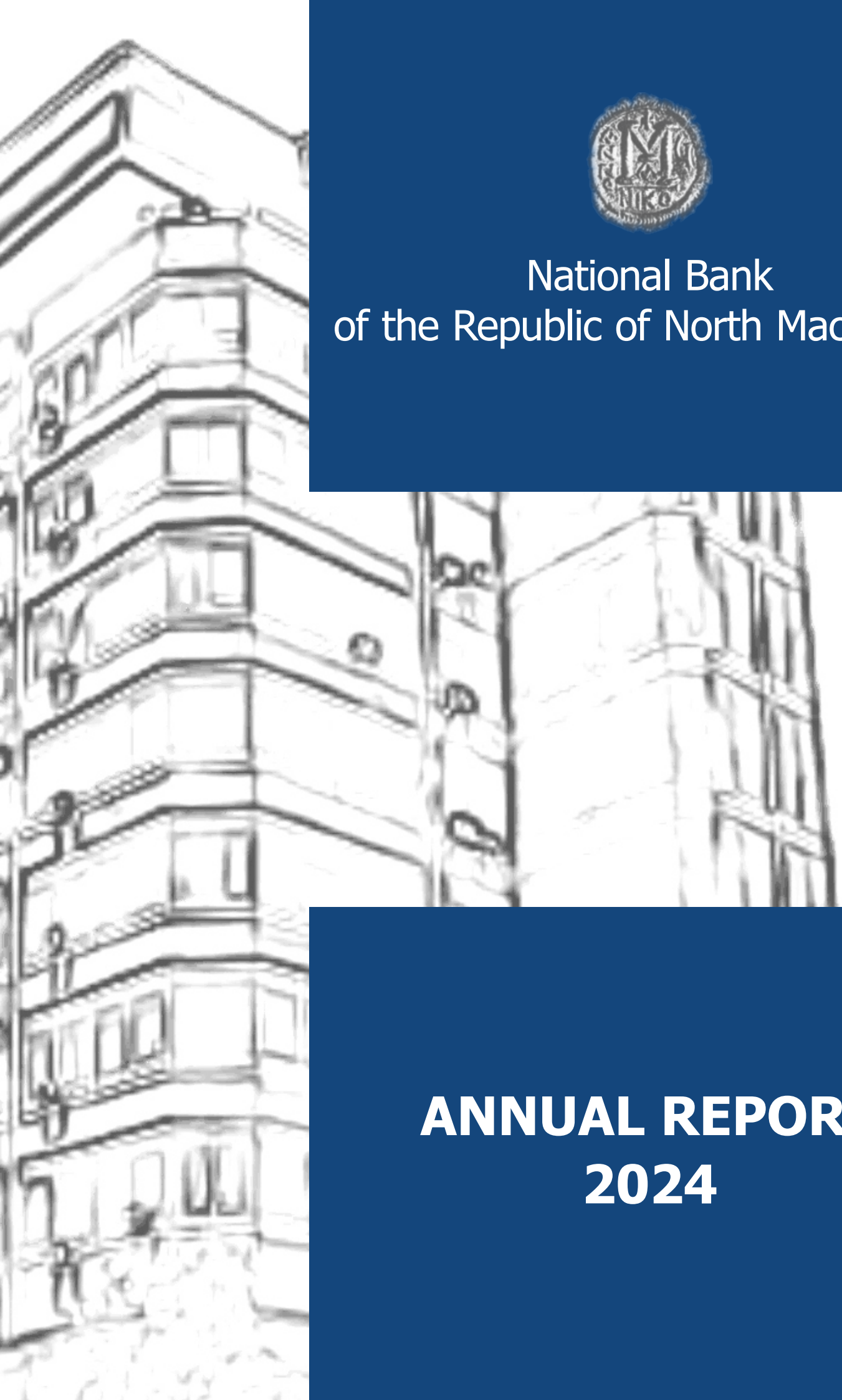

National Bank
of the Republic of North Macedonia

ANNUAL REPORT
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National Bank of the Republic of North Macedonia

Annual Report 2024

Skopje, April 2025

Contents

Governor's Foreword

Dear Sir/Madam,

Let me begin this foreword with the activity that marked the National Bank operating in 2024. It was our path to join the Single Euro Payments Area (SEPA). Under the guidance of the National Bank, our country has made significant efforts to align the legal framework in the field of payments and payment systems with the regulatory requirements of the European Union (EU). All necessary activities were successfully completed and at the beginning of July 2024, the National Bank submitted the formal application for the country's accession to the Single Euro Payments Area (SEPA). On 6 March 2025, the European Payments Council accepted our country as the 39th member of the Single Euro Payments Area (SEPA), fulfilling one of the most important goals on the path to EU membership. The membership in SEPA is a proof for the successful regulatory reforms under the guidance of the National Bank and consequently, regulatory standards applied by the financial institutions, which is important to further boost competition, innovations, as well as to preserve financial stability, as a prerequisite for macroeconomic stability, which is a public good.

Globally, in 2024, the global economic landscape was most affected by geopolitical uncertainties. Given the constant market volatility of energy prices, influenced by geopolitical tensions, especially in Ukraine and the Middle East, but also the increasing use of digitalization and artificial intelligence that are transforming industries, economic developments were very hard to predict. The global economy recorded a stable growth rate of around 3.2%, in the context of further inflation deceleration and loosening financial conditions, following the successive shocks it faced in the previous few years. In the euro area, which is our most important trading partner, economic activity registered annual growth of 2.8%, which indicates slightly lower economic performance compared to other developed economies, mainly due to the lower performance of Germany compared to other European countries. The global disinflation process continued, but at a different pace. In addition, although the prices of primary commodities decreased to levels at or below the long-term trend, the prices of services are still stagnant in most countries. These price movements led to a cautious normalization of monetary policies by central banks, taking into account the maintenance of macroeconomic stability.

The Macedonian economy recorded economic growth of 2.8% in 2024, as a result of the positive contribution of domestic demand, largely reflecting the positive contribution of gross investments, and then the growth of public and private consumption**. In 2024, the disinflation process continued, with inflation falling to 3.5%, on average**, which is almost a threefold decrease compared to the previous year. This dynamics is associated with the stabilization of food and energy prices on world markets, as well as tight financial conditions, in accordance with the measures taken by the central bank. The current account of the balance of payments recorded a moderate deficit of 2.3% of GDP, while the financial account recorded the second highest level of foreign direct investment of 7.1% of GDP. In conditions of stable and favorable movements in the foreign exchange market, which enabled significant net purchase of foreign exchange in 2024, an increase in the level of foreign reserves was recorded, which at the end of 2024 reached a historic peak of Euro 5,019 million. This level of foreign reserves is by 40% above the pre-pandemic level, which is largely

a reflection of the adequate policies that the National Bank has implemented in the past crisis years. According to all standard international indicators, this level of foreign reserves gives a strong support to preserve the stability of the domestic currency. An additional security mechanism for maintaining the stability of the denar exchange rate is the possibility of the National Bank's rapid access to foreign exchange liquidity through the repo line of the European Central Bank (ECB), which although not used so far, will be available until January 2027.

Favorable trends in inflation and on the foreign exchange market during the year contributed to a gradual and cautious easing of the monetary policy by the National Bank in the third quarter, in line with economic conditions and the setup of the European Central Bank, which as well, is gradually normalizing the monetary policy in 2024. In addition, as of September 2024, the National Bank reduced the interest rate on CB bills on three occasions to the level of 5.35%. Moreover, in December, the interest rates on overnight and 7-day deposits reduced to 3.95% and 4%, respectively. This also contributed to a gradual reduction in the interest rates on household and corporate lending, which last year significantly approximated to the interest rates in the EU.

As for the reserve requirement, in February 2024, a broader set of measures was adopted, mainly aimed at providing further support to the denarization process and increasing the long-term savings. These measures contributed towards gradual changes in the banks' balance sheets, with the total deposits registering annual growth of 11.4%, given stronger growth in the denar long-term deposits. In line with these movements, the share of denar deposits in currency structure of total household deposits equaled 53.5% in December 2024, which reflects the favorable trends in savings and enhanced denarization. These developments in deposits, as the main source of financing for banks' activities, provided strong credit support to the economy, with the annual growth rate of total credit standing at 11.2% in December. This rate of credit support was significantly higher than the credit growth in the euro area, where the loan rate stood at 1.7% in December 2024.

In 2024, the National Bank also monitored the developments in the banking system in order to identify potential risks and further take measures to strengthen its stability. In addition, in accordance with the assessment on persisting uncertainties and the unstable geopolitical context causing insecurity and upward risks in the coming period, in July 2024 the National Bank increased the countercyclical capital buffer rate by an additional 0.25 percentage points, to the level of 1.75%, as a precautionary measure to further boost banks' own funds, and thus strengthen their resilience. **The macro prudential measures that the National Bank has been regularly taking since 2022, contributed to the capital adequacy ratio reaching 19% at the end of 2024, which is the highest level in the last seventeen years. This is particularly significant considering that it comes after a period of several consecutive macroeconomic crises. At the same time, the capital adequacy ratio of the domestic banking sector has recorded the fastest growth in this period, compared to EU and regional countries. In addition to improved capital indicators, positive developments have also been evidenced in the credit portfolio quality, where the share of non-performing loans in total loans has decreased to the historically lowest level of around 3%.**

The constant efforts of the National Bank in putting adequate monetary measures in place in order to address price movements, while simultaneously monitoring the situation in the banking system, were positively assessed by the relevant international financial institutions as appropriate and timely measures that contribute to the macroeconomic stability of the country. Thus, within the framework of regular consultations, arising from the country's membership **in the International Monetary Fund (IMF)**, the IMF mission recognized the successful policy of the National Bank in the past period and how it dealt with the challenges in the economic environment. Positive assessments of monetary policy are also given in the **European Commission's Progress Report** on the country published in October 2024, with the European Commission stating that the compliance of monetary policy with European regulations, standards and practices remains high.

The trust and credibility that the National Bank has among international financial institutions has also been proven by concluding the **Memorandum of Understanding with the European Bank for Reconstruction and Development (EBRD), for the implementation of the Women Entrepreneurs Finance Code in our country.** Greater financial inclusion of women entrepreneurs by developing skills, knowledge, preparation and monitoring of appropriate data and access to financial assets are the primary goals of the pilot project led by the National Bank with the EBOR support, thus supporting the gender financial inclusion in the country.

In addition, **the National Bank and the European Investment Bank (EIB) have signed a cooperation agreement**, thus providing support for the National Bank's efforts in green finance area. In this segment, the National Bank remained committed to its activities to promote green finance and for the first time, it published a Review of Green Growth Indicators, along with the Methodological Guide for them, in accordance with the activities envisaged within the first Medium-Term Plan of Activities of the National Bank pertaining to climate risk management adopted in 2023. The review contains environment and energy indicators, climate risks indicators and green finance indicators. The inclusion of green and social sustainability bonds in foreign reserves portfolio of our central bank is also part of the National Bank efforts to deal with climate changes. Within the membership in the International Network for Greening the Financial System (NGFS), National Bank experts participated in the preparation of the Guide on Climate-related Disclosure for Central Banks - second edition. In line with the efforts to raise awareness of climate risks and incorporate them into operations, the first Sustainability Policy of the National Bank was developed in 2024. In accordance with international standards and regulations, the Policy and the Draft Action Plan (Roadmap) for the implementation of the Policy pay attention to improving operational efficiency, building ESG capacities, defining the most important performance indicators and setting sustainability goals with an emphasis on transparency. With these documents, the National Bank envisages expanding the scope of activities and incorporating sustainable economy goals into the daily operations of the National Bank.

By supporting the FinTech sector and digital innovations, the central bank is creating new opportunities for the modernization of financial services, better accessibility for citizens, and an incentive for the growth of entrepreneurship. Process facilitation and improvement of services, reaping the digitalization benefits is an effort of the National Bank and the central

bank as regulator, intends to increase the use of technological benefits. Therefore, in 2024, **the National Bank enabled the citizens fast and easy access to the Credit Registry report,** through the National Services Portal; The National Bank developed and introduced **new web service for automated download of the data from the Exchange Rate List.** The introduction of the new service is part of the improvement of IT security of processes through the application of new technologies that are more resilient to digital attacks. The continuous strengthening of cyber resilience, as well as the use of technologies to improve services to users, is a commitment of the central bank. In addition, **the National Bank constantly provides financial education to inform the citizens on how to recognize cyber risks**, such as phishing.

During 2024, **the National Bank worked diligently to improve the statistical data within its scope of operations.** The National Bank, which at the end of 2019 became the 18th member country of the highest standard of the International Monetary Fund (IMF) – SDDS Plus, continues to collect, prepare and publish high-quality statistical data. In 2024, it began publishing a new set of consolidated quarterly financial accounts, balances, with the activities for the development of data on financial accounts, flows, still being underway. In order for the National Bank to adhere further to the European statistical requirements, the deadline for data dissemination and submission have been harmonized, and based on the IMF mission recommendations in the field of external statistics, a new pilot version of the balance of payments statistics has been developed. At the same time, activities for the digitalization of the process of collecting, compiling and disseminating data continue through several projects.

In conditions of dynamic development of the financial system and financial services digitalization, **financial education is becoming much more necessary for all ages and all social classes.** Hence, the financial education team held a larger number of interactive educational lectures in 2024 compared to last year (74, compared to 56), in order to expand the scope of participants and increase financial literacy. In addition, lectures were organized for the elderly population, as well, at which visitors had the opportunity to learn about the National Bank's basic functions and tasks, modern payment methods, as well as about the security of using digital financial products and services.

In addition, last year, the National Bank took activities to improve the accessibility of the vulnerable categories of population to financial services. In this context, the National Bank developed Guidelines for greater inclusion of persons with disabilities as consumers in the banking sector, and also developed and printed a brochure intended for visually impaired people, which would contribute to their greater financial education and better information about their rights.

In 2024, the National Bank took activities to modernize its corporate operating. Thus in May 2024, the National Bank Council adopted the new Strategic Plan of the National Bank for the period 2025 – 2027 which has been upgraded in accordance with best central banking practices and following the example of several central banks. In addition to the traditional competencies of the National Bank, special emphasis has been placed on addressing the emerging trends that will outline these legal functions in the coming years, in order to enable a greater contribution to the sustainable and inclusive growth of the Macedonian economy,

supporting its green and digital transition. At the same time, the National Bank strives to improve the awareness of the Code of Ethics importance among employees for its appropriate application in everyday work, i.e. for acting in accordance with the rules regulated by the Code of Ethics. To this end, internal educational activities on topics related to the Code of Ethics, as well as educational trainings in cooperation with external institutions were conducted.

Transparency in terms of operations is a priority of the National Bank, so even in 2021, it voluntarily participated in the pilot project for assessing transparency in terms of the new IMF Transparency Code, as the second country in the world. Hence, our activity to improve transparency has intensified, through comprehensive, clear, simplified and timely communication, and in the past few years the number of press releases has been constantly increasing. Thus, during 2024, the number of press releases (over 260) was 30% higher than the previous year, and even twice as high as in 2018. In the past period, communication has also intensified through public appearances by the Bank's management, so in 2024, 127 participations in events/interviews were recorded, which is by six times more than in 2018. The National Bank communicates more also through social media posts, which totaled just over 400 in the previous year, with our efforts being focused on contributing more for visualization and better understanding of statistical data and other relevant information through infographics.

Dear Sir/Madam,

In the spirit of these significant achievements, the National Bank of the Republic of North Macedonia will remain dedicated to its most important role in ensuring macroeconomic and financial stability, which is the basis for sustainable economic development. With strategic and precisely defined policies and constant cooperation with international partners, we will pursue advancing the payment infrastructure and encourage new initiatives for financial inclusion and innovation. We remain committed to support sustainable economic growth, creating stable foundations for the next generation, and securing the future of our country in the context of European integration and global economic challenges that will persist. Through innovative approaches and strategic planning, we will promote a secure and successful financial future for all our citizens and entities.

17 April 2025
Skopje

Governor and Chairperson
of the National Bank Council
Anita Angelovska Bezhoska

I. Monetary policy in 2024

Inflation slowdown

Preserved stability of the denar exchange rate

Maintaining adequate level of foreign reserves

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 attainment of the ultimate goal and in line with the principle of an open market economy with free competition. Analyzed by strategy, 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.

The changing macroeconomic environment was characteristic for 2024, as well, thus imposing the need for constant adjustment of monetary policy in order to attain the legally defined goals. The gradual reduction of inflation down to a level close to the historical average, the stabilization of inflation expectations, as well as the favorable foreign exchange market performance contributed to change the monetary policy setup, this time towards its relaxation. Namely, as of September, the National Bank began to normalize the monetary policy cautiously, by reducing the policy rate, which was also supported by changes in the reserve requirement. **The monetary objectives were successfully achieved, as seen through further maintenance of stable exchange rate, as well as increase in foreign reserves, which remained in the safe zone according to all adequacy indicators**. In addition, regarding **price stability, also in 2024 the average inflation decelerated and reduced to 3.5%** from 9.4% in the previous year, reflecting the stabilized movements in the prices of food, energy and core inflation, as well as the effects of the adequate monetary setup. Also, amid strategy of de facto fixed exchange rate of the denar against the euro, the National Bank took into consideration the changes in the monetary policy of the European Central Bank. The monetary measures taken contributed to anchor the inflation expectations, maintain stable foreign exchange market and reduce inflation. In 2024, the financial stability was maintained successfully, and several macroprudential measures were adopted to strengthen further the capital of banks and their resilience to shocks.

Chart 1
Output gap and inflation*

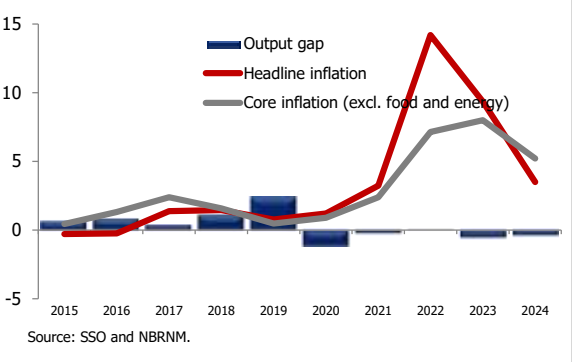
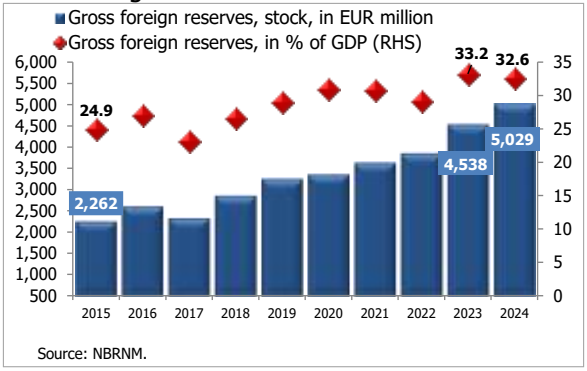


Chart 2
Gross foreign reserves



*Output 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

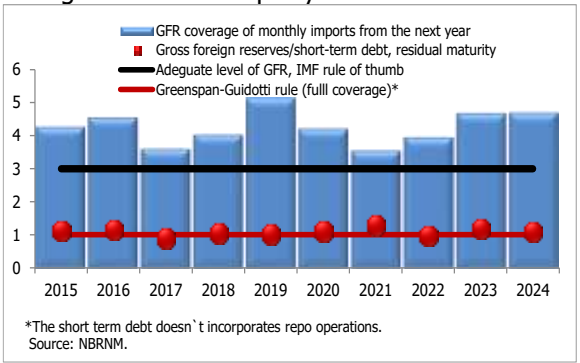
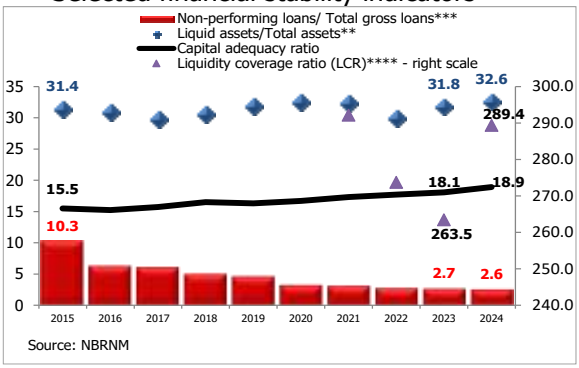


Chart 4
Selected financial stability indicators



* According to the Greenspan-Guidotti rule, the country needs to keep full coverage of short-term debt (residual maturity) with foreign reserves.
** Liquid assets are comprised of liquid assets and investments in government bonds and in foreign government bonds and treasury bills. Assets in domestic banks are excluded from total assets.
*** 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.
**** The methodology for calculating the liquidity coverage ratio (LCR) is in accordance with the requirements of the international Basel 3 agreement.

1.2. Monetary policy setup

Since September 2024, the National Bank has begun with gradual and cautious normalization of the monetary policy. In conditions of decrease and stabilization of the price pressures and inflation expectations, and given further favorable foreign exchange market, the National Bank gradually increased the policy rate on three occasions, to the level of 5.55%, until the end of 2024, cumulatively by 0.75 percentage points, simultaneously keeping the offered amount of CB bills at the level of Denar 10,000 million. At the same time, in December 2024 interest rates on overnight and seven-day deposit facilities decreased by 0.25 percentage points to 3.95% and 4%, respectively. Given the monetary strategy of a stable exchange rate of the denar against the euro, when deciding, the changes made by the European Central Bank, which since June 2024 started with gradual normalization through interest rates, were also taken in regard. The monetary policy was also supported through additional measures, i.e. at the beginning of 2024, it was decided to change the setup and the method of

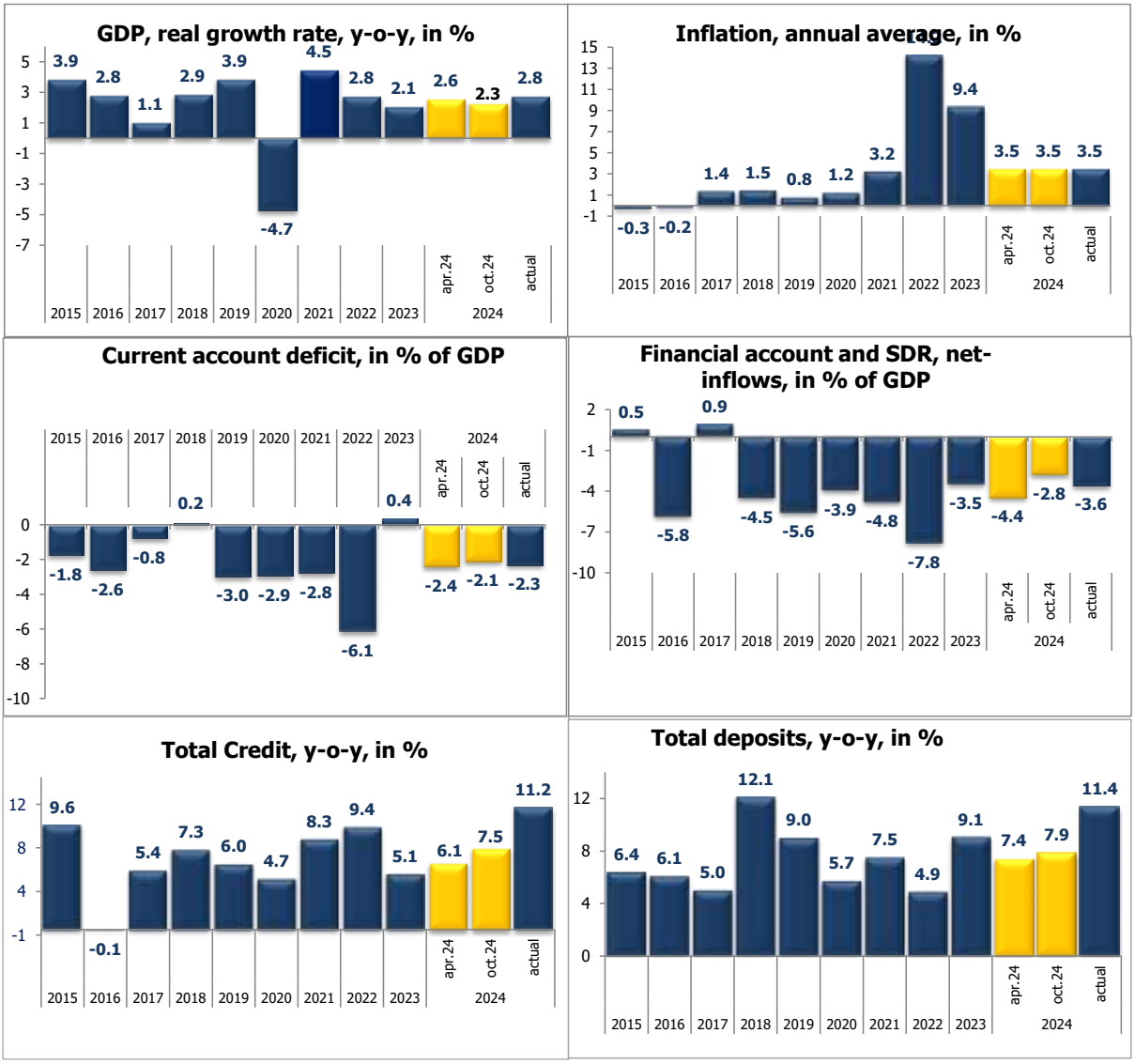
maintaining the reserve requirement[1], due to further denarization of the economy and growth in savings. The measure aimed at encouraging projects for renewable energy was effective throughout the year. In addition, in order to strengthen further the systemic resilience of the banking sector, as well as the transmission of monetary signals, the National Bank adopted macroprudential measures, as well. Thus, in July, a decision was made to increase the rate of the countercyclical capital buffer by an additional 0.25 percentage points, to the level of 1.75% (with effect from 1 August 2025, which was extended twice until the end of the first quarter of 2026). Such a monetary policy setup i.e. current level of interest rates, together with the changes in the reserve requirement and macroprudential measures taken, contribute towards stability of the denar exchange rate against the euro, as well as price stability in the medium run. Risks of the external environment still exist and are pronounced, while risks of domestic factors, which can affect both demand and prices in the upcoming period, are being closely monitored. The National Bank is prepared to use all necessary instruments and take measures to achieve the legally set goals successfully.

The macroeconomic environment in 2024 imposed a need for a gradual and cautious normalization of monetary policy, which reflects the favorable trends in inflation and foreign reserves, with the risks related to the external and domestic environment still being present. With constant favorable movements in the foreign exchange market, the National Bank intervened with a significant net purchase of foreign exchange throughout 2024. The cumulative interventions of the National Bank with purchase on the foreign exchange market during 2023 and 2024 fully compensated for the amount of foreign exchange sold during the period of great pressures on the foreign exchange market, caused by the global shocks of the pandemic and the energy crisis.

In 2024, *the price level in domestic economy* registered an average annual growth of 3.5%, which fully matches the October forecasts and represents significant slowdown compared to the previous year (9.4%). These achievements are the result of the stable movement of food prices, energy and core inflation, also due to the prudent monetary policy.

[1] For more information please visit https://www.nbrm.mk/ns-newsarticle-soopstenie-29022024.nspx

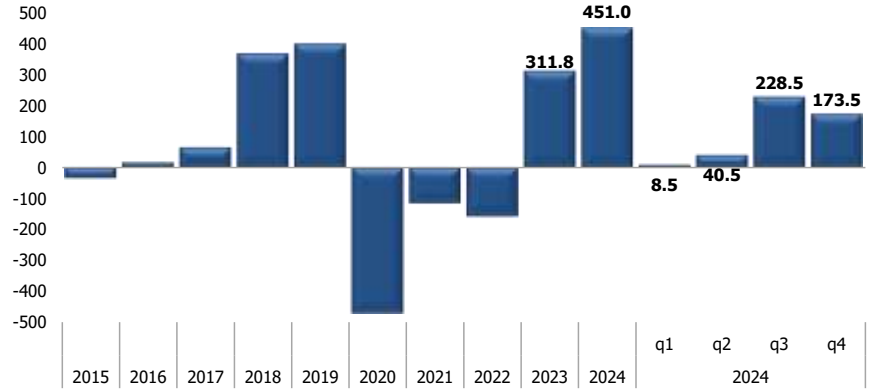
Chart 5
Revisions of macroeconomic forecasts



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

Foreign reserves significantly increased in 2024 and remained in the safe zone throughout the year. Namely, the foreign reserves increased, reaching a historically high level of Euro 5,029 million at the end of 2024, which indicates an appropriate level for maintaining the stability of the domestic currency exchange rate. The growth is mainly due to the purchase of foreign currency on the foreign exchange market by the National Bank. The favorable performance was the result of high net inflows in the financial account, which enabled the coverage of the moderate current account deficit and growth of foreign reserves. Namely, in 2024, one of the historically highest net inflow based on foreign direct investments was achieved, as well as larger net inflows based on the Government's long-term borrowing.

Chart 6
NBRNM interventions on the foreign exchange market (in millions of euros)



Source: NBRNM

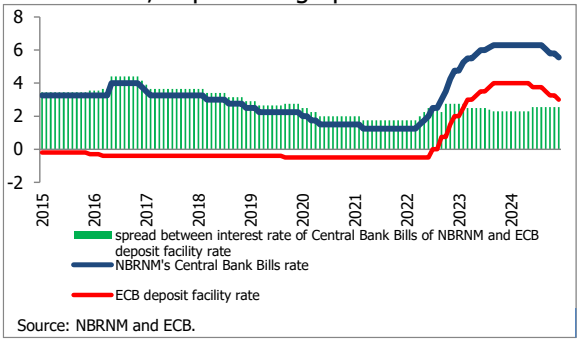
Source: NBRNM.

Financial sector deposits registered intensified increase during the year amid more favorable financial conditions for saving. Thus, the annual growth of total deposits in 2024 reached 11.4%. Observed by sector, the growth results from the increase in deposits with households and enterprises (contribution of 8.8 percentage points and 2.7 percentage points respectively), given slight decline in deposits of other sectors (negative 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. Thus in 2024, strong annual growth of 15.2% in denar deposits was registered (including demand deposits), compared to the growth of foreign currency deposits of 6.1%. Also, long-term deposits in 2024 recorded high annual growth (of 25.4%), while short-term deposits achieved moderate growth (of 3.4%).

From the aspect of private sector borrowings, amid easier credit standards and increased credit demand, credit growth accelerated and reached 11.2% during 2024. Observed by sector, the growth results from the positive contribution of corporate loans, given lower positive contribution of household loans. Regarding the currency structure, high positive contribution was made by loans in domestic currency, given slight positive contribution of foreign currency loans (included denar loans with currency clause).

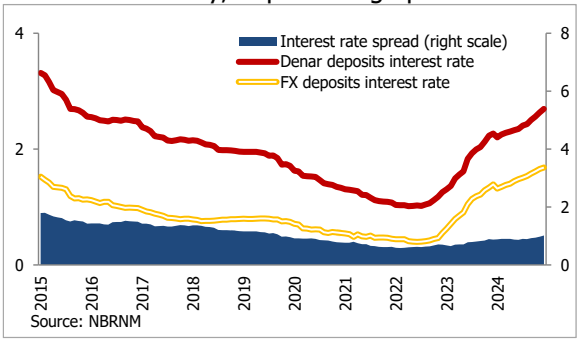
Having in mind the implementation of strategy of stable nominal exchange rate of denar against the euro, changes in *interest rates in* the euro area, as the anchor economy, play an important role in the monetary policy setup in the country. Thus, during 2024, the European Central Bank began normalizing the monetary policy and reduced the policy rate on deposit facilities on four occasions. Thus, the spread between the policy interest rates i.e. between the interest rate on the CB bills and the interest rate on deposit facilities of the ECB, at the end of 2024, was 2.55 percentage points. Regarding the interest rates of the domestic economy, the spread between the interest rate on denar and the interest rate on foreign currency deposits, at the end of 2024, slightly widened (from 0.9 to 1.0 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.

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



Source: NBRNM and ECB.

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



Source: NBRNM

II. International environment[2]

In 2024, the global economic activity was resilient and stable, amid more favorable global financial conditions and a recovery in global trade growth, although with geopolitical tensions and heightened uncertainty still enduring. The global inflation decelerates further, but more moderately in some countries, amid a simultaneous decline in commodity prices, primarily energy sources, and a gradual loosening of labor markets. Central banks in developed countries have begun to normalize monetary policy gradually, by cautiously reducing the interest rates.

Global economic activity growth in 2024 is estimated at 3.2%, below the two-decade average before the pandemic (3.7% in the period 2000-2019). This growth is slightly weaker than in 2023 (3.3%), which results from the slowdown in economic growth in emerging and developing economies (4.2% in 2024, compared to 4.4% in 2023), with unchanged growth in advanced economies (1.7%). Thus, the US economic activity is recording solid growth, mainly driven by strong consumption and investment, compensating for weak growth in the euro area, which is our most important trading partner. This is due in large part to the weak economic performance of Germany, which is lagging behind other euro area countries, largely reflecting the persistently weaker production and export of goods. Regarding emerging economies, the growth in China decelerated as a result of weaker consumption, low consumer confidence and problems in the real estate market.

The global economic growth is expected to remain stable in the medium run, but still weaker than in the pre-pandemic period. However, uncertainty persists, with risks to global growth in the medium-term being mainly downwards and related to increased geopolitical uncertainty. Namely, the escalation of wars and conflicts could lead to further disruption of trade flows and an increase in the prices of primary commodities, resulting in possible intensification of protectionist policies that could aggravate trade tensions, reduce investment, reduce market efficiency and disrupt supply chains again. The uncertainty about economic policies has brought additional skepticism, which may have an impact on financial market conditions, with adverse consequences for financial and fiscal sustainability. On the other hand, the renewal of existing and the conclusion of new trade agreements by some of the world's influential economies may have a positive impact on economic growth, through increased consumer confidence, reduced uncertainty and increased investment.

Chart 9
Global economic growth (in %)

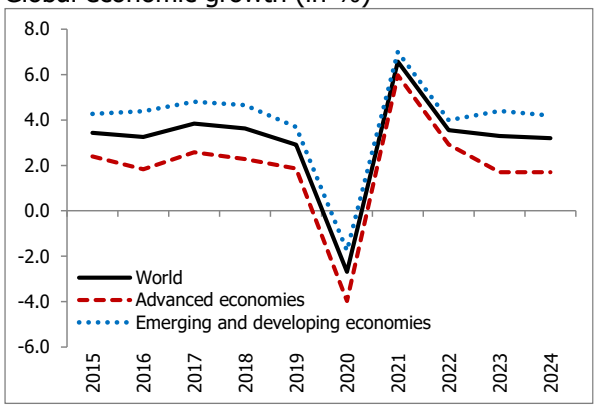
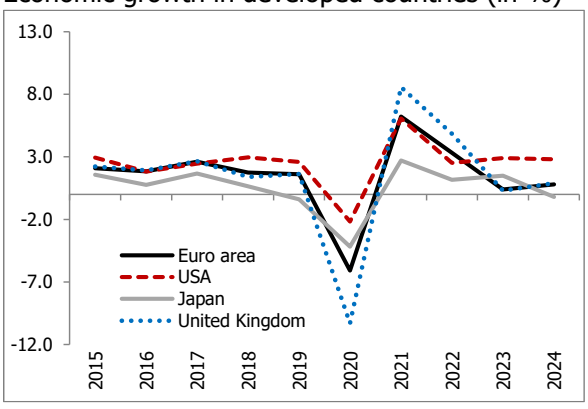


Chart 10
Economic growth in developed countries (in %)

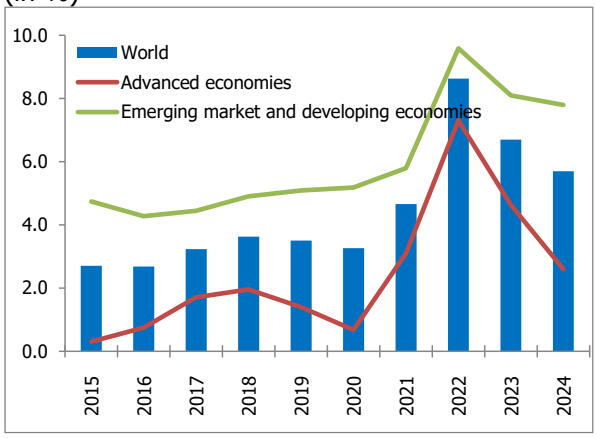


Source: World Economic Outlook, October 2024 and updated report dated January 2025, IMF

[2] The analysis is based on the IMF's 'World Economic Outlook from in October 2024 and January 2025; the World Bank's World Economic Outlook from January 2025; the three-month reports of the National Bank.

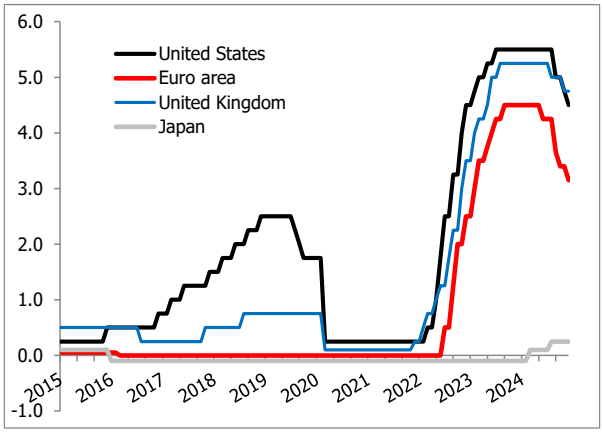
In 2024, global inflation decelerated to 5.7% (6.7% in 2023), mainly reflecting favorable developments in international energy and food prices, improved supply chains and the effects of monetary tightening by central banks, which contributed to anchoring inflation expectations. Domestic price pressures gradually became lesser, amid less labor market restrictiveness and more moderate nominal wage growth. However, they persisted throughout the year, contributing to a more moderate slowdown in core inflation, while the services prices declined more slowly, so in many countries they are still over the pre-pandemic levels. By groups of countries, in 2024, the inflation in developed countries dropped to 2.6% (4.6% in 2023) and in emerging and developing economies it reduced to 7.8%, on average (8.1% in 2023).

Chart 11
Global inflation rate
(in %)



Source: World Economic Outlook, October 2024 and updated report dated January 2025, 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 estimated *foreign effective demand* still registered low, although minimally faster growth in 2024. Namely, it is estimated that foreign effective demand will grow by 0.7% (0.6% in 2023), with the largest positive contribution to growth coming from neighboring countries Serbia, Bulgaria and Greece. The low growth in foreign effective demand is primarily a reflection of the weak performance of Germany, as our most important trading partner, which has recorded a decline in economic activity for two years in a row, as a result of the deteriorated domestic production and foreign trade. *Foreign effective inflation* decelerated and equaled 3.1% in 2024 (7.6% in 2023), following the high growth in the previous year. All countries contributed to the slowdown, with Germany and Serbia contributing the most[3].

[3] Inflation in Serbia has been adjusted for the changes in the exchange rate.

Chart 13
Foreign effective demand

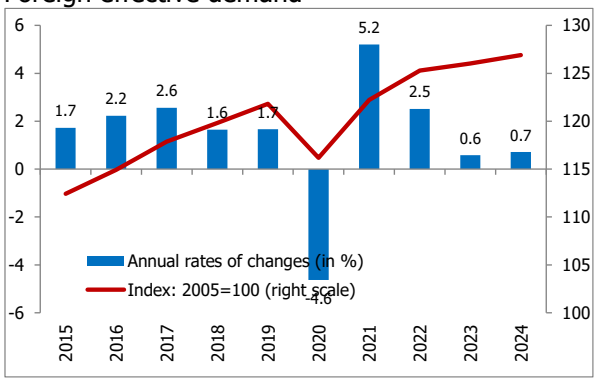
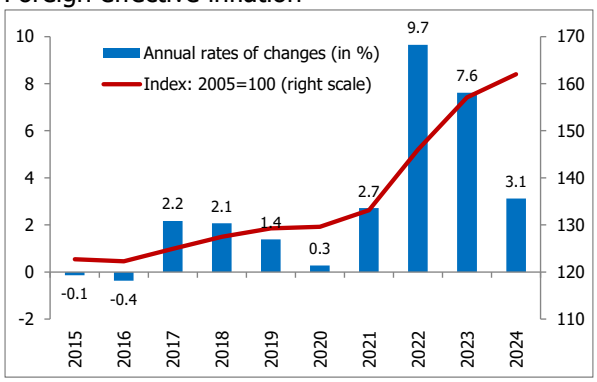


Chart 14
Foreign effective inflation



Source: National statistical offices and calculations of the NBRNM[4].

In 2024, *primary commodity markets* registered an average decline in prices compared to 2023, influenced by the prices of energy products, which recorded further, but significantly smaller decline compared to the previous year. Thus the average price of crude oil in 2024 equaled Euro 73.9 per barrel, which is a decrease of 3.0% compared to 2023 (Euro 76.2 per barrel). In terms of dynamics, at the beginning of the year, the price of oil recorded an upward trend, reaching its maximum in April (Euro 82.9 per barrel), followed by a subsequent decline, so towards the end of the year, the price of oil dropped below Euro 70 per barrel, which was driven by reduced global demand, primarily from China, and strong supply from producing countries outside OPEC+, despite the current geopolitical tensions and the decision of the OPEC+ group on delaying the increase in production[5]. In 2024, some non-energy products also registered a slower price decline. Namely, food prices on world stock markets fell by 3.2%, amid increased inventories, while base metal prices fell by 1.9%, mainly reflecting weaker demand from China.

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

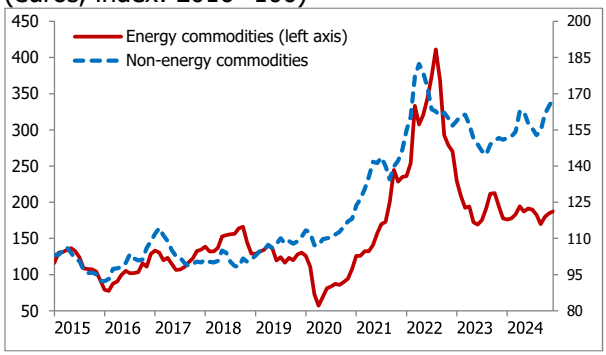
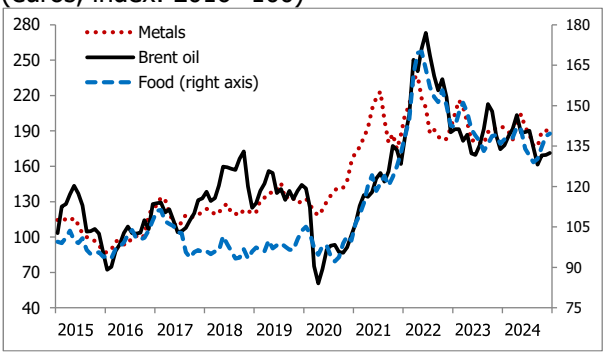


Chart 16
Monthly movement of prices of crude oil, metals[6] and food
(euros, index: 2016=100)



Source: IMF's database on the primary commodities prices.

[4]Foreign effective demand is the sum of weighted GDP indices of the major trading partners of our county. 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 exports in the priod 2016 - 2018. 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 calculation of this indicator includes: Germany, Greece, France, Italy, Spain, Austria, Slovenia, Bulgaria, Poland, Croatia and Serbia. 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.

[5] It was initially planned to increase the production starting from October, which had previously been voluntarily reduced by several members of the group, but this was postponed several times, and at the meeting on 5 December 2024, it was decided to further postpone the start of the increase in oil production by three months, until April 2025.

[6] Metals Price Index is a composite index, which includes prices of copper, aluminum, iron ore, tin, nickel, zinc, lead and uranium.

Due to the inflation rate slowdown during 2024 and the prospects for its reduction to the target level in the medium run, as well as the resilient economic activity, most central banks in developed countries began a cautious easing of monetary policy in the second half of the year. Thus in September, for the first time in four years, FED reduced the policy rate by 0.5 percentage points, as a result of reduced inflation and balanced risks with respect to attaining the target inflation level and full employment. After the initial fall in September, the decrease decelerated in November and December, so FED cut the policy rate in two occasions, by a total of 0.5 percentage points, in conditions of a solid growth in economic activity, eased labor market conditions, reduced inflation pressures and its movement towards the target level. Thus, in December 2024, the interest rate ranged from 4.25% to 4.5%. Also, the FED continued reducing the portfolio of treasury and mortgage-backed securities. The Bank of England, for the first time in August, reduced the policy rate by 0.25 percentage points, and then again in the same volume, in November, so at the end of the year it equaled 4.75%. 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) reduced the interest rates for the first time in June 2024 by 0.25 percentage points, after keeping it unchanged for nine months, in line with the assessment of smaller price pressures and declined inflation expectations, emphasizing that the ECB was maintaining restrictive monetary policy. Following this, in September it reduced the interest rate on deposit facilities by an additional 0.25 percentage points (the rates on the main refinancing operations and on the marginal lending facilities decreased by 0.6 percentage points, in line with changes in the operational framework[7]). In view of the weaker-than-expected recovery of the economic activity in the euro area and a further slowdown in overall inflation in line with the expectations, the ECB further reduced the three interest rates in October and December by 0.25 percentage points each (or a total of 1 percentage point for the entire year in the deposit facilities rate), bringing them to 3.0%, 3.15% and 3.40%, respectively, at the end of the year. As before, the portfolio within the Asset Purchase Program (APP) has been reducing gradually throughout the year and at predictable pace, while the portfolio of the Pandemic Emergency Purchase Program (PEEP) will reduce by Euro 7.5 billion, on average, until the full termination of the reinvestments within this program until 2024.

[7] According to the latest change in the ECB's operating framework for monetary policy conduct from 13.3.2024, which entered into force on 18.9.2024, the interest rate on deposit facilities will be used as a policy rate for monetary policy conduct, while the level of the other two interest rates will be set through a determined spread, where the interest rate spread between the main refinancing operations and deposit facilities will decrease and amount to 0.15 percentage points, while the interest rate spread between overnight deposit facilities and the main refinancing operations will remain unchanged i.e. 0.25 percentage points (-link).

III. Macroeconomic Developments in 2024

Table 1
Basic indicators for the Macedonian economy

annual changes, in %	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Real sector										
Gross domestic product *	3.9	2.8	1.1	2.9	3.9	-4.7	4.5	2.8	2.1	2.8
Inflation	-0.3	-0.2	1.4	1.5	0.8	1.2	3.2	14.2	9.4	3.5
Unemployment rate	26.1	23.7	22.4	20.7	17.3	16.4	15.4	14.4	13.1	12.4
External sector										
Current account balance (% of GDP)	-1.8	-2.6	-0.8	0.2	-3.0	-2.9	-2.8	-6.1	0.4	-2.3
Trade balance (% of GDP)	-20.1	-18.8	-17.8	-16.2	-17.3	-16.6	-19.7	-26.3	-18.1	-20.1
Foreign direct investments (% of GDP)	2.2	3.3	1.8	5.6	3.2	1.4	3.3	4.9	3.3	7.1
Gross external debt (% of GDP) **	69.3	74.7	73.4	73.0	72.4	78.7	79.8	79.4	75.4	78.5
Gross foreign exchange reserves (in EUR million)	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	5,029.0
Monetary sector										
Money supply (M4)	6.9	6.2	5.1	11.8	9.3	6.9	7.0	5.1	8.7	11.4
Total credits	9.6	6,5***	5.4	7.3	7,6***	4.7	8.3	9.4	5.1	11.2
Total deposits (including transaction deposits)	6.4	6.1	5.0	12.1	9.0	5.7	7.5	4.9	9.1	11.4
Fiscal sector										
Budget balance (% of GDP)	-3.5	-2.7	-2.7	-1.8	-2.0	-8.0	-5.3	-4.4	-4.6	-4.4
Public debt (% of GDP)	46.6	48.8	47.7	48.4	49.2	59.7	60.3	58.2	58.1	62.4
Banking sector										
Capital adequacy ratio (%)	15.5	15.2	15.7	16.5	16.3	16.7	17.3	17.7	18.1	18.9
Non-performing loans of the non-financial sector / Gross loans (%)	10.8	6.6	6.3	5.2	4.8	3.4	3.2	2.9	2.8	2.7
Liquid assets / Total assets (%)	31.4	30.9	29.8	30.6	31.9	32.5	32.4	30.0	31.8	32.6
Liquidity coverage ratio (LCR)*****							292.2	273.8	263.5	289.4

Source: NBRNM, SSO, Ministry of Finance.
* Preliminary data for 2021, estimate for 2022.
** Excluding liabilities of the monetary authority (without repo agreements)
*** Corrected for the write-offs.
**** The liquid assets is composed of liquid assets, domestic Government bonds and foreign Government bonds and bills. The total assets does not include assets at domestic banks.
***** The methodology for calculation of Liguidity coverage ratio (LCR) is in line with Basel 3 Accord.

3.1. GDP and Inflation

The domestic economy grew during 2024, despite increased macroeconomic uncertainty, with real GDP growth accelerating to 2.8%[8] (2.1% in 2023). This shift was made in conditions of inflation deceleration, strong growth in disposable income, a cautious and gradual reduction in interest rates towards the end of the year, increased construction activity and almost unchanged fiscal position. On the other hand, uncertainty remained, especially due to the external environment, which had an unfavorable impact on domestic production and export activity.

Chart 17
GDP and foreign effective demand (annual real growth rates, in %)

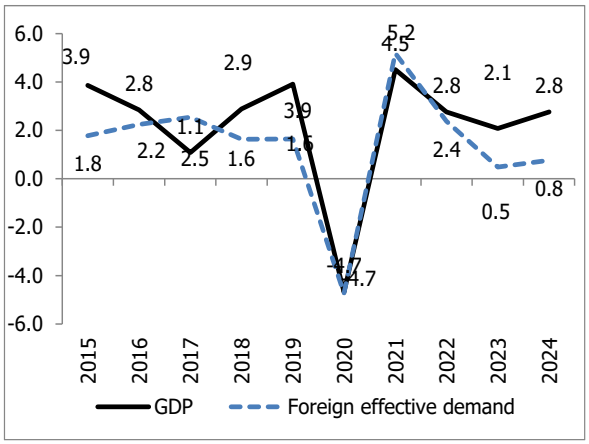
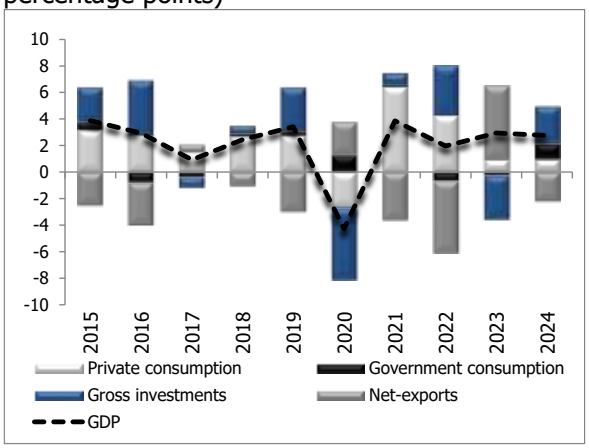


Chart 18
GDP (real growth, in %) and GDP expenditure components (contributions to growth, in percentage points)

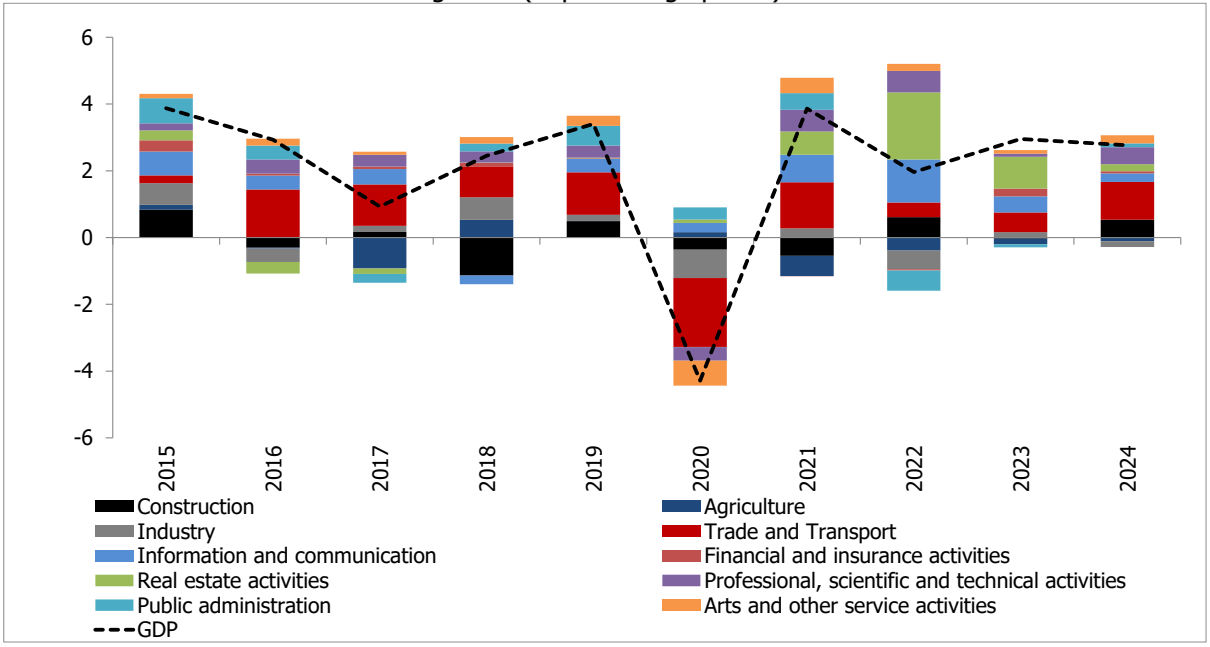


Source: State Statistical Office and Eurostat, NBRNM calculations GDP data for 2023 are preliminary, and data for 2024 are estimated.

The growth is entirely due to the positive contribution of domestic demand, primarily the gross investments. This performance reflects the exceptionally high amount of foreign direct investments, the growth of construction activity, especially in road infrastructure, as well as the increased stocks of finished goods. The economic growth was also supported by public consumption, evident through the growth in all categories. Household consumption recorded moderate growth this year, amid solid growth in wages, pensions, as well as in household lending. On the other hand, the net export component recorded a negative contribution to the overall GDP growth rate, amid a decline in exports, in conditions of continued weak external demand, as well as reduced activity and exports of significant export capacities from the automotive and metal industries, of a temporary nature. Under such circumstances, slights small decline was recorded in the import of goods and services. From the production side, an increase in activity is recorded in the majority of activities, with the largest contribution from the group of activities "trade, transport and catering", construction and "professional, scientific and technical activities, administrative and auxiliary service activities", while industry and agriculture recorded a decline.

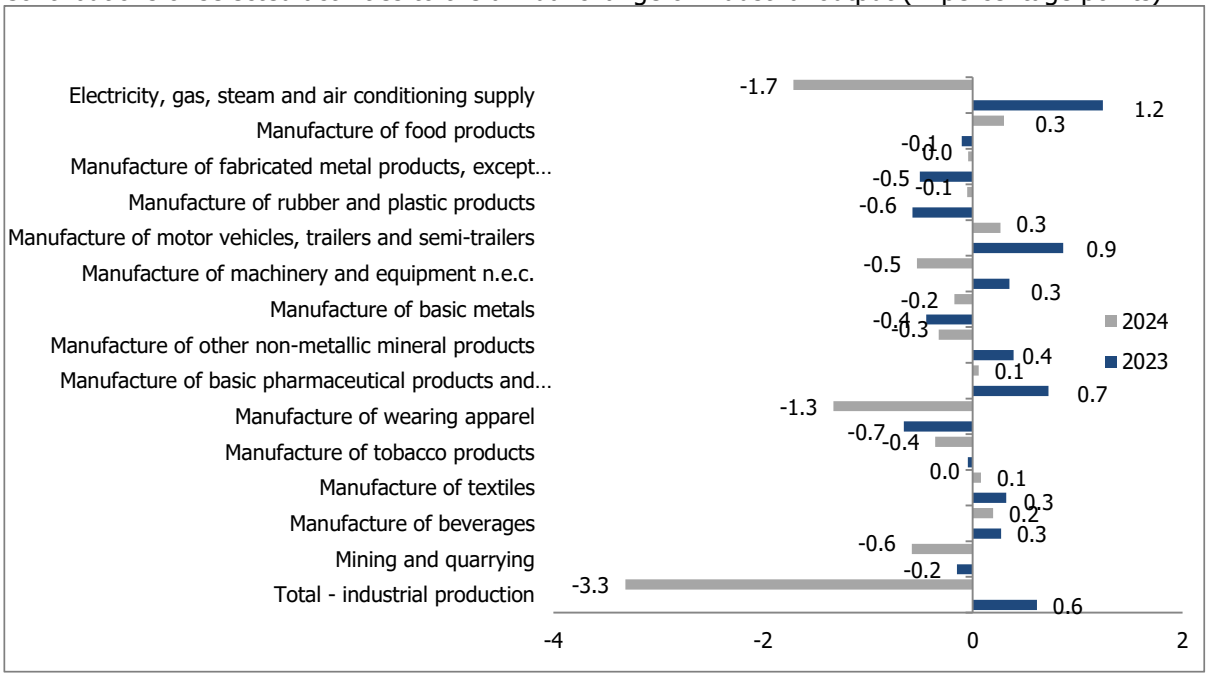
[8] In 2024, real GDP registered the following growth rates: Q1: 1.9%, Q2: 2.8%, Q3: 3% and Q4 3.2%.

Chart 19
Contribution to the real annual GDP growth (in percentage points)



Source: State Statistical Office and NBRNM calculations GDP data for 2023 are preliminary, and data for 2024 are estimated.

Chart 20
Contributions of selected activities to the annual change of industrial output (in percentage points)



Source: State Statistical Office and NBRNM

The average inflation rate in 2024 kept decelerating, reducing to 3.5%. This movement in consumer prices is in line with the movements in primary commodity prices on global markets, the slowdown in foreign imported inflation, and the monetary policy setup. Observing the structure, the largest effect on such dynamics was made by the lower contribution of food prices to inflation. There is also a slowdown in the core inflation component, while energy prices dropped. At the same time, economic measures were

implemented during the year to limit temporarily the price growth of certain product categories. Hence, in 2024, a downward trend in inflation expectations has been registered.[9]

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

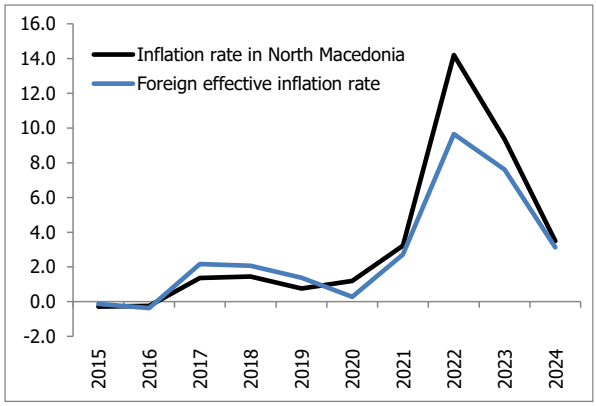
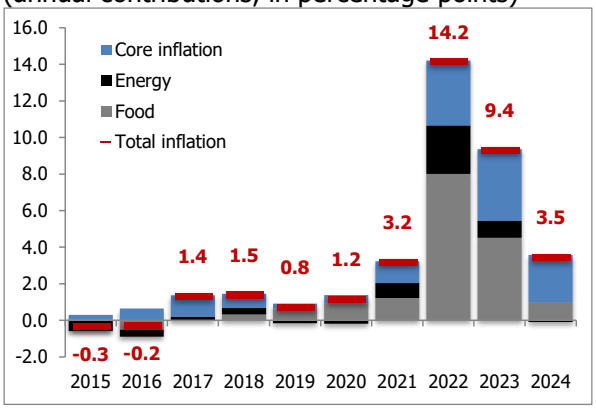


Chart 12
Volatile (food and energy) and long-term component of inflation
(annual contributions, in percentage points)



Source: State Statistical Office, Eurostat and NBRNM calculations

After a period of two years, the average growth in food prices in 2024 reduced to a single-digit level (2.7%), and the contribution of which was slightly more than a quarter of the total annual increase in consumer prices. At the same time, a significant slowdown in the growth of prices of certain products, such as bread, cereals, meat, milk and dairy products, was registered. Analyzed by structure, the price growth is broad-based, with the largest contribution being made by the increase in vegetable prices, while oil prices were the only category that recorded a decline. By dynamics, the increase in food prices accelerated in the fourth quarter of 2024, on an annual basis, in conditions of a low comparison base due to the impact of the measures in the last quarter of the previous year.

In 2024, the prices of basic food products on the international market dropped, and during the year the economic measures were applied to limit temporarily the price growth of some food products[10].

Energy prices fell by 0.7%, mainly due to lower prices of solid fuels[11] and lower prices of oil derivatives, amid lower crude oil prices on world stock markets. The higher household electricity prices had adverse impact, as a result of the transmission effect of the regulatory increase in prices July of the previous year, as well as the upward correction in July

[9] According to European Commission surveys on consumer and corporate sector expectations for price changes.
[10] The measures adopted in September 2023 were in effect as of the end of February 2024, i.e. the decision on reducing the prices of products within 24 categories from the bakery, dairy, meat industry and agriculture by at least 10% compared to the prices that were valid on 1 August 2023 and to freeze them at that level until February (link), the decision on prescribing the highest trade (profit) margin in the trade of raw fruit and raw vegetables in a total amount of up to 10% in wholesale trade and up to 15% in retail trade (link)and the decision on reducing import duties (customs rates and special duties) on the import of raw vegetables (link). Additional measures were adopted during the year, mostly relating to food products. Thus, at the end of September, a decision on limiting the gross profit margin to 10% in wholesale trade and 10% in retail trade for the trade of products included in the so-called autumn consumer basket was adopted, valid until the end of October (link). Also, in agreement with manufacturers, distributors and retailers, a promotional pricing of at least 10% was implemented for products in the so-called New Year's basket in the period from 15 December 2024 to 15 January 2025. (link). At the end of September, the Law on Prohibition of Unfair Trade Practices came into force, according to which, among other things, rebate and additional fees, such as placing products on shelves, advertising, marketing, etc., are limited to 10%. (link). However, this law had no visible effects on prices until the end of the year.
[11] Primarily due to the decrease in the price of firewood in April and September.

2024[12]. Additional pressure was also placed on thermal energy prices due to the transmission effect of the regulatory price increase last November, which was mitigated by the downward price adjustment in August 2024[13]. Analyzed by dynamics, with the exception of the second quarter, the annual price growth in the energy component slowed down, which is in line with the movement of oil prices on the international market.

Core inflation decelerated in 2024 to 5.2%, in line with lower pressures from food prices and the decline in energy prices, which are an input component for several other products and services. The slowdown in core inflation is mainly due to lower growth in prices of products for routine household maintenance and personal hygiene, catering and transport services. However, prices of catering services remained at a high level and, together with prices of tobacco products that increased due to increased excise duties[14], contributed the most to the growth of the core component, equaling about a quarter of the total increase. The annual movement of core inflation by quarters shows a downward trend in the first two quarters, followed by a slight acceleration before stabilizing in the last quarter of the year.

3.2. Labor Market

In line with the shifts in the domestic economy, the labour market indicators[15] in 2024 are favorable, from the aspect of both, demand for and supply of workforce. Thus, the number of employees in 2024 increased by 0.9%. Analyzed by sector, the increase is mostly associated with the higher number of employees in the agricultural sector, while a decrease in the number of employees was registered in the service sector and industry. Thus, the employment rate increased by 0.4 percentage points, reaching a level of 45.8%. Active employment measures[16] were implemented also in 2024 to support employment in the economy.

[12] The growth was mitigated by the price reduction in January 2024, whereby, in accordance with the decision of the Energy Regulatory Commission (ERC), the price of electricity for the universal supplier was changed as follows: the price in the first block decreased by 5.16%, the price in the second block was unchanged, while the price in the third and fourth block moved upward by 2.88% and 1.86%, respectively. The price of the low tariff remained the same (pres release). According to the SSO data, in January,the electricity price for households decreased by 1.5% compared to the previous month (press release). In July 2024, in accordance with the prepared draft decision on the formation of sales prices by the universal supplier, and confirmed by the ERC for the appropriate application of the tariff system, the price of electricity for households in the first and second blocks underwent an upward correction of 0.40%, in the third block it increased by 0.48% and in the fourth block by 0.57%(press release). According to the SSO data, in July the electricity price for households increased by 0.6% on a monthly basis (press release).

[13] In conformity with the RKE decision, in August the heat energy prices for households decreased by 3.16% (link).

[14] In accordance with the amendments to the Law on Excise, the cigarette excise duty increased by 0.23 denars per piece, effective from January 2024. As for the other tobacco products, see the amendments on the following link. Furthermore, the excises are expected to increase every year until 2030.

[15] Labor market analysis was made by using quarterly labor force surveys, that is, the annual indicators for 2024 were derived as an average of the published quarterly data. In this report, we continue to make analysis on an annual basis based on comparable data since 2023. Comparability with previous years is limited due to the implementation of the new Regulation (EU) no. 2019/1700 of the European Parliament and the Council for Social Statistics and the corresponding executive regulation of the Commission (EU) no. 2019/2240 for the area of the workforce was implemented, while the previous Regulation (EC) no. 577/98 was repealed. The implementation of the new regulation caused changes in the research, starting from the changes in 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.

[16] In 2024, as well, the Ministry of Labor and Social Policy and the Employment Agency continued to implement active measures and programs aimed to increase employment. The operating plan for active employment programs and measures and labor market services in 2024 included implementation of nine different programmes that include certain measures (more information on https://av.gov.mk/operativen-plan.nspx.

Chart 23
Selected labor market indicators (in %)

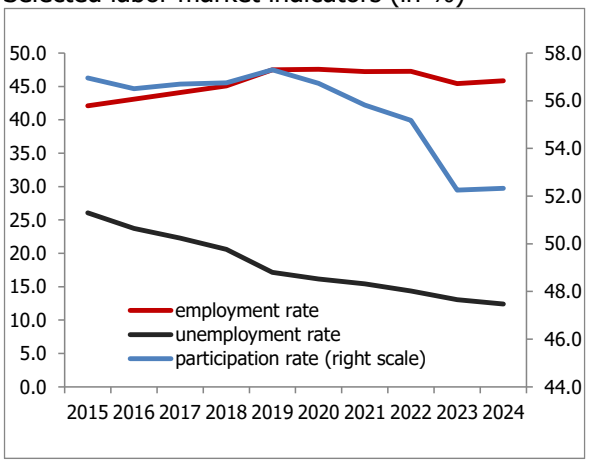
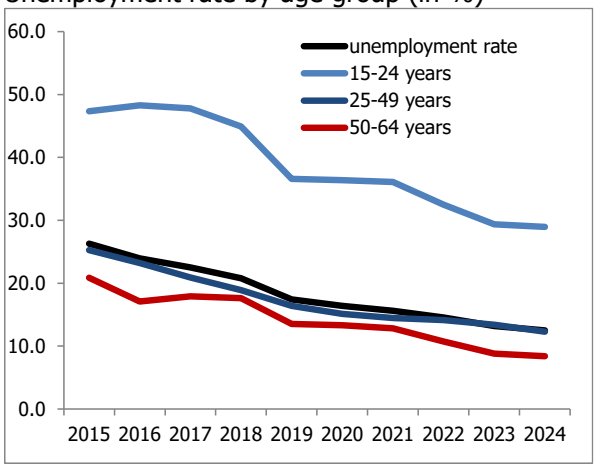


Chart 24
Unemployment rate by age group (in %)



Source: State Statistical Office and NBRNM calculations

During 2024, favorable developments on the labor supply side were registered. Namely, the total active population recorded a minimal increase of 0.1%, amid an increase in the active population among women (by 0.8%), and a decrease among men (0.4%). Moreover, with an increase in the active and a simultaneous decrease in the inactive population (of 0.1%), the activity rate remained at 52.3%. In conditions of an increase in the employment rate and a stable active population, a positive development was also registered in the unemployment rate, which in 2024 was reduced to the historically lowest level of 12.4% (an annual decrease of 0.7 percentage points). Moreover, by structure, the decrease in the total unemployment rate is observed in all age groups.

The nominal growth of **average wages paid** in 2024 continued, but more moderately compared to the growth in 2023. The growth is partly a result of the transmission effect of the increase in public sector wages[17] in September 2023, as well as the increase in the minimum gross wage of 12.2% in March 2024[18]. Additional impact was made by certain structural factors, such as lack of labor force in some labor market segments. Consequently, nominal net and gross wages[19] registered an annual growth of 12.6%[20] and 12.9%, respectively (14.9% and 15.3%, respectively in 2023). Annual growth in net wages was recorded in all activity sectors activity, and the highest growth was recorded in wages in activities related to "public administration and defense; mandatory social security" (15.9%), "education" (15.9%), "arts, entertainment and recreation" (15.2%) and "manufacturing industry" (13%). In conditions of growth stabilization in general consumer prices, the real net

[17] In accordance with the new collective agreement for the public sector from July 2023, public sector wages increased by 10% in September 2023 and an additional 0.7% in September 2024, in accordance with the provision for wage growth if the annual inflation rate in the first six months of 2024 exceeds 3% (the basic gross wage increases in a percentage amount by the difference of up to 3%). In addition, the wages of the employees in primary and secondary education increased by 5% in October (for more information, see the following link)and medical workers by 10% in November (for more information on the following link).

[18] In accordance with the latest amendments to the growth of the minimum wage (Official Gazette of the Republic of North Macedonia No. 68/24) in March 2024, the minimum net wage increased by Denar 2,392. The minimum gross wage, from March 2024 to February 2025, is Denar 33,352 (previously Denar 29,739), while net wage is Denar 22,567 (previously Denar 20,175). This increase is calculated in accordance with the methodology from March 2022, which harmonizes the minimum wage with the increase of the average wage paid in the country and the consumer price index for the previous year i.e. - 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.

[19] 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.

[20] The rates at which contributions are paid in 2024 are 18.8% for compulsory pension and disability insurance and 7.5% for compulsory health insurance, as in the previous year.

and gross wages increased by 8.9% and 9.2%, respectively (a growth of 5% and 5.4%, respectively in 2023).

Chart 25
Average gross and net wages
(annual changes, in %)

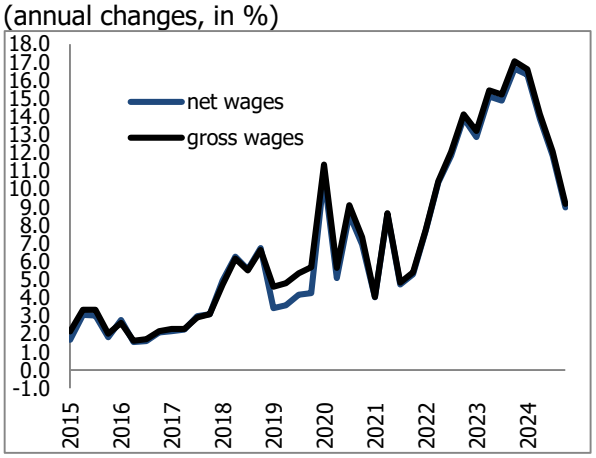
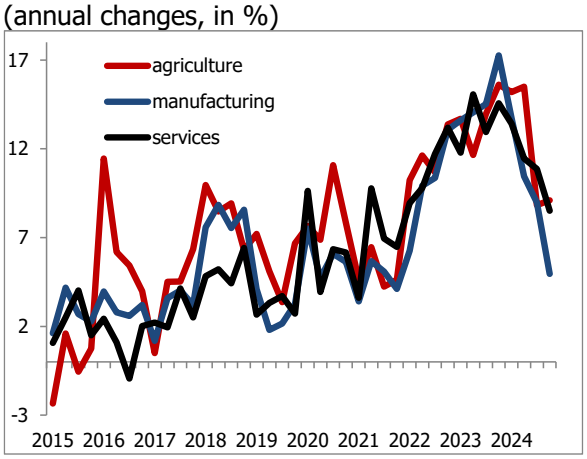


Chart 26
Average net wages, by sector
(annual changes, in %)



Source: State Statistical Office and NBRNM calculations

From the aspect of **competitiveness indicators**[21], in 2024 labor productivity[22] recorded an increase of 2.2%, as a result of the higher growth of economic activity compared to the growth of the number of employed persons. Viewed by sectors, the service sector is the driver of growth, while industry and agriculture have a minimal negative contribution. Due to the higher growth of wages than productivity growth, nominal labor unit costs in 2024 are higher by 10.6%. Most of the increase in unit labor costs primarily accounts for higher costs in service sector, and to a lesser extent in and industry and agriculture.

Chart 27
Labor productivity
(contributions to the annual growth, in percentage points)

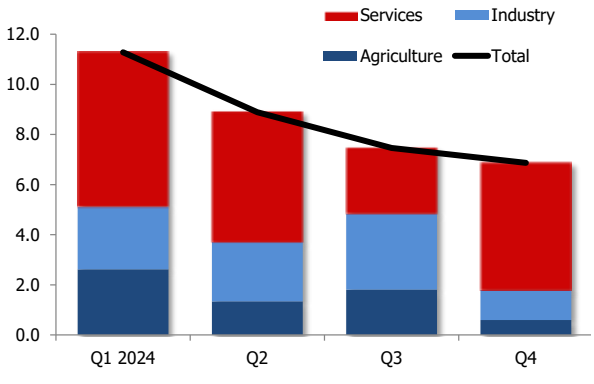
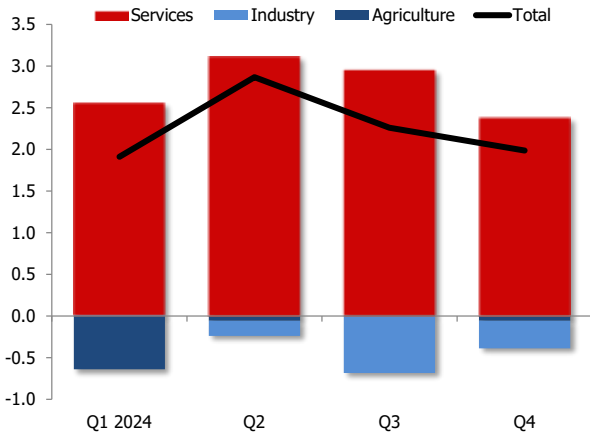


Chart 28
Unit labor costs
(contributions to the annual growth, in percentage points)



Source: State Statistical Office and NBRNM calculations

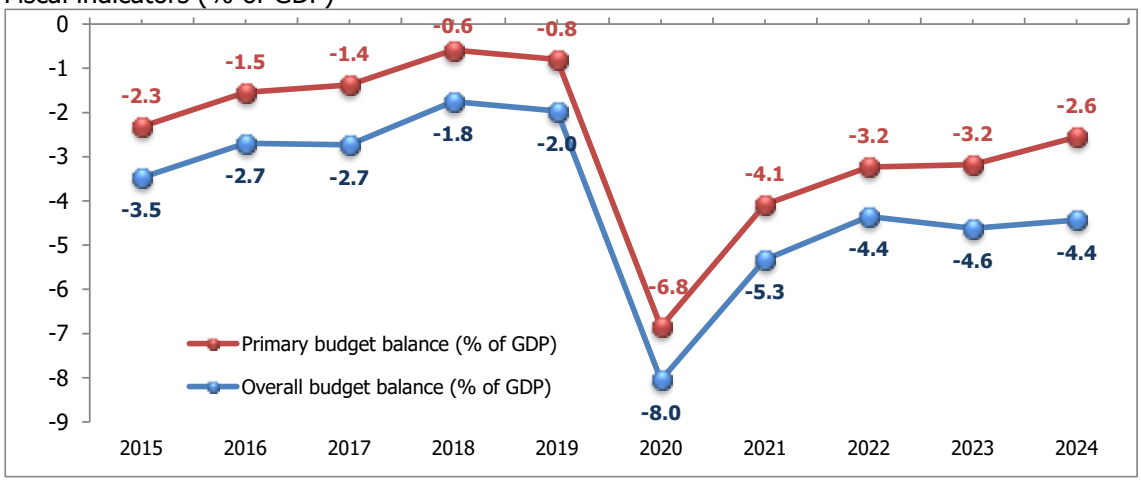
[21] Productivity and unit labor costs for the overall economy are calculated using SSO's data on GDP, number of employees and average nominal gross wages. Total productivity is a weighted sum of productivity of each sector. Within each sector, the productivity is calculated as a ratio between the value added in that sector and the number of employees.
[22] Productivity data are National Bank calculations.

3.3. Public Finance

During 2024, the budget deficit narrowed slightly and reduced to 4.4% of GDP (4.6% of GDP in the previous year). The deficit reduction[23] is the result of the higher annual growth of budget revenues relative to the growth of budget expenditures, which is largely due to the decline in capital expenditures. This decline is also a consequence of the higher comparison base from 2023, when a significant amount of financing of infrastructure projects for corridors 8 and 10e was paid in advance. On the other hand, the primary budget balance[24] narrowed more and stood at 2.6% of GDP (3.2% of GDP in 2023).

In mid-2024, a budget revision[25] was made, making an upward correction to the deficit planned for 2024, from the initially planned Denar 33,540 million (3.5% of GDP) to Denar 44,666 million (4.7% of GDP), with a more pronounced increase in expenditures, especially in the current expenditure section, compared to the budget revenues. The deficit realized at the end of the year is slightly lower than the planned, by Denar 2,621 million, or by around 0.3 percentage points of GDP.

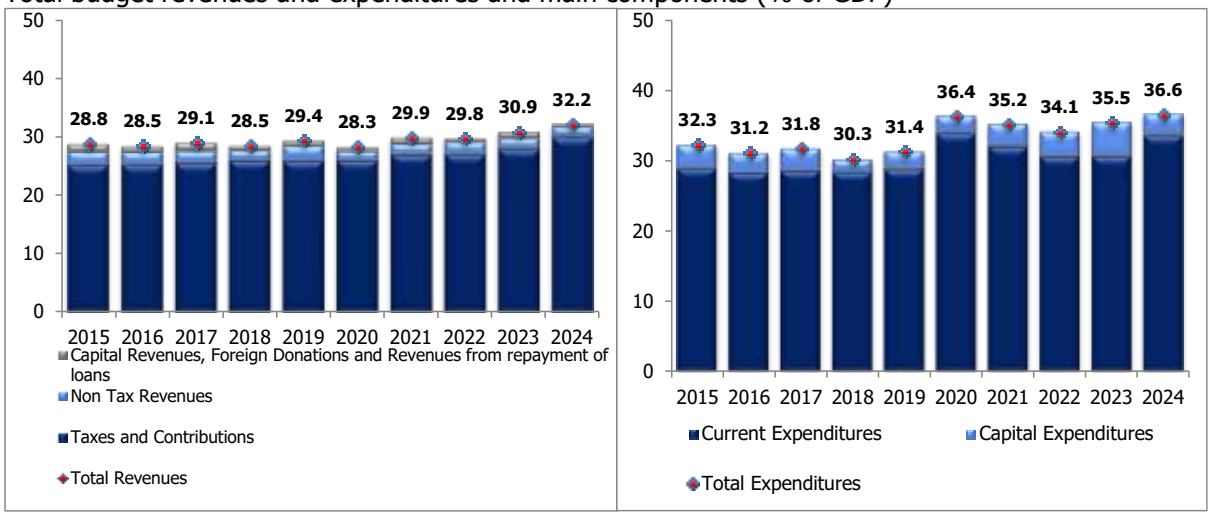
Chart 29
Fiscal indicators (% of GDP)



Source: Ministry of Finance and NBRNM calculations.

[23] In real indicators.
[24] 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.
[25] Budget Revision for 2024 was adopted in August 2024 (Official Gazette of the Republic of North Macedonia No. 169 of 15.8.2024), while the Decision on redistribution of funds among central government budget users and funds are adopted in December (Official Gazette of the Republic of North Macedonia No. 250 of 11.12.2024.

Chart 30
Total budget revenues and expenditures and main components (% of GDP)

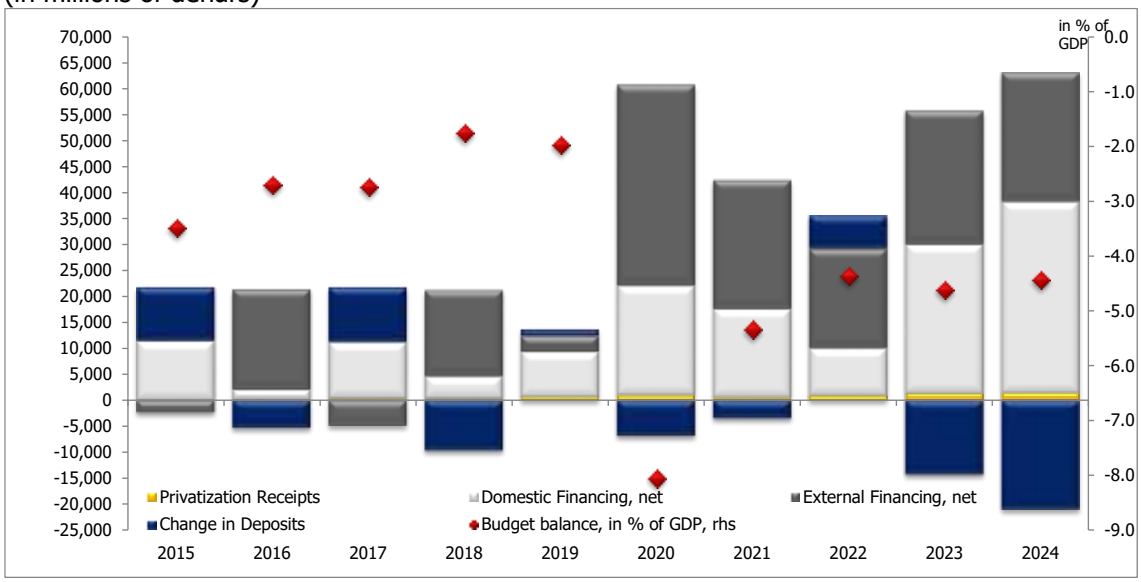


Source: Ministry of Finance and NBRNM calculations.

The total budget income in 2024 went higher by 10.3% on annual basis (after the increase of 14.0% in the preceding year). Their increase in the total income stems from the increase in almost all categories, except to other income,[26] which recorded a decrease[27]. In 2024, budget expenditures recorded a growth of 9.1% on an annual basis (growth of 14.3% in the previous year). The deceleration of the expenditures growth is primarily due to the reduced capital costs, which are lower by 34.1% annually (a growth of 52.0% in the previous year), which is partially neutralized by the increase in current expenditures by 16.0%, annually (increase of 10.0% in the previous year). The annual decline in capital expenditures results from the higher comparison base from 2023, due to payments intended for the project for the construction of corridors 8 and 10e. The growth of current expenditures is mostly due to the growth of the category transfers,[28] which is associated with the financial support to the social vulnerable categories of population and subsidy payments,[29] as well as higher pension expenses[30]. The budget deficit realized in 2024 was mostly financed through net borrowing of the Government on the domestic market[31], as well as through net borrowing on the foreign[32] market, amid significant growth of the Government's deposits with the National Bank.

[26] Other revenues include capital revenues, foreign donations and revenues from recovered loans.
[27] The decrease is due to the higher comparison base, due to the increase in foreign donations in March 2023 resulting from the EU grant in the amount of Euro 72 million intended to deal with the energy crisis.
[28] Category of transfers includes pension expenses, social security costs, health care costs and other transfers (mainly subsidies).
[29] At the beginning of 2024, financial support was paid to socially vulnerable categories of citizens in accordance with the ninth package of anti-crisis measures, provided for by the Law on Financial Support to Socially Vulnerable Categories of Citizens to Address the Energy and Price Crisis. Also, by the end of the year, agriculture subsidies were paid on several grounds.
[30] Pension expenses increased due to the March increase in pensions from the regular adjustment by 5.3%, according to the methodology that follows two indicators, i.e. 50% of the increase in the average wage and 50% of the increase in the consumer prices, according to official data of the State Statistical Office. In addition, linear increase in pensions was made in September by Denar 2,500 in accordance with the Law on Amendments to the Law on Pension and Disability Insurance.
[31]The government borrowing on the domestic market, results from the issued continuous government securities issued based on a regular procedure.
[32] Inflow of the second tranche in the amount of Euro 155 million from the PLL (Precautionary and Liquidity Facility) program of the International Monetary Fund in January 2024 and an inflow of Euro 50 million from a loan from the European Commission in May 2024. In March 2024, the Government paid the due installment of about Euro 70 million for the bond known as "Namensschuldverschreibungen", or NSV). In October 2024, an inflow of Euro 500 million was realized from the loan agreement with the Hungarian Export-Import Bank PLC Budapest.

Chart 31
Budget balance financing structure*
(in millions of denars)



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

Regarding financing through the domestic primary securities market, at the end of 2024, the balance of issued securities increased by Denar 37,401 million and amounted to Denar 223,986 million. 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, there is still a trend of favorable shifts in the currency structure, which is noticeable through the large growth of issued government securities in domestic currency, while the amount of issued government securities with a currency clause is decreasing.

Chart 32
Currency structure of government securities (in millions of denars)

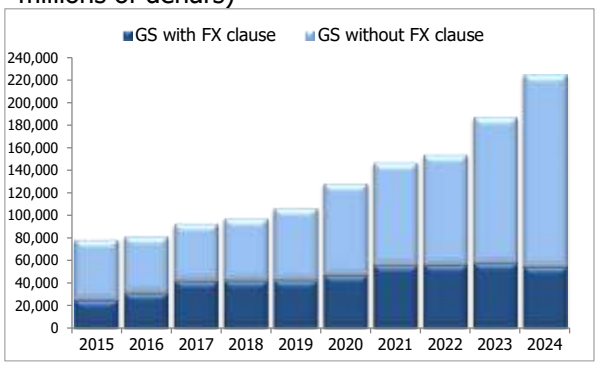
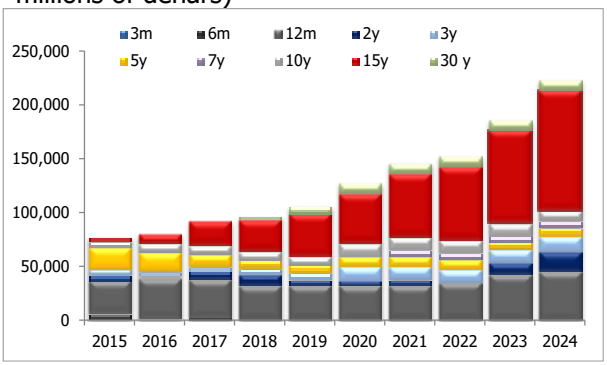


Chart 33
Maturity structure of government securities (in millions of denars)

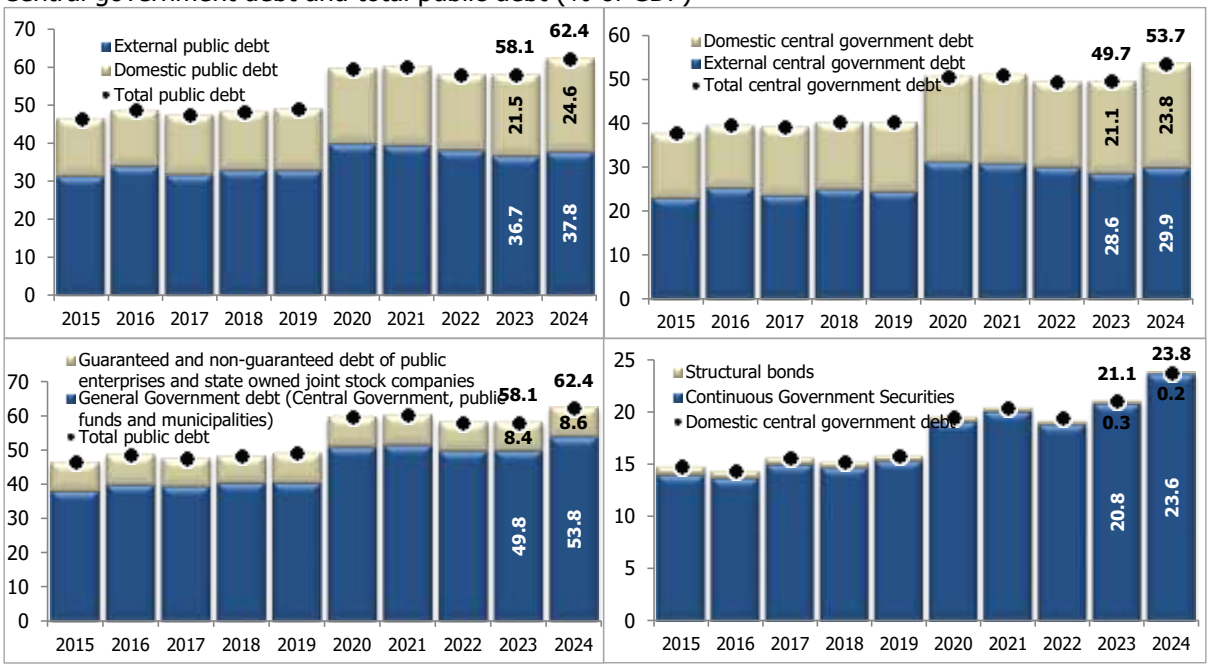


Source: Ministry of Finance and NBRNM.

In terms of total government indebtedness, the debt of the central government in 2023 equaled 53.0% of GDP, given the increase in internal debt (up to the level of 23.8% of GDP) and external debt (up to the level of 29.9% of GDP). There are similar movements in

total public debt[33], which at the end of 2024 reached 62.4% of GDP (58.1% of GDP in the previous year), amid higher internal and external public debt (up to the level of 24.6% and 37.8% of GDP, respectively). Within the public debt, the total government debt (debt of central government, public funds and municipalities) in 2024 equaled 53.8% of GDP and is higher compared to the previous year, while the debt of public enterprises (guaranteed and non-guaranteed)[34] is relatively stable and equaled 8.6% of GDP. Regarding the debt structure, at the end of 2024, the share of government debt in total public debt increased slightly and reached 86.2% (85.6% in 2023), while the share of public enterprises debt (guaranteed and non-guaranteed) decreased moderately and equaled 13.8% (14.4% in 2023).

Chart 34
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

After a small surplus in 2023, the current account deteriorated moderately in 2024, registering a deficit of 2.3% of GDP. This dynamics in current transactions is primarily due to the widening of the trade deficit, by 2.1 percentage points of GDP, due to the stronger downward adjustment of the export component. In addition, a similar impact also had the lower surplus in secondary income, which, after high performances in the last few years, recorded a decline on an annual basis by 2.4 percentage points of GDP in 2024, to the level of 16.1% of GDP, with downward adjustments in all subcategories of secondary income. The performance in the balance of services had an opposite effect, influenced primarily by construction services, which registered an annual surplus, unlike the net outflows in the previous year due to the large advance payments for the construction of corridors 8 and 10-

[33] 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.
[34] According to the amendments to the Law on Public Debt from May 2019, the non-guaranteed debt of public 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 of the Republic of Macedonia No. 62/2005, 88/2008, 35/2011, 139/2014 and 98/2019).

e. Annual surplus growth was also registered in telecommunication, computer and IT services, which registered positive trend of which continued in 2024 as well.

Chart 35
Current and financial account
(in millions of euros)

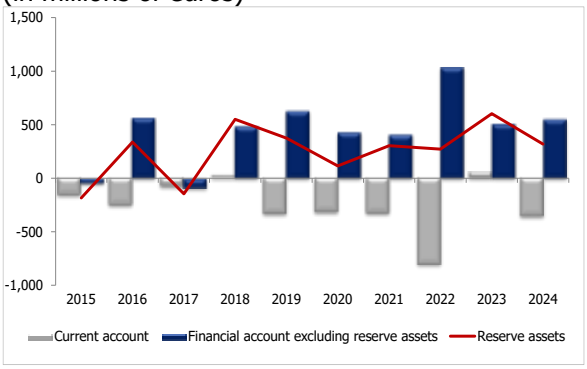
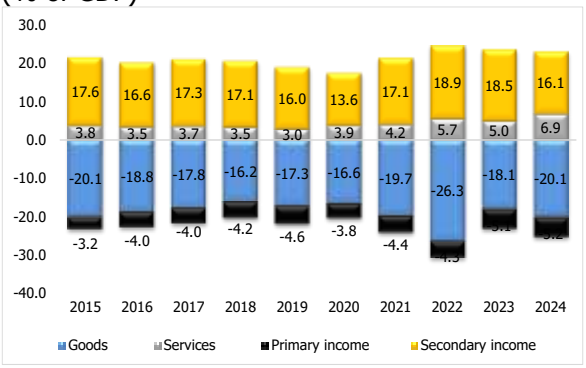


Chart 36
Main current account components
(% of GDP)



Source: NBRNM.

In 2024, there are net inflows in the **financial account** of the balance of payments in the amount of Euro 549.3 million, or 3.6% of GDP, which is an increase of 0.1 percentage point of GDP compared to the previous year. Net inflows in financial account are primarily due to performance in direct investments and loans. Namely, based on foreign direct investments, net inflows of Euro 1,088.1 million or 7.1% of GDP were registered in 2024, which is the second historically highest level of FDI recorded in the Macedonian economy[35], given a recorded growth of 3.7 percentage points of GDP compared to the previous year. Structurally analyzed, the realized flows in foreign direct investments largely stem from the growth of the debt component, with a rise also being registered in the non-debt component. A significant source of inflows in the financial account in 2024 was the long-term borrowing of the Government, as well, based on financial loan agreements[36]. On the other hand, currency and deposits registered high net outflows, arising fully from other sectors. At the same time, the repayment of liabilities based on previously issued debt securities[37] caused net outflows in portfolio investments, and the deleveraging of the corporate sector, i.e. the reduced liabilities based on commercial operations, caused net outflows in the category of trade loans and advances.

Chart 37
Financial account
(% of GDP)

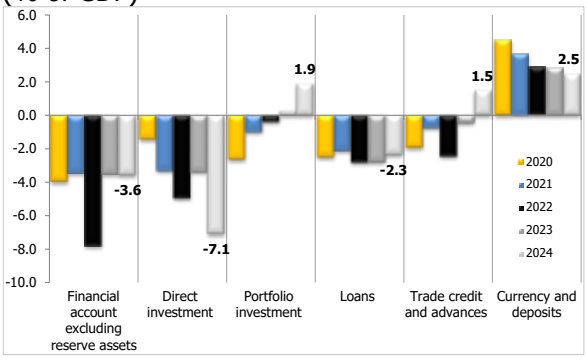
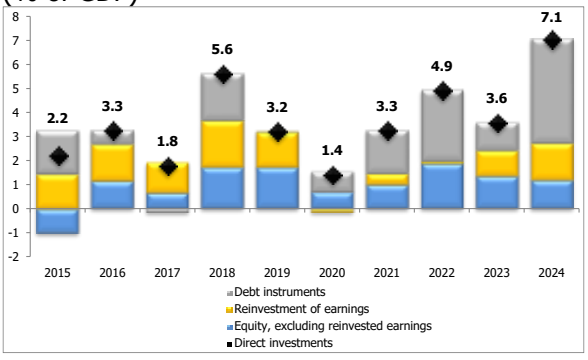


Chart 38
Direct investment
(% of GDP)



Source: NBRNM.

[35] The highest level of FDI recorded in the Macedonian economy, as % of GDP, was in 2008, when it reached 8.3% of GDP.
[36] In January 2024, the second tranche of the precautionary and liquidity line PLL from the IMF arrived in the amount of Euro 119.2 million, in May 2024, the first tranche of the Macrofinancial Support to the Budget from the EC arrived, and in October 2024, the first tranche of the loan from the Hungarian Export-Import Bank PLC arrived in the amount of Euro 500 million.
[37] In 2024, two installments of the loan for registered securities NSV (Namensschuldverschreibungen) were repaid.

After a significant reduction in the **trade deficit** in the previous year amid lower import pressures and significantly improved terms of trade, in 2024 the negative trade balance widened on an annual basis, by 16.1% (or 1.3 percentage points of GDP). The deficit widened as a result of the sharper drop in exports, amid a slight decline in imports. In addition to reduced foreign demand, as well as the different context in the energy market, certain temporary factors also contributed to the decline in exports, which led to reduced production activity and exports of the significant export facilities from the automotive and metal industries.

Despite the minimal growth in exports in the previous year of 0.3%, in 2024, exports of goods recorded an annual fall of 6.5%. The decline in exports is primarily due to the reduced export activity of a small part of the foreign-owned industrial facilities related to the automotive industry, which is observed through the decline in exports of chemical products and vehicles, as a combination of reduced demand and one-time temporary factors. In addition, the unfavorable environment on world stock exchange markets i.e. reduced market prices and reduced export demand, as well as the non-operation of significant facility in the metal processing industry contributed to the decline in export of iron and steel, with a decrease also being observed in the textile industry. A similar impact, but with a smaller contribution, was also made by the reduced export of energy, reflecting the lower export of electricity (due to lower export prices and the lower growth in exported quantities of electricity as a result of reduced domestic production), as well as the slightly lower export of oil derivatives. On the other hand, in 2024, the export of equipment and machinery increased, which reflects the positive performance of most of the industrial facilities in the automotive industry. Additional positive contribution was made by some of the traditional activities, especially the increase in the export of food, drinks and tobacco, as well as products from the pharmaceutical industry.

On the import side of goods, in 2024 an annual decline of 0.8% was recorded, mainly due to lower raw material imports by some of the foreign-owned facilities, which is also in line with the lower export performance. The decrease largely stems from the category of non-ferrous metals, as well as the import of inorganic chemical products. Lower export of iron and steel also affected the import side, through a decrease in this import category, as well as lower import of ores. The lower imports of some energy sources also had the same impact, especially gas imports, which contribute to 70% of the decrease this year, but also the import of oil derivatives. Such performance is primarily a price effect, given significantly lower import prices, complemented by the reduced volume of imports on an annual basis (especially pronounced in oil derivatives). On the other hand, part of the raw material imports by foreign-owned industrial facilities related to the automotive industry, primarily the import of vehicles and equipment and machinery, recorded annual growth in this period. In addition, during this period, higher import of electricity was registered, which entirely represents a quantity effect as a result of the need to supplement the reduced domestic production, in conditions of lower import prices compared to the previous year. Higher import of food, beverages and tobacco, as well as import of clothing, also had such an impact.

Chart 39
Contributions to the annual export growth (in percentage points)

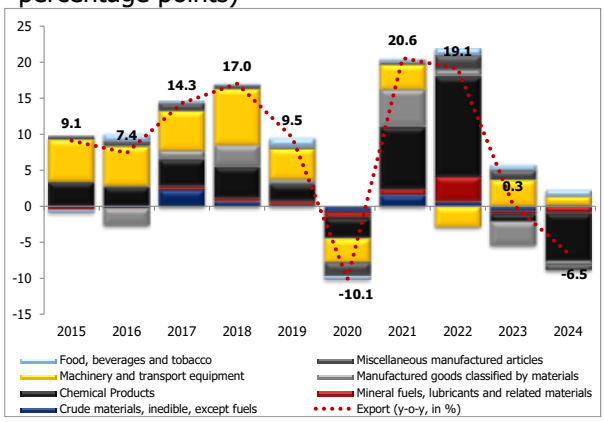
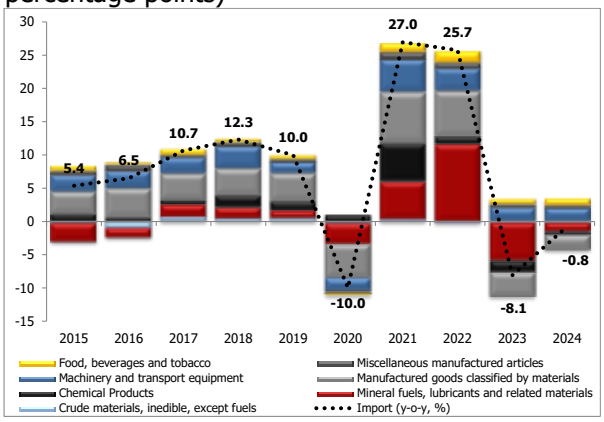


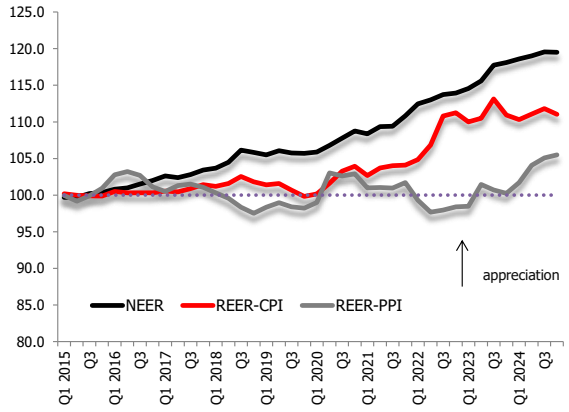
Chart 40
Contributions to the annual import growth (in percentage points)



Source: State Statistical Office.

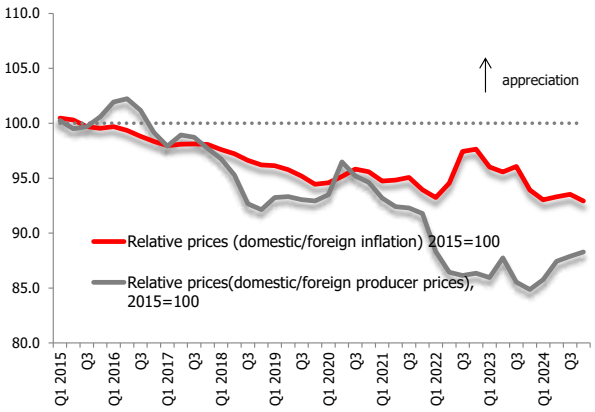
With regard to the **price competitiveness** indicators of the domestic economy[38], in 2024 the real effective exchange rate deflated by consumer prices depreciated slightly by 0.1% annually, while the producer price index appreciated by 3.9%. The nominal effective exchange rate appreciated by 2.3% annually as a result of further depreciation of the Turkish lira relative to the denar. Relative consumer prices declined by 2.3%, while the relative industrial producer prices rose by 1.5%.

Chart 41
NEER and REER, without primary commodities calculated according to the consumer price and producer price index (2015=100)



Source: NBRNM.

Chart 42
Relative prices (2015=100)



Source: NBRNM.

At the end of 2024, the negative **net international investment position** (IIP) of the domestic economy amounted to Euro 8,766.7 million, or 56.8% of GDP. Annually, the negative IIP narrowed by 0.1 percentage point of GDP, in conditions of slightly higher growth of international assets than the growth of international liabilities (of 3.7 percentage points and 3.5 percentage points of GDP, respectively). In absolute terms, the negative net international investment position is 5.5% higher on an annual basis[39]. The sector-by-sector analysis indicates favorable shifts in the central bank's net position, amid increased net assets as a

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

[39] Compared to balance at the end of the preceding year, the negative IIP, net increased by Euro 455.3 million given the growth of international liabilities of Euro 1,503.5 million and increase in international assets of Euro 1,048.2 million.

result of the increase in foreign reserves, with an additional effect from lower liabilities based on short-term loans (related to regular foreign reserve management operations). Depository institutions also have a better net position amid lower net liabilities (mainly in currencies and deposits and in loans). 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 Government has also increased, due to higher net liabilities based on long-term loans, while simultaneously reduced net liabilities based on debt securities.

Chart 43
International investment position (% of GDP)

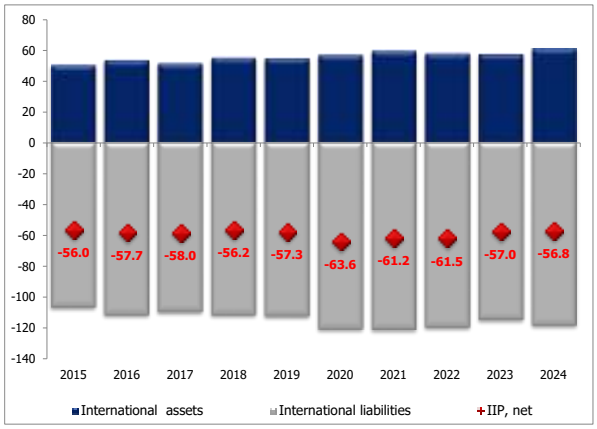
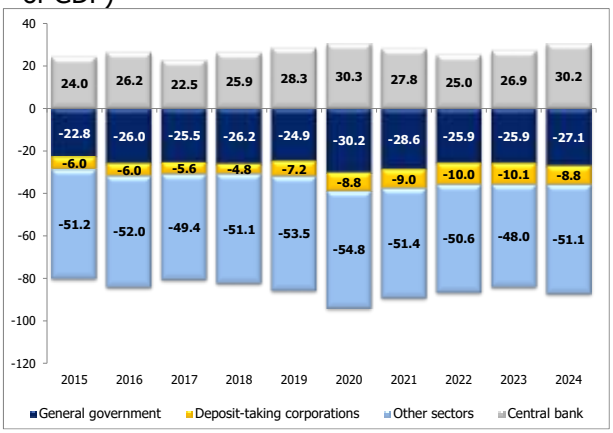


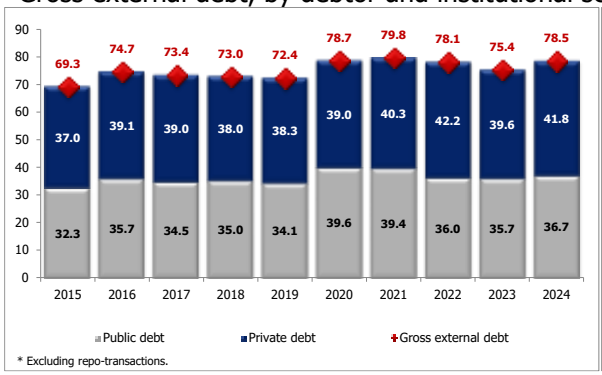
Chart 44
International investment position, by sector (% of GDP)

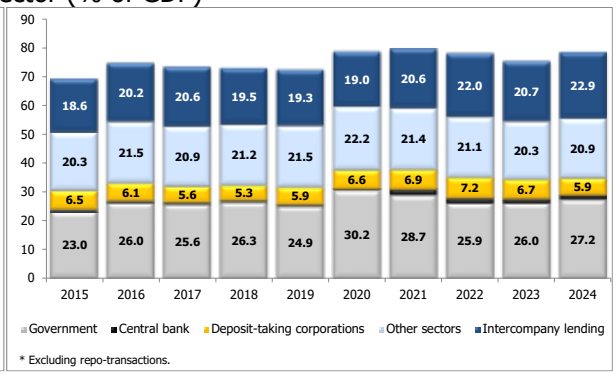


Source: NBRNM.

At the end of 2024, **the gross external debt** stood at Euro 12,111.9 million[40], or 78.5% of GDP, which is an annual increase (of 3.2 percentage points of GDP). The growth of gross external debt is driven by higher indebtedness of the private sector, followed by the public sector (an increase of 2.2 percentage points and 1 percentage point of GDP, respectively). The increased indebtedness of the private sector mainly reflects the growth of liabilities in the debt component of foreign direct investment. The higher public sector debt is due to the increased liabilities of the central government based on long-term loans[41], given simultaneously reduced liabilities based on debt securities [42].

Chart 45
Gross external debt, by debtor and institutional sector (% of GDP)





Source: NBRNM.

[40] Gross and net external debt data does not include central bank liabilities under repo agreements.
[41]There were several significant inflows during 2024, as follows: In January the second tranche of the precautionary and liquidity line PLL from the IMF was received in the amount of Euro 145.8 million, in May 2024,an inflow of Euro 50 million of the first tranche of the Macrofinancial Support to the Budget from the EC arrived, and in October 2024, the first tranche loan from the Hungarian Export-Import Bank PLC was received in the amount of Euro 500 million.
[42]In 2024, two installments of the loan for registered securities NSV (Namensschuldverschreibungen) were repaid.

External debt ratios of the national economy remained in the safe zone. Only the share of the gross external debt to GDP ratio 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 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 47.6% of GDP[43], which is an indicator of moderate indebtedness.

As of 31.12.2024, **net external debt** stood at Euro 4,508.9 million, or 29.2% of GDP, which is an increase of 1.8 percentage points of GDP compared to the previous year. This is due to the higher increase in the private debt, net, compared to the increase in public debt, net (of 1.6 percentage points and 0.2 percentage points, respectively).

Table 2
External debt indicators

Indicators for external indebtness	*Solvency*				*Liquidity*		
	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	86.4	9.4	1.5	1.0	24.7
31.12.2023	2.4	114.4	83.1	14.8	1.8	1.2	22.7
31.12.2024	2.7	118.1	84.0	12.3	1.8	1.1	23.4
Moderate indebtedness criterion	*12 - 20%*	*165 - 275%*	*30 - 50%*	*18 - 30%*		*1.00*	

*The moderate indebtness criterion is accordng to the World bank's methodology of calculationg indebtness 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 foreign reserves.
Source: NBRM.

3.5. Monetary and credit aggregates

Monetary aggregates

During 2024, broad money M4 and the total financial sector deposits[44] kept registering strong growth. The growth corresponds to higher economic growth, a favorable external position and when there are still stimulating conditions for savings. At the same time, the

[43] Refers to debt without repo agreements.
[44] 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 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.nspx.

maturity and currency structure of savings continue to improve, which is observed through the further strengthening of denarization and longer-term savings, which indicates increased confidence in the domestic currency and stable expectations. The positive flows are another confirmation of the stability and confidence in the banking system, which is largely contributed to by the measures taken by the National Bank in the past period. Additional support for the growth of the money supply and deposits was also provided by the Government, by providing financial support to households.

Chart 46
Broad money M4 and total deposits

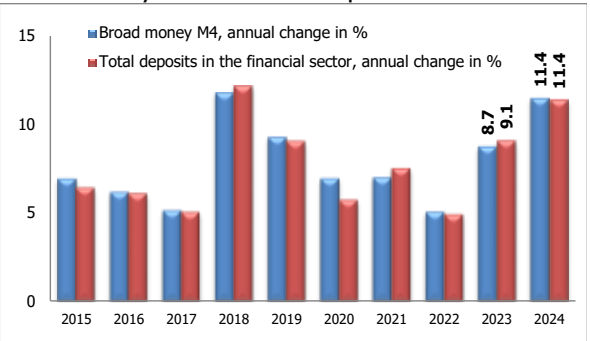
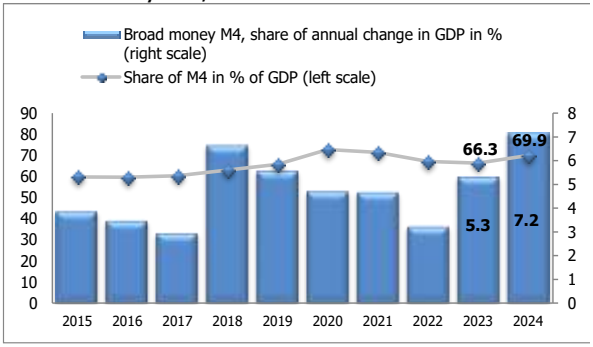


Chart 47
Broad money M4, share in the GDP



Source: NBRNM.

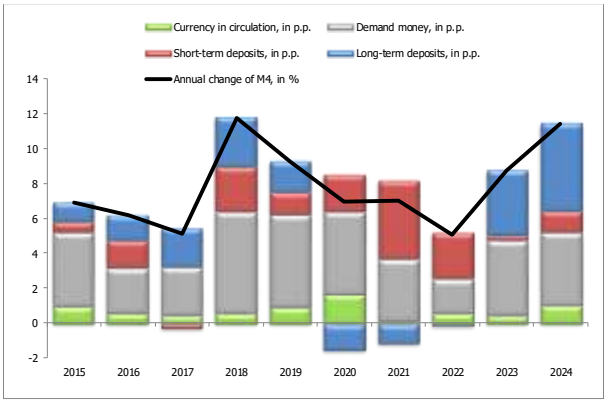
In 2024, the broad money M4 registered a strong annual growth, reaching 11.4% (growth of 8.7% in 2023). Structurally, high annual growth was achieved by all components: long-term deposits (up 25.4%), currency in circulation (up 12.4%), demand deposits (up 11.7%) and short-term deposits (up 3.4%). However, over two-thirds of the growth stems from long-term deposits and demand deposits, as the main growth generators. Money supply annual growth-to-GDP increased to 7.2% at the end of the year (5.3% in 2023). Moreover, money supply M4-to-GDP ratio at the end of the year was 69.9%, as opposed to 66.3% in the previous year.

Table 3
Money supply components - balance and changes

	Balanace as of			Annual change		
	2022	2023	2024	2022	2023	2024
	in millions of denars			in %		
Currency in circulation	47,494	50,002	56,226	6.8	5.3	12.4
Demand money	188,036	211,402	236,065	5.8	12.4	11.7
M1	235,530	261,405	292,291	6.0	11.0	11.8
Short term denar deposits up to 1 year	39,429	40,454	47,174	-1.5	2.6	16.6
Short term foreign currency up to 1 year	175,061	175,406	175,999	8.9	0.2	0.3
M2	450,020	477,265	515,464	6.4	6.1	8.0
Long term denar deposits over 1 to 2 yea	28,003	32,088	43,162	1.0	14.6	34.5
Long term foreign currency over 1 to 2 years	21,779	19,911	24,643	-9.3	-8.6	23.8
M3	499,803	529,264	583,268	5.3	5.9	10.2
Long term denar deposits over 2 years	25,521	31,162	36,697	-13.1	22.1	17.8
Long term foreign currency over 2 years	22,031	34,725	43,330	30.5	57.6	24.8
Total deposits (without demand	311,825	333,747	371,004	4.4	7.0	11.2
Total deposits	499,861	545,149	607,069	4.9	9.1	11.4
M4	547,355	595,151	663,295	5.1	8.7	11.4

Source: NBRNM.

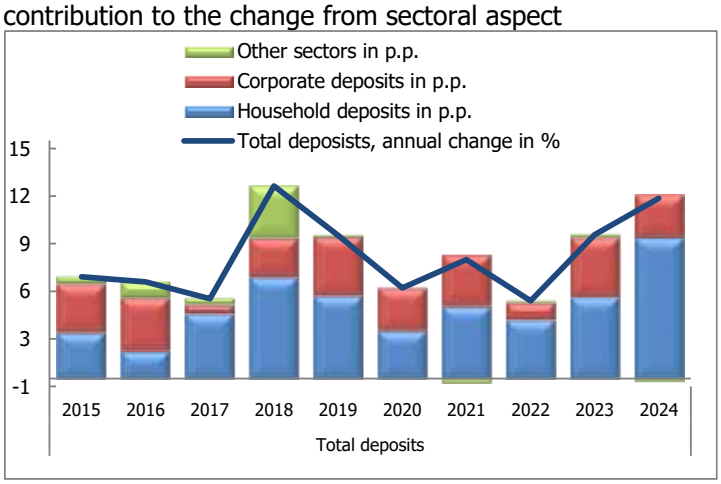
Chart 48
Money supply, annual growth and structure



In 2024, the increase in total deposits in the financial sector accelerated and reached 11.4% annually (growth of 9.1% in 2023). Analyzed by sector, the growth was driven by increased household deposits (with a contribution of 8.8 percentage points), complemented by the growth of corporate deposits (with a contribution of 2.7 percentage points), with a small negative contribution of other sectors (0.2 percentage points). Observing by **currency**, the growth of denar deposits prevails, including demand deposits (with a positive contribution

of 8.8 percentage points), amid growth in foreign currency deposits (a contribution of 2.6 percentage points).

Chart 49
Total deposits (with demand deposits), annual change and contribution to the change from sectoral aspect



Source: NBRNM.

Household deposits[45] registered an annual growth of 13.8% in 2024 (7.9% in 2023). The relatively favorable macroenvironment, the growth of disposable income, as well as the measures taken by the National Bank contributed to stronger 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 50
Total household deposits, annual change and contribution to the change by maturity and currency structure

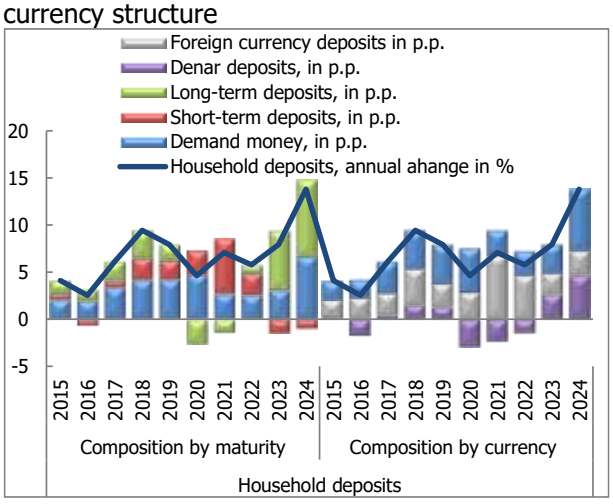
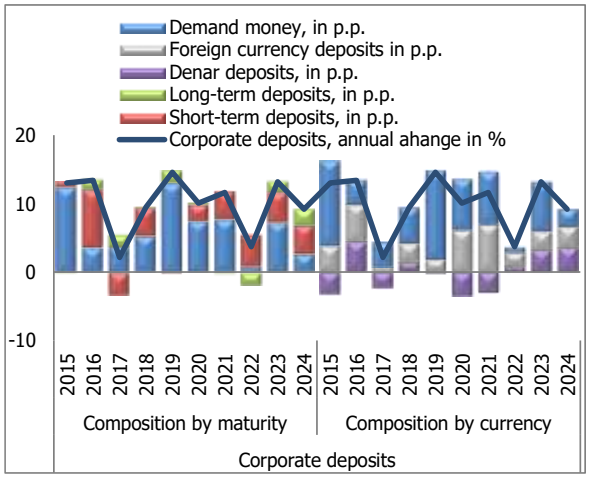


Chart 51
Total corporate deposits, annual change and contribution to the maturity and currency structure



Source: NBRNM.

In 2024, corporate deposits increased by 9.2% (13.2% in 2023). Analyzed by structure, the annual increase arises from the long-term corporate deposits, given moderate growth of short-term deposits. By currency, the growth largely due to the growth in the denar

[45] Deposit data also include demand deposits.

deposits (including demand deposits), given positive contribution of the corporate foreign currency deposits, as well.

In 2024, the degree of euroization, measured as a ratio between deposits with FX component in the total deposits of the banking system, decreased and reduced to 40.6% (43.1% in the previous year). In household deposits, the share of deposits with foreign currency component also reduced to 46.5% (50.2% in the previous year).

Lending Activity

During 2024, the banking sector is still providing solid credit support to the domestic economy. Total loans increased by 11.2%, which is an increase in growth compared to the 2023 performance of 5.1%. In addition, credit support was directed at both sectors, with a larger volume among enterprises. Such performances are in line with the strong growth of the deposit base, in conditions of stable bank balance sheets, according to indicators of solvency, liquidity and portfolio quality. The annual growth of total loans, at the end of 2024, amounted to 5.2% of GDP, stronger compared to the previous year when it amounted to 2.4% of GDP, which also contributed to the increased share of loans in GDP for 2024, which amounted to 52.1%, compared to 49.5% in 2023.

Chart 52
Total loans and lending interest rate

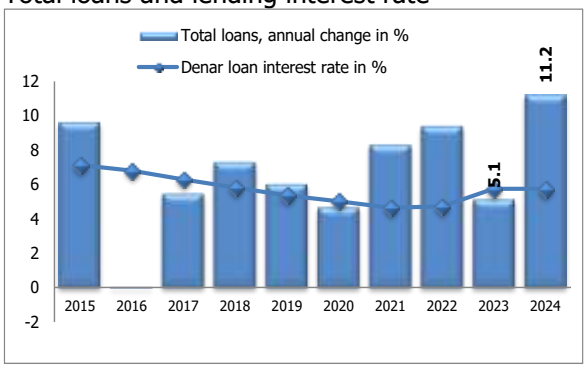
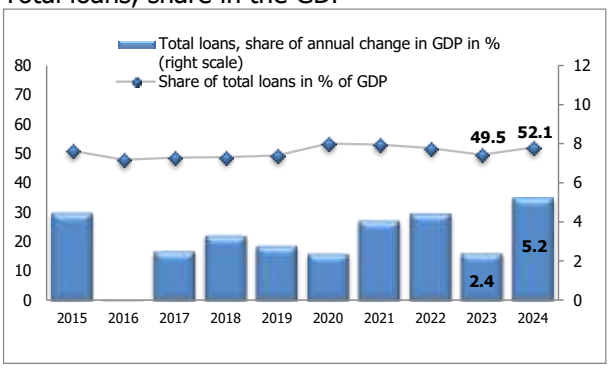


Chart 53
Total loans, share in the GDP



Source: NBRNM.

According to the Lending Surveys of the National Bank, in 2024 there was a larger net increase in the demand for loans, both in companies and households, amid stronger net easing of credit standards in both sectors, especially evident in households, compared to the last year Survey. Relative to risks analyzed based on banks' expectations for overall economic activity, risk perceptions have significantly decreased compared to 2023, in both sectors.

Analyzed by sector, the growth of banks' credit support to enterprises in 2024 has increased significantly and amounts to 13.9% on an annual basis[46] (3.3% in 2023). Regarding the household lending[47], in 2024 the growth intensified slightly to 8.8% (6.7% in 2023). The analysis by individual types of household loans indicates higher annual growth in housing loans and other loans, with more moderate growth in consumer loans. Regarding the currency structure of the total loans growth, significant positive contribution was made by loans in

[46]The growth of corporate loans is partly associated with the larger loan granted to a company in energy sector, in the last quarter of 2024.
[47] Excluding loans of self-employed individuals.

domestic currency, given a more moderate contribution of foreign currency loans (including denar loans with currency clause).

Chart 54
Total loans, annual change and sectoral structure

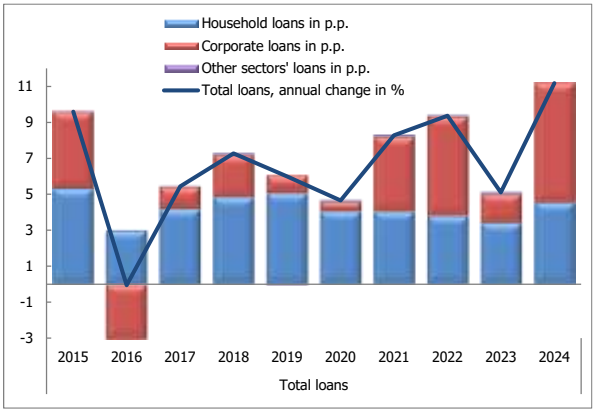
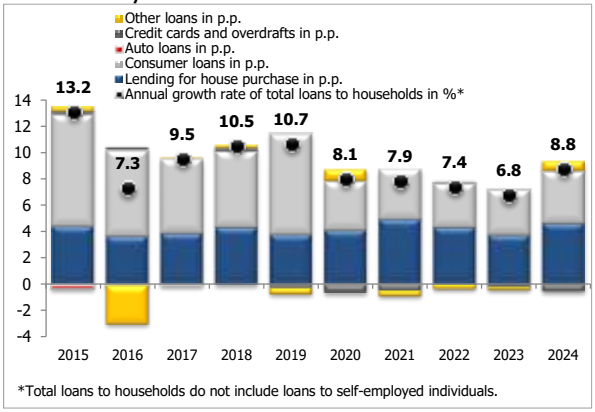
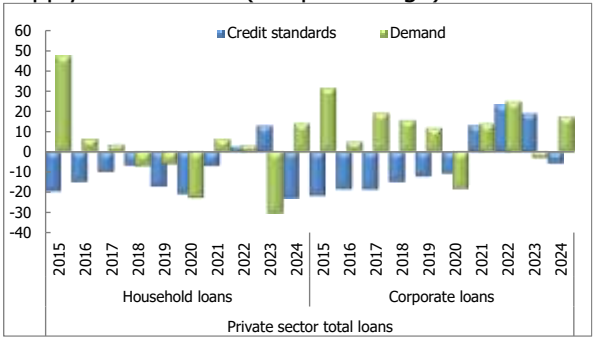


Chart 55
Total household loans, annual change and structure by use



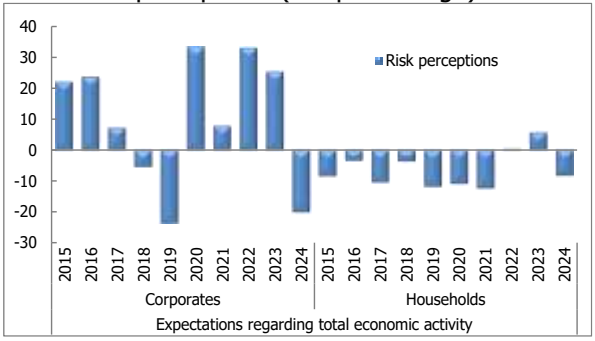
Source: NBRNM.

Chart 56
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.

Chart 57
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.

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

Source: Lending Survey, NBRNM.

IV. Macroeconomic environment and monetary policy in 2025 - 2027[48]

The National Bank's monetary policy will continue maintaining price stability as a primary monetary objective defined by law. In the period ahead, the National Bank will seek to maintain stable and competitive banking sector and support the general economic policies and economic recuperation 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. 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.

In 2024, the National Bank began to normalize the monetary policy gradually, in line with the conditions in the domestic economy and external environment. Having in mind the monetary strategy of a stable exchange rate of the denar against the euro, changes in domestic monetary policy also reflected the monetary policy setup of the European Central Bank, which began gradual normalization through interest rates in June 2024.

At the end of the third quarter of September, amidst significant slowdown of the domestic inflation and still favorable foreign exchange market, the National Bank *commenced to normalize vigilantly the monetary policy.* The policy rate decreased on three occasions during 2024, cumulatively by 0.75 percentage points. Thus, as of the end of 2024 the interest rate on CB bills was set at 5.55%, while the interest rates on overnight and 7-day deposit facilities reduced by 0.25 percentage points to the level of 3.95% and 4%, respectively. In conditions where there are still favorable trends in the indicators relevant to monetary policy, but also more pronounced risks, at the beginning of 2025, a more moderate reduction in the interest rate on treasury bills by 0.2 percentage points was made. The monetary setup was also supported by the changes in the reserve requirement instrument, the implementation of which largely began in June 2024, and mainly related to further support for the denarization process and an increase in long-term savings, but also as support to the prudent nature of monetary policy. In accordance with the monetary changes, macroprudential measures were also adopted. Thus, in July, a decision was made to increase the rate of the countercyclical capital buffer by an additional 0.25 percentage points, to the level of 1.75% (with effect from 1 August 2025, which was extended twice until the end of the first quarter of 2026). Such policy setup enables support to the overall macrofinancial stability in the economy.

According to the latest official macroeconomic forecast of the National Bank, economic growth in 2025 is expected to be 3.3%, while its acceleration is expected next year, which would amount to around 4%. Such dynamics rests on the expectations for improved external environment, coupled with certain domestic specific factors, especially related to the public infrastructure cycle. Structurally observed, the economic growth in the following period would stem from the domestic demand, amid negative contribution of net exports. Within domestic demand, gross investments and private consumption are expected to be the main drivers of the growth, supported by public and private investments, the increase in disposable income

[48] This section provides areview of the macroeconomic forecasts of the National Bank from October 2024.

of households and banks' lending activities. In conformity with the higher performance and the new fiscal strategy which includes slower fiscal consolidation, in this forecasting round the contribution of the public consumption was estimated as positive during the forecast horizon. The export is expected to recover in the following period, in conditions of more favorable external environment, which together with the growth in domestic demand will result in increase in imports, as well. Hence, net export is expected to make a negative contribution to the total economic growth. The domestic economy is expected to grow with similar pace of around 4% also in 2027, amid more clear environment and greater propensity for consumption and investments.

In terms of consumer prices, in 2024, inflation slowed down on an annual basis and averaged 3.5%, which is fully in line with the October forecast. For 2025, the inflation rate is expected to slow further, falling to 2.5%, while in the next two-year period, inflation would fall to the historical average of 2%. The risks to the inflation forecast are still related to the uncertainty in terms of the future movements of the global energy and food prices, due to the geopolitical tensions and the disruptions related to climate changes, as well as to the effects of policies that affect the aggregate demand in the domestic economy.

According to assessments of developments in the external sector, a slight deterioration in the current account deficit is expected in 2025, to the level of 2.3% of GDP. The gradual decrease in the share of private transfers in GDP, despite their nominal stabilization, is expected to be the generator of such current account dynamics. In addition, the expected intensification of construction activities in corridors 8 and 10d would adversely affect the balance of services, which would result in decrease in the surplus in this category on annual basis. On the other hand, the favorable dynamics of energy prices is expected to continue reducing the energy deficit, while the recovery of the export in metal processing sector and the enhanced positive net effect of foreign facilities in the automotive industry, would significantly tighten the non-energy component and thus the total trade deficit. In the medium run, 2026 - 2027, the current account deficit is expected to stabilize to the average level of 2.2% of GDP, amid continuous decrease in the deficit in the trade in goods and services. Regarding the financial net inflows, cumulatively, in the period 2025-2027 they are expected to cover fully the current account deficit, enabling additional accumulation of 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. The latest assessments in the monetary segment point to solid credit activity in the banking sector throughout the forecasting round, with an average credit growth rate for the period 2025-2027 of 7.2%. It is expected that this growth will be achieved in conditions of a solid capital and liquidity position of banks, and according to the expectations for gradual easing of financial conditions, acceleration of economic growth and stabilization of the economic agents' expectations. As until now, the credit growth will further be supported by the deposit growth as the main source of financing. The deposits in the banking sector are expected to register solid growth rates throughout the forecast horizon, given further relatively stimulating conditions for saving in banks, the trust in the banking sector, as well as the expected growth of the disposable income of households. Thus, for the period 2025 – 2027, further solid deposit growth is projected, which would average 7.7%. However, the performance in 2024 in deposits and lending activity, which were significantly better than expectations, indicates a possible risk of their higher growth in the following period compared to the expectations from the October forecast.

The key risks arising from the external environment, in the medium term, are mainly downward and are associated with increased geopolitical uncertainty. Namely, the intensification of the current geopolitical tensions could lead to further disruption of trade flows and increase in commodity prices. Also, the possible strengthening of protectionist policies could worsen trade tensions and disrupt supply chains. Uncertainties related to economic policies, as well as the risk of maintaining tight monetary policy for too long, with the possibility of new volatility in financial markets, would also have negative effect on government debt instruments markets. On the other hand, the renewal of current and the conclusion of new trade agreements by some of the world's influential economies could alleviate uncertainty and have a positive impact on economic growth, increasing confidence and investment. *From the aspect of domestic risks, also in this forecasting round, they are related to the realization dynamics of major infrastructure projects.* In the medium run, there could be positive effects of the NATO membership and the progress in the EU accession negotiations, as well as the new EU Growth Plan for Western Balkans, which could enhance the economic integration and the social and economic convergence of the country, and the possible use of the geographic positioning of our economy within the initiated process of global chains adjustment. At the same time, the expected accession to the Single Euro Payments Area (SEPA) would encourage the market integration of the country by removing the financial flow barriers with the EU member countries, as part of the efforts to transform the payment infrastructure, and to lay the foundations in the financial area towards the EU. Joining SEPA would ensure cheaper, faster and more efficient payment system, which could ultimately contribute to greater competitiveness of the domestic corporate sector.

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 and to price stability on a medium-term.

V. Monetary instruments

Flexible setup of the set of monetary instruments

Measures for supporting denarization

Measure for encouraging green loans

In 2024, the monetary policy was implemented in an environment characterized by a relatively high liquidity position of banks and consequently active use of monetary instruments that withdraw excess liquid assets from the banking system. The implementation of a flexible operational framework, together with the gradual normalization of monetary conditions through a reduction in interest rates and measures in the reserve requirement aimed at further encouraging long-term savings in domestic currency, enabled the maintenance of stability in the exchange rate of the denar against the euro and the stabilization of inflation expectations and inflation.

In 2024, the National Bank will continue with the cautious approach to the monetary policy, amid persisting uncertainty about the external environment and domestic factors that have affected inflation. At the beginning of the year, in February (and with implementation from June and July), the National Bank adopted a comprehensive set of measures for the reserve requirement instrument, the implementation of which meant an additional withdrawal of part of the structural excess liquidity from the banking system, in support of tight monetary conditions. At the same time, the changes to the reserve requirement were aimed at supporting savings in domestic currency in the long term, and also enabled the simplification and harmonization of the reserve requirement system with the Eurosystem.

Changes in the reserve requirement system

The National Bank has started to gradually normalize the reserve requirement rate for short-term denar liabilities from the level registered in 2022[49] by increasing it from 5% to 8%, starting from July 2024. Since June, 0% reserve requirement has been applied to banks and savings banks' liabilities in domestic currency with a maturity of over two years to all sectors, as well as to household denar deposits with a maturity of over one year. At the same time, the reserve requirement rate for foreign currency liabilities with a maturity of over two years has increased from 0% to 5%[50]. The changes in the reserve requirement system also envisage equal treatment of all liabilities with FX clause, so that the rate of 100% is applied to all liabilities (regardless of the maturity and the type of depositor) of banks and savings houses. To intensify the effect of separation of the rates by currency, the National Bank increased the

[49]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 on several occasions from 15% to 21% at the end of 2023.

[50] A reserve requirement rate of 21% continues to apply to all short-term liabilities in foreign currency up to two years.

part of the foreign currency reserve requirement that is met in euros, from 81% to 85%, with the higher foreign currency liability enabling banks more flexible management by increasing the portion that is met on an average basis, from 10% to 15%. In order to set a single framework and to apply equal conditions for all institutions that collect deposits and contribute to the transmission of the monetary signals, the National Bank equalized the reserve requirement rates for banks and savings houses. At the same time, as of July, the funds allocated to the KIBS reserve guarantee fund were excluded from fulfilling the reserve requirement in denars.

The changes in the reserve requirement effect, together with the changes in banks' denar and foreign currency liabilities contributed to the highest annual growth of the reserve requirement liability, by a total of Denar 10.2 billion. Namely, the reserve requirement in denars recorded a relatively high growth of around Denar 6.8 billion (reaching Denar 29.3 billion), to which the largest contribution (of around 90% or Denar 6 billion) was made by the changes in the reserve requirement system. On the other hand, the implementation of higher rates for foreign currency liabilities and the increase in the portion of the foreign currency reserve requirement that is met in euros contributed to a higher reserve requirement that banks meet in euros (with an effect of around Denar 4.1 billion), which was partially reduced by the impact of changes in the deposit base of banks in foreign currencies, so that the reserve requirement in euros increased by around Denar 3.5 billion on an annual basis (to the level of Denar 42.1 billion). The measures of the National Bank and the confidence of economic entities in the banking system and the domestic currency contributed to the further growth of long-term savings, in denars. The double-digit growth of long-term denar deposits is also an indicator of further favorable shifts in the maturity and currency structure of funding sources[51].

Chart 58
Reserve requirement rate

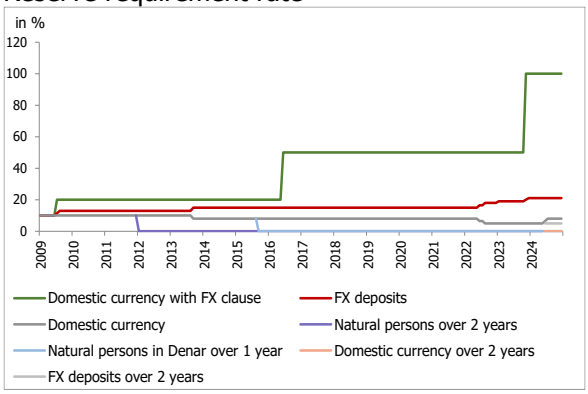
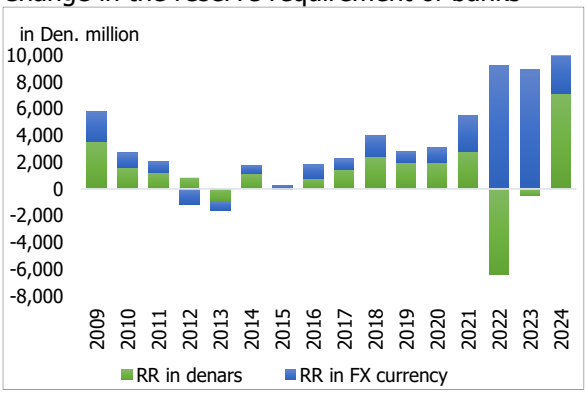


Chart 59
Change in the reserve requirement of banks



Source: NBRNM.

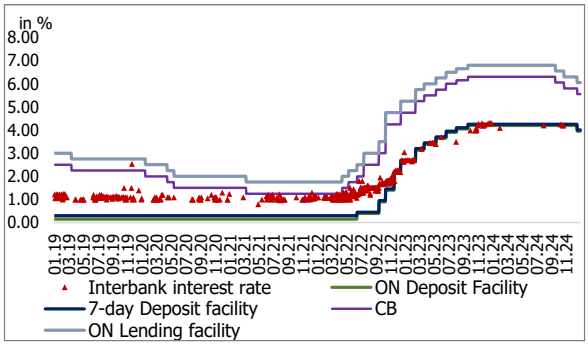
Favorable developments prevailed on the foreign exchange market, resulting primarily from the banks' transactions with clients, whose higher supply of foreign exchange contributed to an increase in the already good overall foreign exchange liquidity of banks[52]. This trend was characteristic for the entire year and enabled the smooth fulfillment of the higher reserve requirement in euros, as well as the purchase of market excess of foreign exchange in the banking system. Thus, the National Bank intervened with a record annual net purchase of Euro 451 million. The presence of the National Bank on the foreign exchange market enabled maintenance of the denar exchange rate stability and increase in the foreign reserves to a

[51] For more details on changes in banks' deposit base, see Monetary Aggregates.
[52] 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 2024, 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 five occasions, until January 2027.

level that is above the pre-pandemic level by about 40%. Favorable movements in the foreign exchange market, as an indicator of the solid external position and confidence in the domestic economy, together with inflation performance, which was in line with expectations, enabled the National Bank to begin a cautious, gradual normalization of monetary conditions in September[53]. Thus, on three consecutive occasions (in September, October and December) it reduced the base interest rate applied to CB bills[54] by a total of 0.75 percentage points to 5.50%. As a result of the decreased policy rate, lower interest rates were applied on both the repo auctions for providing liquidity[55] and the marginal lending facilities[56]. The normalization of the monetary policy setup was evident also through the interest rates on the deposit facilities with seven-day maturity which were reduced once, in December by 0.1 and 0.25 percentage points at the level, to the level of 3.95% and 4.00%, respectively.

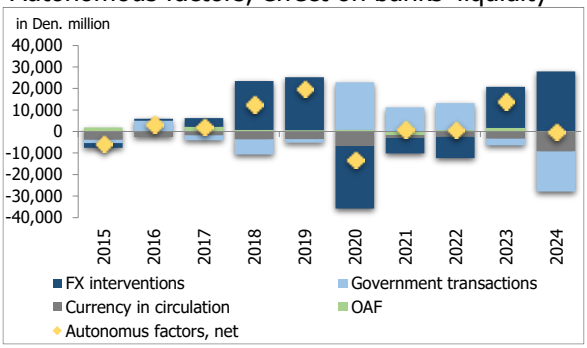
This monetary setup was also supported by the set of monetary instruments with which the National Bank effectively managed liquidity in the banking system, which remained at a relatively stable and high level in 2024. Namely, the interventions of the National Bank led to an increase in denar liquidity of about Denar 27.1 billion. On the other hand, the measures and instruments of fiscal policy reduced the liquidity of the banking system (with an effect of Denar 18.7 billion), mainly due to the financing of the budget deficit through the issuance of government securities on the domestic market. The currency in circulation also had the same impact, which recorded a high annual growth of about Denar 9.2 billion (or 16%), which is associated with the higher level of disposable income in the domestic economy.

Chart 60
Interest rate corridor



*7DF - seven-day deposit facility; OD - overnight deposit facility; OL - overnight credit facility
Source: NBRNM

Chart 61
Autonomous factors, effect on banks' liquidity



* OAF – other autonomous factors

Managing the excess free cash in domestic currency implied active use of monetary instruments for withdrawing liquidity and a lack of interest in the instruments with which the National Bank provides denar assets[57,58]. While maintaining the supply of CB bills at the level of Denar 10,000 billion[59], banks placed the excess denar funds (about 80%) in deposit facilities (seven-day and overnight), which is a flexible instrument for managing short-term liquidity

[53] The interest rates in domestic economy were unchnaged since September 2023.
[54] At the auctions of CB bills, which are held on the first day of the reserve requirement maintenance period, a 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 period.
[55] Auctions for providing seven-day liquidity are conducted once a week, i.e. every Friday. The interest rate on this instrument is equal to the interest rate on the CB bills.
[56] The interest rate on the overnight credit facilities is higher by 0.5 percentage points relative to the interest rate on the CB bills.
[57]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, also in 2024 banks were not interested in these monetary instruments.
[58]The right to access monetary instruments for withdrawing liquidity is held by financial institutions that collect deposits and consequently have an obligation to meet reserve requirements. Hence, banks and savings houses have access to the CB bills auctions and the right to place funds in deposit facilities with the National Bank.
[59] At almost all auctions, the demand from banks and savings houses was at the level of the offered amount.

changes. Placements in deposit facilities with the National Bank in 2024 amounted to about Denar 49 billion, on average (about 4 billion denars less than in 2023) and corresponded to the dynamics of changes in excess free funds in the banking system. From the aspect of maturity, banks mainly used seven-day deposit facilities in operational liquidity management, where the largest portion (68%) of the excess free funds in denars was directed.

Chart 62
CB bills and banks' excess liquidity[60]

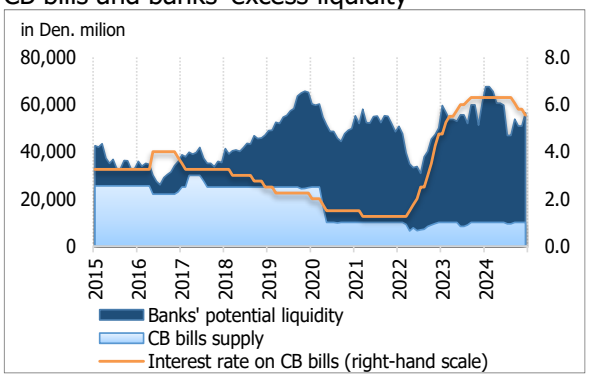
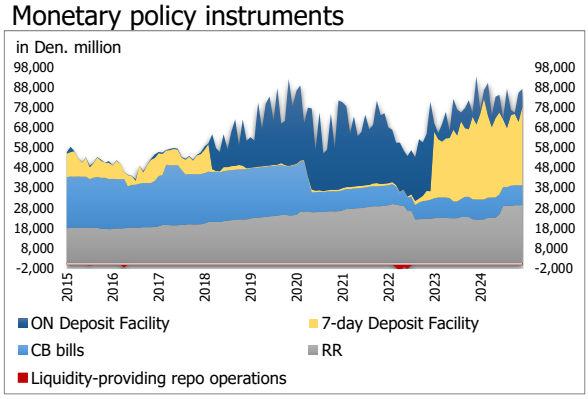


Chart 63
Monetary policy instruments



Source: NBRNM.

In 2024, the National Bank continued to encourage the energy efficiency in the private sector using the non-standard measure (activated in October 2022) that facilitates credit standards for domestic production of electricity from renewable sources. 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 implementation of this measure in 2024 enabled a reduction of around Denar 501 million in the banks' requirement to allocate reserve requirement in denars with the National Bank[61]. Most of approved loans reported in 2024 (around 97%) are long-term and are intended for the construction of new facilities for the production of electricity from renewable sources, while the rest are for increasing the installed capacity of existing facilities.

Developments on the foreign exchange market[62] and National Bank interventions

The recovery of the global economy and the further stabilization of energy markets enabled further favorable developments in the domestic foreign exchange market, where for the second year in a row the performance improved significantly than in the crisis episodes evidenced in the period 2020 – 2022. Namely, despite the enduring economic uncertainty and geopolitical tensions, the more favorable environment for global trade enabled an increase in the foreign assets of domestic export-oriented companies. At the same time, the further reduction in the price pressure from energy products contributed to the stabilization of the primary products prices on world markets and consequently, to the reduction of the demand for foreign exchange from domestic power companies, which was largely offset by the higher demand for foreign assets from companies importing consumer goods. Relatively favorable performance also prevailed among natural persons, where the stabilization of inflation expectations and confidence in the domestic currency led to a stable and relatively high supply of foreign exchange on the currency exchange and foreign exchange markets.

[60] 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.
[61] The total amount of released funds since the beginning of the implementation of the measure amounts to Denar 719 million.
[62] The foreign exchange market within this analysis encompasses the transactions between the banks and their clients and interbank trading.

Chart 64
Net sale of foreign currency of banks for their clients

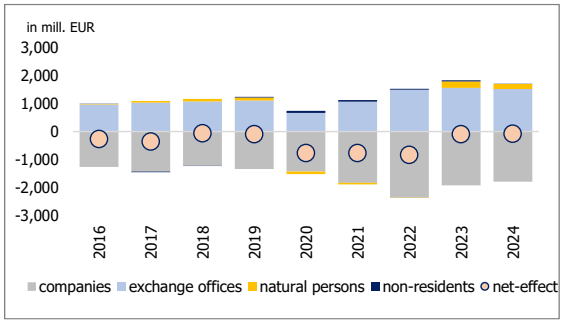


Chart 65
Annual growth in the supply of and demand of foreig currency, by client

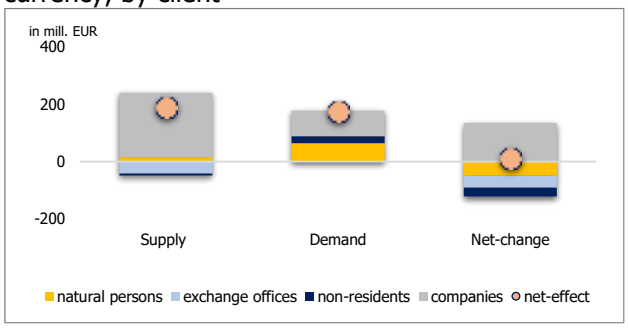


Chart 66
Annual demand for foreign exchange from companies on the foreign exchange market

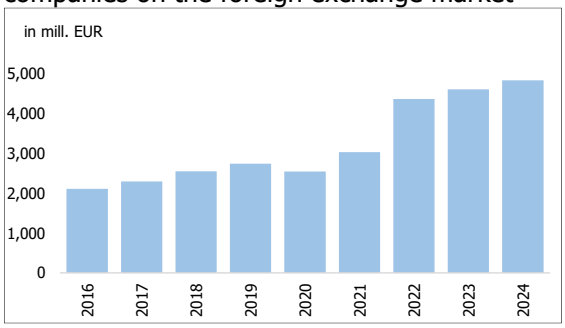
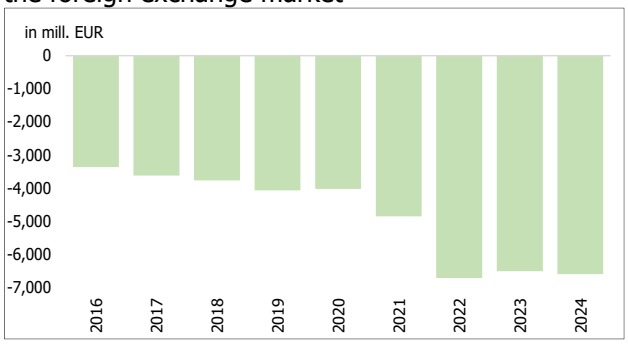


Chart 67
Annual supply of foreign exchange from companies o the foreign exchange market



Source: NBRNM.

The normalization of the goods and services market, together with the inflows from the country's capital flows abroad, contributed to an increased supply of foreign exchange from companies for the production and processing of food, beverages and tobacco, which also have the largest contribution (around 45 percentage points) to the annual increase in the supply of foreign exchange from the corporate sector, followed by export-oriented companies operating in industrial zones, companies from the information industry and financial services. On the other hand, the reduced need for foreign exchange from electricity companies and companies from the construction sector was almost completely offset by the higher demand from companies importing consumer goods, importing cars and companies offering transport services, which was contributed by the increased domestic demand, amid real growth in the disposable income of households and the price level, which is still higher. With a higher annual increase in supply, the net sale of foreign exchange by banks for the needs of the corporate sector was lower by Euro 136 million on an annual basis.

On the currency exchange market, the supply of foreign currency from natural persons was relatively high and only moderately lower than in 2023 (when it reached a record high).

The demand for foreign currency from natural persons recorded a moderately higher annual growth rate compared to the supply of foreign currency. Given such developments, the net supply of foreign currency from these entities in 2024 was moderately lower than in the previous year, but is still almost twice as high as the annual net purchase in 2018–2019, which is a clear signal of confidence in the domestic currency.

Chart 68
Annual banks' purchase of foreign currency from exchange offices, by quarter

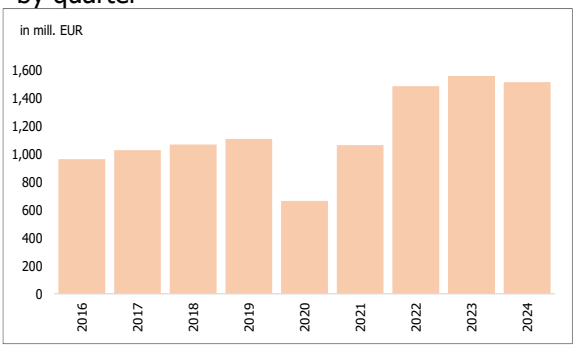
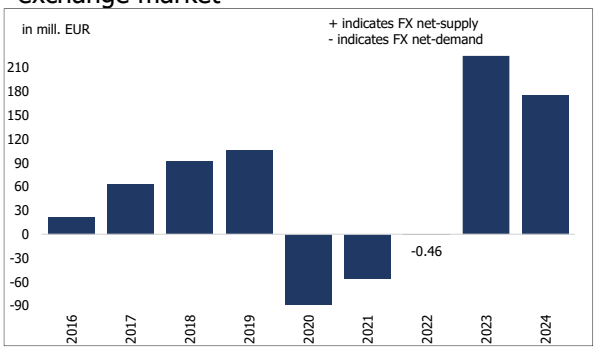


Chart 69
Annual net supply of/demand for foreign currency by natural persons on the foreign exchange market



Source: NBRNM.

The net sale of foreign exchange by banks for the needs of clients in 2024 (Euro 83.4 million) is lower by Euro 14 million on an annual basis and is at the level of net sales in 2018 and 2019. Due to the favorable external position of the country and the general high foreign exchange liquidity of banks, the National Bank intervened in the foreign exchange market in 2024 with the historically highest net purchase of foreign exchange in the amount of Euro 451 million. Given that favorable market trends and high foreign exchange liquidity of banks prevailed almost throughout the year, the National Bank intervened only in January and February with a low and almost insignificant net sale of foreign exchange (Euro 2 million). In the rest of the year, banks directed the constantly higher supply of foreign exchange on the interbank foreign exchange market towards the National Bank, and consequently, in the period March - December, the purchase of excess foreign exchange assets was realized in a relatively high amount of Euro 453 million. Thus, the National Bank interventions on the foreign exchange market contributed to additional increase in the already solid and adequate level of foreign reserves, while the exchange rate of the denar against the euro remained stable.

Chart 70
NBRNM interventions on the foreign exchange market

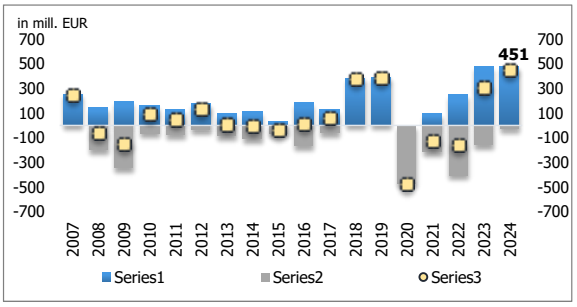
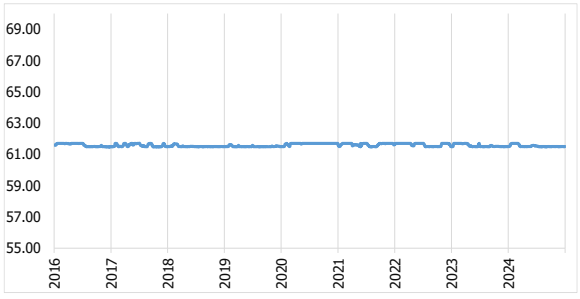


Chart 71
Middle exchange rate of the denar against the euro



Source: NBRNM.

Developments on the interbank market for uncollateralized deposits and the secondary securities market[63]

Also in 2024, due to the high amount available denar funds, the banks had a very small and extremely rare need to borrow in the domestic financial markets.

Chart 72
Turnover on the unsecured interbank deposit market

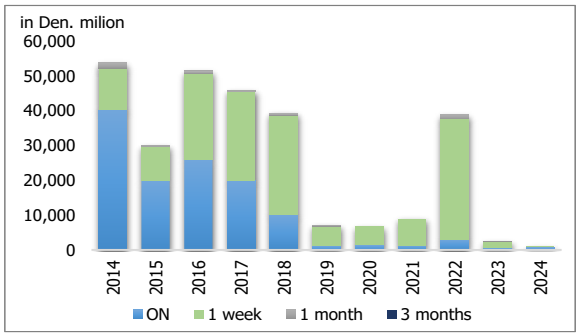
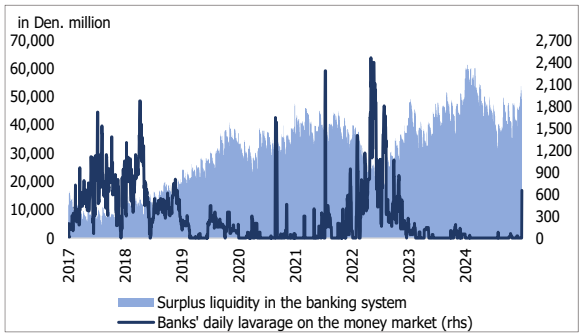


Chart 73
Excess liquidity in the banking system and bank indebtedness



Source: NBRNM.

An indicator of the solid level of liquidity in the banking system, as well as by bank, is the lowest annual trading volume on the interbank market for unsecured deposits, where only 9 transactions were concluded in a total amount of Denar 910 million denars. The weak demand for short-term liquid assets in denars (decreased by about 60% on an annual basis) also reflected on the average daily bank indebtedness, which decreased to only Denar 55 million, and had an impact on the maturity structure of traded unsecured deposits. Namely, most of transactions were concluded immediately towards the end of the reserve requirement period, with which banks predominantly (91%) provided funds with an overnight maturity. Loans with a maturity of up to one week recorded an annual decrease of about 95% and had a share of only 9% in the total turnover of the unsecured market segment.

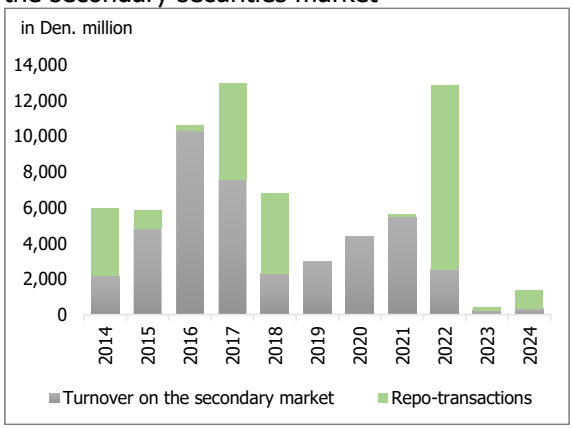
The realized interest rates on the unsecured interbank deposit market in 2024 registered moderate downward movement. Namely, the average interbank interest rate of all transactions (MBKS) was 3.66% on average and was moderately lower (by 0.65 percentage points) compared to December 2023, due to the increased share of the most represented category, i.e. interbank uncollateralized loans with overnight maturity, the interest rate of which was 3.53%. Both transactions concluded with a maturity of up to one week were executed at a relatively stable interest rate of around 4.21%. In 2024, a few transactions that are used to calculate the MKDONIA interest rate were concluded, the average level of which was 3.30%.

The total turnover (Denar 1.3 billion) on the secondary securities market and over-the-counter organized by the National Bank, although it recorded a moderate increase compared to the previous year, was six times lower than the average annual trading volume in the past ten years. In terms of transaction types, the increased trading is mainly due to the bbanks activity on the interbank repo market, where in managing short-term liquidity flows, one transaction with treasury bills in the amount of Deanr 1 billion was concluded. On the other hand, this year, banks were not required to secure short-term funds in denars through outright sale of securities, so the total volume of outright trading is entirely due to transactions

[63] 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).

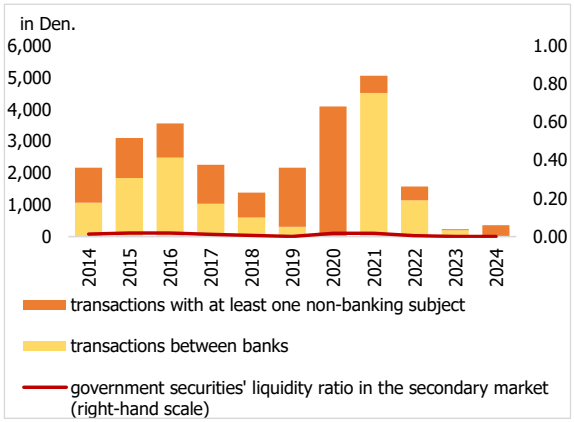
for the needs of non-banking entities, clients of banks, which traded only with government securities in a relatively stable annual amount of Denar 353 million.

Chart 74
Turnover on
the secondary securities market



Source: NBRNM.

Chart 75
Structure of outright government securities transactions[64]



[64] 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 increase in foreign reserves

Security and liquidity of foreign reserves

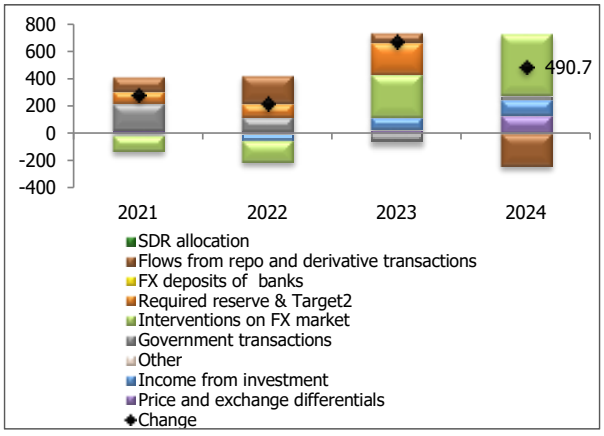
Active foreign reserves management

In 2024, the foreign reserves of the Republic of North Macedonia (hereinafter referred to as: foreign reserves) recorded significant increase, which is largely due to the interventions of the National Bank on the foreign exchange market to purchase excess foreign exchange in order to preserve the stability of the nominal exchange rate of the denar against the euro. Foreign reserves management in 2024 was extremely cautious, adjusting the investment decisions to the volatile developments in the international financial markets, which enabled to adhere to the core principles: security, liquidity and profitability of foreign reserves. In accordance with the principle of safety, the largest portion of foreign reserves were invested in government bonds of the euro area countries, and some were invested in debt securities of other issuers, in order to exploit market opportunities to generate additional income. The liquidity of foreign reserves was ensured by a balanced investment approach, encompassing the investments in longer-term safe debt securities for which there is a deep and liquid secondary market and, at the same time, short-term placements with central and commercial banks with high credit ratings. The relatively high interest rates and yields of instruments within foreign reserves, together with the exploitation of market opportunities, contributed to favorable financial performance.

Foreign reserves stock and flow

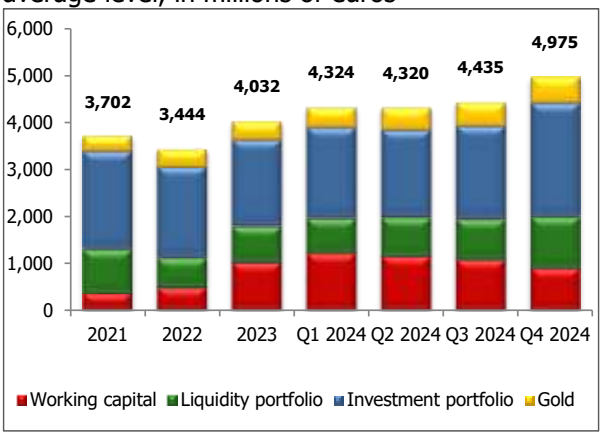
In 2024, foreign reserves increased by Euro 490.7 million and at the end of the year reached Euro 5,029 million. The increase in foreign reserves stems from the net purchase of foreign exchange on the foreign exchange market (Euro 451 million), and to a lesser extent, from net inflows to the Government and the government authorities (Euro 28.5 million).

Chart 76
Foreign reserves growth factors
in millions of euros



Source: NBRNM.

Chart 77
Foreign reserves tranching
average level, in millions of euros



The positive changes in foreign reserves were also due to investment income (Euro 116.1 million). The higher value of gold also contributed to the increase in foreign reserves [65], which was due to the increase in the market price on international financial markets, driven by the FED's cycle of monetary relaxation, geopolitical uncertainty, as well as record-high purchases by central banks, led by China. The outflows based on reduced volume of concluded repo and derivative transactions (Euro -238.6 million) had opposite impact, which are applied in the active foreign reserves management[66].

In 2024, 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 until December[67] 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 basic limit[68] for maintaining the current account assets with the central banks, were placed in form of short-term deposits with highly-rated commercial banks, at interest rates equal to or higher than the ECB deposit rate. Within the foreign reserves, there was a special tranche to manage gold the security and liquidity of which is particularly pronounced in conditions of fluctuating movements in the financial markets.

Amendment to legislation and by-laws on the management and investment of foreign reserves

In 2024, amendments were made to the Law on the National Bank, which expanded the possibility of investing foreign reserves by acquiring shares in investment funds composed of a group of issuers of already permitted financial assets, and also enabled investment in corporate bonds issued by non-financial entities. This enabled investment distribution in multiple instruments, issuers and geographical areas in addition to reducing individual investment risks, as well as achieving higher, relatively stable and predictable returns when managing foreign reserves. In accordance with these legal possibilities, amendments were also made to the Foreign Reserves Management and Investment Policy and other internal acts, thus completing the legal framework for introducing these financial instruments as an investment opportunity. In order to implement these new opportunities in the coming period, more detailed analyses will be made in order to assess the effects and risks of investments in accordance with the criteria set for investing foreign reserves in the Rules for Management and Investment of Foreign Reserves, as well as market circumstances.

[65]The price of gold in US dollars grew by about 27% compared to the end of 2023, which increased the value of gold in foreign reserves by around 34% and positive price and exchange rate differences of around Euro 135 million.
[66]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.
[67] In accordance with the ECB's decision, starting from 1 December 2024, funds on deposit accounts with central banks within the Eurosystem will be remunerated at the interest rate on unsecured overnight interbank placements in euro (ESTR) reduced by 20 bp, which is by around 30 bp less than the interest rate on the ECB's overnight deposit facilities. As a result of the reduced fee, these available funds have been gradually redirected into securities and money market instruments at favorable interest rates since December.
[68]The basic limit with central banks Tier 1 is determined by each contracting party individually and funds held up to the specified limit receive a higher interest rate (the ECB deposit rate) compared to funds exceeding this limit (the interest rate on uncollateralized interbank overnight placements in euros, reduced by 20 basis points).

International financial markets and active approach to foreign reserves management

In 2024, the high inflation rates worldwide, which were challenging in the past few years, continued to move downwards69, enabling the central banks to begin with the monetary policy normalization. Therefore, the ECB and the FED cut the policy rates by 100 basis points, so the ECB reduced the deposit interest rate to 3%, while the FED's target level by the end of the year amounted to 4.25%– 4.5%. The expectations and changes in the monetary setup strongly affected the developments on the international financial markets, thus the yield of the safest fixed income instruments registered a decline in short-term maturities. On the other hand, due to the favorable macroeconomic performance of the United States, particularly private consumption and labor market, it is found that the inflationary pressures will persist for a longer period. In such environment, the US long-term government bond yields increased, which largely reflected in the euro area, where the yields of the safest government bonds increased by almost the same amount. The geopolitical tensions in Ukraine and the Middle East remained challenging for investors, contributing to temporary volatile movements in international markets.

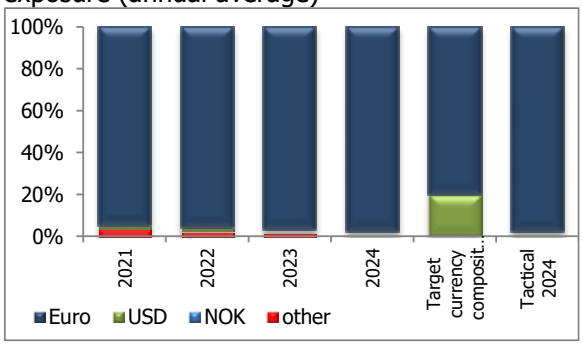
Relatively high interest rates and yields on foreign reserve instruments affected the investment decision throughout the year. It was also used the possibility of realizing favorable interest income from placement on deposit accounts with central banks, which remained relatively high throughout the year. The increase in medium-term yields and longer maturities was perceived as a favorable opportunity for purchasing securities with longer adjusted duration, to ensure favorable developments in the upcoming years. Also, the temporal volatility of returns on foreign markets provided an active approach towards managing and generating additional income through sale of securities. The active approach in managing foreign reserves contributed to an exceeding the results of the trading portfolios in relation to the corresponding reference portfolios, which was largely due to the selection of instruments, i.e. the higher-yielding instruments in which foreign reserves were invested. 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.

Foreign reserves structure

In 2024, **the currency structure** of foreign reserves was further dominated by assets invested in euro financial instruments with an average share of about 98%[71], which is in line with the monetary strategy of a stable exchange rate of the denar against the euro.

The prudent and active approach in foreign reserves management, directed towards the safest financial instruments in order to meet the principle of security of

Chart 78
Currency structure[70] and foreign reserves exposure (annual average)

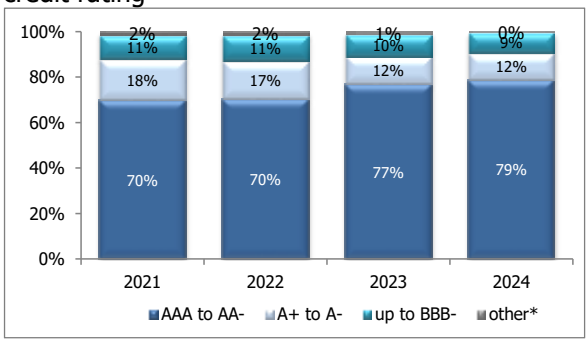


Source: NBRNM.

[69] In the euro area, the inflation rate in 2024 reduced from 5.5% to 2.4% on average, and in the USA from 4.1% to 3%.
[70] The basic 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.
[71] The currency structure is analyzed taking into account the stock of foreign reserves reduced by the amount of gold.

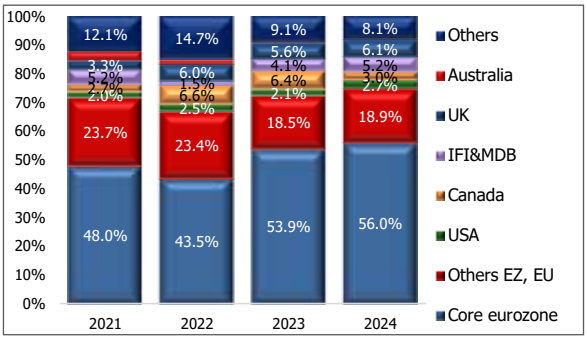
foreign reserves, contributed to increase moderately the average share of the instruments issued by issuers/countries with the **highest credit rating** (of AAA to AA-) at about 79%. Moreover, for the purpose of higher return on investments and preserving the foreign reserves value, part of the investments (or about 12% on average) were directed also towards instruments with a credit rating of A+ to A-.

Chart 79
Average annual structure of investments by credit rating



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

Chart 80
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 2024 most of the investments were in instruments issued by the leading euro area economies (on average 56%)[72], as well as toward the other the euro area and EU countries (18.9%)[73], which benefit from the support to the common economy, and also offer moderately higher yields.

Observing by **type of instrument in which the foreign reserves are invested**, most of the assets were still placed in securities (61.6%). Among types of securities, the government securities and state-guaranteed securities, which are considered the safest investments, prevailed. Having in mind the commitment to sustainable investment, it is further invested in securities that finance green, social and sustainable projects, with their share reaching 5.7% of foreign reserves at the end of the year. Current accounts with central banks registered a decrease, while the share of the short-term securities and deposits placed with central and commercial banks was larger compared to 2023. These placements relate to the adjustment of the necessary liquidity as of the repayment of government authorities' liabilities, as well as to the relatively high interest income in anticipation of a favorable moment for investing funds in the longer term.

[72] Refer to the so-called euro area core, which includes: Germany, Austria, Luxembourg, Finland, the Netherlands, France, Ireland and Belgium.
[73] "Other euro area and EU countries" include: Italy, Portugal, Spain, Denmark, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, Croatia, Bulgaria, Czech Republic and Sweden.

Chart 81
Investment structure, by instrument
annual average

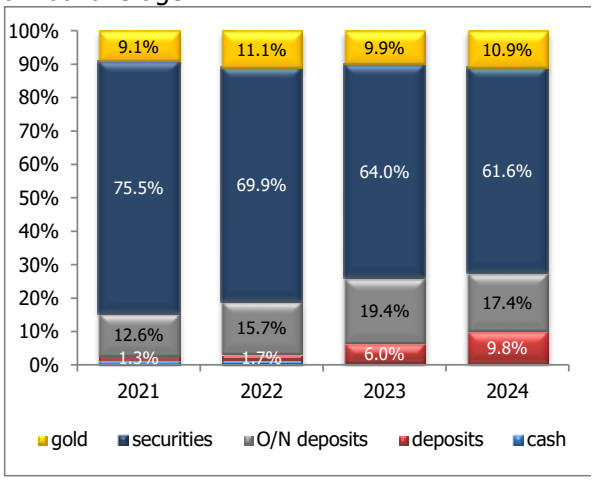
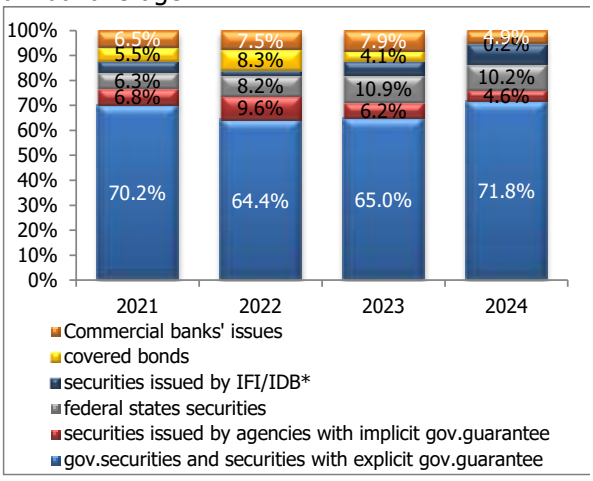


Chart 82
Structure by type of securities
annual average



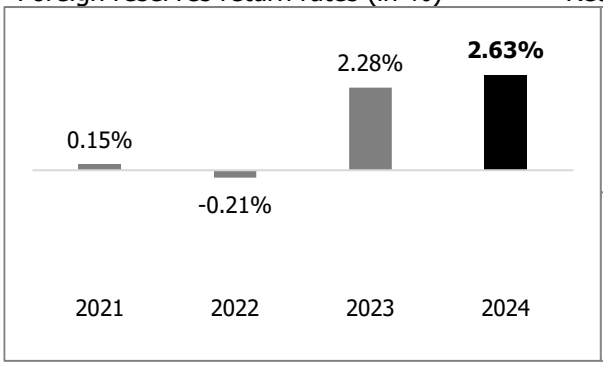
Source: NBRNM.

In the structure of the foreign reserves, the average share of **gold** moderately increased, from 9.9% in 2023 to 10.9% in 2024, which, amid unchanged quantity, is completely a result of the increase in gold price.

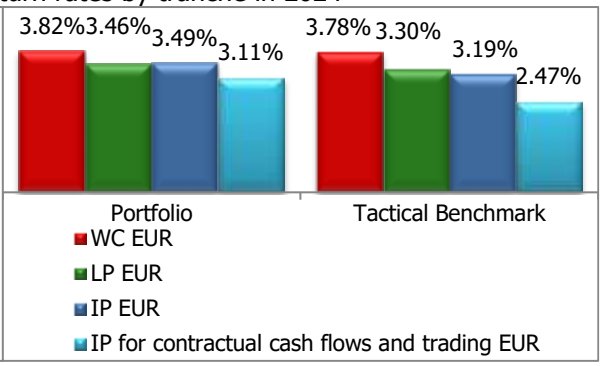
Results from the management and investment of foreign reserves

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 fixed income instruments, which can be traded, and whenever there are favorable market conditions, to be sold in order to profit from the changes in the market value. The relatively high yields in 2024 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 coupled with favorable performance from the exploitation of market opportunities, whereby the **total rate of return on investment and management of foreign reserves equaled 2.63%.**

Chart 83
Foreign reserves return rates (in %) [74]



Return rates by tranche in 2024



Source: NBRNM.

[74] 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.

The diversification of placements by instruments, exploiting market opportunities through 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 contributed to improved performance and to surpass the results in relation to the adequate reference portfolios[75].

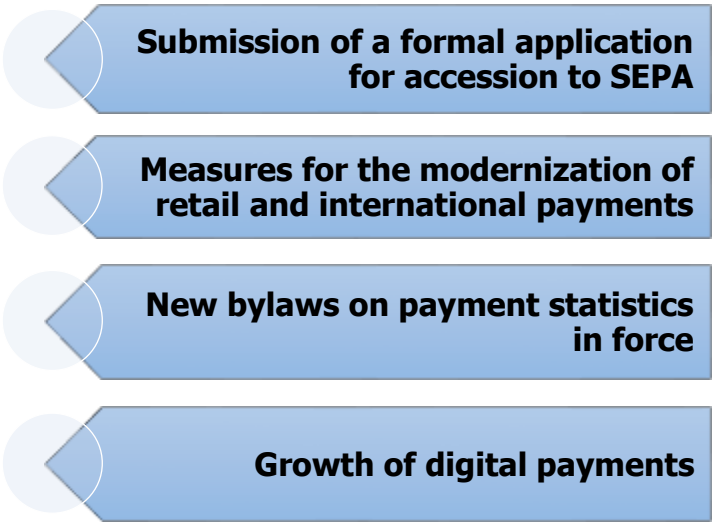
Analyzed by portfolios, the operational portfolio in euros, which mainly includes funds on current accounts and term deposits, makes a positive contribution to the income generated from foreign reserves investment, registering the highest return during the year. The investment portfolio, which is managed according to the business model for collecting contractual cash flows and selling financial assets and which covers most of foreign reserves, the investment portfolio in euros for trading, as well as the liquidity portfolio in euros[76], which is with a shorter duration, had higher performances compared to the performances of the respective reference portfolios.

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 an absolute 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 moderately increased during 2024.

[75] With the liquidity, the investment portfolio that manages the collection of contractual cash flows and sale of financial assets and the investment portfolio in euros for trading are managed in relation to a reference portfolio, represented by a combination of the following reference indices published byIntercontinental 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 one to three years; and EG63 (EG63) composed of government securities issued by euro area member states with credit ratings of at least "AA" and with a residual maturity of five to seven years. The basic adjusted durations of the reference portfolios correspond to the adjusted durations of the liquidity and investment portfolio, respectively.

[76] Intended to satisfy all contractual and potential outflows during one year.

VII. Payment services and payment systems



The National Bank has a key operational, regulatory and supervisory role in the establishment and operation of payment systems and the security of all participants in the execution of payment services, in order to provide secure, transparent and efficient execution of payments.

With the commencement of the implementation of the Law on Payment Services and Payment Systems (LPPSS) in 2023 and the by-laws thereof, during 2024 the National Bank conducted the licensing process in order to assess the fulfillment of the legal requirements for the performing payment services/issuance of electronic money, the suitability of the members of the management bodies and owners with qualified holding, as well as the ability of the companies to ensure continuity and security in providing services and protection of the interests of the users. Within the framework of the licensing process, the National Bank issued operating licenses to five payment service providers and registering them in the payment institutions register.

The new legal framework, in order to ensure high harmonization with the Acquis in payments area, 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. The National Bank, in its capacity as the regulatory and supervisory institution for payment service providers in the country, on 10 July 2024, submitted the formal application for the country's accession to SEPA, which represents a key step forward for the further development and integration of the domestic financial system into the European Economic Area. On 6 March 2025, the European Payment System accepted our country as 39th member of SEPA. The country's membership in SEPA will bring numerous benefits for the citizens, companies and overall economy, by enabling faster, more efficient and cheaper euro payments to and from SEPA member countries, simplified procedures, greater transparency and enhanced consumer protection.

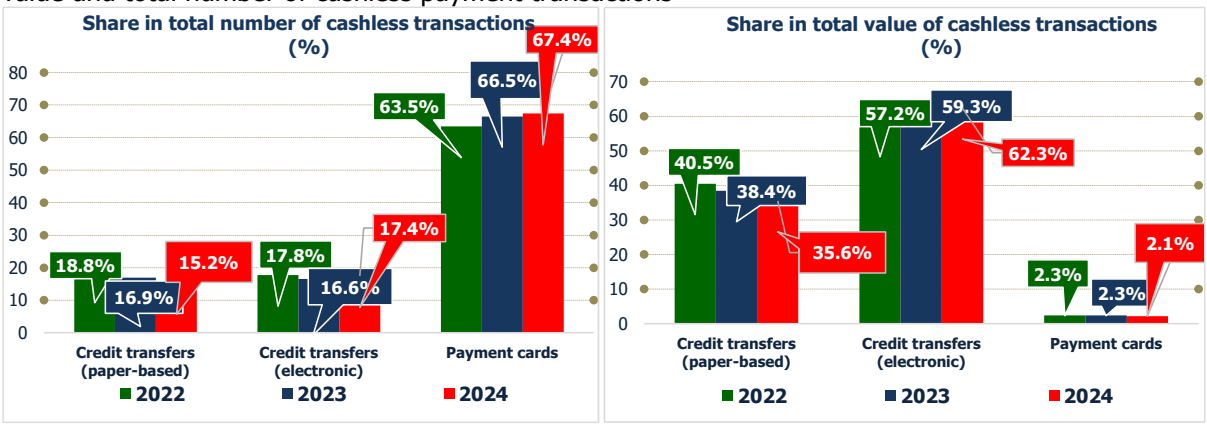
The National Bank is constantly improving national payment statistics, taking into account its harmonization with the payment statistics methodologies of the European Central Bank and the Bank for International Settlements. The processes of collecting, processing and disseminating statistical data in the field of payment statistics are carried out in accordance with the Payment Statistics Law and the new by-laws in the field of payment statistics, the application of which began in 2024, and **they are to a significant extent adjusted to the requirements of the Payment Statistics Regulation No. 2020/59 of the European Central Bank.**

Cashless payment transactions

In 2024, citizens and companies in the Republic of North Macedonia made 235 million cashless transactions (valued at Denar from 7,167 billion), via credit transfers and payment cards provided by payment service providers in the country. Compared to 2023, this number increased by 12.7%, and their value registered an annual growth of 23.6%. Card-based payment registered an annual growth of 14.3%, contributing to a high structural share of 67.4% 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 of citizens and companies in executing payments in the country. At the same time, there was an annual growth of 9.5% in the total number of credit transfers, whereby credit transfers initiated electronically registered an annual growth of 18.3%, resulting in an increase in their share of 0.8 percentage points in the total number of payments (17.4%), while credit transfers initiated in paper-based form registered an annual growth of 0.9%, which contributed to increase of 1.7 percentage points of their share in the total number of payments (15.2%).

The total value of payments in 2024 is still predominated by credit transfers with 97.9%, amid increased structural share by 0.2 percentage points (share of 62.3%) of credit transfers initiated electronically at the expense of the decline in credit transfers initiated in paper-based form of 2.8 percentage points (or share of 35.6%), while the structural share of the value of payment card payments marginally decreased by 0.2 percentage points (2.1%), in the total value of realized cashless payment transactions.

Chart 84
Structural share of cashless payment transactions with credit transfers and payment cards in the total value and total number of cashless payment transactions[77]



Source: NBRNM.

[77] 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.

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

Table 4
Credit transfers initiated by natural persons and legal entities in the country

2024		
Number of credit transfers initiated by non-MFIs	Natural persons (%)	Legal entities (%)
By initiation method		
paper-based	65.4	36.8
electronic	34.6	63.2
Electronically credit transfers, initiated on a single payment basis are divided:		
Online banking based credit transfer	35.7	92.5
ATM or other PSP terminal	0.6	0.0
Mobile payment solution	63.7	7.5

The total number of credit transfers initiated by natural persons and legal entities[78] in the country in 2024 was 67.3 million, which is an annual growth of 9.8%.

The structure of credit transfers, in terms of user, is still in 2024 predominated by legal entities with a structural share of 58.7%, while, the rest of 41.3% are initiated by natural persons. Moreover, it is noticeable that legal entities more frequently used the benefits of electronic banking (share of 63.2% in the total number of credit transfers initiated by legal entities), while natural persons still predominantly initiate payments at the banks' counters (65.4%).

During 2024, the use of mobile payment solutions among citizens to initiate electronic credit transfers is rising further with a share of 63.7% or an increase of 6.7 percentage points compared to 2023, at the expense of the decline of 6.4 percentage points, or a share of 35.7% of credit transfers based on online banking and a decrease of 0.3 percentage points in the share of ATM and other terminals.

Legal entities predominantly use the computer (92.5%), but the structural share of the use of mobile payment solutions slightly increased by 3.4 percentage points compared to 2023, which reached 7.5% in the total number of credit transfers initiated electronically by legal entities.

Payment cards

An upward trend in the number of transactions with payment cards[79] issued by domestic issuers at terminals located in the country was registered in 2024, as well, and they reached 189.8 million payment transactions amid annual growth of 12.9%. Moreover, the use of payment cards at POS terminals and e-commerce points of sale registered high annual growth of 14.3%. In addition, cards were used to withdraw and deposit cash at ATMs, recording an annual growth of 6.0% in the number of cash transactions. The structural share of the number of POS transactions kept on increasing, by 0.5 percentage points reaching 76.8% in 2024, at the expense of the reduced share of transactions for ATM cash withdrawals (15.4%). As a result of the change in the payment habits of citizens and companies, the use of payment cards at the domestic e-commerce points of sale registered an annual growth of

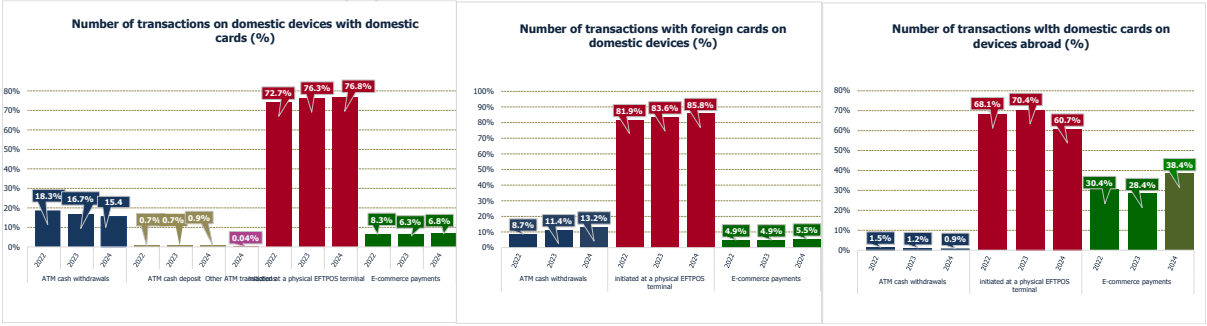
[78] In order to perceive the payment habits of natural persons and legal entities in the country more appropriately, especially in terms of the use of digital payment channels, the National Bank started collecting analytical data on *Total credit transfers* as of 2021, which are divided in three sub-categories: *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.

[79] Transactions with payment cards issued in the country include transactions at POS terminals, e-commerce points of sale, and cash withdrawals and deposits at ATMs in the country.

22.3%, given increased structural share of 0.5 percentage points. The number of transactions for ATM cash deposits registered high annual growth of 55.1%, but their share in the total number of card-based transactions remains low (0.9%).

Also in 2024, there is an increase in the number of transactions in the country with payment cards from foreign issuers. Thus, 22.2 million transactions with payment cards issued by foreign issuers were performed at terminals located in the country, registering a significant annual growth of 28.4%. In terms of their use, also during 2024, they were increasingly used for payment at POS terminals, which amid annual growth of 31.7%, increased their share by 2.2 percentage points, which reached 85.8%. There was an annual decline of 2.6% in the share of cards for ATM cash withdrawals, which equaled 1.8 percentage points, with a share of the use of payment cards at e-commerce points of sale of 5.5% being registered, or high annual growth of 43.9%.

Chart 85
Share in the total number of payment card transactions



Source: NBRNM.

In 2024, there was high annual growth of 19.4% in the use of payment cards issued by domestic issuers at terminals located abroad, with 19.2 million transactions being executed. Although the highest structural share (60.7%) accounts for the use of payment cards at POS terminals, larger use of payment cards at e-commerce points of sale abroad has been observed with a structural share of 38.4% and a significantly high annual growth of 61.4%. Withdrawing cash with domestic cards at ATMs abroad remains low (structural minor share of 0.9%, with an annual decline of 8.2%).

Payment infrastructure

As a result of the constant development of contactless technology, which assumes increasing proportions in the field of card payments, during 2024, 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 (98.6% of 1.9 million cards issued in the Republic of North Macedonia), amid excellent infrastructure for accepting payment transactions based on this technology (96.4% of 34,778 EFTPOS terminals). Increased offer and use of modern digital devices for making payments in 2024 is especially evident through the high annual increase of 59.6% in the number of ATMs with a credit transfer initiation function, i.e. annual increase of 8.5% in ATMs with an additional cash deposit 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 digitized 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 2024 amounted to 131,749.

At the end of 2024, the total number of clients' denar payment accounts with banks for making payments in the country was 3.76 million, which is an annual decrease of 0.3%. In terms of structure, most, or 95% of payment accounts still refer to natural persons and 5% refer to legal entities. Moreover, 49.4% of the total number of payment accounts owned by legal entities enable electronic payments, which is an increase of 4.7 percentage points, compared to the end of 2023, while the share of payment accounts of natural persons that enable electronic payments is half as small and amounts to 23.2%, recording an increase of 4.2 percentage points on an annual basis.

At the end of 2024, an annual growth of 3.7% was recorded in the total number of merchants in the country accepting payments with payment cards (16,383), with the number of merchants accepting card payments at physical points of sale increasing by 4.4% (14,717), while the number of merchants at e-commerce points of sale recorded an annual decline of 2.5% (1,666).

Payment systems in the country

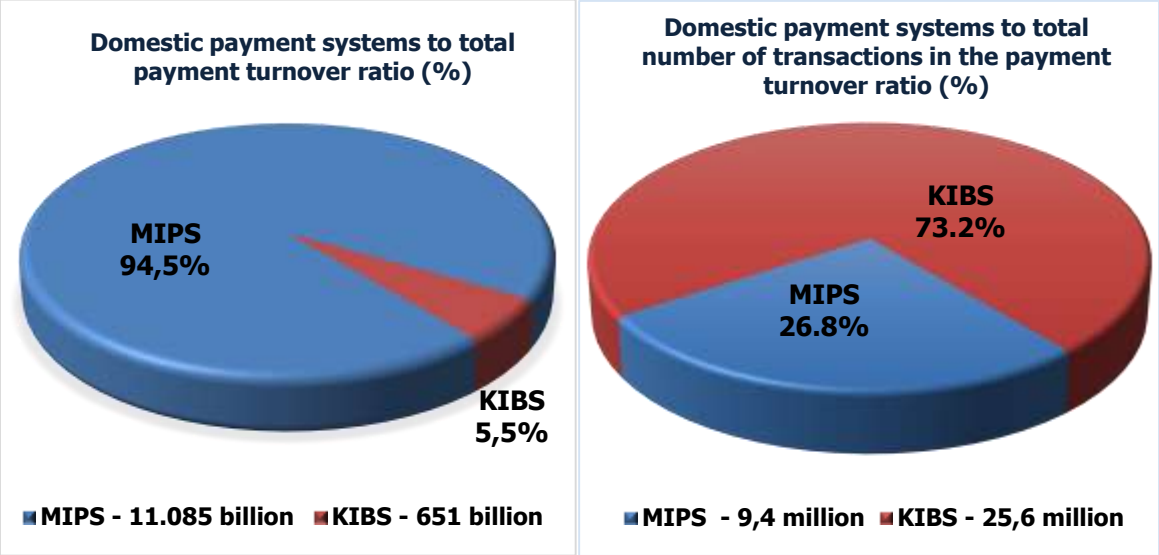
In 2024, the total value of transactions in the country realized through the payment systems - MIPS[80] and KIBS[81] reached Denar 11,736 billion, amid executed 35 million transactions, recording an annual growth in both the value and in the number of performed transactions of 9.2% and 4.2%, respectively. In terms of the transactions value, 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 (73.2%), compared to MIPS (26.8%).

The net settlement of the payments through the KIBS payment system is regularly made through the MIPS settlement system, which in 2024 operated for 249 days, with high accessibility for the participants to the system of 99.97%.

[80] 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.

[81] The Clearing House Klirinshki Interbankarski Systems AD Skopje is the operator of the payment system for deferred net settlement based on processed credit transfers in denars in small amounts.

Chart 86
Payments made through payment systems in 2024



Source: NBRNM.

Oversight activities over the payment systems

The National Bank's oversight activities were carried out on a regular basis, in accordance with the regulatory requirements that reflect the internationally accepted standards for the operation of payment systems. In carrying out its oversight role, the National Bank assesses whether the operator has ensured compliance of the payment system with the prescribed requirements for the operation of payment systems depending on the category in which the payment system is classified (on-site supervision) and monitors its operation and development, by regularly collecting and analyzing the reports submitted by the payment system operators to the National Bank (off-site supervision). If the supervision identifies certain weaknesses in the operation and depending on their type, severity and frequency, appropriate measures are issued in accordance with the LPSPS. In this way, the performance of supervisory activities reduces the risk associated with possible disruptions in the operation of payment systems by identifying potential risks in their operation, thereby increasing the security and efficiency in the execution of payment transactions.

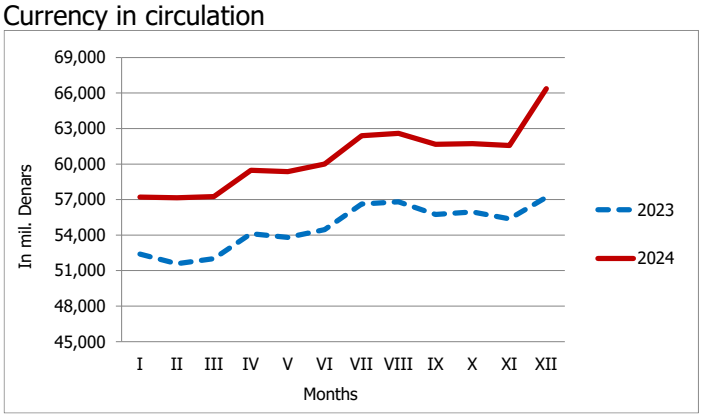
Also, legal entities that, until the date of application of the LPSPS, managed and operated a payment system (with the exception of the National Bank) were obliged to submit an application to the National Bank by the end of 2023 for a payment system operator license and thereby, demonstrate that they have fulfilled a significant part of the requirements of the legal framework on the basis of which the on-site supervision of payment systems in the country is carried out. Hence, during 2024, the National Bank for the first time assessed the application for a license of the payment system operator Clearing House Interbank Payment Systems AD Skopje and issued a license for a payment system operator for deferred net settlement based on processed credit transfers in denars in small amounts. In this way, the National Bank assessed the fulfilment of the conditions prescribed by the law and bylaws, which ensure stable and secure operations of payment system operators, as well as the professional competence and reputation of the individuals proposed as members of the management body of a payment system operator.

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

Currency in circulation

As of 31.12.2024, the total amount of the currency in circulation amounted to Denar 66,370 million, which is by Denar 9,173 million or 16%[82] more compared to the end of 2023. The structure of the currency in circulation suggests that at the end of the year, banknotes and coins make up 97.9% and 2.1%, respectively of the total value. In terms of the number of pieces of currency in circulation, the share of banknotes equals 27.6% (130.8 million pieces), and the share of coins equals 72.4% (342.6 million pieces).

Chart 87
Currency in circulation



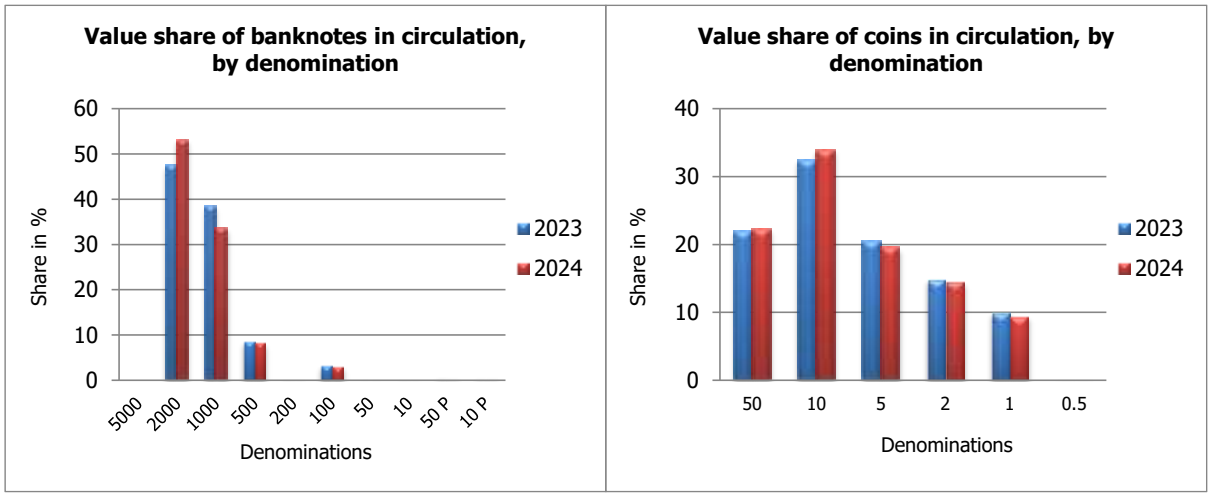
Source: NBRNM.

Banknotes in denomination of Denar 2000 (53.1%), Denar 1000 (33.7%) and Denar 500 (8.3%) account for the most of the total value of banknotes in circulation. Other banknotes account for 4.9% of the total value. In 2024, coins in denominations of Denar 10 (34%), Denar 50 (22.3%) and Denar 5 (19.6%) 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 (25.4%), Denar 1000 (16.8%), Denar 100 (15.4%) and Denar 2000 (13.2%) is the largest. Other banknotes constitute 29.2% of the total quantity of banknotes in circulation. The largest share of coins in circulation is that of the denomination of Denar 1 (38.1%) and Denar 2 (29.3%).

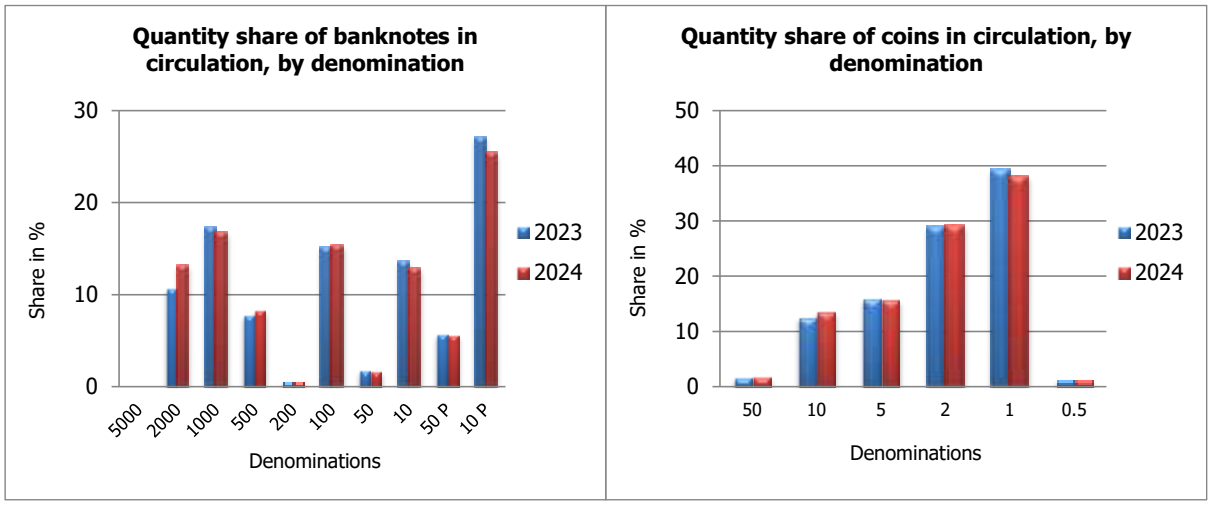
[82] The presented data on the currency in circulation do not include the quantities and value of the collector coins, which were made and put into circulation by the National Bank for artistic, cultural and promotional reasons. As of 31 December 2024, the value of the collector coins in circulation amounted to Denar 11.7 million, thus the total value of currency in circulation in 2024 amounted to Denar 66,382 million.

Chart 88[83]



Source: NBRNM.

Chart 89



Source: NBRNM.

The polymer banknotes have an insignificant share (1.2%) in the structure of issued currency in circulation relative to the other banknotes, whereby one should bear in mind their low face value. According to the quantity, the share of polymer banknotes (in denomination of Denar 10 and 50) in the total number of banknotes in circulation is more significant and amounts to 31%, taking into account their important role in retail.

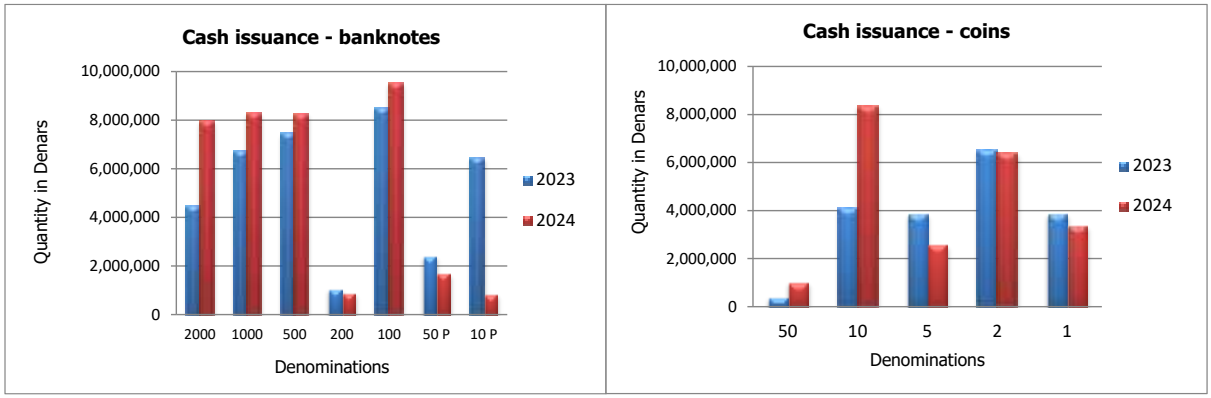
Supplying banks and cash centers with banknotes and coins

During 2024, the National Bank issued cash to banks and cash centers[84] in the amount of Denar 29,711 million (increase of 43.6% compared to 2023). At the same time, cash has been received from banks and cash centers in the amount of Denar 20,540 million (increase of 18.5% compared to 2023). The analysis of the denomination structure of banknotes and coins suggests that in the total turnover, the largest share accounts for the banknote in denomination of Denar 100 with a share of 25.9% in 2024 (i.e. 23.3% in 2023) and the most

[83] The letter "p" in the charts denotes polymer banknotes.
[84] During 2024, in the activities related to the cash supply process, the two cash centers where part of the cash operations were transferred from the commercial banks, continue to actively function.

common coin is the one in denomination of Denar 10 with a share of 43.1% in 2024 (as opposed to the denomination of Denar 2 which had the largest share in 2023 with 30.4%).

Chart 90



Source: NBRNM.

Processing and destroying banknotes and coins

During 2024, in the process of control of the quality of banknotes in circulation, a total of 31 million pieces were processed, out of which 12.7 million pieces were destroyed due to unfitness for circulation (15.4 million banknotes in 2023). Most destroyed banknotes were denominated in Denar 100 (36.7%) and Denar 1000 (30.9%). In 2024, 2.9 million pieces of coins in denominations of 1, 2, 5, 10 and 50 denars were processed, 9.5 thousand pieces of which being withdrawn as unfit for circulation.

Expertise of suspicious/counterfeit money

In 2024, 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.

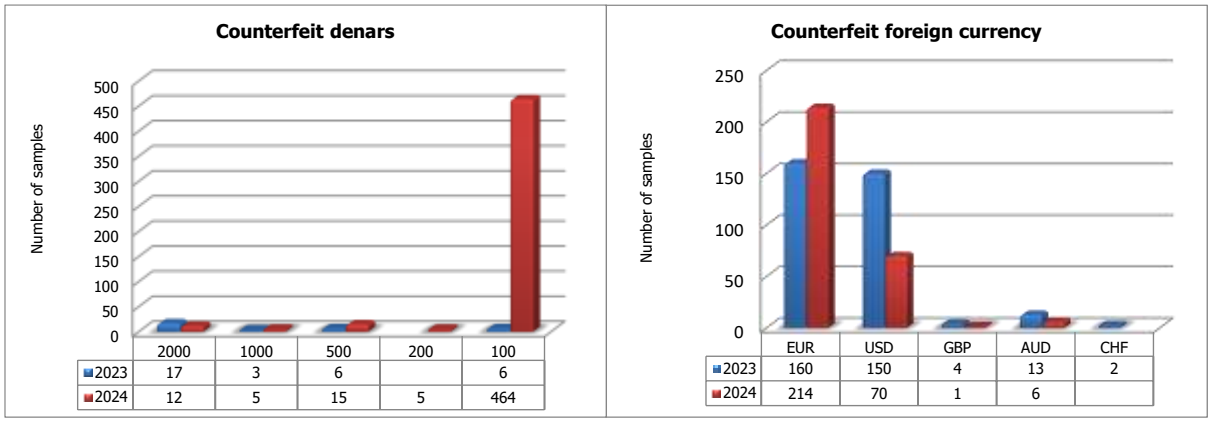
The expert analyses of the submitted suspicious banknotes denominated in denars, which are made during 2024, found 501 counterfeit samples[85], (as opposed to 32 counterfeited banknotes as determined in 2023). Of the total number of detected counterfeit banknotes in 2024, the denomination of Denar 100 - 464 pieces is the most common, or 92.6% of the total number of counterfeits, followed by the denomination of Denar 500 - 15 pieces, or 3% of the total number of counterfeits and the denomination of Denar 2000 - 12 pieces, or 2.4% of the total number of counterfeits. The majority of counterfeit banknote samples belong to the same type of counterfeit with a denomination of 100 denars. This type of counterfeit can be easily recognized by simply checking the security features that authentic banknotes with the same denomination must have. The total value of denar counterfeits amounted to Denar 83,900, which is a negligible share compared to the total value of the currency in circulation. In general, the counterfeiting of our currency is very rare, 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 based on the prescribed criteria, the National Bank in this time period performed professional expertise on 403 samples of damaged banknotes submitted by banks and cash centers.

[85] The total number of identified counterfeit banknotes does not include the counterfeits confiscated before being put into circulation.

Also, during 2024, 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 23,543 pieces of damaged banknotes/coins and withdrew 4,907 pieces of banknotes from circulation.

Chart 91



Source: NBRNM.

In terms of committed expert analyses of received suspicious banknotes denominated in foreign currency in 2024, of total 549 analyses, 291 counterfeit and 258 original money were identified. Of the total number of counterfeit banknotes, the euro banknotes (214 pieces) and US dollars (70 pieces) prevailed. The general conclusion is that counterfeit banknotes are of relatively poor quality, allowing simple and easy identification and determination of their properties[86].

As in 2022, in 2024 as well there is relatively large amount of counterfeit euro coins. In this year, a total of 6,181 pieces of counterfeit euro coins were detected, of which 4,738 pieces in denomination of 2 euros and 1,443 pieces in denomination of 1 euro. Of the other currencies, a total of 21 counterfeit coins were registered.

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 2024, a total of 11 on-site examinations were conducted, of which 7 were examinations of commercial banks and 4 examinations of cash centers.

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.

Throughout 2024, the National Bank organized 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

[86] 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.

institutions that, within their competences, perform activities aimed at prevention and dealing with money counterfeit. During this year, ten 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.

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, as well[87]. In 2024, a total of 127 pieces of collector coins were sold.

[87] 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

12 audits

22 recommendations for the internal control system

High implementation of the recommendations with a deadline in 2024

The main objective of internal audit is to support the National Bank in creating and maintaining the values of the institution, providing the members of the National Bank Council and the strategic management with independent and objective risk-based assurance, counsel, insight into the conditions and assessments.

Internal Audit Department (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.

In 2024, IAD has operated 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. In accordance with the new International Standards of Internal Auditors, in November 2024, the National Bank Council adopted a new Internal Audit Policy and Rulebook for the operations of IAD.

The operation of IAD generally complies with the Standards and the Code[88], according to the external assessment of the IAD operations, by experts from the Central Bank of the Netherlands.

During 2024, 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 2024, a total of 12 audits were carried out, giving 22 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 audits, the internal audit also performed activities for implementation of the Quality Assurance and Improvement Program in the Internal Audit Department. According to the Program, the planned activities were implemented during 2024, including an analysis of the effect on the internal acts and IAD operations resulting from the new International Standards for Internal Auditing and a periodic self-assessment of the operations of IAD.

[88] There are three levels of conformity: generally compliant, partially compliant and not comliant.

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 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 adopted the Law amending the Law on the National Bank of the Republic of North Macedonia whereby Article 64-a further specifies the formation, the authorizations and the tasks of the Committee. The Committee operations has been regulated by the Decision on establishing the Audit Committee, determining the activities within the scope of its operations and its manner of work.

The purpose of the Committee is to help the Council in fulfilling its supervisory responsibilities concerning the National Bank operating, by carrying out the following activities in its scope of work:

- Monitoring of the accounting policies and the financial reporting;
- Monitoring of the process of selection of an independent audit company, monitoring of the audit process and the work of the selected audit company;
- Monitoring of the efficiency of the internal audit;
- Monitoring of the functioning of internal control system and risk management framework;
- Monitoring of the appropriateness of the legal 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 2024, the Audit Committee held eleven 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 2023, the external auditor's plan for carrying out the audit of the financial statements for 2024, the reports on operational risk management, on the compliance and implementation of the recommendations given by the internal and external audit.

X. Human resources management

Continuous professional trainings

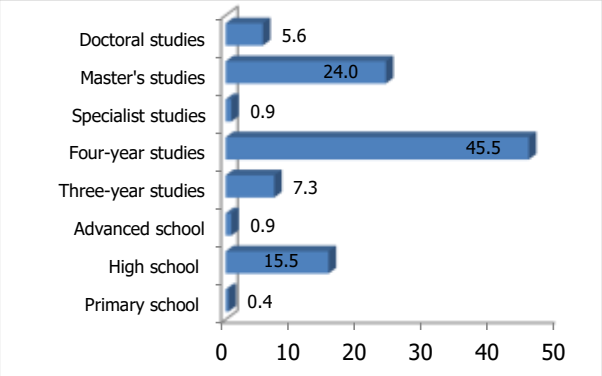
Employee care

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 2024, the number of employees[89] of the National Bank was 459, which is a slight increase compared to the end of 2023 (457 employees). As for gender structure of the employees in the National Bank, the female population in 2024 composes 56%, while the male population 44% of the total employees, as opposed to 55% of the female population, i.e. 45% of the male population in 2023.

Chart 92
Qualification structure of the employees in the National Bank according to the National Qualifications Framework of RNM (in percentages, as of 31.12.2024)



Source: NBRNM.

Employees with higher education (four-year university studies) dominate the qualification structure with 45.5%, followed by employees with master's degree with 24%. In terms of age structure, the median age of employees in 2024 was 44.2 years, identical to the median age in 2023.

During 2024, 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. For that purpose, the processes of professional development, performance evaluation and remuneration were regularly carried out. Regarding the performance evaluation process, a presentation for new employees, as well as for newly appointed evaluators, was held during 2024, in order to familiarize them with this process.

During 2024, 531 professional training courses were attended in the country and abroad, versus 835 last year. This substantial decrease is largely due to the trainings organized by domestic organizers (a decrease from 543 to 200), whereby according to record for the professional trainings in 2023, for the first time, mandatory cybersecurity trainings, as well as the trainings for safety and health at work were included. During 2024, professional trainings

[89] The total number, including those hired through temporary employment agency, was 466. The charts in this section take into account the total number of employees.

organized by foreign organizers registered a more moderate increase from 292 to 331, i.e. by 13.4% more compared to the previous year.

Chart 93
Number of professional training courses in the country and abroad

	2022	2023	2024
Foreign organizers	201	292	331
Domestic organizers	97	543	200

Source: NBRNM.

Also during 2024, a large number of trainings were organized with a physical presence, although a lot of them were in virtual format. In 2024, the number of employees who attended professional training course was 145, which is by 9.7% less compared to the previous year (159 employees). The high attendance at professional training events is due to the fact that some organizers allowed participation of several participants in the same event, as well as the fact that professional training in virtual format with foreign organizers does not incur costs for the National Bank, with the number of trainings organized with physical presence has also registering an increase. 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.

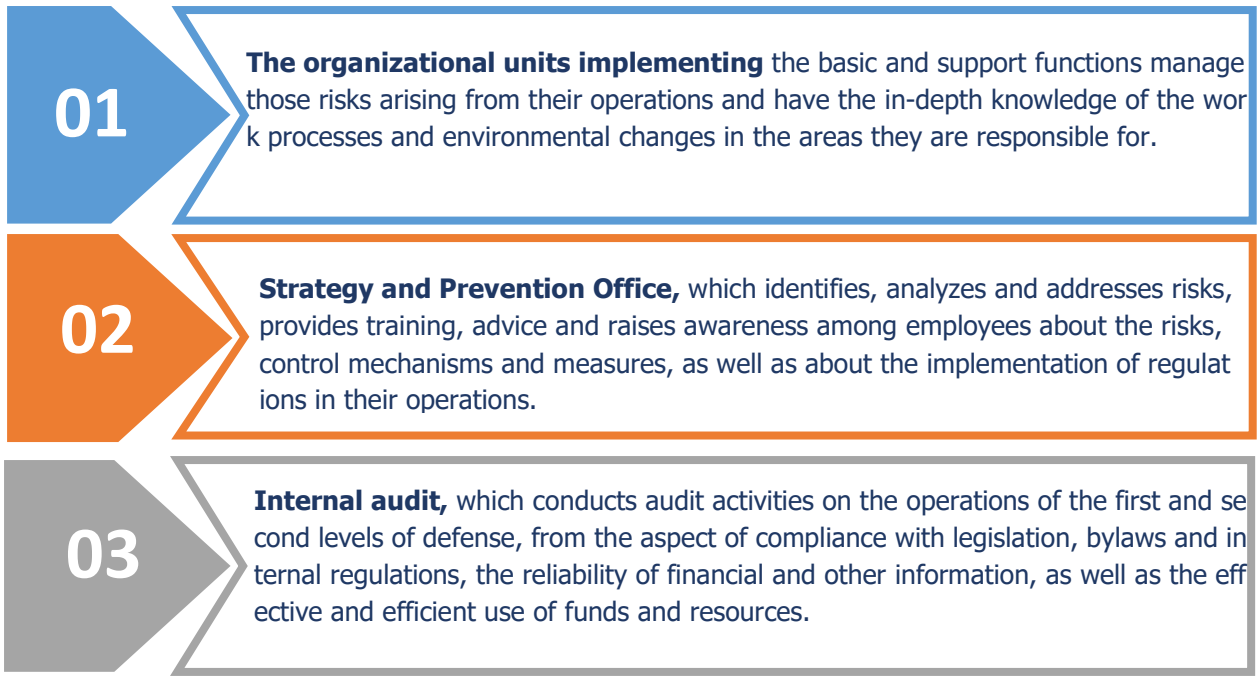
In 2024, internal training was organized in accordance with the needs of the organizational units in the National Bank, namely professional internal training for "SQL-server" and "SQL-transact" in the field of data science, which was carried out with an internal lecturer, i.e. an employee of the National Bank. The National Bank encourages continuous learning and development of employees, especially young staff. To this end, internal training was organized during 2024 to improve the soft skills of employees. In 2024, the total number of completed professional education related to the acquisition, i.e. maintenance of certificates, membership fees and other courses and training for the acquisition or maintenance of certificates, as well as master's studies, was 89 and recorded an increase compared to 2023, when there were a total of 81.

Throughout 2024, a total of 19 interns (two of which were from foreign universities) were engaged in the process of practical work in the National Bank (with increased interest among interns in the IT area).

XI. Risk management in the National Bank in 2024

The risk management is a necessary element of good corporate governance, which contributes to the efficient achievement of the strategic goals, mandate and vision. During its everyday activities, the National Bank is exposed to strategic, operational or financial risks, stemming from both internal or the external environment. Having in mind the importance of the risk management, the National Bank, in the new Strategic Plan for 2022 - 2024, specified the strategic goal for strengthening the risk management[90].

In conformity with global standards, as well as the precise definition of employees' role for active risk management, corporate governance at the National Bank is based on **the three-line model**, namely:



Strategic risks

As an institution that carries out several activities of public interest, the National Bank pays special attention to the strategic risks, which arise from the changes in the business environment. In this regard, the National Bank, like other central banks, faces a constant challenge to cope with and take into account the changes in the society, domestic economy and the trends in the global economy, in achieving its goals. Especially in a time of rapid change in global terms, as a result of the processes of globalization, digitalization, innovation, climate change, and geopolitical tensions, the mandate and responsibilities of central banks are constantly evolving and expanding. In 2024,the National Bank managed the strategic risks through constant monitoring of the internal and external environment and taking timely measures, on which it regularly informs the market users, the stakeholders and the general public through the press releases, speeches, interviews and announcements, as decisions of the Operational Monetary Policy Committee (OMPC)/ Monetary Policy Executive Board[91] and

[90] More details on the risks in the Strategic goal 9 -Strengthening the National Bank risk management.
[91] With the amendments to the Law on the National Bank of 10 April 2024, the Operational Monetary Policy Committee is abolished, with the Executive Board being established instead.

the National Bank Council. This ensured a high level of confidence and maintenance of the long-standing reputation of the National Bank, as well as accomplishment of the strategic goals, mandate and vision as a central bank.

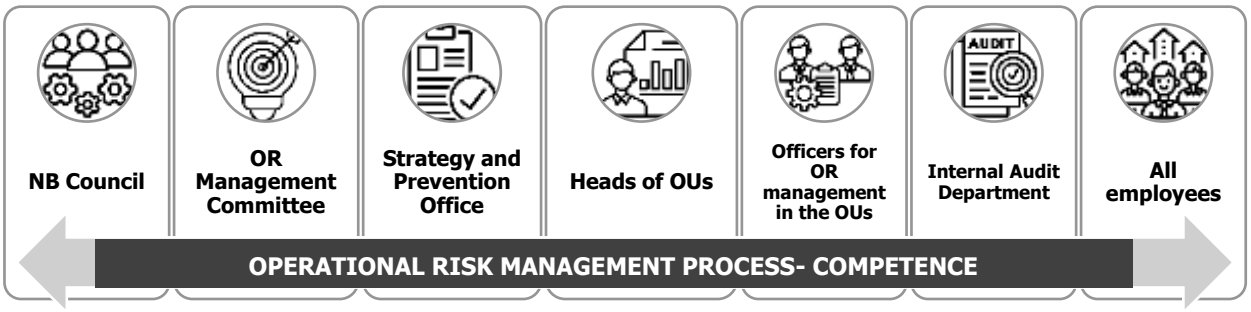
Operational risks

With the Operational Risk Management Policy[92] of the National Bank provides a system of coordinated, comprehensive and systematic operational risk management in order to determine the events that may affect the functioning of the National Bank, maintenance of the exposure to risks within acceptable limits and effective accomplishment of the objectives. The National Bank defines the operational risk as a probability of occurrence of material or non-material damage, i.e. occurrence of negative effects on the work, health and lives of employees, financial result and reputation, and thus the achievement of the strategic objectives of the National Bank, under the influence of a number of specific risk events arising from the people management, working processes, infrastructure, information systems, communication, regulations and changes in the environment.

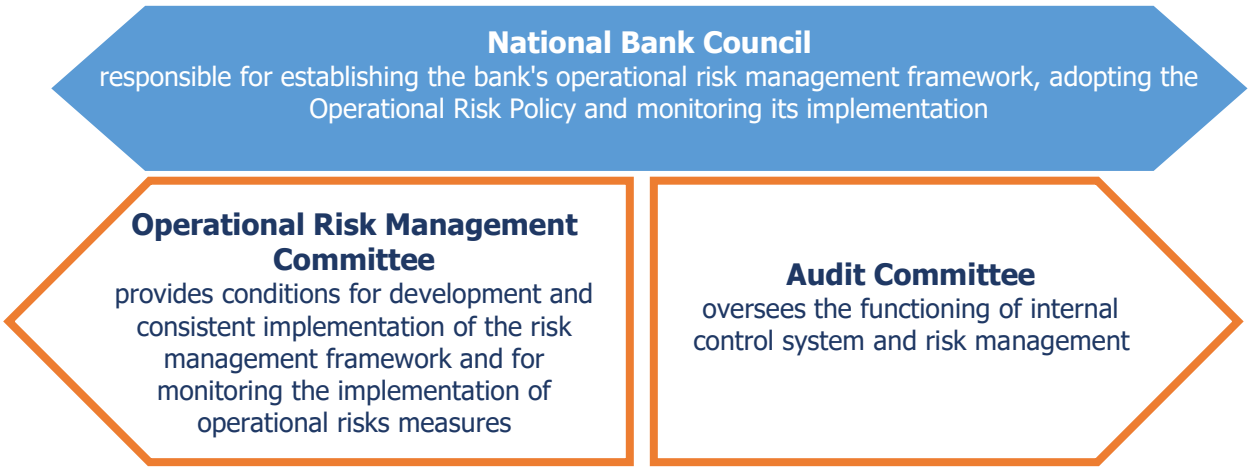
The process of managing operational risks in the National Bank is set on a centralized basis, in terms of the application of methodologies and reporting system, but is dispersed in terms of its implementation.

[92] The Operational Risk Management Policy is based on the practices and standards prescribed by the international standard COSO II ERM, Enterprise Risk Management - Integrated Framework, the risk management standard ISO 31000:2009, the principles of the Basel Committee on Banking Supervision, and the experience of several central banks.

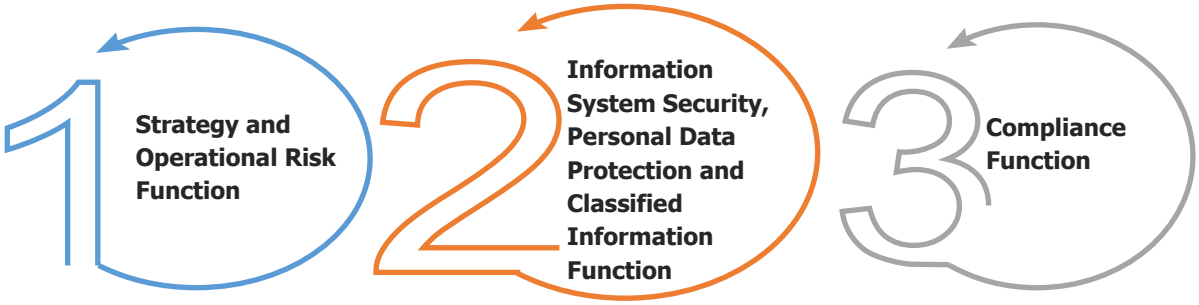
Operational risk management organization



Several organizational levels in the National Bank will implement operational risk management, with the tasks and responsibilities being allotted to:



The Strategy and Prevention Office encompasses **three functions**[93]:



The main benefits of developing an operational risk management are: **better decision-making**, **increasing efficiency** and **better forecasting and optimizing disposable resources**. With the operational risks due diligence for 2024, the National Bank updated the work processes register and their urgency, identified the sources of the operational risks and the potential risk events, the risk profile, set forth a strategy and action

[93] The competence and tasks of the individual functions (Strategy and Operational Risk Function, Information Security, Personal Data Protection and Classified Information Function and Compliance Function) are discibed in are described on the website of the National Bank in the Corporate Governance section.

plan with risk management measures, reporting and monitoring. The National Bank regularly monitors exposure to operational risks (the human factor, management and implementation of work processes, information systems and external factors) and actively manages and implements the determined measures and activities, the aim of which is reduction of potential operational risks.

In 2024, the risk profile of the National Bank was medium to moderate, and compared to 2023, it improved, resulting from an increase in the number and structural share of work processes assessed in the two lower risk categories[94] (low and moderate level) in the total number of assessed work processes. The National Bank proactively worked on the implementation of the envisaged measures and activities to reduce operational risks. Namely, in 2024, measures aimed at minimizing the likelihood of materialization of events that would disrupt the performance of tasks and which would potentially result in financial losses or a negative impact on the reputation of the National Bank were regularly monitored.

Operational risk tolerance

In accordance with the operational risk management framework, the operational risk tolerance represents the readiness of the National Bank to accept the identified residual risks, in order to achieve the strategic goals.

According to the Operational Risk Policy, the following operational risks are unacceptable to the National Bank:

- failure to deliver on the goals and tasks envisaged by the Law on the National Bank,
- causing a significant damage to the interests of the National Bank, the country and the citizens,
- infridgment of regulations,
- incurring significant financial loss,
- jeopardizing the reputation with long-term effects on credibility, as well as
- jeopardizing people's health and life.

Financial risks

The financial risks the National Bank is exposed to relate mostly to placements of the foreign reserves of the Republic of North Macedonia, and may also arise from the conduct of the monetary operations.

The risk management framework in the foreign reserves management and investment is defined in the Foreign Reserves Management and Investment Policy and aims to set limitations and control mechanisms for the individual types of risks, in order to enable efficient achievement of the goals in the foreign reserves management and investment.

[94] According to the Operational Risk Management Policy, operational risks are divided into risk zones based on the probability of occurrence and potential negative impacts (effects) of the risk event, as follows: low, moderate, medium and high.

In 2024, amid the gradual normalization of monetary policy by central banks, volatile movements were observed in international financial markets, with the exposure to interest rate risk of foreign reserves being significantly lower than the acceptable level of interest rate risk. Currency risk was managed by maintaining an appropriate currency exposure with a dominant share of euros in foreign reserves in accordance with the monetary strategy for a stable nominal exchange rate of the denar against the euro. The liquidity of foreign reserves was ensured by a balanced approach to investments, i.e. through investments in longer-term safe debt securities for which there is a deep and liquid secondary market and, at the same time, short-term placements with central and commercial banks with a high credit rating. In addition, the National Bank applied a prudent and active approach of foreign reserves management, which included orientation towards the safest financial instruments, in order to meet the foreign reserves safety principle.

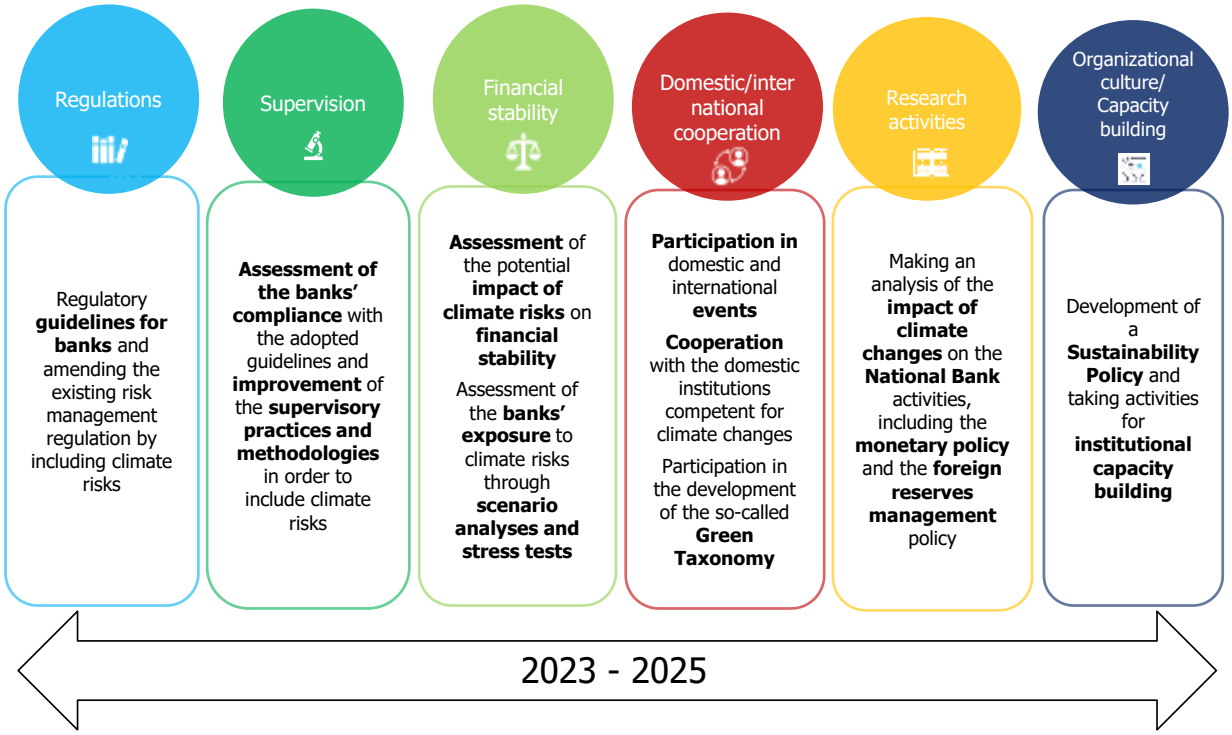
In 2024, the National Bank was not exposed to financial risks from monetary operations related to providing denar liquid assets to the banking system, given that banks and savings houses had no need for these instruments.

Climate risks [95]

The activities undertaken by central banks to mitigate the unintentional economic consequences of climate change, including the effects on financial systems, are becoming increasingly important. By including the special strategic objective - **Raising awareness of climate change and contributing to a sustainable green economy** in the Strategic Plan for 2022 – 2024, the National Bank, as a socially responsible institution, has demonstrated its clear and firm commitments to contribute, within its competences, to the development of risk management in the financial sector arising from climate change.

[95] More details in Strategic goal - 8 -Rising awareness of climate change and contributing to a sustainable green economy.

For that purpose, the Action Plan for climate risk management for the period 2023-2025 presents the medium-term activities of the National Bank related to:



So far, the National Bank has conducted several activities that include analyses of the banking system's exposure to physical and transition risks arising from climate change and which are a separate part of the National Banks's Financial Stability Report collecting statistical data on green loans, issuing guidelines for commercial banks on how to incorporate climate risks into their strategies, publishing an overview of green indicators to more easily monitor progress on climate goals, and activities are underway to prepare a methodology for macrostress testing of climate-related risks. In order to assess the banks' readiness for the implementation of the Guidelines for the manner of managing climate-related risks, in 2024, banks carried out a self-assessment and prepared action plans with specific activities in order to achieve compliance with these Guidelines. The adjustment of the supervisory approach is underway by incorporating climate-related risks into the Methodology for the Supervisory Risk Assessment Process.

Climate change and the transition to a green economy create financial risks and economic consequences, which may affect the value of foreign reserves, i.e. on the market value of the instruments foreign reserves are invested in, especially longer-term investments. 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 on the longer run. The process of managing these risks arising from the foreign reserves placements began in 2023 with their identification, monitoring and measurement, while the final phase - managing risks and incorporating them into investment decisions would follow accordingly, by adopting the best practices in this area. When manage the foreign reserves, the National Bank evaluates the physical and transition climate risks. Moreover, from the aspect of the physical risk, the National Bank has the greatest exposure yes to the European countries, with the models indicating an increased physical risk as a result of floods, forest fires and water overflow in the coastal regions. 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 stays in the atmosphere the longest.

In 2024, the work on the first National Bank's Sustainability Policy was underway, which is in the finalization phase. In line with the international standards and regulations, the Policy was focused on the improvement of the operational efficiency of the operations of the National Bank, defines the key performance indicators (KPIs) and sets the sustainability objectives with an emphasis on transparency.

Report on the implementation of the Plan of Activities for 2024

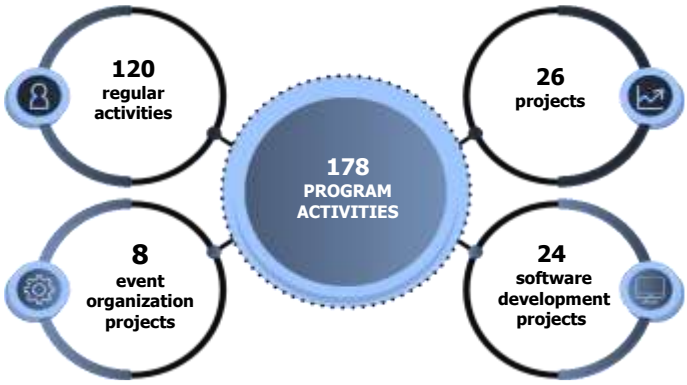
НАРОДНА БАНКА – зграда на филијала во Скопје

XII. Implementation of the Plan of Activities for 2024

Introduction

During 2024, 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 the implementation of the planned program activities and projects in the Plan of Activities of the National Bank for 2024 (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 178 program activities, which mainly refer to the regular work processes that directly relate to the *strategic goals* and *institutional capacities* of the National Bank.

STRATEGIC GOALS

1. Improving monetary policy infrastructure
2. Maintaining and further strengthening of the banking system stability and resilience
3. Supporting households and the corporate sector by developing reliable, innovative and efficient payment systems
4. Improving the investment policy and ensuring optimum return on foreign reserves in accordance with the security and liquidity
5. Adherence to the standards of the European System of Central Banks
6. Increased transparency and accountability
7. Financial education and inclusion
8. Raised awareness of climate change and contribution to a green sustainable economy
9. Strengthening of the risk management across the National Bank

IC1 Integrity and trust in the national currency → IC2 Human Resources → IC3 Information system → IC4 Statistical data → IC5 Research

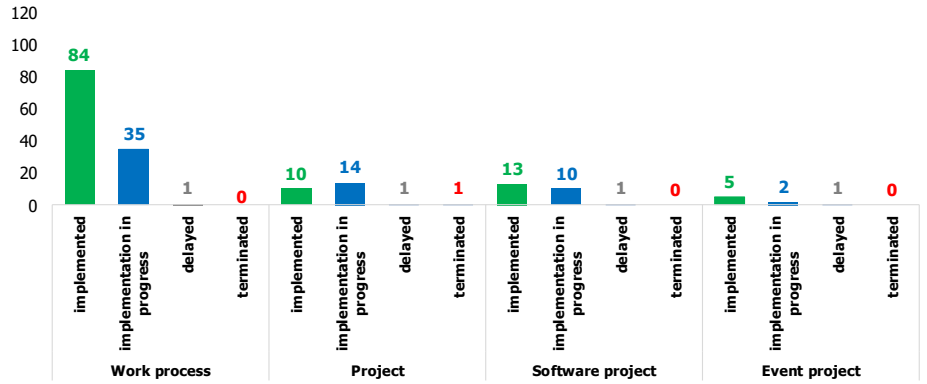
In 2024, in addition to the regular work processes, it was also worked on several projects enabling introduction of changes in the operations such as increasing the efficiency, quality, transparency and reliability, compliance with the new legal requirements, European regulations, international standards and the requirements of the International Monetary Fund.

Chart 94

Performance status of the Plan of Activities at the end of 2024

01.01.2024 Initial date	31.12.2024 Final date	National Bank Implementation status of the Plan of Activities for 2024			
Implementation of program activities for 2024		Implemented: 112	Implementation in progress: 61	Delayed: 4	Terminated: 1

Implementation status by type of program activity:



Implementation status by type of program activity:

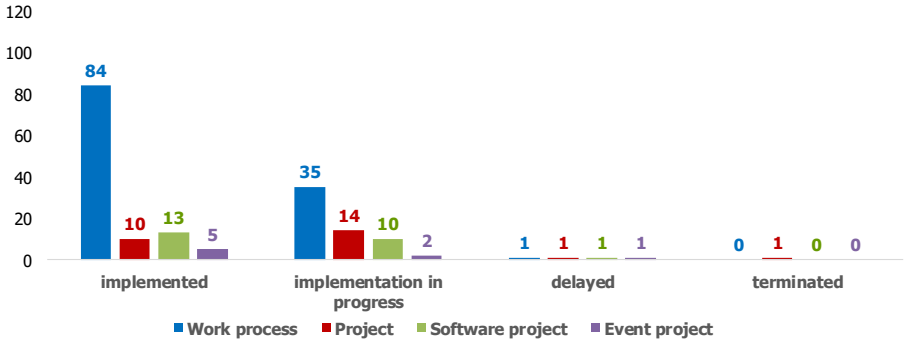
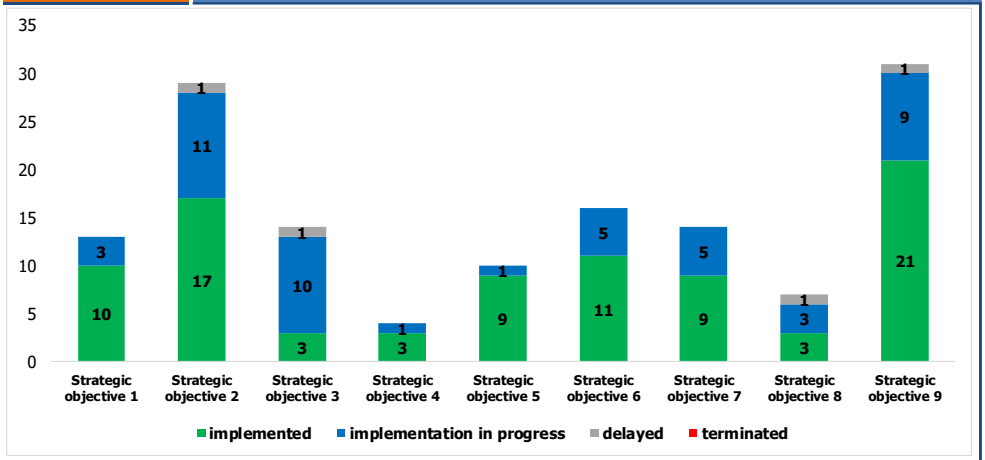


Chart 95

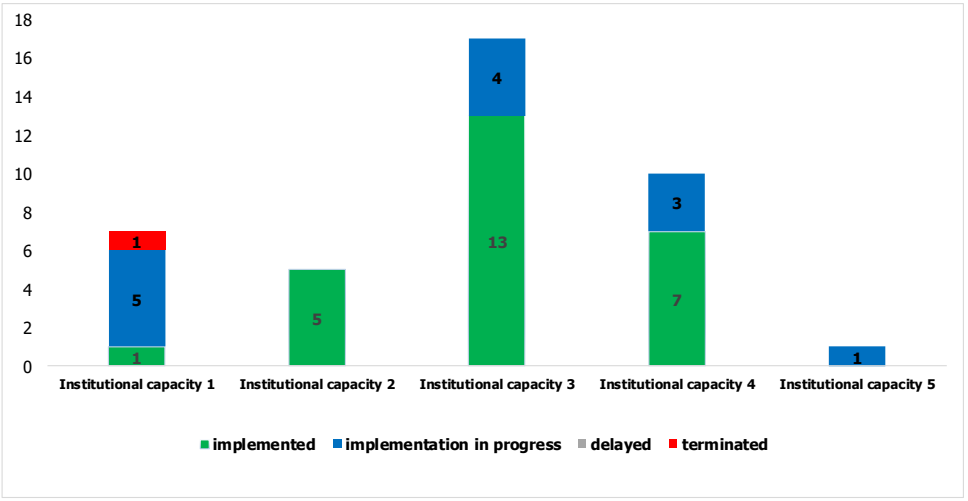
Performance status of the activities, by strategic goal and institutional capacity

01.01.2024 Initial date	31.12.2024 Final date	National Bank Implementation status of the Plan of Activities for 2024

Implementation status of the program activities, by strategic goal:



Implementation status of the program activities, by institutional capacity:



Performance

"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"

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

Long-term price stability and stable denar exchange rate

Historically highest level of foreign reserves and their secure and liquid management

Improving the legal framework, supervisory capacities, stability and resilience of the banking system

A secure and efficient payment system and ensuring faster, more efficient and cheaper cross-border payments in euros through SEPA membership

Contribution and commitment to integration into European institutions

Improvement in the monitoring of security events and incidents and resilience of the information system against cyberattacks

Strengthening the resilience of the banking system from climate risks and increasing awareness of climate change and building internal capacities related to the impact of environmental, social and governance factors (ESG)

Effective and high-quality consumer protection, commitment to increasing financial education and inclusion

Improved transparency, enhanced communication with the public and increased availability of information

Implementing the highest standards of corporate governance and setting the main strategic areas that will be gradually addressed over the next three years

Strategic goal 1 - Improving monetary policy infrastructure

In 2024, the National Bank was committed to the strengthening and improvement of analytical abilities, i.e. on strengthening the capacities for macroeconomic analyses and forecasts, for the purpose of further successful monetary policy conduct. For that purpose, the National Bank **regularly informs the public about the monetary decisions made**.

Within the activities for **preparing macroeconomic forecasts**, during 2024, a routine examination of short-term forecast models was performed, with some of the current models being rationalized, at the same time taking into consideration the possibility to work on setting up new models, examining also the implementation of the machine learning GDP models. Within April and October forecasting round, forecasts with the latest MAKPAM model were made, making also a forecast adjusted to the needs of the macro stress-testing scenario of the Financial Stability and Macroprudential Policy Department.

The databases, which were regularly updated, used for analyzing the sustainability of public and external debt, balanced real exchange rate and monetary transmission, used in making monetary policy decisions, have been reassessed. 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 has been preparing its **regular reports** (the Latest Macroeconomic Indicators, the quarterly reports, as well as the Annual Report on the operations of the National Bank). In addition, a number of analytical materials on trending issues in the field of macroeconomics were also prepared, publishing also macroeconomic analyses 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, with the Survey on the business plans of the largest exporters and importers being conducted on two occasions. At the same time, one-time surveys were conducted aimed at assessing the impact of certain regulatory changes in the area of environmental standards on the domestic corporate sector.

The National Bank regularly conducted monetary operations, relying entirely on monetary instruments to withdraw liquidity from the banking system. In accordance with the planned activities for **modernization of the operational monetary policy** framework, the reserve requirement system was actively used to further support the denarization process in the banking sector and support long-term savings in the banking system through greater differentiation of reserve requirement rates from a currency perspective and the introduction of single reserve requirement rates by maturity that apply to all sectors. In addition, in order to further **align the reserve requirement system with the ECB practice**, a single reserve requirement framework was established for all institutions (banks and savings houses) that collect deposits and contribute to the transmission of monetary signals through credit activity, while ensuring equal access for these institutions to all credit operations of the National Bank that ensure liquidity in the banking system. The secondary legislation in the field of monetary policy implementation was also aligned with the changes in domestic legislation, allowing for flexible and legally compliant operations.

The exchange rate was maintained at a stable level, with the National Bank's active contribution to flexible management of the banking system's foreign exchange liquidity and the purchase of excess foreign exchange on the foreign exchange market. Analytical data for monitoring foreign exchange market trends and the behavior of supporting banks were also supplemented.

Strategic goal 2 - Maintaining and further strengthening of the banking system stability and resilience[96]

During 2024, the National Bank focused on maintenance and further strengthening of the stability of the banking system, which is resilient to external and internal risks.In addition, it was worked on improvement of all elements in the field of banking operations and supervision, and in accordance with the domestic law and the provisions of the European Union directive.

The well-set **legal framework** and its consistent implementation is a very important link in the activities for fulfillment of the tasks and goals for maintaining **the stability of the banking system and for the overall financial stability.** Therefore, during the year, several new legal and by-laws were drafted and improved, including: a new Banking Law (the drafting and adoption of which is related to the adopted Bank Resolution Law), by-laws and decisions thereof, amendments to the Decision on reports and data disclosure by banks[97], amendments to the Banking Law and the Law on Foreign Exchange Operations for the purpose of harmonization with the Law on Payment Services and Payment Systems, primarily in the area of financial activities and in the provisions regulating the operations of savings houses. In order to achieve greater harmonization and comparability of data and information disseminated by banks and savings houses, in October 2024 the National Bank adopted **Instructions for prescribing reports and data forms,** which finalized the bylaws of the National Bank related to the requirements for disclosing reports and data by banks.

The resilience of the banking system to shocks was continuously monitored, quarterly stress tests for sensitivity were regularly conducted, **and the macro stress-testing framework was upgraded** by applying the recommendations of the International Monetary Fund's mission. Liquidity stress testing was conducted using the LCR indicator[98]. During 2024, one annual and three quarterly reports were prepared and published to monitor developments and risks in the banking system. The Financial Stability Report was also prepared, providing a review of risks in all segments of the financial system, the environment and the non-financial sector – households and enterprises, including the real estate market. During the year, in cooperation with the World Bank, sustainability of companies and their debt was assessed, which is the first such study in our country, and in the region. In cooperation with the EIB, a survey was launched towards the end of the year in order to obtain information on the level of application of ESG standards by domestic companies. During the year, early warning indicators were updated, and it was also worked on establishing a methodology for determining a single indicator of systemic stress following the example of the ECB. Preparations in form of strengthening the existing capacities for conducting the climate stress test were also undertaken

[96] Some of the activities related to monitoring climate risks from the perspective of financial stability and improving supervisory practices and capacities are included within the framework of strategic objective 8 – Increased awareness of climate change and contribution to a green sustainable economy.
[97] With the amendments to the Decision on reports and data disclosure by banks (Official Gazette of Republic of Macedonia No. 179/2024), the date for publishing data on capital adequacy ratios prescribed by the National Bank in accordance with the Banking Law, as well as data on capital buffers, is postponed, the deadline for disclosing data for the first quarter is postponed, and the need for publishing interest rates at which banks offer their products and services is added.
98 Liquidity coverage ratio.

The need and conditions for introducing/canceling **macro-prudential measures** and the effects of the introduced macro-prudential measures were regularly monitored. Within this framework, a quarterly reassessment of the level of the countercyclical capital buffer rate[99] was conducted, indicators for assessing systemic risk were monitored, as well as the implementation of measures aimed at borrowers.

The **FinTech Working Group,** composed of representatives of the country's financial regulators, held two meetings to agree on the manner of preparing the survey on innovations in the financial system and opportunities for the development of the FinTech sector in the country. The results of the survey will serve as the basis for preparing the Report on the Digital Transformation Progress in the Financial System.

During 2024, **the off-site supervisory activities** were carried out regularly, corrective measures against banks and savings houses were imposed, while their implementation monitored, the regular annual meetings with the external audit companies were held, performing also activities for licensing banks, savings houses, exchange offices and payment institutions. Communication with interested non-bank payment service providers continued throughout the year, when the first five payment institutions were licensed. Activities continued in cooperation with international institutions to promote the use of stress testing in the supervisory risk assessment process, as well as to improve supervisory capacities and practices in the area of climate risk assessment and communication with banks to improve their practices.

The annual on-site supervision plan was carried out without interruption, with five partial on-site examinations and three thematic inspections (two of which at all banks at the banking system level, and one at systemically important banks) and 158 inspections at authorized currency exchange offices. The current methodological framework for risk assessment was also upgraded through the improvement of internal procedures for individual risk assessment with commercial banks, which included alignment with the latest changes in legal and regulatory regulations, as well as with the rules of the European Central Bank.

Table 3

1.1.2024-31.12.2024				
Type of entity	**Total number of entities**	**Number of on-site supervisions**	**Number of thematic controls**	**Number of controls in the sphere of preventing money laundering and terrorist financing combined with controls on other risks**
FINANCIAL SECTOR				
Banks and savings houses	13 banks and 2 savings houses	5 banks	3	4 banks
Money transfer providers and licensed exchange offices	250 licensed exchange offices (together with banks 262)	158 licensed exchange offices	/	158 licensed exchange offices

[99] On several occasions during 2024, decisions were made on the level of the countercyclical capital buffer rate – up to 1.75% applicable from the first quarter of 2026.

In December 2024, the National Risk Assessment Report (NRA) was completed and adopted by the Government of the Republic of Macedonia. Supervisors from the National Bank made significant contributions to the development of the NRA, as well as the further improvement of the framework for anti-money laundering and terrorist financing at the state level, in accordance with the recommendations of the last Moneyval assessment mission, as well as the findings and assessments of the last NRA. In line with global trends, and as part of the medium-term activities, activities are being undertaken to establish the supervisory framework and improve the capacities of staff to assess climate risks.

In 2024, **the Information Systems Supervision Office** carried out its planned on-site examination for managing the IT risk in accordance with the adopted annual plan for 2023. Regular on-site activities were conducted through annual assessment of the aggregate level of IT risk, as part of the assessment of the overall risk profiles of banks, preparation of a register for monitoring the movement of assessments from the conducted annual assessment of banks, and active participation in licensing procedures. The activities related to the analysis of the current legislation covering the information security area continued in accordance with the latest recommendations and amendments to EU regulations.

Strategic goal 3 - Supporting households and corporate sector by developing reliable, innovative and efficient payment

In 2024, the National Bank was continuously monitoring the consistent implementation of the new **legal framework** in the payments sector, which gives better support to both households and corporate sector through the introduction of new technologies and innovations. The **security and stability of the payments infrastructure** was continuously maintained, for the purpose of efficient settlement of transactions concluded for the implementation of monetary policy and the management of foreign reserves.

The intensive activities in the past few years to align the domestic legal framework in the payment area with the Acquis laid the foundation for starting the process for the country's integration into the Single Euro Payments Area (SEPA). Hence, on 6 March 2025, **the European Payments Council accepted our country as the 39th member of SEPA,** which is a key step forward for the further development and integration of the domestic financial system into the European economic area.

The SEPA membership will bring numerous benefits for: **citizens, companies and overall economy,** by enabling faster, more efficient and cheaper euro cross-border payments to and from SEPA member countries, simplified procedures, greater transparency and enhanced consumer protection.

The **oversight of operations** of payment system operators was carried out in time and with high-quality, in order to ensure safe, stable and efficient operation of payment systems. In May 2024, a license was issued to one company for the management and operation of a payment system for deferred net settlement based on processed credit transfers in denars in small amounts up to 1 million denars.[100] In 2024, the National Bank, as part of its operational role, has organized the work of back office operations in safe and smooth manner, providing payment services to the Government and government authorities, especially taking

[100] This payment system, in accordance with the Law on Payment Services and Payment Systems, is registered in the register of payment system operators.

into account the strengthening of the legal framework by concluding new framework agreements for the provision of payment services in accordance with the Law on Payment Services and Payment Systems and improving the systems and procedures for monitoring payments from the aspect of preventing money laundering and terrorist financing.

In the domain of back-office operations, in addition to timely and efficient settlement of transactions related to the implementation of monetary policy and the management of foreign reserves, activities related to the rationalization of foreign securities maintenance costs were also performed, while in the area of payments to foreign financial institutions, preparations and testing of messages were made in accordance with the new ISO20022 standard for electronic data interchange between financial institutions for message processing via SWIFT.

The National Bank continued its 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 well as the digital form of our sovereign currency, the denar.

Strategic goal 4 - Improving the investment policy and ensuring optimal return on foreign reserves in accordance with the security and liquidity

Foreign reserves were managed efficiently in 2024, with an optimal balance between the principles of security, liquidity and management return, with the tactical positioning being revised throughout the year, according to the market conditions and expectations. Observing by type of instruments the foreign reserves are invested in, most of the assets were still placed in securities with high credit rating. **By applying the already permitted investment opportunities and advanced tools for financial market analysis, market conditions were used and a new type of transactions**, covered currency swap agreements was initiated, which provided protection against market risks. The amendment to the Law on the National Bank **enabled widening of the scope of instruments** in which foreign reserves can be invested with shares in investment funds registered abroad and debt securities issued by non-financial corporations, with the by-laws also being adjusted. In formulating the tactical positioning of foreign reserves, the best practices for analyzing financial markets and instruments were fully applied and **the analytical tool that provides direction for changing or maintaining the investment positioning was improved.**

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

During 2024, the National Bank continued with the activities related to its strategic commitment for adopting **the best European practices.** During the year, NBRNM representatives also 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 and the meetings for 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. At the request of the National Bank of Ukraine, and organized by the National Bank of Croatia, representatives of the National Bank participated in a virtual technical cooperation meeting at which the experiences of the NBRNM from the bilateral phase of the analytical review of compliance with EU legislation were shared. In the last quarter of the year, the regular Report

on the participation, recommendations and activities of the National Bank in the EU integration processes in the period November 2023-October 2024 was prepared and submitted to the National Bank Council.

During 2024, the implementation of the second phase of the Regional Program for Central Banks of the Western Balkans II, which is funded by the EU and is scheduled to last until September 2025, continues. 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.

seven trainings
in the area of: banking regulation and bank resolution, consumer protection and financial education, accounting, statistics, EU integration and legal affairs, monetary policy and research, and payment systems

two high-level workshops
in the area of payment systems and vault operations

two bilateral measures
in the area of IT and accounting

- ✓ Implementation of the **bilateral measure** in the area of management continued
- ✓ Implementation of two bilateral measures in the area of consumer protection and statistics starter
- ✓ Four meetings of the Regional Program Steering Committee were held, which were attended by representatives of the National Bank

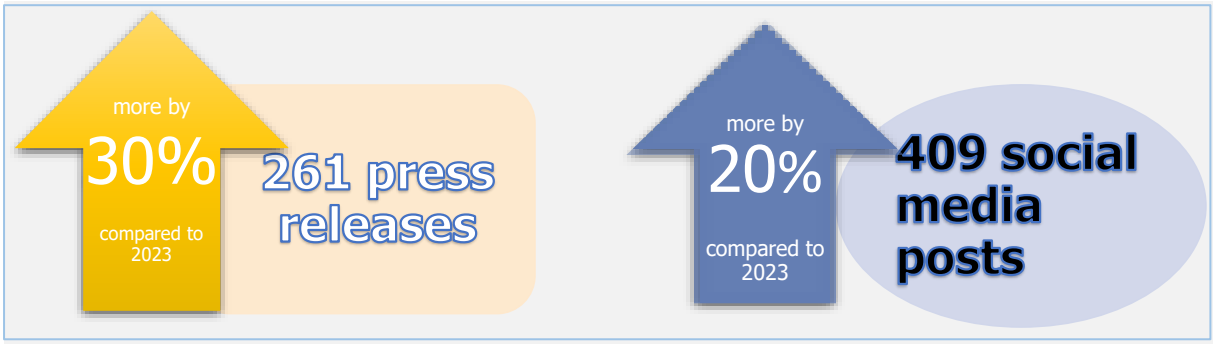
During the year, in coordination with the DEU, activities for the selection of a contractor for the project **Strengthening the National Bank capacities to deal with external statistics**[101] **and payment systems and statistics**, which are in the final phase. The project is intended for further harmonization with the EU legislation and upgrading of statistical capacities by establishing a statistical data warehouse and introduction of a new real time gross settlement system based on the new ISO20022 standard. Representatives of the National Bank and cooperation with the State Statistical Office and Eurostat, participated in meetings and workshops in the field of statistics, under **the Multi-beneficiary Statistical Cooperation Programme IPA.** In addition, the National Bank conducted activities to harmonize the deadlines for dissemination and submission data to Eurostat in accordance with EU requirements and with the commitments undertaken within the bilateral phase of the analytical review for the monthly balance of payments (BOP) and the international investment position

In 2024, the bilateral technical cooperation between the NBRNM and EU central banks continued, aimed at strengthening of the institutional capacity of the National Bank and its preparation for joining ESCB. The National Bank achieved a bilateral technical cooperation with the regional central banks, thus exchanging experiences in terms of the role and the obligations of central banks in the EU integration processes. In addition, the National Bank continues its successful cooperation with the institutions of the World Bank Group, which is a significant international organization that provides support in key areas of the National Bank's operations.

[101] This project is funded by IPA III and includes the Statistics Department and the Payment Systems Department in cooperation with the IT Sector.

Strategic goal 6 - Increased transparency and accountability

In 2024, the National Bank also demonstrates a **strong commitment to transparency and accountability,** through enhanced communication with the public, the media, the banking sector, the academic community, the non-governmental sector and other target audiences. In doing so, communication with the public took place on a daily basis, paying particular attention to understandability and expediency. The main channel of communication was our website, where public announcements, information and data related to the competences of the National Bank are posted.



Greater communication activity was observed during the traditional **Annual International Conference**, which attracted prominent participants from the financial sphere, including central bank governors and experts. The theme of the Conference was related to central banks in a complex world, with an emphasis on central bank independence and risk management. During the annual conference, greater communication with the public was achieved, both by the National Bank and by the participants of the Conference, who gave a high rating to the National Bank in terms of its efforts to preserve macroeconomic stability.

In addition to communication through press releases, the National Bank is organizing two workshops dedicated to new technologies and their challenges, specifically cyber resilience, which is among the greatest threats today[102]. Through numerous educational activities and digital campaigns, the National Bank contributes to the financial literacy of the public, as well as to education in the field of museum work. In addition, infographics are published that serve to visualize and bring statistical data and other relevant information closer to the general public. The involvement of various target groups has contributed to expanding the scope of the public addressed by the National Bank.

The Annual Financial Statements of the National Bank for 2023, prepared in conformity with IFRS and approved by the National Bank Standards, together with the opinion of the independent external auditor, were published on the website of the National Bank and in the Official Gazette of the Republic of North Macedonia on 3 April 2024. Also, in accordance with the provisions of the Law on the National Bank, on 27 March 2024 they were submitted to the following four institutions: the President of the Republic of North Macedonia, the Assembly of the Republic of North Macedonia, the President of the Government of the Republic of North Macedonia and the Minister of Finance.

[102] Workshop with the **representatives of the banking sector**, which discussed the need for cooperation and development of global standards for cyber resilience of the financial sector, strengthening of the regulatory framework, exchange of information and experiences and increasing the digital literacy and awareness about the risks for users of financial services. In addition, a **workshop on the digitalization of financial Services and their application in the banking sector** is being organized, at which journalists had the opportunity to be trained to better understand the threats and measures being taken to strengthen cyber resilience.

Within ten working days after the end of each calendar month, the National Bank prepared and published a balance sheet as of the end of the current month on the website of the National Bank and submitted it to the Minister of Finance, in accordance with the Law on the National Bank.

On a quarterly basis, at meetings of the Asset and Liability Management Committee of the National Bank (ALMC), reports on the implementation of the Financial Plan and the Fixed Asset Investment Plan for 2024 were reviewed and analyzed, with the measures for better implementation of the plans being proposed and reports for further discussion and informing of the National Bank Council

In 2024, the web-site of the National Bank, in the area of financial stability, was upgraded by significantly expanding the scope of information on the importance of financial stability, macroprudential policy, the competencies of the National Bank and macroprudential instruments, thus contributing to better informing the public. To improve **transparency and enable timely information to market participants**, a new Indicative Calendar for Regular Monetary Operations was prepared and adopted, which will be published on a regular annual basis. Within the framework of annual activities, the National Bank continues to work on improving internal communication, by introducing new content in the internal e-newsletter, as well as involving a larger number of employees with their topics and interests. Through activities that include education, transparency and innovation, the National Bank set **high standards in information in central banking** in 2024. With its efforts to strengthen communication, it continues to advocate for a stable and inclusive financial system.

The Strategy and the Operations Risks Function, as a second line within the Strategy and Prevention Office is competent for the organization and implementation of the process of strategic planning. The realization of the strategic goals and the mission and vision of the National Bank was conducted through the program activities and projects[103]. 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 measures and activities, as well as further **strengthening of the transparency and accountability**. In April 2024, the National Bank Council adopted the Report on the operations of the National Bank for 2023 which includes the Report on the implementation of the Plan of Activities in 2023[104]. 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[105]).

In May 2024, the National Bank Council adopted the new Strategic Plan of the National Bank for the period 2025 – 2027, which was developed according to the best central banking practices, following the example of several central banks. The Strategic Plan of the National Bank is set under the motto "Central Bank that contributes to building stable, sustainable and green economy", which also determined the main fields on which it will work devotedly in the next three years. When preparing the Strategic Plan, we took into account the ever-changing

[103] In addition to textual format of the Plan of Activities for 2024, it was prepared in form of a preasentation, which was posted on the National Bank website in order to increase the transparency and inform the public about the National Bank's activities in 2023.

[104] Part of the contents of the Report is presented through info graphics 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.

[105] 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.

environment, the new challenges and advantages of the global trends. Besides the traditional responsibilities, such as monetary policy conduct, banking system stability, foreign reserves management, economic research and statistics, payment system efficiency, and cash management, it has been particularly dedicated to address the emerging trends that will sculpt these statutory functions in the following years. Therefore, five strategic areas have been proactively identified in order to enable a greater contribution to sustainable and inclusive growth of the Macedonian economy, supporting its green and digital transition.

In order to attain the strategic goals set forth in the Strategic Plan 2025 – 2027, it developed the Plan of Activities for 2025, which defined the regular work processes and activities related to projects that envisage changes in operations i.e. increasing efficiency, quality, transparency and security, compliance with new legal requirements and international standards.

Plan of Activities 2025

The **Library and Archives** of the National Bank, throughout 2024, performed regular activities related to work processes referring to library and archival operations. The library fund was supplemented with new professional literature, primarily with publications of central banks from other countries and international institutions and organizations. Publication catalogization in the COBISS.MK system contributed to greater information and accessibility of professional literature to users. Activities for subscriptions to access professional journals and databases were carried out within the planned deadlines and according to the needs of the employees. The archive fund was supplemented with digitized archival material from the operations of the National Bank, such as reports, materials from sessions, and photo and video materials from various events. In cooperation with the State Archives, information resources for the archival material were reviewed and analyzed, which served as a basis for preparations for the upcoming research.

In 2024, the National Bank Museum has been performing a research activity continuously, preparing also museum and conservatory documentation, conservation and reconsservation processes, re-establishing the legally prescribed system for photo documentation system. The Museum celebrated

the International Museum Day and the European Cultural Heritage Days, finalizing also the printing of the publication of Worths and Values: Transcripts.

Public procurements were conducted transparently and timely for unimpeded National Bank operations, thus taking into account the streamlining of the National Bank funds. Changes in the legal framework and by-laws in the area of public procurement were constantly monitored, ensuring compliance with the legal regulations in this area. During 2024, the National Bank, as a socially responsible institution, implemented two procedures for donating IT equipment, namely: 68 personal computers and 18 laptops.

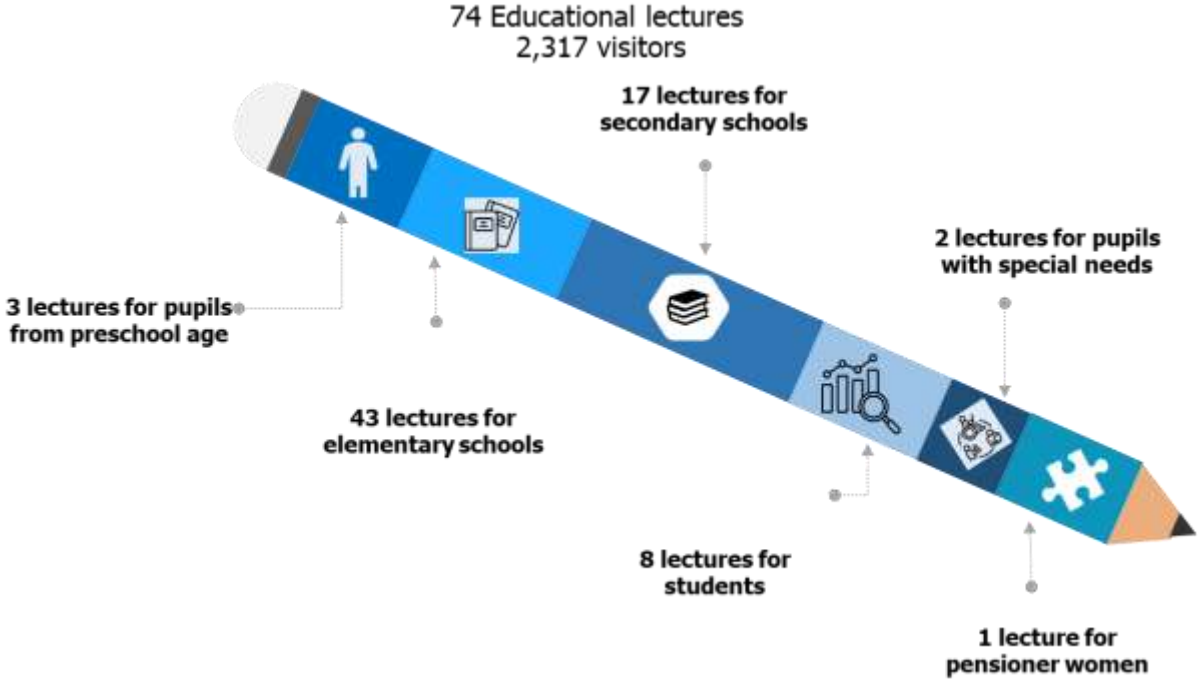
Strategic goal 7 - Financial education and inclusion

In line with the commitment to **enhance consumer protection**, the National Bank continued its activities to ensure effective and high-quality institutional protection of banks and other financial institutions user rights, in order to further strengthen citizens' trust in financial institutions. To this end, European trends in consumer protection are constantly monitored, and work is underway to improve the regulatory framework in this area, which is a prerequisite for establishing an efficient consumer protection system.

During 2024, an on-site supervision in one bank in the area of consumer protection was conducted, where all aspects of operations within the scope of consumer protection were analyzed, with three off-site horizontal inspections also being conducted. A total of 233 complaints (17.7% more than in 2023) submitted by banking services users were recorded in the register and responded. In addition, Report on the complaints against banks and savings houses was prepared.

Financial literacy is the foundation for a successful future and a key factor for personal development. Financial education and inclusion is one of the strategic goals of the National Bank, which, through constantly increasing the coverage of the population from various target groups, contributes to the improvement of financial literacy in the country. In 2024, the National Bank intensified its activities to organize events for financial education and inclusion, prepare and publish educational materials, and increase communication with the public, in order to raise financial awareness and literacy, which will enable a higher level of financial inclusion of the population.

Organization of financial education events



Financial Literacy Days

1. Open Day of the National Bank
2. Educational online presentations on three topics, which were attended by over 150 high school students and teachers:
   "In the World of Finance - Financial Education for High School Students"
   "Security features of Macedonian money"
   "Payment account with basic functions"
3. Organized student class FinFit on the following topics:
   "Monetary policy of the National Bank"
   "The role and significance of the statistical data of the National Bank"
   "Youth and financial education" in cooperation with the Club Alpbach Macedonia

From 26 to 28 November 2024, the eighth edition of the Financial Literacy Days was held, organized by financial regulatory institutions in cooperation with private financial companies. The event was intended for providing financial education to citizens, including adults, in order to raise the level and general awareness of financial literacy.

The purpose of the National Bank is to encourage young people to invest in their future, stressing the importance of early financial education, thus facilitating the access to financial services and develop their financial skills. The National Bank actively participates and supports the Macedonian Banking Association (MBA) in carrying out activities related to the European Money Quiz, thus contributing to increasing financial literacy among the young population in the country.

European Money Quiz
A total of 1.055 students and 100 mentors from 82 elementary and high schools applied

Third place in Europe for our representatives

In cooperation with the Macedonian Banking Association, the SEC and with the support of the Ministry of Finance and the Ministry of Education and Science

Global Money Week

On the topic "Protect your money, secure your future"

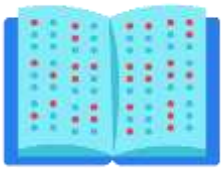
Educational lectures for primary and secondary schools were organized, paying also a visit to and conducting a presentation for a kindergarten

COMPETITION OF STUDENTS ON THE OCCASION OF THE SAVINGS DAY
A total of 645 student papers, of which:
136 literary works – poems
168 literary works - short stories and 341 art works – drawings

Competition for elementary education students, titled: **Saving - our habit and our need!**

Competition forsecondary education students, titled: **The financial education of young people - a basis for better money management and protection against financial frauds in the new digital age**.

The National Bank has enhanced its activities to improve the life of persons with disabilities by facilitating the access to financial services. For that purpose, the central bank has prepared **Guidelines for** greater inclusion of persons with disabilities as consumers in the banking sector, which include greater facilitation of access to locations and installation of digital platforms, involvement in the creation of banking products, as well as better information for these users of banking services. The National Bank produced and printed 165 copies of the Braille brochure intended for the visually impaired entitled "Rights of the Visually Impaired as Consumers of Financial Services". In December 2024, a presentation of the Guidelines and the Brochure was held at the National Bank, attended by representatives of banks and competent institutions.



One of the measures and activities in the Strategy for Financial Education and Financial Inclusion 2021–2025 is the **education and inclusion of women** as a special target group, for the purpose of their adequate education and better information on finance. To this end, in March 2024, the National Bank and the

European Bank for Reconstruction and Development signed a Memorandum of Understanding on the implementation of the Women Entrepreneurs Finance Code in our country.

The National Bank, together with other financial regulators, on 28 May 2024, organized the sixth regular working meeting of representatives of the regulatory institutions, private and civil sectors for monitoring of the implementation of the Strategy for Financial Education and Financial Inclusion. At the meeting, for the purpose of benefits of using intermediation as one of the best ways to resolve a particular dispute, a lecture was held on the topic: "Mediation as a tool for efficient and economical resolution of disputes, including in the field of finance", by the President of the Mediation Support Association at the Economic Chamber of North Macedonia. The seventh working meeting of the working group for monitoring the implementation of the Strategy was held on 10 December 2024 at the premises of the National Bank, at a joint event with INFE-OECD, attended by representatives of both private and civil sectors from our country. At the event, experiences were shared regarding the implementation of financial education and financial inclusion strategies in several countries, in order to set the framework for the new medium-term strategy in this area in the country for the next five-year period.

Regular communication and cooperation is being established with the institutions of the Coordinating Body for Financial Education and Financial Inclusion (CB) on the ongoing activities related to the second phase of the TA INFE-OECD Project 2023-2027[106]. Within the framework of the CB's Activity Plan, the Annual Report on the activities of the Coordinating Body and financial regulators in the field of financial education and financial inclusion in 2023 and the tabular overview of the activities carried out in 2023 were prepared.

Strategic goal 8 - Increased awareness of climate change and contribution to a green sustainable economy

The National Bank proactively managed climate risks through a range of activities and monetary measures, contributing to fostering green financing and increasing climate change awareness. The focus was on strengthening the resilience and capacities of the banking system **to manage climate risks** and increasing its potential to support the green transformation of the economy.

Conditions have been set for collecting regular data on green lending within the National Bank's Credit Registry, which will enable deeper analyses of the green credit portfolio. The Green Indicators Overview, which contains three groups of indicators, is as follows: 1) Environment and Energy, 2) Climate Risks and 3) Green Finance **is published and regularly updated.** In line with global trends in sustainable financing, the On-Site Supervision Department has included the assessment of **banks' exposure to climate and environmental risks** as part of its supervisory activities, and analyses of the banking system's exposure to climate change risks are published in the Banking System and Financial Stability Reports.

The National Bank has begun reporting on the exposure of foreign reserves to climate risks and the effect of investments in green bonds according to internationally accepted standards, and at the same time shared its experience with disclosing climate-related activities

[106] The main objective of the second phase is to support countries in improving the level of financial literacy of the population through the identification and implementation of domestic strategies and policies for financial literacy, as well as in the preparation of analyses, reports and recommendations for building institutional capacities.

with members of the Greening the Financial System Network (NGFS[107]). The importance of sustainable investment was increased by the further growth of the share of instruments financing green, sustainable or social projects in foreign reserves. The secondary legislation on foreign reserves management included the possibility of taking into account the commitment of the National Bank related to the contribution to a green sustainable economy, increased awareness of climate change and social responsibility.

Throughout the year, international developments related to managing risks caused by climate change were constantly monitored, including developments in international standards for sustainable reporting, as follows:

Membership in the subgroups of the Network for Greening the Financial System (NGFS)

Inclusion in the initiative for preparation of the so-called green taxonomy

Risk assessment with banks related to climate change – technical cooperation was initiated and FINSAC (World Bank Financial Sector Advisory Center) trainings were held

Monitoring climate change risks – finalization of the first phase of the World Bank project for developing a methodology for climate stress test

The National Bank actively contributed to the work and fulfillment of the objectives of the **Network for Greening the Financial System (NGFS)**, which include efforts to strengthen the global response in order to attain the goals set by the Paris Agreement and to advance the role of the financial system in managing risks and mobilizing capital to finance sustainable development[108]. The National Bank's membership in the Network for Greening the Financial System (NGFS) represents an opportunity to build internal capacity in the area of climate risks and their integration into operations, but also an opportunity to contribute to the establishment of best practices in this area, which should be followed by central banks worldwide.

Environmental, social and governance (ESG) factors, once considered secondary, are taking on a central role in decision-making and risk management. In the last quarter of 2024, the National Bank hosted two workshops to build and enhance capacity related to the impact of environmental, social and governance (ESG) factors, risks and opportunities[109] as a basis for sustainable operating and social responsibility. **The first workshop** was aimed at strengthening the central bank's capacities with knowledge and tools for sustainable practices, in line with international standards and regulations. The aim of the **second workshop** was strengthening of the central bank capacities on the multifaceted impacts of ESG, with an emphasis on regulatory, reporting and supervisory practices in managing climate risks.

[107] The Network of Central Banks and Supervisors for Greening the Financial System.
[108] The National Bank's contribution in 2024 included participation in the development of two technical documents from the subgroup on sustainable and responsible investment and a Guide to the Disclosure of Climate-related Risks and Opportunities for Central Banks, from the subgroup on the disclosure of climate-related activities (Central banks' own disclosure of climate-related and environmental risks).
[109] The workshops were organized under the auspices of the "Green Growth Investment Fund", in cooperation with experts from "Ernst & Young".

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[110] 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[111].

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 an annual basis. The National Bank has been continuously working on improving the operational risk management capacity, applying the best international practices and monitoring the novelties in the area of operational risks that take place through the international working group IORWG[112], as well as through cooperation and technical assistance with the IMF, the ECB and other central banks[113]. 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 2024, the National Bank conducted tests of the continuity plans of 18 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. An analysis and a detailed action plan for improving the resilience of the bank's payment system operations have been prepared, which were reviewed and adopted by the National Bank Council and the Crisis Center. **To strengthen the operational resilience of the National Bank's IT systems**, a Security Operations Center (SOC) has been established in accordance with the previously adopted strategy. With the help of the World Bank technical assistance, the activities for attaining higher level of operational and cyber resilience of the MIPS system continued by improving capacities for documenting and introducing standard operating procedures in the areas identified during the National Bank's self-assessment of cyber resilience, as well as using platforms for monitoring the latest cyber threats in real time, especially within the financial sector, cooperation with other members of the platform, as well as insight into cybersecurity trends, such as the FS-ISAC platform[114]. A 295-employee test was also conducted to identify malicious emails containing phishing, after which training was provided to employees who did not recognize these types of attacks. The

[110] Financial risks are the risk of potential financial losses.
[111] 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.
[112]The International Operational Risk Working Group (IORWG) is devoted to improving the operational risk management in the central– banking activity.
[113] The services center (service desk) for security incidents was upgraded 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.
[114] FS-ISAC (Financial Services Information Sharing and Analysis Center) is an organization that enables sharing of cyber security information and analyzes among financial institutions.

Strategy and Prevention Office actively participated in the semi-annual meetings organized by the Global Cyber Resilience Group[115].

In order to raise employee awareness of **information system security and personal data protection**, internal training was conducted for a total of 288 employees during 2024, training on the application of personal data protection regulations for 49 employees in cooperation with the Personal Data Protection Agency, and new employees underwent cybersecurity training intended for employees in the public administration and employees in the private sector and acquired appropriate certificates[116]. At the same time, training on **classified information** security was conducted for 96 authorized persons. Also, reported incidents were managed efficiently, and the **Annual Report on Recorded Incidents in 2023** was reviewed and adopted at a session of the National Bank's Executive Board of Information System.

In 2024, a total of 124 written opinions on enforcement of personal data protection regulations were submitted, together with 22 opinions on the implementation of regulations pertaining to the classified information security. At the same time, internal regulations have been harmonized due to the adoption of new or amendments to current regulations for the protection of personal data and the security of classified information. The planned controls for compliance of the operations with the personal data protection regulations for 2024 have been implemented, preparing also the **Annual Report on the National Bank's compliance with the personal data protection regulations**, which, after being adopted by the Audit Committee, was adopted by the National Bank Council. Also, the controls on compliance with the regulations on the **security of classified information** planned for 2024 have been fully completed, and the reports on the controls conducted have been submitted to the Governor.

In 2024, in line with **Compliance Policy of the National Bank and the established ethics framework,** the National Bank conducted activities for adequate and consistent implementation of the regulation, strengthening compliance and integrity, as well as raising awareness of the importance of compliance in everyday operations. **Compliance Function** within **Strategy and Prevention Office**, through its actions, provided preventive support and implemented activities to strengthen compliance and institutional integrity at the bank level. This function, **through impartial and independent opinion/recommendation for adequate implementation of the compliance regulation[117] and the regulation, which set forth the operations of the National Bank,** contributed for legal and ethically compliant operating. The majority of preventive activities in 2024 related to strengthening the compliance and integrity at the institutional level, with **121 legal opinions issued related to the legislation affecting the operations of the National Bank and the acts adopted by the National Bank, and 49 opinions regarding the implementation of compliance regulations.**

[115] Global Cyber Resilience Group (GCRG) at the CRCC - Cyber Resilience Coordination Centre of the Bank for International Settlements (BIS)

[116]The training intended for the employees and the managers was conducted on the online education portal of the National Center for Computer Incident Response MKD-CIRT.

[117] Code of Ethics, Law on the National Bank of the Republic of Macedonia, regulations in the field of corruption and conflict of interest, protected internal reporting, discrimination, protection from harassment in the workplace and other regulations, as well as the Collective Agreement at the level of the National Bank of the Republic of North Macedonia.

In terms of raising awareness of the significance and importance of compliance regulation, especially the rules it regulates Code of Ethics of the National Bank**, educational activities were conducted for all employees, as well as separate thematic educations appropriate to the needs of the work.** In addition, **the draft legislation of the Assembly was followed and reported on regularly, ENER and the newly adopted legal framework published in the Official Gazette of RNM.** Moreover, during the reporting period, **corruption risk assessments and compliance checks were conducted.**

The internal audit, as a third line estimated and contributed to improve the risk management processes, internal controls and the management process in the National Bank, by applying risk-based approach. During 2024, all of the planned audit activities were conducted in relation to the regular audits, examination and the process of monitoring of the given recommendations. Within the Quality Assurance and Improvement Program of the Internal Audit Department (IAD), the following was adopted: a new Internal Audit Policy and a new Rulebook for the operations of IAD resulting from the new International Standards for Internal Auditing, a periodic self-assessment of the work of IAD on the adequacy of the IAD's internal acts was conducted, activities to improve IT audits continued, enabling continuous professional development[118]. The Annual Internal Audit Work Program for 2025, as well as the Medium-Term Internal Audit Work Program for the period 2025-2027, were approved by the Audit Committee and the National Bank Council.

Regular program activities related to **accounting recording, accounting policies and financial reporting**, as well as planning and control in 2024 were carried out on time and in accordance with the established deadlines and legal regulations. In 2024, the National Bank paid particular attention to the implementation of projects that improve **the accounting system of the National Bank**, namely: establishing an Integrated Accounting System ISS - General Ledger, preparing a new application solution for output invoices, upgrading the application for integrated material operations and upgrading the planning application. **Regarding physical security and technical maintenance**, activities for preventive and investment maintenance of the facilities were conducted regularly, thus providing the necessary technical support for smooth execution of other work processes, maintaining the appropriate level of security and fire protection, and ensuring business continuity.

Within the framework of activities related to **legal risk management**, legal support was constantly provided in the work of the National Bank through the preparation and control of general and individual legal acts, providing legal opinions on issues related to the National Bank operations, legal advice on the manner of application of legal regulations, legal support in the interpretation of regulations, the manner of conducting legal procedures, as well as support in the work of the National Bank Council and the Executive Board. 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, as well as in property-related legal matters and the disposal of real estate. During 2024, legal opinions were provided through legal support for: 17 draft laws, 228 general or individual legal acts, 322 contracts, 802 acts in the field of public procurement and 357 other types of documents. In addition, during 2024, 157 legal opinions were provided on issues related to the operations of the National Bank.

[118] Training on the new internal audit standards organized by the International Institute of Internal Auditors, a seminar organized by the IMF on missions to assess the conditions in the financial system in central banks, a visit to a seminar on the topic: Next Generation Audit:Three-line Model Dynamics, organized by the central banks of the Netherlands and Armenia.

Institutional Capacity 1 - Integrity and trust in the national monetary unit

In 2024, the National Bank regularly **supplied banks and cash centers with banknotes and coins** maintaining 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 on-site and off-site examinations, with analyses of the data that banks and cash centers submit in accordance with the National Bank regulations. The National Bank performed regular activities such as: processing cash returned from banks and cash centers, selling numismatic materials, selling commemorative coins and collector coins, expert analyses of all submitted suspicious banknotes and coins and replacement of banknotes and coins that are unfit for circulations or are no longer legal tender.

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.[119]

Institutional Capacity 2 - Human Resources

The National Bank, in 2024, is further improving the human resources management process in view of the structural shifts in the labor market and the increasing challenge of attracting and retaining top and talented personnel, especially in specialized areas[120]. For this purpose, the National Bank invests in training the employees with new skills, in order to strengthen its human potential and capital, thus ensuring readiness for the future development and the challenges in banking and finance.

For this purpose, a training in data management (SQL) was conducted to improve knowledge in the areas of digitalization, automation and data science. Trainings were also held to develop the management skills of operational managers, which enabled development of management skills and further conduct positive (assertive) and effective communication with colleagues, ways to motivate employees, problem solving and methods and rules for decision-making. Activities related to the professional development of employees, internships, practical work, mentoring were carried out on a regular basis. Also, during 2024, activities were undertaken on securing and recruitment of staff, on the appropriate organizational structure, introducing innovations to improve employment rights, managing potential, knowledge and a high level of employee engagement, in order to achieve successful results and added value in the work.

[119] In 2024, ten trainings for the employees of banks and cash centers were held, as well as two trainings for the representatives of institutions involved in the combat against euro currency counterfeiting.

[120] Economic research, statistics, supervision, bank problem solving, ESG practices for sustainable operations (environment, social issues and governance), information technology and human resource management.

Institutional Capacity 3 - Information system

The National Bank's IT system remained safe and stable, due to the smooth functioning and regular implementation of tasks within its own work processes, with over 5,800 IT services being performed for the users of the National Bank's IT system. The National Bank constantly invests in maintaining a stable IT system and its continuous upgrade, as well as greater automation and digitalization of work processes in conditions of rapid change in information technology. During 2024, it was worked on regular maintenance of around 180 internally developed applications, improving their functionalities, as well as developing new application solutions to improve operations in the bank, comply with changes in legal and internal acts, and timely resolve incidents for ensuring business continuity of the systems. The information system improved by introduction of Security Operations Center[121], which will increase security and better (with more information and 24 hours a day) monitor security events and incidents. In addition, several other activities were completed to strengthen the bank's information system, such as: an improved tool for storing source code, introducing a tool for dynamic application security testing, introducing a new firewall with an increased number of security functionalities, replacing floor network switches in the National Bank's LAN network, introducing privileged account control (PAM), etc.

Institutional Capacity 4 - Statistical data

Statistical data are the key element in preparation and adoption of right decisions by the policymakers. During 2024, statistical data, announcements and texts with statistical content in the area of external, monetary statistics and financial accounts statistics were continuously collected, prepared and disseminated, in accordance with the Advance Release Calendar. The activities for improving the quality of statistical data continued, which 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 2024, new set of quarterly data on consolidated financial accounts, balances was introduced, in order to enable the National Bank to keep pace with the European statistical requirements.

Additional activities were also performed concerning further development of electronic reporting for the needs of external statistics, introducing a practice of electronic receipt of forms for investments in and from abroad, enhancing the electronic reporting on turnover based on credit operations with non-residents.

Institutional Capacity 5 - Research activity

The National Bank will continue to support its **research activities,** which will contribute to the promotion and improvement of the scientific research activity in the country and internationally. Throughout 2024, research concerning the relationship between oil and food prices, as well as documenting the latest improvements to the MAKPAM model was conducted. Analyses were also made related to the effects of monetary policy, inflation diagnostics, geoeconomic fragmentation, the application of artificial intelligence as a new challenge for economies, and the readiness of domestic companies to meet regulatory requirements related to the green

[121] IT Security Operations Center.

agenda. In August 2024, the working paper titled Overview of the new Calibrated DSGE Model of the Economy in North Macedonia was published in the renowned IMF working paper series. This is the first paper from our institution that is published as a working paper of the IMF, thus making an important contribution to the affirmation of the National Bank at the international level and to the strengthening of its analytical infrastructure, bringing it closer to the standards of the central banks from the developed economies.

In 2024, 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. In 2024, annual prize for young researches best paper in the field of macroeconomics and banks and banking systems was awarded.

Box 1: Exposure to climate risks and the effects of the sustainable investment of foreign reserves

For the second consecutive year we give a review of the National Bank approach to responsible and sustainable investment, the undertaken and planned activities in this area, thus being an example to other investors in the Republic of North Macedonia, taking into account that the transparency in relation to the exposure to climate risks affects the investment decision-making. This box covers four aspects: organizational structure; strategy; risk management; and measures and goals[122].

Organizational structure

Starting from 2022, the National Bank has publicly committed to develop awareness of climate change, as one of the world's greatest threats. Namely, as a socially responsible institution, the strategic goals also included contribution to establishing a "green" and sustainable economy, which would ultimately ensure the improvement of the quality of life of citizens and their standard of living. Namely, in the Strategic plan 2022 - 2024, the awareness of climate changes and contribution to a green sustainable economy is included, for the first time, as one of the nine strategic goals of the National Bank.

The National Bank strives to fulfill its strategic objectives through all its activities, including foreign reserve management as one of its legally defined tasks. Namely, the general framework for foreign reserve management is provided by the Law on the National Bank, which clearly defines the purposes of foreign reserves and the principles for their management - security, liquidity and profitability. In order to directly connect the strategic goals with the mandate of the National Bank for the foreign reserves management, the Policy for the Foreign Reserves Management and Investment Policy, which elaborates the institutional framework for this function, defines that "when managing foreign reserves, the commitment of the National Bank related to the contribution to a green sustainable economy, increased awareness of climate change and social responsibility may be taken into account, without violating the principles of security, liquidity and profitability." This explicit mention of climate change and social responsibility in the bylaws supports responsible and sustainable investment, while also prioritizing the objectives to be met in the management of foreign reserves. The tasks arising from this commitment are part of the medium- and short-term plans of the National Bank, i.e. the Strategic Plan and the Annual Plan of Activities.

[122] The scope covered is in accordance with the Task Force on Climate-related Financial Disclosures - TCFD and the guidelines for climate financial disclosures for the central banks of the Network for Greening the Financial System – NGFS).

The organizational structure of the responsible and sustainable financing is identical to the current framework for foreign reserves management and has four levels of decision-making. *The National Bank Council* adopts a Management and Investment of Foreign Reserves Policy, and the operational aspects are regulated in more detail in the Guidelines for Management and Investment of Foreign Reserves adopted by *the Executive Board. 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. *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.

Strategy

Climate change and the transition to a green economy result in financial risks and economic consequences, which may affect the foreign reserves value, i.e. the market value of the instruments in which foreign reserves are invested, which is of great importance for the National Bank, having in mind the significant role of foreign assets in carrying out the basic functions of the National Bank.

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 higher of climate-related awareness are taken through identification of material climate risks the foreign reserves are exposed to, 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. the effect of climate changes is expected to 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 foreign reserves are invested are mostly short-term, with the new investments in 2024 also being directed towards medium maturities (around 5 years), thus corresponding to the low tolerance for interest rate risk. Hence, the longer-term investments resulting from responsible investing are largely directed towards the part of the investment portfolio that is firmly intended to be held up to maturity, which due to the method of accounting records allows to protect from temporary volatility in the prices of instruments. The National Bank also takes into account the short-term effects of climate change (up to 12 months), evident through its possible contribution to the changes in the market value of the instruments in which foreign reserves are invested. Such investment strategy points to higher exposure to transition climate risks,[123] which are shorter-term, compared to physical risks[124].

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, having in mind the challenges of meeting multiple investment objectives. Namely,

[123] Transition 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 the changes consumer preferences.
[124] Physical risks are a consequence of climate changes 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).

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 change the desired exposure in terms of credit risk. Lower liquidity of the sustainable bonds on the secondary market is observed in activities aimed at increasing the exposure to these securities, and is due to the lower amount of primary issue compared to traditional bonds, as well as the tendency of investors to hold them to maturity. On the other hand, demand often exceeds supply, so sustainable bonds can be sold on the secondary market without much difficulty for a competitive price in current market conditions. When invest in green bonds, the possibility of not yielding from the so-called green premium - greenium should be taken into consideration. Namely, due to high demand, these instruments reach a higher price, i.e. carry a relatively lower yield compared to the same type of traditional instruments (maturity and issuer). Analyses show that the government green bonds issued by euro area countries in the past three years have yielded around 3 basis points lower on average to maturity than traditional bonds, which is not a significant difference given current nominal yields. Since mid-2024, this premium has been further reduced, so that yields are almost equal to those of traditional bonds. Consequently, the yields based on green bonds are market yields that are in line with the principle of profitability of foreign reserves[125].

When investing foreign reserves, the National Bank is directed towards the so-called "solutions" for the greenhouse gas emission, contributing to a smaller emission at global level. In this sense, activities aimed at contributing to a green sustainable economy consist of investing in the so-called "green bonds", which finance projects that contribute to the greening of 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 contribute 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. During 2024, efforts for responsible investment intensified, through a constant increase in the share of these securities within foreign reserves.

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. In 2024, the framework for managing foreign reserves was further improved by introducing an explicit commitment to take into account the National Bank's commitment to a green sustainable economy, increased awareness of climate change, and social responsibility.

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 employees 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 of climate changes are a global phenomenon. Therefore, the effectiveness of climate change management policy and the understanding of

[125] The Foreign Reserves Management and Investment Policy stipulates that profitability, i.e. the achieving a return on investments, is achieved in order to achieve a competitive market rate of return on foreign reserves, appropriate to the investment objectives and the set risk limits.

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 active contribution to the this network operations.

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 other risks arising from the foreign reserves management, but they can also have an impact on the change in the market value of instruments within foreign reserves, especially longer-term investments. 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 in 2023 with their identification, monitoring and measurement, while the last phase - risk management and their incorporation into the investment decision 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, not taking into consideration the interaction of these risks. In doing so, it uses qualitative and quantitative approach. The qualitative approach to identifying and assessing risks related to climate risks is usually applied to physical risk, whereby, based on geographical maps that show the projected frequency of occurrence of specific acute risks, regions are characterized by the degree of risk and, consequently, investments the issuers of which originate from that geographical region. This methodology for identifying and assessing risk is forward-oriented, that is, projects the sensitivity to physical climate risk, through scenario analysis that usually takes into account three key periods (2030, 2050 and 2080). The qualitative approach to analyzing physical risks is considered appropriate, given that there is still no generally accepted quantitative indicator for exposure to this type of risk. Despite this, the National Bank tries to measure the exposure to physical risk through historical data on monetary harm due to acute physical risk. To have the exposure to physical risks based on historical data is an initial ground for analyzing the potential impact of future events on the value of foreign reserves, assuming that the frequency and material harm will increase. On the other hand, transition risks are measured by applying the quantitative approach, through the recommended common indicators for gas emissions, individually for specific types of instruments, using historical data (backward-oriented). In doing so, the limitations of this method of assessing risks are taken into account. Namely, static data give information at a single point in time, while not taking into account the probability or effectiveness of future events or plans.

Data used in the identification and assessment of climate risks are mostly publicly available, with the information service data also being used. 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 climate-related physical and transition risks.

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[126], regional, state-guaranteed securities and instruments with expected government support (which comprise 61% of the foreign reserves), where the connection between the issuer and the geographical area exposed to physical risk is the most direct. 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[127], 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.

Due to the long-term character of climate risks, analyzed by type 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 68% 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[128]. For the purpose of data availability, the risk exposure for the international financial institutions is calculated only for 59% of the securities, while the other instruments are covered almost completely.

The total carbon dioxide emissions resulting from investments in government securities in 2024, measured according to both production and consumption approaches, are higher compared to 2023, as a result of the higher level of investments in this type of securities. If a normalized measure of analysis is applied, the weighted average intensity of carbon dioxide emissions (carbon dioxide emissions per million investments), which is common for assessing the climate risks, a decrease is observed compared to the previous year when applying the production approach, and an almost unchanged level of emissions according to the consumption approach. The same conclusion applies to emissions resulting from investments in securities issued by international institutions. On the other hand, the intensity of carbon dioxide emissions resulting from investments in commercial banks has increased by eight times.

[126] Although not classified as government securities, physical risk calculations also include securities issued by the European Union as a supranational issuer, due to the direct connection between the issuer and the geographical area exposed to physical risk.
[127] The selection of measures is in line with best practices set by the Task Force on Climate Change-related Financial Disclosures (TCFD), the Partnership for Carbon Accounting for Financial Institutions (PCAIF) and the Network for Greening the Financial System (NGFS).
[128] At the end of 2024 there were no investments in collateralized securities.

Table 5
Measures for exposure of foreign reserves to transition climate risk in 2024 and 2023[129]

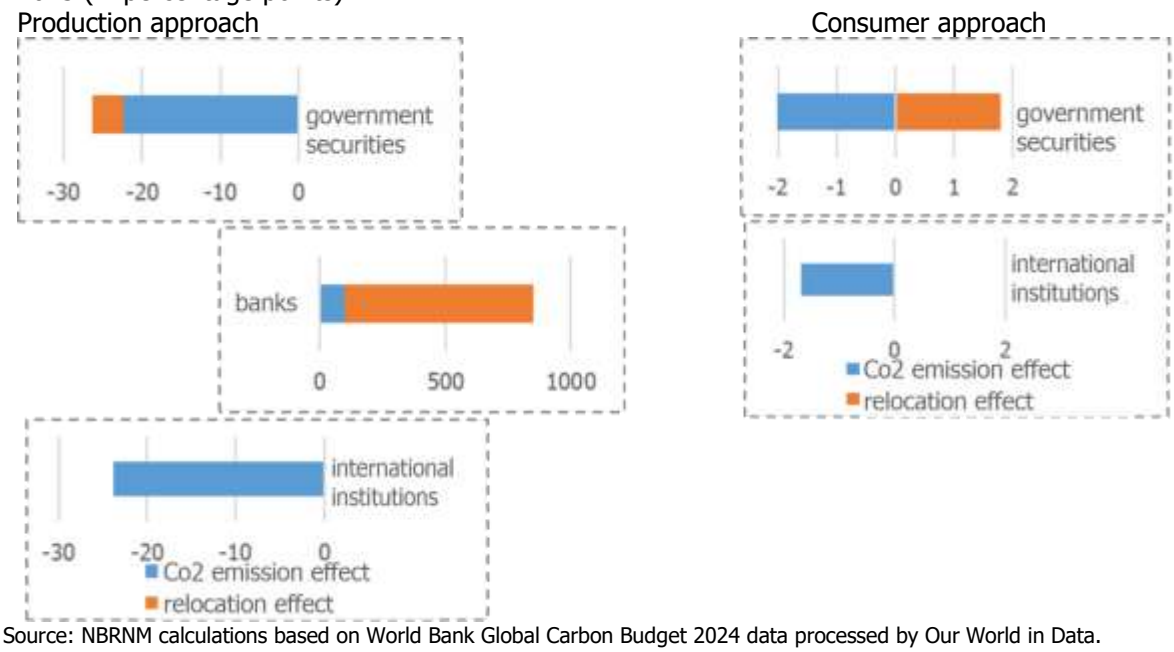
Foreign reserves 2024		Government, regional, state-guaranteed securities and instruments with expected government support		Securities issued by international institutions		Securities issued by commercial banks	Collateralized securities
		Production approach	Consumer approach	Production approach	Consumer approach		
Amount of funds (millions of euros)	**2024**	**2.896**		**314**		**309**	
	2023	**1.933**		**142**		**192**	**95**
WACI (tCO_2e/millions of euros) data coverage (%)	**2024**	96 (100%)	9 (100%)	106 (59%)	9 (59%)	8 (100%)	
	2023	131 (100%)	9 (100%)	139 (43%)	9 (43%)	0.9 (88%)	3.4 (100%)
Total CO_2 emission (tCO_2e) data coverage (%)	**2024**	279.389 (100%)	402.157 (100%)	19.513 (59%)	28.583 (59%)	269 (100%)	
	2023	252.493 (100%)	316.359 (100%)	8.517 (43%)	11.224 (43%)	76 (100%)	171 (100%)
Carbon footprint (tCO_2e/millions of euros) data coverage (%)	**2024**	96 (100%)	139 (100%)	106 (59%)	155 (59%)	0.9 (100%)	
	2023	131 (100%)	164 (100%)	139 (43%)	183 (43%)	0.4 (100%)	1.8 (100%)

The change in the exposure of foreign reserves to transitional climate risk can be analyzed through two factors: the effect of the change in carbon dioxide emissions by issuers and the effect of reallocation, i.e. redirection of investments to other issuers.

According to the analysis, the weighted average carbon intensity of government securities according to the production approach decreased by 26%, compared to 2023, with 22 percentage points due to the reduction of issuers' emissions relative to gross domestic product, while 4 percentage points are due to new investments in issuers that have lower carbon emissions. Although for the same instruments the effect measured through the consumption approach is neutral, analyzed by components, the reduction of issuers' emissions per capita contributed positively to the reduction of the average weighted emission intensity by 2 percentage points, but the focus on new issuers that have higher emissions per capita fully offsets this positive effect. Considering that, within international institutions category, climate risks are measured only for securities issued by the European Union, as a supranational issuer, the effect of reducing emissions is entirely due to the reduced emissions of this issuer in 2024, measured based on the production and consumption approach. The intensity of greenhouse gas emissions increased several times in the case of exposure to commercial banks. In this regard, the greatest effect is the selection of commercial banks that have higher carbon dioxide emissions in relation to revenues, i.e. have higher exposure to climate risks.

[129] The description of the measures for exposure to climate risks and the effect of investing in sustainable bonds is given in Annex 3 to the Annual Report for 2023 .

Chart 96
Contribution to the change in weighted average carbon dioxide emissions in 2024 compared to 2023 (in percentage points)



Source: NBRNM calculations based on World Bank Global Carbon Budget 2024 data processed by Our World in Data.

Table 6
Measures for exposure of the reference portfolios to transition climate risk

Reference portfolios 2024	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)	**2.896**		**2.896**	
WACI (tCO_2e/millions of euros) data coverage (%)	88 (100%)	9 (100%)	156 (100%)	13 (100%)
Total CO_2 emission (tCO_2e) data coverage (%)	255.540 (100%)	389.274 (100%)	452.578 (100%)	531.595 (100%)
Carbon footprint (tCO_2e/millions of euros) data coverage (%)	88 (100%)	134 (100%)	156 (100%)	184 (100%)

Source: NBRNM calculations based on World Bank and Global Carbon Budget 2024 data processed by Our World in Data.

If we analyze the relative intensity of the carbon dioxide emission that results from investments in government securities according to the production approach, it is noticed that the National Bank portfolio has 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 National Bank portfolio, taking into account its low carbon dioxide emission, compared to the other countries the foreign reserves are exposed to. Compared to the portfolio comprised of the government debt of G7 member states, on the other hand, there is a significantly lower exposure to transition risk, which results from the absence of investments in the USA, the percentage of which is the highest in the G7 portfolio, where the CO_2 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 the end of 2024, the National Bank investments in bonds that finance green and social projects equaled Euro 295.5 million in nominal terms (5.7% of the foreign reserves), twice as much compared to 2023. Of these, 54% are green bonds, and the rest are social and sustainable (securities that finance projects related to climate change and social aspects). Most of the bonds are issued by international institutions and states.

Table 7
Measures for the effect of investing in sustainable bonds

	2023	2024
Share of green bonds in foreign reserves	1.6%	3.1%
Share of social bonds in foreign reserves	0.8%	1.2%
Share of sustainable bonds in foreign reserves	0.4%	1.5%
Avoided CO2 emission for green bonds (tCO2e) data coverage (%)	32.803 (100%)	53.360 (100%)
Coefficient of the effect of the investments in green bonds data coverage (%)	1.4 (100%)	2.2 (96%)

Source: NBRNM calculations based on World Bank and Global Carbon Budget 2024 data processed by Our World in Data.

According to the available data, it is estimated that the National Bank's investments in securities that finance the projects foe greening the economy, contributed to avoid emission of 53,360 tons of carbon dioxide on an annual level. This emission is equal to the average annual carbon dioxide emission, which on a global level accounts for about 11,500 individuals[130].

By investing in securities that finance social projects, the National Bank has contributed to the fulfillment of all seventeen sustainable development goals defined by the United Nations.[131]

Raising the awareness of climate change and contributing to green sustainable environment remain among the National Bank goals. Namely, the Strategic Plan of the National Bank for the period 2025 – 2027 is set under the motto "a central bank that contributes to building a stable, sustainable and green economy". The management of foreign reserves will also strive to achieve this goal. In this regard, for the next period the share of securities that finance green, social and sustainable projects, is expected to be kept, as the most direct and measurable contribution to this goal. These instruments would constitute the "green" portfolio within the foreign reserves, thereby signaling to issuers the institution's commitment to combat the negative effects of climate change. A firm commitment to maintain such a thematic portfolio often provides an advantage in the allocation of securities at auctions on the primary market, which is important considering that the demand for this type of instrument, which at the same time meets strict security criteria, often exceeds the supply several times over. On the other hand, the relatively long maturity of these instruments and the effect on exposure to interest rate risk should be taken into account, which is why an appropriate business model for their recording and valuation should be selected when make

[130] Calculated according to the intensity of the carbon dioxide emission based on the consumption activity worldwide, which amounts to 37,294 million tons.
[131] 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. Those goals are as follows: zero poverty and hunger, health and well-being, quality education, gender equality, available and "clean" water and energy, decent work and economic growth, industry, innovation and infrastructure, reducing inequality, sustainable places to live, responsible production and consumption, climate protection, life below the water and on land and peace, justice and strong institutions.

the investments. In addition to its commitment to climate change "solutions", in the coming period the National Bank will also focus on climate risk management. Namely, for 2025 it is planned to set appropriate goals for achieving carbon-neutral investments in foreign reserves by 2050 and to prepare a transition plan for monitoring the set goals. In doing so, it should be borne in mind that most of the National Bank's investments, according to the principles of safety and liquidity, are directed towards government securities from issuers in the euro area. In this sense, the fulfillment of the goals related to the reduction of climate risks arising from the management of foreign reserves fully depends on the fulfillment of national strategies for contributing to the prevention of climate change by the countries in which the foreign reserves can be invested.

List of abbreviations

The abbreviations used in the Report denote the following:

NBRNM	National Bank of the Republic of North Macedonia
SG	Strategic goal
IC	Institutional capacity
ECB	European Central Bank
ESCB	European System of Central Banks
EU	European Union
DEU	Delegation of the European Union
MAKPAM	Macedonian Policy Analysis Model
IT	Information technology
GDP	Gross domestic product
IMF	International Monetary Fund
IPA	Instrument for Pre-Accession Assistance
IFRS	International Financial Reporting Standards
INFE-OECD	International Network on Financial Education - Organisation for Economic Co-operation and Development
SQL	Structured Query Language - SQL
ENER	Single National Electronic Register of Regulations
SEPA	Single Euro Payments Area
ESG	Environmental, social and governance factors
MBA	Macedonian Banking Association
SEC	Securities and Exchange Commission
ALCO	Assets and Liabilities Committee
ISSC	Information System Steering Committee of the National Bank
MIPS	Macedonian Interbank Payment System
SOC	IT Security Operations Center
IORWG	International Operational Risk Working Group
NGFS	Network of Central Banks and Supervisors for Greening the Financial System