



National Bank  
of the Republic of North Macedonia

# **ANNUAL REPORT 2023**

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# **National Bank of the Republic of North Macedonia**



## **Annual Report 2023**

Skopje, April 2024

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## Governor's foreword

**In 2023, the global economy gradually stabilized, after the consecutive shocks it faced in the previous few years.** The pressures on central banks reduced, given that inflation continued to stabilize throughout the year. The tightened monetary conditions and normalization of primary commodities on the world markets contributed to such gradual tightening of inflationary pressures, inherent for the second half of the year. The global recovery is still evident, with a certain resilience to current risks and tightened financial conditions, reflecting the favorable movements on the supply side. **Despite the gradual stabilization trends, the uncertainty and risks remained throughout the entire 2023.** The geopolitical tensions were especially pronounced, causing further global economic fragmentation. The challenges related to the need for structural transformation of economies and increasing their productivity, as well as those related to green transition and strengthening of the climate resilience were also pronounced.

**During 2023, the National Bank took measures to maintain the exchange rate stability, further reduce inflation and to stabilize inflation expectations. In 2023,** we continued to gradually increase the policy rate to 6.3%, amid change in reserve requirement and macro-prudential policy, which provide additional support for the monetary signals. With the change in the reserve requirement we have additionally increased the **reserve requirement rate on the bank's foreign currency liabilities.** Thus, we have targeted and additionally encouraged saving in domestic currency, i.e. greater denarization, a process that was temporary halted during 2021. **By taking macro-prudential measures,** we have further increased the banking system resilience, being the basis of financial stability and a prerequisite for smooth financial support for the economy from the system.

**This approach in the policy conduct, with a proper combination of available instruments, successfully dealt with inflation, without significantly jeopardizing the economic recovery, or financial stability.** In fact, achieving equilibrium was the main challenge for all central banks in the last two years. **The inflation indicators in 2023** point to gradual relaxation of inflation, which from the record 19.8% in October 2022, reduced to 3.6% at the end of 2023. The inflation gap with the euro area, as our monetary anchor, has significantly narrowed. As a result of our structural features, amid severe shocks on global food and energy prices, we feel the initial effects much faster and more directly than the euro area, which leads to temporary discrepancy in the inflation growth. **The adequate policy setup, as well as the normalization of prices on the global markets contributed to a stable and favorable foreign exchange market and purchase of foreign currency.** The external position of the economy significantly strengthened, reflecting the improved exchange conditions, confidence in domestic currency, as well as positive perceptions of foreign investors. In this context, the movements on foreign exchange market were favorable, while net purchase by the National Bank was similar to the pre-crisis years. This provided a solid growth of foreign reserves, in context of further maintenance of the stability of the denar exchange rate.

**The National Bank measures and policies contributed to financial stability maintenance, which is a prerequisite for a stable economy, economic growth and development.** In order to further strengthen the resilience of the banking sector, the National Bank Council adopted a macro-prudential measure to increase the rate of the **countercyclical capital buffer** for the exposures of domestic banks by 0.25 percentage points, from the previously determined 0.75% to 1%, applicable as of 1 July 2024, and also made a decision to introduce **macro-prudential measures for the credit demand**

**quality**, in accordance with the European practice. The adoption of the first [Macro-prudential Policy Strategy](#) in the Republic of North Macedonia enhanced the coordinated approach of financial regulators for further strengthening of the financial stability. The [Law on Bank Resolution](#) was also adopted, as a systemic law in the financial area which contributes to maintenance and further strengthening of the financial stability.

**The banking system indicators show solid resilience and a possibility to deal with current risks.** The capital adequacy of banks in 2023 reached 18.4% and is at the record high in the past 17 years, which is crucial for stability maintenance amid possible risks, as well as for lending and support to households and companies. The quality of the banks' credit portfolio is solid and shows no signs of significant credit risk materialization, while the share of non-performing to total loans of 2.8% is at the historic low.

The monetary policy conduct by the National Bank, as well as the maintenance of financial stability were positively assessed by relevant international institutions. Thus, within the regular consultations which stem from the country's membership in the **International Monetary Fund (IMF)**, as well as within the discussions around the [First review of the Precautionary and Liquidity Line](#) the IMF mission concluded that the National Bank took adequate measures for monetary policy tightening which halved the inflation compared to the last years' maximum. In the Annual [report on the country for 2023](#), the **European Commission** pointed to advanced compliance of monetary policy with the EU regulations, standards and practices. **The Committee of Experts of the Council of Europe on Anti-Money Laundering and Combating the Financing of Terrorism (Moneyval)** assessed that the licensing and supervision system of the National Bank meets the international standards for anti-money laundering and terrorist financing. The positive assessment was significantly supported by the number of by-laws adopted by the National Bank and trainings conducted for more efficient activities of financial institutions, amid positive assessments of the National Bank corrective measures to improve the quality of financial institutions' actions in combating money laundering and terrorist financing. National Bank's operations were also positively acknowledged by the European Central Bank (ECB), which this year also adopted the Decision [on further access of our central bank to the repo line until 31 January 2025](#). Thus, fast accessibility to foreign currency liquidity is provided, as another buffer to guarantee the domestic currency exchange rate.

Public trust is extremely important for the appropriate performing of central-banking activities. Hence, for us it was very important that public trust in the National Bank was confirmed within **the last-years' survey of the World Bank Group**. This research concluded that the trust of citizens and institutions in our central bank is higher compared to certain international institutions as well. Also, despite multiple shocks, the assessment is higher compared to 2019, which confirms the public trust in the National Bank crisis management in the past period.

Despite the measures for maintaining price and financial stability, the central bank actively worked on several fields that are also included in our strategic goals as a modern, socially responsible and transparent institution. Last year, **we actively worked on clarification of the novelties within the payment services market and especially on explaining the latest innovative payment services and benefits for the citizens**. For this purpose we have set [a new tool of the National Bank for comparison of the fees between payment service providers](#) that contributes to greater transparency of banks and improvement of the public awareness about the fees charged by banks for the most representative services related to the payment account. In order to provide greater consumer protection, the National Bank adopted a [Circular for financial institutions](#) for monitoring and implementation of the

recommendations and good practices for protection of consumers' rights and interests when using financial services from the banking sector of the Republic of North Macedonia. Thus, good practices have been established regarding the protection of consumers - beneficiaries, making efforts for fair and transparent relations, based on clear and easily understandable information on the products and services they provide. Furthermore, we have initiated special on-site inspections of banks aimed at consumer protection, in order to monitor their operation and approach to customers.

The awareness of the need for financial literacy in the modern dynamic financial system was this year also a driver of numerous National Bank activities. In addition to the regular activities, the National Bank supported number of other initiatives in the area of financial education, on request of various social stakeholders, becoming available both for the youngest and the elderly.

The past year was marked with enhanced collective awareness towards implementing sustainable ecology-related economic policies. In that context, the National Bank also continued with activities that raise the awareness of climate risks. Therefore, the adoption of [the National Bank's Medium-Term Climate Risk Management Plan 2023 – 2025](#), has set a comprehensive framework related to climate risk management, which includes number of activities in the field of climate risk regulation and supervision, including stress-testing of domestic banks related to climate risks. The implementation of the Medium-Term Plan will contribute to better understanding of climate risks, their incorporation into the analyses of the banking system and of the monetary policy and building of a resistant banking system that will be able to support the transition of the economy to a green and sustainable development. As part of the Plan's activities, the National Bank also adopted [Guidelines on climate risk management](#), that commercial banks will take into consideration when creating and implementing their business strategy and in the process of risk management.

During the Fourth Industrial Revolution, where the development comes from digitalization, artificial intelligence and automation, there is a need for progress also in the digital transformation of the economy, which will increase efficiency, productivity, innovations and competitiveness. In 2023, the Committee to support innovations in the financial system in the Republic of North Macedonia (Fintech Committee), led by the National Bank, adopted the first [Fintech Regulators Strategy](#), which aims to provide conditions to support innovations in the field of finance, taking into account the protection of consumers and investors and the stability of the financial system. The adopted strategy for fintech sector regulators is the first part of the National Fintech Sector Strategy which was discussed at the meeting of the Fintech Sector Committee. This is finalization of the National Bank activities in the past years, conducted through an EFSE project launched in 2018, aimed at setting the bases for transformation of the financial system in our country.

During 2023, **there were enhanced national activities for EU integration**, by participating in the rest of the bilateral phase of the screening, as part of the EU membership process. In the previous year, the National Bank organized **several international working meetings with the representatives of central banks, international institutions and the Academy, to discuss current macroeconomic challenges**. The discussions with the international community in terms of current issues in the central banking and financial system continuously upgrade and extend knowledge, as a basis for making sustainable decisions in practice.



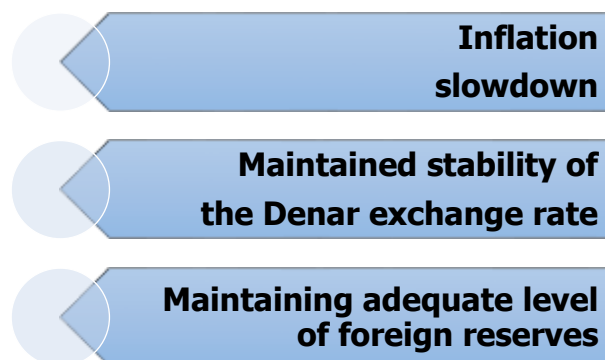
Dear Sir/Madam,

Economies and policy makers have been constantly facing global uncertainty and risks in recent years. Given the persistent geopolitical tensions, climate changes, as well as the rapid technological transformation, which besides advantages, carries threats as well, we will be still clearly facing the need for a rapid response. Due to the change in the economic and geopolitical landscape, we should all constantly work on increasing the resilience and capacity and to take appropriate measures to successfully conduct our mandates. The National Bank constantly implements appropriate policies and builds the institutional capacity, supporting high level of preparedness to face challenges. We constantly nurture and upgrade the common commitment and willingness to find solutions and achieve results.

25 April 2024  
Skopje

Anita Angelovska Bezhoska  
Governor  
Chairperson  
of the National Bank Council

## I. Monetary policy in 2023



### 1.1. Monetary policy objectives

*Maintaining price stability is the primary legally defined goal of the National Bank monetary policy. Another objective, which is subordinate to the primary goal, is to contribute to a stable and competitive market-oriented financial system. The National Bank also supports the general economic policies without jeopardizing the achievement of the ultimate goal and in line with the principle of open market economy with free competition. From a strategic point of view, since October 1995, the National has applied the strategy of maintaining stable nominal exchange rate of the denar, first against the Deutsche mark (until 2001) and then against the euro.*

**Based on the main legal provisions, the National Bank during 2023 closely monitored the volatile environment and adequately adjusted the monetary policy to achieve the legal objectives.** The National Bank continued with monetary tightening, through further gradual increase in policy rate and adequate liquidity management by changing the reserve requirement. The monetary objectives were successfully achieved, as seen through further maintenance of stable exchange rate, and increase in foreign reserves which maintained in the safe zone according to all adequacy indicators. In terms of price stability, there was a slower growth of domestic prices in 2023 due to the significantly reduced pressure from the food and energy price components, as well as the stabilization of price pressures from the less volatile categories, in accordance with the undertaken monetary measures. Also, amid strategy of de facto fixed exchange rate of the denar against the euro, the National Bank was in line with the changes in the monetary policy of the European Central Bank. The monetary tightening lowered the inflation expectations and stabilized both the foreign exchange market and inflation. In 2023, the average inflation reduced to single-digit level and equaled 9.4%, which is a slowdown compared to the previous year (14.2%). By the end of the year, the annual inflation rate significantly decelerated, thus reducing to 3.6% in December 2023. Also, amid similar developments in inflation rates in our country and in euro area, the inflation gap in the euro area narrowed as well. In 2023, the financial stability was successfully maintained, and several macro-prudential decisions were adopted to further strengthen the capital of banks and their resilience to shocks.

Chart 1  
Output gap and inflation\*

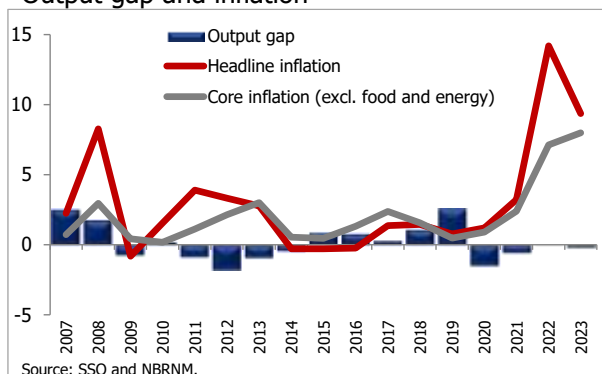


Chart 2  
Gross Foreign Reserves



\* Productivity gap is an indicator of the cyclical position of the economy and it is calculated as the deviation of the actual from the potential level of GDP relative to the potential level of GDP (output gap = (actual GDP - potential GDP)/potential GDP). Headline and core inflation represent an average annual growth (in %).

Chart 3  
Foreign reserves adequacy indicators

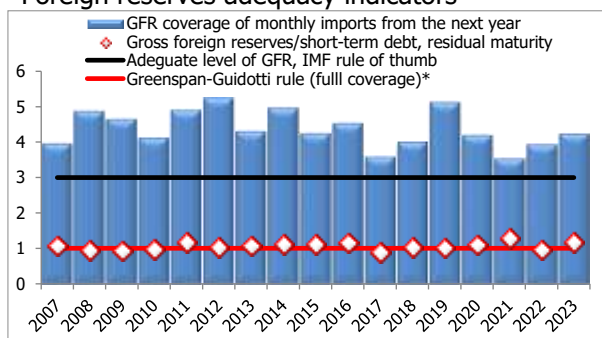
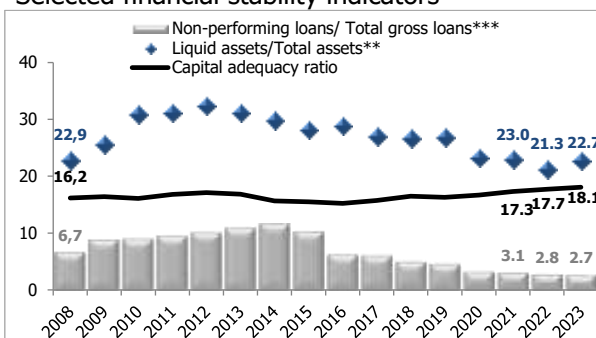


Chart 4  
Selected financial stability indicators



\* According to the Greenspan-Guidotti rule, the country needs to keep full coverage of short-term debt (residual maturity) with foreign reserves.

\*\* Liquid assets consist of highly liquid assets and short-term deposits with foreign banks. Total assets do not include assets with domestic banks.

\*\*\* The indicator refers to loans to the financial and non-financial sector, with data for 2016 including changes arising from regulatory changes.

Source: NBRNM and SSO.

## 1.2. Monetary policy setup

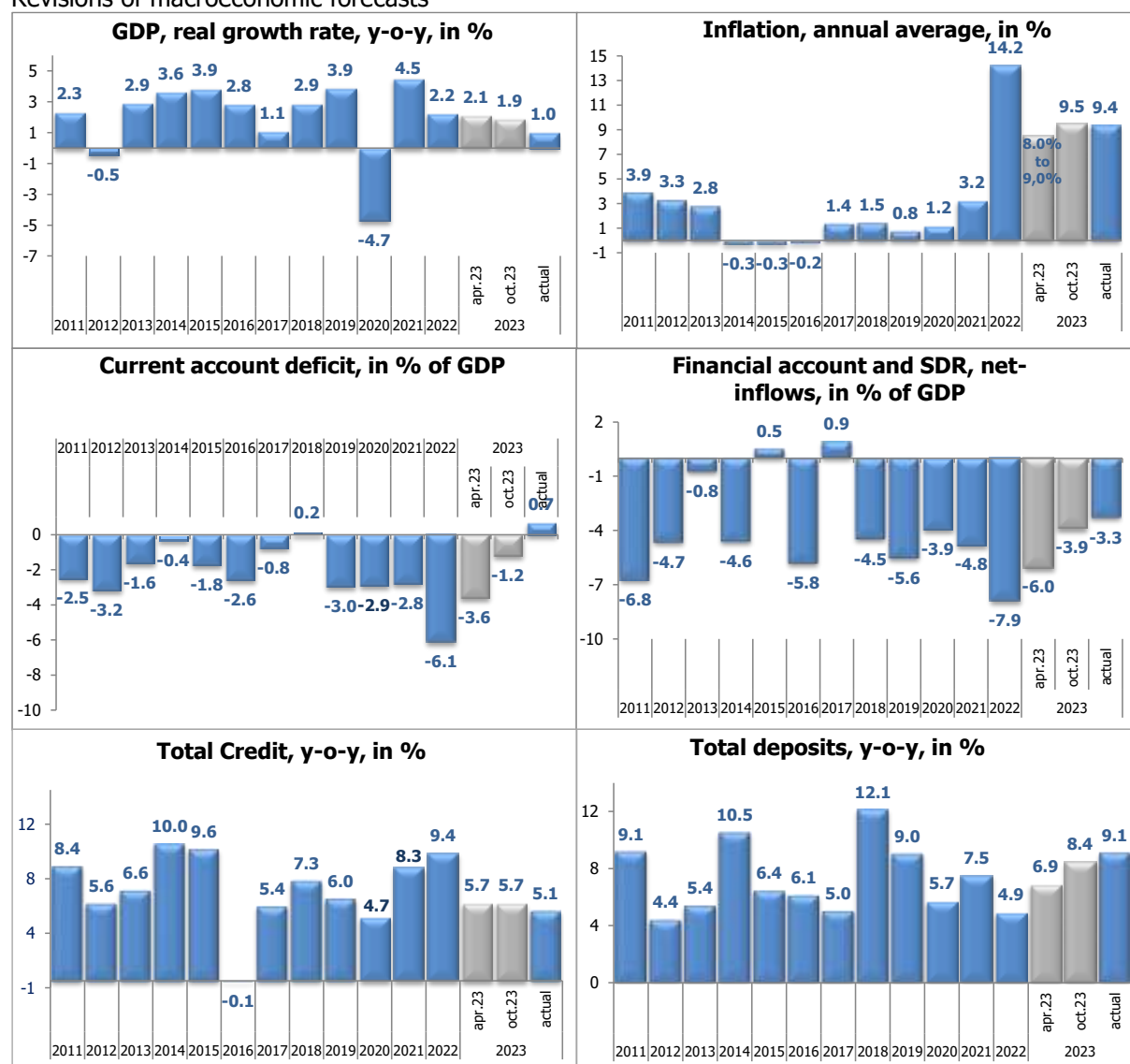
During 2023, the National Bank continued with the monetary policy tightening. In order to stabilize the price pressures and inflation expectations, the National Bank gradually increased the policy rate, on six occasions, to the level of 6.30%, which was maintained until late 2023, keeping the offered amount of CB bills at the level of Denar 10,000 million. At the same time, interest rates on overnight and seven-day deposit facilities increased, to 4.20% and 4.25%, respectively. Given the monetary strategy of a stable exchange rate of the denar against the euro, the changes in the domestic monetary policy also reflect the changes in the monetary policy of the European Central Bank. The monetary setup was also supported by additional measures, i.e. by changes in the reserve requirement aimed at reducing euroization. During 2023, the National Bank additionally increased the reserve requirement rate of banks' foreign currency liabilities, on two occasions, to the level of 21%, and increased the part of reserve requirement of liabilities in foreign currency that is met in euros, to 81%. Also, the reserve requirement rate that is applied to liabilities in denars with foreign exchange clause increased from 50% to 100%. The measure aimed at encouraging projects for renewable energy was active throughout the year. In order to further strengthen the systemic resilience of the banking sector, as well as the transmission of monetary signals, the National Bank

*adopted macro-prudential measures to increase the countercyclical capital buffer rate for the exposure of domestic banks, as well as measures related to setting thresholds for credit demand quality monitoring. These measures are preventive, given the current macroeconomic conditions, in accordance with the measures taken in most of the EU countries, as a safeguard against possible environmental risks. Total deposits registered accelerated annual growth. The risks to the global and the domestic economy in the short and in the medium run remain pronounced, while the latest developments in the Middle East and the war in Ukraine are still the main source of risk, especially on the energy and food product markets. The National Bank continues to regularly and carefully monitor the key economic parameters and the potential risks from the domestic and external environment, for the purpose of appropriate adjustment of monetary policy in order to maintain the exchange rate stability and medium-term price stability.*

The macroeconomic environment in 2023 required further gradual tightening of the financial conditions, to stabilize the foreign exchange market and inflation expectations. In the beginning of the year, the National Bank intervened with a net sale of foreign currency, but later on these pressures were exhausted and followed by constant net purchase, with a high net purchase of foreign currency for the entire 2023, close to the amounts from the pre-crisis years.

In 2023, *the price level in domestic economy* registered an average annual growth of 9.4%, which is a slowdown compared to the previous year (14.2%). These performances reflect the significant reduction of the pressure from the food and energy price components, as well as the evident stabilization of price pressures from the less volatile categories, in accordance with the undertaken monetary measures. However, the average inflation rate in 2023 was above the historical average, while the adjustment in core inflation was slower, which posed further caution in monetary policy conduct and decision-making, to stabilize the inflation and inflation expectation on a more permanent basis.

Chart 5  
Revisions of macroeconomic forecasts

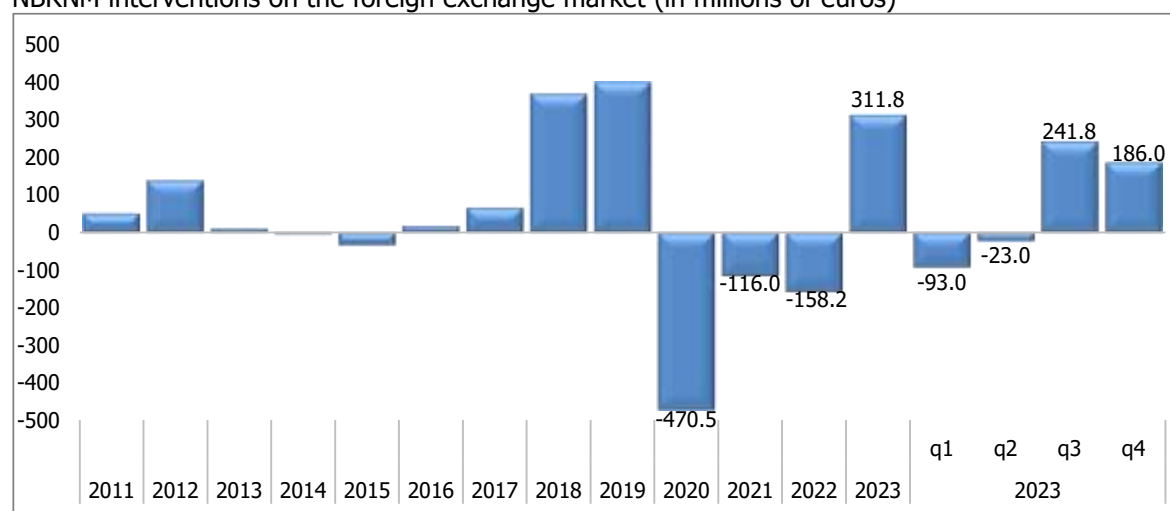


Source: NBRNM and SSO. Forecasts for all indicators refer to the macroeconomic forecasts of the NBRNM.

*Foreign reserves* in 2023 significantly increase, remaining in the safe zone throughout the year. The increase in foreign reserves was mostly due to the favorable developments on the foreign exchange market, compared to the previous two years. Due to the reduced need for foreign currency assets with the tailed off energy crisis, stabilized expectations and increased confidence in domestic currency, the National Bank intervened on the foreign exchange market with a relatively high net purchase of foreign currency in 2023, as a result of the favorable movements in the second half of the year. The solid positive financial flows within the financial account of the balance of payments, amid moderate current account deficit, enabled further growth of the foreign reserves.

Chart 6

NBRNM interventions on the foreign exchange market (in millions of euros)



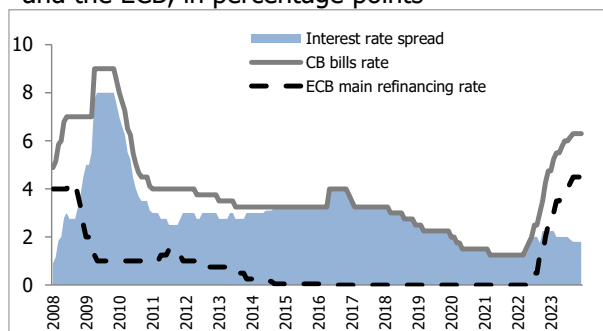
Source: NBRNM.

The *deposits* in financial sector grew rapidly during the year, amid significantly lower pressures of the energy crisis and favorable external position of economy, as well as favorable financial conditions for saving. Thus, the annual growth of total deposits in 2023 reached 9.1%. Observed by sector, the growth results from the increase in deposits of all sectors, primarily from the annual growth in household and corporate sector (contribution of 5.1 and 3.8 percentage points, respectively), coupled with the growth in deposits in other sectors (contribution of 0.2 percentage points). Favorable movements were also registered in currency and maturity structure of deposits, which indicates enhanced confidence in domestic currency and the banking system, in accordance with the measures taken by the National Bank. Therefore, in 2023 denar deposits registered a twice as strong annual growth (including demand deposits), compared to the growth of foreign currency deposits. Also, following the downward trend in the previous three years, long-term deposits in 2023 registered a fast annual growth (of 21.1%), while short-term deposits were relatively stable (slight increase of 0.6%).

As for the private sector loans, in conditions of current uncertainty and tight credit standards, the credit growth decelerated during 2023, yet remained at a moderate level of 5.1%. Observed by sector, the growth results from the positive contribution of household loans, given lower positive contribution of corporate loans. Regarding the currency structure, positive contribution was made by both domestic and foreign currency loans (including denar loans with currency clause).

Given the application of stable nominal exchange rate of the denar against the euro, changes in interest *rates* in the euro area, as the anchor economy, play an important role in the monetary policy setup in the country. Thus, the monetary tightening continued during 2023, with an interest rate spread between the National Bank and the ECB of 1.80 percentage points at the end of the year. Regarding the interest rates of the banks in the domestic economy, the spread between the interest rate on denar and the interest rate on foreign currency deposits, at the end of 2023, slightly widened (from 0.7 to 0.9 percentage points), due to slightly more evident upward movement of the interest rate on denar deposits, relative to the increase in the interest rate on foreign currency deposits, which is in conformity with the undertaken National Bank measures.

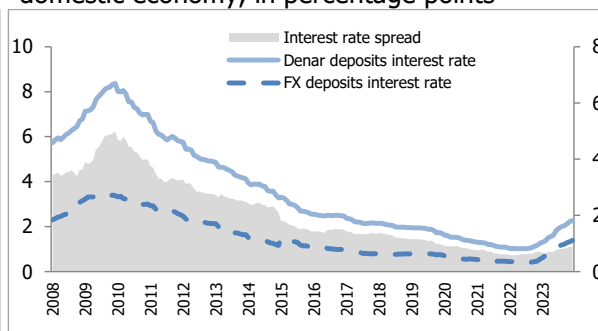
**Chart 7**  
Spread between the policy rates of the NBRNM and the ECB, in percentage points



NBRNM policy rate: interest rate on CB bills.

ECB policy rate: interest rate on ECB's main refinancing operations

**Chart 8**  
Interest rate spread of the banks in the domestic economy, in percentage points



## II. International environment

The global economy faced unprecedented shocks in the last four years, with long-term and disproportionate consequences for the global activity and trade, prices, labor market, fiscal trends and monetary setup<sup>1</sup>. The economic activity in 2023 remained resilient, but the effects of the tightened global financial conditions, the slow growth of the global trade and deteriorated business and household confidence increasingly affect the growth. Inflation decelerated worldwide, after the high rates in the previous year, but the inflationary pressures of core inflation remain high. Central banks continued with monetary tightening, amid additional tightening of financial market conditions.

The growth of the global economic activity in 2023 was estimated at 3.1%, which is a slowdown compared to 2022 (3.5%), which is due to the slower economic growth in advanced economies (1.6%), with divergent movements in certain countries. Unlike the USA, which expects an accelerated growth of the economic activity, the euro area, as our main trading partner, faces decelerated and low economic growth, amid deteriorated consumer confidence, long-term adverse effects of energy prices and weaknesses in interest-sensitive industrial activities and business investments. The economic growth in emerging and developing economies remained unchanged (4.1%).

The global economic growth is expected to stabilize, while the global inflation will further slowdown in 2024, both accompanied by high uncertainty. The conflict in the Middle East increased the geopolitical risks which were already pronounced due to the war in Ukraine, and increased the uncertainty in terms of the primary commodity prices on the international market, with possible adverse effects on the global growth as well. Other vulnerability sources arise from the increased inertia of the core inflation, which could affect the monetary tightening, the weaker growth of the economic activity in China, as well as further fragmentation of the global trade. On the other hand, the possible decline in inflation, the slower withdrawal of the economic support from the fiscal policy, the faster economic recovery of China, the development of the artificial intelligence and reforms in the area of aggregate supply may additionally affect the global economic growth.

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<sup>1</sup> The analysis is based on the IMF's 'World Economic Outlook, updated in October 2020 and January 2021; the World Bank's World Economic Outlook, January 2018; the quarterly reports of the National Bank.



Chart 9  
Global economic growth (in %)

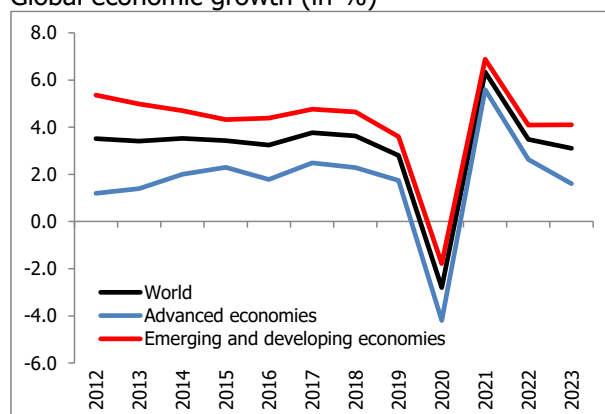
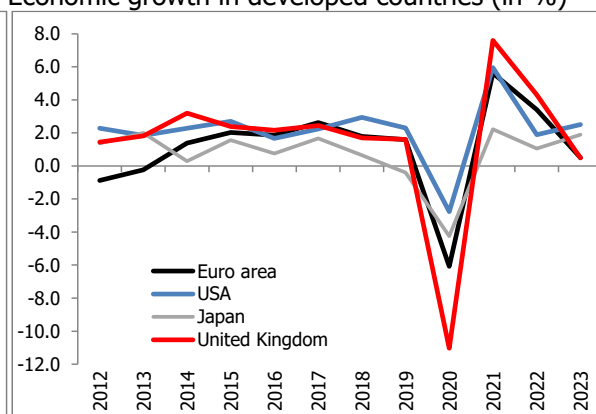


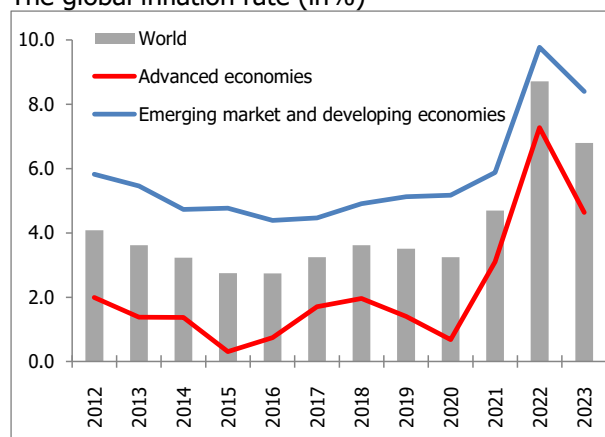
Chart 10  
Economic growth in developed countries (in %)



Source: World Economic Outlook, October 2023 and updated report dated January 2024, IMF

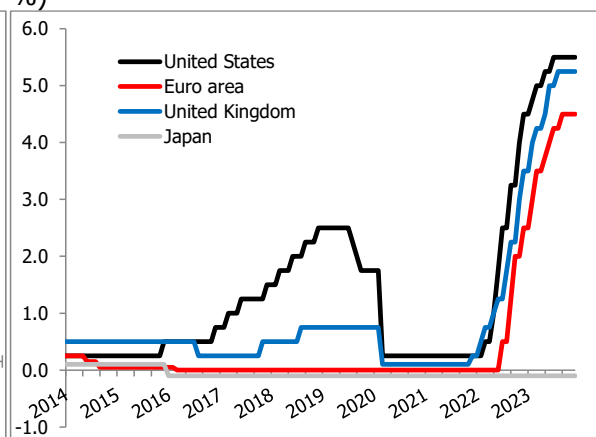
The global inflation decelerated in 2023, reducing to 6.8% (8.7% in 2022), mainly due to favorable movements of food and energy prices on the international market, after the record levels in the previous year, as well as the monetary tightening by central banks, which contributed to maintaining the inflation expectations low and downward movement of the core inflation throughout the year. By groups of countries, in 2023, the inflation in developed countries dropped to 4.6% (7.3% in 2022), and in emerging and developing economies to 8.4%, on average (9.8% in 2022). The price pressures of domestic factors, although existing, weakened towards the end of the year, amid slightly tightened labor market, which is reflected by the decrease in the number of vacant posts, slight increase in unemployment and increased labor supply.

Chart 11  
The global inflation rate (in%)



Source: World Economic Outlook, October 2023 and updated report dated January 2024, IMF

Chart 12 Policy rates in developed countries (in %)



Source: Central banks.

Relative to the quantitative indicators that depict the external environment of the Macedonian economy, the growth of the estimated foreign effective demand further decelerated in 2023. The evaluations point to a small growth of foreign effective demand of 0.4% (2.6% in 2022), with the largest contribution of the neighboring countries Bulgaria and Greece, while Germany, as our major trading partner has adverse impact on foreign demand, amid estimates for a decline in economic activity. The slower growth in foreign effective demand primarily reflects the weak performances in the euro area countries, which faced significantly deteriorated foreign trade. Foreign effective inflation decelerated in 2023 as well,

after the growth in the previous year, and amounted to 7.7% (9.7% in 2022), with the largest contribution of Germany, Serbia and Poland<sup>2</sup>.

Chart 13  
Foreign effective demand

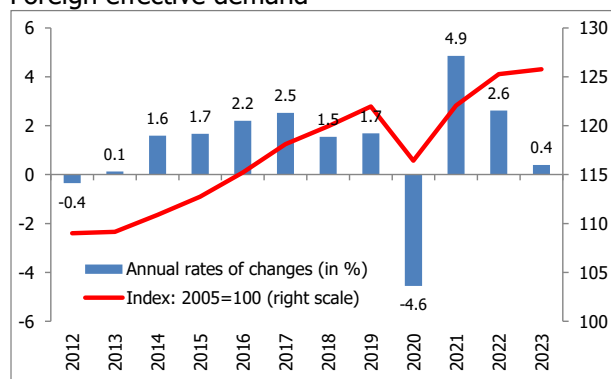
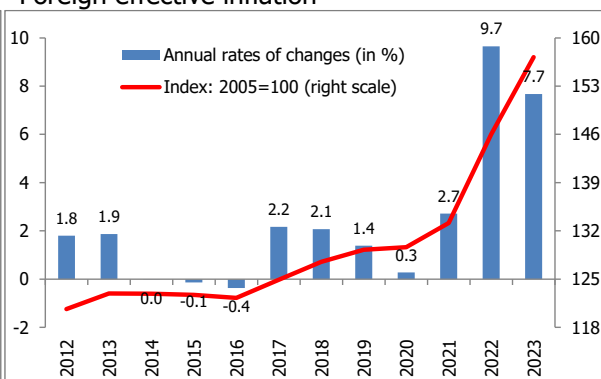


Chart 14  
Foreign effective inflation



Source: National statistical offices and calculations of the NBRNM<sup>3</sup>.

In 2023, primary commodity markets registered an average decline in prices compared to 2022, which was largely due to the high base effect after the escalation of the war in Ukraine in the previous year. The average price of crude oil in 2023 equaled Euro 76.2 per barrel, which is a decline of 19.1% compared to 2022 (Euro 94.1 per barrel). Therefore, by the end of the year the price of oil dropped below Euro 70 per barrel, which was driven by the concern in terms of the global economy growth. After this, the price remained high until the end the year, amid reduced supply by OPEC+, decline in oil inventories globally and supply-related risks due to the conflict in the Middle East. In 2023, the prices of food products on the world stock market declined by 9.3%, with a slight decline in prices of primary metals of 4.9%.

Chart 15  
Monthly movement of prices of primary energy and non-energy sources (euros, index: 2016=100)

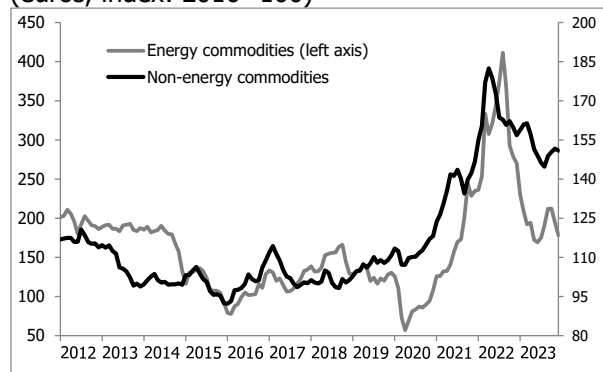
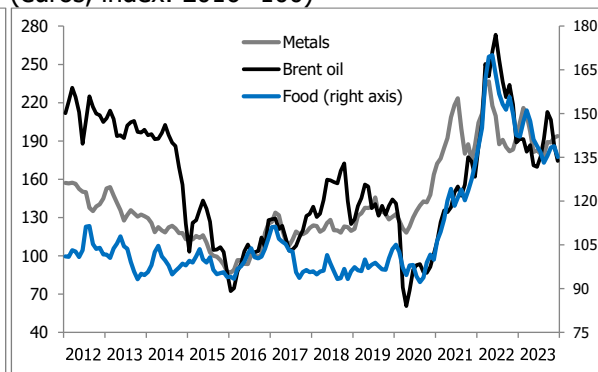


Chart 16  
Monthly movement of prices of crude oil, metals<sup>4</sup> and food (euros, index: 2016=100)



Source: IMF's database on primary commodity prices.

<sup>2</sup> Inflation in Serbia and Poland was adjusted for the changes in the exchange rate.

<sup>3</sup> Foreign effective demand is the sum of weighted GDP indices of the major trading partners of our country. The index calculation includes: Germany, Greece, Italy, the Netherlands, Belgium, Spain, Serbia, Croatia, Slovenia and Bulgaria. The weights are calculated on the basis of the share of exports to these countries in the total export. The foreign effective inflation is the weighted sum of consumer price indices of the countries that are major partners of our country in the field of import of consumer goods. The weight structure is based on the normalized shares of nominal imports from each country in the total nominal imports in the period 2016– 2018. The calculation of this indicator includes: Germany, Greece, France, Italy, Spain, Austria, Slovenia, Bulgaria, Poland, Croatia and Serbia.

<sup>4</sup> Metals Price Index is a composite index, which includes prices of copper, aluminum, iron ore, tin, nickel, zinc, lead and uranium.

In 2023, given the expectations that inflation will remain above the target level for a longer period, central banks, in developed countries continued with the monetary policy tightening, yet more moderate compared to the previous year. Thus, the last increase in policy rate for 2023 by the FED was in July, by 0.25 percentage points, following the upward correction of the interest rate on three occasions, including March, when it faced turmoil in the banking sector. Thus, in December 2023, it varied from 5.25% to 5.5%. Also, the FED continued reducing the government and mortgage-backed securities during the year. Same as FED, the Bank of England continued with stronger monetary tightening in the first half of the year, when the policy rate increased by 1.5 percentage points cumulatively. In the period ahead, in conditions of inflation slowdown, the policy rate increased by only 0.25 percentage points in August, amounting to 5.25% in December. Furthermore, the assets sale programme through reduction of the securities portfolio in the central banks' balance sheets was implemented during the year.

The European Central Bank (ECB), after the increase in the three policy rates by 1.0 percentage points cumulatively during the first quarter, made an upward correction by 0.5 percentage points in the next two quarters of 2023, amid mitigated price pressures (the inflation rate in the Euro area decelerated and dropped from 8.4% in 2022 to 5.4% in 2023). In the last quarter of the year, amid estimates that the monetary setup is adequate for reducing the inflation within the target level in the following medium-term period, the ECB kept the policy rates, thus the interest rate on deposit facilities, the main re-financing operations and the overnight loan facilities remained at 4.0%, 4.5% and 4.75%, respectively. Thus, as of July the ECB ceased reinvesting the due securities within the Assets Purchase Programme (APP), which gradually and at the determined pace reduced the portfolio within this programme, while at the meeting in December decided to gradually decrease the portfolio within the Pandemic Emergency Purchase Programme (PEPP) in the second half of 2024 and to cease reinvesting due securities within this programme at the end of the year.

### III. Macroeconomic developments in 2023

Table 1  
Basic indicators for the Macedonian economy

annual changes, in %	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>Real sector</b>										
Gross domestic product *	3.6	3.9	2.8	1.1	2.9	3.9	-4.7	4.5	2.2	1.0
Inflation	-0.3	-0.3	-0.2	1.4	1.5	0.8	1.2	3.2	14.2	9.4
Unemployment rate	28.0	26.1	23.7	22.4	20.7	17.3	16.4	15.4	14.4	13.1
<b>External sector</b>										
Current account balance (% of GDP)	-0.4	-1.8	-2.6	-0.8	0.2	-3.0	-2.9	-2.8	-6.1	0.7
Trade balance (% of GDP)	-21.7	-20.1	-18.8	-17.8	-16.2	-17.3	-16.6	-19.7	-26.7	-18.2
Foreign direct investments (% of GDP)	2.3	2.2	3.3	1.8	5.6	3.2	1.4	3.3	5.0	3.7
Gross external debt (% of GDP) **	70.0	69.3	74.7	73.4	73.0	72.4	78.7	79.8	79.4	81.3
Gross foreign exchange reserves (in EUR million)	2,436.5	2,261.8	2,613.4	2,336.3	2,867.1	3,262.6	3,359.9	3,643.3	3,862.9	4,538.5
<b>Monetary sector</b>										
Money supply (M4)	10.6	6.9	6.2	5.1	11.8	9.3	6.9	7.0	5.1	8.7
Total credits	10.0	9.6	6,5***	5.4	7.3	7,6***	4.7	8.3	9.4	5.1
Total deposits (including transaction deposits)	10.5	6.4	6.1	5.0	12.1	9.0	5.7	7.5	4.9	9.1
<b>Fiscal sector</b>										
Budget balance (% of GDP)	-4.2	-3.5	-2.7	-2.7	-1.8	-2.0	-8.0	-5.3	-4.4	-4.9
Public debt (% of GDP)	45.8	46.6	48.8	47.7	48.4	49.2	59.7	60.3	59.1	62.1
<b>Banking sector</b>										
Capital adequacy ratio (%)	15.7	15.5	15.2	15.7	16.5	16.3	16.7	17.3	17.7	18.1
Non-performing loans of the non-financial sector / Gross loans (%)	11.3	10.8	6.6	6.3	5.2	4.8	3.4	3.2	2.9	2.8
Liquid assets / Total assets (%)	29.8	28.2	28.9	27.1	26.7	26.9	23.3	23.0	21.3	22.7

Source: NBRNM, SSO, Ministry of Finance.

\* Preliminary data for 2022, estimate for 2023.

\*\* Excluding liabilities of the monetary authority (without repo agreements)

\*\*\* Corrected for the write-offs.

### 3.1. GDP and inflation

In 2023, **the real growth of the Macedonian economy decelerated and reduced to 1%**<sup>5</sup>, as opposed to the 2.2% in the previous year. The slowdown partly reflects the external environment which is still unfavorable, amid geopolitical tensions, reduced trade and reduced confidence of economic entities, with current inflationary pressures and tightened financial conditions. At the same time, the decline in investments made larger contribution to the slower growth. This was primarily associated with the adjustment of corporate sector inventories, after their growth in the previous period due to increased uncertainty, especially pronounced in the war in Ukraine and the uncertainty in terms of availability and prices of raw materials and energy.

Observed by components on the demand side, the growth of economic activity in 2023 was due to positive contribution of net exports. The change in net exports reflects the reduced import, which is partly related to the sharp decline in investments. On the other hand, slight decrease was registered in export activity, following the fast growth in the previous two years, which is partly related to the unfavorable global conjuncture. Domestic demand in 2023 made a negative contribution, amid significant decline in gross investments, due to adjustment of inventories, with a slight decline in public consumption as well. Private consumption further grew, yet at a slower pace, primarily due to the growth in disposable income, credit support, as well as the government measures to support the economy and the living standard of households.

Chart 17

GDP and foreign effective demand (annual real growth rates, in %)

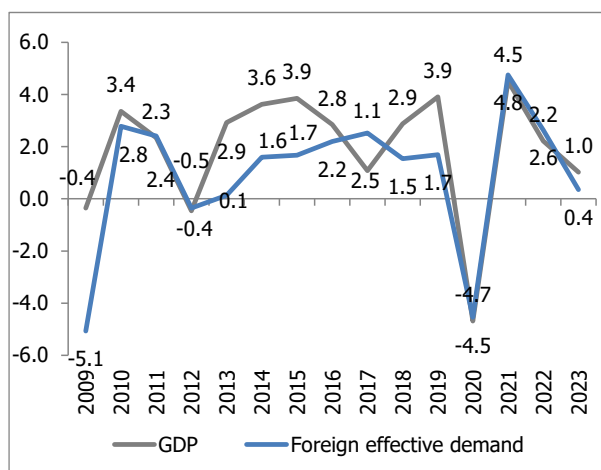
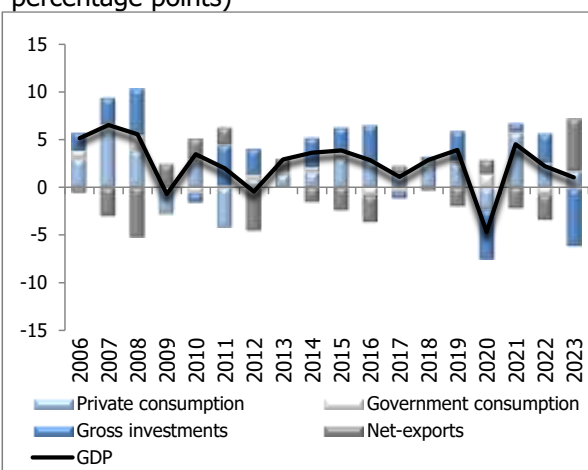


Chart 18

GDP (real growth, in %) and GDP expenditure components (contributions to growth, in percentage points)

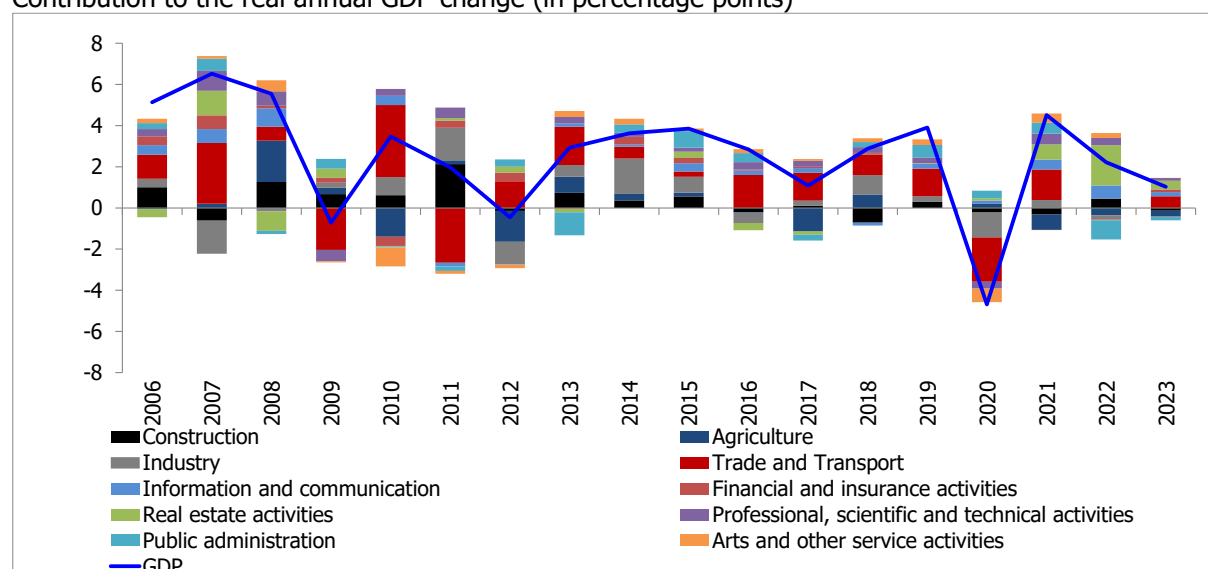


Source: State Statistical Office and Eurostat, NBRNM calculations GDP data for 2022 are preliminary, and data for 2023 are estimated.

<sup>5</sup> In 2023, real GDP was as followed: 1.4% in the first quarter, 0.9% in the second quarter, 1% in the third quarter and 0.9% in the fourth quarter.

Chart 19

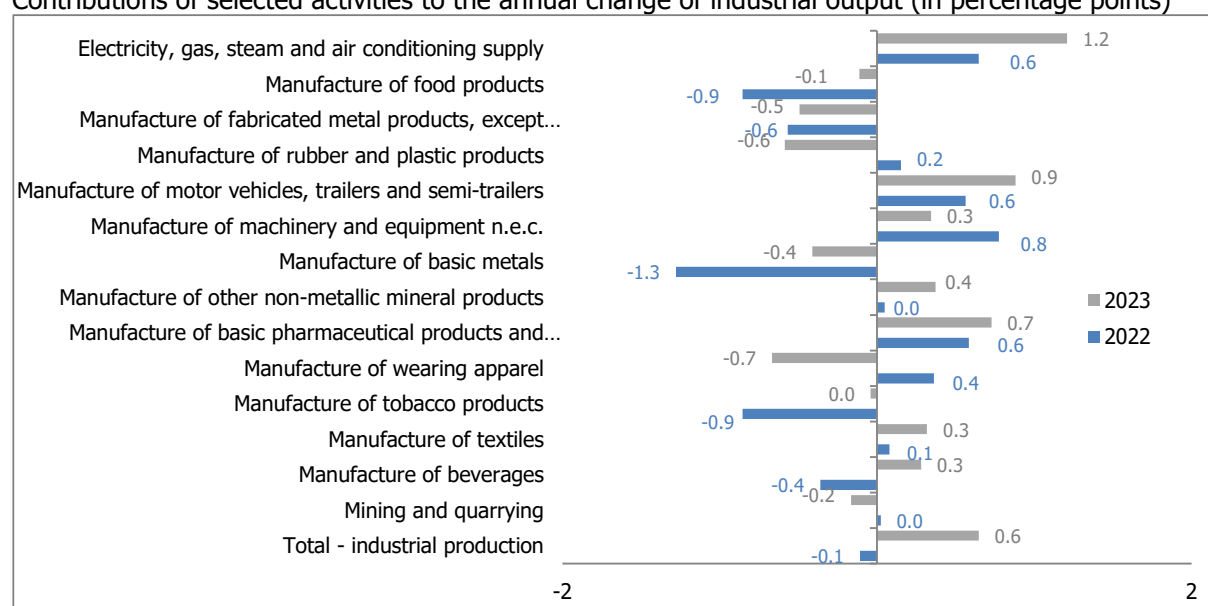
Contribution to the real annual GDP change (in percentage points)



Source: State Statistical Office and National Bank calculations GDP data for 2022 are preliminary, and data for 2023 are estimated.

Chart 20

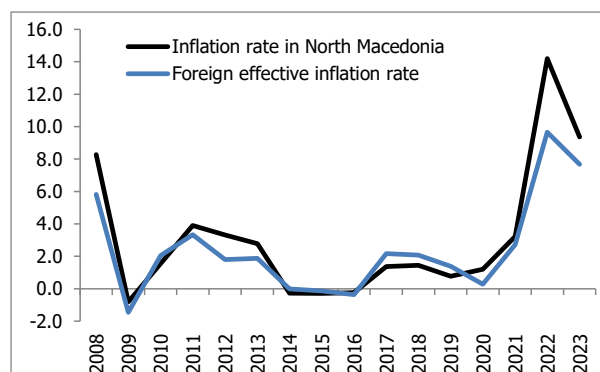
Contributions of selected activities to the annual change of industrial output (in percentage points)



Source: State Statistical Office and NBRNM

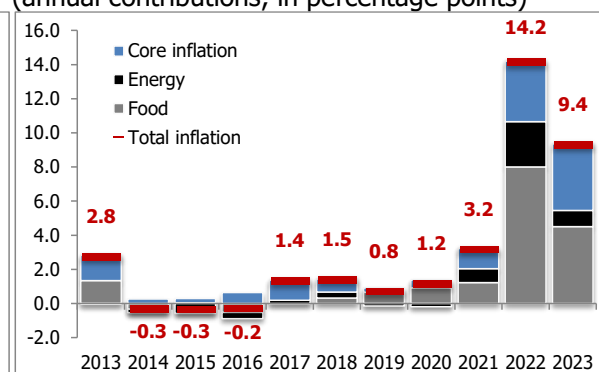
After the significant growth in consumer prices in 2022, the annual inflation rate gradually decelerated during 2023, in accordance with the price movements in primary commodities on the global markets, the deceleration of the foreign import inflation, as well as with the continuous gradual monetary tightening, thus **reducing the average inflation to a single-digit level of 9.4%**. Observing the structure, the largest effect on such dynamics was made by the lower contribution of food prices to inflation, coupled with the downward growth path of energy prices. Also, the economic measures had an impact on the movement of consumer prices, through a decrease and freezing of prices and relaxation of custom duties for certain food products.

Chart 21  
Domestic inflation and foreign effective inflation  
(growth rates, in %)



Source: State Statistical Office, Eurostat and NBRNM calculations.

Chart 22  
Volatile (food and energy) and long-term  
component of inflation  
(annual contributions, in percentage points)



Despite the significant slowdown, **the food prices** registered a double-digit growth in 2023 of 11.8%, accounting for almost half of the total increase in consumer prices. During 2023, the primary commodity prices on the international market moved mostly downward, amid active economic measures to mitigate price pressures in food products<sup>6</sup>. This contributed to significant slowdown in prices of certain groups of products, such as *bread and cereals* and *milk, cheese and eggs*, as well as a decline in the prices of edible oils. However, the prices of bread, grain and milk products remained high, accounting for 46.3% of the growth in food component, with the largest individual contribution of the prices of meat. Dynamically, the annual growth in food prices decelerated during the year, thus reducing to 0.8% in the last quarter, amid high base effect and short-term measures to reduce and freeze the prices of certain food products in retail trade.

**The energy prices** grew by 7.3%, making up around 10% of the total inflation. The electricity prices for households were the main cause for the price growth in the energy

<sup>6</sup> On 28 February 2023, the Government of the RNM adopted a decision on freezing the price of bread in the period from 1 March to 31 May 2023. At the same time, the Government adopted a decision on abolishing the subsidized price of electricity for food industry companies ([link](#)). On 10 March, the Government adopted a decision on reducing, i.e. freezing the prices of part of the pastas and some of the milk products in the period from 16 March to 31 May 2023. Thus, the prices of macaroni and spaghetti reduced by 15% relative to those applied in retail trade on 1 March and remained frozen until the end of May. In addition, a decision on abolishing the customs duties on pastas was also adopted for the period from 13 March to 31 May 2023. The prices of certain dairy products reduced by 10% relative to those applied in retail trade on 1 March and remained frozen until the measure was in effect ([link](#)). On 21 March, the Government adopted a decision on freezing the prices of fresh chicken eggs and rice at the level valid on 15 March in retail trade, which applied until 30 April 2023 ([link](#)). Also, the Government adopted a Decision on 3 April ([link](#)), and amendment to the Decision on 11 April ([link](#)) on setting the highest prices of certain fruits and vegetables in retail trade. This measure was initially in effect for the period from 5 to 30 April, and then the Government decided to apply the measure until 31 May 2023 ([link](#)). Besides the interventions in the prices of food products, on 29 March the Government adopted a decision on reducing, i.e. freezing the prices of some hygienic products for the period from 1 April to 31 May 2023. Thus, the prices of these products reduced by 13% relative to those applied in retail trade on 20 March and remained frozen until the measure was in effect ([link](#)). Also, on 25 April, the Government adopted a decision on extending the application of the already determined highest trade margins in wholesale and retail trade for certain food products until 30 June 2023 ([link](#)). On 19 September, the Government of the RNM adopted a decision to reduce the prices of products within 24 categories of the bakery, milk, meat industry and agriculture of at least 10% in relation to the price they had on 1 August 2023 and to freeze them at that level, while retail traders were required to label these products with "guaranteed price" ([link](#)). Also, on 26 September, the Government prescribed, by a special decision, the highest trade (profit) margin in the trade in fresh fruits and vegetables in a total amount of up to 10% in wholesale trade and of up to 15% in retail trade ([link](#)). These decisions were initially in effect until November 2023, then their application was extended until the end of 2023 ([link](#)), and then as of February 2024 ([link](#)). On 28 September, the Government adopted a decision to raise the import duties on the imports of citrus fruits, which was in effect as of December 2023, as well as a decision to reduce the import duties (trade margins and duties) on the imports of fresh vegetables, with validity until February 2024 ([link](#)). The government decision to increase the preferential VAT rate from 5% to 10% of some of the food products acted in the opposite direction, adopted on 28 September initially ([link](#)), with amendments to the decision of 10 October ([link](#)).



component, in line with their regulatory rise in January and July<sup>7</sup>, while the transmission effect of the increase in the price of firewood in mid-2022 contributed additionally. The decline in the prices of oil derivatives acted in an opposite direction, amid lower prices of crude oil on the world stock markets and depreciation of the US dollar. Dynamically, the growth in energy component also moved downward, amid favorable movements in energy prices on the international market, as well as high base effect.

**The core inflation** in 2023 amounted to 8.0% and accounted for 41.7% of the total increase in consumer prices. The growth of this component was mostly due to higher prices of catering services. Significant contribution was also made by the prices of products for household maintenance and personal hygiene, prices of non-alcoholic beverages<sup>8</sup>, as well as prices of tobacco products due to increased excise duty<sup>9</sup>. The annual rate of core inflation during the year moved mainly downward, but on the average it is higher compared to the previous year (7.1%), given that the transmission from the significant growth of import prices of energy and food during 2022 on the prices of other products and services in the price index is slightly late and was most intensive in early 2023.

### 3.2. Labor market

The developments on the labor market are an important segment of the overall macroeconomic landscape of the domestic economy, given the effects of the supply and demand of labor force on the economic growth, productivity and labor costs. However, in recent years the changes in this segment of the national statistics deprive the overall dynamic analysis of this market segment in our country. In addition to the changes due to the 2021 Census of Population, larger methodological changes in the Labor Force Survey were made in the beginning of 2023, thus within this report the labor market developments and changes compared to the previous period cannot be comprehensively analyzed<sup>10</sup>.

According to the latest LFS, in 2023, the total number of employees in the economy equaled 688,296 persons, with an employment rate of 45.4%. The number of unemployed amounted to 103,351 person, amid unemployment rate of 13.1%. The activity rate was stable during the year at 52.3%, with higher activity of men (62%) compared to the activity of women (42.8%).

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<sup>7</sup> In accordance with the decision of the Energy Regulatory Commission (ERC), in January 2023 the following changes have been made to the price of electricity for the universal supplier, as follows: the price in the first and second block went down by 4.11% and 2.95% respectively, while the price in the third and fourth block increased by 0.85% and 7.65% respectively ([press release](#)), and the price of the low tariff increased to Denar 1.3183/kWh from Denar 0.6193/kWh earlier. Also, in January 2023 the tax rate for the turnover of electricity to households increased from 5% to 10%. In July 2023 the following changes have been made to the price of electricity for the universal supplier, as follows: the price in the first and second block went down by 7.04% and 4.09% respectively, while the price in the third and fourth block increased by 2.54% and 2.42% respectively ([press release](#)), and the price of the low tariff increased to Denar 1,4013/kWh earlier. Moreover, as of July 2023 the tax rate for the turnover of electricity to households is 18%. In accordance with the State Statistical Office data, the average price of electricity for households increased by 3.7% in January and 4.2% in July, on a monthly basis.

<sup>8</sup> The growth in the prices of non-alcoholic beverages significantly decelerated in the last quarter of the year, given that the Government, as of 26 September 2023, adopted a decision on reducing and freezing the prices of non-alcoholic beverages, water and beer ([link](#)). This decision was initially in effect until November 2023, then its application was extended until the end of 2023, with a revised list of products ([link](#)), and additionally, as of February 2024 ([link](#)).

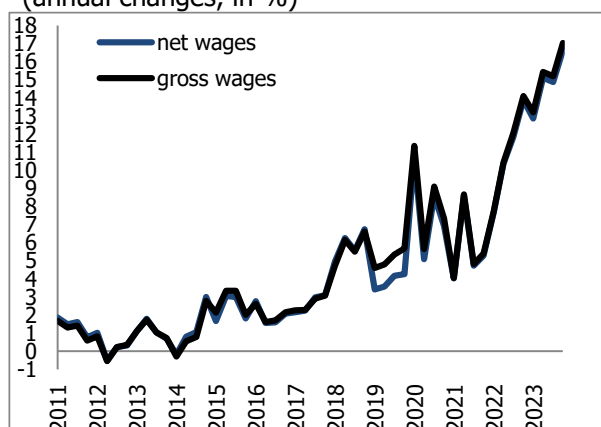
<sup>9</sup> The changes in the excise were made in April and November. There was a regular annual increase in excise duty in April, before the adoption of the amendments to the Law on Excise in 2023, according to which the excise duty on tobacco increased by Denar 0.23 per piece (Denar 0.2 previously) every year until 2030. As for the other tobacco products, see the amendments on the following [link](#).

<sup>10</sup> Data on the labor force for 2023 are incomparable to the data from the previous years, since the SSO introduced the new EU regulation in 2023. The implementation of the new regulation caused changes in the research, starting from the changes in the design of the questionnaire, changes in the order of the questions, modifying and removing current and adding new questions, changes in the scope and definition of employment and unemployment. The changes mentioned have caused termination of the time series of data. Therefore, this part of the Annual Report is in a modified and shortened version, until obtaining processed and harmonized data for the past years.



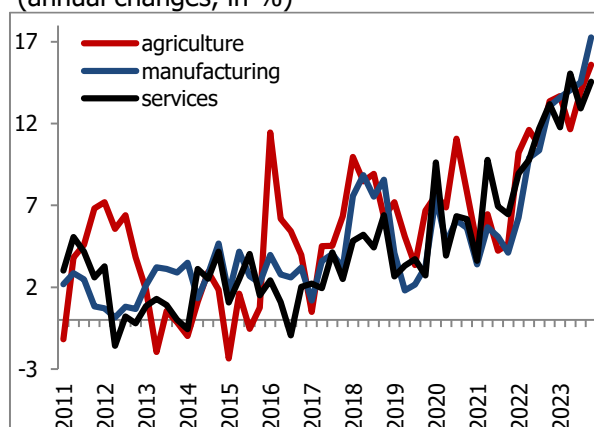
Faster nominal growth of the average wage paid was registered in 2023 as well. In addition to the increase in the minimal wage in the economy (of 12.6% in March 2023), the annual wage growth mostly reflects the wage growth of the public sector employees, on several occasions during the year: primarily with the growth of the minimal wage<sup>11</sup>, followed by the increase in the wages of officials<sup>12</sup> in April 2023, the increase in the wages of health workers<sup>13</sup> from May 2023, as well as the increase in September 2023 in accordance with the new public sector collective bargaining agreement<sup>14</sup>. The general growth in the minimum wage was driven by the existence of certain structural factors, such as lack of labor force in some labor market segments. Consequently, nominal net and gross wages<sup>15</sup> registered an annual growth of 14.9%<sup>16</sup> and 15.3%, respectively (11% and 11.1%, respectively in 2022). Annual growth of net wages was registered in all activities, with the largest growth in construction activities (18.9%), public administration and defense, mandatory social insurance (17.7%), administrative and auxiliary services (17.2%), education (17.1%), water supply; sewerage, waste management and environmental recovery activities (15.9%), manufacturing industry (15.7%) and accommodation (15%). Amid slower growth in general consumer prices, the real net and gross wages increased by 5.1% and 5.4%, respectively (as opposed to the decline of 2.8% and 2.7%, respectively in 2022).

Chart 13  
Average gross and net wages  
(annual changes, in %)



Source: State Statistical Office and NBRNM calculations

Chart 24  
Average net wages, by sector  
(annual changes, in %)



<sup>11</sup> In accordance with the latest amendments to the growth of the minimum wage (Official Gazette of the Republic of North Macedonia No. 58/23) from March 2023, the minimum net wage increased by Denar 2,175. The minimum gross wage, from March 2023 to February 2024, is Denar 29,739 (previously Denar 26,422), i.e. the minimum net wage is Denar 20,175 (previously Denar 18,000). This increase is calculated in accordance with last year's methodology, which will adjust the minimum wage, and is calculated in accordance with the increase of the average wage paid in the RNM for the previous year and the consumer price index - 50% of the increase of each indicator, respectively. Moreover, it is defined that the minimum wage cannot be lower than 57% of the average net wage paid in the RNM for the previous year. In accordance with the Law on Minimum Wage, there was also a linear growth of 2,175 Denars in the public administration wages due to harmonization with the minimum wage, in accordance with the legislation.

<sup>12</sup> As of April 2023 the wages of officials increased by 78%.

<sup>13</sup> <https://vlada.mk/node/33235>

<sup>14</sup> In July 2023, the Government signed a new Labor Agreement for the public sector, which includes increase in the wages by 10% from September 2023, an additional increase in September 2024 if the annual inflation rate in the first six months of 2024 exceeds 3% (the gross wage increases in the amount of up to 3%) and a review of the wage determining methodology from March 2025 which links the basic gross wage to the average gross wage in the country by increasing the complexity ratio by at least 5%. Also, the complexity ratio at the workplace will be harmonized with the nominal growth of GDP, if it is lower than the increase in the average gross wage.

<sup>15</sup> Total gross wages paid include: net wages paid for the reporting month, paid income tax and paid contributions (pension and disability insurance, health insurance, employment, occupational disease). The data concern wages paid.

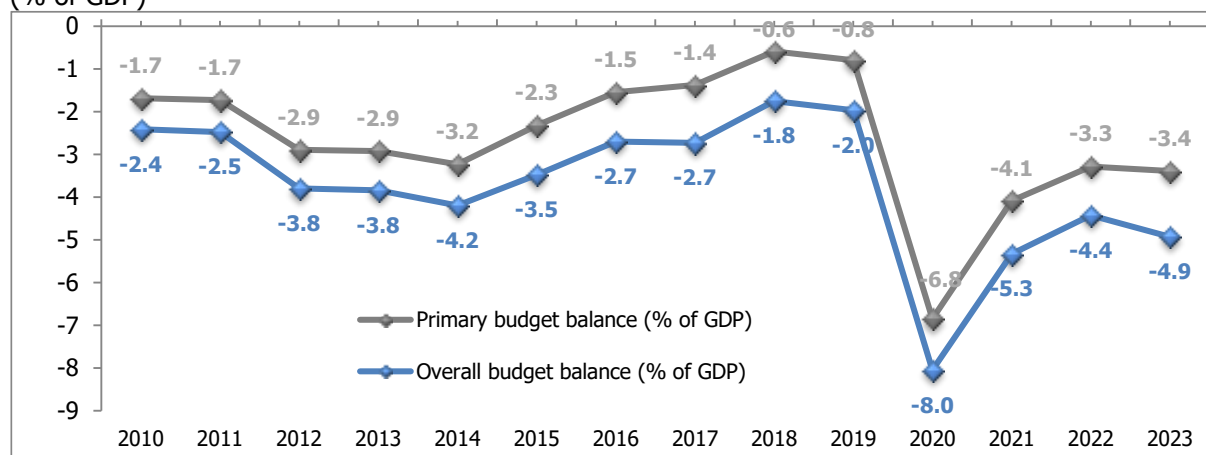
<sup>16</sup> The rates at which contributions are paid in 2023 are 18.8% for compulsory pension and disability insurance and 7.5% for compulsory health insurance, as in the previous year.

### 3.3. Public finance

During 2023, the budget deficit moderately deepened and reached 4.9% of GDP (4.4% of GDP in the previous year). The increased deficit results from the faster growth in budget expenditures compared to the growth in budget revenues, which is mostly due to higher capital costs related to financing the construction of road corridors 8 and 10d. On the other hand, the primary budget balance<sup>17</sup> stood at 3.4% of GDP, similar to 2022.

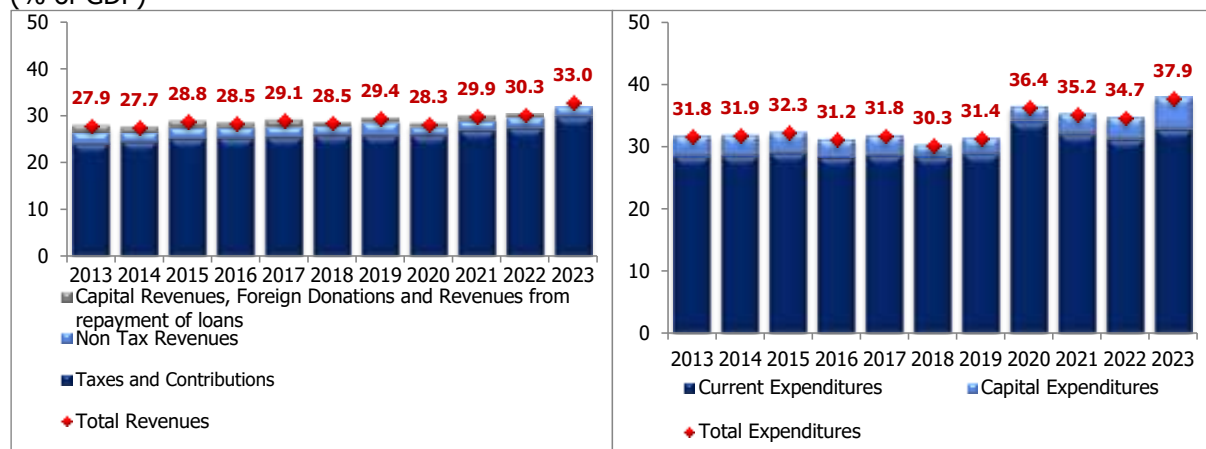
There was no Budget revision during 2023, but two reallocations, with changes in the structure of costs and deficit financing (through larger domestic borrowing and growth in the assets on the Government's account with the National Bank). The deficit at the end of the year is slightly lower than the planned, by Denar 1,336 million, or by around 0.2 percentage points of GDP.

Chart 25  
Fiscal indicators  
(% of GDP)



Source: Ministry of Finance and NBRNM calculations.

Chart 26  
Total budget revenues and expenditures and main components  
(% of GDP)



Source: Ministry of Finance and NBRNM calculations.

<sup>17</sup> Primary budget balance is the difference between total budget revenues and total budget expenses, less the repayment of current loan (interest) liabilities. This fiscal indicator is considered more appropriate for the analysis of the current policy course, due to the fact that it does not include fiscal costs related to past conduct of fiscal policy relative to the public debt.

The total budget income in 2023 went higher by 14.0% on annual basis (after the increase of 11.5% in the preceding year). Their increase in the total income stems from the increase in almost all categories<sup>18</sup>, except to non-tax revenues which recorded a decrease. In 2023, budget expenditures recorded a growth of 14.3% on an annual basis (growth of 8.4% in the previous year). The increase in expenditures is primarily due to capital costs, which are higher by 52.0% annually (growth of 22.3% in the previous year), amid increase in current expenditures by 10.0% annually (increase of 7.0% in the previous year). The annual growth of capital expenditures is almost entirely due to transfers to the Public Enterprise for State Roads, to start the construction and modernization of the road infrastructure for corridor 8 and corridor 10d. The growth of current expenditures is mostly due to the growth of the category transfers<sup>19</sup> which is associated with the financial support to the energy sector<sup>20</sup> and higher pension expenses<sup>21</sup>. The budget deficit realized in 2023 was mostly financed through net borrowing of the Government on the domestic market<sup>22</sup>, and through net borrowing on the foreign<sup>23</sup> market, amid slight growth of the Government's deposits with the National Bank.

<sup>18</sup> In March 2023, there was an increased in foreign donations due to the grant from the EU in the amount of Euro 72 million, intended for dealing with the energy crisis, while in the period from October to December around Denar 3,000 million were collected from the solidarity tax.

<sup>19</sup> Category of transfers include pension expenses, social security costs, health care costs and other transfers (mainly subsidies).

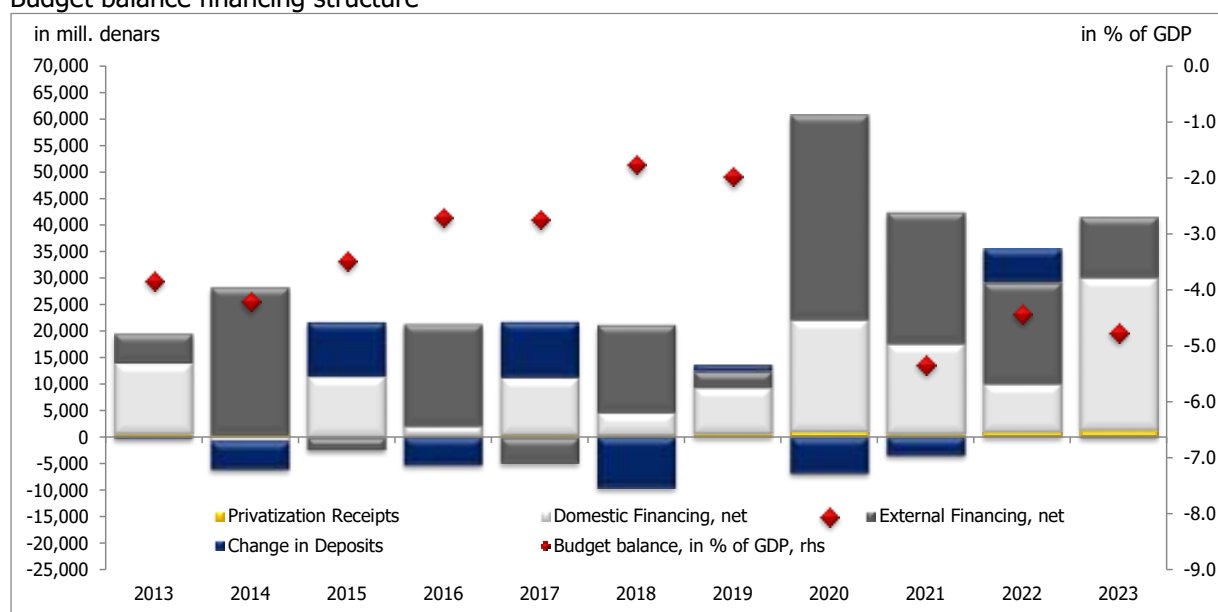
<sup>20</sup> In the period from May to June 2023, a state aid of Denar 3,000 million was paid to the energy sector.

<sup>21</sup> Pension expenses increased due to their growth of 8.4% in March and 5.3% in September 2023 based on regular adjustment of pensions (to the increase in the cost of living). Also, in the period from January to February 2023, financial assistance of Denar 1,500 per month was paid to every pensioner that receives a pension up to Denar 11,525 and Denar 750 for pensioners with a pension from Denar 11,525 to 14,000, in accordance with the measures to help the most vulnerable groups of citizens adopted in October 2022. Also, the ninth set of government measures were adopted in November, in accordance with which Denar 3000 were paid to unemployed and welfare users. As of December 2023, and the following five months, the pensioners with pensions up to Denar 14,000 will receive Denars 3,000 per month, those with pensions from Denar 14000 to 16000 will receive Denar 2000 per month, while pensioners with pensions from Denar 16,000 to 19,000 will receive support of Denar 1,500 in the next five months.

<sup>22</sup> The government borrowing on the domestic market, besides from the issued continuous government securities following a regular procedure, also results from several other, i.e. newly-introduced bonds such as: Civil and green bond. The first civil bond in the amount of Denar 1,448 million at an interest rate of 5% and with a maturity of two years was issued in July, while the second one in November, in the amount of Denar 1,085 million at an interest rate of 5% and with a maturity of two years. Also, the first green bond was issued in October in the amount of Denar 600 million, at an interest rate of 4.75% and with a maturity of two years.

<sup>23</sup> In March, the ninth Eurobond in the amount of Euro 500 million was issued, at a coupon rate of 6.96% and with a maturity of four years. In contrast, in July, the Eurobond issued in July 2016 was fully paid, in the amount of Euro 450 million, with a 7-year maturity and an interest rate of 5.625%. The following loans were received in December: from the World Bank in the amount of about Euro 94 million, from OPEC in the amount of about Euro 50 million and from the KfW bank of about Euro 90 million.

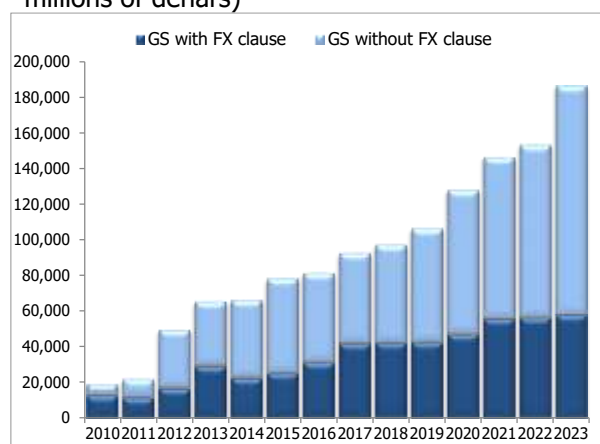
Chart 27  
Budget balance financing structure\*



\* Negative growth of deposits in the financing structure of the budget balance represents growth of government deposits.  
Source: Ministry of Finance and NBRNM calculations.

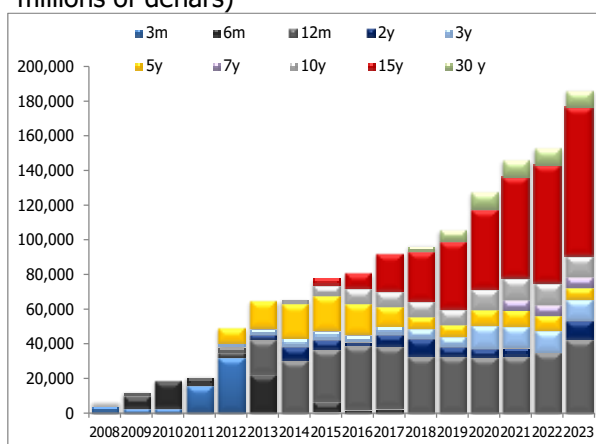
Relating the financing through the primary securities market, the stock of issued securities increased by Denar 33,264 million, reaching Denar 186,586 million at the end of the year. The maturity of most of the new issues of government securities was longer than the maturity of securities that were about to fall due, which increased the average maturity of issued government securities, enhanced this financial market segment and increased the share of government bonds in the government securities structure. In addition, favorable movements continued in the currency structure seen through the fast growth of issued government securities in domestic currency.

Chart 28  
Currency structure of government securities (in millions of denars)



Source: Ministry of finance and NBRNM.

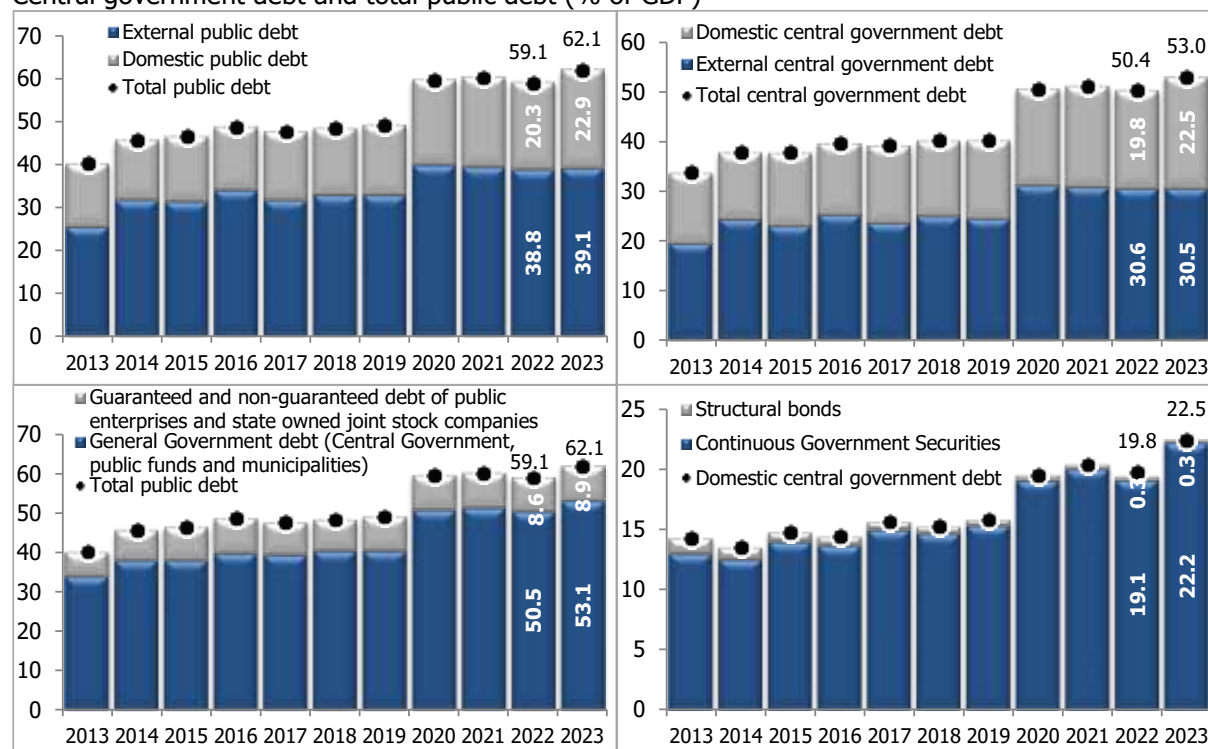
Chart 29  
Maturity structure of government securities (in millions of denars)



In terms of total government indebtedness, the debt of the central government in 2023 amounted to 53.0% of GDP, against 50.4% of GDP in 2022. Amid slight decrease in external debt of the central government, which amounted to 30.5% of GDP (30.6% of GDP in the previous month), the total debt growth results from the moderate increase in the internal debt, which equals 22.5% of GDP (19.8% of GDP in the previous year). There are

similar movements in total public debt<sup>24</sup>, which at the end of 2023 reached 62.1% of GDP (59.1% of GDP in the previous year), amid slightly higher external public debt (39.1% of GDP) and moderate increase in internal public debt (22.9% of GDP). Within the public debt, the total government debt (debt of central government, public funds and municipalities) in 2023 equaled 53.1% of GDP and is higher compared to the previous year, while the debt of public enterprises (guaranteed and non-guaranteed)<sup>25</sup> increased to 8.9% of GDP. Observing the structure of the debt, similar to 2022, there are no significant changes, thus at the end of 2023 the share of the government debt in total public debt amounted to 85.6%, while the debt of public enterprises (guaranteed and non-guaranteed) accounted for 14.4%.

Chart 30  
Central government debt and total public debt (% of GDP)



Source: Ministry of Finance and NBRNM calculations.

### 3.4. Balance of payments, IIP and external debt

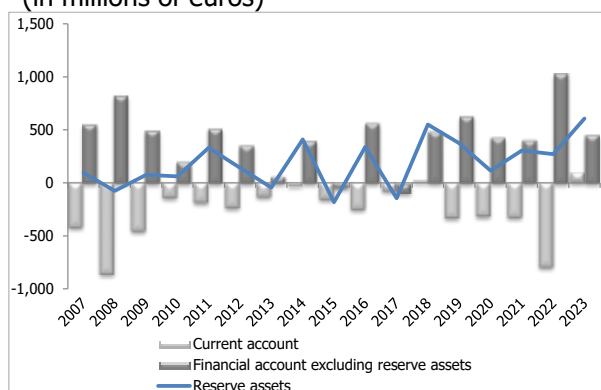
In 2023, the gradual stabilization of the global economy and more favorable conditions of trade, especially lower energy prices significantly improved the balance of payment position. A significant growth of foreign reserves was registered, amid **surplus on current account and net inflows on financial account**. Moreover, the positive current account balance in 2023 amounted to 0.7% of GDP, which is a significant improvement compared to the previous year, when the deficit equaled 6.1% of GDP. The improvement was mainly driven by the narrowing of the trade deficit, by 7.8 percentage points of GDP, with a major contribution of the downward adjustment of import component, amid minor decline in the export of goods.

<sup>24</sup> The public debt is defined under the Law on Public Debt (Official Gazette of the Republic of Macedonia No. 62/2005, 88/2008, 35/2011, 139/2014 and 98/2019) as the sum of the government debt and the debt of public companies established by the state or municipalities, municipalities within the City of Skopje and the City of Skopje, and companies that are entirely or predominantly owned by the state or by the municipalities, the municipalities within the City of Skopje and the City of Skopje.

<sup>25</sup> According to the amendments to the Law on Public Debt from May 2019, the non-guaranteed debt companies and joint stock companies established by the government or municipalities, municipalities within the City of Skopje and the City of Skopje is included in public debt (Official Gazette No. 62/2005, 88/2008, 35/2011, 139/2014 and 98/2019).

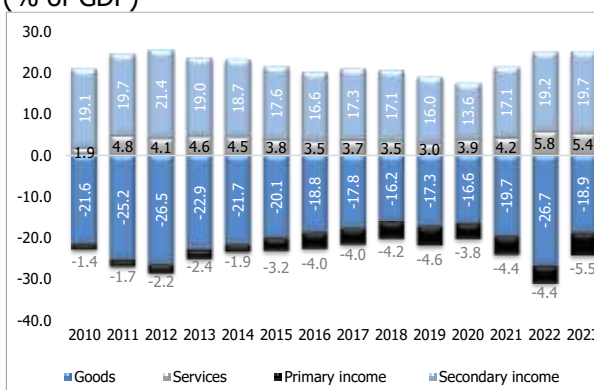
The improved international trade conditions and gradual exhaustion of the effects of increased inventories of raw materials in the previous period significantly lowered the import pressures on the market. The favorable movements were especially important on the energy market, where the prices were significantly reduced, which together with the reduced dependence of the domestic economy on energy import and increased domestic production of electricity, contributed to significantly improved energy balance and narrowed trade deficit. In terms of other balance of payment components, the improvement of the current account balance was also driven by the surplus in secondary income, which further increased annually (by 0.5 percentage points of GDP and reached 19.7% of GDP), amid further annual growth of the purchase of cash from the currency exchange market, as well as growth of official transfers. On the other hand, the movements in other current account components are less favorable compared to the previous year. Thus, higher deficit in primary income was registered (by 1.1 percentage points of GDP), due to higher outflows in investment income, which mostly reflects the stabilization of the operation of foreign facilities and the increase in newly generated profit. The exchange of services registered lower surplus compared to last year (by 0.4 percentage points of GDP), which reflects specific factors, i.e. increased imports of construction services related to road infrastructure construction (corridors 8 and 10d).

Chart 31  
Current and financial account  
(in millions of euros)



Source: NBRNM.

Chart 32  
Main current account components  
(% of GDP)



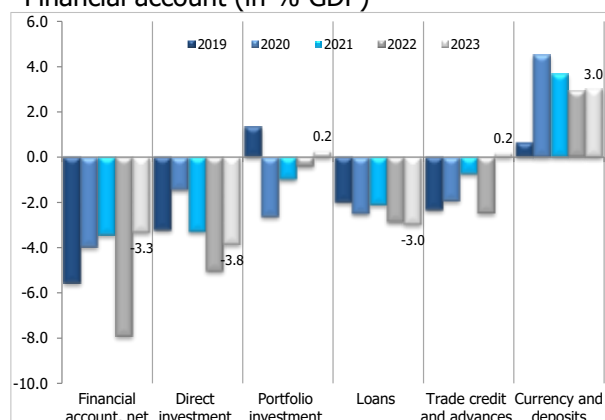
In 2023, there are net inflows in the financial account of the balance of payments in the amount of Euro 451.6 million, or 3.3% of GDP, lower compared to the last year. Net inflows in financial account are primarily due to net inflows in direct investments, as well as net inflows in loans. Foreign direct investments, net, in 2023 amounted to Euro 523.1 million, or 3.8% of GDP and albeit lower compared to 2022 (by 1.2 percentage points of GDP), they are solid and above the average in the last two decades. Analyzing the structure, the flows in foreign direct investments are favorable, with a growth in all three components, and the largest share of net inflows in the non-debt component, equity. The indebtedness of both private sector and the government, was a significant source of inflows on the financial account in 2023<sup>26</sup>, amid lower contribution of central bank activities for foreign reserves management (net inflows in short-term loans). On the other hand, currency and deposits registered high net outflows, which is fully due to the net outflows in other sectors. Investments of depository institutions in debt securities and investments of other financial institutions in equity securities contributed to net outflows in portfolio investments. The corporate sector deleveraging, i.e.

<sup>26</sup> In order to provide financial support to overcome the economic difficulties due to consecutive crises in the past period, in December 2023, the government borrowed from the KfV Bank (Euro 90 million), the World Bank (Euro 93.8 million) and the international development Fund within the oil exporting countries (OPEC) (the Loan Agreement for the Sustainability and Resilience Programme-Euro 50 million).



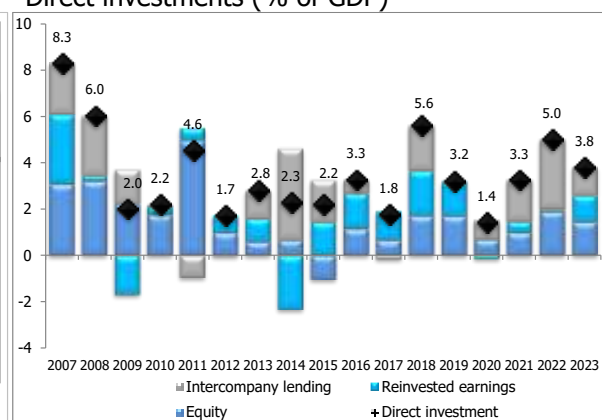
reduced liabilities based on commercial operations conditioned net outflows in the category trade loans and advances.

Chart 33  
Financial account (in % GDP)



Source: NBRNM.

Chart 34  
Direct investments (% of GDP)

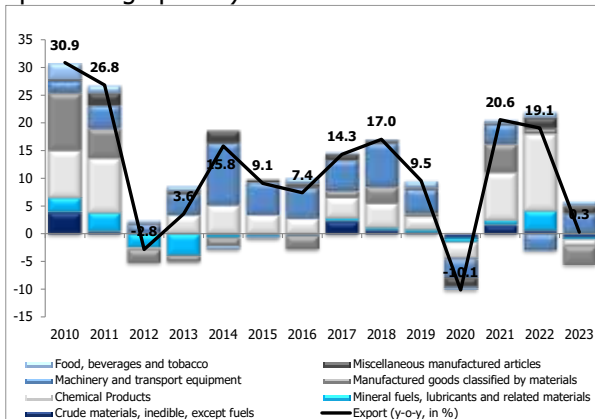


After the expansion of the trade deficit in the past two years, amid unfavorable global shocks, in 2023 it registered a significant decrease on an annual basis of 26.1% (or 8.7 percentage points of GDP). The narrowing of the deficit is primarily due to reduced import pressures, amid significantly improved terms of trade. The reduced import reflects the gradual exhaustion of the effects of the increase in companies' inventories in the past two years of significantly increased uncertainty.

As opposed to the double-digit nominal growth rates of export of goods (around 20% on average), there was a slight annual growth of 0.3% in 2023. Increased export was recorded in industrial facilities related to automotive industry, which was seen through the increase in the export of equipment and machinery, vehicles and furniture. Additional contribution was made by the traditional activities, especially the increase in the export of food, drinks and tobacco, products from the pharmaceutical and textile industry. On the other hand, the unfavorable conditions in the world markets, downward market prices and export demand, contributed to negative export performances in metal processing industry and mining, as categories that reduced the exports. The reduced export of energy had a similar impact, albeit with minor contribution, reflecting the lower import of oil derivatives, amid further, yet slower increase in electricity exports. The increased domestic production of electricity, amid lower domestic consumption, was partly due to unusually warm weather during winter, which contributed to further growth of electricity exports on an annual basis.

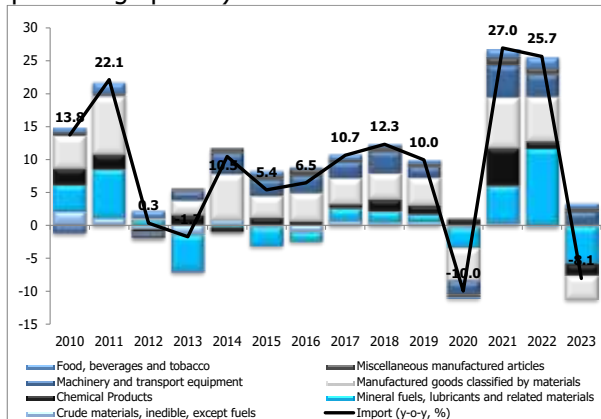
On the other hand, the import of goods in 2023 dropped by 8.1%, on an annual basis, mainly due to improved performances in energy component, which accounted for around 70% of the reduced import. Therefore, half of the contribution of the reduced energy import was due to the electricity import, primarily as a result of the increased domestic production of electricity, amid downward movements in energy market prices. Contribution to the decline in imports was also made by other energy sources, such as lower import of oil and oil derivatives and gas, which primarily has a price effect, amid significantly lower import prices, coupled with reduced quantitative import annually. The lower raw material import had the same impact, given the high base effect of the previous year when the inventories were increased, and to a lesser extent due to the weaker activity in the metal industry facilities.

Chart 35  
Contributions to the annual export growth (in percentage points)



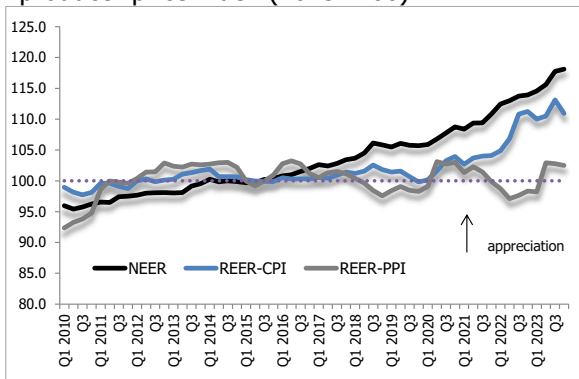
Source: State Statistical Office.

Chart 36  
Contributions to the annual import growth (in percentage points)



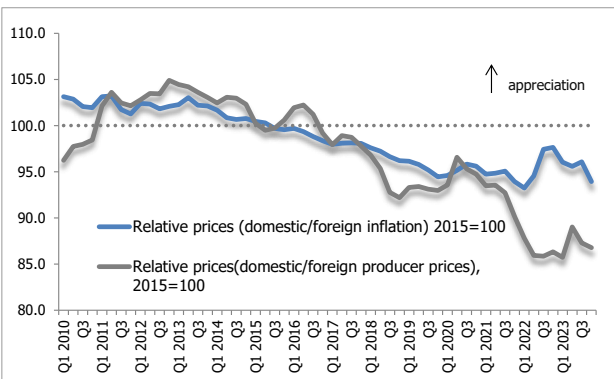
With regard to the price competitiveness indicators of the domestic economy<sup>27</sup>, in 2023 the real effective exchange rate deflated by consumer prices appreciated by 2.5% annually, while the producer price index appreciated by 3.7%. The nominal effective exchange rate appreciated by 2.8% annually as a result of further depreciation of the Turkish lira relative to the denar. Relative consumer prices slightly declined by 0.3%, while the relative producer prices rose by 0.8%.

Chart 37  
NEER and REER, without primary commodities calculated according to the consumer price and producer price index (2015=100)



Source: NBRNM.

Chart 38  
Relative prices (2015=100)



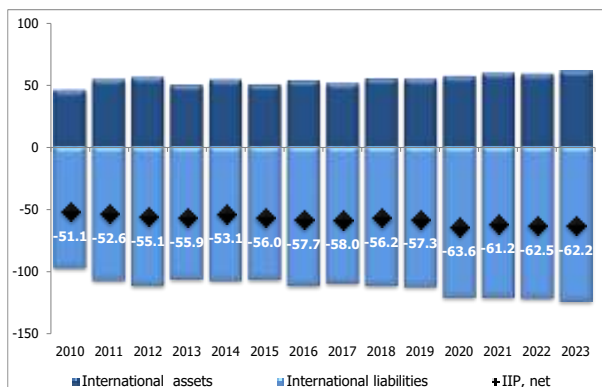
At the end of 2023, the negative net international investment position (IIP) of the domestic economy amounted to Euro 8,500.1 million, or 62.2% of GDP. Compared to the end of the previous year, it is higher by 0.3 percentage points of GDP, given the faster growth of international assets than the growth of international liabilities (of 2.8 and 2.5 percentage points of GDP, respectively). The sectoral analysis of IIP shows that the improvement is mostly due to increased net assets of the central bank annually, as a result of the increase in foreign reserves. The lower net liabilities in deposit-taking institutions made the same impact. On the other hand, the other sectors registered an increase in net liabilities annually, due to the higher liabilities based on direct investments. The negative net position of the general

<sup>27</sup> The analysis of indicators of price competitiveness is based on REER indices, calculated using weights based on the foreign trade without primary commodities. Primary products not included in the calculation are: oil and oil derivatives, iron and steel, ores and imported raw materials for the new foreign-owned industrial facilities.



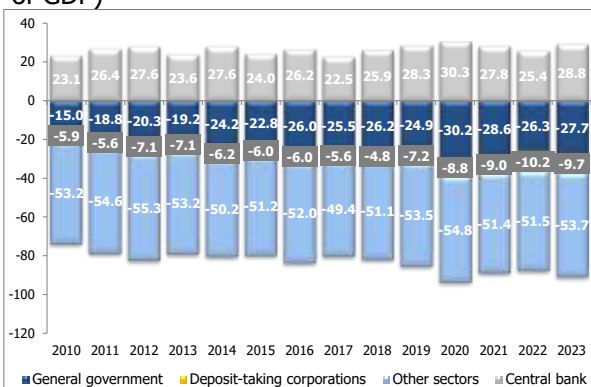
government also increased, due to higher net liabilities based on portfolio investments, i.e. debt securities, as well as based on long-term loans.

Chart 39  
International Investment Position (% of GDP)



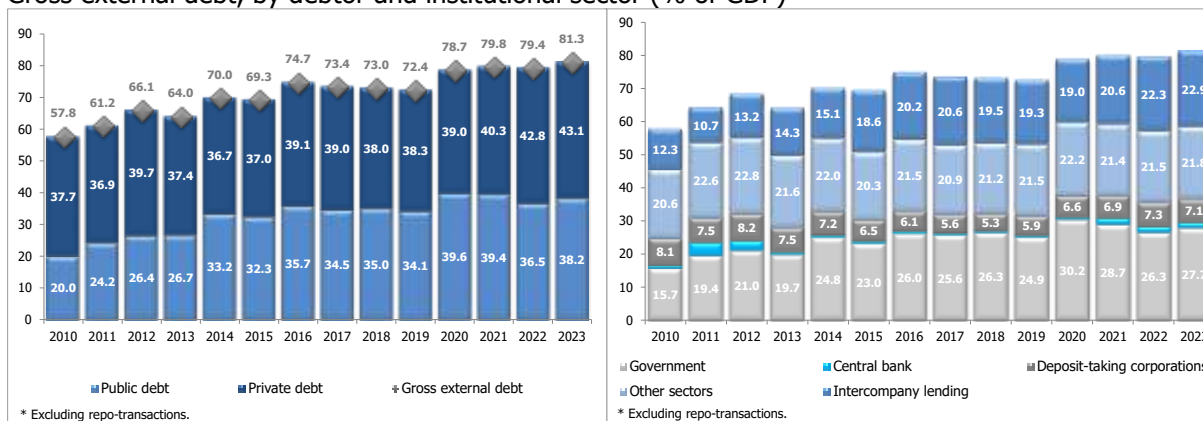
Source: NBRNM.

Chart 40  
International investment position, by sector (% of GDP)



At the end of 2023, the gross external debt stood at Euro 11,097 million<sup>28</sup>, or 81.3% of GDP, which is an annual increase (of 1.9 percentage points of GDP). This primarily reflects the increased public debt of 1.6 percentage points of GDP, amid slightly higher private debt of 0.3 percentage points of GDP. The increase in the public sector debt is mostly a result of the increased Central Government debt at higher liabilities based on both debt securities and long-term loans. On the other hand, the annual growth in private debt mainly stems from the higher intercompany lending between capital-related entities.

Chart 41  
Gross external debt, by debtor and institutional sector (% of GDP)



Source: NBRNM.

External debt ratios of the national economy remain in the safe zone. The share of the gross external debt to GDP ratio still indicates high indebtedness, while all other indicators point to low indebtedness of the domestic economy. However, the high structural share of liabilities on direct investments in gross external debt, as a relatively stable form of financing companies with foreign capital, as well as liabilities on trade credits as an instrument for international trade financing, mitigates the risk profile in terms of the debt position of the economy. The level of gross external debt excluding trade credits and intercompany debt is lower and equals 50.3% of GDP<sup>29</sup>, which is an indicator of moderate indebtedness.

<sup>28</sup> Gross and net external debt data does not include central bank liabilities under repo agreements.

<sup>29</sup> Refers to debt without repo agreements.

Table 2  
External debt indicators

	<b>Solvency</b>				<b>Liquidity</b>		
	Interest payments/ Export of goods and services and other inflows	Gross debt/ Export of goods and services and other inflows	Gross debt/ GDP	Debt servicing/ Export of goods and services and other inflows	Foreign reserves/ Short-term debt	Foreign reserves/ Short-term debt, with residual maturity*	Short-term debt/ Overall debt
	in %				ratio	ratio	in %
31.12.2004	2.4	129.3	47.3	12.4	1.1	0.9	30.3
31.12.2005	2.7	147.0	54.2	11.1	1.7	1.0	26.7
31.12.2006	3.4	131.3	49.8	21.7	2.0	1.3	29.0
31.12.2007	2.8	119.3	51.3	19.4	1.3	1.1	39.8
31.12.2008	2.7	116.9	54.1	10.2	1.3	0.9	35.2
31.12.2009	2.4	131.0	57.8	11.8	1.3	0.9	32.9
31.12.2010	3.2	140.4	59.7	13.9	1.5	1.0	27.9
31.12.2011	3.1	148.4	64.6	16.8	1.8	1.2	25.2
31.12.2012	2.9	142.1	67.6	13.1	1.6	1.0	26.7
31.12.2013	2.5	137.3	67.3	15.8	1.6	1.1	23.3
31.12.2014	3.0	149.1	74.0	17.2	1.8	1.1	22.3
31.12.2015	2.7	143.8	73.2	20.0	1.7	1.1	21.3
31.12.2016	2.4	149.9	79.1	14.9	1.7	1.2	21.9
31.12.2017	2.7	140.1	77.0	12.7	1.3	0.9	24.0
31.12.2018	2.2	131.4	77.4	15.8	1.4	1.0	25.8
31.12.2019	2.0	121.9	76.3	9.0	1.6	1.0	25.6
31.12.2020	1.9	122.3	77.9	13.6	1.9	1.1	20.4
31.12.2021	2.2	126.6	83.4	16.3	1.8	1.3	21.5
31.12.2022	1.8	123.4	86.9	9.4	1.5	1.0	24.7
31.12.2023	2.4	115.2	86.4	14.7	1.8	1.2	22.6
<i>Moderate indebtedness criterion</i>	<i>12 - 20%</i>	<i>165 - 275%</i>	<i>30 - 50%</i>	<i>18 - 30%</i>	<i>1.00</i>		

\*The moderate indebtedness criterion is according to the World bank's methodology of calculating indebtedness indicators, which implies 3-year moving averages of GDP and exports of goods and services in the calculation of the indicators.

In compliance with "External debt statistics: Guide for compilers and users," published by the IMF.

\*According to the "Greenspan-Guidotti rule", a country should maintain full coverage of short-term debt at remaining maturity with gross Source: NBRM.

As of 31.12.2023, net external debt stood at Euro 4,093 million, or 30% of GDP, which is a decrease of 0.8 percentage points of GDP compared to the previous year. This is due to the reduced public net debt (by 1.8 percentage points of GDP), amid higher private net debt (by 1.0 percentage points of GDP).

### 3.5. Monetary and credit aggregates<sup>30</sup>

#### 3.5.1. Monetary aggregates

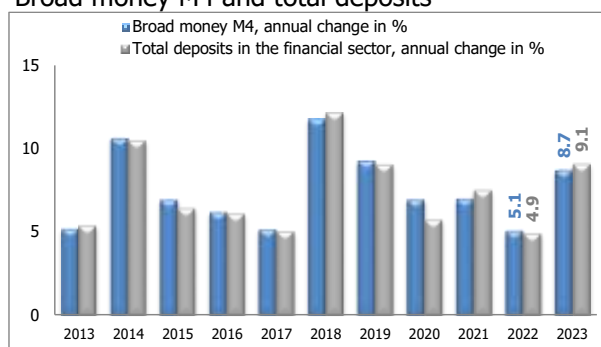
During 2023, money supply and total financial sector<sup>31</sup> deposits registered a solid growth which was stronger compared to the previous year. The increase in broad money M4 and deposits corresponds with the gradual stabilization of economic flows, extremely favorable external position of the economy, as well as more attractive savings conditions. The generally improved environment is seen through the improved maturity and currency structure of

<sup>30</sup> Data on total deposits and loans from August 2020 onwards do not include data on a bank whose founding and operating license was revoked and who went into bankruptcy in August 2020. For more realistic understanding of the banking system flows without the effect of this change in the monetary statistics chart, the total deposit and credit flows in 2020 were adjusted with data for the respective bank. The adjustment in total deposits was made by including the amount of deposits which is not subject to compensation by the Deposit Insurance Fund in the current balance of total deposits, while the adjustment of total loans was made by including the July data on the balance of bank's loans in the current balance of total loans.

<sup>31</sup> Data refer to non-government deposits in banks and savings houses, funds of other financial institutions on the accounts with the National Bank and funds of local government authorities on the accounts with the National Bank. The data are consistent with the methodological changes made by the National Bank in June 2018. For more information on the methodological changes visit: [http://www.nbrm.mk/monetarna\\_statistika\\_i\\_statistika\\_na\\_kamatni\\_stapki.nspj](http://www.nbrm.mk/monetarna_statistika_i_statistika_na_kamatni_stapki.nspj).

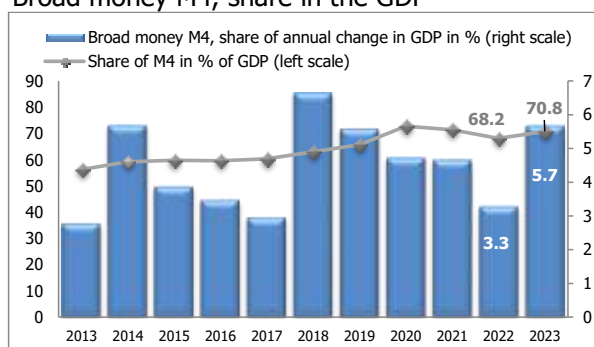
savings, which indicates increased confidence in both domestic currency and the banking system, which is also supported by the measures taken by the National Bank. Also, during 2023 the government paid financial support to the energy sector in dealing with the energy crisis, and by the end of the year paid financial support to the vulnerable categories of households within the adopted set of anti-crisis measures, which also intensified the increase in broad money and total deposits in the financial sector.

Chart 42  
Broad money M4 and total deposits



Source: NBRNM.

Chart 43  
Broad money M4, share in the GDP



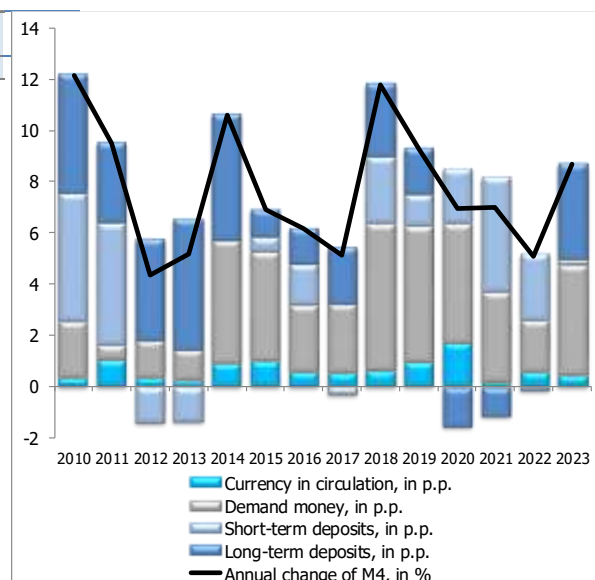
In 2023, the broad money M4 registered a strong annual growth, reaching 8.7% (growth of 5.1% in 2022). Observing the structure, annual growth is registered in all components, but the increase in broad money (growth of 12.4% and 21.1%, respectively) was driven by demand deposits and long-term deposits. Money supply annual growth-to-GDP increased to 5.7% at the end of the year (3.3% in 2022). Moreover, money supply M4-to-GDP ratio at the end of the year was 70.8%, as opposed to 68.2% in the previous year.

Table 3  
Money supply components - balance and changes

	Balance as of			Annual change		
	2021	2022	2023	2021	2022	2023
	in millions of denars			in %		
Currency in circulation	44,480	47,494	49,826	1.8	6.8	4.9
Demand money	177,716	188,036	211,402	10.5	5.8	12.4
<b>M1</b>	222,196	235,530	261,228	8.7	6.0	10.9
Short term denar deposits up to 1 year	40,033	39,429	40,454	-9.1	-1.5	2.6
Short term foreign currency up to 1 year	160,778	175,061	175,405	19.1	8.9	0.2
<b>M2</b>	423,007	450,020	477,087	10.3	6.4	6.0
Long term denar deposits over 1 to 2 years	27,727	28,003	32,088	-9.6	1.0	14.6
Long term foreign currency over 1 to 2 years	24,020	21,779	19,912	8.6	-9.3	-8.6
<b>M3</b>	474,753	499,803	529,087	8.8	5.3	5.9
Long term denar deposits over 2 years	29,376	25,521	31,162	-15.3	-13.1	22.1
Long term foreign currency over 2 years	16,876	22,031	34,725	4.9	30.5	57.6
<b>Total deposits (without demand deposits)</b>	298,809	311,825	333,746	5.8	4.4	7.0
<b>Total deposits</b>	476,525	499,861	545,149	7.5	4.9	9.1
<b>M4</b>	521,005	547,355	594,975	7.0	5.1	8.7

Source: NBRNM.

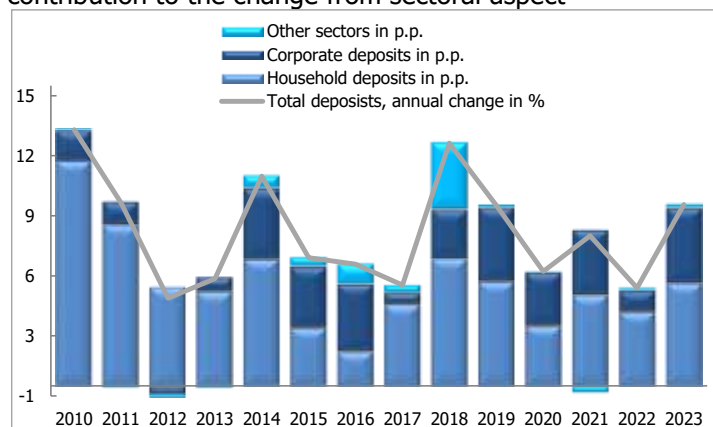
Chart 44  
Money supply, annual growth and structure



In 2023, the increase in total deposits in the financial sector significantly accelerated and reached 9.1% annually (growth of 4.9% in 2022). From a sectoral aspect, the deposits increased in all sectors, mostly in households and corporations (contribution of 5.1 and 3.8 percentage points, respectively), amid slight contribution of other sectors (0.2 percentage

points). Analyzing the currency, there is a significant increase in the denar deposits (including demand deposits) amid moderate growth of foreign currency deposits.

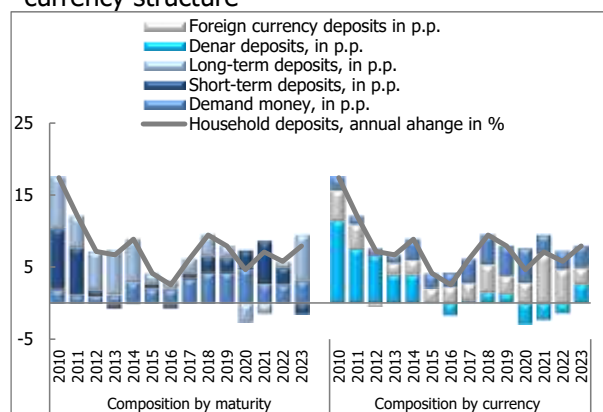
Chart 45  
Total deposits (with demand deposits), annual change and contribution to the change from sectoral aspect



Source: NBRNM.

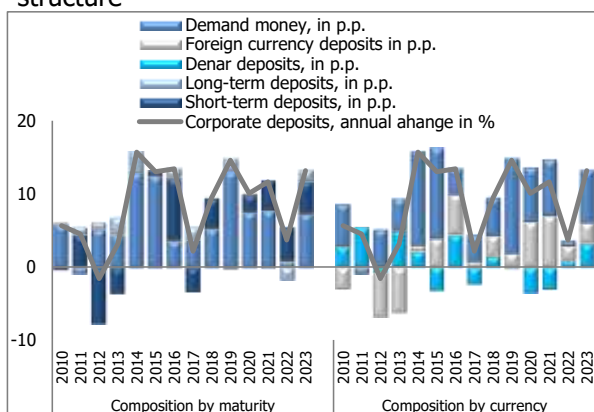
Household deposits<sup>32</sup> registered an annual growth of 7.9% in 2023 (5.8% in 2022). The relatively favorable macro environment, the growth of the disposable income, the government support through fiscal measures, as well as the upward movement in interest rates of deposits contributed to faster growth in household savings. The changes in currency and maturity structure of household deposits in favor of the savings in domestic currency and on longer terms point to significantly improved and stable expectations of economic entities.

Chart 46  
Total household deposits, annual change and contribution to the change by maturity and currency structure



Source: NBRNM.

Chart 47  
Total corporate deposits, annual change and contribution to the maturity and currency structure



In 2023, corporate deposits registered an intensified growth of 13.2% (3.7% in 2022). The reduced pressures of companies for liquidity needs increased the corporate deposits during 2023, compared to 2022 when the spending increased due to energy crisis and the more expensive imports. Structurally observed, both short-term and long-term corporate deposits increased annually. Analyzing the currency, the contribution of denar deposits is significant (including demand deposits), relative to the foreign currency corporate deposits.

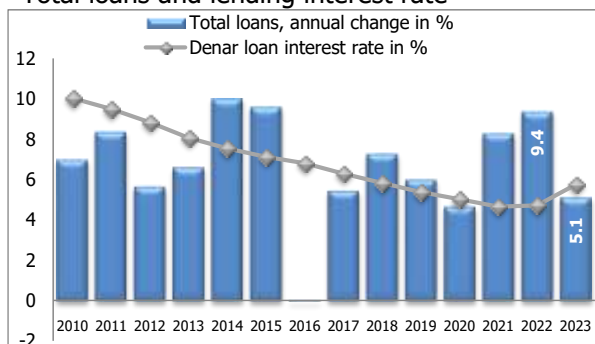
<sup>32</sup> Deposit data also include demand deposits.

In 2023, the degree of euroization, measured as a ratio between deposits with FX component and total deposits of the banking system, reduced to 43.1% (44.5% in the previous year). In household deposits, the share of deposits with foreign currency component also reduced to 50.2% (52% in the previous year),

### 3.5.2. Lending activity

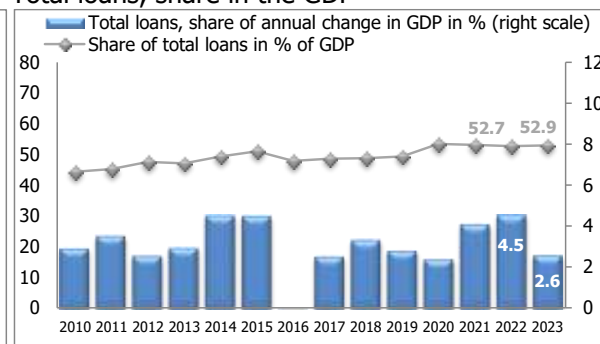
In 2023, the banking sector still provides solid credit support to the domestic economy, although the growth of total credits decelerated and reached 5.1% (9.4% in 2022). The moderate credit activity of banks is in line with the monetary policy course, amid maintained stability of banks' balance sheets, seen through the solvency, liquidity and portfolio quality indicators. The annual growth of total loans at the end of 2023 was more moderate as well and equaled 2.6% of GDP (4.5% of GDP in 2022), while the loan-to-GDP ratio for 2023 amounted to 52.9% (52.7% in 2022).

Chart 48  
Total loans and lending interest rate



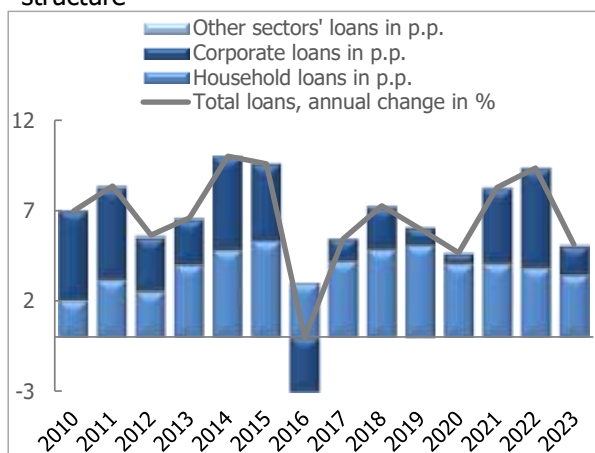
Source: NBRNM.

Chart 49  
Total loans, share in the GDP



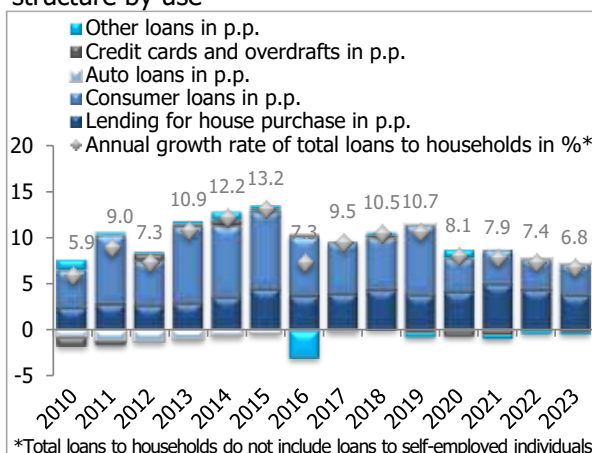
According to the Lending Surveys of the National Bank, in 2023 there was a net decrease in the demand for loans, larger in households and more moderate in corporations, amid net tightening of credit standards for both sectors, compared to the previous year. Observing risks analyzed on the basis of banks' expectations for total economic activity, the companies registered further increase in risk perceptions, but more moderate compared to 2022, while household risk perceptions are significantly increased compared to 2022.

Chart 50  
Total loans, annual change and sectoral structure



Source: NBRNM.

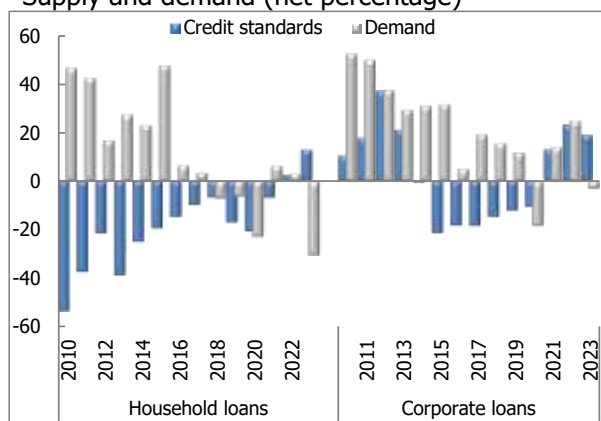
Chart 51  
Total household loans, annual change and structure by use



\*Total loans to households do not include loans to self-employed individuals.

Observed by sector, the growth of credit support of banks to corporate sector in 2023 was significantly moderate and amounted to 3.3% annually (11.5% in 2022), amid reduced liquidity needs of companies and stabilization of the energy crisis and market supply. In terms of household lending<sup>33</sup>, in 2023 the growth slightly decelerated, to 6.8% (7.4% in 2022). The analysis by loan type shows slight increase in housing loans, amid relatively identical growth pace in consumer loans, compared to 2022. Regarding the currency structure of the growth of total loans, a larger positive contribution was made by loans in domestic currency, while foreign currency loans (including denar loans with currency clause) made smaller contribution.

Chart 52  
Supply and demand (net percentage)\*

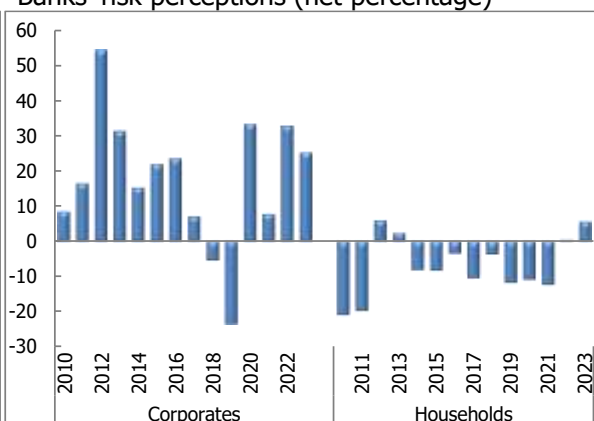


\*In terms of credit standards, negative net percent means easing of the credit standards. In terms of demand, negative net percent means reduced demand.

For more details on the lending surveys, please visit the NBRNM website.

Source: Lending Survey, NBRNM.

Chart 53  
Banks' risk perceptions (net percentage)\*



\* In households, an average is presented of the net percentage of the risk factors influencing the lending terms when extending housing and consumer loans.

<sup>33</sup> Excluding loans of self-employed individuals.



## **IV. Macroeconomic environment and monetary policy in 2024 - 2026**

The National Bank's monetary policy will continue maintaining price stability as a primary monetary objective defined by law<sup>34</sup>. In the period ahead, the National Bank will seek to maintain stable and competitive banking sector and support the general economic policies without jeopardizing the achievement of the primary goal. For the purposes of achieving the legally determined goal, the National Bank will keep on applying the strategy of maintaining stable nominal exchange rate against the euro. The importance of the exchange rate for maintaining price stability and stable inflation expectations of economic agents arises from the specifics of the domestic economy, as small, open and highly import-dependent. These aspects are especially important in conditions of pronounced external price pressures and shocks on the supply side. The operational monetary policy framework, as before, will be founded on a flexible basis, in order to maintain the stability and liquidity on the foreign exchange market and stabilize inflation in the medium run. Thus, the monetary policy will contribute to preserving the overall macroeconomic stability, as a key factor in creating favorable environment for sustainable economic growth.

*During 2023 the National Bank continued with the monetary policy tightening which started since late 2021.* The policy rate increased on six occasions during 2023, cumulatively by 1.55 percentage points. Thus, as of the end of September the interest rate on CB bills was set at 6.30%, while the interest rates on overnight and 7-day deposit facilities at 4.20% and 4.25%, respectively. The monetary tightening was conditioned by the need for further stabilization of inflation and inflation expectation on a more permanent basis. The monetary setup was further supported by the changes in the reserve requirement. In order to strengthen the positive effects of these measures so far, in August and September the National Bank Council passed two additional amendments to the reserve requirement instrument (the application of which came into force as of November, i.e. December 2023, respectively), in order to further support the process of denarization of banks' balance sheets. Adequate to the monetary changes are the adopted macro-prudential measures, i.e. the increase in the countercyclical capital buffer, as well as the measures related to setting thresholds for credit demand quality monitoring. Thus, in the last quarter, the National Bank adopted a macro-prudential measure to additionally increase the countercyclical capital buffer rate for the exposures of domestic banks in the country, to the level of 1.5%, due to further strengthening of the banks' capital positions. The current level of the policy rate, together with the changes in the reserve requirement, as well as with the undertaken macro-prudential measures, enable slowdown in inflation, in line with the expectations and maintenance of the exchange rate stability. Also, given the monetary strategy of a stable exchange rate of the denar against the euro, the changes in the domestic monetary policy reflect the monetary policy setup of the European Central Bank, which tightened the monetary policy as well.

*According to the latest official macroeconomic forecasts of the National Bank,* the external environment is expected to improve in the period ahead, which combined with certain domestic specific factors, especially related to the public infrastructure cycle, and would support the acceleration of the country's economic growth. Thus, the GDP growth in 2024 is expected to reach 3%. The growth for 2025 is expected to accelerate and reach 4%, and it would continue at this pace in 2026. In terms of structure, the growth would result from the domestic demand, amid negative contribution of net exports. Within the domestic demand, the largest positive contribution is expected from gross investments, with the household

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<sup>34</sup> This section gives a review of the macroeconomic forecasts of the National Bank from October 2023.

consumption being a significant growth factor. In the following period gross investments are expected to significantly recover, due to enhanced implementation of capital infrastructure projects related to the construction of road corridors and private domestic and foreign investments, which makes this component of key importance to the growth. At the same time, a moderately faster growth of private consumption is expected as well, which will mostly arise from the disposable income dynamics, within which the wage bill is the main driver of the growth. Solid growth is expected in the exports of goods and services, due to the recovery of foreign demand which would encourage the traditional, as well as the new export segment. The growth of both exports and domestic demand, and primarily of investments related to the construction of the road infrastructure which is to be implemented by a foreign contractor, will increase the imports of goods and services in the medium run. Thus, the current scenario does not assume major escalations related to the military activities in Ukraine and the Middle East.

In terms of consumer prices, average inflation rate will further decelerate, reducing to 3.5%-4% in 2024, while for the period 2025 - 2026 it will reduce to the historical average of 2%. Downward price adjustment in the following period is expected in all three components, amid assessments for further decline in stock prices of food and oil, further slowdown in foreign effective inflation and absence of significant pressures through the domestic demand and channel. The risks to the inflation forecast are still related to the uncertainty in terms of the future movements of the world energy and food prices, due to geopolitical tensions and climate changes, as well as to the policies that affect the aggregate demand in the domestic economy.

Estimates of external sector developments point to slight increase in current account deficit for 2024 to the level of 2.4% of GDP. This would result from the moderate deepening of the trade deficit, due to gradual increase in trade and normalization of the dynamics of the import of goods, as well as expectations for further decrease in secondary income surplus (as share in GDP), due to stabilization of private transfers. On the other hand, solid export achievements in services are expected to continue, thus from 2024 positive effect is also expected from the import of services related to the implementation of the road infrastructure projects, which would lead to higher surplus in this component. On the medium term basis, the current account deficit is expected to stabilize (2.4% of GDP in 2025, i.e. 2.3% of GDP in 2026). The expected financial net inflows in the forecast period 2024-2026 would fully cover the current account deficit, as well as additional increase in foreign reserves. Observed structurally, most of the financial inflows on a net basis are expected in the form of foreign direct investments and long-term borrowing of the Government. It is significant to note that foreign reserves are expected to be maintained at a level corresponding to international standards for maintaining exchange rate stability throughout the forecast horizon.

Credit activity of the banking system is still considered a great supporter of economic growth. With the gradual acceleration in the economic growth and the stabilization of the expectations, growth and lending activity are expected to accelerate in the next period, whereby the credit growth for the period 2024– 2026 would equal 6.9% on average. From the aspect of funding sources, the credit growth is expected, as before, to be supported by the deposits growth, for which solid growth rates are expected throughout the entire forecast period, given the more attractive savings conditions, as a reflection of the measures undertaken by the National Bank and the increased confidence in the domestic currency, but also due to the expected growth of the households' funds.

*Key risks in terms of the global growth and external environment are balanced in the period ahead.* The faster decrease in inflation which would ease the global financial

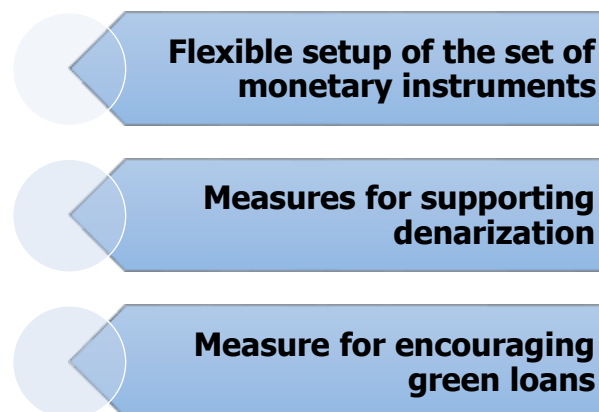


conditions, the slower withdrawal of the fiscal support from countries, as well as the stronger stimulation for structural reforms which will contribute to higher productivity, are expected to be the upward risks that would encourage faster global growth. On the other hand, the conflict in the Middle East remains the largest downward risk, which increased the geopolitical risks and raised the uncertainty in terms of primary commodity prices on international market, with possible adverse effects on the global economic growth and inflation. *The risks from the domestic environment in the short term* are associated with the influence of the geopolitical cycle on the economy in 2024, while the effects of the NATO membership, of the progress in the EU accession negotiations which may accelerate structural reforms, as well as of the possible use of the geographical advantage of our economy within the started process of adjustment of global chains, are again evaluated as positive risks in the medium run.

In the fiscal area, there are expectations for gradual budget consolidation in the medium term. Budget deficit would be financed from both domestic and external sources. The set fiscal policy is accompanied by risks which, as with the monetary policy, result from the impact of the geopolitical developments on the global economic activity and the world prices, as well as from the changes in the financial conditions and the situation of the international financial markets.

*The National Bank carefully monitors the macroeconomic data and the potential risks from the domestic and external environment and is prepared to use all the necessary instruments and to take measures that will contribute to maintenance of the stability of the exchange rate, stabilization of inflation expectations and to medium-term price stability.*

## V. Monetary instruments



*The National Bank monetary policy conduct, in 2023 as well, relied on monetary instruments for withdrawal of the excess liquid assets from the banking system and took measures that enabled maintenance of the exchange rate stability and further increase in denar savings. Moreover, the features and structure of the monetary instruments enabled flexible liquidity management based on market principles in the monetary policy implementation.*

The interest rate on the main instrument of the monetary policy, the CB bills, from January to September 2023 increased on six occasions<sup>35</sup> by a total of 1.55 percentage points to the level of 6.30%<sup>36</sup>. The changes in the referent interest rate were coupled with the evenly increase (by 1.55 percentage points) in interest rates on overnight and seven-day deposit facilities, to 4.20% and 4.25%, respectively.

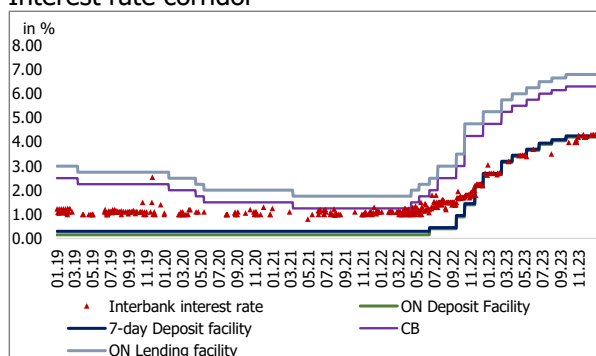
The cycle of monetary tightening through the growth of interest rates was supported and strengthened with further changes in the reserve requirement instrument, to directly support the denarization process. Thus, the National Bank increased the reserve requirement rate from liabilities in foreign currency from 18% in December 2022 to 21% by the end of the year, while increased the rate of denar liabilities with currency clause from 50% to 100%. The reserve requirement rate of 5%<sup>37</sup> was further applied to banks' denar liabilities. In order to strengthen the effect of decoupling rates in terms of currency, the National Bank also increased the portion of the reserve requirement in foreign currency that banks meet in euros, from 75% to 81%. With these changes, the National Bank aimed at intensifying the initiated changes in interest rate policy of banks and encouraging higher growth in savings in domestic currency.

<sup>35</sup>As of April until September 2023 the policy rate was increased on fourteen occasions by a total of 5.05 percentage points. In the last quarter of 2023, as required by the economic conditions in the domestic economy, given the risks arising from external, as well as certain domestic factors, the National Bank maintained the same interest rates.

<sup>36</sup>Consequently, higher interest rates were applied to both liquidity repo auctions and overnight loan facilities, whose interest rate is equal to or by 0.5 percentage points exceeds the CB bills interest rate, respectively.

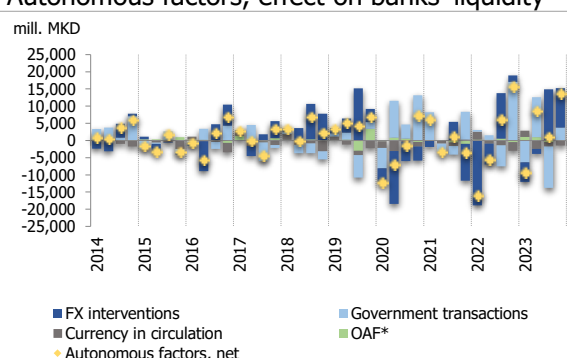
<sup>37</sup>In 2022, amid increased uncertainty due to the war in Ukraine and higher propensity to save in foreign currency, the reserve requirement rate in denars decreased from 8% to 5%, while the reserve requirement rate of liabilities in foreign currency increased from 15% to 18%.

Chart 54  
Interest rate corridor



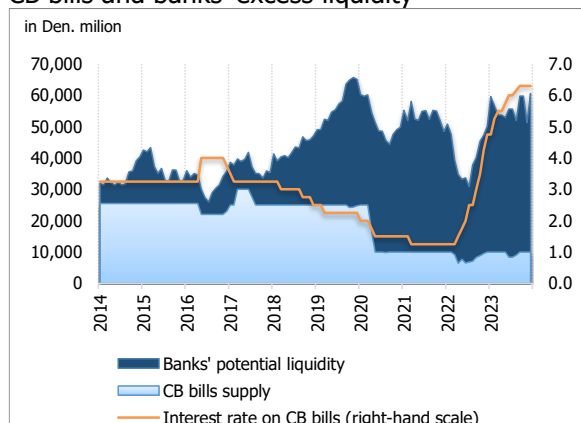
\* 7DF - seven-day deposit facility; OD - overnight deposit facility; OL - overnight credit facility

Chart 55  
Autonomous factors, effect on banks' liquidity



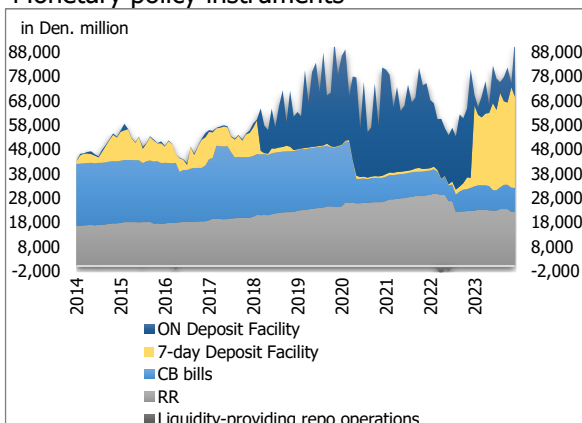
\* OAF – other autonomous factors

Chart 56  
CB bills and banks' excess liquidity<sup>38</sup>



Source: NBRNM.

Chart 57  
Monetary policy instruments



There are favorable developments on the foreign currency market, compared to the previous years, reflecting the reduced need for foreign assets of companies, amid constant increase in net-supply of foreign currency from natural persons and exchange offices on the currency and foreign exchange market. In such circumstances, and in conditions of generally good and relatively high foreign currency liquidity of banks<sup>39</sup>, the National Bank in 2023 intervened with a relatively high purchase (Euro 311.8 million) of foreign assets<sup>40</sup> from the banking system, which created denar liquidity in the amount of around Denar 19.1 billion. Cash in circulation increased steadily and generally followed the dynamics of the pre-crisis years (with an annual growth of around Denar 3.4 billion or 6.2%). The government deposits with the National Bank increased annually (by around Denar 3 billion), with the largest contribution of the increased borrowing on the domestic government securities market. Such dynamics of autonomous flows significantly increased denar assets of banks on an annual

<sup>38</sup> Banks' excess liquidity refers to the first day of the reserve maintenance period when the CB bills auction is held and represents the sum of the stock of the banks' accounts with the National Bank, the matured CB bills and deposit facilities with the NBRNM on that day as well as the claims on the money market, reduced by the money market liabilities and the level of reserve requirement for the forthcoming period.

<sup>39</sup> Given the adequate liquidity of banks' foreign assets and the record high level of foreign reserves, the National Bank did not use funds from the repo line with the ECB in 2023, which provides access to foreign currency liquidity in the total of Euro 400 million. The repo line was established in August 2020, but given the uncertain economic environment and increased geopolitical uncertainty, the ECB extended the possibility of using the repo line on four occasions, until January 2025.

<sup>40</sup> The foreign exchange liquidity management of banks included the possibility for 1 and 3 month risk-free placements in euros with the National Bank, which was activated in August 2020, but given the relatively low interest by banks, the auctions of foreign currency deposits were deactivated in May 2023.

basis, net, by Denar 14.4 billion, thus the banking system liquidity at the end of the year exceeded the level of 2019<sup>41</sup>.

In the analyzed period as well, the National Bank managed the liquidity in the system by using monetary instruments that absorb excess available funds from the banking system<sup>42,43</sup>. Throughout the year, the National Bank kept the amount of CB bills at the level of Denar 10 billion<sup>44</sup>, while the excess denar assets were mainly aimed at available deposits, which enable flexibility in managing short-term liquidity changes and high availability of funds. The use of available deposits with the National Bank was in line with the increase in the excess denar funds in the banking system, thus at the end of the year the highest amount of cash was placed in this instrument, around Denar 53 billion on average. Observing maturity, in 2023 banks intensively used the seven-day deposits in the operational management of their liquidity.

The banks' obligation to allocate reserve requirement had the sharpest annual growth (Denar 8.4 billion), which mostly reflects the changes in the reserve requirement system, while the contribution of the changes in banks' denar and foreign currency liabilities<sup>45</sup> was relatively more moderate. Moreover, the reserve requirement that banks meet in euro recorded a relatively sharp increase of Denar 8.9 billion (reaching Denar 39.1 billion), with the largest contribution (of around 94%) from the use of higher rates on foreign currency liabilities and increase in the part of the reserve requirement in foreign currency which is met in euros. On the other hand, the denar reserve requirement declined by Denar 515 million annually (at the level of Denar 22.1 billion), where the changes in the reserve requirement system in the amount of Denar 1.3 billion had the largest contribution to the fall. The solid increase in denar deposits backfired, increasing the liability by Denar 755 million, while net effect of the use of non-standard measures with the reserve requirement was neutral.

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<sup>41</sup>In 2019, the banks' liquidity in denars reached its highest level, supported by the National Bank interventions to purchase excess foreign currency.

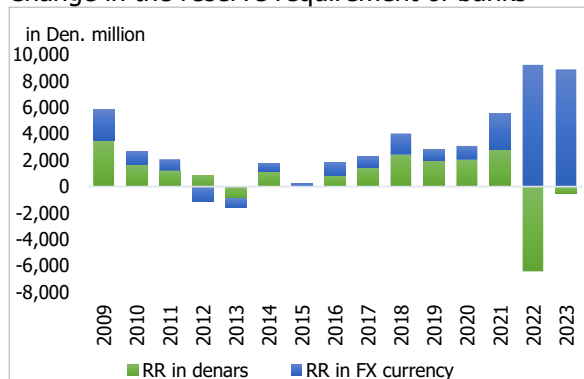
<sup>42</sup>The set of monetary instruments of the National Bank enabled banks to regularly use Central bank' liquid assets through the overnight credit facility and repo auctions to create liquidity in the banking system. However, due to high liquidity position, in 2023 banks were not interested in these monetary instruments.

<sup>43</sup>As of the end of 2022 all financial institutions that collect deposits and are consequently required to meet the reserve requirement, had access to monetary instruments for liquidity withdrawal. Hence, in addition to banks, savings houses also have right to attend auctions of CB bills and to place assets in available deposits with the National Bank.

<sup>44</sup>At the auctions of CB bills, which are held on the first day of the reserve requirement maintenance periods, volume tender was used (offered amount of the CB bills and fixed interest rate), while the maturity of CB bills is determined according to the requirement maintenance periods. Given that in the beginning of the year, the decision on the monetary policy setup was in line with the decision-making pace of the ECB, there were changes in the calendar/duration of the reserve requirement maintenance period, which consequently changed the maturity of the offered CB bills from 28/35 days to 42/49 days. In most of the auctions, banks and savings houses had demand at the level of the offered amount.

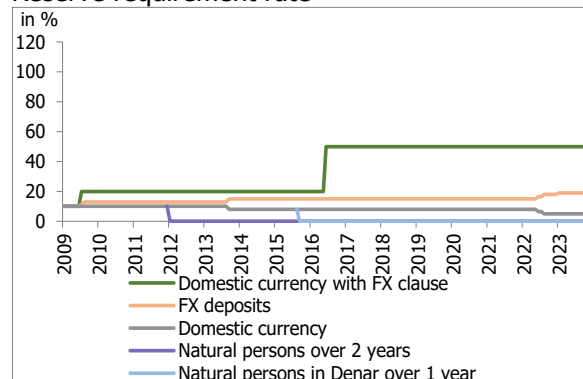
<sup>45</sup>For more details on changes in banks' deposit base, see Monetary Aggregates.

Chart 58  
Change in the reserve requirement of banks



Source: NBRNM.

Chart 59  
Reserve requirement rate



The December period of fulfilling the reserve requirement in 2022 was the last period when the non-standard measure for encouraging credit activity of companies with activities that were most affected by the health crisis was applied. As a result, in January 2023, the reserve requirement in denars increased by Denar 200 million. In 2023, the National Bank further applied the non-standard measure (activated as of October 2022) that facilitates the credit standards for domestic production of electricity from renewable sources. The application of this measure in 2023 reduced the bank's liability to allocate reserve requirement in denars with the National Bank by Denar 219 million<sup>46</sup>. The measure aims to encourage structural changes in the domestic economy and support sustainable private sector financing. The measure reduces the banks' reserve requirement base in denars for the amount of new loans for financing projects for domestic production of electricity from renewable sources. The credit activity of banks to companies for production of electricity from renewable sources in 2023 was solid and contributed to the increase in the balance of these loans by around Denar 4.4 billion. The largest part of the approved loans in 2023 (around 96%) are long-term and intended for construction of new facilities for production of electricity from renewable sources, while the rest for increasing the installed power of the current facilities.

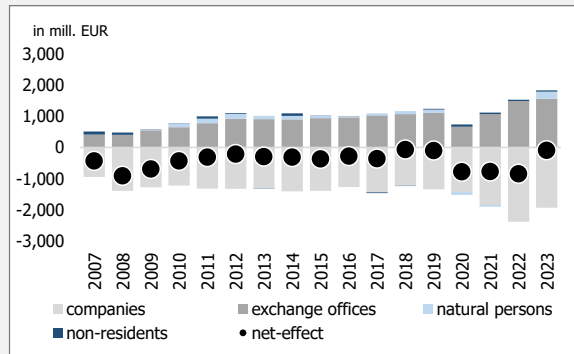
## Annex 1. Developments on the Foreign Exchange Market<sup>47</sup> and National Bank Interventions

*In 2023, the developments on the foreign currency market in transactions with clients were significantly favorable in terms of the last three years, amid gradual stabilization of global shocks and supply and increased trust in domestic currency.* The reduced price pressure of energy sources and the gradual normalization of the trade flow led to a downward dynamics of primary commodity prices on world markets, which reflected with lower import prices of commodity products. These changes positively reflected the foreign exchange of the domestic economy, through reduced demand for foreign currency from the power sector and increased supply of foreign liquidity of domestic companies.

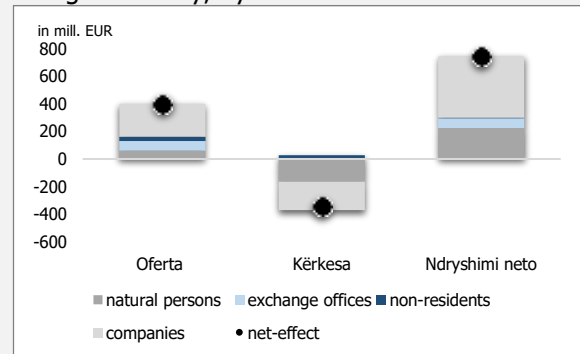
<sup>46</sup>The total amount of the free funds since the application of this measure amounts to Denar 259 million.

<sup>47</sup> The foreign exchange market within this analysis encompasses the transactions between the banks and their clients and interbank trading.

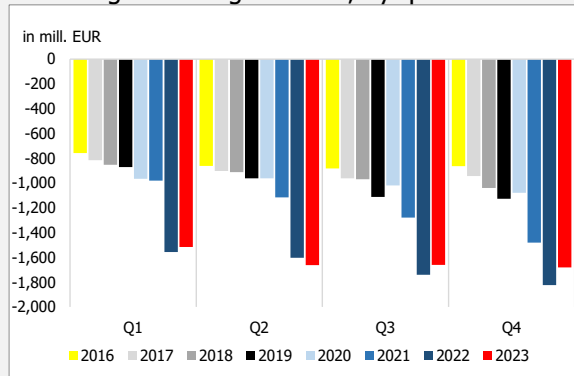
**Chart 60**  
Net sale of foreign currency of banks for their clients



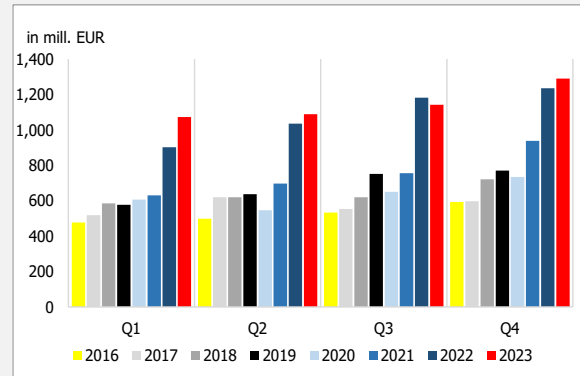
**Chart 61**  
Annual growth in the supply of and demand of foreign currency, by client



**Chart 62**  
Demand for foreign currency by companies on the foreign exchange market, by quarters



**Chart 63**  
Supply of foreign currency by companies on the foreign exchange market, by quarters



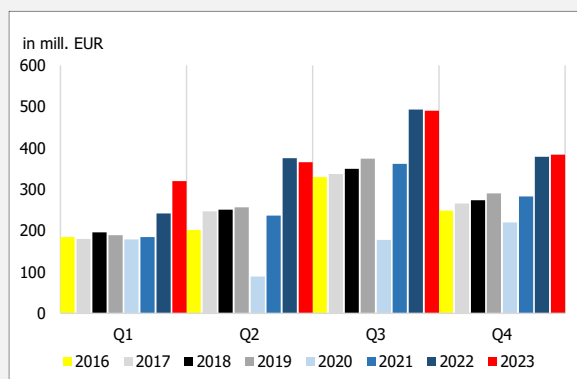
Source: NBRNM.

The oil and electricity production and trade companies had a significantly lower need for foreign liquidity (by 32% or Euro 653 million annually) compared to the last year. Higher demand was registered in construction companies and more moderately in food, beverages and tobacco trade and production companies, and wholesale trade, due to the price level which remained high. On the other hand, the normalization on the stock exchange markets significantly increased the supply of foreign currency from export-oriented companies that operate in the industrial areas, especially automotive companies, which have the largest contribution (around 70 percentage points) to the annual increase of foreign currency supply from the corporate sector, followed by companies from the IT sector and construction. In conditions of higher annual supply increase, net sales of foreign currency of banks for the needs of the corporate sector was lower by Euro 445 million annually.

The improved annual performances of banks with clients were supported by the constant high demand of foreign currency by natural persons on the foreign exchange market, with around 30 percentage points, which signaled gradual stabilization of inflation expectations and increased trust in domestic currency. These entities had an above-average net supply of foreign assets throughout the year, which led to a record high annual net purchase, which was at the same time twice as high as the average net supply of these entities in 2018-2019. On the currency exchange market, the supply of foreign currency from natural persons remained relatively high and stable compared to 2022 and contributed to further increase (by about by Euro 70 million, on an annual basis) in the excess foreign assets that exchange offices offer to domestic banks.

Chart 64

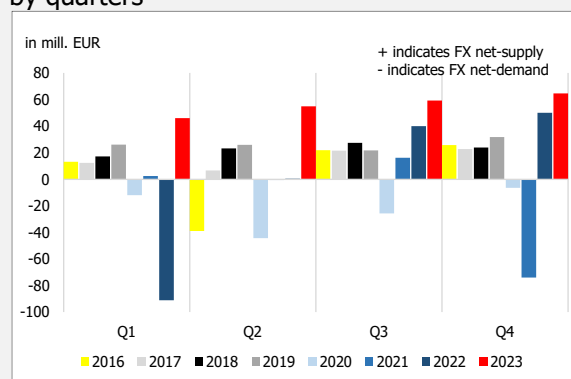
Banks' purchase of foreign currency from exchange offices, by quarter



Source: NBRNM.

Chart 65

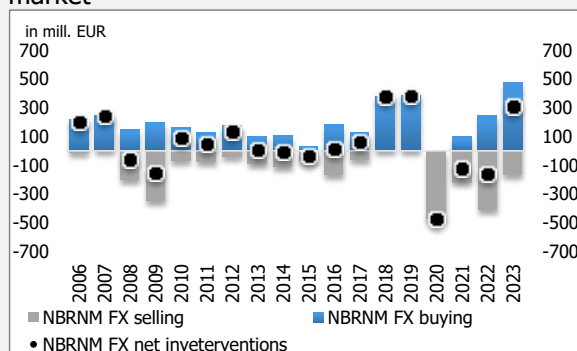
Net-supply of / demand for foreign currency by natural persons on the foreign exchange market, by quarters



Net sales of foreign currency to banks for the need of the clients in 2023 (Euro 97.2 million) is lower by Euro 744 million annually and is at the level of net sales in 2018 and 2019. Due to significantly improved balance of payment trends and the generally high foreign liquidity of banks, for the first time after the health crisis the National Bank is aimed at net purchasing of foreign currency on the foreign currency market in the amount of Euro 311,8 million, which is a slightly lower amount of net purchases in 2018 and 2019. Given the higher demand for foreign currency from the corporate sector in the beginning of the year, the National Bank intervened in both directions in the first six months, with net sales of Euro 116 million. Favorable market movements and high foreign liquidity of banks in the second half of the year led to a constantly higher supply of foreign currency on the interbank foreign exchange market and National Bank interventions through purchase of excess foreign assets, in a relatively high amount of Euro 427.8 million. Thus, the National Bank interventions on the foreign exchange market additionally increased the already solid and adequate level of foreign reserves, while the exchange rate of the denar against the euro remained stable.

Chart 66

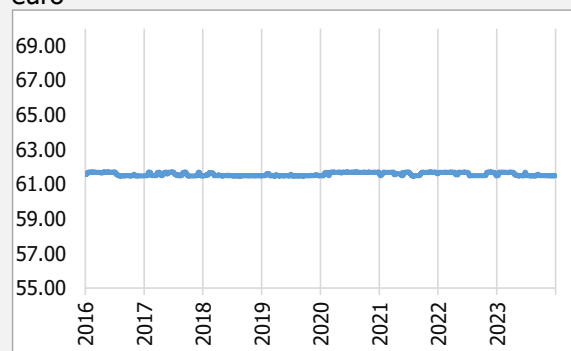
NBRNM interventions on the foreign exchange market



Source: NBRNM.

Chart 67

Middle exchange rate of the denar against the euro



## Annex 2. Developments on the interbank market for uncollateralized deposits and the secondary securities market<sup>48</sup>

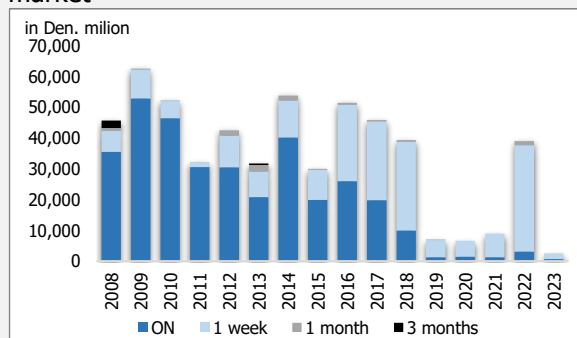
Given the high amount of available denar funds, in 2023 banks had a slightly insignificant need for borrowing on domestic financial markets.

<sup>48</sup> Money market analysis in North Macedonia includes uncollateralized deposit market, secondary market of short-term securities and long-term government securities (excluding structural bonds), secured deposits market (repo market).



Chart 68

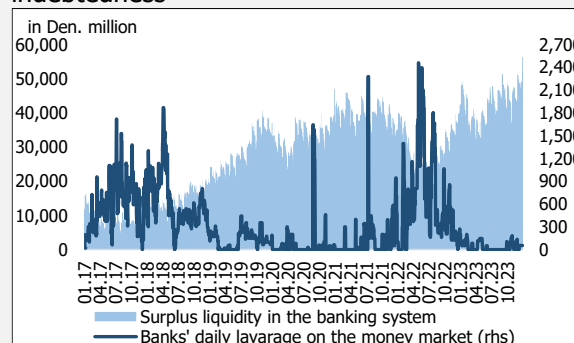
Turnover on the unsecured interbank deposit market



Source: NBRNM.

Chart 69

Excess liquidity in the banking system and bank indebtedness

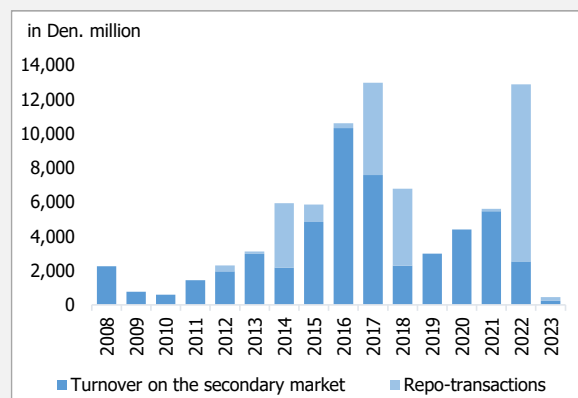


Banks covered the occasional, short-term liquidity needs on the interbank market of unsecured deposits, where the turnover was lower by 94% annually and amounted to only Denar 2.4 billion, which is the weakest annual trading volume of this market segment. The weak need for borrowing reflected the average daily indebtedness of banks (Denar 97 million), which was significantly lower compared to 2022. In terms of the maturity structure of traded uncollateralized deposits, banks covered the largest part (around 69%) of the required funds with a maturity of up to one week, while the share of overnight loans was relatively lower, around 28%. Besides these two maturities, there were two transactions with uncollateralized deposits with maturity up to one month, whose share in the total trading volume is relatively stable and low (3%).

The interest rates in the market for uncollateralized interbank deposits in 2023 followed the cycle of changing the monetary policy interest rates. Namely, the average interbank interest rate on all transactions (MBKS) at the end of the year was 4.30% and was higher by 1.76 percentage points compared to December 2022. The interest rate on the most traded interbank uncollateralized loans with maturity of 1 week, was also higher, by 1.75 percentage points on an annual basis, which reached 4.30% at the end of the year, while the interest rate of uncollateralized overnight deposits at the end of December equaled 4.20% (higher by 2 percentage points annually). Due to the occasional need for trading with overnight uncollateralized deposits and the increased preferences for trading with maturity up to 1 week, in 2023, a small number of transactions were performed (around 17% of the total traded amount) which are used for calculation of the interest rate MKDONIA, whose average level equaled 3.81%.

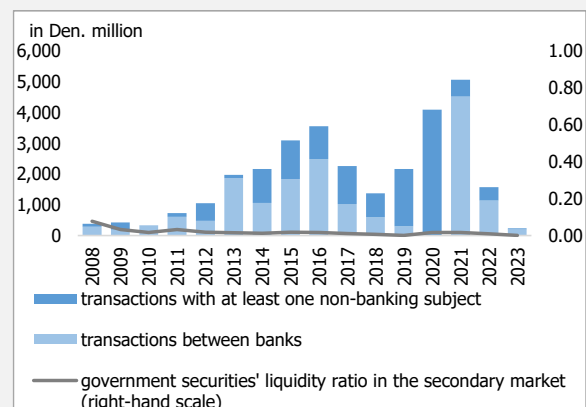
*Downward trend of traded securities was registered on the secondary over-the-counter securities market organized by the National Bank, where the total turnover in 2023 amounted to only Denar 445 million. Observing types of transactions, the reduced trading is due to the weaker activity of the interbank repo market segment, where given the excess liquidity, only two transactions were concluded with CB bills in the amount of Denar 210 million. Reduced and almost unchanged trading volume was noted in outright transactions, where only government securities were traded in the amount of Denar 235 million. The interbank trading (with 85%) prevails in the total amount of traded government securities.*

**Chart 70**  
Turnover on the secondary securities market



Source: NBRNM.

**Chart 71**  
Structure of outright government securities transactions<sup>49</sup>



<sup>49</sup> The liquidity ratio of government securities is the ratio between the turnover from government securities transactions on the secondary market during the year and the average stock of government securities issued in the same period.

## VI. Foreign Reserves Management and Investment



**High annual growth of foreign reserves**

**Security and liquidity of foreign reserves**

**Active foreign reserves management**

*In 2023, the foreign reserves of the Republic of North Macedonia (hereinafter referred to as: foreign reserves) significantly grew mostly due to National Bank interventions on the foreign currency market for purchasing excess foreign currency to keep the value of the nominal exchange rate of the denar against the euro stable. During the year, amid high uncertainty in terms of the future dynamics of the leading economies' interest rates, large amount of the assets were kept in the most liquid form within the operational portfolio of foreign reserves, while most of the new investments were aimed at government bonds from the euro area. The volatility of the financial markets was used for active foreign reserves management, for the purpose of favorable performances from investments in debt instruments from the investment portfolio. As a result, foreign reserves management in 2023 was extremely prudent, adjusting the investment decisions to the volatile developments in the domestic foreign exchange market and the international financial markets, which enabled further achievement of the core principles: security and liquidity of foreign reserves.*

### 6.1. Foreign reserves stock and flow

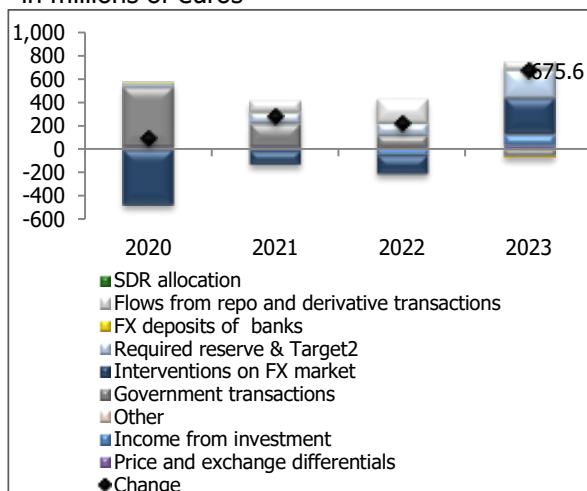
In 2023, foreign reserves increased by Euro 675.6 million and at the end of the year reached Euro 4,538 million. In conditions of significantly improved market trends and generally high foreign liquidity of banks, the National Bank, for the first time after the health crisis, was aimed at net purchase of foreign currency on the foreign currency market, in a relatively high amount (Euro 311.8 million), thus significantly increasing foreign reserves, which were already at a high and appropriate level. The growth of foreign reserves mostly reflected the higher allocated euro reserve requirement and the funds of domestic banks on MIPS-EUR accounts (Euro 238.3 million), investment income (Euro 88.9 million), as well as inflows from concluded classic repos (Euro 71.2 million), used in the active foreign reserve management<sup>50</sup>. The increased value of gold had an appropriate contribution to the change in foreign reserves<sup>51</sup> the value of which grew in the last quarter of the year, amid propensity of investors to invest in secure instruments amid raising concerns due to the war in Israel. Government net outflows of transactions abroad acted in the opposite direction (Euro 53.5 million), as well as the due foreign deposits of banks<sup>52</sup> (decline of Euro 14 million).

<sup>50</sup>In addition to the regular lending of securities through simultaneous standard and reverse repo transactions in the same amount, throughout the year, additional standard repo transactions were concluded, driven by the high global demand in-quality securities which are within foreign reserves. Consequently, these transactions increased the foreign reserves.

<sup>51</sup>The price of gold in US dollars grew by 13.8% compared to the end of 2022, despite the depreciation of the US dollar against the euro by 3%, which increased the value of gold in foreign reserves by around 10% and positive price and exchange rate differences of around Euro 27.8 million.

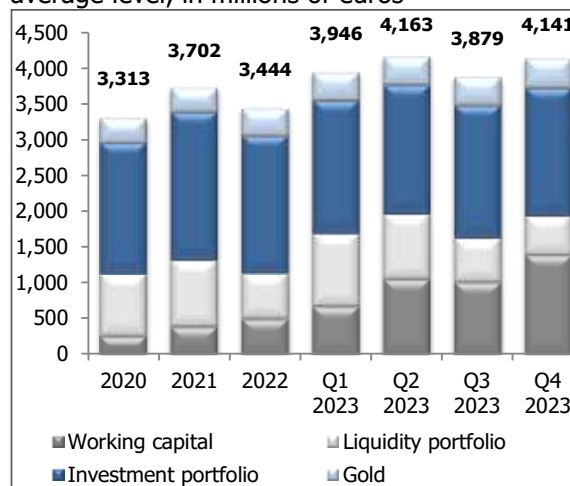
<sup>52</sup>Auctions of foreign currency deposits for risk-free placements in euros with the National Bank, as an instrument for liquidity management of banks, were activated in August 2020, while they were deactivated in May 2023.

Chart 72  
Foreign reserves growth factors  
in millions of euros



Source: NBRNM.

Chart 73  
Foreign Reserves Tranching  
average level, in millions of euros



In 2023, foreign reserves were allocated in three tranches (operating, liquidity and investment tranches), the volume of which was actively adjusted according to the short-term needs for liquid assets on the domestic foreign exchange market and future repayments of external public debt. The inflows in foreign reserves mainly remained within the operating portfolio, which was maintained at a higher level due to the possibility for favorable interest income from placements on deposit accounts with central banks, as a protection against interest and credit risk. The excess funds that exceeded the Tier1<sup>53</sup>, depending on market conditions, are placed in short-term deposits with highly-rated commercial banks, at interest rates comparable to the ECB deposit rate. Within the foreign reserves, there was a special tranche to manage gold whose security and liquidity is particularly pronounced in conditions of fluctuating movements in the financial markets.

## 6.2. International financial markets and active approach to foreign reserves management

In 2023, the global economy faced several challenges, including the consequences from the tightening of the monetary policies of the central banks of the leading economies, the temporary concern about the stability of the banking systems in the USA and Europe, the further military actions in Ukraine, and later the tensions in the Middle East. However, the economic performances worldwide were relatively more favorable than expected in the beginning of the year, with a moderate economic growth, yet stable, in conditions of global recovery from the COVID-19 pandemic, strong personal consumption and favorable performance in catering sector, solid public consumption, as well as overcoming the challenges in supply chains. In 2023, amid further increased inflation rates, the ECB and the FED continued to increase the policy rates on several occasions. During the year, the inflation rates in the euro area and the USA were almost halved compared to 2022. The stated circumstances led to volatile movements of the yields on government bonds on the international financial markets during the year, while at the end of the year they registered no major changes on an annual basis. Yields on government bonds with shorter maturity increased, which was primarily due to policy makers' indications for further interest rate

<sup>53</sup>Tier1 is determined by each party with an interest rate on the funds held within the limit equal to the ECB deposit rate. Central banks pay interest rate on funds exceeding this limit, equal to interest rate on overnight unsecured interbank euro placements, reduced by 20 base points.

increase, while in the second half of the year due to the expectations that the largest central banks will maintain the policy rates high for a longer period. On the other hand, yields on government bonds with longer maturity moderately decreased, which was mainly due to the pronounced downward risk to the euro area economic growth and greater demand for security instruments, as well as the surprisingly reduced inflation pressures.

Relatively high interest rates and yields on foreign reserve instruments affected the investment decision throughout the year. Furthermore, the possibility of realizing favorable interest income from placement on deposit accounts with central banks, which remained relatively high throughout the year, was used. The volatility of yields on foreign markets and the uncertainty about

the future movements of interest rates continued to limit the possibilities for longer-term investments. In such conditions, there was a more prudent approach to investing and taking interest risk through decrease in adjusted durations of euro trading portfolios. This approach to investing ensures protection of portfolios against possible growth of yields, greater liquidity potential, as well as possibility of investing at higher yields in the future. On the other hand, the volatility of yields enabled active trading and additional income through purchase and sale of securities. Additional revenues were generated through transactions of short-term lending of bonds on the market of repo transactions amid simultaneous placement of the received funds in higher-yield-bearing short-term instruments on the money market, by lending securities on a collateralized basis and concluding repo and reverse repo transactions, as well as time (swap) gold transactions.

Chart 74  
Currency structure<sup>54</sup> and foreign reserves exposure  
(annual average)



Source: NBRNM.

### 6.3. Foreign reserves structure

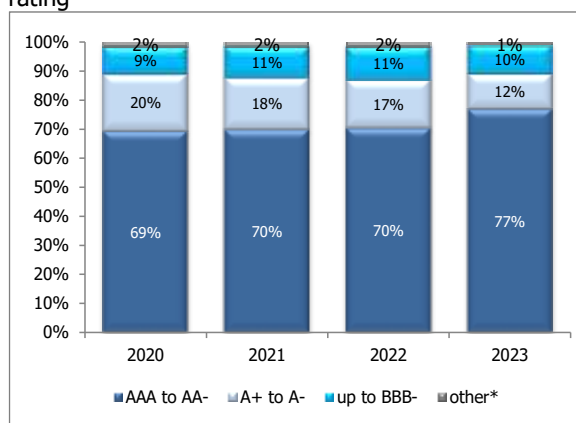
In 2023, **the currency structure** of foreign reserves was further dominated by assets invested in financial instruments in euros with an average share of about 99%<sup>55</sup>, which is in line with the monetary strategy of a stable exchange rate of the denar against the euro.

The prudent and active approach of foreign reserves management, which included orientation towards the safest financial instruments in order to meet the principle of security of foreign reserves, increased the average share of the instruments issued by issuers/countries with the **highest credit rating** (of AAA to AA-) at about 77%. These instruments have low credit risk exposure and are considered the safest investments. Moreover, in order to realize a higher return on the investments and preserve the value of foreign reserves, part of the investments (about 12% on average) were invested in instruments with a credit rating of A+ to A-. Instruments with a credit rating of BBB+ to BBB- covered 10% of foreign reserves on average and accounted for government securities and current account assets with central banks in euro area.

<sup>54</sup> The target currency composition of the foreign reserves is in line with the currency structure of the interventions in the domestic foreign exchange market, government liabilities abroad, foreign trade and other liquidity needs. The tactical currency composition is determined based on a periodic reconsideration of the strategic allocation of foreign reserves, within the permitted deviations from the target currency composition.

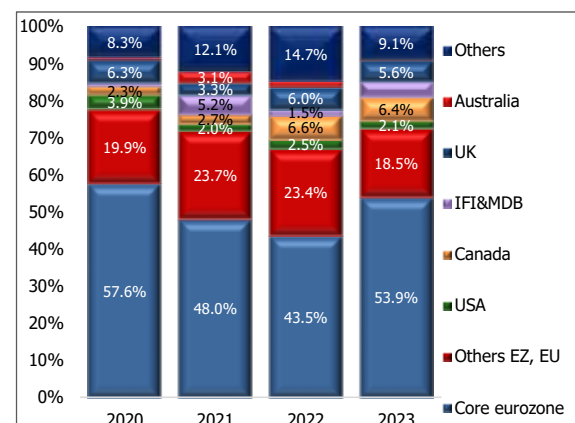
<sup>55</sup>The currency structure is analyzed taking into account the stock of foreign reserves reduced by the amount of gold.

Chart 75  
Average annual structure of investments by credit rating



\*IMF, BIS are classified in the category others.  
Source: NBRNM.

Chart 76  
Average annual geographical structure of investments

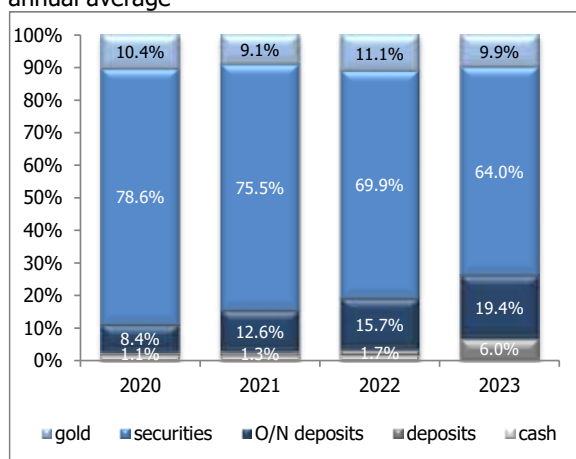


\*IFI and MDB - international financial institutions and multilateral development banks.

Such distribution affected the **geographical structure** of placements of foreign reserves. Thus, in 2023 most of the investments were in instruments issued by the leading economies of the euro area (on average 54%)<sup>56</sup>, but also toward the other states of the euro area and the European Union (18.5%)<sup>57</sup>, which enjoy the benefits of the support to the mutual economy, and also offer moderately higher yields.

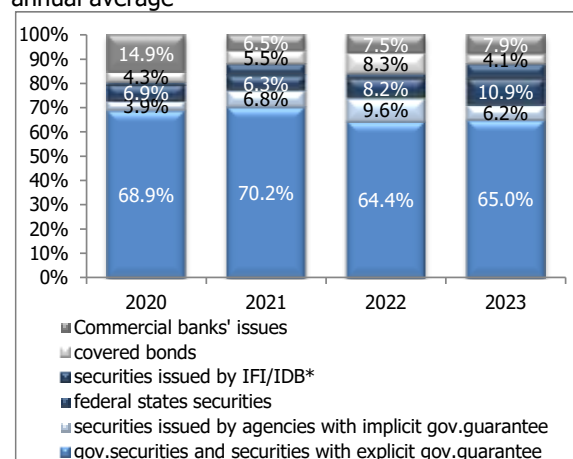
Observing by **type of instruments in which the foreign reserves are invested**, most of the assets were still placed in securities (64%). Government securities and securities issued with a state guarantee, which are considered safest investments, prevailed among types of securities. The growth in policy rates during the year increased the attractiveness of placements in deposits with central and commercial banks. The share of short-term placements with commercial banks was larger than the average in 2022, with larger share of current account assets with central banks as well (19.4% on average).

Chart 77  
Investment structure, by instrument annual average



Source: NBRNM.

Chart 78  
Structure by type of securities annual average



<sup>56</sup> Refer to the so-called euro area core, which includes: Germany, Austria, Luxembourg, Finland, the Netherlands, France, Ireland and Belgium.

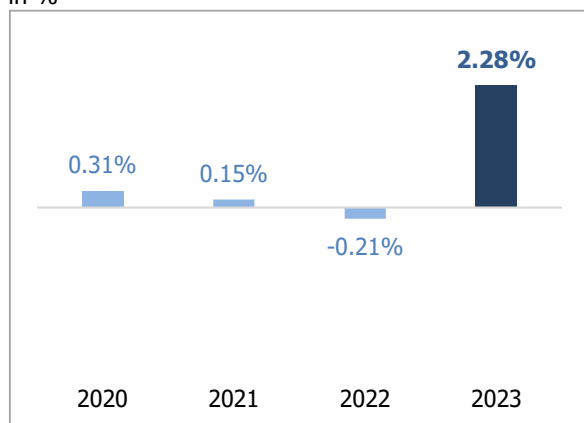
<sup>57</sup> "Other euro area and EU countries" include: Italy, Portugal, Spain, Denmark, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, Croatia, Bulgaria, Czech Republic and Sweden.

In the foreign reserves structure, the average share of **gold** decreased, from 11.1% in 2022 to 9.9% in 2023, which, amid unchanged quantity and higher price of gold, completely results from the increase in foreign reserves.

#### 6.4. Results from the management and investment of foreign reserves

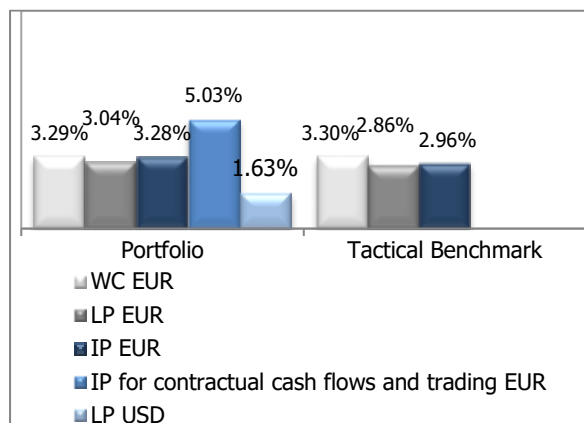
The results from the management and investment of foreign reserves are largely related to their distribution by portfolios, taking into account the different obligations and purposes of foreign reserves in different time periods. Consequently, in addition to the assets held on current accounts in central banks, foreign reserves are mostly invested in instruments with fixed income, which can be traded and amid favorable market conditions they enable realizing gains from the changes in the market value of instruments. The positive interest rates on euro deposits and the relatively high yields in 2023 had a positive impact on new investments in financial instruments and consequently, in addition to the current ones, they have a favorable effect on the expected financial results in the coming years. Also, the effect of yields was compensated by the favorable performances of the active management of the portfolios of foreign reserves, whereby the **total rate of return on investment and management of foreign reserves was positive and amounted to 2.28%**.

Chart 79  
Foreign reserves return rates<sup>58</sup>  
in %



Source: NBRNM.

Return rates by tranche in 2023



The diversification of placements by instruments, the active foreign reserves management, i.e. the investment in higher-yield-bearing instruments, the choice of an appropriate moment to invest, the adjustment of the investment setup to the changed financial conditions and the manner of structuring the portfolios contributed to improved performances and to exceeding the results in relation to the adequate reference portfolios<sup>59</sup>.

Analyzed by portfolios, the operational portfolio in euros, which mainly includes funds on current accounts and term deposits, makes a positive contribution to the income from

<sup>58</sup> The rate of return on foreign reserves includes the return on investment and management of foreign reserves, including calculated price changes in securities, exchange rate changes from arbitrations of exchange and operations with gold and derivative instruments.

<sup>59</sup> The liquidity and investment portfolio in euros for trading is managed in relation to a reference portfolio, represented by a combination of the following reference indices published by Intercontinental Exchange® (ICE): EG6 W composed of government securities issued by member states of the euro area with credit rating of at least "AA" and with a residual maturity from zero to one year; EG61 composed of government securities issued by member states of the euro area with credit rating of at least "AA" and with a residual maturity from one to three years; and EG62 composed of government securities issued by member states of the euro area with credit rating of at least "AA" and with a residual maturity from three to five years. The basic adjusted durations of the reference portfolios correspond to the adjusted durations of the liquidity and investment portfolio, respectively.



investment of foreign reserves, taking into consideration the growth of the reference interest rates in the euro area and the USA during 2023. The investment portfolio in euros, which covers most of the foreign reserves and includes instruments with longer maturities (despite the safest instruments, it also contains investments in instruments that offer a credit risk premium) and the liquidity portfolio in euros<sup>60</sup>, which is with a shorter duration, registered higher performances, compared to the performances of the respective reference portfolios.

At the beginning of 2023, a separate portfolio was established within the investment portfolio, which is managed according to the business model for the collection of contractual cash flows and the sale of financial assets. In this way, the intention to acquire securities is reflected better, and their recording as financial assets whose effects are measured at fair value through other comprehensive income, provides protection of the financial result amid further growth of yields, influenced by the tougher stances on tightening of the monetary policy by the monetary authorities in the euro area. Moreover, this portfolio registered the highest return during the year (5.03%).

Part of the investments of the foreign reserves within the investment portfolio are also aimed at securities held to maturity. These securities, which are only for the payment of contractual cash flows, consist individual portfolio within the investment tranche and the evaluation of the results of their management is displayed in a nominal (cash) amount, i.e. they are not re-evaluated at market prices. Consequently, these securities have predictable, positive and stable return at a level of the return during their acquisition and also decrease the exposure to interest rate risk. Amid volatile movements in financial markets and in order to provide predictable and relatively high income in the longer run, the level of the portfolio to maturity in euros increased during 2022, which contributes to a higher average value of this portfolio in 2023. This portfolio registered a relatively lower rate of return than other portfolios in euros, 0.72%, considering that it is mostly comprised of government bonds issued by member states of the euro area acquired in the previous period of extremely low yields and the effects are evenly distributed in the periods to their maturity.

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<sup>60</sup> Intended to satisfy all contractual and potential outflows during one year.

## VII. Payment services and payment systems

Enforcement of the new Law on Payment Services and Payment Systems

Fee comparison tool

Growth of digital payments

The National Bank has a key operational, regulatory and oversight role in the establishment and operation of the payment systems, thereby enabling safe and efficient payments. Moreover, the most significant activity in the payment area that marked 2023 is the enforcement of the new Law on Payment Services and Payment Systems (LPSPS) and the bylaws adopted by the National Bank, which made an outstanding contribution to the significant harmonization of the national legislation with the European standards and regulations. The new legal framework, due to the high harmonization with the Acquis, opens up possibilities for **faster integration of the country into the Single Euro Payments Area (SEPA)** and connection to the payment infrastructure in the EU for faster and cheaper payments in euros for citizens and companies.

One of the most important benefits of the enforcement of the new legal framework is the **opening of the market** for new payment service providers and the expansion of the set of payment services to be offered in the market. In addition to banks, savings houses will also provide payment services, as well as the specialized institutions for providing payment services and/or for issuing electronic money. In a competitive environment, citizens and companies are expected to get a wide range of innovative solutions for making faster, easier and cheaper payments.

**The increased protection of citizens** by ensuring greater transparency and comparability of the services are significant benefits and novelties brought by the new legal framework. Namely, for the first time an obligation was introduced for the payment service provider to regulate the rights and obligations of the consumer with a **framework agreement** in a standardized form, which should include a mandatory set of information, as well as the possibilities and terms under which it can be amended or terminated. In addition to increased transparency, these provisions achieve better information, legal safety and equal treatment of consumers among payment service providers.

From the beginning of 2023, citizens got an opportunity for the first time to open and use a **payment account with basic functions**, which, compared to the existing payment accounts that citizens have with banks, enables them to make payments at lower fees. Moreover, the bank or the savings house may calculate and charge a total monthly fee for the services with the payment account with basic functions only to a reasonable amount, which must not exceed 0.1% of the moving average of the average monthly net wage paid in the country for the previous 12 months<sup>61</sup>. This fee includes maintenance of the payment account and debit card, use of the Internet and mobile application, unlimited number of payment transactions for payment or withdrawal of cash directly at the counters on the premises of the

<sup>61</sup> In accordance with the announcements by the State Statistical Office, so calculated monthly fee in December 2023 was 37 denars.

bank or the savings house or through its network of ATMs, unlimited number of payment transactions with debit cards and carrying out at least five payment transactions with a credit transfer, including a standing order and with a direct debit, which transfer funds to other payment accounts with the same bank or savings house. Consumers belonging to the group of beneficiaries of legally defined rights, such as support, financial assistance from social protection, temporary unemployment, child dependency allowance, scholarship etc, which result from the law, may use the stated payment services free of charge through the payment account with basic functions.

Based on the data from the banks, the National Bank prepared a list of 11 so-called most representative services related to the payment account, i.e. the most frequently used services, and starting from September 2023, it ensured availability and comparability of the fees for these services by banks, by using the "tool for comparison of fees between payment service providers". In this way, for the first time in the history of our country, with the help of this tool through the web site of the National Bank, citizens can quickly and easily get information about the fees at each of the banks and compare them, thus saving time and money and making easier decisions from which bank to use payment services.

The legal obligation of payment service providers to submit a **statement of fees** to the consumer, at least once a year, also increases the citizens' awareness of the fees that payment service providers charged them for the use of the payment account, thus providing their greater protection. In accordance with the new legal framework, for the first time at the beginning of 2024, the citizens received a statement of fees for the used services related to the payment account during 2023.

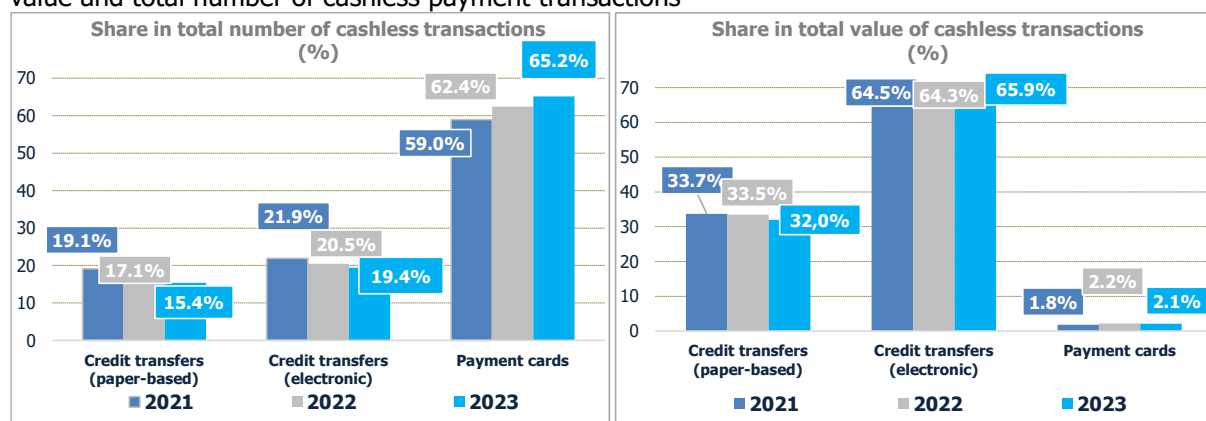
### 7.1. Cashless transactions

In 2023, citizens and companies in the Republic of North Macedonia made 218 million cashless transactions (valued at Denar 6,691 billion), by using payment services from payment service providers in the country. Compared to 2022, this number increased by 12.4%, and their value registered an annual growth of 20.0%. Payments with payment cards registered an annual growth of 17.3%, contributing to a high structural share of 65.2% of the number of payment card transactions in the total number of payment transactions in the country, which acknowledges the reality that the benefits of digitalization are increasingly used in the payment service market, as a result of the changes in the habits and culture of citizens and companies in executing payments in the country. At the same time, there was an annual growth of 4.2% in the total number of credit transfers, whereby credit transfers initiated electronically registered an annual growth of 6.8%, but their share declined by 1.1 percentage points in the total number of payments (19.4%), while credit transfers initiated in paper-based form registered an annual fall of 1.1%, which contributed to reduction of 1.7 percentage points of their share in the total number of payments (15.4%).

The total value of payments in 2023 is still predominated by credit transfers with 97.9%, amid increased structural share by 1.6 percentage points (share of 65.9%) of credit transfers initiated electronically at the expense of the decline in credit transfers initiated in paper-based form of 1.5 percentage points (or share of 32.0%), while the structural share of the value of payment card payments marginally decreased by 0.1 percentage points (2.1%), in the total value of realized cashless payment transactions.

Chart 80

Structural share of cashless payment transactions with credit transfers and payment cards in the total value and total number of cashless payment transactions<sup>62</sup>



Source: NBRNM.

#### 7.1.1. Payment transactions with credit transfers initiated by natural persons and legal entities in the country

The total number of credit transfers initiated by natural persons and legal entities<sup>63</sup> in the country in 2023 was 67.2 million, which is an annual growth of 5.0%.

Table 4

Credit transfers initiated by natural persons and legal entities in the country

2023 година		
Number of credit transfers initiated by non-MFIs	Natural persons (%)	Legal entities (%)
<b>By method of initiation</b>		
paper-based	71.4	33.9
electronic	28.6	66.1
<b>By device of initiation of the electronic credit transfers</b>		
computer	42.0	96.9
mobile payment solution	57.0	3.1
ATMs	0.5	/
other devices	0.5	/

Source: NBRNM.

The structure of credit transfers, in terms of user, same as in 2022, is predominated by legal entities with an equal structural share of 64.3%, while, the rest of 35.7% are initiated by natural persons. Moreover, it is noticeable that legal entities more frequently used the benefits of electronic banking (share of 66.1% in the total number of credit transfers initiated by

<sup>62</sup> The Chart shows total credit transfers which include credit transfers (or so-called payment orders) initiated by natural persons and legal entities in the country which are not monetary financial institutions (sector non-monetary FI), as well as credit transfers initiated by monetary financial institutions (sector monetary FI) for own payments or payments instructed by the government or administrative bodies to the sector non-monetary FI. In terms of payment card transactions, the chart shows only payments for purchased products and services in trade, while section "Payment card transactions" analyzes withdrawing and depositing cash by using payment cards.

<sup>63</sup> In order to perceive the payment habits of natural persons and legal entities in the country more appropriately, especially in terms of the use of digital payment channels, the National Bank started collecting analytical data on *Total credit transfers* as of 2021, which are divided in three sub-categories: *Credit transfers initiated by non-monetary FI (legal entities and natural persons)*, *Credit transfers initiated by monetary FI for own payments* and *Credit transfers initiated by monetary FI upon government's and administrative bodies' instruction to transfer funds to natural persons*. In order to perceive the payment habits of natural persons and legal entities, the analysis of credit transfers in this section refers only to credit transfers initiated by the sector non-monetary FI, namely natural persons and legal entities.

legal entities), while natural persons still predominantly initiate payments at the banks' counters (71.4%).

During 2023, the growth of the use of mobile payment solutions among citizens to initiate electronic credit transfers continues with a share of 57.0% or an increase of 3.0 percentage points, compared to 2022, at the expense of the decline of 3.1 percentage points or a share of 42.0% of computers and a decrease of 0.2 percentage points in the share of ATMs.

Legal entities predominantly use the computer (96.9%), but the structural share of the use of mobile payment solutions slightly increased by 0.8 percentage points compared to 2022, which reached 3.1% in the total number of credit transfers initiated electronically by legal entities.

### 7.1.2. Payment cards

The total number of transactions with payment cards<sup>64</sup> issued by domestic issuers at terminals located in the country kept on increasing also in 2023, and they reached 171.5 million payment transactions amid annual growth of 14.6%. Moreover, the use of payment cards at physical points of sale and e-commerce points of sale registered high annual growth of 17.3%. Also, cards were used to withdraw and deposit cash at ATMs, recording an annual growth of 3.3% in the number of cash transactions. The structural share of the number of POS transactions kept on increasing, by 2.1 percentage points reaching 74.8% in 2023, at the expense of the reduced share of transactions for ATM cash withdrawals (16.4%). As a result of the change in the habits and the culture of payments of citizens and companies, the use of payment cards at the domestic e-commerce points of sale registered an annual growth of 11.3%, although their share decreased by 0.2 percentage points (relatively small structural share of 8.1%). The number of transactions for ATM cash deposits registered an annual growth of 18.3%, but their share in the total number of transactions with payment cards is still unchanged and low (0.7%).

Also in 2023, there is an increase in the number of transactions in the country with payment cards from foreign issuers. Thus, 17.3 million transactions with payment cards issued by foreign issuers were performed at terminals located in the country, registering a significant annual growth of 38.2%. In terms of their use, also during 2023, they were increasingly used for payment at POS terminals, which, amid annual growth of 41.2%, increased their share by 1.7 percentage points which reached 83.6%. Amid smaller annual growth of 19.9%, the share of cards for ATM cash withdrawals decreased by 1.8 percentage points and reduced to 11.4%, while the share of the use of payment cards at e-commerce points of sale is stable and unchanged (4.9%), amid high annual growth of 37.7%.

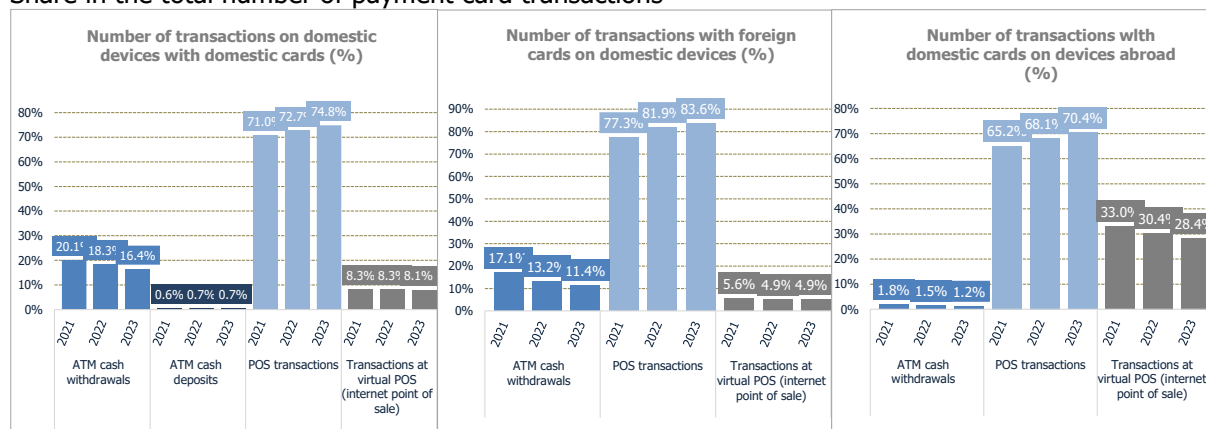
Significant annual growth of 33.3% in 2023 was registered in the use of payment cards issued by domestic issuers at terminals located abroad, whereby 16.1 million transactions were carried out. Moreover, there was increased use of payment cards at POS terminals with an annual growth of 37.8%, which led to an increase in their structural share by 2.3 percentage points which reached 70.4% and increased use of payment cards at e-commerce points of sale of foreign entities of 24.6% annually, amid decline in their structural share to 28.4%, i.e. by 2 percentage points. Withdrawing cash with domestic cards at ATMs abroad remains low (structural share of 1.2%, with an insignificant annual decline of 0.3 percentage points).

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<sup>64</sup> Transactions with payment cards issued by resident PSPs include POS transactions, virtual (Internet) points of sale and withdrawing and depositing cash at ATMs in the country.

Chart 81

Share in the total number of payment card transactions



Source: NBRNM.

## 7.1. Payment infrastructure

As a result of the constant development of contactless technology, which assumes increasing proportions in the field of card payments, during 2023, the electronic payment infrastructure in the country has been continuously improving. This is particularly evident in the upward trend of the number of payment cards based on contactless payment technology (75.9% of 1.9 million cards issued in the Republic of North Macedonia), amid excellent infrastructure for accepting payment transactions based on this technology (94.5% of 32,113 EFTPOS terminals). Increased offer and use of modern digital devices for making payments in 2023 is especially noticed through the high annual growth of 38.3% of the number of ATMs with an additional function for depositing cash, amid annual growth of 4.7% in ATMs with a credit transfer function.

The increased use of digitalized payment cards is yet another indicator of the development of digitalization in the domestic economy. Namely, the number of digitalized payment cards for making payments through mobile payment solutions and through other smart devices for making contactless payments continues to grow and at the end of 2023 was 42,300, the majority of which (68.2%) being digitalized payment cards with a debit function, and the rest belongs to digitalized payment cards with a credit function.

At the end of 2023, the total number of payment accounts in denars of clients with banks for making payments in the country was 3.78 million and registered an annual growth of 0.8%. In terms of structure, most, or 95% of payment accounts still refer to natural persons and 5% refer to legal entities. Every third natural person - depositor holds accounts for making payments by using computers and/or mobile payment solution for electronic initiation of credit transfers, while, in legal entities, 44.7% of the total number of payment accounts held by legal entities enable electronic payments, which is an increase of 0.7 percentage points compared to the end of 2022.

At the end of 2023, there was an annual growth of 5.6% in the total number of merchants in the country that accept payment card payments (15,804), caused by the annual growth of the number of merchants at e-commerce points of sale by 6.6% (1,708), as well as by the annual growth of the number of merchants that accept card payments at physical points of sale by 5.5% (14,096).



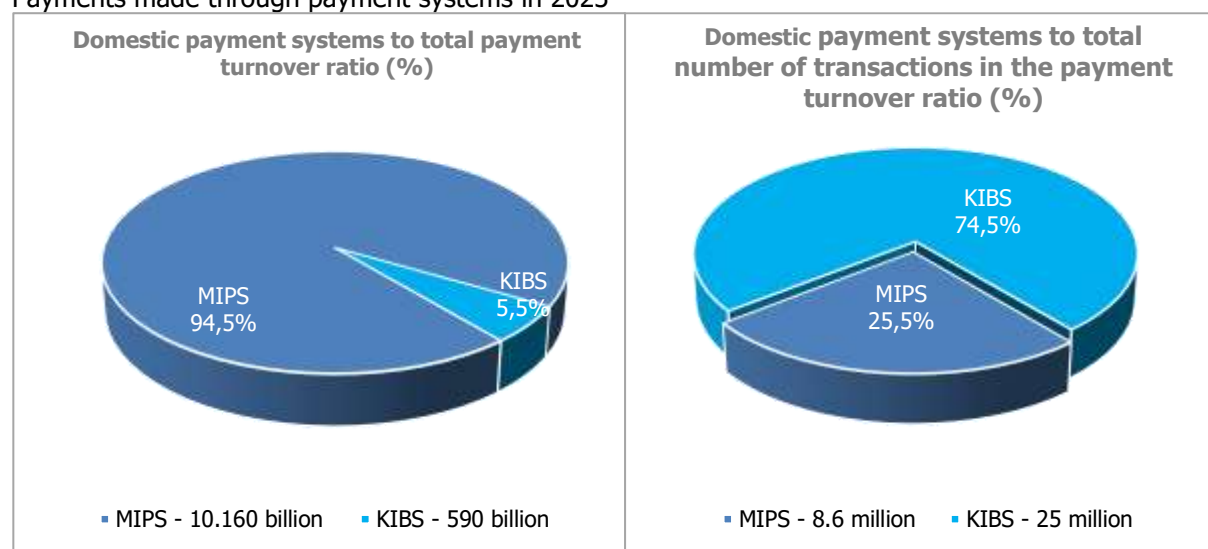
## 7.2. Payment systems in the country

In 2023, the total value of transactions in the country realized through the payment systems - MIPS<sup>65</sup> and KIBS<sup>66</sup> reached Denar 10,749 billion, amid executed 33.6 million transactions, recording an annual fall in the value of 35.7% and an annual growth of 4.4% in the number of performed transactions. In terms of the value of transactions, most of them are executed through the payment system MIPS, or 94.5%, while the remaining part of 5.5% of the total payments are executed through the payment system KIBS. In the structure of the number of transactions in the same period, KIBS recorded a larger share (74.5%), compared to MIPS (25.5%).

Net settlement of payments through KIBS is made on a regular basis through MIPS, which in 2023 worked for 245 days, with high accessibility of the participants to the system of 99.96%.

Chart 82

Payments made through payment systems in 2023



Source: NBRNM.

## 7.4. Payment systems oversight

The oversight activities of the National Bank were carried out on a regular basis, in accordance with the new legal framework in the Republic of North Macedonia, which started

<sup>65</sup> The National Bank is the owner and operator of the Macedonian Interbank Payment System (MIPS) as the only system in the country for large and urgent payments in denars between its participants, used to settle the payment transactions related to the implementation of monetary policy, to make the final settlement of the other payment systems and securities settlement systems, as well as of the payment transactions for the government and the government authorities and the other participants in the system.

<sup>66</sup> Clearing House - Clearing InterBank Systems AD Skopje operates the payment system for multilateral deferred net settlement for processing of small payments of below Denar 1,000,000.



to be applied from the beginning of 2023<sup>67</sup>, which translates the internationally established oversight standards<sup>68</sup>. The oversight on the operations of the payment system operators performed by the National Bank is aimed at reducing the risk associated with possible disturbances in the operations of the payment systems by identifying the potential risks in their operation, and is carried out through on-site oversight and by regular off-site monitoring of the operations of the payment system operator by analyzing the reports and data that the payment system operator submits to the National Bank. In this way, with the oversight activities, the National Bank contributes to increasing the security and efficiency in the execution of payment transactions.

During 2023, the National Bank monitored the implementation of the given recommendations from the completed on-site oversight of the payment systems and on a regular basis conducted oversight on their operations through off-site monitoring. On the basis of this, it was determined that during 2023 the payment systems in the country operated with a high level of operativeness, availability and efficiency, without registered significant failures in the systems.

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<sup>67</sup> [Law on Payment Services and Payment Systems](#) (Official Gazette of the Republic of Macedonia No. 90/22 and 64/24), Decision on the manner of conducting oversight on the operations of the payment service providers, the electronic money issuers, their agents, the payment system operators and the outsourcing entities (Official Gazette of the Republic of North Macedonia No. 271/22), Decision on the criteria for classification of payment systems, the standards for their operations and the requirements for a guarantee mechanism (Official Gazette of the Republic of North Macedonia No. 271/22) and Decision on the type of the reports on the operations of the payment systems and the manner and the deadlines for their submission (Official Gazette of the Republic of North Macedonia No. 271/22).

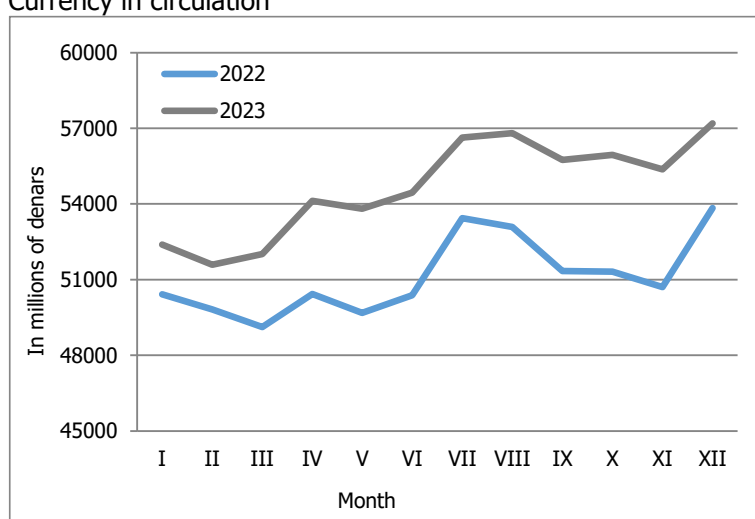
<sup>68</sup> Principles for Financial Market Infrastructure (PFMI) of the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions.

## VIII. Issuance and management of the banknotes and coins of the Republic of North Macedonia - vault operations

### 8.1. Currency in circulation

As of 31.12.2023, the total amount of the currency in circulation amounted to Denar 57,197 million, which is by Denar 3,356 million or 6,2%<sup>69</sup> more compared to the end of 2022. The structure of the currency in circulation suggests that at the end of the year, banknotes and coins make up 97.8% and 2.2%, respectively of the total value. In terms of the number of pieces of currency in circulation, the share of banknotes equals 27.7% (124.1 million pieces), and the share of coins equals 72.3% (323.7 million pieces).

Chart 83  
Currency in circulation



Source: NBRNM.

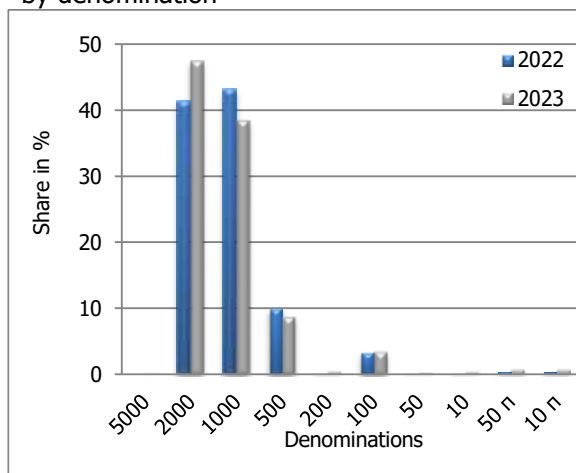
Banknotes in denomination of Denar 2000 (47.4%), Denar 1000 (38.5%) and Denar 500 (8.7%) account for the most of the total value of banknotes in circulation. Other banknotes account for 5.4% of the total value. In 2023, coins in denominations of Denar 10 (32.4%), Denar 50 (22%) and Denar 5 (20.4%) had the largest share in the value of coins.

According to the number of pieces in the structure of the currency in circulation, the share of banknotes in denomination of Denar 10 - polymer (27.1%), Denar 1000 (17.3%), Denar 100 (15.2%) and Denar 10 (13.6%) is the largest. Other banknotes constitute 26.8% of the total quantity of banknotes in circulation. The largest share of coins in circulation is that of the denomination of Denar 1 (39.3%) and Denar 2 (29.1%).

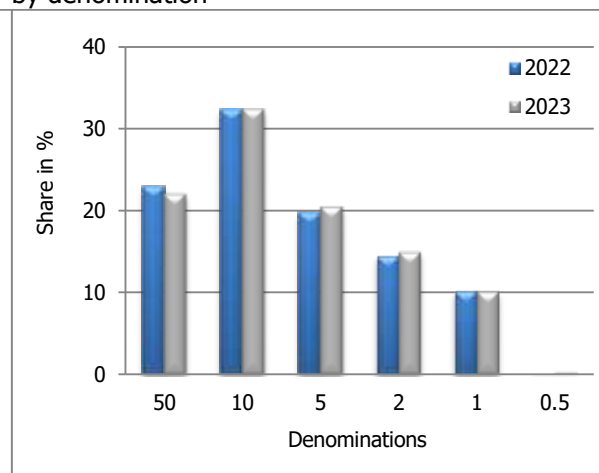
<sup>69</sup> The presented data on the currency in circulation do not include the quantities and value of the collector coins, which were made and put into circulation by the National Bank for artistic, cultural and promotional reasons. Collector coins are available primarily abroad, but also in the Republic of North Macedonia. As of 31 December 2023, the value of the collector coins in circulation amounted to Denar 11.7 million, thus the total value of currency in circulation in 2023 amounted to Denar 57,209 million.

Chart 84<sup>70</sup>

Value share of banknotes in circulation, by denomination



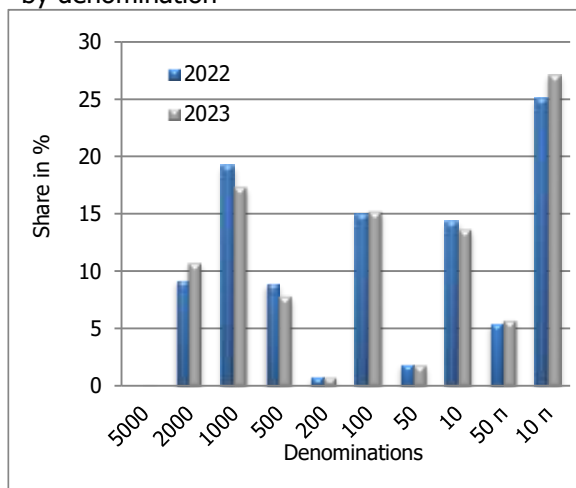
Value share of coins in circulation, by denomination



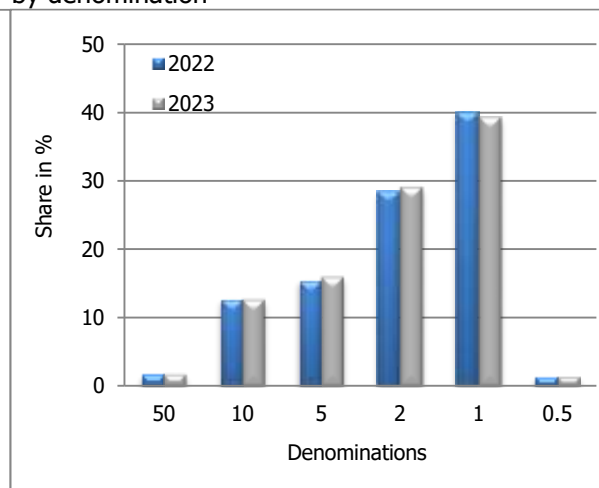
Source: NBRNM.

Chart 85

Quantity share of banknotes in circulation, by denomination



Quantity share of coins in circulation, by denomination



Source: NBRNM.

In the structure of the issued currency in circulation, polymer banknotes have an insignificant share (1.2%) relative to the other banknotes, whereby one should bear in mind their low nominal value. According to the quantity, the share of polymer banknotes in the total number of banknotes in circulation is more significant and amounts to 32.8%, taking into account their important role in retail.

## 8.2. Supplying banks and cash centers with banknotes and coins

During 2023, the National Bank issued cash to banks and cash centers<sup>71</sup> in the amount of Denar 20,692 million (increase of 9.8% compared to 2022). At the same time, cash has been received from banks and cash centers in the amount of Denar 17,338 million (increase of 5.8% compared to 2022). The analysis of the denomination structure of banknotes and

<sup>70</sup> The letter "p" in the charts denotes polymer banknotes.

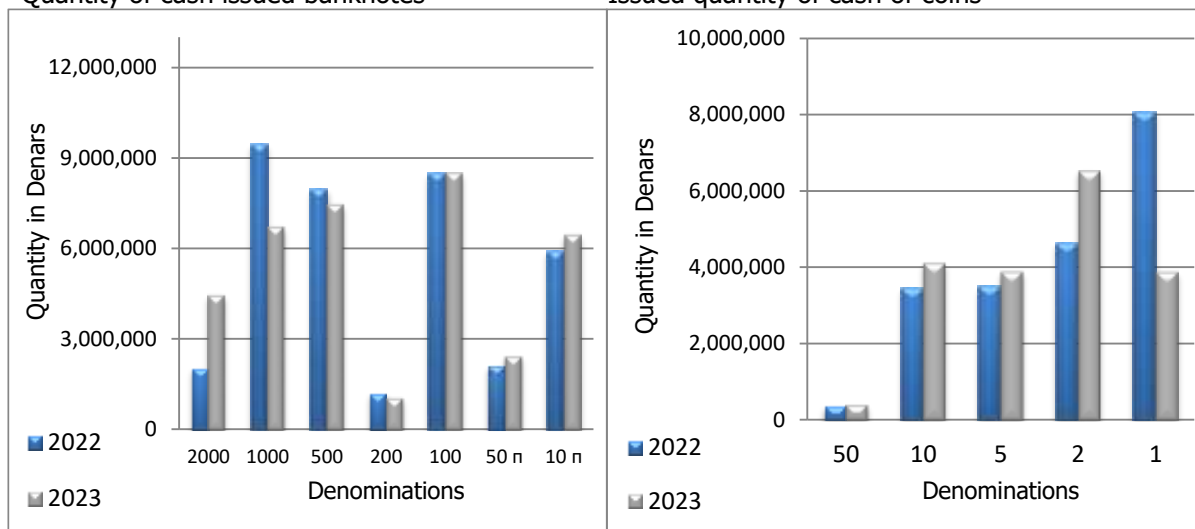
<sup>71</sup> During 2023, within the activities related to the cash supply process, the two cash centers where commercial banks transferred part of the cash operations, continue to actively function.

coins suggests that in the total turnover, the largest banknote is the denomination of Denar 100 with a share of 23.3% in 2023 (i.e. 23% in 2022) and the most common coin is the denomination of Denar 2 with a share of 30.4% in 2023 (compared to 21.2% in 2022).

Chart 86

Quantity of cash issued banknotes

Issued quantity of cash of coins



Source: NBRNM.

### 8.3. Processing and destroying banknotes and coins

During 2023, in the process of control of the quality of banknotes in circulation, a total of 31 million pieces were processed, out of which 15.4 million pieces were destroyed due to unfitness for circulation (11 million banknotes in 2022). Most destroyed banknotes were denominated in Denar 1000 (31%) and Denar 500 (30.5%). In 2023, 3.4 million pieces of coins in denominations of 1, 2, 5, 10 and 50 denars were processed, 19 thousand pieces of which being withdrawn as unfit for circulation.

### 8.4. Expertise of suspicious / counterfeit money

In 2023, the National Bank, as a single institution authorized to determine the authenticity of banknotes and coins denominated in denars and in foreign currencies, successfully performed the expert analysis of the submitted suspicious money.

The expert analyses of the submitted suspicious banknotes denominated in denars, which are made during 2023, found 32 counterfeit samples<sup>72</sup>, which is a decrease of 90% relative to the counterfeit banknotes detected during 2022. In addition to the afore-stated banknotes, during 2023, 2852 counterfeit banknotes that were subject to police confiscation before being put into circulation were also analyzed. Of the total number of detected counterfeit banknotes in 2023, the denomination of Denar 2000 - 17 pieces is the most common, or 53.1% of the total number of counterfeits, followed by the denomination of Denar 500 - 6 pieces, or 18.8% of the total number of counterfeits and the denomination of Denar 100 - 6 pieces, or 18.8% of the total number of counterfeits. The total value of Denar counterfeits in 2023 amounted to Denar 40,600.00, which is a negligible share compared with

<sup>72</sup> The total number of identified counterfeit banknotes does not include the counterfeits confiscated before being put into circulation.

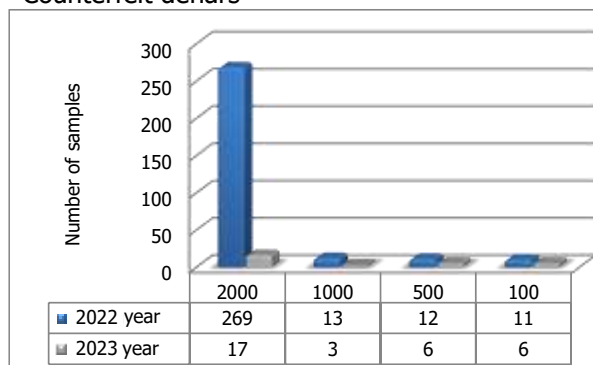
the total value of the currency in circulation. In general, the occurrence of counterfeiting of our currency is very low, and the risk to citizens and the general public of coming into contact with counterfeit money remains minimal.

Within its authorizations, and in order to determine the possibility for a replacement on the basis of the prescribed criteria, the National Bank in this time period performed professional expertise on 7,867 samples of damaged banknotes submitted by banks and cash centers.

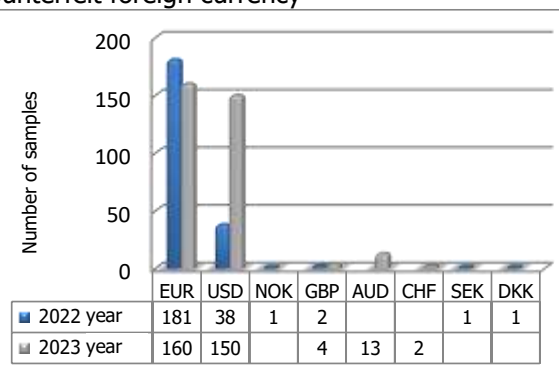
Also, during 2023, the National Bank replaced the damaged banknotes and coins submitted by natural persons, and replaced the currency withdrawn from circulation, and for which there is no time limitation for their replacement. The National Bank replaced a total of 24,297 pieces of damaged banknotes / coins and withdrew 7,342 pieces of banknotes from circulation.

Chart 87

Counterfeit denars



Counterfeit foreign currency



Source: NBRNM.

In terms of committed expert analyses of received suspicious banknotes denominated in foreign currency in 2023, of total 1042 analyses, 329 counterfeit and 713 original money were identified. Of the total number of counterfeit banknotes, the Euro banknotes (160 pieces) and US dollars (150 pieces) prevailed. The general conclusion is that counterfeit banknotes are of relatively poor quality, allowing simple and easy identification and determination of their properties<sup>73</sup>.

As in 2022, also during 2023 the emergence of large amounts of counterfeit euro coins continues. In this year, a total of 11,489 pieces of counterfeit euro coins were detected, of which 11,122 pieces in denomination of 2 euros and 367 pieces in denomination of 1 euro. Of the other currencies, a total of 11 counterfeit coins of certain currencies were registered.

## 8.5. Implementation of cash operations standards and criteria in banks and cash centers

For full implementation of standards and criteria aimed to rise the quality and protect the integrity of the domestic monetary unit, the National Bank continued implementing its supervision activities in banks and cash centers by conducting off-site and on-site examinations. In the course of 2023, a total of 10 on-site examinations were conducted, of which 9 were examinations of commercial banks and 1 examination of cash center.

<sup>73</sup> The expert analysis of the technique of making counterfeit banknotes found that they are mostly made on a plain paper without enough security features, by using computer technique (scan and print) or color copy machine.

During this period, a total of 98 cash processing machines were tested as part of the regular annual verification of these machines, as well as due to the irregularities in machines identified during on-site examinations.

From the beginning of 2023, the National Bank continued to organize the regular mandatory trainings for the employees of banks and cash centers for manual verification of the authenticity and fitness of currency in circulation, as well as the trainings for police officers and experts from other institutions that, within their competences, take activities for prevention and suppression of the counterfeiting of money. During this year, seven trainings were held for the employees of banks and cash centers and two trainings for the representatives of institutions involved in the combat against money counterfeiting.

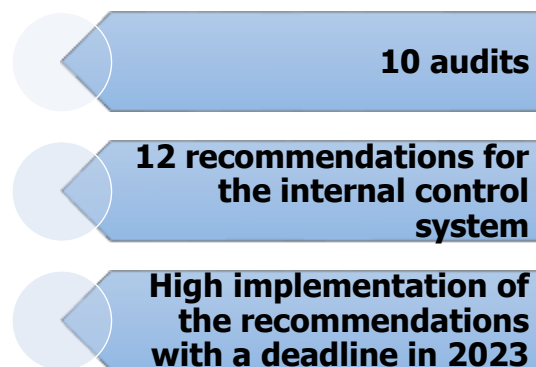
## **8.6. Issuance of collector coins**

Collector coins are unique, representative coins of great artistic value that promotes the Republic of North Macedonia abroad. Although the sale of collector coins is primarily intended for and takes place abroad, they have aroused interest in the country<sup>74</sup>. In 2023, a total of 146 pieces of collector coins were sold.

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<sup>74</sup> In order to make them available, the National Bank enabled commission sale through the Mother Teresa Memorial House, Skopje in the afternoon and on non-working days.

## IX. Internal audit



Internal audit is an independent function that helps the National Bank achieve its objectives by applying a systematic, impartial approach to evaluate and improve the effectiveness of risk management, controls and governance processes.

The Internal Audit Department (IAD) operates in accordance with the Standards for the Professional Practice of Internal Auditing (Standards), as well as in accordance with the Code of Professional Ethics of Internal Auditors (Code) of the Institute of Internal Auditors in Florida, USA, which are accepted as national standards for internal audit operations.

The operation of IAD generally complies with the Standards and the Code<sup>75</sup>, according to the external assessment of the IAD operations, by experts from the Central Bank of the Netherlands.

IAD uses dual reporting, administratively, to the Governor of the National Bank and functionally, to the Audit Committee and the National Bank Council, ensuring independence of the internal audit.

During 2023, the IAD fully implemented its annual work program, by carrying out the regular audit activities, as well as the activities for confirming the quality and improving its operation.

In 2023, 10 audits were carried out (regular), giving 12 recommendations to improve the internal control system. The recommendations were followed up on a regular quarterly basis, whereby the findings of the monitoring suggest that the recommendations are observed and mostly implemented within the given deadlines.

Besides the ongoing activities, the internal audit also implemented the Quality Assurance and Improvement Program in the Internal Audit Department. According to the Program, during 2023 the IAD reviewed and updated its internal operating procedures and prepared reports from the periodical self-assessments, from methodological and organizational aspect, of the conduct of the audits of information technologies and in terms of the compliance of the operations of the IAD with the Standards and the Code.

### 9.1. Work of the Audit Committee

The Audit Committee (Committee) is a permanent working body of the National Bank Council (Council), established for the purpose of further improving the corporate governance

<sup>75</sup> There are three levels of conformity: Generally Conforms, Partially Conforms and Does Not Conform.



in the National Bank, strengthening the control processes in the performance of its activities and legal tasks. On 28 March 2024, the Assembly of the Republic of North Macedonia at its 149th meeting adopted the Law amending the Law on the National Bank of the Republic of North Macedonia<sup>76</sup> whereby Article 64-a further specifies the formation, the authorizations and the tasks of the Committee.

The work of the Committee is also regulated by the Decision on the work of the Audit Committee and determining its scope of work, which defines its composition, goals, scope of work, authorizations, responsibilities and method of reporting.

The purpose of the Audit Committee is to help the Council in fulfilling its supervisory responsibilities of the operations, by carrying out the following activities in its scope of work:

- Monitoring of the accounting policies and the financial reporting;
- Monitoring of the efficiency of the internal audit;
- Monitoring of the process of selection of an independent audit company, monitoring of the audit process and the work of the selected audit company;
- Assessment of the overall effectiveness of the internal control system and the risk management framework, which protect the assets of the National Bank;
- Monitoring of the appropriateness of the framework for compliance of the operations with the regulations and the effectiveness of the process of monitoring of the compliance at a level of the National Bank.

The Audit Committee consists of three non-executive Council members.

During 2023, the Audit Committee held seven sessions. The Committee members participated in discussions and analyses on the topics that were considered and that they proposed to the Council for adoption. Among other things, at its regular sessions, the Audit Committee closely monitored the operations of the IAD.

Namely, at its sessions, the Committee discussed the external auditor's report on the audit of the financial statements for 2022, the external auditor's plan for carrying out the audit of the financial statements for 2023, the reports on operational risk management, on the compliance and implementation of the recommendations given by the internal and external audit.

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<sup>76</sup> The Law was published in the Official Gazette of the Republic of North Macedonia No. 74/24 on 2 April 2024, and entered into force on the eighth day after the date of its publication in the Official Gazette of the Republic of North Macedonia, i.e. on 9 April 2024.

## X. Human resources management

**Continuous professional trainings**

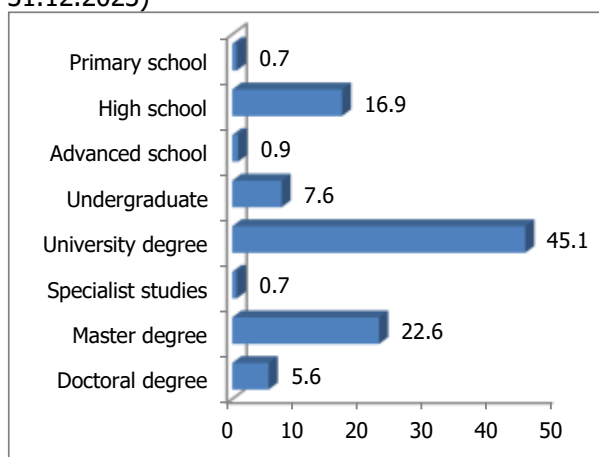
**Employee care**

**Motivation and continuous improvement**

The human resources management is one of the key factors for the successful functioning of every organizational unit. The National Bank of the Republic of North Macedonia is an institution that has been taking care and investing in its employees in order to strengthen their skills and competencies and increase their expert knowledge for creating highly educated staff to fight off any challenge while achieving its operating goals.

At the end of 2023, the number of employees<sup>77</sup> of the National Bank was 457, which is an increase compared to the end of 2022 (442 employees). Moreover, there is no major change in the gender structure of the National Bank employees compared to the previous year. The female population in 2023 was 55.1%, while the male population 44.9% of the total employees, as opposed to 55.9% of the female population, i.e. 44.1% of the male population in 2022.

Chart 88  
Qualification structure of the employees in the National Bank according to the Macedonia Qualifications Framework (in percentages, as of 31.12.2023)



Source: NBRNM.

Employees with higher education (four-year university studies) dominate the qualification structure with 45.1%, followed by employees with masters degree (22.6%). In terms of age structure, the median age of employees in 2023 was 44 years (43.8 years in 2022).

During 2023, the National Bank continued with the employee care, through smooth implementation of the key processes related to employees' professional trainings and development in order to maintain high motivation, increase engagement and retain staff. The key processes that refer to constant improvement and development of the employees, as well as for reduction of the

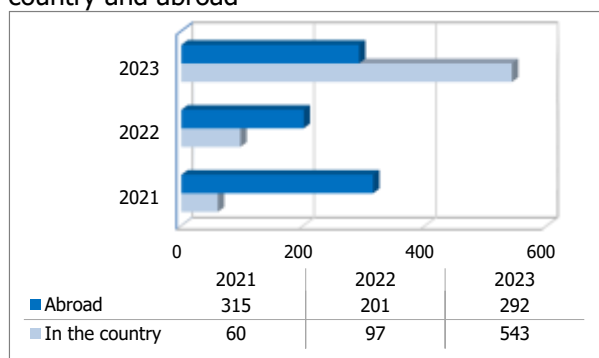
staff outflow, were regularly carried out also during 2023. For that purpose, the Human Resources Department regularly carried out the processes of professional development, employee evaluation and remuneration.

<sup>77</sup> The total number, including those hired through temporary employment agency, was 461. The charts in this section take into account the total number of employees.

The mentoring process is one of the most important processes that were regularly and successfully implemented also during 2023 in the National Bank, in order to support the employee's development, helping the employee in managing their personal career, acquiring or improving knowledge, skills and competences for a certain work process as well as continuous learning and professional progress.

During 2023, 835 professional training courses were attended in the country and abroad, versus 298 last year. This substantial increase is largely due to the trainings organized by domestic organizers (increase from 97 to 543), whereby mandatory cybersecurity trainings were attended for the first time within the professional trainings, and the records for the first time included the trainings for safety and health at work. During 2023, professional trainings organized by foreign organizers registered a more moderate increase from 201 to 292, i.e. 45.3% more compared to the previous year.

Chart 89  
Number of professional training courses in the country and abroad



Also during 2023, the organizers organized a significant portion of the trainings with physical presence, but also in virtual format. In 2023, the number of employees who attended professional training course was 442, which is an increase of 78.95% compared to the previous year (159 employees). The high attendance at professional training events is due to the fact that some of the organizers enabled attendance of several participants at the same event, primarily in a virtual form with foreign organizers

which do not incur costs for the National Bank. Moreover, the total number of professional training courses, includes different categories of professional trainings such as e-courses, seminars, workshops, trainings and webinars.

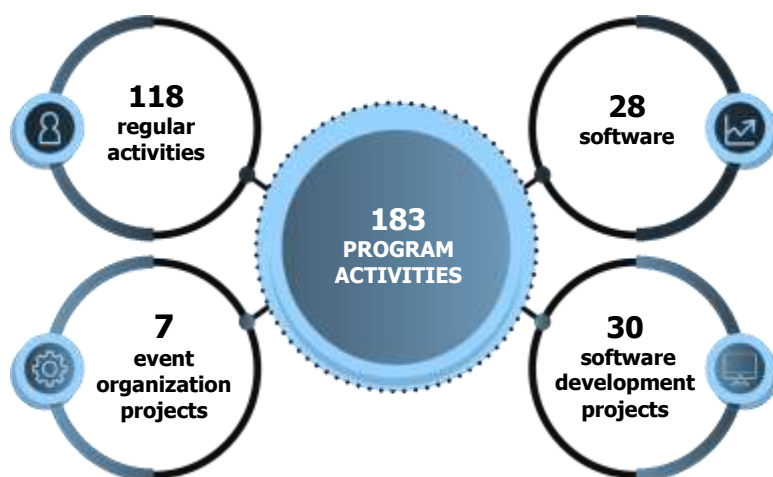
Main international institutions that organize professional training courses include the European central banks, the International Monetary Fund in cooperation with the Joint Vienna Institute, the Bank of France and the Deutsche Bundesbank who are the National Bank's major partners in the mutual cooperation programs. The professional training courses in the country are primarily hosted by domestic education centers, which cover the topics in the field of amendments to legislation, as well as topics that refer to the operations of the National Bank.

## XI. Implementation of the Plan of Activities for 2023

### Introduction

During 2023, the National Bank of the Republic of North Macedonia continued to carry out its planned program activities, working on its legally defined goals and tasks.

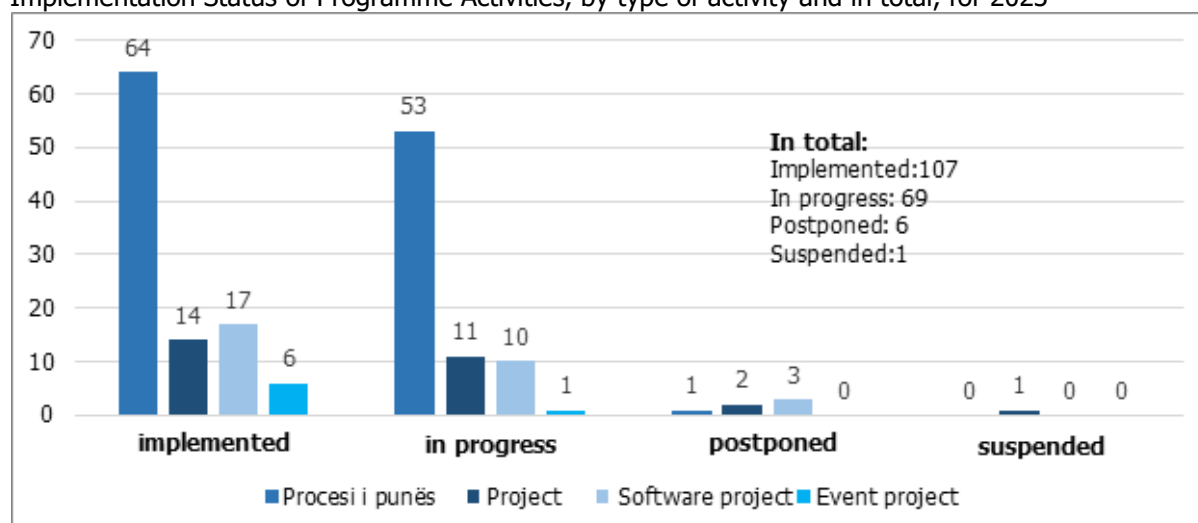
The National Bank actively worked on its planned program activities and projects in the [Plan of Activities of the National Bank for 2023](#) (hereinafter: Plan of Activities) in order to achieve the nine strategic objectives set out in the [Strategic Plan of the National Bank of the Republic of Macedonia for 2022 - 2024](#) (hereinafter: Strategic Plan). The Plan of Activities contains 183 program activities<sup>78</sup>, which mainly refer to the regular work processes that are directly related to the strategic goals and institutional capacities of the National Bank.



During 2023, the National Bank also worked on several projects, which aim to provide conditions for the fulfillment of the [vision of the National Bank](#), which is to be recognized as an **independent, responsible, professional, innovative and transparent institution that enjoys high credibility and public confidence**.

Chart 90

Implementation Status of Programme Activities, by type of activity and in total, for 2023



<sup>78</sup> The Plan of Activities of the National Bank for 2023 was adopted with 182 program activities, and during the first half of 2023 it was supplemented with 1 program activity within the Strategic goal 2: Maintaining and further strengthening of the banking system stability and resilience.

## Points

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*"A central bank which, with flexible, appropriately thought up and timely decisions, in times of rapid changes and digital transformation, contributes to a higher standard of living of citizens by creating an environment of sustainable and inclusive economic development"*

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The vision of the National Bank is to be recognized as:  
independent | responsible | professional | innovative | transparent institution with  
high credibility and public confidence.



**Stable exchange rate of the denar against the euro**



**High level of foreign reserves in response to market risks**



**Use of the potential of data for better research and statistics**



**Strengthening of the banking sector stability and resilience**



**Full commitment to the European integration process**



**Enabling modern financial technologies and access to other payment channels**



**Orientation towards green and sustainable growth of the domestic economy**



**Commitment to consumer protection and financial education**



**Application of the highest standards for transparency and communication with the public**



**Readiness to deal with sophisticated types of threats, attacks and incidents in the areas of cyber resilience and operational resilience**

## Strategic goal 1 - Improving monetary policy infrastructure



During 2023, the National Bank worked on the activities for **improving monetary policy infrastructure**, which also this year required close monitoring of the global and domestic situation and vigilance when making decisions, taking into account the specific geopolitical developments and their impact on the global and domestic economy. Within these activities, the National Bank **regularly informs the public about the monetary decisions made**.

During 2023, the National Bank made regular checks on the existing short-term forecasting models, in order to improve them, and also worked on setting new models by using new approaches and new variables within the process of **preparation of macroeconomic forecasts**. During the year, the achievements with the MAKPAM model were regularly checked and when needed minor corrections were made to its structure, and from this year the contents of the reports of the model itself were also enriched with a more detailed analysis of the monetary policy setup. The databases, used to reassess the analyses that are important when making monetary policy decisions (the analyses of the public and external debt sustainability, the equilibrium real exchange rate and the monetary transmission), were regularly updated.

In order to see the latest developments in the Macedonian economy as a whole and in the individual sectors of the domestic economy, as well as to assess their implications on the monetary policy, the National Bank prepared its **regular reports (the Latest Macroeconomic Indicators, the quarterly reports, as well as the Annual Report on its operations)**. A number of analytical materials on current topics in the field of macroeconomics were also prepared, and at the same time macroeconomic analyses were published, in the form of **analytical appendices**, and notes within the regular quarterly reports.

**The Bank Lending Survey and the Survey on Inflation and Real GDP expectations** were conducted on a regular quarterly basis, the reports, presentations and results of which were published on the National Bank website. Also, the Survey on the business plans of the largest exporters and importers was conducted on two occasions, for the purposes of the preparation of the macroeconomic forecasts.



**In the process of implementation of monetary policy**, the National Bank regularly conducted monetary operations, which enabled efficient management of the liquidity of the banking system. Through multiple amendments to the regulation, the National Bank simplified and modernized the reserve requirement system, predominantly in order to reduce the euroization of banks' liabilities. At the same time, within the activities for implementation of monetary policy, the National Bank **continued with the activities for adjustment of the reserve requirement system to the ECB practice** in terms of frequency and duration of the reserve requirement maintenance periods. For that purpose, the National Bank adopted a new indicative calendar of reserve requirement maintenance periods, which fully aligns the periods with the dynamics of maintaining reserve requirement in the Eurosystem.

**For the purpose of the issue of a civil bond** by the Ministry of Finance, given the legal role of the National Bank as a fiscal agent in the process of issuing government securities on the domestic market, the National Bank had numerous activities for amendments to the by-laws in this area, as well as for establishment of operational possibilities for the preparation



of the electronic system and the operating procedures for coordination between the individual institutions - participants, taking into account the expected mass demand. All the activities of the National Bank contributed to the successful holding of two auctions in 2023.

## Strategic goal 2 - Maintaining and further strengthening of the banking system stability and resilience



In conditions of uncertainties caused by the geopolitical developments globally, the National Bank assessed the effects on the banking and financial system and **undertook several activities for maintaining and further strengthening of the banking system stability and resilience.**

**The well set legal framework contributes to the overall stability of the banking system and its efficiency when achieving the goals.** Therefore, the National Bank actively worked on the **development of new and the improvement of the existing legal regulations.** During the year, the National Bank continued to develop the new Banking Law<sup>79</sup>, whose adoption is related to the further harmonization with the EU regulations, but also with the enforcement of the Law on Bank Resolution<sup>80</sup> and the new Draft Law on Deposit Insurance. Also, the National Bank adopted a [new Decision on the methodology for credit risk management](#)<sup>81</sup> and a [new Decision on disclosure of reports and data by banks](#)<sup>82</sup>. In 2023, the National Bank continued to develop the new regulation on determining capital adequacy as a medium-term activity. The National Bank actively worked on the improvement of other bylaws that improved the operations and standards in the banking sector.



The National Bank regularly conducted **stress-testing to assess the resilience of the banking sector** to shocks, and it currently works on the implementation of the recommendations from the International Monetary Fund for improving the stress-testing framework, including the macro stress-testing framework, for testing the sensitivity and for increasing the resilience of the banking sector to shocks. Also, **within the activities for the purposes of the macro-prudential policy, the National Bank introduced several macro-prudential measures.** Thus, the National Bank regularly assessed and monitored the systemic risks and determined the amount of the capital buffer for systemically important banks and the countercyclical capital buffer<sup>83</sup>. In April, for the first time, macro-prudential measures aimed at borrowers were introduced in order to improve the quality of credit demand. The Macroprudential Policy Strategy was adopted by the Financial Stability Committee in April 2023. Meetings of the Subcommittee for monitoring systemic risks and

<sup>79</sup> The development of this law largely depends on the status of the draft amendments to the European directive and regulation for credit institutions, which have not yet been adopted in the EU.

<sup>80</sup> The Law on Bank Resolution was adopted by the Assembly of the Republic of North Macedonia on 3 October 2023, and will start to be applied from 13 October 2025.

<sup>81</sup> The Decision was adopted by the National Bank Council in February 2023 and is based on the standards introduced in the EU for identifying and managing non-performing and restructured credit exposures. The Decision introduces a new way of determining non-performing credit exposures which is fully harmonized with the requirements provided for in the relevant European regulations and the European Banking Authority guidance. Moreover, the Decision improves the rules for monitoring and control of the non-performing and restructured credit exposures, and one of the more significant novelties refers to the activities that need to be taken by banks with increased amount of non-performing credit exposures.

<sup>82</sup> The National Bank Council adopted the Decision in February 2023. It makes further harmonization with the provisions of the Regulation of the European Union on capital requirements for credit institutions No. 575/2013, as well as with the bylaws of the National Bank that prescribe the preparation of some of the reports that the bank is obliged to publish.

<sup>83</sup> On several occasions, during 2023 the National Bank adopted decisions on increasing the countercyclical capital buffer rate - up to 1.5% applicable from Q1 2025.



taking macro-prudential measures<sup>84</sup> are regularly held. **The Fintech Strategy for Financial Regulators** was adopted by the Committee for supporting the development of innovations in the financial system in the Republic of North Macedonia (Fintech Sector Committee) in April 2023. By adopting the Strategy, the proposal for forming working groups that will work on the implementation of the recommendations from the Strategy, was also accepted. In November 2023, representatives from all financial regulators participating in the working groups, attended a fintech workshop held in the National Bank, where the future steps for implementation of the recommendations from the Strategy were determined.

During 2023, the National Bank regularly **carried out the off-site supervisory activities**, imposed corrective measures against banks and savings houses and monitored their implementation, held annual regular meetings with the external audit companies, as well as the activities for licensing banks, savings houses, exchange offices and payment institutions. In the second half of the year, the National Bank communicated with interested non-bank payment service providers and initiated the procedures for licensing the first payment institutions, which would end in the first half of 2024. In cooperation with the International Monetary Fund, technical assistance was received for advancing the application of stress testing during the Supervisory Risk Assessment Process<sup>85</sup>.



**The on-site controls were carried out on a regular basis** in accordance with the planned dynamics. The base for the findings of the on-site controls conducted during 2023 was also updated. Also, during the year, the National Bank regularly submitted to the Financial Intelligence Office individual reports in relation to the identified findings in the part of anti-money laundering and combating the financing of terrorism for the conducted on-site controls where the assessment of the risk of money laundering and financing of terrorism was subject of control. In January 2024, in accordance with the provisions of the Law on Anti-Money Laundering and Combating the Financing of Terrorism that provide for annual reporting to the FIO, the National Bank also submitted an annual report on the identified findings in 2023 to the Office.

Table 5

1.1.2023-31.12.2023 <sup>86</sup>			
Type of entity	Total number of entities	Number of on-site supervisions	Number of AML/CTF supervisions combined with other risk-based supervisions
<b>Banks</b>	13	6	5
<b>Savings houses</b>	2	2	2
<b>Money transfer providers</b>	4 (together with banks 8)	4	4
<b>Licensed exchange offices:</b>	254 (together with banks 265)	146	146

<sup>84</sup> As of 31 December 2023, a total of 6 meetings were held with legal obligation for quarterly meetings.

<sup>85</sup> During June 2023, technical assistance was received from IMF representatives, in order to determine the best way of implementing the world practices for using the stress-testing process when determining the overall SREP assessment and the minimum capital requirement. A draft report which gives the main recommendations for the introduction of this process, has been submitted. The draft report provides for the technical assistance to continue also in 2024 and 2025.

<sup>86</sup> During 2023, thematic controls in the field of anti-money laundering and combating the financing of terrorism were not carried out.

In 2023, the National Bank actively participated in the preparation and adoption of the Report of the Republic of North Macedonia within the fifth round of evaluation of the Council of Europe (Moneyval). The report was adopted at the 65th plenary meeting of the "Moneyval" Committee in May 2023.



**The Information Systems Supervision Office** carried out its planned on-site controls for managing the IT risk in accordance with the adopted annual plan for 2023. In accordance with the plan, the National Bank also carried out thematic on-site control of the achieved target level of readiness for cyber attacks. This thematic control of selected sample of banks checked the achieved level of readiness and the compliance of banks with the adequate requirements of the Decision on the methodology for information security.

### Strategic goal 3 - Supporting the households and the corporate sector by developing reliable, innovative and efficient payment systems<sup>87</sup>



**The regulatory, as well as the development and the catalyst role of the National Bank in the field of payment systems and payment services marked 2023.** For the effective enforcement of the Law on Payment Services and Payment Systems, which started to be enforced from the beginning of 2023, the communication with stakeholders, for the purpose of clarifying the practical enforcement of the by-laws within the competence of the National Bank, intensified.

In accordance with the new regulatory framework, for the first time in the history of payment services in our country, the National Bank enabled a quick and easy way in which the citizens, as consumers of payment services, can in one place on the web site of the National Bank **compare the offers of payment service providers with respect to the fees for the most frequently used services related to payment accounts.** In this way, the National Bank contributes to greater transparency for the payment service fees, encouraging competition between payment service providers and strengthening the protection of consumers by providing them with more useful information.

The National Bank also continued with its active participation within the Regional Cooperation Council for the **establishment of a common regional market of the countries of the Western Balkans** with the support of the World Bank. In cooperation with the expert team of the World Bank, which also carried out a one-week mission in the Republic of North Macedonia, the National Bank directed its expert team towards **accelerated preparation of the application for accession to the Single Euro Payments Area (SEPA).** Moreover, within this initiative, the National Bank started technical cooperation with the World Bank experts in order to make the preliminary analyses of the possibilities, advantages and possible risks from the issuance of a digital currency, the **digital denar**, as the digital form of the decree (fiat) currency denar.

<sup>87</sup> For more details please see Section VII. Payment services and payment systems.

The National Bank and De Nederlandsche Bank organized the [Conference on Payments and Market Infrastructures](#)<sup>88</sup> for the fifteenth time, continuing the long-time tradition of joint consideration of the possibilities and challenges in payment services through an open and fruitful discussion. The National Bank organizes the critical operations related to the operations of the payment systems in the country, the settlement of transactions in relation to the implementation of monetary policy and the management of foreign reserves and the performance of the international payment operations for the government authorities, thus successfully performing its **operational role** in this domain. Moreover, the National Bank, as the operator and owner of the Macedonian Interbank Payment System (MIPS), made the **first self-assessment** of the harmonization of the system's operations with the requirements from the international principles, ascertaining that it is harmonized.

In terms of the **oversight role in payment systems**, the National Bank continued with direct payment systems oversight which started in the past years, in order to prepare reports, issue recommendations and monitor the implementation of the recommendations. These oversights show that payment system operators operate smoothly, adhering to the standards prescribed by the National Bank.

#### Strategic goal 4 - Improving the investment policy and ensuring optimal return on foreign reserves in accordance with the security and liquidity principles<sup>89</sup>



The high uncertainty on the international financial markets, caused by the accelerated cycle of tightening of the monetary policy of the most influential central banks, imposed a need for **adjustment of the management of the portfolios of the foreign reserves to the volatile market expectations**. In this regard, the National Bank reviewed the investment setup and the exposure to market risks for the purpose of **more prudent approach to investing by providing greater liquidity potential, as well as smaller interest rate and credit risk**. The volatile market conditions were also used to **actively trade the instruments within the portfolios of foreign reserves, in an extremely high volume**, thus achieving positive results. At the same time, on the basis of the identified benefits, the National Bank started **applying a new business model in the management of foreign reserves**, which is why it made a large number of **adjustments in the part of the risk measurement, the results of the investment of foreign reserves and the reporting**.

#### Strategic goal 5 - Adherence to the standards of the European System of Central Banks



During 2023, the National Bank continued with the activities related to its strategic commitment for adopting the best European practices. National EU integration activities were intensive throughout the year by participating in the remaining part of the bilateral phase of analytical review, as part of the EU membership process.

The bilateral phase of analytical review with the EU, which started in the second half of 2022, continued also during 2023. Moreover, the

<sup>88</sup> The Conference was attended by representatives of the European Central Bank and the central banks of the European Union countries, the central banks of the countries of the region, the Bank for International Settlements, the European Payments Council, the domestic financial regulators, the domestic banking sector, as well as the domestic and foreign institutions in the domain of the fintech sector.

<sup>89</sup> Annex 3. Exposure to climate risks and the effects of sustainable investment of foreign reserves.

National Bank representatives participated in the [meetings](#) devoted to Chapter 4. Free movement of capital, Chapter 9. Financial services, Chapter 17. Economic and Monetary Union. Also, the National Bank contributed to Chapter 8. Policy and Competition and Chapter 28. Consumer protection. The National Bank representatives were also included in the working groups for: Chapter 6. Company Law, Chapter 31. Foreign, Security and Defense Policy and Chapter 33. Financial and Budget Provisions.

The National Bank representatives took part in the regular activities within the European integration process (regular meetings of the Subcommittee on Economic and Financial Issues and Statistics and the Subcommittee on Internal Market and Competition, took part in the preparation of the Economic Reform Programme, as well as in the preparation of the input of the Republic of North Macedonia to the Annual Report of the European Commission). Regular report on the participation, recommendations and activities of the National Bank in the EU integration processes in the period October 2022 - November 2023 was prepared and submitted to the National Bank Council. **The National Bank also participated in the bilateral meetings with the European Union institutions**, within the negotiating process for the membership in the European Union, for the topics related to the banking regulation and supervision, bank resolution and financial stability.

Also during 2023, the second phase of the [Regional Programme for the Central Banks of the Countries of the Western Balkans II](#) was carried out, which is funded by the EU and it is expected that it will last until September 2025. The Programme aims at further strengthening of the institutional capacities of the central banks that are final beneficiaries, especially by improving their analytical tools and policies and by transferring the best international and European standards to the national practices. Within the Regional Programme, during 2023, 8 trainings were conducted in the following areas: payment systems, financial markets, monetary policy and research, internal audit, supervision, IT and vault operations. Also, there was one internship in the field of statistics and one internship in the field of banking regulations and bank resolution, as well as participation in a high-level workshop for payment systems. During the year, 3 bilateral measures provided for in the Programme - in the field of IT, accounting and data management, started to be implemented.

The EC approved the project "Strengthening the National Bank capacities in relation to external statistics and payment systems and statistics" which is intended for further harmonization with the EU legislation and upgrading of statistical capacities by establishing a statistical warehouse and introducing a new real time gross settlement system based on the new ISO20022 standard<sup>90</sup>.

## Strategic goal 6 - Increased transparency and accountability



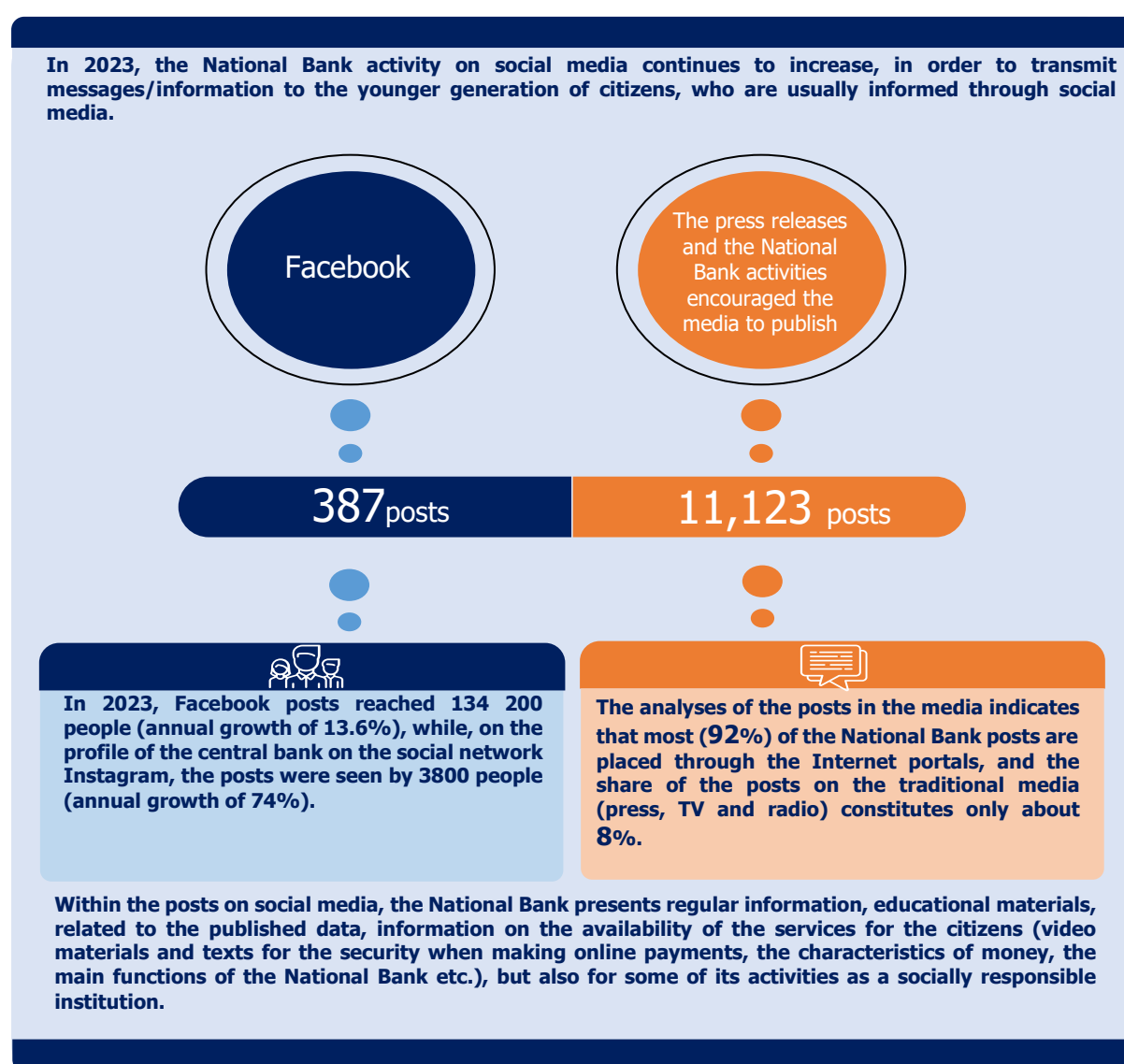
**[Transparency](#) and accountability are especially important for the National Bank.** Within its activities, the National Bank aims to demonstrate a comprehensive openness in its operations and provide information about its decisions, measures, perceptions, opinions and assessments, which are important for economic agents and citizens. During 2023, the National Bank carried out a number of activities, projects and events in order to achieve this strategic goal.

**[Communication with the public](#)** takes an increasingly important role in enabling better implementation of monetary and financial stability policies, but also for carrying out the

<sup>90</sup> The project will be funded by IPA III and will include the Statistics Department and the Payment Systems Department in cooperation with the IT Sector.

activities that were met with higher interest from the citizens, such as consumer protection, financial education and availability to information necessary to make appropriate financial decisions. The intensity of communication with the public during 2023 is at a high level. Thus, in 2023, 237 press releases were published through the media, as the most used communication tool. Moreover, on a regular basis, the public was informed about the decisions adopted by the [Council](#), as well as the decisions adopted by the [OMPC](#), as part of the established system for accountability to the public in relation to the measures and instruments used by the National Bank to achieve its goals.

To celebrate the monetary independence, the National Bank recorded and released 13 video addresses ([WE CELEBRATE THE DENAR](#))<sup>91</sup> of professors, academicians, former governors and vice governors in relation to the development path and achievements of the National Bank<sup>92</sup>.



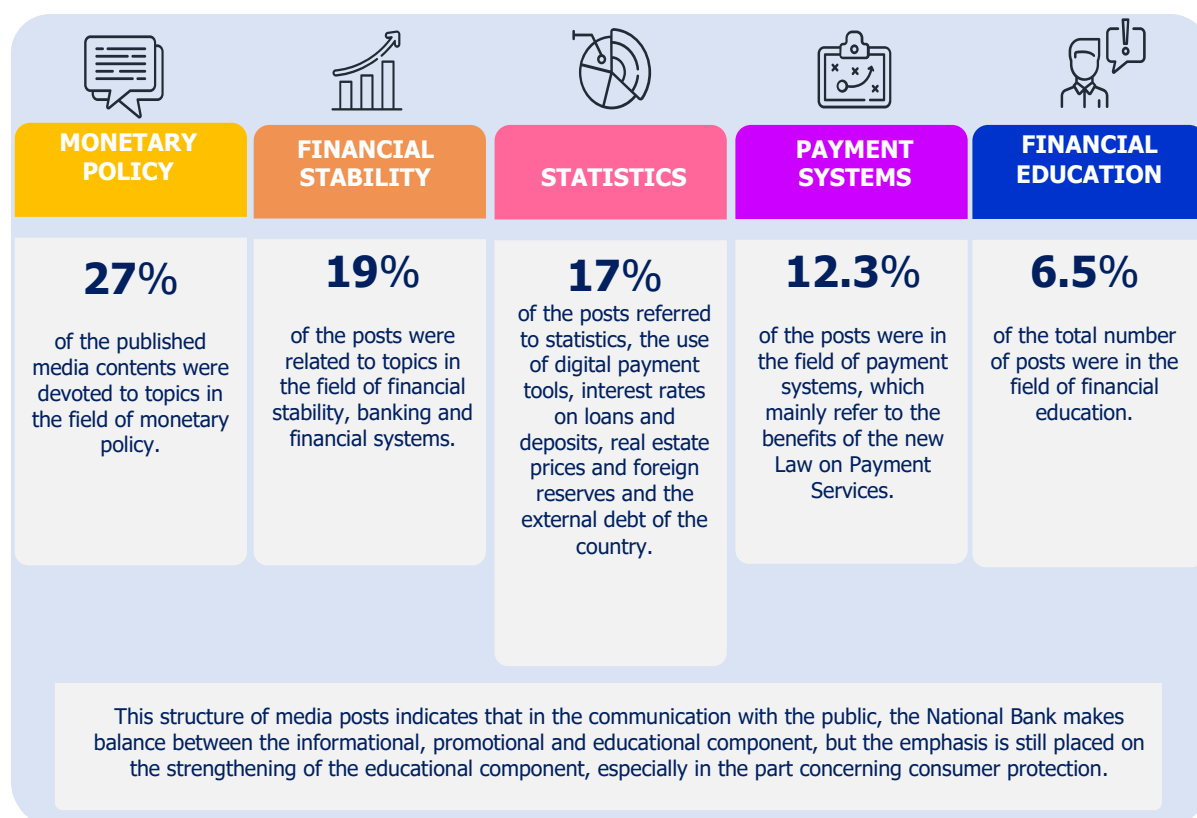
The National Bank also made efforts to increase direct communication with the media. For that purpose, and to better understand the National Bank messages, a workshop was held

<sup>91</sup> The video addresses are available on the YouTube channel of the National Bank.

<sup>92</sup> [The Vienna Initiative](#), the celebration of the Museum Day, the awarding of the Annual Researcher Prize, [the organization of the Research Club](#).

for the journalists for familiarization with the provisions of the Law on Payment Services and Payment Systems and with the manner of its enforcement. The workshop was held at the beginning of March and several materials were published about it in the media (Internet portals and TV). To better inform the public about the challenges in relation to financial stability, which were discussed at the meeting of the institutions within the Vienna Initiative, a working meeting with the journalists was also held in March.

Regarding the areas and topics for which the National Bank communicates with the media and the public, during the year, most of the published media contents were devoted to the main functions of the National Bank, which also reflects the main interest of the communication with the public and the public interest in these areas.



At the beginning of June, the National Bank held a workshop with the journalists and presented the [tool for downloading statistical data by users](#), then shared information on the calendar for publication of press releases and brief information on the social media about the newly published statistical data. In October, a workshop was held with journalists to clarify the new possibility of comparing commissions for payment services.



[The Strategy and Prevention Function](#) as the second line of defense within the [Strategy and Prevention Office](#) is competent for the organization and implementation of the process of strategic planning. The National Bank [strategic goals](#) and its [mission and vision](#) were implemented through its [program activities and projects](#)<sup>93</sup>. With the [Reports on the implementation of the Plan of Activities](#) the National Bank regularly reported on the achieved results, which enabled monitoring and evaluation of the results and the efficiency of the undertaken

<sup>93</sup> In addition to the textual recording of the Plan of Activities for 2023, there was also a presentation on the [National Bank website](#) to increase the transparency and inform the public about the National Bank's activities for 2023.



measures and activities, as well as further **strengthening of the transparency and accountability**. In April 2023, the National Bank Council adopted the [Report on the operations of the National Bank for 2022](#) which includes the [Report on the implementation of the Plan of Activities in 2022](#)<sup>94</sup>. Regarding the software development projects, their implementation status is regularly monitored and the Strategy and Operational Risks Function reports thereon at the ISSC meetings (**The Information System Steering Committee of the National Bank**<sup>95</sup>). In accordance with the [Strategic Plan 2022 - 2024](#) the National Bank prepared the [Plan of Activities for 2024](#). It includes a total of 178 activities, i.e. 120 regular program activities, 26 National Bank operations projects, 8 event organization projects and 24 software development projects. In the interest of the general public, the National Bank also prepared a [Presentation](#) of the Plan of Activities for 2024.

During the first half of 2023, the National Bank published the **annual financial statements** for 2022 (prepared in accordance with IFRS and approved by the National Bank Council) together with the opinion of the independent external auditor. **Public procurements** were conducted transparently and timely for unimpeded National Bank operations, thus taking into account the streamlining of the National Bank funds. Special attention was paid to transparency, encouraging competition and providing equal treatment to all economic operators, as basic principles of this process, prescribed by law.



**The Museum of the National Bank** regularly performed its current activities related to operating processes which refer to professional museum activities, but at the same time it prepared and performed a series of [museum educational activities](#). The National Bank produced a new interactive brochure for schoolchildren Museum Detective and educational leaflets, notebooks and pencils for schoolchildren. The publication<sup>96</sup> from last year's panel discussion titled Worthy and Values in the Museum of the National Bank which was organized in honor of celebrating the anniversary of 30 years of the monetary independence, is in the process of printing. The National Bank successfully promoted the professional museum catalog The Coins of the Argeads from the Numismatic Collection of the NBRNM, as well as the research paper The Middle Ages: the Precursor to a Well-organised Monetary System at the 4th Conference of the Museum of the Bank of Albania, which was held on 8 February 2023. The Museum of the National Bank was regularly visited by domestic and foreign visitors, thus promoting the numismatic heritage to the general public.



**The Library** of the National Bank as a **specialized library in the country** continued to enrich the library holdings with professional literature of periodical and monograph titles by foreign and domestic authors as well as with the latest publications of foreign central banks and international institutions and organizations. The publications were professionally processed in the internal application and in the COBISS.MK system which contributes to affirmation of the library holdings, better information and availability of the professional literature to users. **The archival fund** was enriched with digitalized archival material from the National

<sup>94</sup> The National Bank continued to present part of the contents of the Report through infographics in order to improve the manner of informing about the operations of the National Bank and to bring it closer to the general reading public.

<sup>95</sup> The ISSC sets the strategic guidelines and priorities in the field of information technology and information system security of the National Bank, supervises the development and implementation of the strategic plans for information system security, reviews and approves the internal regulation for implementation of the Information System Security Policy, the priorities and the major investments in information technology, monitors the status of the major IT projects and analyzes and grants the requests for exceptions to the Information System Security Policy. The ISSC operations are regulated by rules of procedures.

<sup>96</sup> Common collection of academic essays in the field of economy, culture, art.



Bank operations and with materials that complement the collections with conventional archival materials. During October, the National Bank signed a Memorandum of Cooperation with the State Archives of the RNM and held several meetings to define the future cooperation.

## Strategic goal 7 - Financial education and inclusion



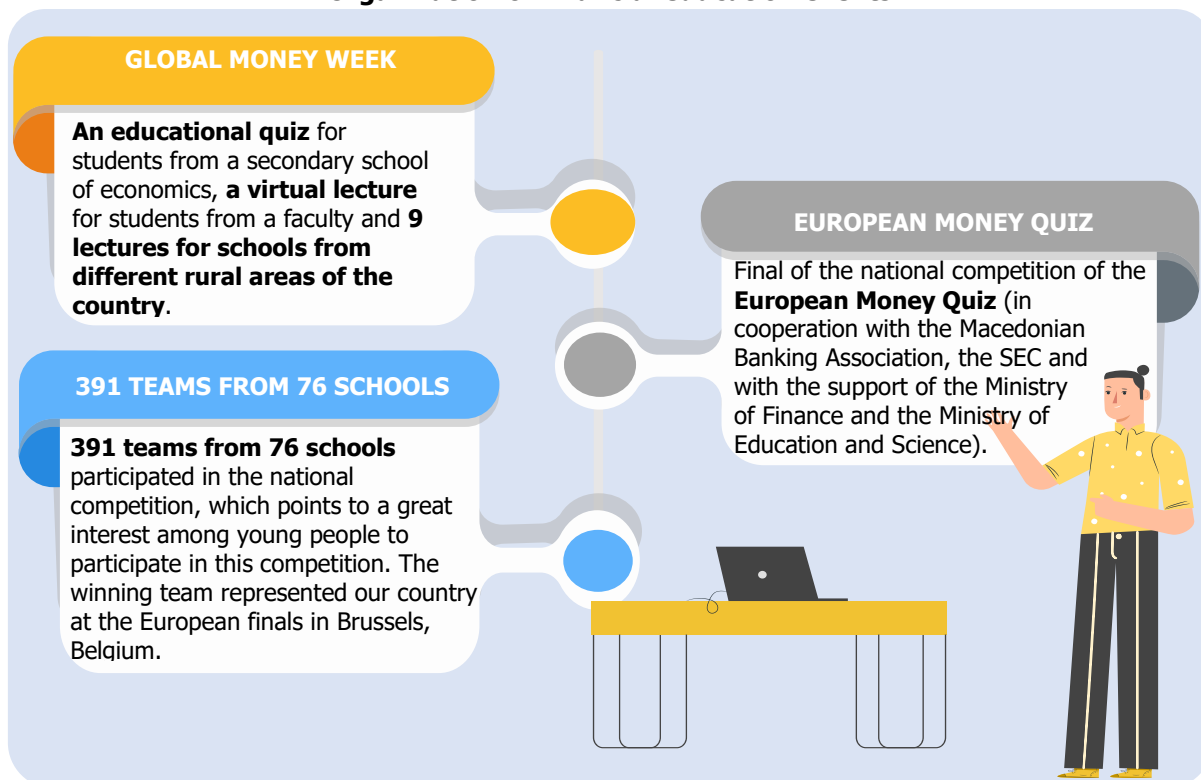
The National Bank of the Republic of North Macedonia continued with the activities for monitoring the behavior of banks and savings houses in the market and promoting and protecting the rights of consumers of financial services. At the end of March 2023, the National Bank adopted a **Circular for protection of consumers of financial services from the banking sector**. The Circular<sup>97</sup> includes good practices in terms of consumer protection, aimed at fair and transparent relations, based on clear and easily understandable information on the products and services offered by banks. Also, the National Bank gave a comparative review of the prices of services related to the payment account that banks offer to their clients - natural persons. During 2023, the National Bank, together with other financial regulators, worked on the preparation of the Draft-Law on Financial Ombudsman / Arbiter.

During 2023, the National Bank carried out the first two on-site controls in the field of consumer protection. Also, the National Bank received a total of 198 complaints about the operations of banks and savings houses by post and e-mail, mainly led by the group of large banks. This represents a 60% increase in 2023 versus 2022. The largest increase was recorded in the complaints in the field of collection of the fees related to payment accounts with banks.

In 2023, the National Bank continued to carry out intensified activities in the field of financial education, thereby increasing financial literacy and financial inclusion of the population in our country, as well as increasing the awareness and protection of consumers of financial services. Within the Financial Literacy Days, the National Bank representatives participated in public events and public media programs in order to promote the activities in the field of financial education.

<sup>97</sup> The Circular was prepared on the basis of international standards, European directives and consumer protection practices, taking into consideration the characteristics of the domestic banking system and banking regulations.

## Organization of financial education events



## COMPETITION OF STUDENTS ON THE OCCASION OF THE SAVINGS DAY

At the regular Competition for elementary education students, titled: **I save wisely - I live better: I invest in my future**, the National Bank received a total of **325** student's works, of which **54** literary works - poems, **50** literary works - stories and **221** art works - drawings.

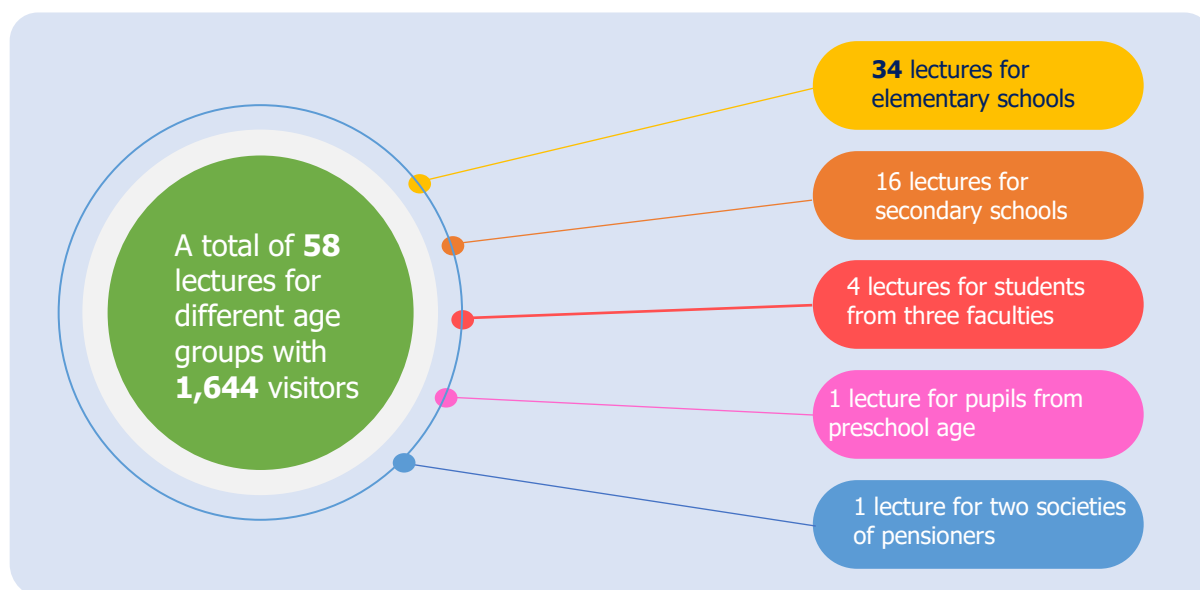
At the Competition announced for secondary education students, titled: **Saving - a step towards financial independence**, the National Bank received 50 essays. The awarded students received their diplomas in the National Bank, on 27 November 2023.

## FINANCIAL LITERACY DAYS

The seventh edition of the **Financial Literacy Days** was held from 21 to 23 November 2023, organized by the financial regulatory institutions and in cooperation with the private financial sector. The National Bank issued a public call for all interested citizens to attend educational presentations via video conference link on the following topics:

- Financial education for high-school students;
- Monetary policy of the National Bank;
- Information needed when choosing a loan;
- Reference to the Law on Payment Services and Payment Systems, and
- Structure of the financial system and reference to the movements in the banking system.

The greatest interest to visit the National Bank was registered in the period October - December, whereby the National Bank visitors had an opportunity to visit the Museum of the National Bank and to see the rich numismatic collection of coins that were used in our country throughout the centuries down to the present.



In April 2023, the National Bank published a special information brochure for citizens in order to inform them about the possibilities of opening and using the payment account with basic functions, titled: [Payment account with basic functions](#). In the European month of cybersecurity - October, the National Bank, in order to clarify the advantages and risks around digital financial services, as well as the precautionary measures that should be taken by citizens to mitigate or remove the undesirable consequences, published a booklet [Security when using digital financial products and services](#).



In 2023, the National Bank continued with the activities for implementation of the [national Strategy for Financial Education and Financial Inclusion](#). The working group for monitoring of the strategy implementation held two working meetings with representatives of financial regulators, private and civil sector, in order to take coordinated activities to increase the financial education and financial inclusion, as well as to increase the financial services consumer protection. The first of the two meetings was attended by a representative of the International Network on Financial Education at the Organisation for Economic Co-operation and Development (INFE - OECD), who presented the results of the survey conducted in 2022 on the financial literacy of micro, small and medium-sized enterprises (MSMEs) in Southeast Europe (SEE). The report titled Financial Literacy and Digitalisation for MSMEs in SEE: A Tool for Empowering Owners and Managers was prepared in the framework of the regional project of the INFE - OECD and the Netherlands' Ministry of Finance. The second meeting in 2023 was also attended by a representative of the United States Department of the Treasury, who shared the experience of the activities carried out in the field of financial education, inclusion and protection of consumers in the USA and beyond. Consumer protection activities were intensified in accordance with the provisions of the Strategy.

**In order to strengthen the [financial literacy of the population](#), the National Bank takes initiatives and various activities** including the support through preparation of our students - representatives at the International Economics Olympiad, by delivering a series of lectures for the students on the premises of the National Bank. These lectures are in accordance with the Memorandum of Cooperation in the field of financial education, for the purposes of the International Economics Olympiad, signed between the National Bank and the Union of Mathematicians. The goal of the cooperation with the Union is to discover, support and encourage the competitive spirit of students with a special talent and knowledge in the field of economics, finance and business.

In September 2023, the National Bank held a meeting with the Union of High-School Students. The Union representatives highlighted the financial education as one of the priorities of high-school students, emphasizing the need for introducing the financial education in the formal educational process. The meeting with the Union of High-School Students is part of the total efforts of the National Bank for financial education of young people, which is why several activities for high-school students are regularly carried out. For that purpose, the National Bank provided support through an appropriate educational lecture for the students from one secondary school for preparation for the participation of the team in the educational activity "I have an opinion!" of the Parliamentary Institute, which represents the process of reviewing a draft law within the Assembly of the Republic of North Macedonia. The topic on which the students were preparing was: Studying financial education in secondary schools as a prerequisite for building active citizens.

During the year, the Coordinating Body of Financial Regulators for Financial Education and Financial Inclusion, led by the National Bank, held a working meeting with representatives of the Bureau for Development of Education, thus defining the approach about discussing the current representation of financial education in the educational process, for which activities will be taken in the following period.

In November 2023, the second phase of the regional financial literacy project of the Organisation for Economic Co-operation and Development (OECD) and its International Network on Financial Education (INFE), carried out with the financial support of the Netherlands' Ministry of Finance, officially started, which will take place in the period 2023 - 2027. The main priority of the second phase is to support countries to improve the level of financial literacy of their population, by supporting the design and implementation of national financial literacy strategies, by making analyses, reports and recommendations for capacity building tailored to relevant institutional needs and strategic priorities. During 2023, preparatory activities started for the participation in a pilot project supported by the EBRD in the country, aimed at supporting female entrepreneurship and the financial inclusion of women entrepreneurs.

## Strategic goal 8 - Increased awareness of climate change and contribution to a green sustainable economy<sup>98</sup>



The National Bank pays great attention to **raising the awareness of climate changes**, as well as to the “green growth” and its financing for the purpose of **achieving a green sustainable economy**. In the third quarter of 2023, the National Bank adopted the first **Medium-Term Plan for the National Bank activities in the area of climate risk management for the period 2023 - 2025**. This Plan set a comprehensive, systematic and consistent framework for the activities related to climate risk management, and its implementation is expected to result in a better understanding of climate risks, their incorporation into the analyses of the banking system and monetary policy and improvement of the banking system's potential to support the transition to an economy of green and sustainable development.

The effects of climate changes affect all the social areas, including finance, due to which an increasing number of central banks in their mandate include the activities for dealing with climate changes and supporting green transition. **The National Bank recognizes the importance of climate risks, for both the economy as a whole and for the financial system** and within its competences, in the past few years it has been actively working in this area, by including green finance in the National Bank's strategic objectives, active membership in the international network of central banks and regulators, establishing regular green finance data, as well as changing monetary instruments to support sustainable financing.

Starting with the implementation of this medium-term plan, the National Bank adopted the **Guidelines on the manner of managing climate risks by banks** and carried out the **first analyses of the exposure of the banking system to physical and transitional risks caused by climate changes and climate policies**. Through the further implementation of the activities from the Plan, the National Bank will also strengthen the supervisory approach, with gradual active inclusion of climate risks when assessing the risk profile of individual banks. Taking into account the importance of the financial system resilience to climate risks, the central bank will deepen and improve the analyses of the impact of these risks on the banking system and establish a framework for conducting stress tests. The Plan also emphasizes the importance of coordinated activities in the country and the need for cooperation with other government institutions and bodies, given that climate issues require coordinated national approach.

During 2023, the **National Bank actively participated in the work of the international Network for Greening the Financial System (NGFS)**, especially the groups for sustainable investment and disclosure of information from the sustainable investment, thus strengthening the internal capacity to upgrade the framework for measurement of risks and the advantages and weaknesses of forming a separate portfolio of green bonds. Also, the National Bank regularly monitors the experiences of the central banks - members of the Network for Greening the Financial System (NGFS) in the part of the portfolio management and the manner of integrating the sustainability indicators.

<sup>98</sup> Annex 3. Exposure to climate risks and the effects of sustainable investment of foreign reserves.

## Strategic goal 9 - Strengthening the National Bank risk management



The risk management is a necessary element of the good [corporate governance](#) which contributes to the efficient achievement of the strategic goals, mandate and vision.

**The financial risks**<sup>99</sup> the National Bank is exposed to are mostly in the field of investments of the foreign reserves of the Republic of North Macedonia, and may also arise from the conduct of the monetary operations<sup>100</sup>.

**The National Bank's exposure to [operational risks](#) was regularly monitored and reported, with active implementation of measures, which aim to reduce the potential operational risks.** The annual operational risk assessment monitors the risk profile of the National Bank in terms of operational risks, as well as the strategies and measures for addressing operational risks to protect against events that may affect the achievement of the goals, the financial result and the reputation of the National Bank. The Operational Risk Management Committee regularly informed the Audit Committee and the National Bank Council of the exposure to operational risks, on a semiannual and annual basis. The National Bank is constantly working on improving the capacity for managing operational risks and applying the best international practices<sup>101</sup>. Activities are regularly undertaken to improve the operational risk management process, raise the employees' awareness of operational risk management and the culture of risks in the day-to-day operations through constant consultation with the employees.

During 2023, the National Bank conducted tests of the continuity plans of 22 critical business processes, updated the business continuity plans, and the **Annual Report on the implementation of the Business Continuity Policy of the National Bank** and the new updated **Business Continuity Plan of the National Bank** were discussed and adopted by the Crisis Center. In addition, to **strengthen the operational resilience**, the National Bank adopted the Cloud Computing Strategy which will provide an integral working environment for the employee productivity tools, remote access from different locations, automation of document storage, encouraging teamwork by improving communication and simplifying the software updates. In cooperation with the World Bank, in order to achieve a higher level of operational and cyber resilience of MIPS, the National Bank improved the operational procedures and documentation in the areas identified in the self-assessment of the cyber resilience of the NBRNM. As part of the Global Cyber Resilience Group<sup>102</sup>, the NBRNM actively participated in the Full scale Cyber Resilience Crossweave.

In order to provide compliance in the operations with the regulations on **personal data protection**, a total of 110 written opinions on the application of the regulations were given, controls and monitoring of the status of the recommendations during the controls from the previous years were conducted, thus preparing the **National Bank's Annual Report on the Compliance with the Regulations on Personal Data Protection** for 2022, which upon prior adoption by the Audit Committee, was adopted by the National Bank Council.

<sup>99</sup> Financial risks are the risk of potential financial losses.

<sup>100</sup> The exposure to the individual types of financial risks arising from the foreign reserves management is described in Section VI of this Report and the strategic goal 4.

<sup>101</sup> The National Bank undertook specific preparatory activities to upgrade the current service desk for security incidents to collect data on all incidents related to operational risks, which is a recommendation from the IMF mission for the improvement of corporate governance and safeguards assessment.

<sup>102</sup> Global Cyber Resilience Group (GCRG) at the Cyber Resilience Coordination Centre (CRCC) of the Bank for International Settlements (BIS)



Controls for the compliance in the operations with the regulations on **classified information** were conducted, a regular annual assessment of the National Bank's compliance with the mandatory controls specified in the SWIFT Customer Security Controls Framework<sup>103</sup> was also carried out, and the compliance data were published on time in the respective registry<sup>104</sup>. Moreover, the reported incidents were efficiently managed, while the Annual Report for the previous year was reviewed and adopted by the Information System Steering Committee of the National Bank. In order to raise the awareness of the **information system security and personal data protection** during 2023, trainings were conducted for employees from the areas of personal data protection, cybersecurity<sup>105</sup> and classified information.



In 2023, as in the current operations, the National Bank continued making efforts for **legal and ethical compliance, adequate and consistent application of the regulation, for the purpose of strengthening the compliance and integrity of all levels in the bank, raising the awareness of the importance of compliance in the day-to-day operations**. The National Bank regularly monitored and reported on the proposed or newly adopted legislation that affects the operations of the professional organizational units in the National Bank, taking into account the significant scope of the new draft laws published by the ministries, as well as the scope of laws that were adopted by the Assembly of the RNM. The National Bank constantly works on improving the institutional capacity and follows the novelties in the field of compliance, participating in the annual thematic sessions of the Ethics and Compliance Committee organized by the ECB, and from this aspect, cooperates/consults with the European central banks. In terms of raising the awareness and importance for the compliance and integrity of employees, their strengthening in the bank, educational activities were carried out for familiarization with the provisions of the new Code of Ethics of the National Bank of the Republic of North Macedonia, especially for the novelties that improve the operations in the field of compliance, and in accordance with the operational needs, an education was also provided through separate thematic presentations on issues of regulatory compliance.

Within the activities to **increase the institutional capacity for legal risk management**, legal support was constantly provided in the operations of the National Bank through drafting and control of general and individual legal regulations. During 2023, 170 legal opinions were given, on issues related to the operations of the National Bank, legal advice was constantly given on the manner of applying legal regulations, legal support when interpreting the regulations and the manner of conducting legal procedures. At the same time, support was provided for the protection of the rights and interests of the National Bank before the competent courts and institutions in the country.

The National Bank continues to **develop and promote financial recording and reporting** in order to enable more efficient financial management, dynamic planning and monitoring of the balance sheet of the National Bank. Regarding the **physical security and technical maintenance**, operational measures and activities have been undertaken that enable **maintaining an adequate level of security, fire protection, technical support and ensuring business continuity**.

<sup>103</sup> SWIFT Customer Security Controls Framework v2022.

<sup>104</sup> KYC Registry Security Attestation.

<sup>105</sup> Cybersecurity training intended for employees and managers in the public administration and private sector was conducted on the online education portal of the National Center for Computer Incident Response MKD-CIRT.





**The Internal Audit Department (IAD)**, as the third line of defense, successfully carried out an audit of the operations of the organizational units in the National Bank, in terms of compliance with the legislation, bylaws and internal regulations, the reliability of financial and other information, as well as the effective and efficient use of assets and resources. During 2023, all of the planned audit activities were conducted in relation to the regular audits and the process of monitoring of the given recommendations, with an implementation deadline in 2023. In the reporting period, the other audit activities within the IAD Quality Assurance and Improvement Program were also conducted. Within its operations, the National Bank Council adopted the Annual Work Program of the IAD for 2024 and the Medium-Term Work Program of the IAD, for the period 2024 - 2026.

### **Institutional capacity: IC1 Integrity and trust in the national currency**



During 2023, the National Bank regularly **supplied banks and cash centers with banknotes and coins** primarily in order to maintain the efficiency and stability of the established cash supply system. In accordance with its legal competences and authorizations, the National Bank also conducted the **supervision of the supply of banknotes and coins with banks and cash centers** through full-scope and targeted on-site controls (announced or unannounced) and off-site controls, with analyses of the data that banks and cash centers submit in accordance with the National Bank regulation. The activities in the field of implementing the standardized platform for trainings for banks' and cash centers' staff for authenticity and fitness checking of the currency in circulation, as well as for implementation of the national training plan, according to the recommendations from the Twinning Light Project "Strengthening the capacities of the system for fight against counterfeiting of the euro" were carried out with regular dynamics.<sup>106</sup>

### **Institutional capacity: Human resources**



The National Bank constantly **invests in modern and competent human potential** that enables it to achieve the set goals, carry out the planned activities and improve the entire operations of the National Bank in accordance with the volatile environment and proper standards. Within the human resources, new acts were adopted which regulated the procedure for obtaining 360° feedback about managers and regulated the management of the absences of the National Bank employees. Also, the National Bank adopted amendments to the internal acts regulating the rights and obligations of employees and their work tasks for the purpose of their promotion.

During 2023, several trainings, including soft skills trainings and data management training (SQL SERVER and TRANSACT-SQL), were organized in order to follow the trends for improving the knowledge in the areas of digitalization, automation, data science, etc. The regular activities in relation to the professional development of employees, training period, mentoring and practical work are constantly carried out. Also, an electronic edition of the Guide for the National Bank employees was prepared, which was prepared in order to facilitate

<sup>106</sup> During the year, seven trainings were held for the employees of banks and cash centers and two trainings for the representatives of institutions involved in the combat against money counterfeiting.

all employees' access to the rules and practices that are important for the day-to-day operations and with reference to the relevant policies and internal acts of the National Bank.

### Institutional capacity: Information system



The information system of the National Bank is **one of the most important elements** in terms of its own day-to-day operations. At the same time, this system is **of particular importance for all external clients** having access to it and also contributes to the entire perception and reputation of the National Bank. The National Bank has been continuously investing in the maintenance and upgrading of the information infrastructure and introduction of new systems in order to maintain a stable information system. Activities are undertaken to deliver several software development projects for greater automation and digitalization of work processes.

### Institutional capacity: Statistical data



**Statistical data are the basis for preparing and making proper decisions in the monetary and financial area.** The National Bank continued with the activities for improving the quality of statistical data, which in 2023, mostly referred to the project activities for enriching the set of data available to users, as well as for improving the communication with reporters and statistical data users. In October 2023, the National Bank started publishing quarterly data on financial accounts in accordance with the new indicator "quarterly balance sheets". The publication of the new data set increased the analytical value of the statistical data published by the National Bank and provided policy makers and other users with more frequent data on financial accounts, which have been regularly published as annual data since 2020. The publication of this new set of data is a continuation of the National Bank's efforts to follow the international and European statistical requirements, but also means fulfillment of the latest indicator within the highest statistical data dissemination standard SDDS Plus of the International Monetary Fund, within the National Bank jurisdiction.

The National Bank actively worked on further development and upgrade in certain segments related to the improvement of the internal reports on interest rates, automated preparation and enrichment of the set of reports on direct investments, the receipt of data on foreign trade, electronic collection of data on investments from and to abroad and the collection of data on international credit operations, as well as the preparation of financial accounts statistics.

### Institutional capacity: Research



The National Bank pays special attention to [research](#) in areas that are crucial for the successful achievement of its objectives and tasks. Because of this, the National Bank continues to actively and devotedly prepare research papers that will contribute to its own domain of operations. Within the research activities, this year the National Bank worked on a research of the gender structure of the labor market, the impact of labor costs, energy costs and uncertainty on inflation, as well as the importance of private remittances for the economic growth.

In 2023, the National Bank successfully organized the annual meeting of the [Vienna Initiative](#). The participants discussed the key challenges faced by the banking sector in the region, as well as the volatile economic environment, the consequences from the Russian military invasion of Ukraine, the experience from the recent episodes of saving and dealing with problem banks, as well as the impact of climate changes and digitalization on the financial system. Also, in 2023, the National Bank organized an [High-Level International Conference](#) in cooperation with the Reinventing Bretton Woods Committee. Within this Conference, the participants discussed the reactualization of inflation and the new geopolitical reality in support of the redesign of macroeconomic policy.

In 2023, the National Bank continued to organize the [Research Club](#) on a quarterly basis where working materials and research papers on relevant topics are being presented and discussed. The National Bank awarded the Annual Prize for young researchers this year as well, while the prizewinning paper was presented at the 48th Research Club session. The National Bank will continue to stimulate the research activity and organize the Research Club also in the following period.

### **Annex 3. Exposure to climate risks and the effects of the sustainable investment of foreign reserves**

The objective of the Annex is to give a review of the National Bank approach to the responsible and sustainable investment, the undertaken and planned activities in this area, as well as to be an example for other investors in the Republic of North Macedonia, taking into account that the transparency in relation to the exposure to climate risks affects the making of investment decisions based on information. In accordance with the Task Force on Climate-related Financial Disclosures – TCFD<sup>107</sup> and the guidelines for climate financial disclosures for the central banks of the Network for Greening the Financial System – NGFS, the Annex covers four aspects: organizational structure; strategy; risk management; and measures and goals.

#### **Organizational structure**

Awareness of climate changes and contribution to a green sustainable economy is included as one of the nine strategic goals of the National Bank. This means that, as long as the reliability and liquidity of foreign reserves is not a subordinate goal and at the same time a market rate of return is achieved, as principles in the management of foreign reserves established by the Law on the National Bank, the various aspects of climate changes can and should be taken into account when investing foreign reserves.

The organizational structure of the responsible and sustainable financing is identical to the existing framework for foreign reserves management and has four levels of decision-making:

**- The National Bank Council** adopted the first Strategy for the National Bank activities in the area of climate risk management in 2023, which gives priority to the incorporation of climate risks into the analyses of the domestic banking system and assessment of the exposure of the Macedonian banking system to climate risks. The other central bank activities that are affected by climate risks, including the management of foreign reserves, envisage research activities, i.e. analyses of the impact of climate changes. The Council is also responsible for the control of the compliance of the management and investment of foreign reserves with the Law on the National Bank and adopts the Foreign Reserves Management and Investment Policy, which defines the goals when managing and investing foreign reserves. In accordance with the provisions of the laws and bylaws, the purposes in the management of foreign reserves do not include explicitly climate changes. However, this is not an obstacle to

<sup>107</sup> Task force established by the Financial Stability Board - FSB, in order to prepare recommendations for the type of information that companies need to disclose and thereby help investors, creditors and insurance companies in the process of proper assessment and valuation of climate risks. After this task force had successfully completed the purpose for which it was established, from November 2023 the process of supervising the climate-related disclosures passed within the IFRS Foundation.

incorporating risks and possibilities which arise from climate changes into the investment strategy. On the contrary, the contribution to a green sustainable economy is closely related to the mission of the National Bank, which, among other things, includes a contribution to a higher standard of living of citizens, and climate and environmental factors have a significant impact on the quality of life.

- **The Governor of the National Bank** adopts the Foreign Reserves Management and Investment Guidelines, which, when defining the financial instruments in which the foreign reserves are invested, in 2022 introduced the term "securities that finance sustainable and socially responsible projects", in order to emphasize the manner of achieving the goal to raise the awareness of social and environmental responsibility.

- **The Investment Committee** is responsible for monitoring of all processes of foreign reserves management and investment, which also covers the process of incorporation of aspects of climate changes into the investment process.

- **The Financial Market Operations Department** carries out the foreign reserves management, within which investment decisions are made to invest in instruments on the international financial markets, including those that contribute to the commitment to a green financial system. Also, the Financial Market Operations Department is responsible for quantification of and reporting on the exposure to the individual types of risks, including climate risks which arise from the foreign reserves management. The results of the analysis of climate risks and the effects of the sustainable investment are included in the annual reporting to the National Bank.

## Strategy

Climate changes and transition to a green economy create financial risks and economic consequences, which can affect the value of foreign reserves, which is of material importance for the National Bank, having in mind that the foreign assets have an important role in carrying out the main functions of the National Bank and also comprise most of the bank balance sheet.

The National Bank's goal to raise the awareness of climate changes and to contribute to a green sustainable economy in the area of foreign reserves management consists of two groups of activities. On the one hand, measures for increased awareness of climate changes are taken through identification of the material climate risks to which the foreign reserves are exposed, and on the other hand, the contribution to a green sustainable economy is made through investment in so-called "green bonds", i.e. securities for which the issuer is required to invest the obtained funds in projects that contribute to greening the economy.

Climate risks by their nature are long-term risks, i.e. it is expected that the effect of climate changes will materialize on a larger scale in the longer run. For that reason, analyzed by types of placements and investments, the materiality of the effect of climate changes on the foreign reserves is perceived in the investments in securities. The securities in which the foreign reserves are invested are largely with short duration, which corresponds to the low tolerance for interest risk. Such investment strategy points to higher exposure to transition climate risks<sup>108</sup> which are of short-term nature, compared to physical risks<sup>109</sup>, which are becoming evident for a significantly longer period.

In its activities directed towards the contribution to a green sustainable economy, when managing foreign reserves, the National Bank still does not take into account the exposure to climate risks when making investment decisions, i.e. they are not guided by the carbon dioxide emission. Namely, the investment universe is limited to instruments from countries and financial institutions that meet the strict security and liquidity criteria, and the avoidance of exposure to a certain country that is considered a big "polluter" (especially in terms of consumption, where the most developed economies are ranked the worst), can significantly change the desired exposure in terms of credit risk, i.e. the fulfillment of the security principle. When investing foreign reserves, the National Bank is directed towards the so-called "solutions" for the greenhouse gas emission, contributing to a smaller emission

<sup>108</sup> Physical risks are a consequence of climate changes themselves and can result from the increased intensity and frequency of natural disasters (acute risk) and/or from the gradual changes in climate conditions, such as rising temperatures (chronic risk).

<sup>109</sup> Transitional risks are a consequence of the adjustment of societies and economies to "green" operations. They arise from newly introduced laws, regulations and policies (e.g. a carbon dioxide price), new technologies and innovations, risks of fines for non-compliance of regulations and change in consumer preferences.

at global level. In this regard, the activities directed towards the contribution to a green sustainable economy consist of investment in so-called "green bonds", which finance projects that contribute to greening the economy. Observed more broadly, the responsible investment within the foreign reserves includes not only financing of "green" projects, but also projects related to activities that have a contribution to the so-called social factors (e.g. human rights), as well as sustainable projects, which should achieve several goals aimed at both environmental and social effects.

In 2022, the operational framework for foreign reserves management was adjusted in order to expand the possibilities for responsible and sustainable investment. Namely, the Foreign Reserves Management and Investment Guidelines state that the maximum maturity of the securities for which the manner of using the funds from the issue is not determined, may be 10 years, while the maturity of the securities that finance socially responsible projects, is 15 years. This provision expands the possibilities for investing in this type of bonds, which are usually issued in the longer run (due to the longer term of the projects that need to affect the environmental and climate factors) and provides easier access to the instruments for this purpose, taking into account that most of the investment is made with primary issue of securities.

The National Bank has been building the internal capacity in order to incorporate the aspects of climate changes into its operations. In the area of foreign reserves management, the strategy includes training of the existing staff through more external targeted trainings, guidelines for independent upgrading, acquisition of international certificates for sustainable investment and networking with international institutions specialized for the aspects of climate changes in investment. The consequences from climate changes are a global phenomenon. Therefore, the effectiveness of climate change management policy and the understanding of climate risks are not limited only to the domestic economy. The investment of foreign reserves, especially the investments in "green bonds", implies support at global level. On the other hand, global action is most effective when it is implemented in a coordinated manner at the international level. In the area of foreign reserves management, the collective efforts to green the financial system of the National Bank is perceived through the membership in the Network for Greening the Financial System and the contribution to the activities of this network.

## **Risk management**

When managing foreign reserves, in addition to the conventional financial risks, the National Bank is also exposed to climate risks, which are identified and monitored regardless of the other risks arising from the management of foreign reserves. Climate risks are still perceived as relatively less material compared to the traditional financial risks, taking into account that the effect of climate changes would materialize in the longer run. The process of management of these risks started with their identification, monitoring and measurement, while the next phase - risk management and their incorporation into the investment framework would follow through the acceptance of the best practices in this area.

When identifying climate risks, the National Bank pays special attention to physical and transition risks, using a qualitative and quantitative approach. The qualitative approach to identifying and assessing climate risks is usually applied to physical risk, whereby the methodology for identification and assessment of risk is forward looking, i.e. it is based on forecasted paths of movement of climate changes. On the other hand, when applying the quantitative approach, physical and transitional risks are measured with the recommended indicators of the monetary damage of occurrence of an acute physical risk, as well as gas emissions, individually for the separate types of instruments (for transitional risks), for which historical data are used (looking backward).

Data used in the identification and assessment of climate risks are mostly publicly available. Data from an information service are also used, the users of which are the majority of employees involved in the process of managing foreign reserves and risks. One of the main challenges is the availability of data, and where there are available data, the fundamental weakness is the lack of standardized and consistent methodologies.



## Measures and objectives

The National Bank measures physical and transitional risks related to climate changes.

There is still no generally accepted standard for measuring physical risks. The several proposed approaches focus on measuring acute risks (physical risks arising from the increased intensity and frequency of extreme bad weather resulting from climate changes), for which there are available data. The National Bank measures the physical risk for the exposure to government, regional, state-guaranteed securities and instruments with expected government support (which comprise 43% of the foreign reserves), where there is the most direct connection of the issuer and the geographical area exposed to physical risk. Regarding the measurement of the future path of physical risks, maps for visualization of the individual risk factors are used, which creates a picture of the materiality of these factors in relation to the geographical structure of foreign reserves. Moreover, the National Bank has the greatest exposure to the European countries for which the models indicate an increased physical risk as a result of floods, forest fires and water overflow in the regions by the sea.

Transition risks, which arise from the process of adjustment to an economy with low gas emissions, are measured through the exposure of investments and portfolios to greenhouse gas emissions, or more precisely, to carbon dioxide, as a gas that is emitted in the highest volume and persists for the longest time in the atmosphere. The choice of measures is in accordance with the best practices established by the Task Force on Climate-related Financial Disclosures (TCFD), the Partnership for Carbon Accounting Financials (PCAF) and the Network for Greening the Financial System (NGFS).

Table 6

Description of the measures for climate risk exposure and for the effect of investment in sustainable bonds

Measure	Formula
Weighted average carbon intensity - WACI <sup>110</sup> (production emission) (t CO <sub>2</sub> e/millions of euros)	$\sum_n^i \left( \frac{\text{value of the investment}_i}{\text{value of the portfolio}} \right) \times \left( \frac{\text{CO}_2 \text{ production emission}}{\text{GDP (PPP) or income from sales}} \right)$
Weighted average carbon intensity - WACI (consumer emission) (t CO <sub>2</sub> e/per capita)	$\sum_n^i \left( \frac{\text{value of the investment}_i}{\text{value of the portfolio}} \right) \times \left( \frac{\text{CO}_2 \text{ consumer emission}}{\text{number of population}} \right)$
Total CO <sub>2</sub> emission (t CO <sub>2</sub> e)	$\sum_n^i \left( \frac{\text{value of the investment}_i}{\text{GDP (PPP) or value of the bank (EVIC)}} \times \text{CO}_2 \text{ emission}_i \right)$
Carbon footprint	$\frac{\sum_n^i \left( \frac{\text{value of the investment}_i}{\text{GDP (PPP) or value of the bank (EVIC)}} \times \text{CO}_2 \text{ emission}_i \right)}{\text{value of the portfolio}}$
Coefficient of the effect of investments in green bonds	$\frac{\text{avoided CO}_2 \text{ emission}}{\text{implicit CO}_2 \text{ emission}}$

\*GDP (PPP) represents gross domestic product based on purchasing power parity (adjusted by the purchasing power parity rate)

Value of the bank (EVIC) represents the value of the bank with included cash (Enterprise Value Including Cash)

The carbon footprint is an implicit CO<sub>2</sub> emission for green bonds, if it was not a green bond.

Due to the long-term character of climate risks, analyzed by types of placements and investments, the materiality of the effect of climate changes on the foreign reserves is perceived in the investments in securities (the measures cover 52% of the foreign reserves). Consequently, the measurement of climate risks excludes placements on current accounts, short-term deposits with commercial banks and gold. Due to the different approach when measuring risks, the climate risk exposure is presented separately for the securities issued or guaranteed by states, regional governments and agencies with expected government support (classified as one category - states), international institutions, commercial banks and collateralized securities. For the purpose of data availability, the risk exposure for the international financial institutions is calculated only for 43% of the securities, while the other instruments are covered almost completely.

<sup>110</sup> WACI – weighted average carbon intensity.

**Table 7**  
Measures for exposure of foreign reserves to transition climate risk

Foreign reserves 2023	Government, regional, state-guaranteed securities and instruments with expected government support		Securities issued by international institutions		Securities issued by commercial banks	Collateralized securities
	Production approach	Consumer approach	Production approach	Consumer approach		
Amount of funds (millions of euros)	1.933		142		192	95
WACI (tCO <sub>2</sub> e/millions of euros)	131	9	139	9	0.9	3.4
data coverage (%)	(100%)	(100%)	(43%)	(43%)	(88%)	(100%)
Total CO <sub>2</sub> emission (tCO <sub>2</sub> e)	252,493	316,359	8,517	11,224	76	171
data coverage (%)	(100%)	(100%)	(43%)	(43%)	(100%)	(100%)
Carbon footprint (tCO <sub>2</sub> e/millions of euros)	131	164	139	183	0.4	1.8
data coverage (%)	(100%)	(100%)	(43%)	(43%)	(100%)	(100%)

Source: NBRNM calculations according to data from the World Bank and Our World in Data.

**Table 8**  
Measures for exposure of the reference portfolios to transition climate risk

Reference portfolios 2023	Reference portfolio in relation to which the foreign reserves are managed (government securities)		G7 countries (the share is proportional to the size of the GDP of each member state)	
	Production approach	Consumer approach	Production approach	Consumer approach
Amount of funds (millions of euros)	1.933		1.933	
WACI (tCO <sub>2</sub> e/millions of euros)	118	9	188	13
data coverage (%)	(100%)	(100%)	(100%)	(100%)
Total CO <sub>2</sub> emission (tCO <sub>2</sub> e)	227.792	300.780	363.366	405.725
data coverage (%)	(100%)	(100%)	(100%)	(100%)
Carbon footprint (tCO <sub>2</sub> e/millions of euros)	118	156	188	210
data coverage (%)	(100%)	(100%)	(100%)	(100%)

Source: NBRNM calculations according to data from the World Bank and Our World in Data.

If we analyze the carbon dioxide emission which results from investments in government securities according to the production approach, it is noticed that the portfolio of the National Bank has relatively higher exposure compared to the reference portfolio, but the two portfolios have almost the same exposure to transition risk according to the consumer approach. The differences in the production approach result from the different structure of portfolios. Namely, the higher exposure in relation to the reference portfolio mostly results from the smaller share of the French government debt in the portfolio of the National Bank, taking into account its low carbon dioxide emission, smaller compared to the other countries the foreign reserves are exposed to. Analyzed compared to the portfolio comprised of the government debt of G7 member states<sup>111</sup>, on the other hand, it suggests a significantly lower exposure to transition risk, which results from the absence of investments in the USA, whose percentage is the highest in the G7 portfolio, where the CO<sub>2</sub> emission is substantial.

In addition to the risk, the National Bank also measures the positive effect on climate changes of the investment of foreign reserves. The effect is measured on the portion of foreign reserves that is invested in bonds that finance sustainable projects and determines the National Bank's contribution to achieving the goal for transition to a green sustainable economy at global level. As of 31.12.2023, the National Bank investments in bonds that finance green and social projects equaled Euro 135.5 million in nominal terms (3% of the foreign reserves). From them, 56% are green bonds, and the other social

<sup>111</sup> The share of individual countries in the G7 portfolio is proportional to the size of the GDP of each member state.



and sustainable (securities that finance projects related to climate changes and social aspects). Most of the bonds are issued by international institutions and states.

According to the available data, it is estimated that with the investments of the National Bank in projects that finance projects that contribute to the greening of the economy, the emission of 32,803 tons of carbon dioxide on an annual level was avoided. This emission is equal to the average annual carbon dioxide emission which on a global level accounts for about 7 000 people<sup>112</sup>. By investing in securities that finance social projects, the National Bank has contributed to the fulfillment of thirteen sustainable development goals defined by the United Nations<sup>113</sup>: absence of poverty, health and well-being, quality education, gender equality, available and "clean" energy, decent work and economic growth, industry, innovation and infrastructure, reducing inequality, sustainable places to live, responsible production and consumption, climate protection, life on earth and peace, justice and strong institutions.

Table 9  
Measures for the effect of investment in sustainable bonds

Share of green bonds in foreign reserves	1.6%
Share of social bonds in foreign reserves	0.8%
Share of sustainable bonds in foreign reserves	0.4%
Avoided CO2 emission for green bonds (tCO2e)	32,803
data coverage (%)	(100%)
Coefficient of the effect of the investments in green bonds	1.4
data coverage (%)	(100%)

Source: NBRNM calculations and data from the World Bank and Our World in Data.

Raising the awareness of climate changes and contributing to a green sustainable economy is still the National Bank's goal, also in the management of foreign reserves. In this regard, for the next period the share of securities that finance green projects, is expected to increase, as the most direct and measurable contribution to this goal. An analysis will also be made of the advantages and weaknesses of forming a separate "green" portfolio. Namely, on the one hand, the existence of a portfolio for this goal gives issuers a signal for the institution's commitment to the combat against

the adverse effect on climate changes and gives an advantage in the allocation of securities to primary issues, which is important taking into account that the demand for this type of instruments, which also meet the strict security criteria, often exceeds the supply several times. On the other hand, one should take into account the relatively long maturity of these instruments and the effect on the exposure to interest rate risk.

<sup>112</sup> Calculated according to the intensity of the carbon dioxide emission based on the consumption activity worldwide, which amounts to 36 817 million tons.

<sup>113</sup> The Sustainable Development Goals (SDGs) are global goals defined by the United Nations, and include 17 interconnected goals that represent a joint project for peace and prosperity of people and the planet, now and in the future.

## List of abbreviations

The abbreviations used in the Report denote the following:

NBRNM	National Bank of the Republic of North Macedonia
NB	National Bank
SG	Strategic goal
IAD	Internal Audit Department
OU	Organizational unit(s)
ECB	European Central Bank
EU	European Union
EC	European Commission
MAKPAM	Macedonian Policy Analysis Model
ISIDORA	Integrated Reporting System for the National Bank, banks, savings houses, for statistical and supervisory purposes
IT	Information technology
IAS	Integrated accounting system
SEPA	Single Euro Payments Area - SEPA
MIPS	Macedonian Interbank Payment System
ISSC	Information System Steering Committee of the National Bank
NGFS	Network of Central Banks and Supervisors for Greening the Financial System - NGFS
GDP	Gross domestic product
IMF	International Monetary Fund
SREP	Supervisory Review and Evaluation Process
U.S.	United States
IPA	Instrument for Pre-Accession Assistance
OMPC	Operational Monetary Policy Committee
TV	Television
IFRS	International Financial Reporting Standards
RNM	Republic of North Macedonia
APPP	Annual Public Procurement Plan
COBISS	Co-operative Online Bibliographic System & Services - COBISS
DMS	Document management system
SEC	Securities and Exchange Commission
INFE -	International Network on Financial Education - Organisation for Economic Co-operation and Development
OECD	Organisation for Economic Co-operation and Development
INFE	International Network on Financial Education
OECD	Organisation for Economic Co-operation and Development
EBRD	European Bank for Reconstruction and Development
SWIFT	Society for Worldwide Interbank Financial Telecommunication - SWIFT
MSMEs	Micro, small and medium-sized enterprises
SEE	Southeast Europe
GCRG	Global Cyber Resilience Group - GCRG
CRCC	Cyber Resilience Coordination Centre - CRCC
BIS	Bank for International Settlements - BIS
MKD-CIRT	National Center for Computer Incident Response
KYC	KYC Registry Security Attestation
FAC	Finance, Accounting and Control
SQL	Structured Query Language - SQL

SCPC	State Commission for Prevention of Corruption
SDDS Plus	Statistical Data Dissemination Standard
UN	United Nations
CEF	Center of Excellence in Finance - CEF
TCFD	Task Force on Climate-related Financial Disclosures - TCFD
PCAF	Partnership for Carbon Accounting Financials - PCAF
CO <sub>2</sub>	Carbon dioxide
G7	Group of Seven – an international forum of seven highly developed industrial countries
SDGs	Sustainable Development Goals - SDGs

