, this requires active involvement.

Therefore, despite, or precisely because, of the economic difficulties dominating the daily lives of many Croatian citizens, it is important that all of us together 'fix the roof', now, when the weather is proverbially good. A report on the CNB's contribution to this endeavour in 2017 lies before you.



Boris Vujčić  
Governor



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Members of the Council of the Croatian National Bank

Front row (right to left): Boris Vujčić (Governor), Relja Martić (Deputy Governor) and Tomislav Presečan (Vicegovernor)

Back row (right to left): Vedran Šošić (Vicegovernor), Michael Faulend (Vicegovernor), Damir Odak (Vicegovernor), Neven Barbaroša (Vicegovernor) and Bojan Fras (Vicegovernor)

# The year at a glance

## Macroeconomic developments – main highlights

**Slight deceleration in growth:** **2.8%** was the annual growth rate of real GDP in 2017, down from the **3.2%** of 2016

**Inflation picked up:** to the average of **1.1%**, compared with **-1.1%** in 2016

**Surplus in the current and capital account:** recorded for the fifth consecutive year; it was **4.4% of GDP** in 2017, after being **3.9%** of GDP in 2016

**Interest rates continued to fall:** **3.9%** was the average interest rate on new housing loans in kuna in 2017, **4.6%** in 2016 and, for example, **5.7%** in 2012

**General government surplus:** **0.8% of GDP** in 2017; exit from the excessive deficit procedure

## Stability of the Croatian financial system was preserved

Ensuring the timely and consistent enforcement of prudential regulations and restrictions related to domestic bank exposure to Agrokor preserved financial system stability. The crisis in Agrokor did not have a significant negative impact on either the financial system or overall economic activity in Croatia.

## Strategy for the Adoption of the Euro in Croatia was prepared

**In cooperation with the Government of the Republic of Croatia, the Croatian National Bank prepared and presented to the public the Strategy for the Adoption of the Euro in Croatia. The benefits of euro adoption would be permanent and outweigh the costs, which would be mostly small and one-off.** The euro would be suitable for Croatia as 82% of savings and 73% of total liabilities of domestic entities are indexed to the euro, as a result of which the Croatian economy is currently highly exposed

to currency risk. Adoption of the euro would eliminate the currency risk for citizens, companies and the government, further reduce interest rates, spur investment, remove the risk of a currency crisis, and reduce the risk of a banking and balance-of-payments crisis. In addition, the euro would have a positive effect on tourism and the trade in goods as it would lead to a sharp reduction in transaction costs, greater transparency and easier price comparability.

## Recommendation to mitigate interest rate risk issued to banks

A recommendation was issued to banks to mitigate interest rate risk for consumers by replacing a variable interest rate with a fixed interest rate at no additional cost for consumers. Banks were recommended the following: to offer in writing fixed interest rates to their clients with variable interest rate loans; to provide clients with comparable repayment plans; not to charge any fees when changing existing agreements; not to charge an early loan repayment fee so as to facilitate consumers' choice; when changing existing loan agreements, to offer an interest rate that is commensurate to that they currently offer and that does not significantly depart from the average interest rate in the market; to expand, for the purpose of granting new loans, the offer of loans with fixed interest rates, and in contracting such loans not to charge an early loan repayment fee.

## Information list containing the offer of consumer loans was created and published

Believing that transparent information provides the best protection for consumers, the CNB posted on its website an Information list with the offer of loans to consumers, which contains basic information on bank loans. The purpose of the Information list, which is also available through the mHNB application, is to enable consumers to compare the different bank loans on offer. For the first time, consumers can obtain in one place the following information on offered loans: the maximum amount (in kuna and with a currency clause in euro); the maximum possible repayment period; information on whether the loan is granted at a variable, fixed or combined interest rate; the reference parameter (for variable or combined interest rates); the effective interest rate; the fixed margin (variable interest rate); the amount of any

early repayment fee (all loans – separately for loans contracted before and after 2010). This provides consumers with a good starting point for further information on the bank loans offered and enables them to select the offer that best suits their needs and possibilities.

## Continuation of structural repo operations: the long-term source of kuna funding on favourable terms

Structural repo operations provided banks with access to kuna liquidity sources for a period of four and five years. Although HRK 0.5bn at a cost of 1.2% was generated in 2017, the banks were not interested in taking up the entire amount available for borrowing.

## Enhancing financial literacy has remained in focus

The Croatian National Bank continued its educational activities aimed at enhancing the financial literacy of citizens, particularly among the young: lectures on all aspects of central bank activities were organised for schoolchildren, university students and teachers at the CNB, CNB experts held lectures on various topics from the CNB scope of activity in educational institutions, and brochures and leaflets were prepared to give information about financial risks and provide the necessary knowledge about managing personal finances.

## Warning about risks associated with virtual currencies

Cryptocurrencies: The CNB warned about the facts and risks of the OneCoin product and published an elaborate press release on virtual currencies in view of the heightened public interest in and many inquiries about this subject.

## Door to the CNB building was open as part of the Design District Zagreb Project

To familiarise citizens with the key work of architect Viktor Kovačić (1874-1924), the progenitor of modern architecture in Croatia, the interested public accompanied by an expert guide had the opportunity in June 2017 to view his masterpiece: the Round Hall of the former Stock Exchange.



# Public relations

Press releases, responses to inquiries, warnings and notifications for consumers, publications, conferences, meetings with journalists and members of parliament, economic workshops, lectures for schoolchildren and students, schoolchildren's debate, seminars for teachers, open days and posts on social media – all these were actions taken by the Croatian National Bank in order to upgrade citizens' knowledge about its work and enhance financial literacy, particularly among the young. The central bank opened new communication channels, Facebook and LinkedIn profiles and the mHNB mobile application.

The Croatian National Bank pays special attention to providing the fullest and most comprehensible information possible to the domestic and international public on its objectives – the stability of prices and financial stability – measures to attain them and the results of its activities. Through various communication channels, the CNB continued in 2017 regularly to provide the public with information about all aspects of its actions.

Press releases on the decisions of the highest central bank body, the CNB Council, were published immediately after the sessions at which they were made. Also, the topics of reports included other activities undertaken within the fulfilment of the tasks of the central bank, such as foreign exchange interventions and structural repo operations. Press releases were also used to notify the public about new issues of banknotes and coins.

In the context of the crisis in the Agrokor system, the Croatian National Bank informed the public through several press releases about measures it had taken over the years, in good time and in accordance with its powers, to maintain banking system stability. It also clarified its actions aimed at ensuring the financial stability of the system as a whole following the onset of the crisis.

The appearance of central bank officials and other employees in the media and their participation in different thematic meetings outside the bank contributed to the familiarisation of the expert and general public with the central bank's activity. On such occasions, the participants had

the opportunity, in a direct contact with CNB representatives, to clarify issues concerning monetary policy, supervision, financial stability, consumer protection, including financial education, and other areas falling within the competence of the central bank. In addition, attention was drawn on several occasions to the risks arising from operations with virtual currencies and loans offered online.

At its website [www.hnb.hr](http://www.hnb.hr), the central bank also presented the latest legislation and subordinate legislation concerning the activity of the central bank and the instructions and forms for the implementation of applicable regulations. The website also features draft regulations in order to allow the public to comment on them.

All publications of the CNB are published on its website. In 2017, the CNB introduced a new publication – *Macprudential Diagnostics* – in order to provide timely information to the public about the most recent and most important developments affecting financial stability. This quarterly publication covers the summarised results of regular analysis of systemic vulnerabilities and risks which could jeopardise the stability of the domestic financial system, including an overview of macroprudential activities and measures undertaken in Croatia and other European countries.

Over the year, meetings were held with journalists who cover the financial and banking sector, to inform them about the activities of the central bank related to monetary policy, supervision, consumer protection and other tasks of the central bank, and to allow them to inform the general public fully and comprehensively.

The CNB received over 1,400 written and oral inquiries from members of the public, companies, media representatives, government institutions, embassies and so on, sent by email, post or telephone and covering all aspects of CNB operations. Among them, a large number of high school and university students, domestic and foreign researchers referred to the central bank for necessary explanations, data or information on literature. The CNB tried to respond to the received inquiries and applications within the shortest period possible.

In 2017, the CNB broadened the existing range of communication channels by new pages on social networks – Facebook and LinkedIn profiles. By means of the new channels, the CNB seeks to enhance its communication with the general public, particularly the young, to provide more information and financial and

economic education. In addition to broadening financial literacy by posts on the new channels in the form of texts, videos, animations and infographics, the CNB seeks to provide for transparent, relevant and timely communication with the public, ensure greater visibility of its main functions and tasks, and promote contents within the fields of competence of the central bank. The CNB's Facebook profile is intended for the very general public, while its LinkedIn page is mostly intended for the expert and professional economic and financial community.

Also, towards the end of 2017, the CNB created a mobile application, mHNB, which provides services and additional information to consumers. It currently provides a systematic and searchable overview of data on lending conditions of banks and enables users of banking services to compare different offers of selected loan types at all credit institutions. In the future, mHNB will be complemented by the exchange rate list and an overview of fees for standardised services related to payment accounts. The application, which is available for Android and iPhone, had been installed in 1,674 devices by the end of 2017.

“The Strategy for the Adoption of the Euro in Croatia”, presented at the conference of the Croatian National Bank and the Government of the Republic of Croatia in October 2017, launched a public debate on the important step

towards Croatia's full integration into the European Union.

It also served as a starting point for more intensive CNB activities to inform and educate citizens about all aspects of euro adoption. Papers by CNB researchers and analysts on the costs and benefits of the euro adoption in Croatia were presented to the expert public at a conference held at the CNB in November. A new opportunity to raise questions and discuss



Governor Vujčić replies to media questions.

the topic was provided at the conference organised in December under the title “Costs and Benefits of Euro Adoption: Croatian Perspectives and Other

Countries' Experiences". Just before the conference, the Croatian National Bank created a subsite [euro.hnb.hr](http://euro.hnb.hr), at which all the necessary information about the adoption of the euro can be found.

The central bank also organised several expert conferences in 2017. In July, the CNB organised with the International Monetary Fund the high-level conference "Reaccelerating Convergence in Central, Eastern and Southeastern Europe – the Role of Governance and Institutions", in which the IMF Managing Director Christine Lagarde also took part. In addition to IMF and CNB representatives, the conference gathered almost thirty central bank governors and ministers of finance from Central, Eastern and Southeastern Europe, representatives of the European Commission, European Bank for Reconstruction and Development, European Investment Bank and other institutions as well as renowned experts from the universities of Berkley, Columbia and other universities.

"Reform of the EU Banking Framework: Progress and Challenges" was the topic of the conference attended also by a high representative of the European Commission – Mario Nava, Director of the Financial System Surveillance and Crisis Management Directorate in the Directorate General for Financial Stability, Financial Services and Capital Markets Union of the European Commission, who gave the opening lecture. In partnership with the CNB and in cooperation with the European Commission Representation in Croatia, the European Parliament Information Office for Croatia organised the international conference "Economic Growth in the EU: Benefits for Croatia". In 2017, for the twenty-third consecutive year, the CNB hosted the Dubrovnik Economic Conference.

In early 2017, in line with the CNB's initiative and invitation to all deputy clubs of the Croatian Parliament, members of the Croatian Parliament met with the CNB management at the Croatian National Bank. At the meetings, parliamentarians attended lectures on various aspects of central bank activities, for example, monetary policy instruments, international reserves management, bank supervision, consumer protection and relevant legislative proposals, etc. The Governor and other members of the CNB management replied to questions from members of parliament and, in an open discussion with the very interested guests, considered issues falling within the CNB's competence.

Economic workshops continued to be organised at the CNB; the nine workshops held in 2017 and open to professional public, provided an opportunity to present recent works by domestic and foreign economists and encouraged a reasoned and lively debate about topics of interest.

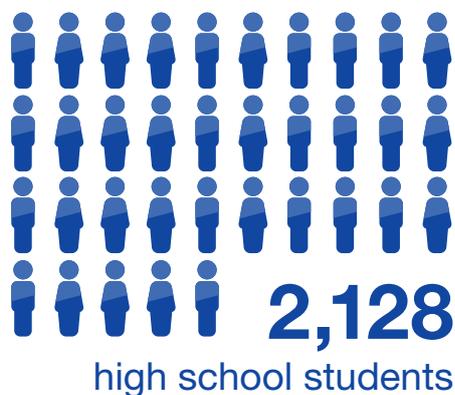
Miljana Valdec and Jurica Zrnc presented the findings of the survey on the productivity and export efficiency of Croatian enterprises based on Competitiveness Research Network (CompNet) findings. Mate Rosan presented the findings of the survey on interest rate variability and Tomislav Grebenar presented the behavioural model of assessment of probability of default and the rating of non-financial corporations. The presentation by Đurđica Ognjenović about targeted and optimal funding of the deposit insurance fund served as an introduction to a discussion on funding challenges for the deposit insurance system. Alan Bobetko, Ivana Draženović and Josip Funda presented their paper on the relationship between human capital and economic growth in CEE countries and other emerging markets. Jyrki Ali-Yrkkö (Research Institute of the Finnish Economy) informed the workshop participants about his research into global value chains and Ivana Vidaković Peruško, Katarina Kovač and Miroslav Jošić presented an analysis of Croatia's position in global value chains. Karlo Kotarac, Davor Kunovac and Rafael Ravnik studied the coherence of business cycles and economic shocks between Croatia and euro area member states and presented their findings. The credit channel of the monetary transmission mechanism was the topic of the paper by Sanja Jakovljević, who also presented an overview of the recent empirical literature and an assessment of the effects of loan supply shocks.

In 2017, continuing the years-long tradition, the Croatian National Bank paid special attention to informing and educating the young on topics in the area of operation of the central bank. Visits to the



High school students at the schoolchildren's debate "Is the era of cash coming to an end?"

## Number of high school and university students from Croatia and abroad for whom lectures and visits to the CNB were organised in 2017



### TOPICS

- Objectives and tasks of the Croatian National Bank
- Financial literacy
- Cash management



### TOPICS

- CNB and monetary policy
- Financial stability
- Cash management
- Relations with international financial institutions
- Prevention of money laundering and terrorist financing
- International reserves management
- Consumer protection
- Adoption of the euro
- Supervision



CNB and lectures were organised for more than 2,700 high school and university students from Croatia and abroad, enabling them a deeper insight into central bank activities and into the current economic and monetary trends in the country. The particular attention and highly motivated engagement of high school students was again kindled in the schoolchildren's debate during the Global Money Week entitled "Is the era of cash coming to an end?" The conclusion of some two hundred pupils who debated in the CNB Round Hall was as follows: while cashless payment is the thing of the future, the era of cash has not come to an end.

Also, the CNB hosted a seminar for a group of math teachers from Zagreb high schools as part of their professional development programme. The comprehensive programme covered various topics within the CNB's competence: supervision of credit institutions, prevention of money laundering and terrorist financing, cashless payment operations in Croatia and circulation of currency.

The teachers also learned about measures taken by the CNB to raise awareness about interest rate risk and about the CNB's role in consumer protection. In addition, they were given practical advice on banking products and services and information about the risks they entail.

The interest of citizens, in particular architects and students of architecture, was drawn to the main building of the CNB situated on Trg hrvatskih velikana, a masterpiece by one of Croatian modernism's greats, the architect Viktor Kovačić. During the CNB's open days in June, organised in cooperation with the Design District Zagreb urban festival, and on the occasion of the ninetieth anniversary of the opening of the building of the former Zagreb Stock and Commodity Exchange, more than 200 interested citizens visited the former main stock exchange hall – the Round Hall.



The seat of the Croatian National Bank is situated on Trg hrvatskih velikana. The building is the work of the renowned Croatian architect Viktor Kovačić (1874-1924).



# Monetary policy and economic developments

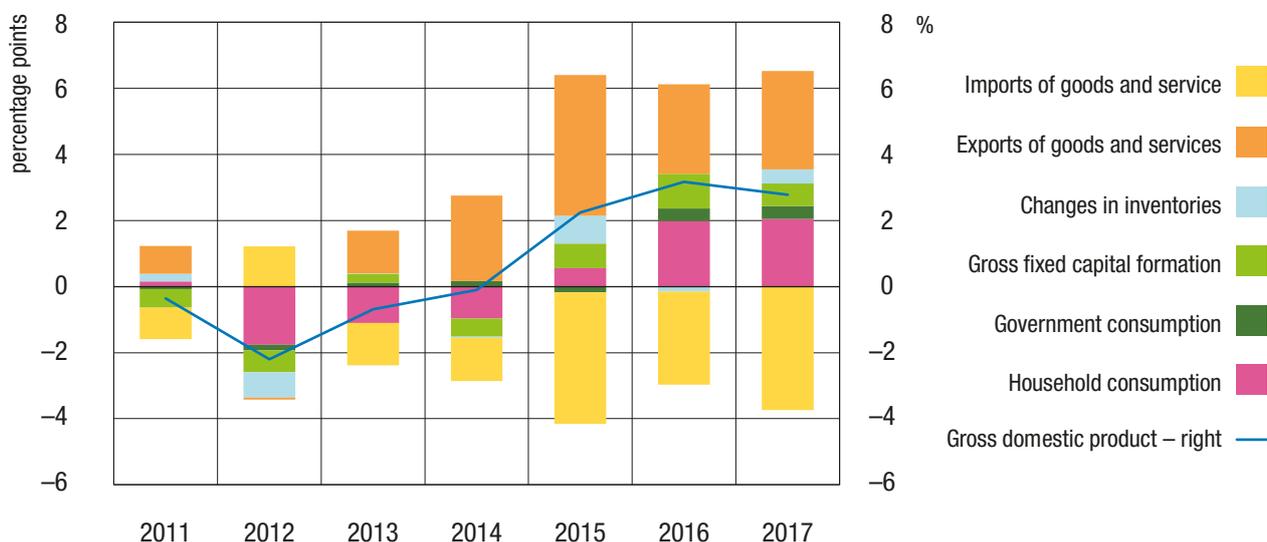
The broadly based economic growth continued in 2017, with the annual growth rate of real GDP slowing to 2.8%, down from 3.2% in 2016. Consumer price inflation gained momentum, largely driven by stronger imported inflationary pressures, which raised domestic prices of food and refined petroleum products. The pick-up in inflation was in part fuelled by stronger domestic demand. The surplus in the current and capital account increased in 2017 due to the effect of provisions for loans associated with the Agrokor Group on bank profits, coupled with the steady increase in net exports of services and stronger inflows from EU funds. At the same time, external indebtedness of domestic sectors continued to shrink noticeably. The monetary policy of the CNB remained expansionary, which resulted in the all-time high surplus kuna liquidity of the monetary system. This contributed to the steady decline in interest rates for all sectors, improvement of other financing conditions and heightened bank lending to corporates and households. The strong fiscal adjustment continued in 2017, accompanied with a surplus in the general government balance and the ongoing downturn in public debt.

## Economic recovery and favourable trends in the labour market continued in 2017

The broadly based economic growth continued in 2017, albeit at a somewhat slower pace than in the year before. The annual growth rate of real GDP slowed to 2.8%, after being 3.2% in 2016 (Figure 1). The slowdown was due to the sluggish growth in investments and the robust increase in imports. Economic growth in 2017 was mostly driven by exports of goods and services, which grew more rapidly than in 2016 (6.1% vs 5.6%). Such developments reflected the ongoing favourable trends in the international environment, i.e. stronger economic activity and the robust acceleration in the real imports of Croatia's main trading partners. Exports of goods grew by 8.7%, up from 5.2% in 2016. In 2017, the overall increase in exports was again pushed up strongly by favourable developments in tourism, partly due to the steadily

Figure 1 Continued real GDP growth

contributions by components



SOURCE: CBS.

increasing investments aimed at upgrading the quality and volume of services and partly due to foreign factors, such as instabilities in some competitive markets.

All components of domestic demand also recorded growth. Personal consumption grew at a pace similar to that of 2016 and, coupled with exports, contributed the most to real GDP growth. The rise in personal consumption was supported by the ongoing growth in real disposable income of households, which reflected favourable labour market developments, including increases in wages and employment. Data of the Croatian Pension Insurance Institute (CPII) show that the number of employed persons increased by 1.9%, growing at a pace similar to that in 2016. Employment increased in all activities (Figure 2), with the highest growth rates being seen in industry, construction and service activities, in particular those associated with tourism, and information and communication activities. At the same time, the number of unemployed persons continued to shrink, due both to the rise in employment and the persistent emigration of the working age population. As a result, the ILO unemployment rate dropped sharply in 2017, to 11.2%. The more dynamic growth in wages had an even stronger effect on

Figure 2 Favourable labour market developments

seasonally adjusted data, contributions to the annual rate of change



SOURCE: CPII (SEASONALLY ADJUSTED BY THE CNB).

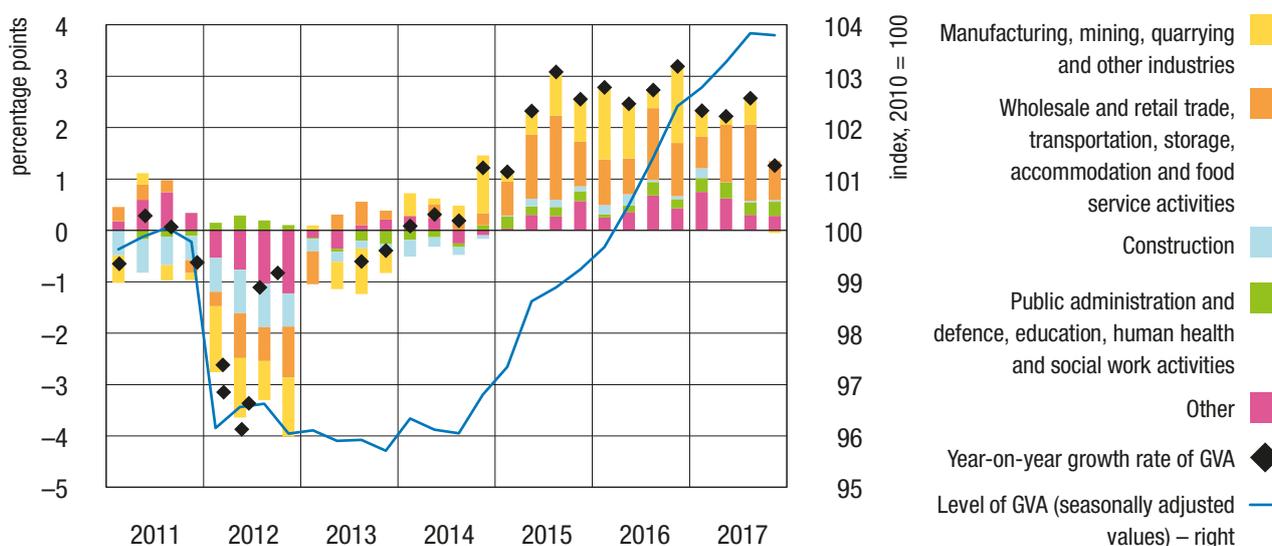
purchasing power growth, which was in part due to the amendments to the Income Tax Act that entered into force in early 2017. The annual growth in real average gross wages and real net wages was 2.9% and 4.3% respectively in 2017. These economic developments had a favourable effect on consumer confidence so that the consumer confidence index reached a historical high in late 2017.

Capital investment trended up 3.4% on an annual basis, much less than in 2016, when the increase was 5.3%. Available data suggest that the slowdown in capital investment may be attributed to a significant drop in general government investments, while private sector investments continued to rise sharply. Such trends are confirmed by available fiscal data and indicators of construction trends. The recovery of the construction sector continued in 2017 and was based on larger works on buildings, while government-financed infrastructure works steadily decreased. The slower growth in general government investments seems to be largely due to lower absorption of EU funds. In particular, capital transfers to general government from the EU budget stood at HRK 1.3bn, after being HRK 2.7bn in 2016.

Total domestic demand grew in 2017 at a pace similar to that in 2016, but imports of goods and services gained strong momentum. The growth in total imports went up from 6.2% in 2016 to 8.1% in 2017. As imports grew much faster than exports, the negative contribution of total net exports increased from 2016, to -0.8 percentage points.

Figure 3 GVA grew in most activities

contributions by components



SOURCE: CBS.

Data on aggregate supply trends show that gross value added grew by 2.1% in 2017, which is also less than in 2016. Broken down by activities, growth was recorded in all activities with the exception of agriculture, forestry and fishing (Figure 3). As in 2016, trade, transportation and tourism services made the largest positive contributions to the aggregate growth of gross domestic product. The increase in these activities can be attributed to the stronger recovery of personal consumption, a rise in international trade in goods as well as increases in foreign tourists' overnight stays, arrivals and average consumption. Industrial production data suggest that industry grew steadily, albeit at a much slower pace than in 2016, which was the main reason behind the slower increase in total gross value added in 2017. When the figures are broken down according to main industrial groupings, a reduction was recorded in the production of capital goods, which is attributable to slower investments, and durable consumer goods, while production of intermediate goods rose steeply.

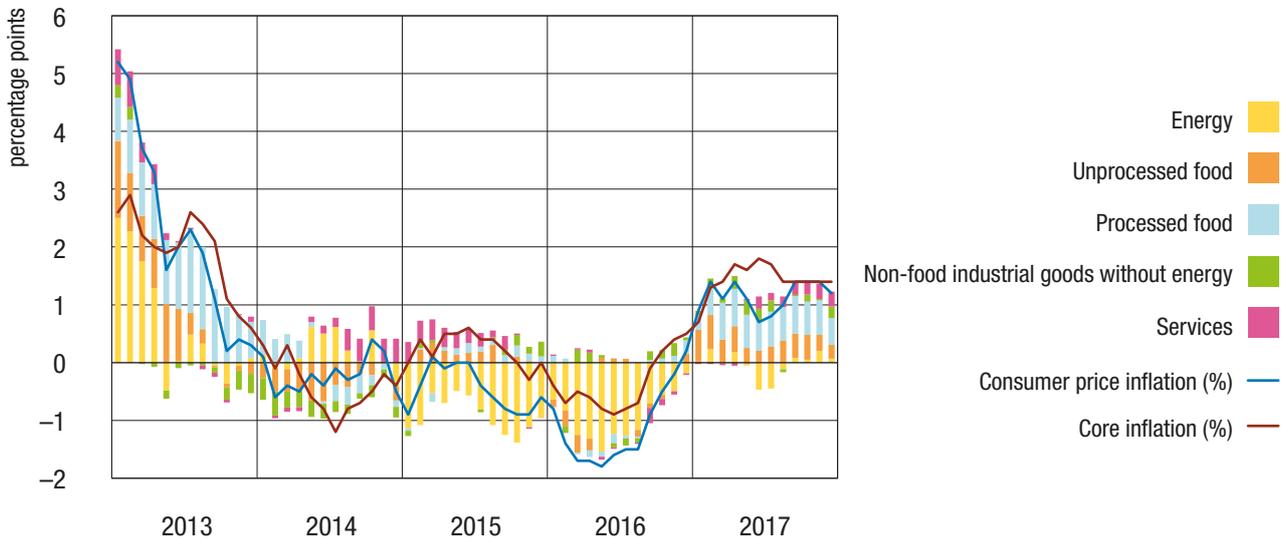
## Consumer price inflation picked up but remained relatively low

Consumer price inflation picked up in 2017, averaging 1.1%, after being –1.1% in 2016 (Figure 4). The acceleration of domestic inflation mostly reflected mounting imported inflationary pressures, primarily the increase in the prices of crude oil and some food products. The pick-up in inflation was also due, though to a smaller extent, to unfavourable weather conditions, which led to a noticeable increase in vegetable prices. Food prices recorded a sharp increase in the domestic market in 2017, in particular milk, butter, meat and vegetables. It should be noted that dairy and butter prices also increased in most other EU member states, which is attributable to larger demand for such products in the global market, China in particular. The rise in domestic meat prices can probably be attributed to larger demand and insufficient supply as a result of the fall in the interest of farms in the production of livestock. Global meat prices also went up sharply, spurred by demand growth in emerging market economies. Furthermore, vegetable prices surged in January because of the cold winter, but decreased by June, returning to the level close to that in mid-2016. A noticeable increase was also seen in prices of refined petroleum products, i.e. the prices of fuels and lubricants for personal vehicles, due to the growth in crude oil prices in the world market. This increase was cushioned by the decrease in electricity prices due to the cut in the VAT rate for that energy product from 25% to 13% in January.

Core inflation also accelerated, largely reflecting the increase in prices of food products and hotel and restaurant services spurred by the rise in the relevant VAT rate and, to some extent, the indirect effect of an increase in world raw material prices on the prices of inputs for the manufacture of some industrial products. The pick-up in core inflation was in part fuelled by stronger domestic demand. At the same time, domestic price pressures arising from labour costs were subdued owing to the steady decline in unit labour costs, which was nevertheless less intense than in 2016. In addition, tax changes and administrative decisions had a slightly negative effect on the overall inflation. The largest negative effect was made by the cut in the VAT rate on electricity, which was mitigated by the increase in the VAT rate on sugar and hotel and restaurant services, the increase in excise duties on cigarettes and cars and the growth in renewable energy sources tariffs.

Figure 4 Consumer price inflation picked up largely on account of higher food and energy prices

contributions to annual inflation



Notes: Core inflation does not include agricultural product prices, energy prices and administered prices. Processed food products include tobacco and alcohol.

SOURCES: CBS AND CNB CALCULATIONS.

The inflation of consumer services prices also grew in 2017, averaging 0.4%, thus remaining much below previous values. With regard to the prices of services, prices of hotel and restaurant services grew the most, largely on account of the said increase in the relevant VAT rate. By contrast, communication prices went down steadily, albeit at a slower pace than in 2016, mostly thanks to the fall in the prices of wireless phone services. The prices of communications have been mainly falling in the last ten years, a trend attributable to advances in technology and increased competition as well as to European Commission regulations aimed at, among other things, improved quality and lower prices of communications.

## Surplus in the current and capital account held steady and was coupled with a decrease in external debt

The current and capital account surplus, generated for the fifth consecutive year, stood at 4.4% of GDP in 2017 (or 3.3% of GDP excluding the effects of bank provisions for loans associated with the Agrokor Group), after being 3.9% of GDP in 2016 (Figure 5). Favourable trends were most pronounced in the further growth of net exports of services, in particular tourism, thanks to the recovery of the main outbound markets, investment in accommodation capacities and ancillary activities, and the perception of Croatia as a safe tourist destination. The upsurge in tourism revenues, of 9.9%, was coupled with a noticeable improvement of volume indicators: arrivals and overnight stays of foreign tourists (up by 13.7% and 11.3% respectively), mainly owing to tourists from Germany, Poland, the UK, Austria and the US. Although to a much smaller extent, net exports of other services also strengthened. Nevertheless, the surplus in foreign trade in services was insufficient to offset the widening of the foreign trade deficit, so that total net exports of goods and services were lower than in 2016.

According to Croatian Bureau of Statistics (CBS) data, the deterioration of the goods trade balance was influenced by the rise in net imports of energy products, primarily oil and gas, as well as other goods, such as food and capital products, and road vehicles. In contrast, the balance of the trade in medical and pharmaceutical products improved significantly. The widening of the foreign trade deficit was recorded against the background of the noticeably faster growth in both exports and imports (of 13.5% and 10.6% respectively). Export performance was boosted by favourable trends in the international environment, in particular the economies of Croatia's major foreign trading partners, while imports were influenced by larger personal consumption associated with steadily improving conditions in the labour market and the growth of bank placements to households, as well as the import dependence of Croatian exports.

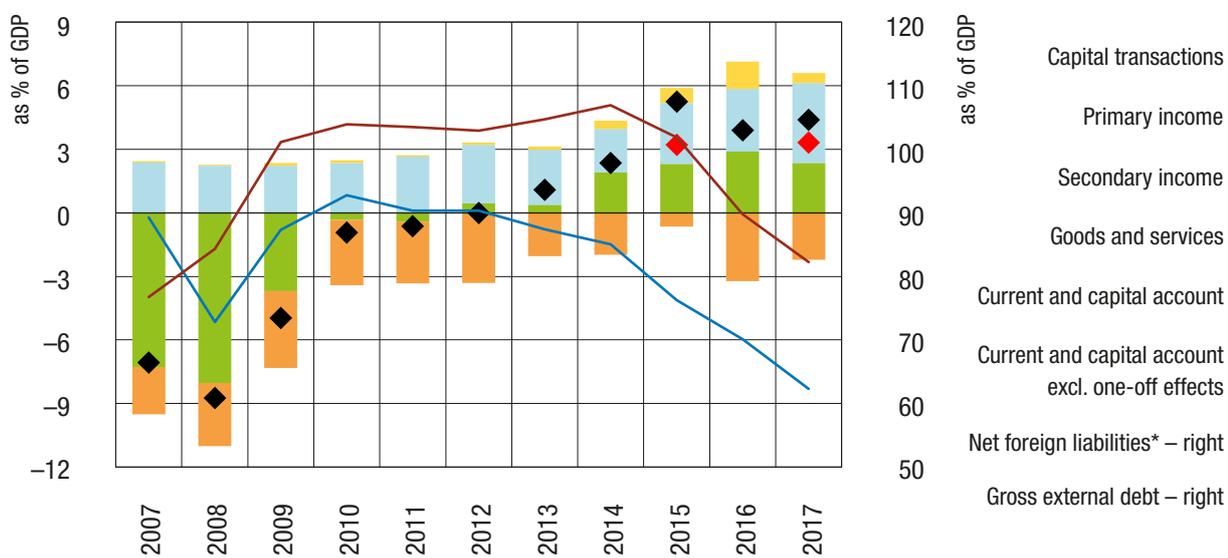
The improvement in the current account balance was also due to lower profits of banks, which is recorded in the primary income account. In addition, the primary income balance was also influenced favourably by the better business

performance of domestically-owned foreign enterprises, smaller interest expenditures for foreign liabilities and larger compensations to residents temporarily working abroad. By contrast, the opposite effect was produced by the increase in banks' operating profits, improved profitability of foreign-owned enterprises, particularly in the production of petroleum products, construction and real estate industries. Furthermore, due to a better use of EU funds, the overall surplus in the secondary income account and in the account of capital transactions also grew, with more funds distributed to end users being earmarked for current expenditures and a smaller share being allocated to capital funds.

As regards international financial flows, the total net capital outflow in the financial account was the outcome of the decrease in net debt liabilities of domestic sectors, while net equity liabilities increased. The net inflow of equity investments was lower than in the year before due to larger foreign

**Figure 5 The several-year downward trend in external imbalances continued**

current and capital account and the balance of foreign liabilities



\* 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 (-62.3% of GDP at the end of 2017).

Note: One-off effects include the conversion of CHF-linked loans in 2015 and bank provisions for loans to the Agrokor Group in 2017.

SOURCE: CNB.

investments, lower retained earnings of foreign-owned enterprises as well as smaller new equity investments in Croatia, which mostly took place in real estate activities and trade. Among domestic sectors, the central bank recorded the strongest improvement in the net debt position, mostly due to the strong increase in gross international reserves. In addition, other domestic sectors and credit institutions also reduced their net external debt.

The reduction in net debt liabilities of domestic sectors coupled with a favourable effect of cross-currency changes and other adjustments on the debt stock and the increase in nominal GDP contributed to a further improvement in external debt indicators. Hence, gross external debt ended 2017 at EUR 40.1bn or 82.3% of GDP, which is a decrease of 7.5 percentage points from the previous year. Net external debt shrank even more, from 41.0% of GDP at the end of 2016 to 30.8% at the end of 2017. As a result of previously accumulated liabilities, the negative value of the net international investment position remained high, although it did improve: from –70.1% of GDP at end-2016 to –62.3% of GDP at end-2017, continuing the several-year downward trend in external imbalances.

## Expansionary monetary policy continued to support economic recovery

The Croatian National Bank continued to pursue a strongly expansionary and countercyclical monetary policy in 2017, thus supporting the ongoing recovery of economic activity. The expansionary monetary policy is reflected in the creation of the extremely large kuna liquidity surplus, i.e. free reserves in banks' accounts. Surplus kuna liquidity averaged HRK 15.1bn in 2017 (Figure 6), which is twice as much as in 2016 and almost fourteen times the amount recorded in 2008, the year preceding the crisis.

The CNB created most of the abundant kuna liquidity surplus through foreign exchange interventions, which remained the main monetary policy instrument of the Croatian National Bank. More precisely, in line with the monetary policy aimed at preserving the stability of the kuna/euro exchange rate, the Croatian National Bank uses foreign exchange interventions to curb any excessive volatility of the nominal exchange rate of the kuna against the euro. The orientation of monetary policy towards maintaining exchange rate stability is related to the specific characteristics of the Croatian economy and monetary

system, above all the high indebtedness of all domestic sectors in foreign currency and the large share of the euro in bank assets and liabilities.

Upward pressures on the exchange rate of the kuna continued in 2017 so that the CNB purchased foreign currency in the foreign exchange market to stabilise the exchange rate. Appreciation pressures were associated with favourable macroeconomic developments and reduced fiscal risks, as well as the domestic economic recovery in general and stronger foreign currency inflows to the country, which reflected accelerated exports of goods, a record tourist season and stronger inflows from EU funds.

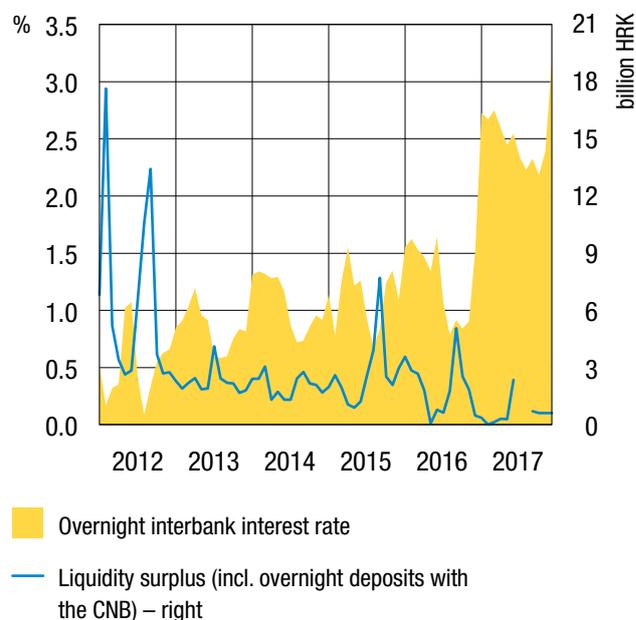
In line with this, the CNB purchased EUR 1.8bn net in 2017 (Figure 7), more than double the amount purchased

in 2016, creating HRK 13.4bn. The largest share of purchases was conducted through foreign exchange transactions with banks, while only around EUR 30m was purchased from the Ministry of Finance. Foreign exchange interventions prevented excessive strengthening of the kuna, so that the kuna/euro exchange rate strengthened only slightly in 2017 and was 0.6% lower at end-2017 than at end-2016, at EUR/HRK 7.51, whereas the average exchange rate was EUR/HRK 7.46 in 2017 as a whole, or 0.9% lower than the average for 2016.

In addition to foreign exchange interventions, the CNB was active in using kuna operations to manage liquidity. Long-term kuna liquidity continued to be provided to banks by structural repo operations, introduced in 2016. In these operations, the CNB places kuna funds to banks for a longer period in order to stimulate a decrease in long-term interest rates and lending in kuna. In 2017, the CNB held one structural repo auction, placing HRK 0.5bn to banks in November; the interest rate was reduced since the previous auction from 1.4% to 1.2% and the maturity was lengthened from four to five years. The new Decision on monetary policy implementation of the CNB, adopted in September 2017, introduced

Figure 6 Surplus kuna liquidity grew as a result of euro purchases from banks

surplus liquidity and overnight interbank interest rate



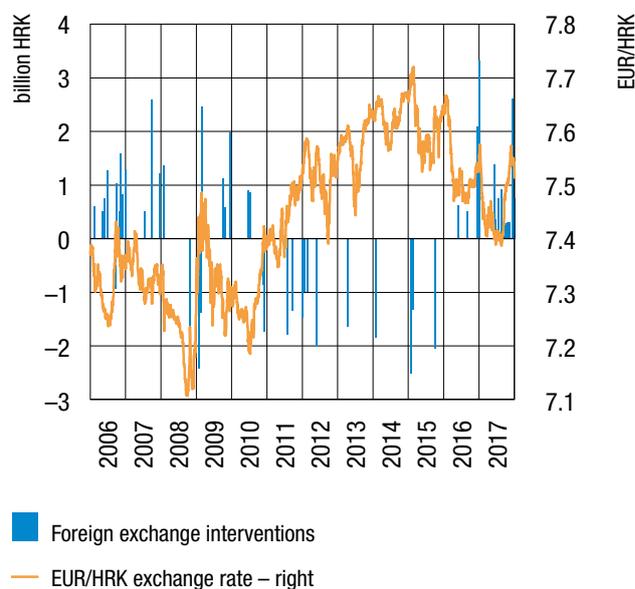
SOURCE: CNB.

a system of collateral management by means of a pool of eligible assets for all credit operations of the CNB, thereby providing an incentive to the continued implementation of structural repo operations. Under the Decision, banks may set up an eligible assets pool comprising securities the maturity of which is not linked to the maturity of the liquidity obtained from the central bank, whereas under the former decision the maturity of collateral had to be equal to or longer than the maturity of the funds obtained from the CNB. Also, banks may now replace, add to and withdraw the securities in the pool of eligible assets. This has enabled banks to use short-term securities as collateral for long-term credit operations of the CNB. The CNB also continued to place short-term kuna funds to banks for seven-day periods through regular weekly reverse repo operations, maintaining the average interest rate at 0.3%. However, the interest of banks in short-term funds placed was mostly subdued due to the abundant surplus of kuna liquidity in the system.

Due to very favourable liquidity conditions, interest rates in the domestic market decreased. For example, the interest rate on overnight interbank loans dropped in 2017 to an average of 0.1%, while transactions in the interbank market were completely absent in some months due to a comfortable liquidity position. Interest rates on government borrowing also continued to trend down. Interest rates on one-year MoF T-bills reached historical lows, standing at 0.2% for kuna T-bills and at only 0.01% for euro T-bills at the end of 2017. The price of long-term government borrowing also decreased, with the yield on a ten-year kuna bond without a currency clause decreasing by 0.5 percentage points from the end of 2016 to the end of 2017. Another indication of improving financing conditions for the government is the credit default swap (CDS) for Croatia, which narrowed by more than one half in 2017, falling to

Figure 7 Kuna strengthening moderated by foreign exchange interventions

amounts of foreign exchange interventions and EUR/HRK exchange rate



SOURCE: CNB.

below 100 basis points at the end of the year and being almost the same as the risk premiums for Bulgaria and Romania. In addition to the high liquidity in the monetary system and the steady economic recovery, another cause of the fall in government borrowing costs was the consolidation of government finance, which led to a general government surplus in 2017 and exit from the excessive deficit procedure.

**The downward trend in banks' interest rates on corporate and household loans held steady. The interest rate on new kuna housing loans averaged 3.9% at the end of 2017.**

The years-long downward trend in banks' interest rates on corporate and household loans also held steady. The interest rate on new kuna housing loans averaged 3.9% at the end of 2017, compared with 4.6% at end-2016 and, for example, 5.7% at the end of 2012. The interest rate on new housing loans with a currency clause also fell in 2017, by around a half-percentage point, to 3.6% at the end of the year. This also narrowed the difference between interest rates on kuna housing loans and housing loans with a currency clause, stimulating household demand for kuna loans. Interest rates on all types of consumer and non-purpose loans also continued to trend down.

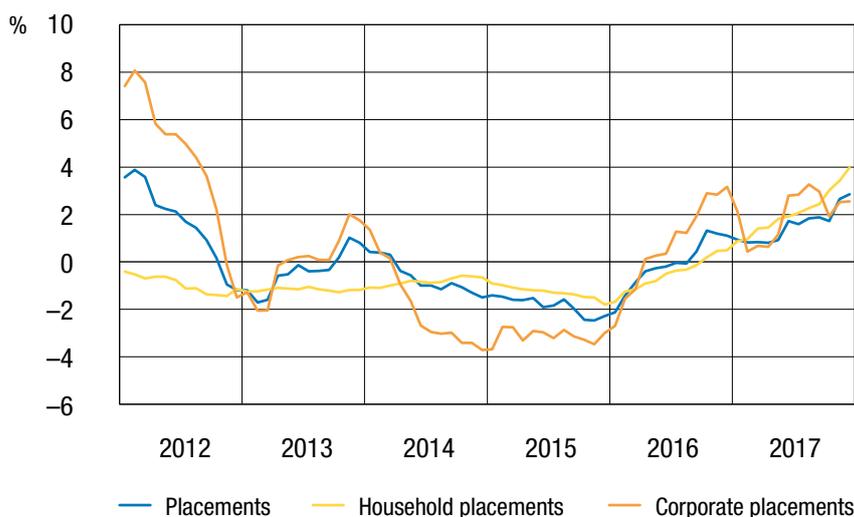
**The difference between interest rates on kuna housing loans and housing loans with a currency clause narrowed, stimulating household demand for kuna loans.**

As regards the corporate sector, interest rates on loans also went down steadily, averaging 3.6% for short-term loans and 3.1% for long-term loans at end-2017, almost a half less than in 2012. In addition to reducing interest rates, banks continued in 2017 to ease their credit standards, for both corporate and household loans. This was also aided by strengthened interbank competition and high liquidity in the market, which is supported by the extremely expansionary monetary policy of the CNB. In such conditions, demand for loans steadily picked up momentum for the most part. In addition to larger needs to finance inventories and working capital, corporate demand for investment loans also grew in 2017. As for individual groups of enterprises, particularly noteworthy was the rise in credit demand of small and medium-sized enterprises.

In view of favourable conditions of both credit supply and credit demand, the recovery of domestic bank lending gained momentum in 2017. Total bank placements to domestic sectors (excluding the government) increased by 2.9% in 2017 (Figure 9), up from 1.1% in 2016<sup>1</sup>. This was mostly due to household loans, which grew by 4.0%. Growing annually by 7.2%, general-purpose cash loans continued to be the main driver of the rise in household loans. After falling for several years, housing loans also went up in 2017. In addition to the fall in interest rates, this was due to the government's housing loans subsidy programme, which was implemented in the second half of the year. Data of the Croatian Real Estate Brokerage Agency indicate that subsidies for a little more than 2,300 loans were granted, with a principal

**Figure 8 Lending recovery strengthened**

year-on-year rate of change, transaction-based\*



\* 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.

- 1 The rates of change in placements presented in this chapter are calculated on the basis of transactions, which means that they do not include the effects of changes in the exchange rate, reclassifications, price adjustments of securities and loan write-offs on the rate of change in placements. Total placements to domestic sectors (excluding the government) include placements of credit institutions and money market funds and, in addition to loans, include money market instruments, bonds, shares and holdings in investment funds.

of around HRK 1.1bn and the average effective interest rate of 3.43% during the period of subsidisation. In addition, following a two-year decline, overdraft facilities and credit card loans increased in 2017. Corporate placements grew by 2.5% in 2015, particularly noteworthy being the strong increase in investment loans, which followed the several-year decrease. Broken down by activity, the largest contribution to the increase in corporate loans came from the tourist sector, but almost all main economic activities also recorded loan growth (with the exception of trade and construction).

**Kuna lending continued to grow in 2017, particularly in the household sector: kuna loans went up 20.5%, while those with a currency clause went down 7.8%.**

The years-long upward trend in kuna loans continued in 2017. The household sector recorded the sharpest growth in kuna loans in 2017, of 20.5%, whereas currency-indexed loans were down by 7.8%. As a result, kuna loans accounted for almost a half of total household loans at the end of 2017, whereas they had accounted for less than one-fourth of total household loans five years before. There were several factors behind this trend. First, the interest rates on kuna loans and the heightened awareness of consumers about the exchange rate risk due to the negative experience with Swiss-franc indexed loans. A boost to banks' loans in kuna also came from the sharp increase in the kuna sources of funds in their liabilities, especially in transaction accounts' funds, and increased interbank competition. Kuna lending was also supported by expansionary monetary policy measures and regulatory changes introduced by the CNB to encourage banks to lend in kuna and improve consumer information about exchange rate risk. This mostly refers to the requirement imposed on banks to offer clients foreign currency loans together with equivalent kuna loans or to inform clients about the list of other banks offering kuna loans, which is published on the CNB's website.

**Kuna lending was also supported by the expansionary monetary policy measures and regulatory changes introduced by the CNB to encourage banks to lend in kuna and improve consumer information about exchange rate risk.**

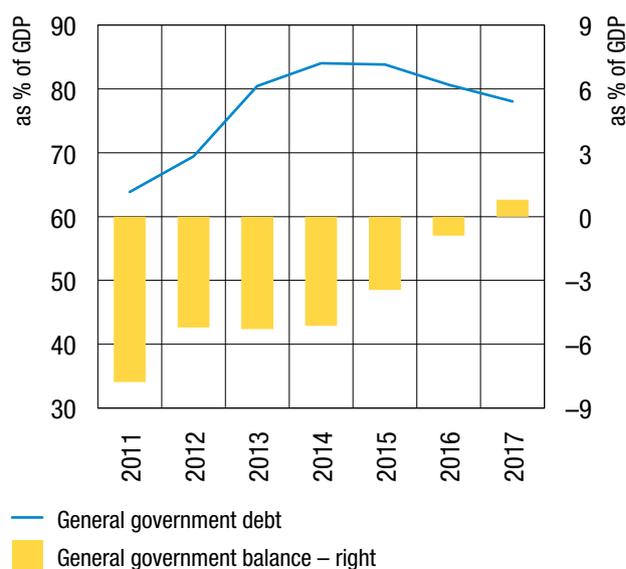
Finally, it should be noted that 2017 was also marked by an additional acceleration of the sale of (mostly) non-performing placements. In 2017, banks sold HRK 8.3bn of balance sheet claims, a third more than in 2016 and four times more than in

2015. Almost three-quarters of placements sold in 2017 related to corporate placements. The sale of placements led to a decrease of total placements in banks' balance sheets, which were 1.2% lower in nominal terms than at the end of 2016, despite the strengthening of bank lending activity in this period. The intensification of the sale of placements is still influenced by the high level of provisions for irrecoverable claims, the business strategies of domestic banks' parent banks focused on balance sheet cleaning by selling bad loans, and enhanced activity of companies specialised in the purchase of such loans in the domestic market. In addition to this sale, the decrease in the nominal stock of placements in banks' balance sheets was also due to write-offs not related to the sale, which were several times higher in 2017 than in 2016 thanks to tax reliefs that could be used only in 2017.

## Strong fiscal adjustment and the fall in general government debt continued

As regards fiscal policy, Croatia exited the excessive deficit procedure in the first half of 2017 owing to the strong fiscal adjustment that took place in 2015 and 2016. Favourable developments in public finance continued in 2017 and led to the first budget surplus since data became available according to the internationally comparable methodology of the European System of National and Regional Accounts (ESA 2010). This reflects positive economic trends that had a favourable impact on revenues, the fall in interest expenses and control of the expenditure side of the budget. The opposite effect was produced by tax amendments, in particular changes in income taxes, but it seems that their impact was smaller than expected. The general government generated a surplus of 0.8% of GDP in 2017 (Figure 9), after generating a deficit of -0.9% of GDP in 2016 (the cumulative decrease in the deficit from 2015 to 2017 was 5.9 percentage points of GDP). Thanks to

**Figure 9 Fiscal adjustment continued**  
fiscal indicators as % of GDP



SOURCES: CBS AND CNB.

the improvement in the general government balance, the ongoing economic recovery and the strengthening of the kuna against the euro, the general government debt-to-GDP ratio decreased steadily. At the end of 2017, debt stood at 78.0% of GDP<sup>2</sup>, 2.6 percentage points down from the end of 2016.

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2 The series for general government debt has been revised from January 2002 onwards due to the consolidation of debt arising from debt securities of the central government and sector reclassification of two units from the non-financial corporate sector to the general government sector.

# Financial stability

Relatively favourable developments in the domestic economy and the international environment continued to have a positive effect on financial stability in 2017, although structural weaknesses are still present in the Croatian economy. Vulnerabilities identified in individual sectors of the domestic economy suggest that a possible tightening of financing conditions in international markets remains one of the most substantial risks to financial stability, which might spill over to an increase in the financing costs of domestic sectors. Accordingly, the system's overall exposure to systemic risks remained moderate.

Throughout 2017, the Croatian National Bank continued to analyse systemic risks that could jeopardise financial stability and to implement macroprudential policy with the aim of preventing systemic risks and enhancing the resilience of the financial system, thereby reducing the probability of crisis episodes and related costs.

## Overall assessment of the main risks and challenges to financial stability policy

Continued economic growth and mostly favourable developments in the international environment had a positive effect on financial stability in 2017, although structural weaknesses continued to persist in the Croatian economy. The year was marked by the crisis and the subsequent restructuring of the Agrokor Group, which, however, affected the economy only to a limited extent. Events in the Agrokor Group had only a marginal and temporary effect on the yields of Croatian government bonds, and the risk perception of Croatia in foreign financial markets improved greatly in 2017 as a result of favourable macroeconomic developments and fiscal consolidation.

**The Croatian National Bank limited the exposure of domestic banks to the Agrokor Group and preserved the stability of the financial system.**

Total systemic risk remained at a medium level, with the positive effects of reduced structural weaknesses of the economy marred somewhat by

increased risks arising from short-term developments in the corporate sector, primarily due to the restructuring of the Agrokor Group.

Strong fiscal adjustment contributed positively to the mitigation of structural imbalances, resulting in a further decrease in the general government debt-to-GDP ratio. External vulnerabilities were reduced owing to the continued deleveraging of domestic sectors vis-a-vis foreign creditors and a pick-up in exports. Still, even though fiscal discipline mitigates possible negative effects of a rise in interest rates in foreign markets owing to the reduced need for government financing and lower risk premium, the still high levels of general government debt and external debt continue to make the country vulnerable in view of a possible change in financing conditions. This will remain one of the most substantial risks to financial stability in the upcoming period. The structural weakness of the economy in the medium term is reflected in the relatively low estimated rates of potential growth, particularly when the noticeably higher rates of growth in peer European countries are considered.

**Strong fiscal adjustment resulted in a further decrease in the general government debt-to-GDP ratio and contributed positively to the mitigation of structural imbalances.**

Structural vulnerabilities of the financial system remained moderately high in 2017. The share of kuna loans continued to grow, particularly in the household sector, as did the share of loans granted with a fixed interest rate. However, the exposure of banks to currency- and interest rate-induced credit risk as major structural vulnerabilities has remained high. Risks associated with such vulnerabilities could materialise should the exchange rate of the kuna against the euro change more substantially or interest rates rise from their current lows. Another source of risk is the typically high level of banking market concentration, which increased further in 2017 as a result of the merger of two systemically important banks. In addition, the banking sector is characterised by the high concentration of banks' exposures, particularly to groups of affiliated entities.

The quality of banks' credit portfolios continued to improve in 2017. The share of non-performing placements was reduced, primarily owing to intensified sale of claims, leading to a decrease in the banks' exposure to credit risk. Banks managed to absorb most of the expenses related to the restructuring

of the liabilities of the Agrokor Group in 2017, with a rise in value adjustments and provisions considerably reducing their return indicators. On the other hand, the banks' capitalisation and capacity to absorb potential losses remained very high. At the same time, their dependence on cross-border financing decreased, leading to a drop in exposure to systemic risks. The banking system continued to accumulate significant capital and liquidity surpluses, additionally strengthening the resilience of the system. The resilience of the system is, among other things, a result of the continuous supervision of the banks' operations by the CNB, as well as of adequate capital buffer levels over the past period.

The vulnerability of the household sector decreased throughout the year primarily owing to the rise in disposable income (partly due to tax changes, but also thanks to an increase in employment and continued economic recovery). Owing to a further decline in the lending interest rates of banks, the debt repayment burden and current risks in the household sector decreased. Still, a possible rise in interest rates remains a significant source of risk for some borrowers with variable interest rates. The events in the non-financial corporate sector were marked by risks related to the crisis in the Agrokor Group, causing their vulnerability to increase moderately despite generally good business performance and low interest rates. Still, owing to the stabilisation of the Group's business operations, the danger of a crisis spillover to creditors and suppliers has been significantly reduced, consequently mitigating the associated risks.

**The vulnerability of the household sector decreased throughout the year primarily owing to the rise in disposable income.**

## Macprudential activities of the CNB in 2017

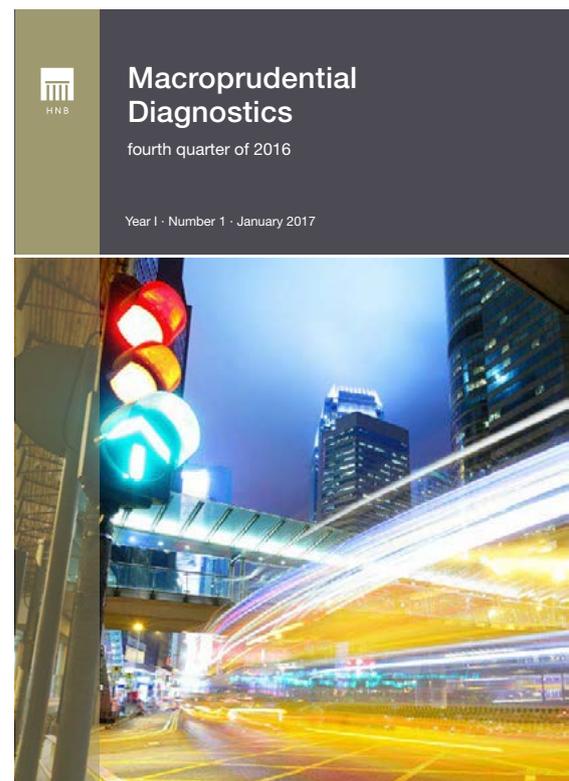
### a) Capital buffers

In 2017, the minimum regulatory capital adequacy ratio in Croatia was again 8%, while the additional capital requirement is made of different capital buffers. The additional capital requirements may consist of the capital conservation buffer, the structural systemic risk buffer, capital buffer for other systemically important institutions and the countercyclical capital buffer. Capital buffers are maintained in the form of common equity tier 1 capital. The capital conservation buffer continued to stand at 2.5% of the total amount of risk exposure in 2017.

Pursuant to the Credit Institutions Act and the Decision on the application of the structural systemic risk buffer (OG 61/2014), the Croatian National Bank reviewed the obligation of maintaining the structural systemic risk buffer in 2017. Due to persisting structural weaknesses of the domestic economy (notably the high level of external and public debt, relatively high unemployment rates and the indebtedness of the domestic private sector, but also the high concentration of the banking market and low liquidity in the real estate market), the CNB recognised the need for the continued maintenance of the structural systemic risk buffer, determining its level in 2017 at 1.5% or 3.0% of the total amount of risk exposure, depending on the average size of assets of the credit institution. Furthermore, anticipating changes in system characteristics, in August 2017 the Croatian National Bank adopted its new Decision on the application of the structural systemic risk buffer (OG 78/2017). Specifically, because of the acquisition of Splitska banka d.d. by OTP banka d.d. in May 2017, regulatory arbitrage became possible within the newly-founded group of credit institutions. In order to eliminate such a possibility, the Decision particularly defines the provisions for maintaining a structural systemic risk buffer applicable to a group of credit institutions. Moreover, the Decision changed the manner of determining the two subgroups to which the structural systemic risk buffer is applied, while the levels of the two previously determined rates (1.5% and 3%) and their application to all exposures remained unchanged.

The capital buffer rate for nine other systemically important credit institutions (O-SIIs), identified in the annual review in December 2016, stood at 0.2% and 2.0% of the total risk exposure amount in 2017. However, it was not effectively applied as O-SIIs are obligated to maintain a structural systemic risk buffer as well, depending on which is higher. As the structural systemic risk buffer was the higher of the two capital buffers in 2017, O-SIIs are still only subject to the application of the structural systemic risk buffer rate.

In 2017, the countercyclical capital buffer again stood at 0% of the total amount of risk exposure. In accordance with the **Credit Institutions Act**, the Croatian



Macropudential Diagnostics, a new CNB publication, includes summarised findings of regular analyses of systemic vulnerabilities and risks that may jeopardise the stability of the domestic financial system.

National Bank reviewed, for each quarter, the indicators of the evolution of cyclical systemic risks in order to assess the countercyclical capital buffer rate for the subsequent year. Quarterly analytical assessments showed that, in spite of the continued acceleration of economic activity and a moderate recovery of credit activity, there was no cyclical pressure to require corrective action by the CNB. Moreover, in June 2017, the CNB identified material exposures in third countries (non-EU countries) in line with the [Recommendation ESRB/2015/1](#). Bosnia and Herzegovina was identified in the process as a material third country for Croatia, and the analysis performed suggests that, although there has been a moderate increase in lending activity in that country, there is currently no potential cyclical pressure to require the introduction of a countercyclical buffer rate for exposures of Croatian credit institutions to Bosnia and Herzegovina.

Total capital requirements for banks (to which individual supervisory capital requirements are added) thus stood at 12% or 13.5% in 2017, depending on bank size (where 8% refers to the minimum regulatory own funds requirement, and the combined capital buffer stands at 4% or 5.5%, depending on bank size).

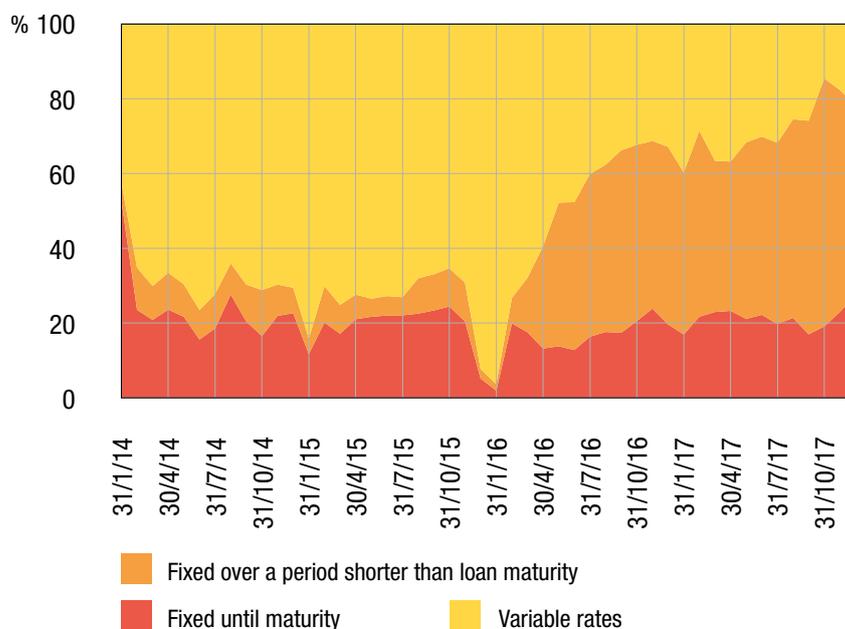
#### b) Other measures

In June 2017, the Croatian National Bank transposed the reciprocity (mutual recognition) of macroprudential policy measures introduced by relevant authorities of other EU member states by adopting the [Decision \(OG 60/2017\)](#). The Decision incorporates the provisions of [Recommendation ESRB/2015/2](#), the aim of which is to ensure that macroprudential policy measures applied in one member state are reciprocated in other member states in order to enhance the effectiveness and consistency of macroprudential policy and contribute to equality in the European single market. The Decision also defines the process of the assessment of the cross-border effects of macroprudential policy measures applied by the Republic of Croatia. In mid-2017, the Croatian National Bank reciprocated two macroprudential policy measures adopted by the respective relevant authorities of [Belgium](#) and [Estonia](#). However, Croatian banks are exempt from the effective application of the provisions set out in these decisions due to their very small exposures to the aforementioned markets.

Over the years, the Croatian National Bank has been making efforts to warn consumers of risks arising from credit relationships through regular publications and special information materials. Continuing its efforts to increase options of hedging against interest rate risk and consumer awareness of such risk, in

### Figure 10 The share of loans hedging consumers against interest rate risk over a specific period is growing

the share of loans with a fixed interest rate over a specific period is growing in the structure of newly-granted household loans



Notes: The structure presented is based on the information on the period of initial interest rate fixing and serves as an approximation. Fixed rates are fixed to maturity and variable rates include those that vary over time or are fixed up to a period of 12 months.

SOURCE: CNB.

September 2017, the CNB adopted the **Recommendation to mitigate interest rate and interest rate-induced credit risk in long-term consumer loans** with the aim of reducing risks associated with a possible rise in interest rates, including non-binding measures for banks aimed at mitigating interest rate risk in the household sector and interest rate-induced credit risk in the banks' portfolios. Besides encouraging banks to extend their loan offer with new loans to be granted at fixed interest rates, the Recommendation primarily targets loans with remaining maturities equal to or longer than seven years. In addition to the Recommendation, the CNB introduced an Information list with the offer of loans to consumers in order to increase the transparency of data available to consumers. The list contains a systematic and searchable overview of the basic data on the conditions under which banks grant loans.

## Cooperation in the field of macroprudential policy

CNB representatives participate in the work of the Financial Stability Council, which forms the macroprudential policy in Croatia based on cooperation and exchange of information among authorities competent for the supervision of the financial system in Croatia (CNB, Croatian Financial Supervisory Agency, Ministry of Finance, State Agency for Deposit Insurance and Bank Resolution). The Financial Stability Council is chaired by the Governor of the CNB.

Experts of the Croatian National Bank participate in the work of several committees and working groups organised within the European Systemic Risk Board (ESRB), and the Governor of the CNB has been a member of the ESRB Steering Committee since September 2016.



# International reserves management

In 2017, international reserves of the CNB showed the strongest growth in relative terms in the last eleven years, reaching the highest-ever level of EUR 2.2bn annually. The strong growth in international reserves was mostly due to a substantial purchase of foreign currency from banks which ensured the stability of the exchange rate for the domestic currency. Strategic and tactical decisions on international reserves management in previous years, as well as in 2017, generated a satisfactory level of income from the investment of international reserves in the environment of a prolonged period of negative euro interest rates. At the same time, the key mandate in international reserves management – to ensure safety and liquidity – was successfully fulfilled.

## International reserves in 2017

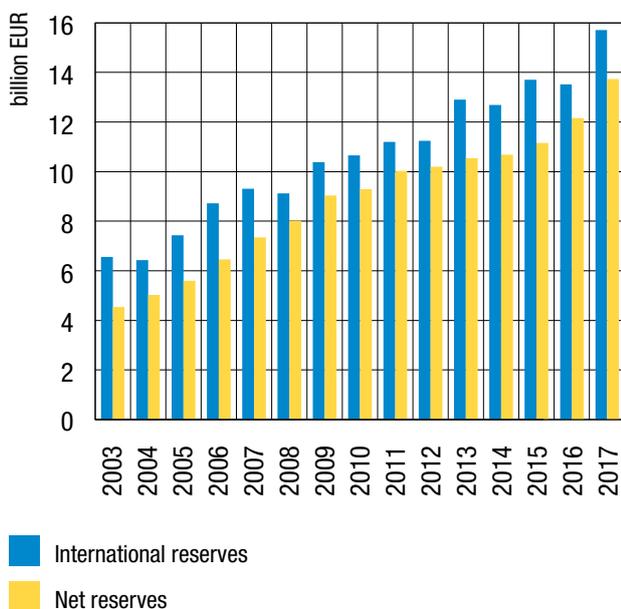
International reserves of the CNB stood at EUR 15,705.9m as at 31 December 2017, up by EUR 2,192.1m or 16.2% from the end of 2016, when they stood at EUR 13,513.8m (Figure 11). During the same period, net reserves, excluding the funds of the Ministry of Finance and the European Commission, the funds with the IMF, special drawing rights and investments in repo operations, increased by EUR 1,571.0m or 12.9%, from EUR 12,164.2m to EUR 13,735.2m.

**In 2017, international reserves of the CNB showed the strongest growth in relative terms in the last eleven years, standing at EUR 15.7bn on 31 December.**

The factors behind the increase in international reserves in 2017 included strong purchases of foreign currency from banks, a higher level of agreed repo transactions and earnings from reserves management. Net purchases of foreign currency by the CNB amounted to EUR 1,787.6m in 2017, thus creating HRK 13.4bn.

Figure 11 Strong growth in international and net CNB reserves in 2017

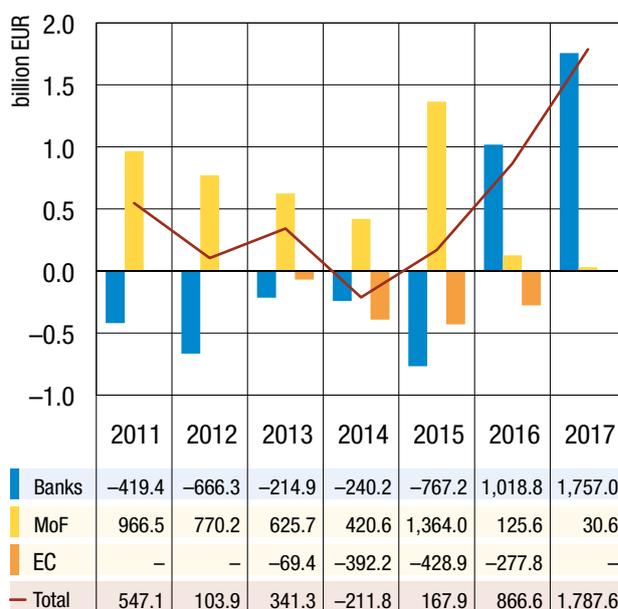
end of period



SOURCE: CNB.

Figure 12 Substantial purchase of foreign currency from banks by the CNB in 2017

in net amounts, from 2011 to 2017



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

SOURCE: CNB.

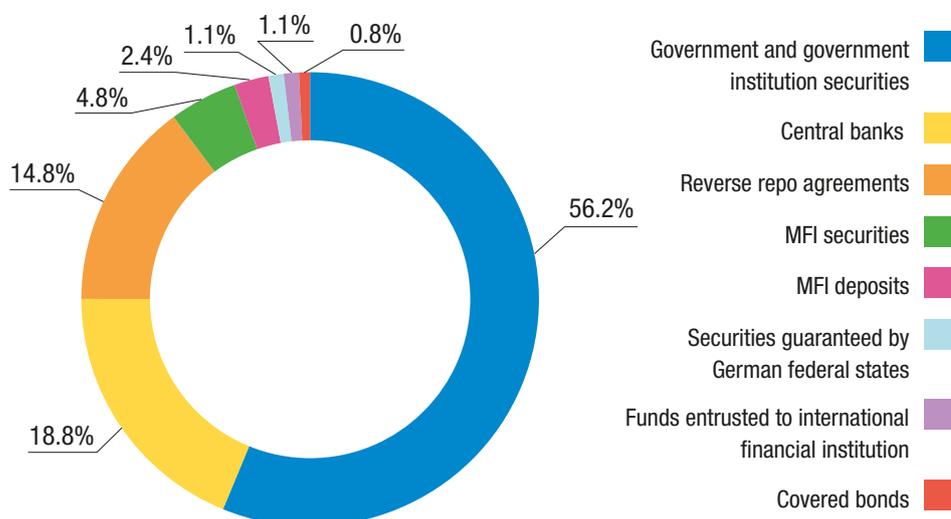
The bulk of foreign exchange transactions was accounted for by foreign currency purchases from banks (EUR 1,757.0m), while the remaining and smaller share was accounted for by net purchases from the Ministry of Finance (EUR 30.6m) (Figure 12).

## 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, the investment portfolios, the funds entrusted to an international financial institution and foreign cash in the vault. Securities of governments and government institutions, deposits with central banks and reverse repo agreements accounted for the largest share in the structure of international reserves investment at the end of 2017 (Figure 13).

**Figure 13 Investments in the safest instruments accounted for the largest share in the structure of international reserves**

shares in percentage, at the end of 2017



SOURCE: CNB.

**In its management of international reserves, the CNB is governed primarily by the principle of safety.**

As regards credit risk, in its management of international reserves, the CNB is governed primarily by the principle of safety; it applies restrictions on investments in individual financial institutions and countries and individual instruments, which serves to diversify credit risk. At the end of 2017, approximately 60% of the CNB international reserves was invested in countries, banks and institutions within the two highest credit rating categories or invested in the BIS and the IMF or in foreign cash in the CNB vault.

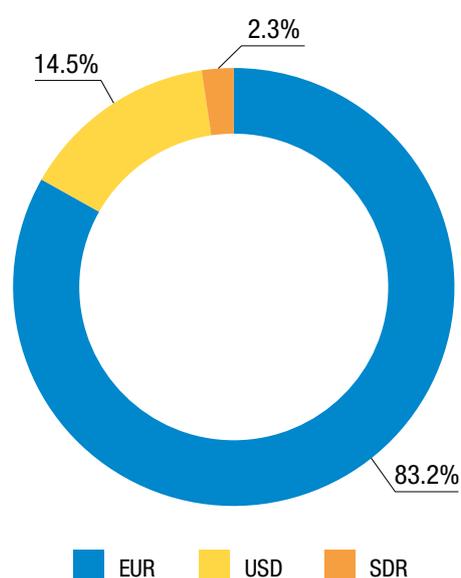
## Currency structure of international reserves

In 2017, the currency structure of international reserves changed in favour of the euro. The share of the euro stood at 83.2% at the end of 2017, amounting to 78.0% at the end of 2016 (Figure 14). Over the same period, the share of the American dollar decreased from 19.1% to 14.5%. The greater share of the euro was due to a change in the currency structure of net reserves and a larger share of the euro in repo transactions.

The share of SDRs also went down from 2.9% to 2.3% of international reserves, primarily due to the fall in the value of SDRs against the euro and the rise in the level of international reserves.

**Figure 14 The euro accounted for the largest share in the currency structure of the international reserves**

shares in percentage, at the end of 2017



SOURCE: CNB.

With respect to the currency structure and the fact that international reserves account for almost all assets of the CNB, with the major share of liabilities denominated in kuna, the CNB, like many central banks in other countries, is significantly exposed to currency risk, while exchange rate differences have a direct impact on the final result of the CNB reported in the Income Statement.<sup>3</sup> Because the euro strengthened noticeably against the US dollar and the kuna gained in strength against the euro in 2017, international reserves decreased in kuna terms and unrealised foreign exchange losses stood at HRK 2,641m. This determined the total result of the CNB reported in the Income Statement which stood at HRK -2,554m in 2017 and was the first negative result recorded since 2003.

The exchange rate loss would have been generated in 2017 even if the international reserves of the CNB had been invested

in any other world reserve currency, as the kuna strengthened against all world reserve currencies during the previous year, which was the result of the noticeable strengthening of the euro against those same currencies. As for other EU countries, the available annual reports show that due to the strengthening of the euro in 2017 almost all central banks reported foreign exchange losses which were several times higher in relative terms than those reported by the CNB.<sup>4</sup>

3 This is in consequence of the application of International Financial Reporting Standards (IFRS), according to which in the accounting treatment the exchange rate differences are firstly recognised in the Income Statement, and only secondarily, are the general reserves of the CNB debited for the purpose of allocation of income or loss.

Unrealised foreign exchange losses will be covered from general reserves of the CNB which stood at HRK 13.8bn at 31 December 2016 and were mostly formed from foreign exchange gains generated in previous years; among other things, they are used as a buffer against currency risk and to preserve the capital of the CNB.

## Financial markets and international reserves management results in 2017

In 2017, financial markets saw a gradual relaxation of the expansionary monetary policies of the ECB and the Fed and the maintenance of yields below the historical average despite their growth in the European and, especially, the US market.

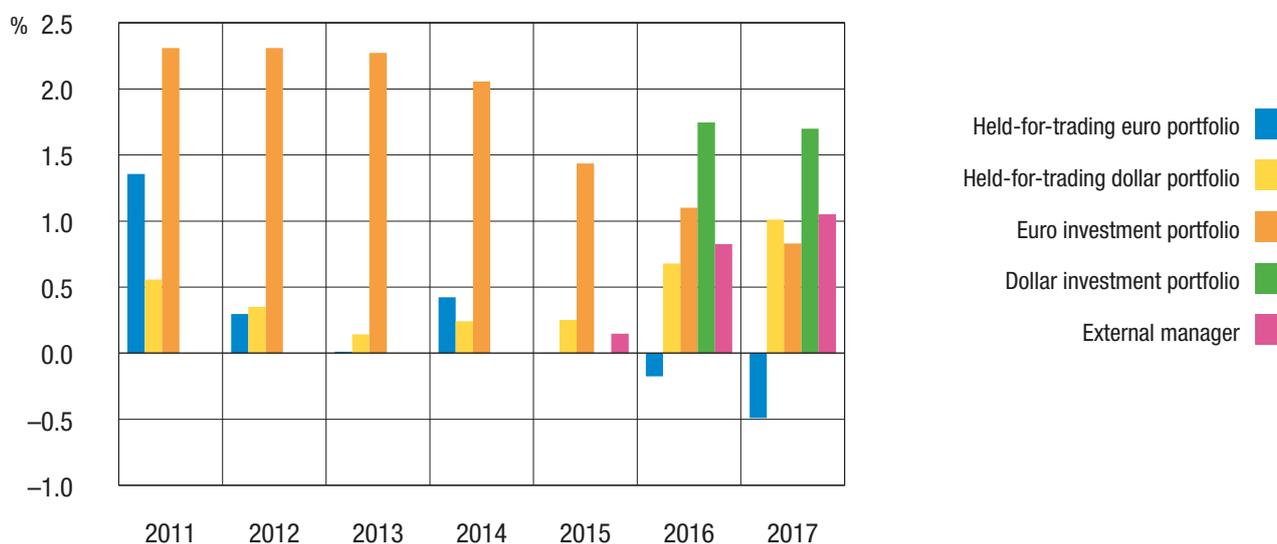
The ECB began curtailing the monthly amounts of purchases within its programme of quantitative easing, keeping its interest rates unchanged. The expectations of the gradual easing of expansionary measures, stronger economic growth in the euro area and positive outcome of political events resulted in a mild growth in yields in the European market. Notwithstanding this, the German yield curve was in negative territory for all maturities up to six years late in the year, with more than one third of government securities of all euro area members continuing to be marked by a negative yield.

In line with expectations, the Fed raised its benchmark interest rate to a range between 1.25% and 1.50% on three occasions, and concurrently began the process of reducing its balance sheet. The American yield curve flattened in 2017 since yields on its shorter end grew under the effect of the increase of the Fed's interest rate, while they dropped on its longer end because of still subdued inflationary expectations and increased demand for American securities due to yields that were relatively higher than those on European and Japanese securities.

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- 4 Foreign exchange losses of the CNB, in euro terms, stood at EUR –0.4bn in 2017, accounting for –2.3% of total international reserves while, for example, in the case of the European Central Bank foreign exchange losses amounted to EUR –6.3bn (–10.1% of reserves), of the German central bank to EUR –6.5bn (–3.9% of reserves), the Spanish central bank to EUR –5.5bn (–9.5% of reserves), the Austrian central bank to EUR –1bn (–5.6% of reserves) and of the Finnish central bank to EUR –0.7bn (–8.1% of reserves).

Figure 15 International reserve investment portfolios secure adequate rates of return in the period of historically low yields

year-on-year rates of return, in percentage



SOURCE: CNB.

In these conditions and despite the fact that the unfavourable environment of a prolonged period of negative euro interest rates continued, the CNB ensured an adequate income from the investment of international reserves in 2017 as well. This was largely due to strategic and tactical decisions on international reserves management in the 2011–2017 period and ongoing adjustments of investment guidelines.

The entire euro portfolio of net reserves generated a rate of return of 0.22% in 2017, while the rate of return on the entire dollar portfolio stood at 1.37%. If held-for-trading and investment portfolios are observed separately, the euro held-for-trading portfolio generated a rate of return of –0.49%, while the dollar held-for-trading portfolio generated a rate of return of 1.01% in 2017. In 2017, the euro-denominated investment portfolio yielded a return of 0.83%, while the dollar-denominated investment portfolio yielded 1.70% (Figure 15).

The held-for-trading portfolios, which account for approximately 50% of net reserves, are valued at fair market prices, have short average maturities and are used as a source of liquidity. Investment portfolios, which account for

approximately 46% of net reserves have a longer average maturity and serve as a source of more stable long-term income.

In 2017, the rate of return on the US dollar funds entrusted for management to an international financial institution was 1.05%. The entrusting of funds to an international financial institution enabled additional diversification and knowledge-exchange in the field of investment management.

Investments of net international reserves generated a total income of EUR 53.2m or HRK 396.2m in 2017.



# Supervision

## Business operations of credit institutions in 2017<sup>5</sup>

Difficulties in the business operations of the Agrokor Group, designated as a company of systemic importance for the Republic of Croatia under a special act, slowed down the recovery of the banks' loan portfolio quality and contributed to a decline in their profitability. Despite challenges, the banking system remained stable and highly liquid and capitalised, with an unquestionable capacity to absorb potential losses.

The several-year moderate downward trend in the number of credit institutions continued in 2017. Since voluntary winding-up proceedings were initiated in one bank in December, there were 30 credit institutions operating in Croatia at the end of the year – 25 banks (one savings bank included) and five housing savings banks. In addition, there was one branch of an EU credit institution operating in the country, while almost 150 institutions from the EU (and the EEA) notified the CNB of the direct provision of mutually recognised services in the territory of the Republic of Croatia.<sup>6</sup>

**There were 30 credit institutions or 24 banks, one savings bank and five housing savings banks operating in the country at the end of 2017.**

## Banks

The assets of banks saw a slight increase (0.7%) in 2017, reversing a five-year downward trend. The most significant contribution came from the recapitalisation of OTP banka Hrvatska d.d. enabling the acquisition of

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5 Data on the business operations of credit institutions for 2017 are preliminary unaudited data.

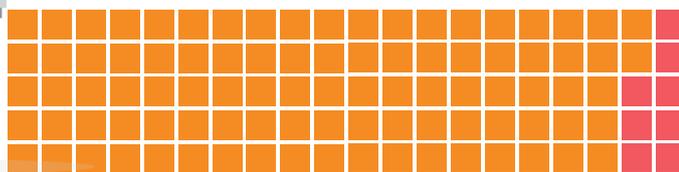
6 Updated information on credit institutions operating in the Republic of Croatia are available [here](#).

## High capital adequacy of banks

One of the main ways to ensure the normal business operations of banks is to require banks to maintain an adequate amount of capital.

The minimum capital ratio rule, applicable to all banks in the European Union, stipulates that the ratio of own funds to risk exposure must be at least 8%.

That is, for each HRK 100 of risk exposure, banks must hold at least HRK 8 of capital.



Capital ratio

=

own funds

total risk exposure

≥

8%

- capital
- retained earnings
- provisions
- other items that can be reduced to absorb loss

- credit risk →
- market risks →
- operational risk →
- other less significant risks

- risk of loss arising from debtor's default
- risk of loss due to unfavourable change of price or exchange rate in the market
- risk of loss due to deficiencies in internal procedures and systems

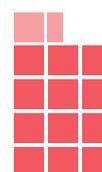
Besides providing for the coverage of basic risks, banks in the Republic of Croatia are required to maintain additional amounts of capital to cover risks that are not associated with the specific features of individual banks' business operations, but rather with risks related to a group of banks (so-called capital buffers).

**+2.5%**

Banks are required to maintain an additional 2.5% of the capital for the purpose of capital conservation.

**+1.5% (+3%)**

Risks built in the financial system itself (structural systemic risk)  
1.5% (for smaller banks) or 3% (for larger banks)

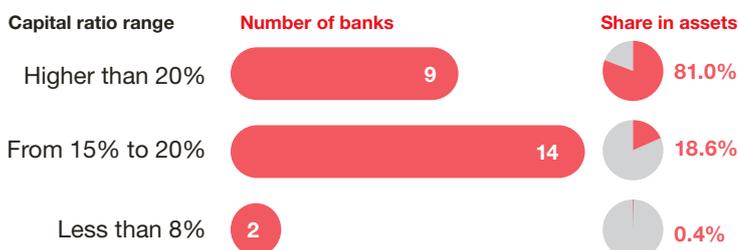


**12.0%**

**13.5%**

### Bank capital ratios as at 31 December 2017

preliminary unaudited data



The capital ratio for all banks is 23.2%. If all non-performing exposures (exposures to credit risks which a bank deems only partly recoverable or fully irrecoverable) became fully irrecoverable, the capital ratio would fall to 18.6%, which would still be above the regulatory minimum.

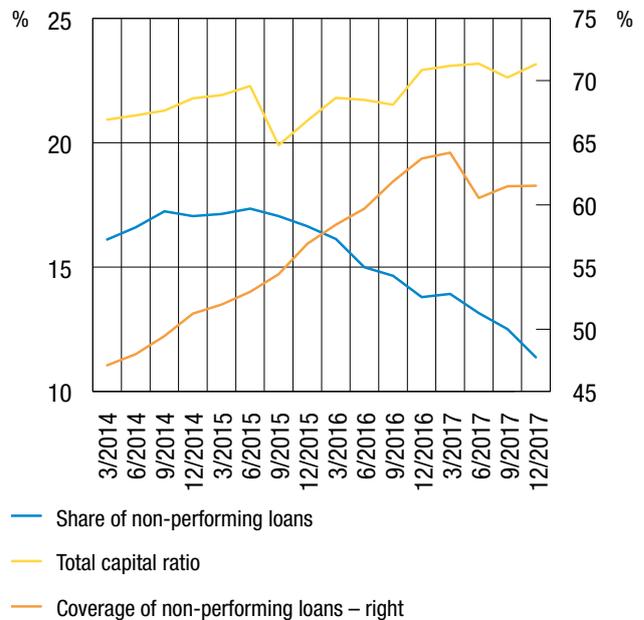
\* Bankruptcy proceedings were initiated against Tesla štedna banka d.d. in the meantime (30 March 2018), while Jadranska banka d.d. is undergoing resolution proceedings.

Splitska banka d.d., which resulted in the strengthened capital of banks and investments in subsidiaries. This exceeded the effects that the losses associated with difficulties in the operation of a systemically important enterprise and its affiliated entities (hereinafter referred to as 'Agrokor Group'), exchange rate developments, the sale of irrecoverable claims and the exit of one bank from the system had on the assets of banks. In the composition of bank assets, the share of loans granted dropped to the relatively low 57.9% under the influence of the central government's strong deleveraging with respect to domestic banks and a fall in the lending of foreign parent banks. On the other hand, surplus liquidity was high, as reflected in the unusually large amounts deposited in the banks' giro accounts with the CNB and the high liquidity coverage ratio (LCR)<sup>7</sup>. The ratio grew in the second half of the year under the favourable influence of the tourist season and a rise in highly liquid forms of assets, reaching 185.9% at the year's end (compared with the regulatory minimum of 80%).

The banks' lending to corporations and households increased noticeably (transaction-based<sup>8</sup>) in 2017. Broken down by activities, loans to corporations providing accommodation and food services saw the sharpest rise, ranking third in terms of the amount of loans granted to corporations (following manufacturing and trade). Observed by loan type, investment loans recovered

**Figure 16 Loan quality and capital adequacy improved**

total capital ratio, share and coverage of non-performing loans



SOURCE: CNB.

7 LCR measures the ability of a bank to overcome a 30-day stress period from the aspect of liquidity.

8 Rates of change calculated on the basis of transaction data exclude the impact of exchange rate adjustments and write-offs on loan movements, in which write-offs include the partial write-off of the principal in the process of conversion from loans in Swiss francs to euro loans. The effect of the sale of claims is excluded from the amount of write-offs debited to value adjustments.

noticeably. As regards loans to households, general-purpose cash loans increased the most, in line with long-standing trends. A moderate increase in the amount of housing loans granted put an end to the several-year downward trend, which is certainly largely attributable to the housing loans subsidies introduced in July 2017. Only the kuna component recorded a rise in both general-purpose cash loans and housing loans to households, so that kuna loans accounted for almost a half of the total amount of loans granted to the sector. Loans granted at fixed interested rates continued to grow in importance, spurred by, among other things, the CNB's **recommendations related to risks associated with a possible change in interest rates**.

The **quality of loans** improved – the share of partly recoverable and fully irrecoverable loans (hereinafter referred to as ‘non-performing loans’) dropped from 13.8% to 11.4% (Figure 16), mainly as a result of the **sale of claims**<sup>9</sup>. The financial difficulties of the Agrokor Group and the related increased recognition of losses marred the effect of positive changes in the economic environment and slowed down the recovery of loan quality. In the non-financial corporate sector, the share of non-performing loans dropped by as much as six percentage points, but still remained relatively high (22.3%). Despite large amounts of sold claims, loans in construction still constituted the largest share of non-performing loans in the sector of non-financial corporations, with more than half of the loans granted to that activity categorised as non-performing. New credit activity improved the quality of loans granted to corporations providing accommodation and food services. The share of non-performing loans in that activity amounted to 13.0%, which was, besides the share of non-performing loans in agriculture, the lowest indicator recorded among the leading activities in the loan distribution to the sector. The improvement of the quality of household loans, where the share of non-performing loans fell to 6.2%, was mainly driven by the developments in housing loans.

The upward trend registered in identified losses, i.e. the coverage of non-performing loans by value adjustments, observed since 2011, ended. The coverage fell to 61.5% (Figure 16) as a result of the sale of well covered claims and the inflow of new non-performing loans. Sale of claims continued to trend sharply upwards in 2017, with three quarters of their amount accounted for by

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9 Sale of placements is regulated by the **Decision on the sale of placements by credit institutions**.

non-financial corporations. The past few years witnessed a surge in the coverage of non-performing loans in the sector on account of the **rules on the gradual increase in value adjustments for long-term delinquent placements** that motivated banks to pursue a more active approach in resolving non-performing loans, including their sale in the secondary market.

As regards the banks' sources of financing, the trend of substituting domestic funds for foreign funds continued, while sight deposits<sup>10</sup> and kuna deposits continued to grow in significance. The rise in domestic sources of financing was greatly due to the effects of the good tourist season, i.e. the developments seen in the third quarter of the year when deposits of non-financial corporations engaged in accommodation and food service activities and trade increased substantially, along with the deposits of households from coastal region counties and the City of Zagreb. As for the structure of deposits, which increased slightly, sight deposits continued to increase in importance. They accounted for almost one half of total deposits, with the dominant effect of their growth recorded in the household sector. Reduced attractiveness of time deposits in banks, most likely due to low interest rates and the taxation of interest payments on savings, contributed to the trend, causing households to turn to other forms of investment. The sources from majority foreign owners went down by a quarter, further reducing their modest contribution to 2.9% of total sources.

Bank profits and profitability indicators fell strongly, by one third, on account of increasing costs arising from value adjustments and provisions associated with the Agrokor Group. The return on average assets (ROAA) and the return on average equity (ROAE) stood at 1.1% and 6.2% respectively. The decline in earnings in 2017 was also partly a result of the disappearance of the base period effects, particularly the effects stemming from the sale of equity holdings in 2016 (Visa<sup>11</sup>, etc.) Excluding the Visa effect from 2016, the operating profitability of banks reached a record level in 2017. Its increase from 2016 primarily resulted from stronger income from commissions and fees, notably those linked with credit cards, particularly the dynamic currency

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10 Transaction account deposits and savings deposits.

11 In the first half of 2016, banks sold their holdings in Visa Europe Ltd to its parent company from the USA, generating an estimated income of HRK 650m.

conversion services (DCC<sup>12</sup>). Effects of income from dividends of subsidiaries were positive as well, while cost efficiency had an unfavourable effect. The latter weakened somewhat as a result of growing employee expenses. Interest income continued to decline, with lower interest income from the Agrokor Group contributing to the trend. However, the net interest margin recorded a slight rise under the influence of significant savings on interest expenses, particularly in the household sector. Nine banks operated with losses, the same number as in 2016. In addition, three banks were operationally non-profitable, meaning that they were unable to cover the general operating expenses with their operating income.

Total capital ratio grew, reaching a record high (23.2%, Figure 16). In the unlikely unfavourable scenario of the complete irrecoverability of non-performing loans, the total capital ratio of banks would amount to 18.6%, indicating a healthy capital base that can withstand additional losses without significant difficulties.

## Housing savings banks

The assets of housing savings banks grew by 1.4% in 2017, with the deposits with financial institutions rising at the highest rate, followed by housing loans to households. Their quality deteriorated somewhat, but remained very good nevertheless. As in banks, balance sheets of housing savings banks recorded a stronger kuna component. All housing savings banks operated with a profit (from continuing operations, before tax), which increased by 4.0% in the observed year, primarily as a result of lower interest expenses. The return on average assets (ROAA) and the return on average equity (ROAE) remained at almost the same level, standing at 0.7% and 5.9% respectively. Expenses on provisions had an unfavourable effect on the performance of housing savings banks, particularly provisions for restructuring costs and liabilities to employees. The total capital ratio of banks increased considerably, to 28.5%.

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12 Dynamic currency conversion service enables the users of cards issued outside of Croatia to opt for card debiting in the card holder's currency when withdrawing cash at an ATM or making payments at an EFTPOS terminal. In practice, this means that, if a user selects the DCC service, a domestic bank performs currency conversion, i.e. the conversion of the kuna into the card holder's currency.

## Report on prudential regulation and supervision

In 2017, the Croatian National Bank continued to supervise the operations of credit institutions, and, despite substantial risks caused by the insolvency of the Agrokor Group, managed to fulfil its legal task of maintaining financial stability. In addition to oversight, supervisory activities performed by the CNB included developing the regulatory framework and granting authorisations to credit institutions.

### Legislative framework

The CNB's tasks regulated by the [Act on the Croatian National Bank](#) include the issuance and withdrawal of authorisations and approvals, and supervision and oversight in accordance with acts governing the operations of credit institutions and credit unions. The main objectives of the supervision exercised by the CNB are to maintain confidence in the Croatian banking system, and to promote and safeguard its safety and stability. The exercise of supervision and oversight of credit institutions and credit unions is governed by the [Credit Institutions Act](#) and the Credit Unions Act.

The rules and requirements pertaining to the operations of credit institutions are governed by Croatian regulations (the Credit Institutions Act and accompanying subordinate legislation), as well as EU regulations. This primarily refers to Regulation (EU) No 575/2013<sup>13</sup> with corresponding technical standards, which counts among the regulations that are directly applied in EU member states.

In the course of supervision, the Croatian National Bank verifies the legality of the credit institution's operation, including the organisational structure, strategies, policies, processes and procedures adopted by the credit institution to comply with regulations, and evaluates risks arising from the credit institution's operation.

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13 [Regulation \(EU\) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation \(EU\) No 648/2012 \(OJ L 176\), the so-called Capital Requirements Regulation \(CRR\).](#)

In addition to supervision, the CNB oversees the implementation of the Act on the Croatian National Bank, regulations adopted under that Act, and the implementation of other laws and regulations for which it is competent.

The CNB exercises supervision of credit institutions by:

- collecting and analysing reports and information and by ongoing monitoring of credit institutions' operations
- carrying out on-site examinations of credit institutions' operations
- imposing supervisory measures in order to take actions at an early stage to improve the safety and stability of credit institutions' operations and to eliminate any illegalities established
- issuing opinions, authorisations and approvals and by assessing credit institutions.

The CNB exercises supervision of credit unions in a similar manner.

**In the course of supervision, the Croatian National Bank verifies the legality of the credit institution's operation, including the organisational structure, strategies, policies, processes and procedures adopted by the credit institution to comply with regulations and evaluates risks arising from the credit institution's operation.**

## Supervision of credit institutions

All 30 credit institutions that were in operation in 2017 were covered by at least one supervisory activity. A summary of activities is given in Table 1.

### Ongoing monitoring of operations

The CNB carries out this form of supervision by collecting and analysing reports and information and by analysing additional information submitted by credit institutions at the request of the CNB. The purpose of the monitoring is to establish the risk profile of a credit institution<sup>14</sup>, set priorities in an on-site examination and adopt and monitor the implementation of supervisory

Table 1 Supervisory activities in 2017

Activities	Number of activities	Number of covered credit institutions
Reports based on ongoing supervision (regular risk assessment)	21	21
Reports based on ongoing supervision due to established irregularities	19	15
On-site examinations	17	11
Decisions issued for the purpose of rectifying irregularities or improving the situation at a credit institution	39	22
Technical decisions issued (authorisations and approvals), implementing Regulation (EU) No 575/2013	12	9
Warnings issued	3	1
Trusteeship and special administration	2	2
Joint decisions adopted	20	10

SOURCE: CNB.

measures to ensure and maintain the stability of each credit institution and the system as a whole.

Upon receiving the requested reports, the CNB examines their timeliness, completeness and compliance. This examination underlies supervision based on those reports.

Supervisory resources are strongly focused on the ongoing monitoring of the credit institutions' operations by analysing received reports.

In 2017, the CNB carried out the regular supervisory cycle of assessing credit institutions. This includes assessing the risk profile of credit institutions in relation to all the risks to which credit institutions are exposed or might be exposed in their operations, examining the adequacy of procedures in place for assessing and maintaining the internal capital of credit institutions<sup>15</sup> and continuous cooperation based on a dialogue between the supervisors and

14 The risk profile is a measurement or assessment of all risks to which a credit institution is or might be exposed in its operation.

15 Based on their risk profiles, credit institutions are obliged to identify significant risks to which they are or might be exposed in their operation and quantify their exposure to such risks (calculate internal capital requirements). In order to meet these

the credit institution. In addition, supervision includes imposing supervisory measures aimed at taking actions at an early stage to ensure the stability of credit institutions' operations, improve the safety of operations and eliminate any illegalities or irregularities in credit institutions' operations, as well as monitoring the execution of these measures.

The supervisory cycle of the assessment of credit institutions in 2017 also included the analyses of credit institutions' internal capital adequacy assessment reports. The analysis of the submitted internal reports and self-assessments of credit institutions makes it possible for the supervisor to assess the adequacy of procedures prescribed and implemented by a credit institution with a view to timely identification, measurement, control and management of the risks and adequacy of the required internal capital. Combined, all these factors, together with the risk profile assessment, provide a basis for determining minimum capital requirements and the planning of the next supervisory cycle for an individual credit institution.

The CNB compiles reports containing risk assessments of credit institutions. The CNB issued 24 such reports in 2017, 10 of which refer to credit institutions for which cross-border colleges of supervisors<sup>16</sup> were established and which are subject to specific prudential requirements laid down by joint decisions. In relation to these institutions, analyses are mainly based on consolidated data. Pursuant to these reports the CNB adopted measures stipulating the minimum requirement for own funds until the next supervisory review, and, in cases where indicated by the risk profile analysis, additional measures to improve the operations of a credit institution.

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requirements, credit institutions may use the internally defined measure of available capital (internal capital), taking into account the risk profile, risk management system and risk mitigation techniques. The adequacy of this procedure in credit institutions is assessed during oversight.

- 16 Where there are several credit institutions or investment firms in a group, operating in several EU member states, a college of supervisors is established in order to facilitate supervision. A college of supervisors is a forum consisting of competent authorities responsible for the supervision of individual group members. At the college of supervisors, the individual competent authorities, among other things, exchange information, lay down supervision plans and the division of tasks, and reach joint decisions on the application of prudential requirements to all group members.

In line with the supervisory cycle of the assessment of credit institutions in 2017, analyses of credit institutions' internal capital adequacy assessment reports were performed in the segment of supervising advanced approaches to measuring risks and risk management with a special focus on internal models.

Credit institutions authorised by the CNB to apply the internal ratings-based approach (hereinafter referred to as 'IRB approach') are subject to annual supervisory benchmarking of internal approaches for calculating own funds requirements with the aim of comparing and assessing the consistency of risk parameters of such credit institutions with reference values defined by the European Banking Authority (EBA). Furthermore, the implementation of supervisory recommendations related to the application of the IRB approach is monitored in cooperation with the competent consolidating authorities, when needed, in credit institutions applying the approach only for a part of their portfolio on a consolidated basis.

The supervisory cycle of the CNB also entails an assessment of IT risks of credit institutions on an ongoing basis within the framework of the supervisory review and evaluation process (hereinafter referred to as 'SREP'). The assessment is based on the analysis of reports by external auditors on the audit of the information systems of a credit institution, self-assessment results and direct information collected from organisational units of a credit institution in charge of the functioning, safety and internal audit of the information system.

The CNB actively communicated with credit institutions and analysed and monitored situations associated with various IT incidents such as unavailability of internet banking services and other significant information system segments, payment card and ATM frauds and phishing campaign attempts directed at key staff.

The CNB continues to pay special attention to the area of cyber security by continuously monitoring cyber threats that could affect the banking system in Croatia, participating in the work of relevant committees and coordinating activities at the national level. Furthermore, the Bank systematically communicates with credit institutions in order to maintain and enhance the level of cyber security and the capability of reacting to cyber threats.

Pursuant to Article 180, paragraph (5) of the Credit Institutions Act, the CNB regularly performs annual stress testing for supervisory purposes. In 2017, the CNB performed supervisory stress testing of other systemically important credit institutions in the Republic of Croatia. The testing was designed for the purpose of providing information on the supervisory review and assessment process. In the fourth quarter of 2017, the methodology and appropriate supporting documents were drafted for the supervisory stress testing that will be performed in 2018 and include eight largest banks and groups of credit institutions.

Finally, in line with the provisions of the Decision on the obligation to make provisions for litigations conducted against a credit institution, the CNB regularly receives reports on significant litigations from credit institutions. Credit institutions prepare the report as at 31 December and submit it to the Croatian National Bank by 31 January of the following year at the latest. Based on the received reports, the CNB monitors key indicators related to litigations conducted against credit institutions. Significant litigations, i.e. litigations whose total amount exceeds 0.1% of the credit institution's assets according to its audited financial statements for the previous year and for which credit institutions are obligated to make provisions of at least 1% of the total amount, is analysed in detail and monitored. In the course of 2017, the CNB continued to communicate with banks with regard to the provision of opinions on the assessment of sham litigation, with regard to which special records are kept.

### On-site examination

The CNB carries out on-site examinations in accordance with the adopted methodology for supervision, based on an on-site examination plan adopted at the end of each year for the following year. The on-site examination plan for 2017 was based on the established cycle of regular on-site examinations of credit institutions, while extraordinary activities included the operations of a trustee.

In all, 17 on-site examinations were carried out in 2017, adding up to 1,171 supervisory days. Examinations were carried out in 11 credit institutions the assets of which accounted for 61% of banking system assets, according to unaudited data as at 31 December 2017. Examinations included the following:

- eight on-site examinations in the area of risk management in seven credit institutions;

- two on-site examinations (of which one was performed in cooperation with another authority from a country other than Croatia) in the area of supervision of advanced approaches to measuring risks and risk management:
  - regular examination of a part of operations related to the status of application of the IRB approach to the category of exposures to households with regard to modelling loss given default, conversion factor, the process of collecting and managing claims arising from non-performing placements and the relevant part of the data quality management process;
  - examination of a significant change in the scope of the application of the ratings system for the purpose of including the category of exposures to households in the IRB approach on a consolidated basis, in cooperation with competent consolidating authorities;
- three on-site examinations in the area of IT supervision;
- examination of the implementation of legal provisions in the area of prevention of money laundering and terrorist financing in five credit institutions, where one examination was performed at the same time as the examination of IT systems.

In addition, CNB resources were dedicated to the operations of trustees in two credit institutions in 2017, adding up to 81 supervisory days. They were used for detailed assessment and monitoring of the credit institutions' financial positions and operating conditions.

To sum up, supervisory activities were performed in a total of thirteen credit institutions (the assets of which constituted 61% of banking system assets according to unaudited data as at 31 December 2017), adding up to a total of 1,252 supervisory days.

The total number of on-site examinations in 2017 equally included credit institutions categorised as large and those categorised as small according to the size of their assets. As regards examination areas, in addition to full-scope

examinations, special focus was placed on the analysis of asset quality and credit risk management, own funds adequacy and the supervision of the implementation of legal provisions pertaining to the prevention of money laundering and terrorist financing.

Following the on-site examinations, and with regard to illegalities, irregularities and weaknesses established in the reports, the CNB imposed measures aimed at eliminating established illegalities and irregularities as well as measures to improve the state of affairs and issued recommendations to improve business processes and IT systems.

### Cooperation with foreign supervisors

In 2017, the CNB continued to cooperate with foreign supervisors, particularly as regards joint assessments of the risk of business operations of banking groups and the adequacy of allocated amounts of capital for members of individual groups, as well as in the segment of IT system supervision.

Based on the memoranda of understanding in effect, in 2017 CNB representatives participated in numerous colleges of supervisors relating to the supervision of banking groups that include domestic credit institutions (10 credit institutions).

**Table 2 Credit institutions with cross-border colleges of supervisors**

1 Addiko Bank d.d.	6 Sberbank d.d.
2 Erste&Steiermärkische Bank d.d.	7 Splitska banka d.d.
3 OTP banka Hrvatska d.d.	8 J&T banka d.d.
4 Privredna banka Zagreb d.d.	9 Wüstenrot stambena štedionica d.d.
5 Raiffeisenbank Austria d.d.	10 Zagrebačka banka d.d.

SOURCE: CNB.

As part of its cooperation with foreign supervisors, the CNB is responsible for drawing up the Supervisory Risk Report, i.e. the annual assessment of the risk profile of a domestic credit institution, serving as the element for adopting the final Joint Risk Assessment Decision and the joint decision on the required amount of capital of a banking group. Ten supervisory risk reports for 2016 were compiled in 2017 and a joint decision on the capital

adequacy of a banking group was adopted for all of them. Furthermore, in the area of supervision of advanced approaches to measuring risks and risk management, the joint decision on the approval of a significant change in the rating system for exposures to central governments was adopted in 2017.

Since 2015, the CNB has participated in the adoption of the joint decision on the verification and assessment of recovery plans for groups of credit institutions. Ten joint decisions were adopted in 2017.

The CNB continued to cooperate and provide technical assistance to supervisory authorities in the region as regards the application of prudential regulations and technical aspects of supervision.

## Supervision of credit unions

At the end of 2017, there were 21 credit unions in operation, whose assets, according to the reports submitted to the CNB, totalled HRK 667m. Compared to end-2016, the number of credit unions had decreased by two, against which voluntary winding-up proceedings were initiated, while the assets of credit unions had increased by HRK 5.7m. As at 31 December 2017, ten credit unions were in the process of winding up, while two credit unions were undergoing bankruptcy proceedings.

In 2017, the CNB continued regular analyses of the quarterly financial and supervisory reports and monthly liquidity reports submitted by credit unions within the prescribed deadlines. The CNB also analysed additional data submitted by credit unions following requests by the CNB. Following on-site examinations, five credit unions had measures that were aimed at taking timely action to ensure the stability of operations, improve the safety of operations and eliminate illegalities and irregularities imposed on them. Furthermore, four decisions were issued to credit unions in 2017.

Efforts continued to be made in 2017 to handle complaints of consumers using the services of credit unions, and the practice of holding meetings with members of management and supervisory boards of credit unions continued.

## Issuance of authorisations and approvals to credit institutions and credit unions

Pursuant to its statutory powers arising from the Act on the Croatian National Bank, and in accordance with the provisions of the Credit Institutions Act, the Act on Housing Savings and State Incentives for Housing Savings, and the Credit Unions Act, the CNB, within its supervisory powers, is also responsible for issuing authorisations and approvals necessary for the establishment and operation of credit institutions and credit unions.

Through the system of authorisations and approvals, the CNB can control some of the decisions and legal transactions of a credit institution prior to their adoption, execution or realisation, and thus, as a supervisory tool, licensing can have two functions:

- to detect in advance and prevent decisions and transactions that might have an adverse effect on the future operations of a credit institution; and
- make the credit institution implement the imposed supervisory measures.

In accordance with the Credit Institutions Act, the Act on Housing Savings and State Incentives for Housing Savings and the Credit Unions Act, the CNB issued a total of 141 decisions on authorisations and approvals to banks, housing savings banks, savings banks and credit unions and one decision to revoke the authorisation to provide financial services in 2017.

The majority of decisions related to applications for approval to perform the function of a member of the supervisory board of a credit institution (71 applications were approved and six denied). The next to follow in terms of their number were decisions on applications for granting prior approval for the appointment of the chairperson or a member of the management board of a credit institution (46 were approvals and four were denials of applications for granting prior approval). Other authorisations issued included one authorisation for the provision of financial services, four decisions on the approval to acquire a qualifying holding in the capital of a credit institution, two decisions on the approval to a credit institution for the acquisition of a

majority holding in another legal person, five decisions on the approval of and one decision on the denial of the appointment of management board members of credit unions. One denial of authorisation to establish a new credit institution was issued as well.

## Other activities

In 2017, the CNB continued to cooperate with the Croatian Financial Services Supervisory Agency (HANFA) by participating in the work of the joint Working Committee. At the Committee meetings, the institutions exchange information on current topics in the banking sector and the sector supervised by HANFA, resolve open issues on the exchange of data and arrange the coordination of supervisory activities.

Regular meetings of the Working Committee with the State Agency for Deposit Insurance and Bank Resolution (DAB) were held in 2017, where institutions exchanged data and information on the subjects of supervision and oversight within their scope of activity and competence. The CNB regularly monitors the methodology for the calculation of individual credit institutions' degree of risk prescribed by DAB for the purpose of calculating deposit insurance premiums.

As EBA member, the CNB participates in the European System of Financial Supervision. Over the course of 2017, the Bank allocated considerable resources to participation in EBA and ECB working groups related to the following areas:

- prudential regulations (credit risk, market risks, operational risk, liquidity risk, own funds, governance arrangements, advanced approaches to measuring risks and crisis management);
- reporting, accounting, auditing and public disclosure
- cooperation in the area of the prevention of money laundering and terrorist financing and consumer protection;
- improvement of the supervisory process;
- security of electronic payments;

- supervision of IT systems.

Throughout 2017, the CNB continued to act based on notifications of breaches of the Credit Institutions Act and related subordinate legislation and Regulation (EU) 575/2013 and regulations adopted based on that Regulation. Upon receiving such notifications, the CNB took action pursuant to prescribed internal bylaws. Personal data included in such notifications were handled in line with regulations governing personal data protection.

## Development of regulations

### New prudential regulations on business operations and supervision of credit institutions

In the course of 2017, the CNB continued the normative harmonisation with EU regulations in the highly harmonised regulatory environment governing the operations of credit institutions by applying guidelines issued by the European Banking Authority (hereinafter referred to as 'EBA') and adopting new subordinate legislation as well as by amending existing regulations.

Substantial efforts were devoted to the improvement of the Credit Institutions Act in 2017, resulting in the adoption of **amendments to the Credit Institutions Act** in early 2018. Basic amendments were adopted through the further harmonisation of provisions on the freedom to provide services with EU regulations in order to regulate more precisely the operations of credit institutions from the EU in the Republic of Croatia. Provisions on the relationship of the CNB with external auditors were also harmonised with the provisions of the new Audit Act (OG 127/2017). Provisions governing the assessment of the suitability of shareholders and members of the management and the supervisory board were amended to allow for the application of EBA guidelines. Due to the announcement of a series of voluntary winding-up proceedings, the new Credit Institution Act defines the provisions governing the implementation of such proceedings in more detail, creating a basis for the closer regulation of this area in subordinate legislation.

In order to promote good practice in the area of staff remuneration in credit institutions, particularly with regard to the variable remuneration of staff members whose professional activities have a material impact on the risk profile of the credit institution, the CNB adopted the **Decision on**

**staff remuneration** transposing the Guidelines on sound remuneration policies of the European Banking Authority (EBA/GL/2015/22). The Decision requires credit institutions to adopt and implement a remuneration policy that promotes effective risk management and discourages risk-taking that exceeds the level of tolerated risk. It explicitly forbids the payment of variable remuneration in cases where such payment would jeopardise the credit institution's financial situation or where such payment is not based on the performance of the credit institution.

In accordance with the Guidelines on ICAAP (Internal Capital Adequacy Assessment Process) and ILAAP (Internal Liquidity Adequacy Assessment Process) information collected for SREP (Supervisory Review and Evaluation Process) purposes (EBA/GL/2016/10) issued by EBA, the CNB issued the **Decision on amendments to Decision on the internal capital adequacy assessment process for credit institutions** to prescribe the requirement for internal liquidity assessment in addition to requirements for the assessment and maintenance of internal capital for all risks to which a credit institution is or might be exposed. Additional capital and liquidity assessed and maintained in this manner ensure the security and stability of the banking system.

In 2017, the CNB actively cooperated with credit institutions in the preparations for the application of the International Financial Reporting Standard 9 – Financial instruments (IFRS 9), in application since 1 January 2018. In order to ensure a harmonised application of the aforementioned accounting standard, certain pieces of subordinate legislation were amended, notably the **Decision on the chart of accounts for credit institutions** and the **Decision on the classification of exposures into risk categories and the method of determining credit losses**. The Decision on the classification of exposures into risk categories and the method of determining credit losses repeals the Decision on the classification of placements and off-balance sheet liabilities of credit institutions (OG 41A/2014 and 28/2017) and partially transposes EBA Guidelines on credit institutions credit risk management practices and accounting for expected credit losses (EBA/GL/2017/06) into the Croatian legislation. Moreover, the CNB notified credit institutions in a circular letter of their obligation to apply EBA Guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013 (EBA/GL/2016/07). In addition to being highly harmonised at EU level, enabling the comparison of credit institutions' financial data across member

states, this set of regulatory requirements ensures timely identification of non-performing placements and an adequate coverage of expected losses by value adjustments. It is necessary to note that the strict requirements of the previous Decision on the classification of placements ensured that the effects of the transition of Croatian credit institutions to IFRS 9 remain less pronounced than those seen in the credit institutions of other European countries.

In line with the provisions of the Accounting Act (OG 78/2015, 134/2015 and 120/2016), the CNB prescribes the decisions on the structure and content of annual financial statements for credit institutions and credit unions. The Decision on the structure and content of annual financial statements of credit institutions and the Decision on the structure and content of annual financial statements of credit unions prescribe annual financial statements published in the Register of Annual Financial Statements kept with the Financial Agency on behalf of the Ministry of Finance. The aforementioned regulations will be updated according to IFRS 9 in early 2018.

As regards regulations referring to the reporting framework, the Decision on statistical and prudential reporting was amended twice and the [Decision on supervisory reports of credit institutions](#) was amended three times. The [Decision implementing Commission Implementing Regulation \(EU\) No 680/2014 laying down implementing technical standards with regard to supervisory reporting of institutions according to Regulation \(EU\) No 575/2013](#) was amended as well.

Prior to adopting the regulations mentioned above, consultations with credit institutions and other stakeholders were held, with comments on the responses received during public consultations published on the CNB's website. In order to promote the consistent application of regulations, the CNB held numerous seminars and workshops in 2017.

The CNB also continued its practice of giving opinions and responding to queries of credit institutions within its competence. Over the course of last year, 155 queries were received and answered. In order to promote the transparency of work and ensure the consistent application of regulations, the CNB publishes answers to queries on its website.

## Regulatory activities in the area of prevention of money laundering and terrorist financing in credit institutions and credit unions

The CNB continued to participate actively in the national system of the prevention of money laundering and terrorist financing and to work on the monitoring and application of the acquis in the field of the prevention of money laundering and terrorist financing. In 2017, the CNB participated in the adoption of the new Anti-Money Laundering and Terrorist Financing Act, transposing Directive (EU) 2015/849<sup>17</sup> into the Croatian legal system. Drawing on the provisions of the new Act, which entered into force on 1 January 2018, the CNB will adopt a decision in 2018 to apply the joint Risk Factors Guidelines (JC/2017/37) issued by the bodies of the European System of Financial Supervision.

In order to raise awareness on the importance of the prevention of money laundering and terrorist financing and in order to announce the new regulations and the obligations arising from them, the CNB organised a seminar for credit institutions in cooperation with the Croatian Chamber of Commerce in 2017, while in early 2018, it organised a seminar for credit unions in cooperation with the Anti-Money Laundering Office.

As part of the preparation for the application of the new Anti-Money Laundering and Terrorist Financing Act, meetings with competent management board members and authorised persons from the seven largest credit institutions were held, as envisaged in the Action Plan for the Reduction of Identified Money Laundering and Terrorist Financing Risks in the Republic of Croatia. Furthermore, in order to identify and monitor money laundering and terrorist financing risks in the banking sector, the CNB conducted a survey among credit institutions.

In order to ensure the consistent application of the provisions of the Anti-Money Laundering and Terrorist Financing Act (OG 87/2008 and 25/2012) and

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17 Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC.

regulations adopted under that Act, the CNB participated in responding to credit institutions' queries related to the prevention of money laundering and terrorist financing in cooperation with the Anti-Money Laundering Office and other competent bodies.

In order to coordinate and engage in various activities aimed at attaining strategic and operational objectives in the field of prevention of money laundering and terrorist financing, the CNB continued to cooperate with other competent authorities, particularly within the Supervision Subgroup of the Inter-Institutional Working Group for Preventing Money Laundering and Terrorist Financing.

The cooperation with international institutions in the area of prevention of money laundering and terrorist financing continued in 2017 in terms of interactive participation in the work of committees of European supervisory bodies dealing with the problem of money laundering and terrorist financing, including the work on the adoption and application of guidelines issued by European supervisory bodies. In the course of last year, the CNB continuously cooperated with other European bodies competent for the prevention of money laundering and prepared materials for the special committee of the Council of Europe – MONEYVAL.

## Data exchange and analysis

At the same time as working on regulations governing reporting, the CNB continued to develop the software for data receipt, processing and integrity.

Furthermore, in 2017 the CNB continued to meet its obligations to communicate data to the EBA and the ECB and also exchanged data with HANFA (for the purpose of monitoring entities subject to its oversight) and DAB (for the purpose of calculating contributions to the resolution fund and deposit insurance premiums).

Within the framework of its regular activities, the CNB publishes annual, semi-annual and quarterly reports to provide market participants and the general public with data on the state and trends in the banking system and the basic indicators of the operations of individual credit institutions. In addition, data are also prepared for meetings with credit rating agencies and various

domestic and foreign institutions, questionnaires are completed and replies to queries of various interested parties, particularly the media, are prepared.

Of the regular publications issued in 2017, No 30 of the **Banks Bulletin** was issued for 2016, while reports on the banking system and targeted analyses were regularly compiled for in-house purposes. In addition, the CNB compiled its contribution for the **BSCEE Review**<sup>18</sup>, including quantitative data and information regarding the situation in Croatia's banking system and supervisory activities.

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18 The publication is issued by Banking Supervisors from Central and Eastern Europe (BSCEE).



# Resolution planning

In the course of 2017, activities of the Croatian National Bank arising from the central bank's resolution powers were primarily directed at developing resolution plans for cases of potential financial difficulties of credit institutions. In addition, the CNB monitored and actively participated in the creation of regulations that were vigorously adopted throughout the year by the European Commission and the European Banking Authority (EBA) and developed and adopted its own regulations in the field of resolution.

The role of the CNB as the resolution authority is primarily related to the planning of measures for cases of potential financial difficulties of credit institutions. This is achieved by developing resolution plans which envisage the initiation of compulsory winding-up/bankruptcy proceedings or the resolution of a credit institution, depending on the assessment of feasibility and credibility. Pursuant to the Act on the Resolution of Credit Institutions and Investment Firms (OG 19/2015), resolution is only possible for institutions deemed as failing or likely to fail and with regard to which it is not reasonable to expect that any alternative private sector measures, supervisory action or the write down or conversion of capital instruments would suffice for the institution's financial recovery and for which it is estimated that its resolution is in the public interest. Public interest implies the need for protection, e.g. the protection of the institution's key functions, financial stability, public funds or depositors, and it is this condition that distinguishes the resolution process from bankruptcy and compulsory winding up proceedings.

In line with the above, the activities of the Credit Institutions Resolvability Assessment Department undertaken in 2017 were directed at the development of individual and group resolution plans by participating in resolution colleges established by the competent group resolution authority for an individual group of credit institutions. In 2017, the CNB, in its capacity as the resolution authority for credit institutions within a group, participated in eight resolution colleges established by the Single Resolution Board and one resolution college established by the Hungarian National Bank. In addition to participating in the process of taking joint decisions on group resolution

plans, the CNB's participation in the aforementioned resolution colleges included its engagement in resolving the issue of Veneto Banca S.p.A. as the parent undertaking of a group member operating in Croatia, Veneto banka d.d. Zagreb, which, following the resolution process, became a member of the Intesa Sanpaolo Group.

The CNB was also engaged in the monitoring and the co-creation of regulations at European Commission and EBA level, in the discussions of the EU Council regarding proposed amendments to the resolution framework as well as in the preparation of materials for the Vicegovernors' participation in the work of the EBA Resolution Committee. Other activities included the development of regulations in the form of subordinate legislation and internal bylaws governing in more detail the procedures related to the exercise of the CNB's resolution powers.

# Consumer protection

In 2017, within activities related to consumer protection, the CNB largely focused on raising consumer awareness concerning the offer of loans, associated costs and the financial education of young people. Also, the alignment of national with EU legislation continued, i.e. through the implementation of the guidelines of the European Banking Authority (EBA) and by participating in the work on the implementation of Directive 2014/17/EU on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation (EU) No 1093/2010 (MCD), which was transposed into the Croatian system through the Consumer Home Loan Act and a set of subordinate legislation issued by the CNB. In the segment of supervisory activities, the implementation of legal provisions governing consumer protection was examined. The supervision was in response to consumer complaints received, as well as to information collected through various questionnaires. The analysis of the practices of banking service providers was used as a basis for the design of new and the improvement of existing regulations. At the same time, many other activities were continued, focusing on improving the quality of consumer protection and the development of good practices in banking and financial service providers.

## Complaints of consumers – natural persons, users of banking and financial services of credit institutions

The Credit Institutions Act prescribes the possibility of filing a notification of complaint to the central bank, i.e. in a case in which a consumer is not satisfied with the response received from a credit institution with regard to the complaint the consumer had previously filed. The received complaints are taken into consideration during regular supervisory activities of credit institutions in the course of which, among other things, the legality of the credit institutions' operations is examined with regard to the implementation of regulations governing consumer protection. In addition, depending on the subject of the complaint itself, the CNB responded to the consumer directly, or else the credit institutions to which the individual complaint referred were requested to respond to their clients' forwarded complaints, with the

obligation to send the copies of such responses to the CNB. As a rule, a credit institution's response was required in the case of complaints that were directly related to bilateral contractual relationships between consumers and the credit institution.

In 2017, the CNB received a total of 604 complaints of consumers – users of banking and financial services. The largest number of complaints received referred to the amount of fees charged for early debt repayment and the manner of the implementation of the sale of receivables by banks, as well as the manner of communication with consumers after the sale. Other complaints mostly referred to the bad business practice of credit institutions in the late delivery of notifications, inadequate communication with consumers and problems with debt repayment, insufficient information prior to contracting the services, and so on.

In addition, in 2017, the CNB continued with the half-yearly collection of statistical data on the types and the number of complaints that consumers filed with credit institutions. These data are analysed relative to the data from the previous period, as well as to the number and the type of complaints about an individual credit institution, which were directly received at the CNB. The trend in the number of complaints, depending on the business area of the credit institution to which the complaints relate, is particularly monitored. Thus in the event of an increase in the number of complaints larger than in the previous period, the reasons for the increase are examined in detail. Depending on the results, further activities of the CNB with regard to a credit institution are defined, for the purpose of eliminating the specific cause (CNB recommendations, undertaking of supervisory measures, amendments to the applicable regulations or drafting new ones).

## Supervision of the implementation of laws in the field of consumer protection within the competence of the CNB

As part of its regular supervisory activities with regard to the implementation of regulations in the field of consumer protection that aim at ensuring the legality of the operations of institutions within its competence, and as a result of identified illegalities in one credit institution, the CNB issued two reports in 2017, based on which minor offence proceedings were instituted.

## Issuing opinions on applicable regulations and preparation of new regulations in the field of consumer protection

In 2017, with the aim of ensuring a balanced implementation of applicable regulations, the CNB continued its practice of giving opinions and responding to queries regarding the individual provisions of applicable regulations governing consumer protection, the implementation of which it supervises.

As CNB representatives take part in the work of EU institutions and bodies in the course of the preparation of regulations and decisions within the scope of activity of central banks, thus, among other things, they participate in the work of the European Banking Authority (EBA).

With regard to the Guidelines on product oversight and governance arrangements for retail banking products published by the EBA in 2016, which have been implemented since 3 January 2017, the CNB organised a workshop with the representatives of credit institutions. The topics discussed at the workshop included the existing level of alignment of institutions with the Guideline requirements, i.e. the existing good and bad practices that were identified based on the answers to the questionnaire the CNB had sent to credit institutions, the elements of future supervision of the application of these guidelines and any other open issues that are, in addition to the given requirements, also discussed at the European level within the alignment of supervisory activities implemented by the EBA. The CNB also informed credit institutions about the release of the Guidelines on remuneration policies and practices related to the sale and provision of retail banking products and services and the obligation of their application from 13 January 2018. With regard to the requirements from the Guidelines, the CNB had sent a questionnaire to credit institutions. From this questionnaire, the CNB learned about the existing practices implemented by credit institutions in the remuneration of their sales staff. This will be one of the elements for additional activities the CNB will undertake in this area.

Also, in 2017, for the purpose of the alignment of national with EU legislation, the CNB took part in the preparation of the Draft Consumer Home Loan Act, which entered into force in October 2017, the implementation of which, to a large extent, depends on the adoption of a set of subordinate legislation. In

2017, the CNB adopted and issued five pieces of subordinate legislation, as follows:

- 1 The Decision on the necessary knowledge and competence of staff of credit institutions and credit intermediaries and on the requirements and the procedure for authorisation to provide credit intermediation services (OG 107/2017), which prescribes knowledge and competence requirements for the staff of credit institutions and credit intermediaries operating in devising, offering or granting consumer housing loans, and providing advisory services. The Decision also prescribes the conditions to be met by credit intermediaries to obtain authorisations to provide credit intermediation services, the issuing and the content of certificates verifying the possession of knowledge and competence, as well as the procedure and the documents necessary for granting authorisation to provide credit intermediation services.
- 2 The Decision on the register of credit intermediaries (OG 107/2017), which regulates the manner of keeping and the content of the register of credit intermediaries. With this regard, entities subject to the entry into the register are tied credit intermediaries that have their head offices in the Republic of Croatia and are authorised by the CNB to provide credit intermediation services in relation to consumer housing loans and credit intermediaries authorised by the competent authority of another member state to provide credit intermediation services or advisory services, which provide credit intermediation services within the territory of the Republic of Croatia directly or through a branch.
- 3 The Decision on notification of the provision of cross-border credit intermediation services (OG 107/2017), which regulates the manner of notifying the competent authorities of host member states and data delivered to these authorities by the CNB in relation to the credit intermediaries from the Republic of Croatia intending to provide credit intermediation services in another member state. The Decision also regulates the treatment by the CNB of the passport notification received from the competent authority of a home member state and the content and the format of the forms by which data are delivered to the competent authorities of host member states by the competent authorities of home member states.

- 4 The Decision on the content of and the form in which consumers are provided information prior to contracting individual banking services (OG 107/2017) introduced a new obligation for credit institutions and credit intermediaries to make available to the consumer personalised information aiming to compare agreements on consumer housing loans available in the market, to assess their effects and allow informed decisions about whether to conclude an agreement on a consumer housing loan. Personalised information is presented to consumers in the form of the European Standardised Information Sheet (ESIS), which credit institutions and credit intermediaries must complete in accordance with the instructions contained in the Decision.

Having in mind the importance of pre-contractual information provided to consumers, the Decision has also extended the obligation to provide personalised information to other types of loans before they are contracted, i.e. by using the same ESIS form. As an addition to the information from the ESIS form, this Decision also prescribes the form and the content of the loan amortisation schedule, presenting the amount the consumer needs to pay and the frequency of the payments. In addition, the Decision also introduces the obligation to specify the name and surname of the consumer and the date of the information sheet before a deposit agreement is concluded.
- 5 The Decision on the additional criteria for the assessment of consumer creditworthiness and on the procedure of collection of arrears and voluntary foreclosure (OG 107/2017), which prescribes the additional requirements with regard to credit risk management in consumer home loans, related to the assessment of consumer creditworthiness and the minimal measures a credit institution should offer to consumers with the aim of reaching agreement on claims collection. The Decision also prescribes the measures a credit institution should undertake during a foreclosure procedure as well as the reasonable and justified measures it undertakes to facilitate the repayment of debt for the consumer and other participants in a credit relationship if the debt remains unsettled after the end of the foreclosure proceedings.

**In October 2017, the Consumer Home Loan Act entered into force, and the CNB has adopted five subordinate regulations on which its application largely depends.**

For the purpose of alignment with the Mortgage Credit Directive (MCD), and based on the powers stipulated in the Credit Institutions Act, the CNB adopted a new Decision on the effective interest rate (OG 105/2017), which prescribes the methodology for the calculation of the effective interest rate, thus implementing MCD Annexes I and II. The methodology for the effective interest rate calculation is the basic precondition for the comparability of costs of individual products in different institutions. At the same time, it provides protection to Croatian citizens with regard to the prescribed maximum effective interest rate in consumer loans, and harmonises this segment entirely with the latest changes in EU regulations.

**The methodology for effective interest rate calculation is the basic precondition for the comparability of costs of individual products in different institutions. At the same time, it provides protection to Croatian citizens with regard to the prescribed maximum effective interest rate in consumer loans.**

Within the framework of other activities related to the improvements to the legal framework in 2017, through the Draft Amendments to the Credit Institutions Act, appropriate changes were proposed for Articles 300 to 312, which regulate the area of consumer protection in credit institutions. The proposed amendments are primarily motivated by the need to harmonise the existing provisions with the provisions of other acts regulating the specific areas of consumer credit.

## Inter-institutional cooperation

In addition to participation in the work of EU institutions and working bodies, CNB representatives also participated in the South-Eastern European Regional Working Group for Youth Financial Education and Financial Inclusion. At the national level, they took part in the work of the National Consumer Protection Council set up at the Ministry of Economy, Entrepreneurship and Crafts and in the work of the Operating working group responsible for monitoring the implementation of measures and activities in the field of financial education, set up at the Ministry of Finance.

## Financial education

In 2017, the CNB continued organising educational lectures for young people, for whom informative and educational presentations on banking operations were held. Special emphasis was placed on the acquisition of good quality information before taking a decision to enter a contractual relationship with a credit institution. Such activities in 2017 included a total of 837 secondary school and undergraduate students. Presentations designed for primary school pupils were organised for the first time in 2017, with the participation of a total of 107 fourth and seventh grade pupils. CNB experts held lectures on subjects related to the central bank's tasks and operations for a total of 2,700 pupils, students and teachers.

**In educational lectures for young people, special emphasis was placed on their acquisition of good quality information before taking a decision to enter a contractual relationship with a credit institution.**

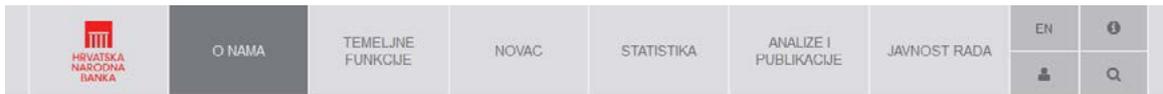
The above educational lectures were organised throughout the year, and were intensified during the Global and European Money Week in which the CNB continued the tradition of organising debates in cooperation with the members of the Croatian Debate Society. The topic of the debate held on 29 March 2017 was "Is the era of cash coming to an end?". The team in favour of using cash won the debate.

It can be expected that the described CNB efforts will also contribute to strengthening youth financial literacy in Croatia. The survey "Measuring Financial Literacy" in the Republic of Croatia, conducted jointly by the CNB and the Croatian Financial Services Supervisory Agency (HANFA) in 2015, using the OECD methodology, has shown that the lowest scoring group in financial literacy was the age group below 19 years of age.

The CNB also published information, alerts and explanations on its website on several occasions to raise the level of information and awareness among consumers.

## Other activities

For the purpose of providing better information to consumers, a table with information on the current offer of the kuna loans of all credit institutions is



» O nama » Zaštita potrošača » Informacije potrošačima » Bitne informacije » Informativna lista » **Informativna lista ponude kredita potrošačima**

## Informativna lista ponude kredita potrošačima

Objavljeno 14.09.2017 | Ažurirano 01.06.2018

Informativna lista obuhvaća aktualnu ponudu kredita u domaćoj valuti i kredita nominiranih u domaćoj valuti s valutnom klauzulom u eurima, namijenjenu potrošačima. Izrađuje se na temelju podataka za koje odgovaraju i koje Hrvatskoj narodnoj banci dostavljaju kreditne institucije na temelju Odluke o sadržaju i obliku u kojem se potrošaču daju informacije prije ugovaranja pojedine bankovne usluge (NN, br. 2/2015. i 73/2017.). U slučaju promjene neke od informacija navedenih u Informativnoj listi, kreditne institucije dužne su o tome odmah izvijestiti HNB, koji potom ažurira objavljenu Informativnu listu.

Informativna lista sadržava osnovne informacije o izabranim vrstama kredita kojima se potrošači najčešće koriste te omogućuje usporedbu ponude svih kreditnih institucija. Kao pregled osnovnih informacija ona može pomoći u istraživanju tih ponuda i sužavanju izbora.

Razlike između aktualnih ponuda kreditnih institucija i podataka objavljenih u Informativnoj listi moguće su. Razlog je tome činjenica da kreditne institucije obično imaju i dodatne uvjete te različite modele koji se odnose na izabrane vrste kredita. Također, za konačnu ponudu kreditne institucije u smislu kreditnog posla s potrošačem važne su i informacije koje se dobivaju od samog potrošača.

Valuta		Vrsta kredita					Vrsta kamatne stope								
HRK		Cotovinski nenamjenski					Sve kamatne stope								
Usporedi označeno		Poništi usporedbu													
KREDITNA INSTITUCIJA	VARIJABILNE STOPE				FIKSNE STOPE				KOMBINIRANE STOPE						
	Najveći iznos	Najduži rok (mj.)	EKS (%)	Referentni parametar	Fiksna marža (%)	Naknada do 2010. (%)	Najveći iznos	Najduži rok (mj.)	EKS (%)	Naknada do 2010. / nakon 2010. (%)	Najveći iznos	Najduži rok (mj.)	EKS (%)	Referentni parametar	Naknada do 2010. / nakon 2010. (%)
				Naziv	Stopa (%)									Naziv	
Addiko Bank d.d.	Nema u ponudi					3,0	260.000,00	120	7,23	3,0 / 1,0	Nema u ponudi				3,0 / 1,0
Banka Kovanica d.d.	220.000,00	180	8,85	6MNR51	0,71	6,99	4,0	Nema u ponudi		4,0 / 0,0	Nema u ponudi				0,0 / 0,0
BKS Bank AG, Glavna podružnica Hrvatska	Nema u ponudi					0,0	Nema u ponudi			0,0 / 0,0	Nema u ponudi				0,0 / 0,0
Croatia banka d.d.	230.000,00	180	8,19	6MNR52	0,51	7,28	2,5	230.000,00	120	7,96	2,5 / 0,0	Nema u ponudi			2,5 / 0,0

“Information list with the offer of loans to consumers” on the CNB website

regularly published and updated on the CNB website as the “Information list with the offer of loans to consumers”. In 2017, the table was updated with data on loans indexed to the euro and the basic information on the interest rate amount and structure, total costs related to loans expressed in the amount of effective interest rate, maximum loan amount and the maximum possible repayment period for the selected type of loan. Since September 2017, the CNB Information list has also been available via a mobile phone application.

“Information list with the offer of loans to consumers” was updated in 2017 with new data, and since September 2017 it has been available via a mobile phone application.

In addition, the CNB has published the Recommendation to mitigate interest rate and interest rate-induced credit risk in long-term consumer loans, by which the CNB recommends credit institutions providing lending services to consumers, among other things, to add loans with a fixed interest rate to their credit product range, while minimising the accompanying costs for consumers. The main reason for the adoption of these recommendations was that the share of consumer loans granted at a variable interest rate is still significant. Taking into account the low values of agreed parameters, the intention was to motivate credit institutions to mitigate the risk to which their customers would be likely to be exposed from the time when the value of the agreed variable parameters begins to increase and in this way directly lead to an increase in the financial burden for debtors. Particular attention was paid to consumers in the lower income brackets, who, it was estimated, would be led into financial difficulties by even a small increase in their existing debt servicing burdens.

Therefore, the main objective of the above activities is to ensure a good quality overview of information on the credit offer of banks and allow consumers to mitigate the interest and/or currency risk to which they might be exposed by their choice of loans.



mHNB app allows consumers to compare banks' loan offers

Karlovačka banka d.d.		
EKS	6,57 %	→
Iznos do	225.000,00 HRK	
Rok otplate do	120 mj.	
Splitska banka d.d.		
EKS	6,64 %	→
Iznos do	225.000,00 HRK	
Rok otplate do	120 mj.	
OTP banka Hrvatska d.d.		
EKS	6,68 %	→
Iznos do	225.000,00 HRK	
Rok otplate do	120 mj.	
Sberbank d.d.		
EKS	6,88 %	→
Iznos do	225.000,00 HRK	
Rok otplate do	60 mj.	
Addiko Bank d.d.		
EKS	7,23 %	→
Iznos do	260.000,00 HRK	
Rok otplate do	120 mj.	



# Payment operations

Payment operations are the financial bloodstream of any economy. The safety and efficiency of payment operations are among the basic preconditions of sustainable development. The payment system comprises authorised payment service providers, an adequate payment system infrastructure, payment service users and the regulatory framework that prescribes the rights, obligations and roles of each participant. The CNB is the manager and controller of the main payment systems, i.e. it plays the central role in ensuring the conditions for a safe and efficient functioning of payment operations in the Republic of Croatia. In addition, the CNB is a designated institution for the adoption and development of regulations governing payment operations and it is the payment service provider for the Republic of Croatia.

## Regulations in the area of payment operations

### National regulations in the area of payment operations

The **Act on the Comparability of Fees Related to Payment Accounts, Payment Account Switching and Access to Basic Accounts** (OG 70/2017), transposing into the legislation of the Republic of Croatia Directive 2014/92/EU of the European Parliament and of the Council of 23 July 2014 on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features, was adopted in July 2017.

The implementation of the Act achieves, among other things, the following:

- The level of consumer protection in contracting and using a payment account is raised by increasing the transparency and comparability of fees for services related to the payment accounts of consumers. Consumers are ensured a simple and practical opportunity to compare the offers of different banks and take a decision on which payment account best suits their needs. The comparative overview of fees related to the payment accounts of all banks will be available on the CNB website from November 2018.
- The switching of payment accounts of consumers and services related to payment accounts from one (“old”) bank to the other (“new”) bank

in the Republic of Croatia is facilitated. The switching service allows the consumer to have a quick and safe procedure payment account switching by visiting (only) the “new” bank and giving consent for the transfer of the account from the “old” bank, without an excessive administrative and financial burden.

- Consumers are ensured the exercise of the right to open and use a payment account with basic features, with the aim of achieving larger financial inclusiveness and mobility of consumers. Basic services include almost all of the most representative services, i.e. the most commonly used payment services in the Republic of Croatia.
- All consumers who are legally resident in the EU have the right to a basic account. For consumers belonging to a socially vulnerable group, the Act prescribes the upper limit of fees for opening and using the basic account.

For the purpose of a standardised implementation of the individual provisions of Directive 2014/92/EU in all EU member states, the European Commission adopted three regulations in January 2018, which define the standardised terms and definitions for the most common services linked to a payment account (in all, eight at the EU level), standardised presentation formats and the common symbols of the fee information document and the statement of fees. From the above documents and reports, a consumer can have a simple and clear overview of the comparison of fees for the most representative services linked to payment accounts with different banks in the Republic of Croatia and at least once a year, free of charge, can be informed about all fees and interests accrued in the period of one year. The CNB will issue relevant subordinate legislation based on the above Regulation, defining the standardised terms for the most common services linked to payment accounts.

Draft proposals for the Payment System Act and the Electronic Money Act were prepared, transposing into the national legislation the provisions of Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC. The above draft proposals of

the acts ensure a more connected and efficient European payments market, introduce new payment services and new payment service providers, improve the rules on the protection for payment service users, ensure higher security of electronic payments, broaden the requests for licensing and registration of new payment service providers, define a higher level of supervision in cross-border provision of payment services and the issue of electronic money. Consultations with the public were conducted for both draft acts, while their adoption is expected in the second quarter of 2018.

Based on Directive (EU) 2015/2366, the European Commission has committed to adopt a set of regulations in 2018, with the aim of regulating a higher level of security measures for payment service providers in electronic payments, the development of a single electronic central register of the European Banking Authority (EBA) (which will contain the information on all licensed institutions in the territory of the EU), the appointment of a central contact point for the agents of licensed payment institutions from the territory of other member states to facilitate communication and cooperation between the competent bodies of member states.

In addition, in 2017, the European Commission adopted Regulation (EU) 2017/2055 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for the cooperation and exchange of information among competent authorities relating to the exercise of the right of establishment and freedom to provide services of payment institutions, regulating the uniform approach of member states in cooperation and exchange of information linked to services passport or the issuing of electronic money.

### Authorised currency exchange offices

As at 31 December 2017, 1,290 authorised currency exchange offices operated in the Republic of Croatia on the basis of valid authorisations to conduct currency exchange transactions issued by the CNB. In 2017, the authorised currency exchange offices' turnover in foreign cash purchase and sale transactions with natural persons (consumers) in their kuna equivalent totalled HRK 30.23bn. Of that amount, purchase accounted for HRK 22.00bn. The bulk of total authorised currency exchange offices' transactions (87.12%) were in euro.

The kuna equivalent of the authorised currency exchange offices' total turnover in foreign cash was up by HRK 1.17bn (4%) from 2016, while the share of the euro in total turnover was up by 1.3 percentage points (an increase from 85.8% to 87.12%).

## SEPA project in the Republic of Croatia

SEPA is the Single Euro Payments Area enabling individuals, business entities and public authorities to make cashless euro payment transactions by means of uniform models and procedures applied equally throughout the SEPA area, which includes 28 member states of the EU, Iceland, Liechtenstein, Norway, Switzerland, Monaco and San Marino.

On 6 June 2016, the same business rules, operating procedures and technical standards under which SEPA credit transfers for credit transfer payment transactions<sup>19</sup> in euro and in kuna were introduced in the Republic of Croatia. The scheme under which credit transfers in kuna are executed is called the HRK SCT (Kuna SEPA Credit Transfer) scheme, while the scheme under which credit transfers in euro are executed is called the SCT (SEPA Credit Transfer) scheme.

The introduction of the SEPA rules has impacted the manner and format in which payment service users – individuals initiate the payment orders in kuna, while business entities adjusted the process of initiation of consolidated payment orders in the new format. SEPA provides many benefits to business entities (the possibility of receiving payment account statements in an extended format with more data, the possibility of linking the internal systems, etc.).

Thanks to the introduction of SEPA rules, payment service providers process payment transactions in kuna and euro through a single scheme, in a

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19 A credit transfer is a payment transaction initiated by the payer, i.e. using paper-based orders (over-the-counter at banks' offices or at institutions/companies that have an agreement with banks on the receipt of payment orders), either via online or mobile banking. Although consumers (individuals) often think that this type of payment transaction is a synonym for the payment order, the technical term for this payment transaction is credit transfer. The transaction itself must not be identified with the term "credit", meaning loan; it originates from the English term "credit transfer", which implies that it is used to initiate the transfer to credit the payee's account at the payer's initiative.

standardised manner, which creates preconditions for a fast, efficient and cheap processing of transactions.

The implementation of SEPA rules has fully created technical and operational preconditions for the execution of credit transfer payment transactions even after the adoption of the euro as the official currency in the Republic of Croatia.

### SEPA direct debit payment transactions (HRK SDD scheme)

On 5 June 2017, the possibility of executing direct debits in kuna in accordance with SEPA rules was introduced in the Republic of Croatia. The scheme in which such payment transactions are executed is called the SDD scheme.

A direct debit is a traditional payment service for debiting a payer's transaction account, where a payment transaction is initiated by the payee on the basis of the payer's consent. An example of such a payment service is when a payer gives mandate to the payee (e.g. a utility company) for debiting the payer's account with a bank against a payee's order for the amount of an invoice issued based on a monthly calculation of services provided by the utility company. The payee initiates payment orders for the provided utility service by debiting the payer's account under the conditions from the mandate. It is usually applied only in the cases when both the payer and the payee have an account with the same bank, which often results in payees opening accounts with a large number of banks.

There are many benefits of SEPA direct debits for payees and payers. A payee initiates a payment transaction through its own bank, irrespective of the bank in which the payer has an open account, based on a mandate for a direct debit previously given to the payee by the payer. In this way, a contractual relationship with only one bank with which the payee has an open transaction account is sufficient for the payee. The standardised mandate form for SEPA direct debits for all payees and for all banks allows easier communication with clients, safer and simpler execution and monitoring of execution of direct debits, keeping of mandate bases and management of changes in such bases. The rights of payment service users – individuals (consumers) are increased as they are entitled to an unconditional refund right for authorised SEPA direct debit within a period of eight weeks of the day of execution of the

payment transaction; they have the right to limit a SEPA direct debit collection from their account to a certain amount and by a certain timeframe; they can request a prohibition of execution of all direct debits against the order of one or more payees (“black list”) and request the execution of SEPA direct debits to be debited from their own account only against the order of one or more of the named payees (“white list”). The implementation of the described direct debit payment service in kuna in accordance with SEPA rules has fully created technical and operational preconditions for the execution of direct debit payment transactions even after the adoption of the euro as the official currency in the Republic of Croatia.

## Payment infrastructure – payment systems

The payment infrastructure allows financial system participants to settle their financial liabilities by providing the services of clearing and settlement of payment transactions in a safe and standardised manner.

Payment systems, as payment infrastructure, are the key component of any financial system since they provide services necessary for a smooth and efficient functioning of payment operations. Payment systems function based on regulations, operational procedures, business processes and technical solutions, which enable the transfer of cash among system participants. Payment operations in the Republic of Croatia are carried out through four payment systems: the Croatian Large Value Payment System (CLVPS), the National Clearing System (NCS), TARGET2-HR and EuroNCS. The CNB is the operational manager of the CLVPS and TARGET2-HR systems. The CNB has a special role and exercises supervision over the NCS and EuroNCS systems, while the Financial Agency (FINA) is the operating manager.

Below is an overview of the turnover according to the number and value of payment transactions in 2017 by the payment systems in the Republic of Croatia.

The **Croatian Large Value Payment System (CLVPS)** is a payment system for the settlement of large value payment transactions in kuna among its participants (banks, CNB, Central Depository Agency) in which payment transactions are settled in real time on a gross basis. The CNB operatively manages the CLVPS. Payment transactions are settled in the CLVPS for

Table 3 Payment systems in the Republic of Croatia – overview of turnover in 2017

Payment system	Number of participants*	Payment transaction number		Average daily number of payment transactions		Payment transaction value (in million HRK)		Average daily value of payment transactions (in million HRK)		Average value of a payment transaction (in HRK)	
		Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Croatian Large Value Payment System	29	428.350		1.707		2.744.900		10.936		6.408.079	
National Clearing System	28	182.286.682		726.242		837.016		3.335		4.592	
						(in million EUR)		(in million EUR)		(in EUR)	
TARGET2-HR	27	68,834	146,845	270	576	81,756	82,265	321	322	1,187,741	560,223
– National		13,482	13,585	53	53	27,545	26,109	108	102	2,043,065	1,921,920
– Cross-border		55,352	133,260	217	523	54,211	56,156	213	220	979,390	421,403
EuroNCS	25	631,649	1,901,225	2,477	7,456	8,508	7,073	34	28	13,470	3,720
– National		52,419	52,419	206	206	1,948	1,948	8	8	37,164	37,164
– Cross-border		579,230	1,848,806	2,271	7,250	6,560	5,125	26	20	11,325	2,772

\* As at 31 December 2017.

Note: The average daily number and the average daily value of payment transactions are calculated based on the number of working days in 2017: 251 days in CLVPS and NCS, 255 days in TARGET2-HR and 255 days in EuroNCS.

SOURCE: CNB.

the purpose of implementing the monetary policy of the CNB, supplying banks with cash, the final settlement of other payment systems, execution of payment transactions linked to the participation in the capital market and other payment transactions of the system participants.

The **National Clearing System (NCS)** is a payment system for the clearing of a large number of credit transfer payment transactions in kuna that are of relatively low value, based on a multilateral net principle. In addition to the processing of credit transfer payment transactions in accordance with the national scheme that adheres to SEPA standards, from 5 June 2017, the NCS began processing direct debit payment transactions in accordance with the national scheme, which 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.

The **TARGET2-HR** is a component of the TARGET2<sup>20</sup> 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.

**EuroNCS** 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 a special role of a bank – settlement agent in the EuroNCS, since the settlement of clearings from the EuroNCS is carried out in the TARGET2-HR.

## Payment statistics reports

Pursuant to the Decision on the obligation to submit data on the payment system and electronic money (OG 147/2013 and 16/2017) the CNB collects, processes and publishes data from the area of payment systems from reporting entities (banks, electronic money institutions and payment institutions).

Collected data show that reporting entities in the Republic of Croatia in 2017 operated through 1,118 operating units. There were 119,526 POS (EFTPOS) terminals and 4,941 ATMs active in the market.

At the end of 2017, individuals (consumers) and business entities held a total of 6,901,395 transaction accounts with banks. Of the total number of opened accounts, 94.58% were held by individuals (consumers), while the remaining 5.42% were held by business entities. With regard to the availability of use of payment instruments (services) by held accounts, individuals (consumers) contracted internet banking for 1,901,874 accounts, while mobile banking was contracted for 1,415,137 accounts. Business entities had internet banking contracted for 258,827 accounts, and mobile banking for 56,223 accounts.

The analysis of the structure of the channels used and the manner of initiation of payment transactions shows that individuals most frequently initiated

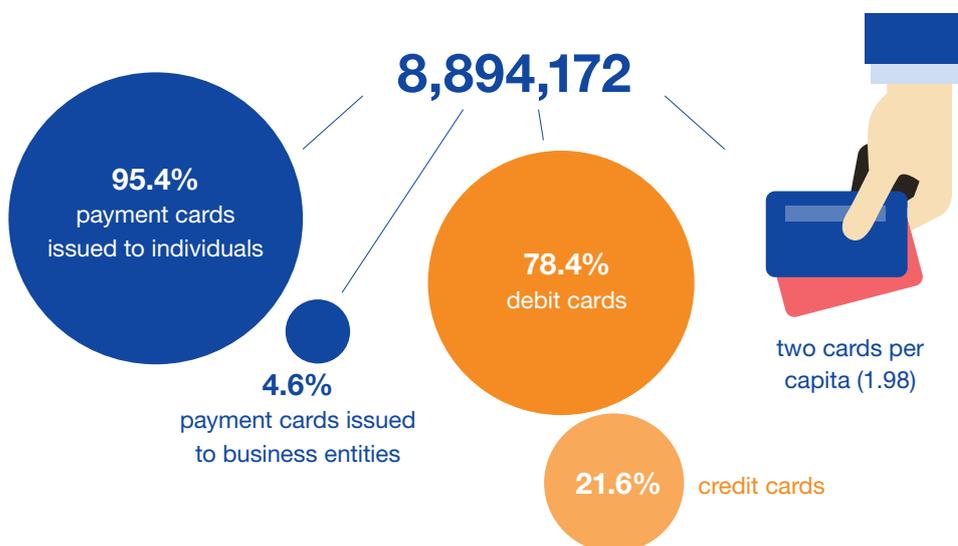
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20 Trans-European Automated Real-time Gross settlement Express Transfer System

payment transactions in 2017 over-the-counter, i.e. 33% in the number and 40% in the value of total payment transactions initiated. Internet banking is the second most represented channel, accounting for 17% in the number and 21% in the value of total transactions, while mobile banking is the third channel accounting for 15% in the number and in the value of total initiated

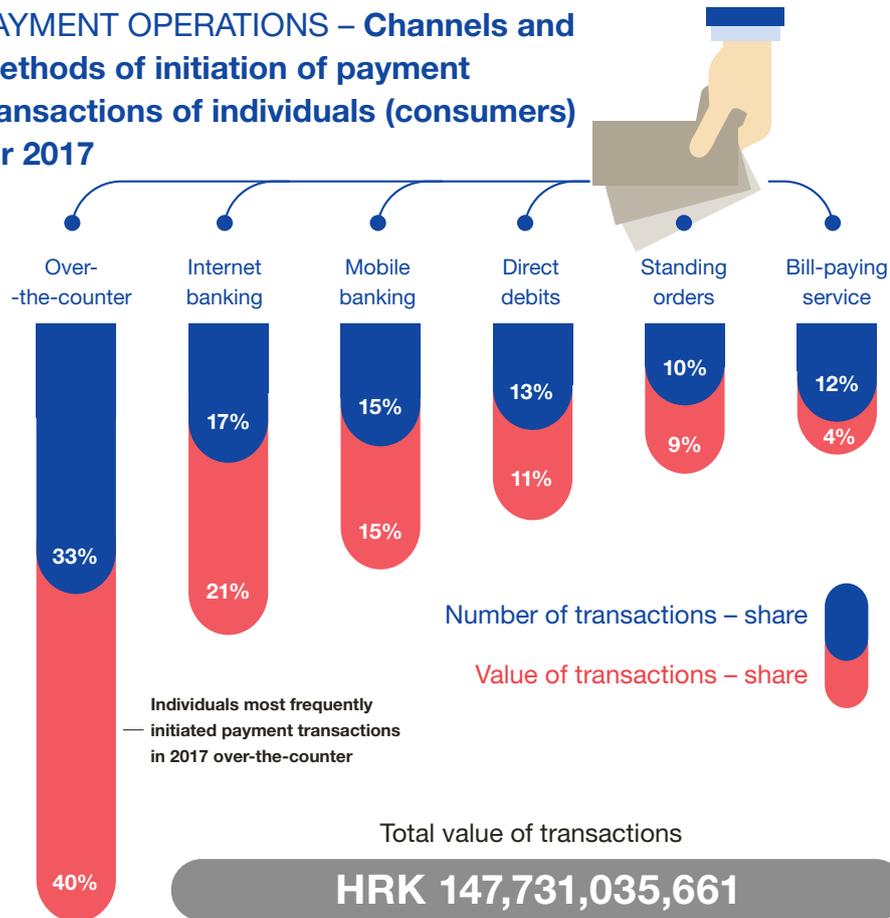
## PAYMENT OPERATIONS – Cards

On 31 December 2017, the number of registered payment cards in circulation in the Republic of Croatia totalled



payment transactions. However, online channels (internet and mobile banking) are becoming increasingly represented relative to other channels, so that their joint share in 2017, compared to 2016, grew by 2% in the number and 3% in the value of transactions, showing the anticipated growth trend. The share of mobile banking is increasing and internet banking is decreasing within the online channels. In 2017, the number of transactions initiated through mobile banking increased by 48% and their value increased by 51%, while the number of transactions initiated through internet banking decreased by 7% and their value decreased by 2% from 2016. The reason for the smaller use of internet banking is in the growing popularity and acceptance of mobile banking as a transaction initiation channel. As a result, mobile banking is taking over a share of the turnover performed through the internet banking channel.

## PAYMENT OPERATIONS – Channels and methods of initiation of payment transactions of individuals (consumers) for 2017



With regard to the manner of initiation of payment transactions, business entities largely prefer electronic to paper-based orders. Of all initiated payment transactions in 2017, 89% in the number and a high 94% in the value of transactions were initiated electronically. Internet banking was the most represented channel for the initiation of transactions, while mobile banking was still less used, although a growing trend was present. In 2017, 50% more transactions in the number and 59% more transactions in the value were initiated through the mobile banking channel than in 2016. Nevertheless, the absolute amounts of transactions initiated through mobile banking are still relatively small.

On 31 December 2017, there were in all 8,894,172<sup>21</sup> registered payment cards in circulation in the Republic of Croatia, 95.4% of which were payment cards issued to individuals (consumers) while 4.6% were issued to business entities, or 1.98

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

**Table 4 Channels and methods of initiation of payment transactions of individuals (consumers) for 2017**

Channel/method	Number of transactions	Share	Value of transactions (in HRK)	Share
Over-the-counter*	67,553,633	33	59,413,920,377	40
Internet banking	35,568,613	17	31,223,528,009	21
Mobile banking	31,089,636	15	21,630,852,640	15
Direct debits	26,736,403	13	16,726,281,213	11
Standing orders	21,346,227	10	13,253,214,226	9
Bill-paying service	24,642,794	12	5,483,239,196	4
<b>Total</b>	<b>206,937,306</b>	<b>100</b>	<b>147,731,035,661</b>	<b>100</b>

\* 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.).

SOURCE: CNB.

cards per capita. Of the total number of cards, 3,858,583 (43.4%) were not used at all in the past year. With respect to payment card types, debit cards accounted for the largest share in the total number of cards, 78.4%. With regard to the technological development of cards and their functionalities, we have witnessed an intensified trend of introducing contactless technology in the recent period. Thus, a strong trend of issuing contactless cards continued in the Republic of Croatia over the past several years, and their number increased by 6.6% in 2017 from 2016. On 31 December 2017, 2,116,254 contactless payment cards were issued in the Croatian market, accounting for 23.8% of the total number of payment cards issued. Although contact cards are being replaced by those containing contactless technology upon the expiry of card validity, the introduction of new technology is spurred by the tendency among users to opt for a simpler and faster payment methods.

A detailed overview and an analysis of data collected within the payment statistics were published on the CNB website in two publications: *Payment Cards and Card Transactions* and *Payment Transactions and Accounts*, as well as in the *Report on Cashless Payment Transactions in the Republic of Croatia*.



# Currency department operations

One of the tasks of the CNB is to ensure a smooth supply and an adequate amount of cash in the Republic of Croatia. With this regard, the CNB takes into account the planning of the manufacturing of cash, delivery, storage, distribution and organisation of distribution of cash, its protection from counterfeiting and destruction of cash unfit for circulation and manages the logistic and strategic cash reserves. In addition, the CNB defines the standards applied in the processing of cash at other institutions, with the aim of ensuring the quality of cash in circulation in accordance with public needs.

## 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 basic tasks. The supply of banks with cash implies the conduct of activities aimed at 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. It is organised through eight cash supply centres, which cover all parts of the Republic of Croatia.

## Currency outside banks

The trend of growth of currency outside banks has continued since 2011. As at 31 December 2017, currency in circulation amounted to HRK 25.6bn, which is an increase of 13.8% from the end of 2016. Circulation means the volume of cash outside the CNB vault and cash centres (CCs) minus the volume of cash in banks' vaults.

If the balance at banks' cash desks and vaults is added to the circulation, on 31 December 2017, there were 226.6million banknotes, worth HRK 30.3bn. From the end of 2016, the number of banknotes outside the CNB vault and CCs rose by 10.7% in 2017, while their total value increased by 13.8%. Of banknotes outside the CNB vault and CCs, 200 kuna banknotes, with a share

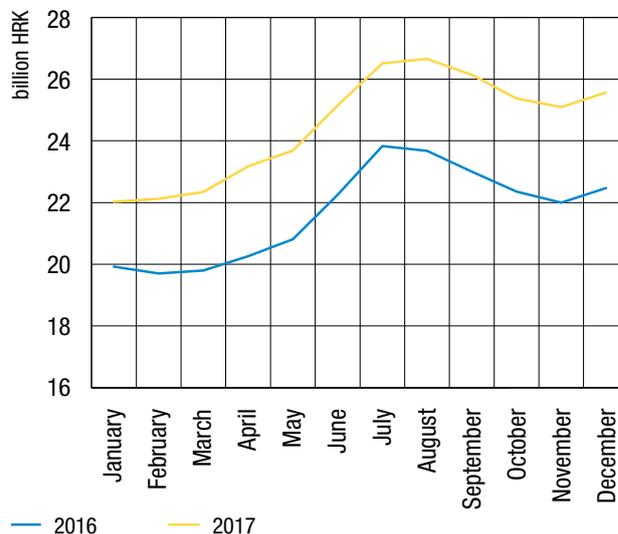
of 32.3%, and 10 kuna banknotes, with a share of 20.5%, were the most numerous in 2017 and accounted for HRK 15.1bn, or 49.9% of the total value of banknotes.

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

Of coins in circulation, the most numerous were 10 lipa coins (536.8 million pieces, or 23.4% 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 524.1m, or 37.1% of the total value of coins outside the CNB vault and CCs).

Figure 17 Currency in circulation

end of period



SOURCE: CNB.

## Issues of commemorative coins and numismatic coin sets

In 2017, the CNB issued a 25 kuna commemorative circulation coin celebrating the 25th anniversary of the admission of the Republic of Croatia to membership in the United Nations, 22 May 1992 – 22 May 2017.



Obverse and reverse of the 25 kuna commemorative circulation coin

The CNB also issued a numismatic set of the Croatian kuna and lipa circulation coins, with the year of issue 2017, consisting of all denominations.

## Withdrawal of banknotes and coins

The CNB withdraws banknotes and coins unfit for circulation and replaces them. A total of 27.7 million unfit banknotes were processed in 2017, of which 98.2% or 27.2 million banknotes were destroyed as the banknotes failed to meet the quality standards set for circulation banknotes. In addition, 67,954 pieces or 0.2% of the processed banknotes were sorted as damaged, to be destroyed subsequently.

## Counterfeit banknotes and coins and their prevention

In 2017, in all, 253 counterfeit kuna banknotes, worth a total of HRK 70,440.00 were registered. The number of registered counterfeit kuna banknotes decreased by 41.8% from 2016. Taking into account that the number of banknotes outside the CNB vault and CCs averaged 223,719,867 pieces, 1.1 counterfeits were detected per 1 million kuna circulation notes in 2017. In 2016, 2.2 counterfeit banknotes were detected per 1 million kuna circulation banknotes.

### Registered counterfeit kuna banknotes in 2017 by denomination

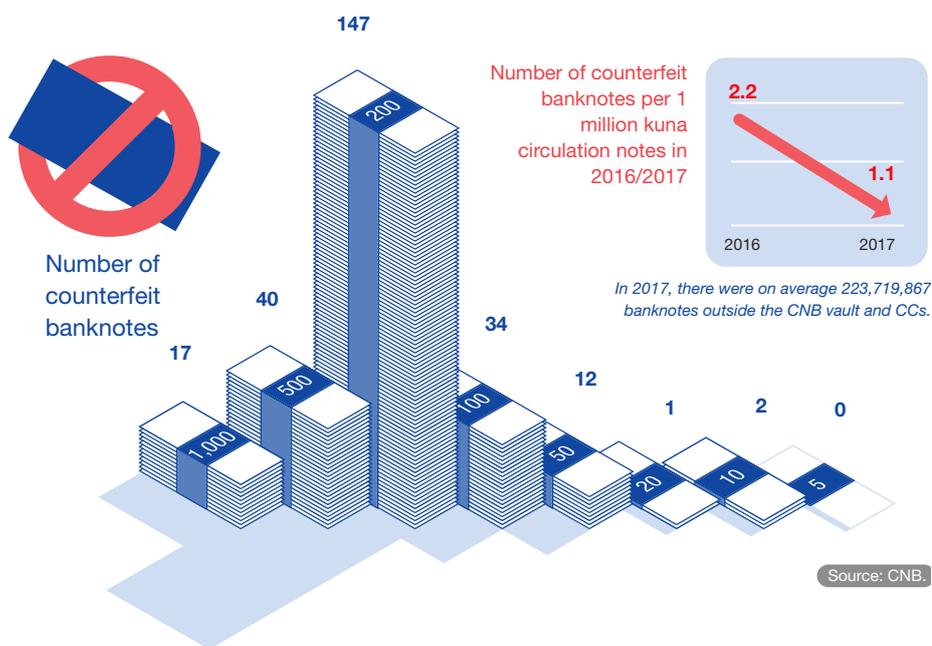


Table 5 Registered counterfeit kuna banknotes in 2017 by denomination

Denomination	1,000	500	200	100	50	20	10	5	Total
Pieces	17	40	147	34	12	1	2	0	253
Share (in %)	6.7	15.8	58.1	13.4	4.8	0.4	0.8	0.0	100.0

SOURCE: CNB.

For the sake of comparison, in 2016 eight counterfeit kuna coins were registered, but in 2017, only four counterfeit 5 kuna coins were registered.

With regard to foreign currencies, in all, 898 counterfeits were registered, of which the largest number, 785, was of counterfeit euro banknotes, followed by counterfeit US dollar banknotes (88), and the remaining 25 banknotes were counterfeits of the Swiss franc and pound sterling.

The number of registered counterfeit euro banknotes decreased by 112 pieces or 12.5%. In 2017, 124 counterfeit euro coins were registered (there were 106 2-euro coins and 18 1-euro coins). The number of registered counterfeit euro coins decreased by 80 or 64.9% from 2016.

The CNB continued implementing the National Training Programme on Banknote and Coin Authentication for Bank and Financial Institution Employees. In 2017, a total of 17 specialist courses for employees of banks, institutions specialised in cash operations and the trade sector were held. In all, 273 employees of the above categories received training.

# International relations

In 2017, CNB representatives participated in the work of committees and working groups of the European System of Central Banks, the European System of Financial Supervision, the EU Council and the European Commission. Thanks to fiscal consolidation, Croatia exited the excessive deficit procedure in June 2017. However, it was established in the new cycle of the coordination of economic policies in the EU that excessive macroeconomic imbalances still exist in the Croatian economy, despite there having been some progress in eliminating their causes.

The quota of the Republic of Croatia in the IMF remained unchanged in 2017 (SDR 717.4m). During the conclusion of the Article IV consultation with the Republic of Croatia for 2017, the IMF Executive Directors welcomed Croatia's continued economic recovery and favourable fiscal results, but also warned about the need to speed up structural reforms. The CNB continued its cooperation with the Bank for International Settlements (BIS) and a number of other international institutions.

## Activities connected with EU membership

### European System of Central Banks

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 2017, the CNB Governor participated in four regular meetings of the General Council, dealing with topics such as macroeconomic, monetary and financial developments in the EU, monetary policy measures and macroeconomic imbalances in the non-euro area member states and the central banks' compliance with the provisions on the monetary financing prohibition.

CNB representatives took part in the work of the 13 ESCB committees, numerous sub-committees and working groups, which provide expert assistance to the General Board and other ECB bodies competent for decision-making. Through written consultations, the CNB also took part in the forming of ECB opinions concerning new and amendments to existing EU legal acts and legislative changes in 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), a body responsible for macroprudential supervision of the financial system within the EU and the European Banking Authority (EBA).

Together with the Vicegovernor competent for banking supervision, the CNB Governor participated in regular quarterly meetings of the General Board of the ESRB at which topics related to systemic risks for the EU financial system were discussed and activities in the field of macroprudential policy were coordinated. At the meetings, it was estimated that the overall level of systemic risk in 2017 decreased, owing to a strong economic recovery, lower private and public sector debt and growth in the profitability of banks. General Board members agreed that the risk of a sudden increase in interest rates remains the key systemic risk for the EU financial system. The Governor is also member of the Steering Committee that prepared the meetings of the General Board and agrees the macroprudential activities of the ESRB.

Within the EBA, aimed at safeguarding efficiency and orderly functioning of the banking sector in the EU, CNB experts took part in the work of committees and working bodies of that institution, and competent Vicegovernors participated in the work of the Board of Supervisors and the Resolution Committee.

## The EU Council and the European Commission

CNB experts participated in the work of preparatory bodies of the EU Council and the European Commission, most frequently with Ministry of Finance representatives. In 2017, the Governor and Deputy Governor took part in informal meetings of finance ministers, and designated Vicegovernors participated in the work of the Economic and Financial Committee (EFC), which promotes the coordination of economic policies. By participating in the work of the working bodies of the Economic and Financial Affairs Council, the CNB was actively involved in the preparation of positions of the Republic of Croatia concerning the field of competence of central banks, such as the improvement in the quality of financial services and the functioning of the financial markets, as well as the increase in the robustness of the EU financial system.

In 2017, activities aimed at completing the establishment of a banking union and a further development of a capital markets union continued at the EU Council. Negotiations continued on a package of measures to reduce the risks within the banking system, the establishment of a European Deposit Insurance Scheme and on the establishment of a common backstop that would be used in the case of major disruptions in the banking system, now one of the roles of the European Stability Mechanism (ESM). In December 2017, the European Commission presented a roadmap to deepen Europe's Economic and Monetary Union in which, among other things, the Commission put forward a proposal for the establishment of a European Monetary Fund as a legal successor of the ESM and a dedicated convergence facility for member states on their way to joining the euro.

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

In the course of the 2017 European Semester, the EU Council adopted a decision on Croatia's leaving the excessive deficit procedure, because the country had reduced the general government deficit to 0.9% of GDP in the previous year. Within the coordination of economic policies it was also established that in Croatia there still exist excessive macroeconomic imbalances, despite some progress having been made in eliminating their causes. Having conducted a detailed analysis of the Croatian economy, the European Commission, in its report published in February 2017, emphasised the high stock of public, private and external debt and the high currency exposure, a high net international investment position and the high unemployment rate, holding back the growth potential, identifying them as key indicators of imbalances. The report said that the financial system was well capitalised and liquid and that the quality of banks' assets had been improving thanks to the acceleration of sales of impaired assets, but the share of non-performing loans remained high.

The European Commission assessed that in most of the areas covered by country-specific recommendations, Croatia had made limited progress. The proposals of measures for the correction of macroeconomic imbalances were embedded in the new recommendations the EU Council made to Croatia in mid-2017. In November 2017, at the beginning of the 2018 European Semester cycle, the European Commission decided to conduct in-depth reviews of national economies for Croatia and 11 other member states.

## Other activities connected with the European Union

Exit negotiations followed after the UK's decision to leave the EU. The CNB is making its contribution at the national level in preparing the analysis of potential effects and outcomes of negotiations in the fields within its competence, while within the ESCB, the CNB participates in the work of a working group dealing with the assessment of the economic and financial implications of the exit.

In addition to ad hoc bilateral cooperation with central banks of countries that are candidates and potential candidates for EU membership in the form of transferring knowledge about the *acquis*, in 2017, as a member of a consortium of institutions from Germany, the Netherlands and Croatia, the CNB for the first time became one of the partners in an EU-funded twinning project. The project is aimed at providing support in the alignment of the legislative framework in the area of financial services in Montenegro.

The CNB maintained cooperation with representatives of EU member state central banks and representatives of the ECB and other EU institutions and bodies. Noteworthy are several visits to the CNB by the representatives of the European Commission services and the twelfth 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 now comprises 15 countries (Armenia, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Georgia, Israel, Luxembourg, Macedonia, Moldova, Montenegro, the Netherlands, Romania and Ukraine). Anthony De Lannoy, a Belgian representative, is the Executive Director in the current term, with alternates from the Netherlands and Ukraine. The Republic of Croatia appoints its representative as advisor to the Executive Director for two years within each four-year period.

Article IV consultations with the Republic of Croatia for 2017 were concluded at the beginning of January 2018. Executive Directors welcomed Croatia's continued economic recovery and favourable fiscal performance. Nonetheless, output has not yet fully recovered to its pre-recession level



IMF Managing Director Christine Lagarde and CNB Governor Boris Vujčić respond to journalists' questions at the conference "Reaccelerating Convergence in Central, Eastern and Southeastern Europe – the Role of Governance and Institutions".

and per capita income remains well below the EU's average. In addition, public debt, elevated unemployment, and structural impediments continue to weigh on medium term growth prospects. With this background, Directors underscored the need to implement policy measures and expedite structural reforms to boost growth and reduce vulnerabilities. Directors were encouraged by the commitment to fiscal discipline, and noted the overperformance of recent years. Having in mind the favourable cyclical position, Directors emphasized the need to improve the structure of revenue and expenditure. In this context, they supported a streamlining of VAT rates and the intention to introduce a modern real estate tax. Directors encouraged the authorities to resist pressures to increase the wage bill and untargeted benefits. They stressed the importance for reforms to enhance the efficiency of public services and underscored the importance of an ambitious reform of the pension and health care systems. Directors noted that monetary policy has been appropriately accommodative within the limits of the exchange rate anchor. They encouraged the CNB to maintain such a stance as long as risks to inflation and financial stability remain low. Directors stressed that the ambition to adopt the euro raises the importance of pressing ahead

with reforms to maximize the benefits from joining the currency union while enhancing the ability of the economy to respond to adverse shocks. Directors commended the CNB for its conservative prudential policies which have thus far helped banks withstand the Agrokor crisis. They stressed that it is vital to maintain these policies and vigilant supervision over the banking system. They highlighted the need to continue with the recent improvements to bankruptcy legislation, improvements to the business environment and improvements to productivity and resource allocation.

In addition to Article IV consultations, cooperation with IMF experts and exchange of opinions also took place in a number of other gatherings and conferences in 2017. In addition to the regular visits by the Croatian delegation to Washington on the occasion of the spring IMFC meeting and the Annual Meeting of the IMF Board of Governors and the World Bank, the CNB and the IMF co-organised a conference on the topic of “Reaccelerating Convergence in Central, Eastern, and Southeastern Europe – The Role of Governance and Institutions”, which was held in July 2017 in Dubrovnik, and attended by representatives of 22 countries from Central, Eastern and Southeastern Europe.

The CNB is the fiscal agent of the Republic of Croatia for the IMF and a depository of the IMF. As a result, the CNB is responsible for keeping deposit accounts of the IMF and, in the name and for the account of the RC, settles its obligations based on the membership in the IMF.

The quota of the Republic of Croatia in the IMF and its voting power remained unchanged in 2017 (SDR 717.4m and 0.171% respectively).

## Bank for International Settlements (BIS)

In 2017, the CNB Governor took part in the work of the regular meetings of central bank governors from BIS member countries, at which topical issues in the area of central banking, international banking and finance were discussed. In addition, in June 2017, the Governor participated in the work of the BIS Annual General Meeting, on which occasion the BIS Annual Report was adopted.

## Cooperation with other international financial institutions

The CNB, within its competence, continued its cooperation with a number of other international financial institutions and organisations in 2017. This cooperation largely included the cooperation with multilateral development banks, with the Republic of Croatia as their member, such as the World Bank Group, the European Bank for Reconstruction and Development and the European Investment bank.

### Vienna Initiative 2.0

Since October 2016, the CNB Governor has been the chairman of the Vienna Initiative 2.0 Steering Committee. The Vienna Initiative 2.0 is a framework for safeguarding financial stability in the countries of Central, Eastern and Southeastern Europe through the exchange of experiences and opinions of the key stakeholders in the financial systems and in the private and public sectors of these countries. The Initiative brings together international financial institutions, home and host country supervisory authorities and the principal cross-border banking groups, which was established at the peak of the global financial crisis aimed at preventing a sudden turn in the movement of capital, which has proven to be a useful platform for cooperation between supervisory authorities for a better identification of systemic risks.

## Strategy for the Adoption of the Euro

In early 2017, the CNB and the Government of the Republic of Croatia jointly began preparing the Strategy for the Adoption of the Euro in Croatia. The Strategy was completed in September, when the document was presented to the public at a conference co-hosted by the Government and the CNB at the end of October. The Strategy aroused exceptional interest in the general public and media, as well as the academic and economic communities. The conference was followed by meetings of experts and lectures, with the objective of providing additional information to citizens and entrepreneurs about the procedure and the possible effects of the adoption of the euro on the Croatian economy.

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STRATEGIJA  
UVOĐENJA  
EURU U  
HRVATSKOJ

DOKUMENTI PITANJA I ODGOVORI SA SVIH STRANA PRESS KONTAKT

ORGANIZATORI:

Vlada Republike Hrvatske  
Hrvatska narodna banka  
Ministarstvo gospodarstva, poduzetništva i obrta

PRIOPĆENJE

### Koristi uvođenja eura veće od troškova, slažu se i gospodarstvenici

Uvođenje eura pozitivno bi se odrazilo i na turizam; 70 posto ukupnih prihoda od turizma i 60 posto ukupnih noćenja u Hrvatskoj dolazi iz europodručja **PROČITAJTE VIŠE**

VIDEO

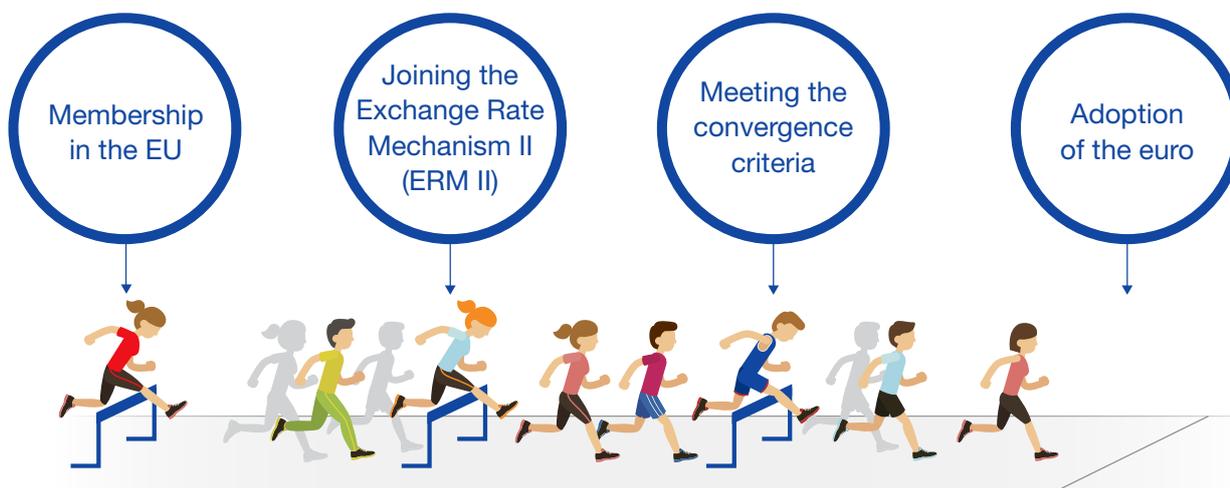


All the necessary information about the adoption of the euro are available to citizens at a subsite [euro.hnb.hr](http://euro.hnb.hr).

## PROCESS OF THE ADOPTION OF THE EURO

### How an EU member state can adopt the euro

#### Steps towards the adoption of the euro



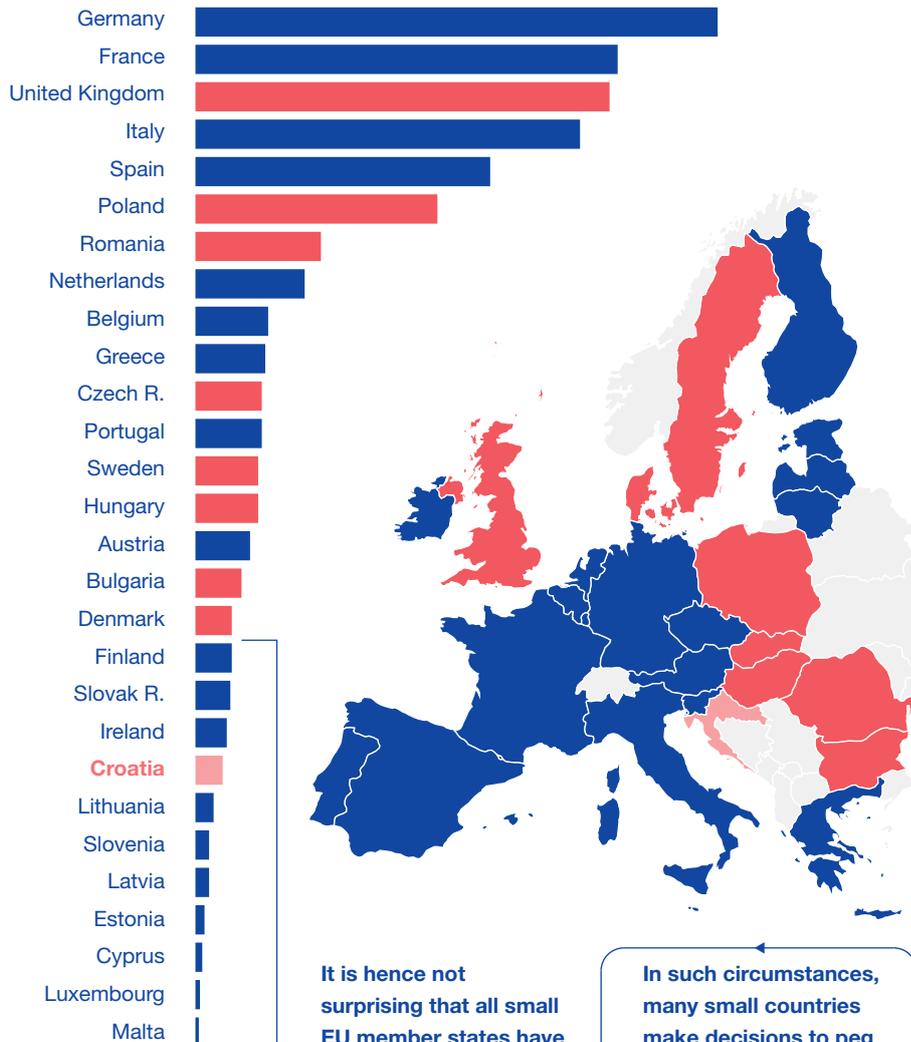
By its accession to the EU, Croatia committed to replace the domestic currency by the euro at some point in the future, once all of the prescribed conditions are met. This commitment applies to all other EU member states, apart from Denmark and the UK.

The conclusion of the Strategy is that it is in Croatia's best interest to initiate the process of euro adoption as soon as possible. It is founded on a detailed cost-benefit analysis of the adoption of the euro. In preparing the analysis, attention was paid to the specifics of Croatia's economy, due to which the cost-benefit ratio of the adoption of the euro could be different than in other countries. For instance, taking into consideration the high euroisation of the Croatian economy, it was estimated that the elimination of currency risk constitutes individually the main benefit of the adoption of the euro. By contrast, the majority of the current euro area member states did not face the problem of euroisation before adopting the euro, so that the elimination of currency risk in their case did not play a decisive role. With regard to the negative effects of the adoption of the euro, in theory, the loss of an independent monetary policy would be the largest cost of renouncing one's own currency. However, as underlined in the analysis, Croatia as a small, open and highly euroised economy cannot even now, while still having its own

## WHY THE EURO?

### EU member states by population and currency

(in million)



Source: Eurostat.

The Croatian economy is small and open...

... and therefore much more sensitive to capital flows and exchange rate developments.

During financial crises, small countries may experience strong capital outflow because investors in such conditions relocate their assets to safer destinations and currencies.

Stronger capital outflow may cause an exchange rate depreciation in a small country, which may result in high costs.

It is hence not surprising that all small EU member states have pressed ahead with implementing the euro.

In such circumstances, many small countries make decisions to peg their currency to one of the major world currencies.

Moreover, changes in the exchange rate in small countries may exert a strong effect on prices due to a large share of consumer goods being imported from other countries.

currency, implement monetary and exchange rate policy completely freely to manage the business cycle. In such circumstances, Croatia will not lose much by transferring the authority for managing monetary policy to the ECB.

The Strategy explains the process of euro adoption and the criteria Croatia should fulfil. The first step a member state should take if it intends to adopt the euro is to join the Exchange Rate Mechanism II (ERM II). The country must participate in the ERM II for at least two years, during which period the exchange rate of the domestic currency against the euro must be very stable. By successful participation in the ERM II, the country fulfils the exchange rate stability criterion, one of the four nominal convergence criteria that the country should meet in order to be able to adopt the euro. The other three criteria relate to price stability, sustainability of public finances and convergence of long-term interest rates. Croatia is currently capable of fulfilling all of the above criteria.

The Strategy does not define a timeframe within which the euro should be adopted. Although the criteria for the adoption of the euro are simple and clearly defined, the total duration of this process cannot be precisely foreseen. The problem is that the decision on the participation in the ERM II is not adopted by the candidate country itself, but other euro area member states and the EU institutions must also agree with it. The dynamics of euro adoption process will largely depend on the time Croatia needs to obtain the support from its European partners.

A number of economic policy instruments will remain available to Croatia even after it adopts the euro. Although Croatia will lose its right to manage its monetary policy autonomously, the central bank will keep most of the powers in the area of macroprudential policy, by which it will continue to protect financial stability. On the other hand, the Government will be able actively to use fiscal, structural and income policies.

## TRUTHS AND MYTHS ABOUT THE EFFECTS OF THE EURO

# MYTH

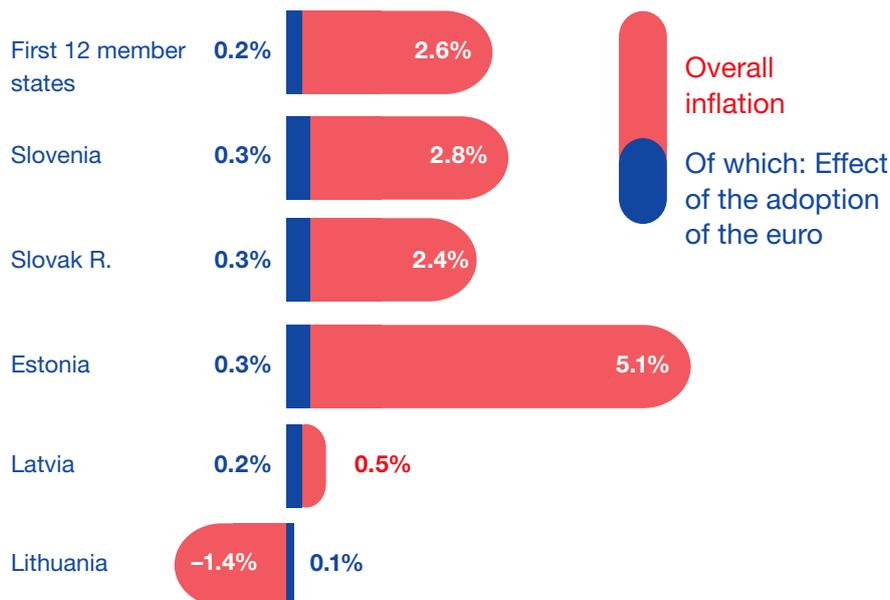
### Higher prices

### Inflation increase due to the adoption of the euro

(in percentage, in the year of the adoption of the euro)

# TRUTH

The effect of the conversion of national currencies into the euro on the growth of consumer prices is normally very mild. Nevertheless, the Government will pay particular attention to consumer protection and take steps to prevent possible abuse in the rounding of prices in the new currency. Dual display of prices in both kuna and euro will be a key measure.



Sources: Eurostat and CNB calculations.

## TRUTHS AND MYTHS ABOUT THE EFFECTS OF THE EURO

# MYTH

### Loss of national identity

# TRUTH

After Croatia adopts the euro as legal tender, euro banknotes, which are identical in all euro area countries, will be used and euro coins containing national reverse sides will be produced and put into circulation. In this way, "Croatian" euro coins will circulate in the whole euro area. Hence, when the euro replaces the kuna, coins of the single European currency will feature the symbols of the Croatian national identity and contribute to its promotion in other member states.



# Human resources

The goal of human resource management at the Croatian National Bank is to attract, select, develop and retain experts of various profiles whose professional approach to work, knowledge, skills and competencies coupled with a high level of commitment will contribute to the realisation of CNB goals. In 2017 the work on organisational design and job descriptions was continued, a total of 525 employees participated in various forms of education and the Code of Ethics was adopted.

## Job definitions and organisational design

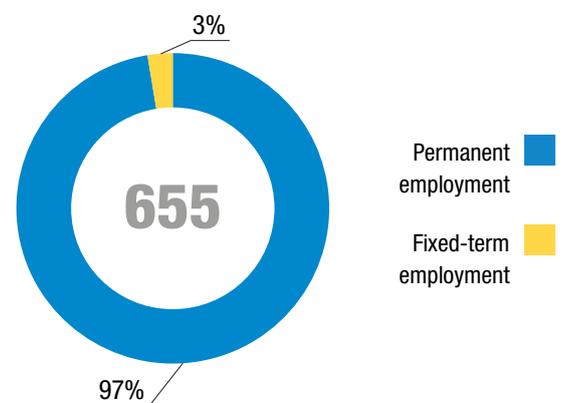
Activities related to amendments to the Regulation on the CNB organisational structure were taken in order to optimise the organisational structure and processes and analyse and design operations in the Economic Analysis Department and the Currency Department. Also, a revision of job descriptions at organisational unit level was continued, in order to create a foundation for an approach that would enable easier adjustments to business functions and their operational needs and ensure smoother management of changes in the area of job definitions and organisational design.

## Recruitment and employment relationships

As at 31 December 2017, the Croatian National Bank had a staff of 655 employees, or 1% more than at the end of 2016. Of this number, 638 employees were in permanent employment and 17 in fixed-term employment.

The majority of total Croatian National Bank employees are women (434 or 66%). The Croatian National Bank is one of the rare central banks within the ESCB in which in the employment structure according to gender there is a larger proportion of women; women also account for a large share in senior and middle management and analysis and research positions.

Figure 18 Employment status of employees



SOURCE: CNB.

**Women are well represented in employment in the Croatian National Bank.**

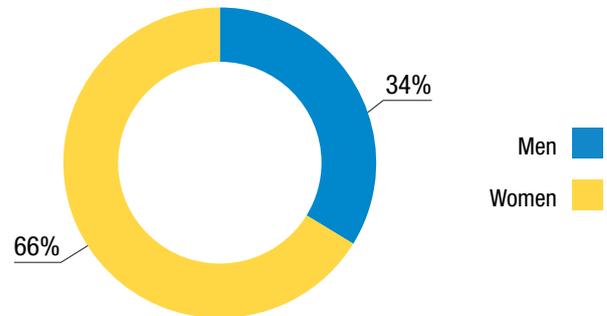
The average age of CNB employees is 46 years and they have a total average work experience of 22 years. The average work experience at the Bank is shorter (16 years).

**The majority of the 29 newly-employed have university qualifications.**

In 2017, 29 new employees were hired in the Croatian National Bank. Most of the newly-hired employees majored in economics, followed by information technology and law.

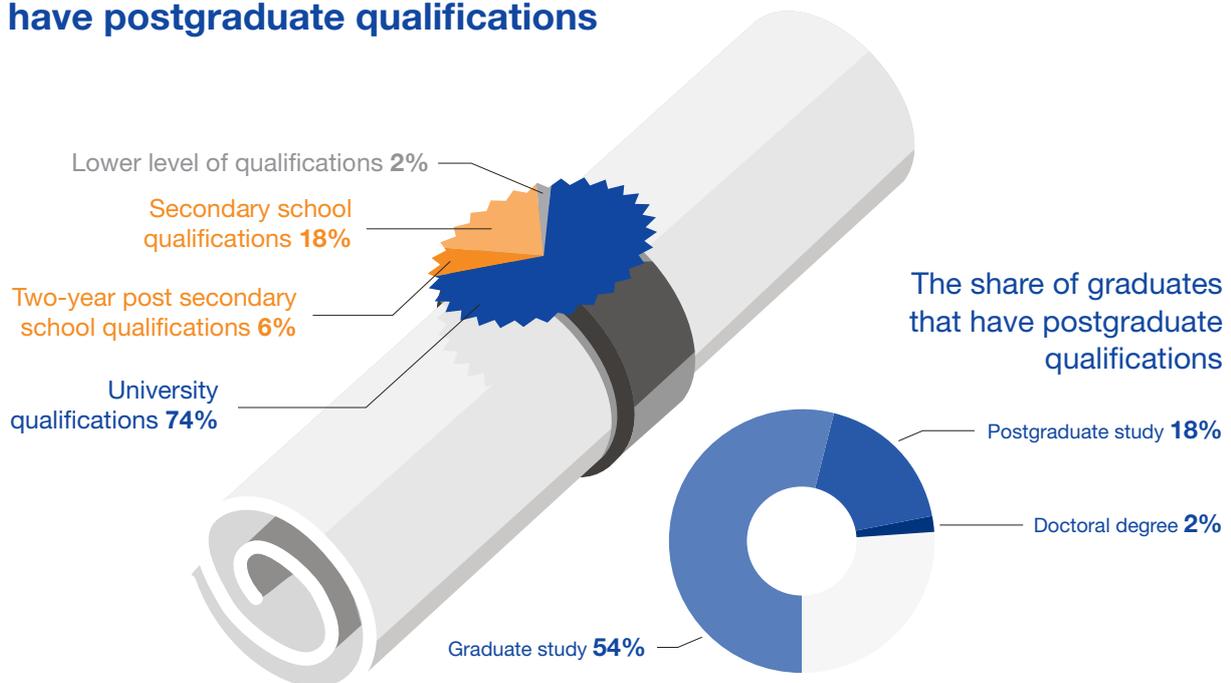
The majority of new employees were hired at associate and trainee positions, and one person was hired as a director.

Figure19 Employment breakdown by gender



SOURCE: CNB.

**A large share of employees with university qualifications have postgraduate qualifications**

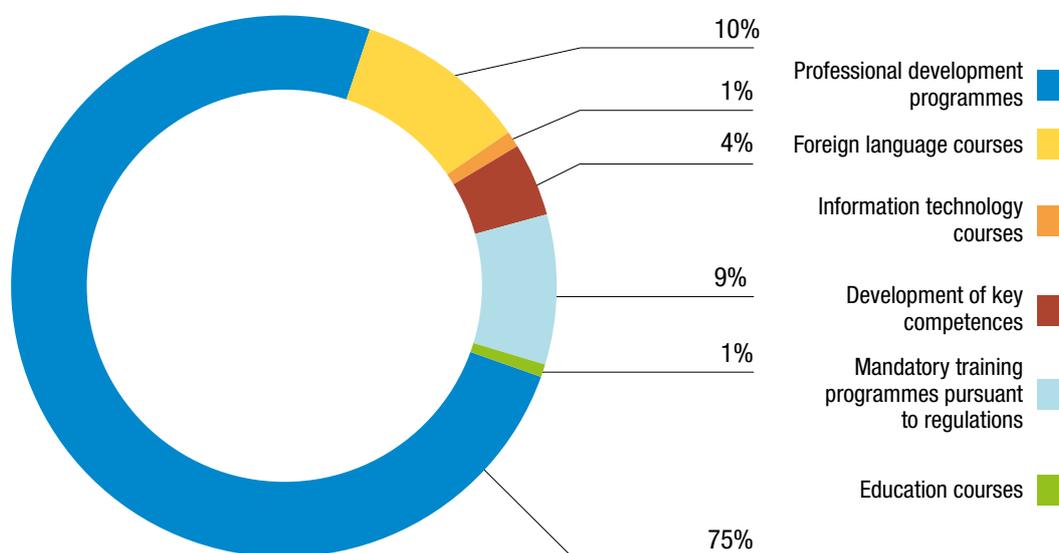


In 2017, twelve CNB employees terminated their employment by mutual consent and the same number of employees retired.

## Employee development

A total of 525 employees participated in various development activities in 2017, an increase of as much as 20% over 2016.

Figure 20 Employee development by type of education



SOURCE: CNB.

Most of the employees participated in professional development programmes (75%), primarily organised in Croatia, followed by employees who completed a foreign language course (10%), mainly business or banking English, and employees (9%) who completed mandatory training programmes pursuant to regulations. The remaining 6% of employees participated in competence development programmes (cooperation, result orientation and leadership), education courses (postgraduate and graduate) and a small number of employees took up information technology courses.

### An increasingly large number of employees participate in educational programmes

CNB employees most often participated in domestic educational programmes in accounting, payment operations, money market, money laundering and legal issues. The foreign educational programmes mostly participated in by CNB employees were on the topics of macroeconomics, risk management, monetary policy implementation, bank supervision, financial markets and payment operations. Each CNB employee on average had two days of professional training in 2017, or three days in terms of the number of days per participant.

### The CNB has constantly been investing in the professional growth and development of its employees

In 2017, CNB employees continued to actively participate in a variety of activities as well as in the committees and other working bodies of the ESCB; employees also showed an increased interest in professional training programmes organised by the ESCB, especially in programmes on legal issues, controlling and statistics.

In late 2017, a lecture was held with an interesting and informative presentation on occupation and occupation-related stress, types of stressors and stress prevention. The employees present at the lecture could raise their own awareness about achieving a balance between their work and private life and learn about the influence of stress on interpersonal relationships, work climate and the realisation of business goals. Employees expressed a great interest in the subject of the lecture and expect the education to continue, possibly accompanied by practical exercises.

In-house workshops on competencies development were also organised in 2017 in line with CNB's specific operational requirements. Interactive workshop participants were encouraged to raise their own awareness of mutual similarities and differences and of processes of business communication and motivation through a number of presentations, individual and group exercises and questionnaires, accompanied by result analysis and related discussions.

The best way towards a successful realisation of business goals is to acquire new, more efficient communication techniques and patterns and to become

aware of and understand the inner motives for professional work performance and dedication.

## New Code of Ethics

Following on the Ethical Rules of Conduct which the Croatian National Bank adopted in 1999, a new Code of Ethics of the CNB's employees, which is in line with the best practice of the European System of Central Banks, entered into force on 1 January 2017. The Code comprises a set of principles that in particular emphasise the values adhered to at the Bank, such as a high level of employee integrity and competence, security, independence, credibility, transparency, responsibility, efficiency and esprit de corps. The purpose of the Code is to create the preconditions for ethical behaviour and responsible business conduct and promote organisational culture values. The principles of this Code are applicable to all employees of the Croatian National Bank, including CNB officials.

## Plans for awarding scholarships to students

Increased activities related to employment dynamics continued in the CNB in 2017. Due to an increase in domestic and foreign demand for experts, a number of CNB experts have temporarily or permanently left the CNB to seek employment with other employers. The downward trend in the number of candidates applying to external vacancy announcements also continued.

The smaller number of candidates that met the requirements for advertised positions in some cases led to the cancellation of vacancy notices and the need to repeat vacancy announcements. The measures proposed in 2017 created the preconditions for the CNB to reinstate the practice of awarding scholarships to students specialising in required professions and in this way create a pool of experts eligible for employment. In 2017, the number of female employees who expressed their interest in half-time employment continued to grow.

The opportunities that work in the Croatian National Bank affords – to acquire new knowledge and experience, to work with top experts of various profiles, both in the CNB itself and as part of the ESCB and other international financial institutions, to engage in challenging work that has an impact on the wider environment, to participate in the proposal and adoption of regulations

from the area of competence of the central bank, and to be able to invest in personal and professional development – are advantages about which the CNB, with the use of the various channels it has at its disposal, intends vigorously to inform the general public, so that in the future it will be still better positioned as an employer in the labour market in Croatia.

CROATIAN NATIONAL BANK

# FINANCIAL STATEMENTS

For the year ended 31 December 2017



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## INDEPENDENT AUDITOR'S REPORT

To the Council of the Croatian National Bank

### Opinion

We have audited the financial statements of the Croatian National Bank („the Bank“), which comprise the statement of financial position as at 31 December 2017, and the income statement, statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Bank as at 31 December 2017, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs).

### Basis for opinion

We conducted our audit in accordance with the Audit Act and International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Bank in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and we have fulfilled our ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Other matters

The financial statements of the Bank for the year ended 31 December 2016 were audited by another auditor, whose report dated 31 March 2017 expressed an unqualified opinion on those financial statements.

The company was registered at Zagreb Commercial Court: MBS 030022053; paid-in initial capital: Kn 44,900.00; Board Members: Branimir Vrtačnik, Eric Daniel Olcott, Marina Tonžetić, Jura Moravek, Dražen Nimčević and John Jozef H. Ploern; Bank: Zagrebačka banka d.d., Trg bana Josipa Jelačića 10, 10 000 Zagreb, bank account no. 2360000-1101896313; SWIFT Code: ZABHR2X IBAN: HR2723600001101896313; Privredna banka Zagreb d.d., Radnička cesta 50, 10 000 Zagreb, bank account no. 2340009-1110098294; SWIFT Code: PBZGHR2X IBAN: HR3823400091110098294; Raiffeisenbank Austria d.d., Petrinjska 59, 10 000 Zagreb, bank account no. 2484008-1100240905; SWIFT Code: RZBHR2X IBAN: HR1024840081100240905.

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## **INDEPENDENT AUDITOR'S REPORT (CONTINUED)**

### **Responsibilities of the Council of the Croatian National Bank**

Council of the Croatian National Bank is responsible for the preparation and fair presentation of the financial statements in accordance with IFRSs and for such internal control as 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, Council of the Croatian National Bank is responsible for assessing the Banks's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting.

### **Auditor's 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 auditor's 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 ISAs 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 ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal 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 Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Council of the Croatian National Bank.



## INDEPENDENT AUDITOR'S REPORT (CONTINUED)

### Auditor's Responsibilities for the Audit of the Financial Statements (continued)

- Conclude on the appropriateness of Council of the Croatian National Bank 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 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 auditor's 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 auditor's report. However, future events or conditions may cause the 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.

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.

A blue ink signature of Branislav Vrtačnik, written in a cursive style.

**Branislav Vrtačnik**  
President of the Management  
Board

A blue ink signature of Vanja Vlák, written in a cursive style.

**Vanja Vlák**  
Certified Auditor

A blue ink signature of Yuri Sidorovich, written in a cursive style.

**Yuri Sidorovich**  
Partner

Deloitte d.o.o.

15 March 2018  
Radnička cesta 80  
10 000 Zagreb,  
Croatia

## INCOME STATEMENT

(All amounts are expressed in thousands of kuna)	NOTES	2017	2016
Interest and similar income	3	692,031	660,076
Interest and similar expense	4	(166,799)	(93,562)
<b>NET INTEREST INCOME/(EXPENSE)</b>		<b>525,232</b>	<b>566,514</b>
Fee and commission income	5	49,578	49,028
Fee and commission expenses		(19,240)	(18,356)
<b>NET FEE AND COMMISSION INCOME/(EXPENSE)</b>		<b>30,338</b>	<b>30,672</b>
Dividend income		6,652	4,968
Net investment result – equity method		1,792	836
Net result from financial assets at fair value through profit or loss	6	(116,849)	(23,624)
Net result from financial assets available for sale		–	67,734
Net exchange differences	7	(2,658,690)	(278,788)
Other income	8	6,324	23,196
<b>OPERATING INCOME</b>		<b>(2,205,201)</b>	<b>391,508</b>
Operating expenses	9	(346,505)	(326,560)
(Increase)/decrease in impairment losses and provisions	10	(2,525)	(22,835)
<b>PROFIT/(LOSS)</b>	<b>32</b>	<b>(2,554,231)</b>	<b>42,113</b>
– Covered from general reserves/(allocated to general reserves)		2,554,231	(8,423)
– Allocated to the State Budget		–	(33,690)

The notes on pages 135 to 189 form an integral part of these financial statements.

## STATEMENT OF COMPREHENSIVE INCOME

(All amounts are expressed in thousands of kuna)	NOTES	2017	2016
PROFIT/(LOSS)		(2,554,231)	42,113
OTHER COMPREHENSIVE INCOME/(LOSS)		184,389	(62,624)
OTHER COMPREHENSIVE INCOME ITEMS THAT ARE OR WILL BE RECLASSIFIED TO PROFIT OR LOSS IN SUBSEQUENT PERIODS		184,389	(62,624)
Gains/(losses) from remeasurement of financial assets available for sale (IAS 39)		184,389	5,110
(Gains)/losses from financial assets available for sale transferred to profit or loss (IAS 39)		–	(67,734)
<b>TOTAL COMPREHENSIVE INCOME/(LOSS)</b>		<b>(2,369,842)</b>	<b>(20,511)</b>

The notes on pages 135 to 189 form an integral part of these financial statements.

## STATEMENT OF FINANCIAL POSITION

(All amounts are expressed in thousands of kuna)	NOTES	31 DECEMBER 2017	31 DECEMBER 2016
<b>ASSETS</b>			
Cash and current accounts with other banks	11	19,753,776	12,496,923
Deposits with other banks	12	2,418,253	2,347,183
Financial assets at fair value through profit or loss	13	27,680,857	24,721,319
Loans	14	1,265,448	54
Reverse repo agreements	15	17,641,746	11,825,959
Held-to-maturity investments	16	19,865,183	21,456,529
Balances with the International Monetary Fund	17	9,200,198	9,924,148
Financial assets available for sale	18	27,985,759	27,507,831
Investments accounted for using the equity method	19	22,033	22,083
Accrued interest and other assets	20	8,459,221	4,099,969
Property, plant, equipment and intangible assets	21	584,297	590,670
<b>TOTAL ASSETS</b>		<b>134,876,771</b>	<b>114,992,668</b>
<b>LIABILITIES</b>			
Banknotes and coins in circulation	22	31,691,425	27,913,956
Due to banks and other financial institutions	23	64,073,140	49,240,755
Repo agreements	24	12,022,248	7,181,838
Due to the State and State institutions	25	2,949,012	3,370,118
Due to the International Monetary Fund	26	9,179,443	9,900,065
Accrued interest and other liabilities	27	705,590	760,181
<b>TOTAL LIABILITIES</b>		<b>120,620,858</b>	<b>98,366,913</b>
<b>EQUITY</b>			
Initial capital	28	2,500,000	2,500,000
Reserves		11,755,913	14,125,755
<b>TOTAL EQUITY</b>		<b>14,255,913</b>	<b>16,625,755</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>134,876,771</b>	<b>114,992,668</b>

The financial statements set out on pages 130 to 189 were approved on 15 March 2018 by:

Director of the Accounting Department:

Mario Varović



Governor:

Boris Vujčić



The notes on pages 135 to 189 form an integral part of these financial statements.

## STATEMENT OF CHANGES IN EQUITY

(All amounts are expressed in thousands of kuna)	INITIAL CAPITAL	GENERAL RESERVES	FAIR VALUE RESERVE	REVALUATION RESERVES ON PROPERTY	TOTAL RESERVES	PROFIT OR LOSS FOR THE YEAR	TOTAL EQUITY
<b>BALANCE AS AT 1 JANUARY 2016</b>	2,500,000	13,835,610	–	344,346	14,179,956	–	16,679,956
Profit or loss	–	–	–	–	–	42,113	42,113
Other comprehensive income	–	–	(62,624)	–	(62,624)	–	(62,624)
Total comprehensive income	–	–	(62,624)	–	(62,624)	42,113	(20,511)
Depreciation of revalued property	–	5,233	–	(5,233)	–	–	–
Net profit transferred to general reserves	–	8,423	–	–	8,423	(8,423)	–
Net profit transferred to the State Budget	–	–	–	–	–	(33,690)	(33,690)
<b>BALANCE AS AT 31 DECEMBER 2016/ 1 JANUARY 2017</b>	2,500,000	13,849,266	(62,624)	339,113	14,125,755	–	16,625,755
Profit or loss	–	–	–	–	–	(2,554,231)	(2,554,231)
Other comprehensive income	–	–	184,389	–	184,389	–	184,389
Total comprehensive income	–	–	184,389	–	184,389	(2,554,231)	(2,369,842)
Depreciation of revalued property	–	5,233	–	(5,233)	–	–	–
Loss covered from general reserves	–	(2,554,231)	–	–	(2,554,231)	2,554,231	–
<b>BALANCE AS AT 31 DECEMBER 2017</b>	2,500,000	11,300,268	121,765	333,880	11,755,913	–	14,255,913

The notes on pages 135 to 189 form an integral part of these financial statements.

## STATEMENT OF CASH FLOWS

(All amounts are expressed in thousands of kuna)	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Interest received	847,583	952,824
Interest paid	(172,801)	(103,282)
Fees and commissions received	48,858	41,964
Fees and commissions paid	(10,211)	(8,791)
Dividends received and share in profit	8,494	4,968
Other receipts	66,743	96,492
Expenses paid	(306,330)	(291,712)
	482,336	692,463
<b>CHANGES IN OPERATING ASSETS AND LIABILITIES</b>		
Decrease/(increase) in deposits with other banks and foreign currency reverse repo agreements	(7,752,821)	19,183,937
Decrease/(increase) in loans and reverse repo kuna agreements	(161,994)	(945,394)
Decrease/(increase) in trading securities	(3,998,648)	5,043,429
Decrease/(increase) in assets under management with international financial institutions	13,943	10,143
Decrease/(increase) in held-to-maturity securities	1,356,677	13,970,897
Decrease/(increase) in securities available for sale	(1,656,846)	(27,141,361)
Decrease/(increase) in other assets	(105,493)	(55,507)
Decrease/(increase) in balances with the IMF	–	(853,341)
Increase/(decrease) in amounts due to the IMF	(97)	853,227
Increase/(decrease) of currency in circulation	3,777,469	2,596,040
Increase/(decrease) in repo agreements and amounts due to banks and other financial institutions	15,912,943	755,922
Increase/(decrease) in amounts due to the State and State institutions	(400,381)	(4,630,861)
Increase/(decrease) in amounts due to the European Commission	(28,958)	216,998
Increase/(decrease) in other liabilities	(31,363)	(153,967)
	6,924,431	8,850,162
<b>NET CASH FROM OPERATING ACTIVITIES</b>	<b>7,406,767</b>	<b>9,542,625</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchase of property, equipment and intangible assets	(29,066)	(42,712)
<b>NET CASH FROM INVESTING ACTIVITIES</b>	<b>(29,066)</b>	<b>(42,712)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Payments of allocated profits to the State Budget	(33,690)	(483,048)
<b>NET CASH FROM FINANCING ACTIVITIES</b>	<b>(33,690)</b>	<b>(483,048)</b>
<b>EFFECT OF CHANGES IN EXCHANGE RATES – POSITIVE/(NEGATIVE) EXCHANGE DIFFERENCES ON CASH AND CASH EQUIVALENTS</b>	<b>(304,224)</b>	<b>(21,480)</b>
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>7,039,787</b>	<b>8,995,385</b>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>	<b>15,455,175</b>	<b>6,459,790</b>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR (NOTE 31)</b>	<b>22,494,962</b>	<b>15,455,175</b>

The notes on pages 135 to 189 form an integral part of these financial statements.

## Note 1 – General information and accounting standards

### 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. 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 as provided by the Constitution and the Act include:

- Determining and implementing monetary and foreign exchange policies;
- Maintaining and managing international reserves of the Republic of Croatia;
- Issuing of banknotes and coins;
- Issuing and withdrawing authorisations and approvals in accordance with laws regulating credit institutions, credit unions, payment institutions, electronic money institutions and payment systems, foreign exchange operations and operations of authorised foreign exchange offices;
- Performing supervision and oversight in accordance with laws regulating the operations of credit institutions, credit unions, payment institutions and electronic money institutions and payment systems;
- 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 the payment system;
- Performing tasks on behalf of the Republic of Croatia as defined by law;
- Promulgating regulations from its area of competence;

- Contributing to overall stability of the financial system and
- 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
- Relja Martić, Deputy Governor
- M.Sc. Tomislav Presečan, Vicegovernor
- M.Sc. Vedran Šošić, Vicegovernor
- Damir Odak, Vicegovernor
- D.Sc. Michael Faulend, Vicegovernor
- Bojan Fras, Vicegovernor
- Neven Barbaroša, Vicegovernor.

## 1.2 Accounting standards

The financial statements of the Croatian National Bank 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, and published in the Official Journal of the European Union. The preparation of the financial statements of the Croatian National Bank in accordance with the International Financial Reporting Standards as adopted in the European Union is regulated by the Act on the Croatian National Bank and the Accounting Act.

### 1.2.1 Application of new and revised standards and changes in accounting policies

The accounting policies of the Croatian National Bank applicable to reporting periods beginning on 1 January 2017 are different from accounting policies applied in the preparation of the last annual financial

statements of the Croatian National Bank with regard to the method of determining the costs of sold securities. Starting from 1 January 2017, the costs of sold securities are determined using the weighted average cost method, while they were previously determined using the FIFO method. Application of the weighted average cost method instead of the FIFO method did not have a significant financial impact on the determination of the costs of sold securities.

#### 1.2.1.1 Standards and interpretations in force in the EU for annual periods commencing from 1 January 2017, applied in the preparation of the financial statements for 2017

In 2017 and 2018, amendments to existing standards with mandatory application in the EU for annual periods commencing from 1 January 2017 were published, as presented in the following table.

OFFICIAL JOURNAL OF THE EU	STANDARD
OJ L 291, 9.11.2017	IAS 7 – Statement of Cash Flows (amendments)
	IAS 12 – Income Taxes (amendments)
OJ L 34, 8.2.2018	IFRS annual improvements, cycle 2014 – 2016:
	IFRS 12 – Disclosure of Interests in Other Entities (amendments)

The application of these standards has no significant impact on the financial statements of the Croatian National Bank in the current period.

#### 1.2.1.2 Standards and interpretations published in the EU which were not applied in the preparation of the financial statements for 2017

In 2016, 2017 and 2018, new standards and amendments to existing standards with mandatory application in the EU for annual periods commencing from 1 January 2018 were published, as presented in the following table.

OFFICIAL JOURNAL OF THE EU	STANDARD
OJ L 295, 29.10.2016	IFRS 15 – Revenue from Contracts with Customers (new)
OJ L 323, 29.11.2016	IFRS 9 - Financial Instruments (new)
OJ L 291, 9.11.2017	IFRS 4 – Insurance Contracts (amendments)
	IFRS 15 – Revenue from Contracts with Customers (amendments)
OJ L 34, 8.2.2018	IFRS annual improvements, cycle 2014 – 2016:
	IAS 28 – Investments in Associates and Joint Ventures (amendments)
	IFRS 1 – First-time Adoption of International Financial Reporting Standards (amendments)

In 2017, a new standard with mandatory application in the EU for annual periods commencing from 1 January 2019 were published, as presented in the following table.

OFFICIAL JOURNAL OF THE EU	STANDARD
OJ L 291, 9.11.2017	IFRS 16 – Leases (new)

The application of these standards, other than IFRS 9, will not have a significant impact on the financial statements of the Croatian National Bank. The application of IFRS 9 will affect the classification and measurement of financial instruments of the Croatian National Bank.

IAS 39 – Financial Instruments: Recognition and Measurement is superseded by the new IFRS 9 – Financial Instruments, which is effective in the EU from 1 January 2018. IFRS 9 introduces new criteria for the classification of financial assets, as well as changes related to the impairment of financial assets.

In accordance with IFRS 9, financial assets can be classified as assets subsequently measured at amortised cost, at fair value through other comprehensive income or at fair value through profit or loss on the basis of the business model for the management of financial assets and the contractual cash flow characteristics of financial assets.

The business model reflects the manner in which an entity’s financial assets are managed for the generation of cash flows. Business models may be: the business model whose objective is to hold financial assets in order to collect the contractual cash flows, the business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and other business models.

For financial assets that are held within a business model whose objective is to hold assets in order to collect contractual cash flows or within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, it is necessary to determine whether the contractual cash flows of the assets are solely payments of principal and interest on the principal amount outstanding. Only those financial assets that meet the “solely payments of principal and interest” condition can be classified into the category of financial assets measured at amortised cost or into the category of financial assets at fair value through other comprehensive income.

A financial asset is measured at amortised cost if both of the following conditions are met:

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows and

- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

For debt instruments classified into the category of financial assets measured at amortised cost, interest income (calculated using the effective interest rate method), foreign currency gains or losses and expected credit losses are recognised directly in profit or loss. In the event of derecognition of financial assets, gains or losses are recognised in profit or loss.

A financial assets is measured at fair value through other comprehensive income if both of the following conditions are met:

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A gain or loss on debt instruments measured at fair value through other comprehensive income are recognised in other comprehensive income, except for impairment gains or losses and foreign exchange gains and losses, until the financial asset is derecognised or reclassified.

When the financial asset is derecognised the cumulative gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment. Interest calculated using the effective interest method is recognised in profit or loss.

If a financial asset is measured at fair value through other comprehensive income, the amounts that are recognised in profit or loss are the same as the amounts that would have been recognised in profit or loss if the asset had been measured at amortised cost.

Financial assets are measured at fair value through profit or loss if they are not measured at amortised cost or at fair value through other comprehensive income. An entity may, at initial recognition, designate a financial asset as measured at fair value through profit or loss if doing so eliminates or significantly reduces a measurement or recognition inconsistency (“accounting mismatch”) that would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases. Gains or losses on financial assets at fair value through profit or loss are recognised in profit or loss.

Equity instruments are measured at fair value through profit or loss. However, at initial recognition, an entity may make an irrevocable election to present in other comprehensive income subsequent changes in the

fair value of an investment in an equity instrument (if investment in equity instruments is neither held for trading nor contingent consideration recognised by an acquirer in a business combination).

The application of IFRS 9 will not bring significant changes with regard to the classification and valuation of financial obligations.

Based on IFRS 9, the model of expected losses is introduced as the basis for the estimates of credit losses and financial instrument impairment testing, in contrast to the incurred loss model (according to IAS 39 – Financial Instruments: Recognition and Measurement), in which financial instrument impairment occurs only after the delay in meeting contractual obligations of the debtor or the issuer of debt securities. The expected credit loss model anticipates that the loss on financial instruments is estimated immediately, i.e. at initial recognition, therefore, even before the debtor's financial and credit rating worsens.

An entity recognises a loss allowance for expected credit losses on a financial asset that is measured at amortised cost and at fair value through other comprehensive income, a lease receivable, a contract asset or a loan commitment and a financial guarantee contract.

The Croatian National Bank has analysed business models and cash flow characteristics of its financial assets, which is the basis for the classification of its financial instruments on the date of initial application of IFRS 9. Internal models for the calculation of expected credit losses at the Croatian National Bank have been developed in accordance with the provisions of IFRS 9 and the software for the calculation of value impairments (expected credit losses) for various financial instruments has been prepared. A loss allowance for expected credit losses on the date of initial application of IFRS 9 in the amount of HRK 16,231 thousands will be debited from the general reserves of the Croatian National Bank.

The Croatian National Bank did not early adopt new standards, amendments to standards and their interpretations, adopted by the EU, whose adoption in 2017 is optional, given that the commencement of the financial year for the CNB is 1 January 2017.

#### 1.2.1.3 Standards and interpretations which are not published in the EU

The International Accounting Standards Board (IASB) and the International Financial Reporting Interpretations Committee (IFRIC) issued additional standards and interpretations, which have not yet been endorsed in the European Union. It is estimated that their application will not have a significant impact on the preparation of the financial statements of the Croatian National Bank.

## 1.2.2 Basis of preparation

The financial statements have been prepared under the accrual basis of accounting and using the historical cost convention, except for financial assets at fair value through profit or loss and available for sale debt securities, buildings measured at revalued amortised cost and land measured at revalued amount, which is their fair value at the revaluation date less subsequent accumulated depreciation of buildings and subsequent accumulated impairment losses.

The functional and presentational currency of the Croatian National Bank is the kuna. The financial statements are expressed in thousands of kunas.

These financial statements are prepared using going concern assumption.

## 1.2.3 Use of judgements and estimates

In preparing the financial statements, the management has 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 significant judgements made by the management in applying the accounting policies and the key sources of estimation uncertainty were the same as those used in the preparation of the annual financial statements for 2016.

### 1.2.3.1 Fair value and fair value hierarchy

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price).

Valuation techniques that are used in determining the fair values are the market approach, cost approach and income approach. The market approach uses prices and other relevant information from market transactions with identical or similar assets or liabilities. The cost approach is a valuation technique that reflects the amount that would be required currently to replace the service capacity of an asset (often referred to as current replacement cost). The income approach converts future amounts (e.g. cash flows or income and expenses) to a single current (i.e. discounted) amount.

The fair value hierarchy consists of three levels of data included in the valuation techniques which are used to measure fair value:

- Level 1 – inputs are quoted prices in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 – inputs other than quoted prices observable for the asset or liability, either directly or indirectly;
- Level 3 – inputs are unobservable inputs for the asset or liability (not available and verifiable market data).

In the process of fair value measurements, suitable valuation techniques for which the necessary data are available are used, with maximum use of observable inputs and minimal use of inputs that are not observable in an active market.

The Croatian National Bank recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

More detailed disclosures on fair value measurements of financial assets and liabilities are presented in Note 33.

#### 1.2.3.2 Losses on impairment of financial assets

Financial assets are reviewed at each reporting date to determine whether there is objective evidence of impairment as described in the accounting policy *Impairment of financial assets* (Note 2.6.4).

At the reporting date the Croatian National Bank had no impaired financial assets.

The Croatian National Bank did not form provisions for incurred but not reported credit losses, as due to the high credit quality of its assets it has never recorded specific impairment losses on its financial assets.

#### 1.2.3.3 Estimation uncertainty relating to litigations and claims

The Croatian National Bank provided HRK 24,822 thousands (2016: HRK 24,562 thousands) in respect of liabilities for court cases. The management estimates these provisions as sufficient.

#### 1.2.3.4 Held-to-maturity investments

The Croatian National Bank applies IAS 39 – Financial Instruments: Recognition and Measurement guidelines for the classification of non-derivative financial assets with fixed or determinable payments and fixed maturity in the held-to-maturity portfolio. This classification entails significant judgment. In making this judgment, the Croatian National Bank estimates its intention and ability to hold these investments to maturity.

## Note 2 – Summary of significant accounting policies

### 2.1 Interest income and expense

Interest income also includes coupons earned on fixed income financial instruments. Interest income is increased for amortised discount and reduced for amortised premium on purchased securities.

Interest income on financial instruments at amortised cost and financial assets available for sale is recognised in the Income Statement using the effective interest method. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability.

Interest income on debt securities at fair value through profit or loss is recognised based on the nominal coupon interest rate.

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

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

### 2.2 Fee and commission income and expense

Fee and commission income from services provided by the Croatian National Bank is recognised when the service is provided.

Fee and commission expense is included in the Income Statement for the period in which services are received.

## 2.3 Dividend income

Dividend income on equity investments is recognised in the Income Statement when the right to receive dividends is established.

## 2.4 Foreign exchange gains and losses

Transactions in foreign currencies are translated into the Croatian kuna at the rates of exchange in effect at the dates of the transactions. At each reporting date, monetary assets and liabilities denominated in foreign currencies are retranslated at the exchange rates in effect on that date. Gains and losses on translation are recognised in profit or loss in the period in which they arise. Translation is performed using the midpoint exchange rates of the Croatian National Bank.

Gains and losses arising from trading in foreign currencies are included in realised income and expenses in the period in which they occur. All other foreign exchange gains or losses are included in unrealised income and expenses in the period in which they occur.

Non-monetary assets and liabilities denominated in foreign currencies stated at historical cost at the exchange rate valid on the date of transaction are not retranslated at the date of the Statement of Financial Position, i.e. the exchange differences are not recognised for these items.

The exchange rates of major foreign currencies at 31 December 2017 were as follows:

USD 1 = HRK 6.269733 (2016: HRK 7.168536)

EUR 1 = HRK 7.513648 (2016: HRK 7.557787)

XDR 1 = HRK 8.996799 (2016: HRK 9.702917)

## 2.5 Provisions

Provisions are recognised in the Income Statement at the end of the reporting period.

The Croatian National Bank recognises a provision when it has a present legal or constructive obligation as a result of a past event; when 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.

## 2.6 Financial instruments

### 2.6.1 Classification

#### 2.6.1.1 Financial assets

Financial assets of the Croatian National Bank are classified into the following categories:

a) Financial assets at fair value through profit or loss

This category comprises marketable debt securities, acquired principally for the purpose of sale or repurchase in the near future. Assets under management with international institutions and precious metals are also included in this category.

b) Held-to-maturity investments

Included in this category are investments in debt securities that the Croatian National Bank has the ability and intends to hold to maturity.

c) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments, not quoted on an active market.

This category comprises cash, deposits with banks and financial institutions, reverse repo agreements, loans, trade and other receivables included in the financial assets.

d) Financial assets available for sale

Financial assets available for sale comprise debt securities, investments of the Croatian National Bank in equity securities of international financial institutions based on which the membership status in these institutions was realised, and the paid-up capital of the European Central Bank (ECB).

#### 2.6.1.2 Financial liabilities

The Croatian National Bank classifies its financial liabilities as other financial liabilities.

## 2.6.2 Recognition and derecognition

The Croatian National Bank recognises and derecognises financial instruments on the settlement date.

## 2.6.3 Measurement

Financial instruments are measured initially at fair value plus, in the case of a financial asset or financial liability not designated at fair value through profit and loss, transaction costs.

Subsequent to initial recognition financial assets at fair value through profit or loss are measured at fair value. Gains and losses from changes in the fair value of these assets are recognised in the Income Statement.

Held-to-maturity securities comprise debt securities with fixed or determinable payments and fixed maturities. They are measured at amortised cost using the effective interest rate method less any impairment.

Loans and receivables are also measured at amortised cost using the effective interest rate method.

Financial assets available for sale are measured at fair value, except for investments in equity securities with no quoted price in an active market, and whose fair value cannot be reliably measured. Those investments are measured at cost. Gains or losses from changes in fair value (debt) monetary assets available for sale are recognized directly in the fair value reserve in other comprehensive income and are disclosed in the Statement of Changes in Equity. Impairment losses, gains and losses from foreign exchange, interest income, interest expense if interest rates are negative, amortisation of premium or discount using the effective interest rates on debt assets available for sale are recognized in profit or loss.

Financial liabilities are classified as other financial liabilities and are subsequently measured at amortised cost using the effective interest rate method, with the exception of banknotes and coins in circulation which are measured at their nominal value.

## 2.6.4 Impairment of financial assets

Financial assets are reviewed at each reporting date to determine whether there is objective evidence of impairment.

a) Financial assets at amortised cost

If there is objective evidence that an impairment loss on loans and receivables or held-to-maturity investments carried at amortised cost has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced through use of an allowance account and the amount of the loss is recognised in profit or loss. For calculating impairment loss on loans and receivables or held-to-maturity financial assets with variable interest rates, the contractual effective interest rate at the date of impairment is used as a discount rate.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the previously recognised impairment loss is reversed by adjusting an allowance account. The amount of the reversal is recognised in profit or loss.

b) Financial assets available for sale

If there is objective evidence of impairment of financial investment, its new fair value is calculated to determine amount of impairment.

When a decline in the fair value of an available-for-sale financial asset has been recognised in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognised in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment even though the financial asset has not been derecognised.

The amount of the cumulative loss that is reclassified from other comprehensive income to profit or loss is the difference between the acquisition cost (net of any principal repayment and amortisation) and current fair value, less any impairment loss on that financial asset previously recognised in profit or loss.

Impairment losses recognised in profit or loss for an investment in an equity instrument classified as available for sale are not reversed through profit or loss, but are recognised as fair value reserve in other comprehensive income.

If, in a subsequent period, the fair value of a debt instrument classified as available for sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in profit or loss, the impairment loss shall be reversed, with the amount of the reversal recognised in profit or loss. Impairment may be reversed only up to the amount of the previously reported impairment.

## 2.7 Repo and reverse 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. Securities purchased with the obligation to resell them in the future are not recognised on the Statement of Financial Position.

Payments arising from those agreements are recognised as amounts due from other banks or financial institutions, and are collateralised by securities underlying the repurchase agreement. Securities sold under repurchase agreements are not derecognised and continue to be recognised in the Statement of Financial Position. Receipts from sales of securities are recognised as amounts due to banks and other financial institutions. The difference between the sale and the repurchase price is included in interest income or expense and accrued over the period of the transaction.

## 2.8 Deposits with other banks

Amounts due from domestic and foreign banks represent balances on non-transactional accounts.

## 2.9 Balances with the International Monetary Fund

Balances with the International Monetary Fund (IMF) are denominated in Special Drawing Rights (XDR).

## 2.10 Gold and other precious metals

Gold and other precious metals that are quoted on the world markets are recognised at their market price. Gains and losses on changes in fair value are included in the Income Statement for the period in which they arise.

## 2.11 Currency in circulation

The official currency in the Republic of Croatia is the Croatian kuna. Banknotes and coins in circulation are carried at nominal value.

## 2.12 Cash and cash equivalents

For the purpose of the Statement of Cash Flows, cash and cash equivalents is defined as cash on hand, foreign currency cash in the CNB treasury vault, current accounts with foreign banks, balances with the International Monetary Fund, funds in the CNB's account at the Croatian Large Value Payment System (CLVPS) and in the account of the CNB in the TARGET2 system.

## 2.13 Taxation

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

## 2.14 Property, plant, equipment and intangible assets

Property, plant, equipment and intangible assets are reported in the Statement of Financial Position at cost less accumulated depreciation and impairment losses, except for 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.

Gains on revaluation are included as a separate component of other comprehensive income. 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 Income Statement for the reporting period.

The following annual depreciation and amortization rates are used:

ASSET CLASS	EXPECTED USEFUL LIFE IN 2017 (NUMBER OF YEARS)	EXPECTED USEFUL LIFE IN 2016 (NUMBER OF YEARS)
Buildings	20 – 50	20 – 50
Computers and computing infrastructure	5 – 8	5 – 8
Furniture and equipment	4 – 20	4 – 20
Motor vehicles	4	4
Software and licences	2 – 10	2 – 10

## 2.15 Impairment of non-financial assets

The carrying value of non-financial assets is assessed at the end of each reporting period to determine whether there is any indication that the asset may be impaired.

If any such indication exists, the recoverable amount of that asset is estimated. For assets with indefinite useful life and intangible assets not yet available for use, recoverable amount is estimated on every reporting date.

An impairment loss is recognised if the 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.

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 at the end of each reporting period to determine if there is any indication that 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 since the last impairment loss was recognised. The increased carrying amount of an asset attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior years.

## 2.16 Employee benefits

The Croatian National Bank pays contributions to the obligatory pension funds. The Croatian National Bank has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefits in the Income Statement as they accrue.

Liabilities for long-term employee benefits, such as jubilee rewards and statutory severance pay, are presented in the balance sheet as the net amount of present value of liabilities for defined benefits on a reporting date. The projected credit unit method is used in the calculation of present value of these liabilities.

## 2.17 Allocation of the surplus of income over expenditures and coverage of the shortfall between income and expenditures

The surplus of income over expenditures is allocated to general reserves and to the State Budget in accordance with Article 57 of the Act on the Croatian National Bank. The Council of the Croatian National Bank determines the amount of the surplus of income over expenditures to be allocated to general reserves. General reserves for the current financial year may neither be lower than net profit from the value adjustment of balance sheet items to changes in the exchange rate or market prices, nor higher than 20% of the accumulated surplus of income over expenditures. By way of exception, if the surplus of income over expenditures is lower than net profit from the value adjustment of balance sheet items

to changes in the exchange rate or market prices, the total surplus of income over expenditures shall be allocated to general reserves. The surplus of income over expenditures remaining after the allocation to general reserves constitutes extraordinary revenue to the State Budget. The Croatian National Bank covers any shortfall between income and expenditures from general reserves. Any shortfall between income and expenditures that cannot be covered from general reserves is covered from the State Budget.

## Note 3 – Interest and similar income

(All amounts are expressed in thousands of kuna)	2017	2016
Foreign currency deposits	3,489	1,412
Held-for-trading securities	75,574	75,743
Held-to-maturity securities	213,312	289,182
Available-for-sale securities	270,096	213,843
Loans to domestic banks	4,494	–
Foreign currency reverse repo agreements	47,365	23,710
Kuna reverse repo agreements	12,790	12,861
Foreign currency repo agreements (negative interest)	56,822	43,049
Other	8,089	276
	<b>692,031</b>	<b>660,076</b>

## Note 4 – Interest and similar expenses

(All amounts are expressed in thousands of kuna)	2017	2016
Foreign currency deposits (negative interest)	32,373	6,533
Foreign currency repo agreements	31,183	11,941
Foreign currency reverse repo agreements (negative interest)	100,004	65,746
State Budget deposits	2,704	9,341
Other	535	1
	<b>166,799</b>	<b>93,562</b>

## Note 5 – Fee and commission income

(All amounts are expressed in thousands of kuna)	2017	2016
Fees for the supervision of credit institutions	42,132	40,649
Other	7,446	8,379
	<u>49,578</u>	<u>49,028</u>

The Croatian National Bank charges the fee for the supervision of credit institutions based on 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 base, calculation method and payment method for the supervision fee is determined by the Decision on supervision fees for credit institutions issued by the Governor of the Croatian National Bank.

## Note 6 – Net result from financial assets at fair value through profit or loss

(All amounts are expressed in thousands of kuna)	2017	2016
Net securities trading result, including net changes in fair value of held-for-trading securities	(129,989)	(36,328)
Net result from assets under management with international financial institutions	13,404	11,908
Net result from revaluation of precious metals	(264)	796
	<u>(116,849)</u>	<u>(23,624)</u>

## Note 7 – Net exchange differences

(All amounts are expressed in thousands of kuna)	2017	2016
Net unrealised exchange differences	(2,641,458)	(278,957)
Net realised exchange differences	(17,232)	169
	<u>(2,658,690)</u>	<u>(278,788)</u>

Decrease in the USD/HRK exchange rate and decrease in the EUR/HRK exchange rate between the two reporting dates had the biggest effect on the net exchange differences.

## Note 8 – Other income

(All amounts are expressed in thousands of kuna)	2017	2016
Sale of numismatics and investment gold	203	207
Other income	6,121	22,989
	<b>6,324</b>	<b>23,196</b>

## Note 9 – Operating expenses

(All amounts are expressed in thousands of kuna)	2017	2016
Staff costs (Note 9.1)	168,188	166,238
Materials, services and administrative expenses	93,419	85,275
Costs of production of banknotes and coins of Croatian kuna	52,918	45,614
Depreciation and amortisation costs	31,980	29,433
	<b>346,505</b>	<b>326,560</b>

The costs of printing banknotes are initially deferred and recognised in the Income Statement over a period of ten years, and the cost of minting coins over a period of twelve years.

### Note 9.1 – Staff costs

(All amounts are expressed in thousands of kuna)	2017	2016
Net salaries	82,048	77,317
Contributions from and contributions on salaries	44,939	43,857
Taxes and surtaxes	17,383	18,951
Other employee related expenses	23,818	26,113
	<b>168,188</b>	<b>166,238</b>

The average number of employees during 2017 was 657 (2016: 647). Total staff costs for 2017 amount to HRK 168,188 thousands, of which the amount of HRK 27,556 thousands relates to contributions for pension insurance (2016: HRK 166,238 thousands, of which HRK 27,232 thousands was related to contributions for pension insurance).

## Note 10 – Increase/(decrease) in impairment losses and provisions

(All amounts are expressed in thousands of kuna)	2017	2016
<b>A) IMPAIRMENT LOSSES</b>		
Increase in impairment losses	9	–
<b>B) PROVISIONS FOR RISKS AND CHARGES</b>		
Increase in provisions	11,771	31,294
Reversals	(9,255)	(8,459)
	<u>2,525</u>	<u>22,835</u>

## Note 11 – Cash and current accounts with other banks

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Cash on hand	1.052	1.400
Foreign currency cash in the CNB treasury vault	2.995.507	3.014.841
Current accounts with foreign banks	16.725.450	8.951.477
CNB account in TARGET2 system	31.767	529.205
	<u>19.753.776</u>	<u>12.496.923</u>

In 2017, international reserves of the Republic of Croatia increased primarily due to the purchase of foreign currency from banks as a result of attempts to prevent strong appreciation pressures, so that the amount of funds in current accounts with foreign banks increased and stood at HRK 16,725,450 thousands (31 December 2016: HRK 8,951,477 thousands). Investment in foreign currency reverse repo agreements also increased (refer to Note 15).

The national component TARGET2-HR commenced work on 1 February 2016 (refer to Note 23).

## Note 12 – Deposits with other banks

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Deposits with foreign central banks	2,284,149	2,191,758
Deposits with foreign commercial banks	125,395	143,371
Deposits with domestic commercial banks	8,709	12,054
	<u>2,418,253</u>	<u>2,347,183</u>

### Geographical concentration of deposits with other banks:

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Croatia	8,709	12,054
Europe	2,409,544	2,335,129
	<u>2,418,253</u>	<u>2,347,183</u>

## Note 13 – Financial assets at fair value through profit or loss

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Held-for-trading securities (Note 13a)	26,419,157	23,278,682
Assets under management with international financial institutions (Note 13b)	1,255,353	1,436,029
Precious metals	6,347	6,608
	<u>27,680,857</u>	<u>24,721,319</u>

### a) Trading securities

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
EUR-denominated securities	21,228,675	18,631,737
USD-denominated securities	5,190,482	4,646,945
	<u>26,419,157</u>	<u>23,278,682</u>

Held-for-trading securities include accrued interest in the amount of HRK 76,270 thousands at 31 December 2017 (31 December 2016: HRK 37,055 thousands).

## b) Assets under management with international financial institutions

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
USD-denominated funds entrusted to the management of international financial institutions	1,255,353	1,436,029
	<u>1,255,353</u>	<u>1,436,029</u>

## Note 14 – Loans

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Loans to domestic banks	1,265,400	–
Other loans	48	54
	<u>1,265,448</u>	<u>54</u>

Loans to domestic banks comprise collateralised credits, which are the instrument to be used to conduct open market operation regulated by the Decision on monetary policy implementation of the Croatian National Bank (Official Gazette 94/2017 of 20 September 2017). A collateralised credit is a reverse transaction used by the Croatian National Bank to provide liquidity to a counterparty against collateral by securities transferred to the pool of eligible assets.

Total fair value of securities in the pool of eligible assets as at 31 December 2017 amounted to HRK 1,591,196 thousands.

## Note 15 – Reverse repo agreements

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Foreign currency reverse repo agreements	17,641,746	10,722,559
Reverse repo agreements in kuna	–	1,103,400
	<u>17,641,746</u>	<u>11,825,959</u>

Investments in foreign currency reverse repo agreements amount to HRK 17,641,746 thousands, which is an increase of HRK 6,919,187 thousands from end-2016 when they stood at HRK 10,722,559 thousands (refer to Note 11).

Total fair value of collateral obtained by foreign currency reverse repo agreements (sovereign bonds of countries rated Aaa to Aa3, debt securities of international financial institutions rated Aaa to Aa1 and bank bonds with government guarantee rated Aaa) as at 31 December 2017 amounts to HRK 17,696,512 thousands (31 December 2016: HRK 10,810,203 thousands).

Total fair value of received collateral and margin call deposits on reverse repo agreements in kuna as at 31 December 2016 amounted to HRK 1,216,187 thousands.

## Note 16 – Held-to-maturity investments

Held-to-maturity investments comprise the following:

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Debt securities	19,748,691	21,336,267
Accrued interest	116,492	120,262
	<u>19,865,183</u>	<u>21,456,529</u>

## Note 17 – Balances with the International Monetary Fund

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Membership quota	6,454,341	6,960,859
Special Drawing Rights (XDR) and deposits	2,745,857	2,963,289
	<u>9,200,198</u>	<u>9,924,148</u>

## Note 18 – Financial assets available for sale

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Debt securities	27,925,541	27,447,613
BIS shares	41,914	41,914
SWIFT shares	80	80
ECB paid-up capital	18,224	18,224
	<u>27,985,759</u>	<u>27,507,831</u>

Debt securities available for sale include accrued interest in the amount of HRK 161,286 thousands as at 31 December 2017 (31 December 2016: HRK 164,759 thousands).

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 the option to use services which 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 2017, the Croatian National Bank received a dividend in the amount of HRK 6,652 thousands (2016: HRK 4,968 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.

According to Article 28 of the Statute of the European System of Central Banks (ESCB), the national central banks (NCBs) of the ESCB are the only subscribers of the ECB's capital. Subscriptions depend on the shares which are regulated by Article 29 of the Statute of the ESCB and the amounts are adjusted every five years. The last adjustment of the capital keys was made with effect from 1 January 2014.

Since the Republic of Croatia is not part of the euro area, transitional provisions of Article 47 of the ESCB's Statute are applied, according to which the Croatian National Bank had an obligation to subscribe and pay in 3.75% of the capital to the ECB as a contribution to cover ECB's operating costs. The Croatian National Bank, as a national central bank outside the euro area is not entitled to receive an appropriate share of the profit distribution of the ECB, and there is no obligation to cover the loss of the ECB. Following the amendment in the ECB's capital key since 1 January 2014, the contribution of the CNB in the ECB capital amounts to 0.6023%. The CNB's share in issued and paid capital of the ECB amounts to EUR 65,199,017.58 and EUR 2,444,963.16 respectively.

## Note 19 – Investments accounted for using the equity method

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Investment in Croatian Monetary Institute	22,033	22,083
	<u>22,033</u>	<u>22,083</u>

The investment of the Croatian National Bank in the Croatian Monetary Institute represents investment in an associate in accordance with IAS 28 and it is accounted for using the equity method. The portion of the Croatian National Bank share in the capital of the Croatian Monetary Institute is 42.6%.

The Croatian Monetary Institute is a domestic company whose core operation is the production of coins and medals of gold and other precious metals, production of coins and commemorative circulation coins, manufacturing of jewellery and related products, trade in gold and other precious metals, trade with jubilee coins and with medals of gold and other precious metals, production of license plates and other registered activities associated with those listed here.

The following table presents summarised financial information of the Croatian Monetary Institute:

(All amounts are expressed in thousands of kuna)	2017	2016
<b>TOTAL ASSETS</b>	65,520	59,251
Non-current assets	21,034	18,674
Current assets	44,315	40,488
Prepaid expenses	171	89
<b>TOTAL LIABILITIES</b>	12,923	6,536
Long-term provisions	341	200
Current liabilities	12,571	6,318
Accrued expenses	11	18
<b>EQUITY</b>	52,597	52,715
<b>TOTAL REVENUE</b>	66,930	58,864
<b>TOTAL EXPENSES</b>	(61,801)	(53,349)
Profit before tax	5,129	5,515
Income tax	(923)	(1,190)
<b>PROFIT FOR THE FINANCIAL YEAR</b>	4,206	4,325

The summarised financial information of the Croatian Monetary Institute for 2017 is presented based on the preliminary financial statements of the Croatian Monetary Institute for 2017 as the final official financial statements of the Croatian Monetary Institute for 2017 were not yet available at the time of preparation of these financial statements.

## Note 20 – Accrued interest and other assets

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Accrued interest	36,583	25,284
Other participants funds in TARGET2	7,955,757	3,653,464
Prepaid expenses	377,101	314,951
Numismatics	12,496	12,642
Other assets	84,776	101,120
	<b>8,466,713</b>	<b>4,107,461</b>
Impairment	(7,492)	(7,492)
	<b>8,459,221</b>	<b>4,099,969</b>
<b>MOVEMENTS IN IMPAIRMENT</b>		
Balance at 1 January	(7,492)	(7,492)
New provisions	–	–
Collection	–	–
<b>BALANCE AT 31 DECEMBER</b>	<b>(7,492)</b>	<b>(7,492)</b>

The major portion of prepaid expenses in the amount of HRK 366,746 thousands (2016: HRK 307.676 thousands) relates to the prepaid expenses of printing banknotes and minting coins.

## Note 21 – Property, plant, equipment and intangible assets

(All amounts are expressed in thousands of kuna)	LAND AND BUILDINGS	COMPUTERS AND COMPUTING INFRASTRUCT.	FURNITURE AND EQUIPMENT	MOTOR VEHICLES	ASSETS UNDER DEVELOPMENT – PROPERTY, PLANT, EQUIPMENT	TOTAL PROPERTY, PLANT AND EQUIPMENT	SOFTWARE AND LICENCES	ASSETS UNDER DEVELOPMENT – INTANGIBLE ASSETS	TOTAL INTANGIBLE ASSETS	TOTAL PROPERTY, PLANT, EQUIPMENT AND INTANGIBLE ASSETS
<b>BALANCE AT 1 JANUARY 2016</b>										
Cost or revaluation	494,961	153,138	41,205	10,066	23,724	723,094	79,963	9,625	89,588	812,682
Accumulated depreciation/amortisation	(12,858)	(110,748)	(32,382)	(9,938)	–	(165,926)	(65,247)	–	(65,247)	(231,173)
<b>NET BOOK VALUE</b>	<b>482,103</b>	<b>42,390</b>	<b>8,823</b>	<b>128</b>	<b>23,724</b>	<b>557,168</b>	<b>14,716</b>	<b>9,625</b>	<b>24,341</b>	<b>581,509</b>
<b>FOR THE YEAR ENDED 31 DECEMBER 2016</b>										
Opening net book amount	482,103	42,390	8,823	128	23,724	557,168	14,716	9,625	24,341	581,509
Additions	–	–	–	–	20,659	20,659	–	17,946	17,946	38,605
Brought into use	3,560	18,945	1,001	–	(23,506)	–	9,220	(9,220)	–	–
Net written off	–	–	(11)	–	–	(11)	–	–	–	(11)
Charge for the year	(8,094)	(14,132)	(2,245)	(42)	–	(24,513)	(4,920)	–	(4,920)	(29,433)
<b>CLOSING NET BOOK AMOUNT</b>	<b>477,569</b>	<b>47,203</b>	<b>7,568</b>	<b>86</b>	<b>20,877</b>	<b>553,303</b>	<b>19,016</b>	<b>18,351</b>	<b>37,367</b>	<b>590,670</b>
<b>BALANCE AT 31 DECEMBER 2016</b>										
Cost or revaluation	498,520	167,941	41,746	10,066	20,877	739,150	88,987	18,351	107,338	846,488
Accumulated depreciation/amortisation	(20,951)	(120,738)	(34,178)	(9,980)	–	(185,847)	(69,971)	–	(69,971)	(255,818)
<b>NET BOOK VALUE</b>	<b>477,569</b>	<b>47,203</b>	<b>7,568</b>	<b>86</b>	<b>20,877</b>	<b>553,303</b>	<b>19,016</b>	<b>18,351</b>	<b>37,367</b>	<b>590,670</b>
<b>BALANCE AT 1 JANUARY 2017</b>										
Cost or revaluation	498,520	167,941	41,746	10,066	20,877	739,150	88,987	18,351	107,338	846,488
Accumulated depreciation/amortisation	(20,951)	(120,738)	(34,178)	(9,980)	–	(185,847)	(69,971)	–	(69,971)	(255,818)
<b>NET BOOK VALUE</b>	<b>477,569</b>	<b>47,203</b>	<b>7,568</b>	<b>86</b>	<b>20,877</b>	<b>553,303</b>	<b>19,016</b>	<b>18,351</b>	<b>37,367</b>	<b>590,670</b>
<b>FOR THE YEAR ENDED 31 DECEMBER 2017</b>										
Opening net book amount	477,569	47,203	7,568	86	20,877	553,303	19,016	18,351	37,367	590,670
Additions	–	–	–	–	19,812	19,812	–	5,800	5,800	25,612
Brought into use	1,762	27,813	1,156	222	(30,953)	–	14,412	(14,412)	–	–
Net written off	–	(2)	(4)	–	–	(6)	–	–	–	(6)
Charge for the year	(8,159)	(17,046)	(2,224)	(57)	–	(27,486)	(4,493)	–	(4,493)	(31,979)
<b>CLOSING NET BOOK AMOUNT</b>	<b>471,172</b>	<b>57,968</b>	<b>6,496</b>	<b>251</b>	<b>9,736</b>	<b>545,623</b>	<b>28,935</b>	<b>9,739</b>	<b>38,674</b>	<b>584,297</b>
<b>BALANCE AT 31 DECEMBER 2017</b>										
Cost or revaluation	500,282	193,654	41,996	9,431	9,736	755,099	87,336	9,739	97,075	852,174
Accumulated depreciation/amortisation	(29,110)	(135,686)	(35,500)	(9,180)	–	(209,476)	(58,401)	–	(58,401)	(267,877)
<b>NET BOOK VALUE</b>	<b>471,172</b>	<b>57,968</b>	<b>6,496</b>	<b>251</b>	<b>9,736</b>	<b>545,623</b>	<b>28,935</b>	<b>9,739</b>	<b>38,674</b>	<b>584,297</b>

Revalued amounts of land and buildings were determined based on appraisals performed by independent experts in 2014. Valuation technique used to determine fair value was income approach. Certain significant inputs for valuation were not observable market data (Level 3 of fair value hierarchy). If the land and buildings were carried at cost less depreciation, their net book value as at 31 December 2017 would be HRK 137,293 thousands. Property, plant and equipment of the Croatian National Bank are not pledged, either as part of mortgage agreements or as a fiduciary relationship.

## Note 22 – Banknotes and coins in circulation

(All amounts are expressed in thousands of kuna)	2017	2016
Banknotes and coins in circulation as at January 1	27,913,956	25,317,915
Increase/(decrease) of banknotes and coins in circulation during the year	3,777,469	2,596,041
<b>BANKNOTES AND COINS IN CIRCULATION – TOTAL AS AT DECEMBER 31</b>	<b>31,691,425</b>	<b>27,913,956</b>

IN HRK	NOMINAL VALUE	31/12/2017		31/12/2016	
		PIECES	VALUE IN THOUSANDS OF KUNA	PIECES	VALUE IN THOUSANDS OF KUNA
Coins	0.01	126,056,491	1,261	125,723,585	1,257
Coins	0.02	84,309,178	1,686	84,095,259	1,682
Coins	0.05	369,123,646	18,456	348,991,892	17,450
Coins	0.10	536,756,301	53,676	512,416,672	51,242
Coins	0.20	408,202,196	81,640	386,439,336	77,288
Coins	0.50	237,455,696	118,728	223,799,030	111,899
Coins	1	265,716,254	265,716	248,954,560	248,954
Coins	2	157,534,402	315,069	144,204,171	288,408
Coins	5	104,769,354	523,847	95,813,052	479,065
Coins	25	1,234,048	30,851	1,208,832	30,221
Banknotes	5	4,129,038	20,645	4,132,548	20,663
Banknotes	10	46,514,754	465,147	43,177,073	431,771
Banknotes	20	32,213,788	644,276	30,063,263	601,265
Banknotes	50	18,352,875	917,644	16,378,559	818,928
Banknotes	100	38,649,766	3,864,977	35,585,938	3,558,594
Banknotes	200	73,168,029	14,633,606	63,435,368	12,687,074
Banknotes	500	7,322,538	3,661,269	6,597,712	3,298,856
Banknotes	1,000	6,072,931	6,072,931	5,189,339	5,189,339
<b>TOTAL</b>			<b>31,691,425</b>		<b>27,913,956</b>

## Note 23 – Due to banks and other financial institutions

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Kuna reserve requirements	22,148,237	21,563,311
Foreign currency accounts of TARGET2 system participants	7,955,757	3,653,464
Other deposits from domestic banks	33,874,005	23,987,914
Deposits from foreign banks and other financial institutions	72	72
Court-mandated deposits	95,069	35,994
	<u>64,073,140</u>	<u>49,240,755</u>

Due to banks and other financial institutions also comprises foreign currency accounts of participants in 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 the balance sheet positions "Cash and current accounts with other banks" (Note 11) and "Accrued interest and other assets" (Note 20).

## Note 24 – Repo agreements

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Foreign currency repo agreements	12,022,248	7,181,838
	<u>12,022,248</u>	<u>7,181,838</u>

Total fair value of collateral given in repo agreements as at 31 December 2017 amounted to HRK 11,884,102 thousands (31 December 2016: HRK 7,208,550 thousands).

## Note 25 – Due to the state and state institutions

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Domestic currency account balances	2,908,566	3,315,581
Foreign currency denominated deposit account balances	40,446	54,537
	<u>2,949,012</u>	<u>3,370,118</u>

## Note 26 – Due to the International Monetary Fund

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Kuna-denominated bills of exchange	6,435,967	6,941,268
Net cumulative allocations	2,727,262	2,941,313
Other IMF's accounts	16,214	17,484
	<u>9,179,443</u>	<u>9,900,065</u>

The bills of exchange denominated in the Croatian kuna relate to the membership of the Republic of Croatia in the International Monetary Fund.

## Note 27 – Accrued interest and other liabilities

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Accrued interest	11,877	5,895
Amounts due to employees	6,764	6,530
Taxes and contributions	7,014	5,661
Obligations to European Commission in EUR	768	756
Obligations to European Commission in HRK	575,492	604,492
Due to the Ministry of Finance	15,600	49,630
Trade payables	20,849	20,721
Long-term provisions for risks and charges	47,749	45,232
Other liabilities	19,477	21,264
	<u>705,590</u>	<u>760,181</u>

The European Commission has opened EUR and HRK transaction accounts and the European Development Fund Account with the Croatian National Bank for the performance of payment transactions.

Included in long-term provisions for risks and charges HRK 24,822 thousands (2016: HRK 24,562 thousands) are in respect of legal actions and HRK 22,927 thousands (2016: HRK 20,670 thousands) in respect of provisions for employee benefits.

The following tables present movements in long-term provisions for risks and charges:

(All amounts are expressed in thousands of kuna)	COURT CASES	EMPLOYEE BENEFITS	TOTAL
AS AT 1 JANUARY 2017	24.562	20.670	45.232
Released provisions	–	(9.255)	(9.255)
New provisions	260	11.512	11.772
Recognised in profit or loss	260	2.257	2.517
Amounts paid	–	–	–
AS AT 31 DECEMBER 2017	24.822	22.927	47.749

(All amounts are expressed in thousands of kuna)	COURT CASES	EMPLOYEE BENEFITS	TOTAL
AS AT 1 JANUARY 2016	3.010	19.387	22.397
Released provisions	(600)	(7.859)	(8.459)
New provisions	22.152	9.142	31.294
Recognised in profit or loss	21.552	1.283	22.835
Amounts paid	–	–	–
AS AT 31 DECEMBER 2016	24.562	20.670	45.232

## Note 28 – Equity

The equity funds of the Croatian National Bank consist of the capital and reserves.

The capital in the amount of HRK 2,500,000 thousands may not be transferred or pledged.

Reserves comprise general and specific reserves. General reserves are formed for the purpose of covering general operational risks of the Croatian National Bank, they are not limited in size, and they are formed in accordance with the Act on the Croatian National Bank. Specific reserves are formed for the purpose of covering identified losses in accordance with decisions of the Council of the Croatian National Bank.

## Note 29 – Maturity analysis of assets and liabilities

The following table presents maturity analysis of assets and liabilities depending on the expected maturity date or the settlement date:

- twelve months after the reporting period,
- more than twelve months after the reporting period.

### 29.1 Maturity analysis of assets and liabilities

(All amounts are expressed in thousands of kuna)	UP TO 12 MONTHS	MORE THAN 12 MONTHS	TOTAL
<b>BALANCE AS AT 31 DECEMBER 2017</b>			
<b>ASSETS</b>			
Cash and current accounts with other banks	19,753,776	–	19,753,776
Deposits with other banks	2,409,543	8,710	2,418,253
Financial assets at fair value through profit or loss	26,419,157	1,261,700	27,680,857
Loans	–	1,265,448	1,265,448
Reverse repo agreements	17,641,746	–	17,641,746
Held-to-maturity securities	3,402,220	16,462,963	19,865,183
Balances with the International Monetary Fund	2,741,186	6,459,012	9,200,198
Financial assets available for sale	27,925,541	60,218	27,985,759
Investments accounted for using the equity method	–	22,033	22,033
Accrued interest and other assets	8,071,146	388,075	8,459,221
Property, plant, equipment and intangible assets	200	584,097	584,297
<b>TOTAL ASSETS</b>	<b>108,364,515</b>	<b>26,512,256</b>	<b>134,876,771</b>
<b>LIABILITIES</b>			
Banknotes and coins in circulation	31,691,425	–	31,691,425
Due to banks and other financial institutions	64,073,068	72	64,073,140
Repo agreements	12,022,248	–	12,022,248
Due to the State and State institutions	2,949,012	–	2,949,012
Due to the International Monetary Fund	–	9,179,443	9,179,443
Accrued interest and other liabilities	704,802	788	705,590
<b>TOTAL LIABILITIES</b>	<b>111,440,555</b>	<b>9,180,303</b>	<b>120,620,858</b>
<b>NET POSITION</b>	<b>(3,076,040)</b>	<b>17,331,953</b>	<b>14,255,913</b>

Note: According to convention, the amount of the kuna component of reserve requirements of HRK 22,148,237 thousands is stated in the position Due to banks and other financial institutions with a maturity of less than 12 months. The calculation, maintenance and allocation of reserve requirements is performed on a monthly basis, and a change in the amount of reserves may result from changes in the base for calculation, the reserve requirement rate and the percentage of the reserves banks are required to hold in their accounts with the Croatian National Bank. In practice, these liabilities may be considered as having a maturity of over 12 months and in that case the short-term liabilities would be lower than the short-term assets. Debt securities available for sale and at fair value through profit or loss are included in the period up to 12 months due to their high tradability in the secondary market, regardless of their contractual maturities.

(All amounts are expressed in thousands of kuna)	UP TO 12 MONTHS	MORE THAN 12 MONTHS	TOTAL
<b>BALANCE AS AT 31 DECEMBER 2016</b>			
<b>ASSETS</b>			
Cash and current accounts with other banks	12,496,923	–	12,496,923
Deposits with other banks	2,335,129	12,054	2,347,183
Financial assets at fair value through profit or loss	24,714,711	6,608	24,721,319
Loans	–	54	54
Reverse repo agreements	10,832,559	993,400	11,825,959
Held-to-maturity securities	1,369,659	20,086,870	21,456,529
Balances with the International Monetary Fund	2,958,252	6,965,896	9,924,148
Financial assets available for sale	27,447,613	60,218	27,507,831
Investments accounted for using the equity method	–	22,083	22,083
Accrued interest and other assets	3,780,076	319,893	4,099,969
Property, plant, equipment and intangible assets	340	590,330	590,670
<b>TOTAL ASSETS</b>	<b>85,935,262</b>	<b>29,057,406</b>	<b>114,992,668</b>
<b>LIABILITIES</b>			
Banknotes and coins in circulation	27,913,956	–	27,913,956
Due to banks and other financial institutions	49,240,683	72	49,240,755
Repo agreements	7,181,838	–	7,181,838
Due to the State and State institutions	3,370,118	–	3,370,118
Due to the International Monetary Fund	–	9,900,065	9,900,065
Accrued interest and other liabilities	759,222	959	760,181
<b>TOTAL LIABILITIES</b>	<b>88,465,817</b>	<b>9,901,096</b>	<b>98,366,913</b>
<b>NET POSITION</b>	<b>(2,530,555)</b>	<b>19,156,310</b>	<b>16,625,755</b>

Note: According to convention, the amount of the kuna component of reserve requirements of HRK 21,563,311 thousands is stated in the position Due to banks and other financial institutions with a maturity of less than 12 months. The calculation, maintenance and allocation of reserve requirements is performed on a monthly basis, and a change in the amount of reserves may result from changes in the base for calculation, the reserve requirement rate and the percentage of the reserves banks are required to hold in their accounts with the Croatian National Bank. In practice, these liabilities may be considered as having a maturity of over 12 months and in that case the short-term liabilities would be lower than the short-term assets. Debt securities available for sale and at fair value through profit or loss are included in the period up to 12 months due to their high tradability in the secondary market, regardless of their contractual maturities.

## Note 30 – Contingent liabilities and commitments and treasury inventory system

**Legal actions:** At 31 December 2017, there were several legal actions outstanding against the Croatian National Bank. In the opinion of the management and internal legal advisers of the Croatian National Bank, the Bank may lose certain cases. As a result, provisions for potential losses on such cases were made by the Bank in the amount of HRK 24,822 thousands (refer to Note 27).

**Capital commitments:** As at 31 December 2017 the capital commitments of the Croatian National Bank amounted to HRK 2,178 thousands (2016: HRK 8,728 thousands).

## Treasury inventory system

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Banknotes and coins not in circulation	51,291,978	48,893,063
Inventory of government stamps and bill-of-exchange forms	174,938	241,033
	<u>51,466,916</u>	<u>49,134,096</u>

## Note 31 – Cash and cash equivalents

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
Cash on hand (Note 11)	1,052	1,400
Foreign currency cash in the CNB treasury vault (Note 11)	2,995,507	3,014,841
Current accounts with foreign banks (Note 11)	16,725,450	8,951,477
Funds with the IMF	2,741,186	2,958,252
CNB account in TARGET2 system (Note 11)	31,767	529,205
	<u>22,494,962</u>	<u>15,455,175</u>

## Note 32 – Result for the year

(All amounts are expressed in thousands of kuna)	31/12/2017	31/12/2016
(Shortfall between income and expenditures)/surplus of income over expenditures	(2,554,231)	42,113
Covered from general reserves	2,554,231	–
Transfer of surplus to general reserves	–	(8,423)
Surplus allocated to the State Budget	–	(33,690)
	<u>–</u>	<u>–</u>

The Croatian National Bank realised the shortfall between income and expenditures for the year 2017 in the amount of HRK 2,554,231 thousands (in 2016, the surplus of income over expenditures was realised in the amount of HRK 42,113 thousands). The financial result was mainly due to the impact of net unrealised exchange differences for 2017 which are negative and amount to HRK 2,641,458 thousands (refer to Note 7). The Croatian National Bank covers the shortfall between income and expenditures for 2017 in the amount of HRK 2,554,231 thousands from general reserves.

Given that in 2016 net unrealized exchange differences were negative (HRK 278,958 thousands), and the sum of net unrealized losses on financial assets at fair value through profit or loss and the results from investment measured under equity method was negative (HRK 32,769 thousands), the CNB allocated to the general reserves 20% of the surplus of income over expenditures in the amount of HRK 8,423 thousands. The rest was allocated to the State Budget.

## Note 33 – Fair values of financial assets and liabilities

In the process of determination of the fair value of financial assets and liabilities a market approach is used as a valuation technique. As a part of a hierarchical approach to the determination of fair value, the Croatian National Bank uses the first hierarchical valuation level (Level 1), which means that inputs are observable market values which reflect quotation prices for the same assets or liabilities in active markets. If price quotations are not available, fair value is calculated based on the models recognized by GIPS standards (Global Investment Performance Standards). The input data used are observable market values (interest rates), which correspond to Level 2 of fair value hierarchy.

During the reporting period there were no reclassifications between the levels of fair value hierarchy.

## a) Financial assets and liabilities measured at fair value

The following table presents the fair value hierarchy for financial assets measured at fair value.

	31/12/2017		
(All amounts are expressed in thousands of kuna)	LEVEL 1	LEVEL 2	TOTAL
<b>FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS</b>			
<b>FOREIGN SECURITIES HELD FOR TRADING</b>			
Government securities	15,972,972	7,542,913	23,515,885
Guaranteed bonds (public sector collateral)	858,415	–	858,415
Securities of international financial institutions	1,679,306	–	1,679,306
Bank bonds with government guarantees	302,922	62,629	365,551
<b>TOTAL SECURITIES HELD FOR TRADING (NOTE 13a)</b>	<b>18,813,615</b>	<b>7,605,542</b>	<b>26,419,157</b>
ASSETS UNDER MANAGEMENT WITH INTERNATIONAL FINANCIAL INSTITUTIONS (NOTE 13b)	1,255,353	–	1,255,353
PRECIOUS METALS	6,347	–	6,347
<b>TOTAL FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS</b>	<b>20,075,315</b>	<b>7,605,542</b>	<b>27,680,857</b>
<b>FINANCIAL ASSETS AVAILABLE FOR SALE</b>			
<b>FOREIGN SECURITIES AVAILABLE FOR SALE</b>			
Government securities	24,978,162	–	24,978,162
Guaranteed bonds (public sector collateral)	63,097	–	63,097
Securities of international financial institutions	2,201,256	–	2,201,256
Bank bonds with government guarantees	683,026	–	683,026
<b>TOTAL DEBT SECURITIES AVAILABLE FOR SALE (NOTE 18)</b>	<b>27,925,541</b>	<b>–</b>	<b>27,925,541</b>
<b>TOTAL FINANCIAL ASSETS AVAILABLE FOR SALE</b>	<b>27,925,541</b>	<b>–</b>	<b>27,925,541</b>
<b>GRAND TOTAL</b>	<b>48,000,856</b>	<b>7,605,542</b>	<b>55,606,398</b>

(All amounts are expressed in thousands of kuna)	31/12/2016		TOTAL
	LEVEL 1	LEVEL 2	
<b>FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS</b>			
<b>FOREIGN SECURITIES HELD FOR TRADING</b>			
Government securities	14,928,138	7,517,633	22,445,771
Guaranteed bonds (public sector collateral)	76,388	–	76,388
Securities of international financial institutions	344,007	–	344,007
Bank bonds with government guarantees	305,052	107,464	412,516
<b>TOTAL SECURITIES HELD FOR TRADING (NOTE 13a)</b>	<b>15,653,585</b>	<b>7,625,097</b>	<b>23,278,682</b>
<b>ASSETS UNDER MANAGEMENT WITH INTERNATIONAL FINANCIAL INSTITUTIONS (NOTE 13b)</b>	<b>1,436,029</b>	<b>–</b>	<b>1,436,029</b>
<b>PRECIOUS METALS</b>	<b>6,608</b>	<b>–</b>	<b>6,608</b>
<b>TOTAL FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS</b>	<b>17,096,222</b>	<b>7,625,097</b>	<b>24,721,319</b>
<b>FINANCIAL ASSETS AVAILABLE FOR SALE</b>			
<b>FOREIGN SECURITIES AVAILABLE FOR SALE</b>			
Government securities	24,240,973	–	24,240,973
Guaranteed bonds (public sector collateral)	71,955	–	71,955
Securities of international financial institutions	2,416,247	–	2,416,247
Bank bonds with government guarantees	718,438	–	718,438
<b>TOTAL DEBT SECURITIES AVAILABLE FOR SALE (NOTE 18)</b>	<b>27,447,613</b>	<b>–</b>	<b>27,447,613</b>
<b>TOTAL FINANCIAL ASSETS AVAILABLE FOR SALE</b>	<b>27,447,613</b>	<b>–</b>	<b>27,447,613</b>
<b>GRAND TOTAL</b>	<b>44,543,835</b>	<b>7,625,097</b>	<b>52,168,932</b>

## b) Financial assets and liabilities not measured at fair value

Debt securities held to maturity are measured at amortised cost. The comparison of book and fair values is presented in the following table.

(All amounts are expressed in thousands of kuna)	DEBT SECURITIES	
	BOOK VALUE	FAIR VALUE
31/12/2017	19,865,183	20,659,249
31/12/2016	21,456,529	22,475,422

In determining the fair value of financial assets held to maturity Level 1 of fair value hierarchy input data was used.

Investments in equity securities are classified as available for sale financial assets and carried at cost less any impairment as it is not possible to determine their fair value with sufficient precision.

The fair values of remaining financial assets and liabilities of the Croatian National Bank are approximately equal to the accounting values due to the short maturities of the instruments.

## Note 34 – Risk management

The Croatian National Bank manages international reserves of the Republic of Croatia based on the principles of liquidity and safety. The Bank maintains high liquidity of international reserves and appropriate risk exposures, and seeks to achieve a 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 the events external to the Bank. Operating risk is managed by strict segregation of duties and responsibilities, formalised methodologies and procedures and by conducting regular internal and external audits.

### Note 34.1 – 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 guarantee 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.

Its assessment of counterparties' 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 deposits placed with commercial banks rated Aaa to A3 for the purpose of carrying out foreign currency transactions.

Presentation of financial assets exposed to credit risk in the tables Maximum exposure to credit risk and credit risk by counterparty credit rating and Geographical concentration of credit risk (notes 34.1.1 – 34.1.2) differ from the presentation in the Statement of Financial Position as they are based on management reports. Reconciliation is not practicable. Some of the differences are:

- Line item Deposits in notes 34.1.1 and 34.1.2 includes line items Cash and current accounts with other banks, Deposits with other banks and Balances with the International Monetary Fund from the Statement of Financial Position. Additionally, deposits are split by currency and recipient (international financial institutions, foreign and domestic banks).
- Balances of deposits presented in notes 34.1.1 and 34.1.2 include accrued interest, included in Accrued interest and other assets and Accrued interest and other liabilities in the Statement of Financial Position.
- Securities are divided by financial asset category in the Statement of Financial Position, while they are additionally divided by issuer and currency in notes Maximum exposure to credit risk and credit risk by counterparty credit rating and in Geographical concentration of credit risk.
- Line item Reverse repo agreements from the Statement of Financial Position is divided per currency in notes 34.1.1 and 34.1.2 and includes accrued interest presented in line items Accrued interest and other assets and Accrued interest and other liabilities.
- Balances of loans presented in notes 34.1.1 and 34.1.2 include accrued interest, included in line item Accrued interest and other assets in the Statement of Financial Position.

## 34.1.1 Maximum exposure to credit risk and credit risk by counterparty credit rating

(All amounts are expressed in thousands of kuna)	RATING (MOODY'S)	31/12/2017	31/12/2016
<b>FOREIGN-CURRENCY DENOMINATED SECURITIES HELD FOR TRADING</b>			
<b>Government securities</b>			
	Aaa	12,087,078	13,567,249
	Aa1	628,572	310,542
	Aa2	5,357,803	4,704,022
	A2	150,296	–
	A3	–	107,525
	Baa2	4,062,557	3,403,975
	AAA <sup>a</sup>	958,834	237,544
	AA <sup>a</sup>	270,745	114,914
<b>Total government securities</b>		<b>23,515,885</b>	<b>22,445,771</b>
Guaranteed bonds (public sector collateral)	Aaa	858,415	76,388
<b>Securities of international financial institutions</b>			
	Aaa	249,899	–
	Aa1	1,278,014	344,007
	No rating <sup>d</sup>	151,393	–
<b>Total securities of international financial institutions</b>		<b>1,679,306</b>	<b>344,007</b>
<b>Bank bonds with government guarantee</b>			
	Aaa	75,910	184,054
	Aa1	289,641	228,462
<b>Total bank bonds with government guarantee</b>		<b>365,551</b>	<b>412,516</b>
<b>TOTAL FOREIGN-CURRENCY DENOMINATED SECURITIES HELD FOR TRADING</b>		<b>26,419,157</b>	<b>23,278,682</b>
<b>FOREIGN-CURRENCY DENOMINATED SECURITIES HELD TO MATURITY</b>			
<b>Government securities</b>			
	Aaa	1,405,283	1,257,704
	Aa1	3,313,934	3,656,324
	Aa2	7,335,811	7,421,361
	Aa3	5,069,818	5,308,677
	AAA <sup>e</sup>	143,615	143,532
	AA <sup>b</sup>	573,965	573,601
<b>Total government securities</b>		<b>17,842,426</b>	<b>18,361,199</b>
<b>Securities of international financial institutions</b>			
	Aa1	1,796,909	2,565,912
<b>Total securities of international financial institutions</b>		<b>1,796,909</b>	<b>2,565,912</b>

(All amounts are expressed in thousands of kuna)	RATING (MOODY'S)	31/12/2017	31/12/2016
<b>Bank bonds with government guarantee</b>			
	Aaa	–	302,366
	Aa1	225,848	227,052
<b>Total bank bonds with government guarantee</b>		<b>225,848</b>	<b>529,418</b>
<b>TOTAL FOREIGN-CURRENCY DENOMINATED SECURITIES HELD TO MATURITY</b>		<b>19,865,183</b>	<b>21,456,529</b>
<b>FOREIGN-CURRENCY DENOMINATED SECURITIES AVAILABLE FOR SALE</b>			
<b>Government securities</b>			
	Aaa	5,117,967	5,752,101
	Aa1	3,464,733	3,626,403
	Aa2	11,566,026	10,998,279
	Aa3	3,220,880	2,222,280
	A2	924,715	–
	A3	–	946,780
	AAA <sup>e</sup>	683,841	695,130
<b>Total government securities</b>		<b>24,978,162</b>	<b>24,240,973</b>
<b>Guaranteed bonds (public sector collateral)</b>	Aaa	63,097	71,955
<b>Securities of international financial institutions</b>			
	Aaa	1,442,983	1,652,749
	Aa1	758,273	763,498
<b>Total securities of international financial institutions</b>		<b>2,201,256</b>	<b>2,416,247</b>
<b>Bank bonds with government guarantee</b>			
	Aa1	683,026	718,438
<b>Total bank bonds with government guarantee</b>		<b>683,026</b>	<b>718,438</b>
<b>TOTAL FOREIGN-CURRENCY DENOMINATED SECURITIES AVAILABLE FOR SALE</b>		<b>27,925,541</b>	<b>27,447,613</b>
<b>TOTAL FOREIGN-CURRENCY DENOMINATED SECURITIES</b>		<b>74,209,881</b>	<b>72,182,824</b>
<b>FOREIGN CURRENCY REVERSE REPO AGREEMENTS</b>			
	Aaa	6,254,989	5,187,221
	Aa1	2,347,909	255,982
	Aa2	6,800,228	4,422,666
	Aa3	1,369,619	440,232
	AAA <sup>e</sup>	538,858	–
	AA <sup>b</sup>	325,265	415,528
<b>TOTAL FOREIGN-CURRENCY REVERSE REPO AGREEMENTS</b>		<b>17,636,868</b>	<b>10,721,629</b>

(All amounts are expressed in thousands of kuna)	RATING (MOODY'S)	31/12/2017	31/12/2016
<b>Foreign currency deposits</b>			
	Aaa	18,661,410	11,668,908
	Aa1	68	208
	Aa2	375,492	562
	Aa3	1,270	1,104
	A1	588	1,072
	A3	433	38
	No rating <sup>c</sup>	28	211
<b>Total deposits</b>		<b>19,039,289</b>	<b>11,672,103</b>
<b>Deposits of international financial institutions</b>	No rating <sup>d</sup>	<b>2,871,415</b>	<b>3,106,671</b>
<b>TOTAL FOREIGN-CURRENCY DEPOSITS</b>		<b>21,910,704</b>	<b>14,778,774</b>
<b>LOANS IN KUNA</b>	No rating	<b>1,286,777</b>	<b>54</b>
<b>REVERSE REPO IN KUNA</b>	No rating	<b>–</b>	<b>1,115,620</b>
<b>KUNA DEPOSITS</b>			
<b>Other deposits of domestic commercial banks</b>	BBB– <sup>e</sup>	<b>1,292</b>	<b>1,405</b>
	No rating	<b>7,677</b>	<b>10,924</b>
<b>TOTAL KUNA DEPOSITS</b>		<b>8,969</b>	<b>12,329</b>
<b>TOTAL</b>		<b>115,053,199</b>	<b>98,811,230</b>

<sup>a</sup> The ratings according to Fitch Ratings and Standard&Poor's.

<sup>b</sup> The ratings according to Standard & Poor's.

<sup>c</sup> Demand funds with Clearstream.

<sup>d</sup> Investments in the BIS and IMF which are not rated, but are considered institutions of high-credit score.

<sup>e</sup> The ratings according to Fitch Ratings.

## 34.1.2 Geographical concentration of credit risk

(All amounts are expressed in thousands of kuna)

INSTRUMENT	BALANCE AT 31 DECEMBER 2017		
	EURO AREA	OTHER	TOTAL
Government securities	59,506,904	6,829,569	66,336,473
Guaranteed bonds	921,512	–	921,512
Securities of international financial institutions	5,195,921	481,550	5,677,471
Bank bonds with government guarantee	1,274,425	–	1,274,425
<b>TOTAL FOREIGN-CURRENCY DENOMINATED SECURITIES</b>	<b>66,898,762</b>	<b>7,311,119</b>	<b>74,209,881</b>
<b>REVERSE REPO AGREEMENTS</b>	<b>6,345,814</b>	<b>11,291,054</b>	<b>17,636,868</b>
Deposits	19,032,426	6,863	19,039,289
Deposits with international financial institution	–	2,871,415	2,871,415
<b>TOTAL FOREIGN-CURRENCY DEPOSITS</b>	<b>19,032,426</b>	<b>2,878,278</b>	<b>21,910,704</b>
<b>LOANS IN CROATIA</b>	<b>–</b>	<b>1,286,777</b>	<b>1,286,777</b>
Other deposits at domestic banks	–	8,969	8,969
<b>TOTAL DEPOSITS IN KUNA</b>	<b>–</b>	<b>8,969</b>	<b>8,969</b>
<b>TOTAL 31 DECEMBER 2017</b>	<b>92,277,002</b>	<b>22,776,197</b>	<b>115,053,199</b>
INSTRUMENT	BALANCE AT 31 DECEMBER 2016		
	EURO AREA	OTHER	TOTAL
Government securities	57,341,211	7,706,732	65,047,943
Guaranteed bonds	148,343	–	148,343
Securities of international financial institutions	4,881,872	444,294	5,326,166
Bank bonds with government guarantee	1,660,372	–	1,660,372
<b>TOTAL FOREIGN-CURRENCY DENOMINATED SECURITIES</b>	<b>64,031,798</b>	<b>8,151,026</b>	<b>72,182,824</b>
<b>REVERSE REPO AGREEMENTS</b>	<b>2,690,655</b>	<b>8,030,974</b>	<b>10,721,629</b>
Deposits	11,665,605	6,498	11,672,103
Deposits with international financial institution	–	3,106,671	3,106,671
<b>TOTAL FOREIGN-CURRENCY DEPOSITS</b>	<b>11,665,605</b>	<b>3,113,169</b>	<b>14,778,774</b>
<b>LOANS IN CROATIA</b>	<b>–</b>	<b>54</b>	<b>54</b>
<b>REVERSE REPO AGREEMENTS IN KUNA</b>	<b>–</b>	<b>1,115,620</b>	<b>1,115,620</b>
Other deposits at domestic banks	–	12,329	12,329
<b>TOTAL DEPOSITS IN KUNA</b>	<b>–</b>	<b>12,329</b>	<b>12,329</b>
<b>TOTAL 31 DECEMBER 2016</b>	<b>78,388,058</b>	<b>20,423,172</b>	<b>98,811,230</b>

## Note 34.2 – 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 with maturities of less than ten years, provided that those securities are readily convertible into cash at any time.

At 31 December 2017, approximately 68% of net international reserves were liquid (2016: approximately 65% of net international reserves were liquid).

In the following tables, the financial liabilities of the Croatian National Bank are classified 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 on the earliest date on which payment could be required and include both interest and principal cash flows. Future interest expenditures are included in the position Accrued interest and other liabilities.

(All amounts are expressed in thousands of kuna)	UP TO 1 MONTH	1 TO 3 MONTHS	3 MONTHS TO 1 YEAR	1 TO 5 YEARS	OVER 5 YEARS	TOTAL
<b>BALANCE AT 31 DECEMBER 2017</b>						
<b>LIABILITIES</b>						
Banknotes and coins in circulation	31,691,425	–	–	–	–	31,691,425
Due to banks and other financial institutions	64,073,068	–	–	–	72	64,073,140
Repo agreements	12,022,248	–	–	–	–	12,022,248
Due to the State and State institutions	2,949,012	–	–	–	–	2,949,012
Due to the IMF	–	–	–	–	9,179,443	9,179,443
Accrued interest and other liabilities	641,458	19,898	47,749	–	788	709,893
<b>TOTAL LIABILITIES</b>	<b>111,377,211</b>	<b>19,898</b>	<b>47,749</b>	<b>–</b>	<b>9,180,303</b>	<b>120,625,161</b>

(All amounts are expressed in thousands of kuna)	UP TO 1 MONTH	1 TO 3 MONTHS	3 MONTHS TO 1 YEAR	1 TO 5 YEARS	OVER 5 YEARS	TOTAL
<b>BALANCE AT 31 DECEMBER 2016</b>						
<b>LIABILITIES</b>						
Banknotes and coins in circulation	27,913,956	–	–	–	–	27,913,956
Due to banks and other financial institutions	49,240,683	–	–	–	72	49,240,755
Repo agreements	7,181,838	–	–	–	–	7,181,838
Due to the State and State institutions	3,370,118	–	–	–	–	3,370,118
Due to the IMF	–	–	–	–	9,900,065	9,900,065
Accrued interest and other liabilities	661,875	53,994	45,232	–	959	762,060
<b>TOTAL LIABILITIES</b>	<b>88,368,470</b>	<b>53,994</b>	<b>45,232</b>	<b>–</b>	<b>9,901,096</b>	<b>98,368,792</b>

## Note 34.3 – Market risk

Market risk is the risk of fluctuations in fair value or future cash flows of a financial instrument due to changes in market prices. Market risk includes currency 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.

### Note 34.3.1 – 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, which affect the Income Statement and, consequently, the financial performance of the Croatian National Bank.

The Croatian National Bank takes on exposure to foreign exchange risk only in respect of the net international reserves, covering part of the reserves it manages in accordance with its own guidelines. Foreign exchange risk is determined by the currency structure of international reserves, and it is based on the currency structure of external debt of the Republic of Croatia and the currency structure of imports, which is the case of many central banks. 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) are managed passively, 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 3.7 billion.

### 34.3.1.1 Sensitivity analysis – impact of percentage fluctuations in exchange rates on the Income Statement

#### 2017 Sensitivity analysis

(All amounts are expressed in thousands of kuna)

2017	USD	EUR
	±5%	±1%
Impact of fluctuations in exchange rates on the Income Statement	778,416/(778,416)	876,301/(876,301)

The table above shows the sensitivity of the result of the CNB reported in the Income Statement for the year in the case of an increase/decrease in the EUR/HRK exchange rate by  $\pm 1\%$  and in the case of an increase/decrease in the USD/HRK exchange rate by  $\pm 5\%$ . 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 result of the Income Statement if the Croatian kuna exchange rate appreciates against the relevant currency by the percentages specified above (i.e. the kuna value depreciates in relation to the relevant currency), while the negative figure denotes a decrease in the result of the Income Statement if the Croatian kuna exchange rate depreciates against the relevant currency (i.e. the kuna value appreciates in relation to relevant currency).

In case of a 1% decrease in the EUR/HRK as at 31 December 2017, the result of the CNB reported in the Income Statement for the year would be lower by approximately HRK 876,301 thousands, while for a 5% decrease in the USD/HRK exchange rate, the result would be lower by approximately HRK 778,416 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.

## 2016 Sensitivity analysis

(All amounts are expressed in thousands of kuna)

2016	USD	EUR
	±5%	±1%
Impact of fluctuations in exchange rates on the Income Statement	850,390/(850,390)	749,286/(749,286)

## 34.3.1.2 CNB exposure to foreign exchange risk – analysis of assets and liabilities by currency

(All amounts are expressed in thousands of kuna)

	EUR	USD	XDR	OTHER FOREIGN CURRENCIES	HRK	TOTAL
<b>BALANCE AT 31 DECEMBER 2017</b>						
<b>ASSETS</b>						
Cash and current accounts with other banks	19,745,948	3,483	–	3,960	385	19,753,776
Deposits with other banks	2,284,149	125,394	–	–	8,710	2,418,253
Financial assets at fair value through profit or loss	21,228,675	6,445,835	–	–	6,347	27,680,857
Loans	–	–	–	–	1,265,448	1,265,448
Reverse repo agreements	15,266,795	2,374,951	–	–	–	17,641,746
Held-to-maturity securities	19,865,183	–	–	–	–	19,865,183
Balances with the IMF	–	–	9,200,198	–	–	9,200,198
Financial assets available for sale	19,754,351	8,171,190	–	–	60,218	27,985,759
Investments accounted for using the equity method	–	–	–	–	22,033	22,033
Accrued interest and other assets	7,962,466	2,173	–	–	494,582	8,459,221
Property, plant, equipment and intangible assets	–	–	–	–	584,297	584,297
<b>TOTAL ASSETS</b>	<b>106,107,567</b>	<b>17,123,026</b>	<b>9,200,198</b>	<b>3,960</b>	<b>2,442,020</b>	<b>134,876,771</b>
<b>LIABILITIES</b>						
Banknotes and coins in circulation	–	–	–	–	31,691,425	31,691,425
Due to banks and other financial institutions	7,955,757	–	–	–	56,117,383	64,073,140
Repo agreements	10,480,300	1,541,948	–	–	–	12,022,248
Due to the State and State institutions	28,347	11,431	–	669	2,908,565	2,949,012
Due to the International Monetary Fund	–	–	9,179,443	–	–	9,179,443
Accrued interest and other liabilities	15,403	1,279	13,786	20	675,102	705,590
<b>TOTAL LIABILITIES</b>	<b>18,479,807</b>	<b>1,554,658</b>	<b>9,193,229</b>	<b>689</b>	<b>91,392,475</b>	<b>120,620,858</b>
<b>NET POSITION</b>	<b>87,627,760</b>	<b>15,568,368</b>	<b>6,969</b>	<b>3,271</b>	<b>(88,950,455)</b>	<b>14,255,913</b>
<b>BALANCE AT 31 DECEMBER 2016</b>						
<b>ASSETS</b>						
Cash and current accounts with other banks	12,488,999	4,996	–	2,576	352	12,496,923
Deposits with other banks	2,191,758	143,371	–	–	12,054	2,347,183

(All amounts are expressed in thousands of kuna)	EUR	USD	XDR	OTHER FOREIGN CURRENCIES	HRK	TOTAL
Financial assets at fair value through profit or loss	18,631,737	6,082,973	–	–	6,609	24,721,319
Loans	–	–	–	–	54	54
Reverse repo agreements	6,806,331	3,916,228	–	–	1,103,400	11,825,959
Held-to-maturity securities	21,456,529	–	–	–	–	21,456,529
Balances with the IMF	–	–	9,924,148	–	–	9,924,148
Financial assets available for sale	18,092,855	9,354,758	–	–	60,218	27,507,831
Investments accounted for using the equity method	–	–	–	–	22,083	22,083
Accrued interest and other assets	3,658,294	1,856	–	3	439,816	4,099,969
Property, plant, equipment and intangible assets	–	–	–	–	590,670	590,670
<b>TOTAL ASSETS</b>	<b>83,326,503</b>	<b>19,504,182</b>	<b>9,924,148</b>	<b>2,579</b>	<b>2,235,256</b>	<b>114,992,668</b>
<b>LIABILITIES</b>						
Banknotes and coins in circulation	–	–	–	–	27,913,956	27,913,956
Due to banks and other financial institutions	3,653,464	–	–	–	45,587,291	49,240,755
Repo agreements	4,698,601	2,483,237	–	–	–	7,181,838
Due to the State and State institutions	42,194	11,617	–	725	3,315,582	3,370,118
Due to the International Monetary Fund	–	–	9,900,065	–	–	9,900,065
Accrued interest and other liabilities	7,862	1,896	16,790	172	733,461	760,181
<b>TOTAL LIABILITIES</b>	<b>8,402,121</b>	<b>2,496,750</b>	<b>9,916,855</b>	<b>897</b>	<b>77,550,290</b>	<b>98,366,913</b>
<b>NET POSITION</b>	<b>74,924,382</b>	<b>17,007,432</b>	<b>7,293</b>	<b>1,682</b>	<b>(75,315,034)</b>	<b>16,625,755</b>

### Note 34.3.2 – 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 its own guidelines, are invested in trading and investment portfolios. An investment portfolio may be formed as a held to maturity and available for sale portfolio that serve as a long-term source of stable income and are of long average maturity.

The Croatian National Bank has, through the Income Statement, an open exposure to interest rate risk only with the trading portfolios, while with the available-for-sale and held-to-maturity portfolios, de facto, does not.

Trading portfolios have short duration, and thus interest rate risk is minimised. Held-to-maturity portfolios, from the standpoint of interest rate risk, have no effect on the Income Statement, while securities classified as available for sale are, generally, sold only in situations favourable to the CNB. However, regardless of that, even for available-for-sale portfolios their duration and interest rate risk are taken into account.

The part of the reserves that consists of the Ministry of Finance funds, the 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, the CNB operates in accordance with commitments, in order to protect it against interest rate risk.

### 34.3.2.1 Sensitivity analysis – exposure of the CNB’s net international reserves to fluctuations in interest rates

#### 2017 Sensitivity analysis

(All amounts are expressed in thousands of kuna)

2017	USD	EUR
Yield curve increase/decrease	±1 b. p.	±1 b. p.
Effect of a change in the level of the yield curve on the financial result	(409)/409	(2,626)/2,626

Should as at 31 December 2017 the entire USD yield curve increase by 1 basis point (0.01%), the result of the Croatian National Bank reported in the Income Statement for the year would be lower by approximately HRK 409 thousands, while in the case of the EUR yield curve increasing by 1 basis point, the result would be lower by approximately HRK 2,626 thousands.

For a 1 basis point decrease of the yield curve, the result reported in the Income Statement would be higher by approximately the same amounts.

#### Calculation methodology

The values of USD and EUR trade portfolios as at December 2017 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.

## 2016 Sensitivity analysis

(All amounts are expressed in thousands of kuna)

2016	USD	EUR
Yield curve increase/decrease	±1 b. p.	±1 b. p.
Effect of a change in the level of the yield curve on the financial result	(414)/414	(1,888)/1,888

## 34.3.2.2 Interest rate risk analysis

(All amounts are expressed in thousands of kuna)	UP TO 1 MONTH	1 TO 3 MONTHS	3 MONTHS TO 1 YEAR	1 TO 5 YEARS	OVER 5 YEARS	NON-INTEREST BEARING	TOTAL	AVERAGE EIR AS AT 31/12
<b>BALANCE AT 31 DECEMBER 2017</b>								
<b>ASSETS</b>								
Cash and current accounts with other banks	16,757,217	–	–	–	–	2,996,559	19,753,776	–0.54
Deposits with other banks	1,545,473	864,070	–	–	–	8,710	2,418,253	–0.45
Financial assets at fair value through profit or loss	26,419,157	–	–	–	–	1,261,700	27,680,857	0.05
Loans	–	–	–	1,265,400	48	–	1,265,448	1.46
Reverse repo agreements	17,641,746	–	–	–	–	–	17,641,746	–0.45
Held-to-maturity securities	–	601,220	2,779,011	2,377,255	13,991,205	116,492	19,865,183	1.02
Balances with the IMF	2,741,186	–	–	–	–	6,459,012	9,200,198	0.74
Financial assets available for sale	27,925,541	–	–	–	–	60,218	27,985,759	0.95
Investments accounted for using the equity method	–	–	–	–	–	22,033	22,033	–
Accrued interest and other assets	–	–	–	–	–	8,459,221	8,459,221	–
Property, plant, equipment and intangible assets	–	–	–	–	–	584,297	584,297	–
<b>TOTAL ASSETS</b>	<b>93,030,320</b>	<b>1,465,290</b>	<b>2,779,011</b>	<b>3,642,655</b>	<b>13,991,253</b>	<b>19,968,242</b>	<b>134,876,771</b>	<b>–</b>
<b>LIABILITIES</b>								
Banknotes and coins in circulation	–	–	–	–	–	31,691,425	31,691,425	–
Due to banks and other financial institutions	7,955,757	–	–	–	–	56,117,383	64,073,140	–
Repo agreements	12,022,248	–	–	–	–	–	12,022,248	–0.68
Due to the State and State institutions	851,046	–	–	–	–	2,097,966	2,949,012	0.10
Due to the IMF	2,727,262	–	–	–	–	6,452,181	9,179,443	0.74
Accrued interest and other liabilities	–	–	–	–	–	705,590	705,590	–
<b>TOTAL LIABILITIES</b>	<b>23,556,313</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>97,064,545</b>	<b>120,620,858</b>	<b>–</b>
<b>NET POSITION</b>	<b>69,474,007</b>	<b>1,465,290</b>	<b>2,779,011</b>	<b>3,642,655</b>	<b>13,991,253</b>	<b>(77,096,303)</b>	<b>14,255,913</b>	<b>–</b>

(All amounts are expressed in thousands of kuna)	UP TO 1 MONTH	1 TO 3 MONTHS	3 MONTHS TO 1 YEAR	1 TO 5 YEARS	OVER 5 YEARS	NON-INTEREST BEARING	TOTAL	AVERAGE EIR AS AT 31/12
<b>BALANCE AT 31 DECEMBER 2016</b>								
<b>ASSETS</b>								
Cash and current accounts with other banks	9,480,682	–	–	–	–	3,016,241	12,496,923	–0.53
Deposits with other banks	1,889,447	445,682	–	–	–	12,054	2,347,183	–0.47
Financial assets at fair value through profit or loss	23,241,626	–	–	–	–	1,479,693	24,721,319	–0.26
Loans	–	–	–	–	54	–	54	1
Reverse repo agreements	10,832,559	–	–	993,400	–	–	11,825,959	0.04
Held-to-maturity securities	–	–	1,366,580	4,811,268	15,158,419	120,262	21,456,529	1.02
Balances with the IMF	2,958,252	–	–	–	–	6,965,896	9,924,148	0.24
Financial assets available for sale	27,282,854	–	–	–	–	224,977	27,507,831	0.99
Investments accounted for using the equity method	–	–	–	–	–	22,083	22,083	–
Accrued interest and other assets	–	–	–	–	–	4,099,969	4,099,969	–
Property, plant, equipment and intangible assets	–	–	–	–	–	590,670	590,670	–
<b>TOTAL ASSETS</b>	<b>75,685,420</b>	<b>445,682</b>	<b>1,366,580</b>	<b>5,804,668</b>	<b>15,158,473</b>	<b>16,531,845</b>	<b>114,992,668</b>	<b>–</b>
<b>LIABILITIES</b>								
Banknotes and coins in circulation	–	–	–	–	–	27,913,956	27,913,956	–
Due to banks and other financial institutions	3,653,464	–	–	–	–	45,587,291	49,240,755	–
Repo agreements	7,181,838	–	–	–	–	–	7,181,838	–0.27
Due to the State and State institutions	1,882,477	–	–	–	–	1,487,641	3,370,118	0.08
Due to the IMF	2,941,312	–	–	–	–	6,958,753	9,900,065	0.24
Accrued interest and other liabilities	–	–	–	–	–	760,181	760,181	–
<b>TOTAL LIABILITIES</b>	<b>15,659,091</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>82,707,822</b>	<b>98,366,913</b>	<b>–</b>
<b>NET POSITION</b>	<b>60,026,329</b>	<b>445,682</b>	<b>1,366,580</b>	<b>5,804,668</b>	<b>15,158,473</b>	<b>(66,175,977)</b>	<b>16,625,755</b>	<b>–</b>

Note: Fixed interest rate is charged on presented interest bearing amounts, except on the part of the position Cash and current accounts with other banks, amounting to HRK 16,757,217 thousands (31 December 2016: HRK 9,480,682 thousands), and the part of the position Financial assets at fair value through profit or loss (dollar floater) in the amount of HRK 490,604 thousands (31 December 2016: HRK 144,219 thousands), as well as on the part of the position Due to the State and State institutions, amounting to HRK 851,046 thousands (31 December 2016: HRK 1,882,477 thousands), on which variable floating rate is charged.

### Note 34.3.3 – 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.

### 34.3.3.1 Sensitivity analysis – impact of changes in prices of financial instruments on the Income Statement

#### 2017 Sensitivity analysis – funds entrusted to the management of international financial institutions

(All amounts are expressed in thousands of kuna)

2017

Financial assets price exposed to price risk increase/decrease	±1%
Effect of change in the level of price on the Income Statement	12,554/(12,554)

The table shows the sensitivity of the Croatian National Bank Income Statement result in the case of a rise or fall of prices of financial instruments by ±1%.

A positive number implies an increase in the Income Statement if there is an increase in the prices of financial instruments by the selected percentage, while a negative number implies a reduction in the Income Statement if prices of financial instruments fall.

In the case of increase in prices of financial instruments by 1% compared to the prices recorded on 31 December 2017, the result of Croatian National Bank in the Income Statement would be higher by approximately HRK 12,554 thousands, while the fall in prices by 1% would result in the Income Statement being lower by approximately HRK 12,554 thousands.

#### 2017 Sensitivity analysis – precious metals

(All amounts are expressed in thousands of kuna)

2017

Financial assets price exposed to price risk increase/decrease	±5%
Effect of change in the level of price on the Income Statement	317/(317)

The table shows the sensitivity of the Croatian National Bank Income Statement result in the case of a rise or fall of prices of financial instruments by ±5%.

A positive number implies an increase in the Income Statement if there is an increase in the prices of financial instruments by the selected percentage, while a negative number implies a reduction in the Income Statement if prices of financial instruments fall.

In the case of increase in prices of financial instruments by 5% compared to the prices recorded on 31 December 2017, the result of Croatian National Bank in the Income Statement would be higher by

approximately HRK 317 thousands, while the fall in prices by 5% would result in the Income Statement being lower by approximately HRK 317 thousands.

## Calculation methodology

Investments in financial assets exposed to price risks as at 31 December 2017 in the balance sheet has been increased or reduced by the selected percentage change in the price of financial instruments.

### 2016 Sensitivity analysis – funds entrusted to the management of international financial institutions

(All amounts are expressed in thousands of kuna)

#### 2016

Financial assets price exposed to price risk increase/decrease	±1%
Effect of change in the level of price on the Income Statement	14,360/(14,360)

### 2016 Sensitivity analysis – precious metals

(All amounts are expressed in thousands of kuna)

#### 2016

Financial assets price exposed to price risk increase/decrease	±5%
Effect of change in the level of price on the Income Statement	330/(330)

## Note 35 – Related parties

While performing regular activities, the Croatian National Bank enters into transactions with related parties. In accordance with IAS 24 Related Party Disclosures, related parties are the State and state bodies of the Republic of Croatia, the Croatian Monetary Institute and key management of the Croatian National Bank. Companies and other legal entities owned by the Republic of Croatia (including credit institutions) are not considered to be related parties. Transactions with related parties took place at normal market conditions.

### a) Relations with the State and State bodies of the Republic of Croatia

The Croatian National Bank is in the exclusive ownership of the Republic of Croatia, but in achieving its objective and in carrying out its tasks the Croatian National Bank is independent and autonomous.

In relations with the State bodies of the Republic of Croatia, the Croatian National Bank acts as a

depository institution, that is, keeps the accounts of the Republic of Croatia and executes payment transactions across these accounts.

Under market conditions, the Croatian National Bank can perform fiscal agency services for the Republic of Croatia related to:

- issuance of debt securities of the Republic of Croatia, as a registrar or as a transfer agent of the entire issuance,
- payment of the amount of principal, interest and other charges related to securities,
- other issues associated with these operations, if they are consistent with the objective of the Croatian National Bank.

Relations with the Croatian State and Croatian State bodies are presented in the following table:

(All amounts are expressed in thousands of kuna)	2017		2016	
	STATE	STATE ENTITIES	STATE	STATE ENTITIES
<b>ASSETS</b>				
Accrued interest and other assets	1,773	370	1,753	–
<b>TOTAL</b>	<b>1,773</b>	<b>370</b>	<b>1,753</b>	<b>–</b>
<b>LIABILITIES</b>				
Deposits	996,084	1,952,929	2,080,582	1,289,536
Accrued interest and other liabilities	189	–	33,820	–
<b>TOTAL</b>	<b>996,273</b>	<b>1,952,929</b>	<b>2,114,402</b>	<b>1,289,536</b>
<b>REVENUES</b>	–	–	–	–
<b>EXPENDITURE</b>				
Interest and similar expenses	2,704	–	9,341	–
<b>TOTAL</b>	<b>2,704</b>	<b>–</b>	<b>9,341</b>	<b>–</b>

State bodies that are considered related parties are the State Agency for Deposit Insurance and Bank Resolution and the Croatian Health Insurance Fund.

#### b) Associated entities

The investment of the Croatian National Bank in the Croatian Monetary Institute represents the investment in an associate in accordance with IAS 28. The share of ownership of the Croatian National Bank in the Croatian Monetary Institute capital is 42.6%. Detailed disclosures on the investment in an associate are

presented in Note 19.

Relations with the Croatian Monetary Institute are presented in the following table:

(All amounts are expressed in thousands of kuna)	2017	2016
<b>ASSETS</b>		
Investments accounted for using the equity method	22,033	22,083
Other assets	9,013	5,024
<b>TOTAL</b>	<b>31,046</b>	<b>27,107</b>
<b>LIABILITIES</b>		
Other liabilities	1	1
<b>TOTAL</b>	<b>1</b>	<b>1</b>
<b>REVENUES</b>		
Gains in the alignment of investments in the Croatian Monetary Institute	1,792	1,842
Other revenues	33	207
<b>TOTAL</b>	<b>1,825</b>	<b>2,049</b>
<b>EXPENDITURE</b>		
Losses in the alignment of investments in the Croatian Monetary Institute	–	1,006
Minting of Kuna and Lipa coins <sup>a</sup>	63,044	51,234
<b>TOTAL</b>	<b>63,044</b>	<b>52,240</b>

<sup>a</sup> Total coins production cost invoiced by the Croatian Monetary Institute in the reporting period. The presented costs differ from costs recognised in profit or loss in the reporting period, since the cost of minting coins are recognised in the Income Statement in accordance with the cost deferral policy (refer to Note 9).

### c) Key management of the Croatian National Bank

The Council of the Croatian National Bank is responsible for the achievement of the objective and performance of tasks of the Croatian National Bank. The Council of the Croatian National Bank establishes policies related to the activities of the Croatian National Bank. In line with the aforementioned, key management of the Croatian National Bank is composed of members of the Council of the Croatian National Bank.

The Council of the Croatian National Bank comprises Governor, Deputy Governor and six Vicegovernors.

Short-term compensations to the key management of the Croatian National Bank for 2017 amounted to HRK 8,967 thousands, of which HRK 1,243 thousands refers to pension insurance contributions (2016: HRK 9,190 thousands, of which HRK 1,318 thousands refers to pension insurance contributions).



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