

National Bank of the Republic of North Macedonia



Annual Report 2021

Skopje, April 2022

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Governor's foreword

Dear Sir/Madam,

Whilst the previous year was marked as a year of dealing with the direct implications of a health crisis, 2021 can be said to be a year of gradual recovery after the first pandemic blow. Unlike the previous global crisis, which resulted in long-term implications, the corona crisis caused fast and intense consequences - with initially larger and more widespread effect in terms of the world financial crisis, but with a faster recovery, which continued also in 2022. However, the economic recovery was challenged by the need for occasional reintroduction of health care measures due to new types of corona viruses. Such global movements on a global scale caused disruptions in supply chains, which led to a slower recovery of industrial output and growth in prices of primary commodities on world stock markets, primarily oil and food products, while in recent months of the year there was a significant increase in electricity and gas prices. In such circumstances, the end of the year was marked by the beginning of a debate on the risks of inflation movements worldwide.

These global movements were evident also in the domestic economy in 2021. Observed for the entire 2021, the economy registered a real growth of 4%, which is within the expectations of the October forecast (3.9%). The Macedonian economy, which is dependent on imports, both for the needs of production and consumption, was affected by the rising prices on international markets, registering an upward movement of inflation, especially at the end of the year. Thereby, the inflation rate for the entire 2021 was 3.2% on average and was within the expectations according to the October forecast round.

The macroeconomic achievements prove the appropriate monetary decision-making in the previous year, simultaneously attaining the legal objectives of the National Bank. It is crucial to emphasize that the National Bank ensured price stability maintenance as well as stability of both the domestic currency and the banking system as a tool for macroeconomic stability maintenance.

The monetary policy enabled favorable conditions for achieving economic growth during the entire year. The interest rate on the basic instrument, CB bills, reduced to the level of 1.25% at the beginning of the year, thus intensifying the effect of the monetary easing measures from the previous year. In that way we additionally cut the credit costs for both corporate and households sector, in order to further support investment activity and consumption. Thereby, the lending activity accelerated this year, reaching a growth of 8.3% at the end of the year. This is certainly a result of the strong capital and liquidity position of the banking system before the pandemic, but also the rapid and strong reaction of the National Bank with the measures taken to ease the financial conditions in the domestic economy and increase the liquidity of banks. The banks' activities were supported by a solid increase in the deposit base, where on annual basis, the total deposits in December were higher by 7.5%, which is above the annual growth (of 7.1%) forecasted for the end of the fourth quarter of 2021.

The International Monetary Fund (IMF) has concluded that the **economic recovery from the health crisis** has been properly managed and addressed by the **National Bank**, in the context of the regular estimating mission report for Article 4. Thereby, the report validated the appropriate monetary policy setup and the maintained exchange rate stability as an anchor of the stability of the domestic economy. In that context are the

movements in the foreign reserves, which are maintained at an appropriate level to provide support for the stability of the domestic currency. Additional support and sufficient foreign exchange liquidity is provided by the established bilateral repo line with the European Central Bank, which validates the positive assessments of this institution in terms of the capacity of the National Bank to conduct adequate policies within its competencies.

Last year, we were acknowledged for our continuous commitment to define a regulatory framework that enables market and competitive banking system in line with international best standards and practices. This acknowledgment came from the European Commission which made a decision stating that our country has established a supervisory and regulatory framework for founding and operating of banks, which is in accordance with the EU standards. With this decision, our country is included in the list of 26 countries in the world, such as Japan, Canada, New Zealand, Japan, USA, whose regulation and supervision, as determined, is equivalent to the regulation and supervision of the European Union. The assessment determines that the domestic regulation and supervision enables maintenance of stability and integrity of the financial system, efficient and adequate protection of the users of financial services, cooperation between different participants in the financial market, independence and efficiency of supervision and efficient implementation of international standards. Receiving equivalent treatment is important in terms of the perceptions of potential investors and easier and more effective connection of the domestic banking system with international financial markets. The positive assessment facilitates the approach of domestic institutions to international financial market, brings advantage in the National Bank's conduct of the monetary policy and facilitates the cooperation with the supervisory authorities in the EU.

This estimation of the European Commission is an exceptional achievement of the National Bank, but it is also an important indicator of the operating conditions of the domestic banking sector, i.e. it is another confirmation of the strict and prudent operating criteria aimed at protection of our citizens as bank services users. The protection of the bank services users is one of the activities that becomes more relevant in activities agenda of the National Bank. For that purpose, we have **increased the transparency** regarding the characteristics of the most representative credit and deposit products for the natural persons, by publishing these data on the websites of all banks and savings houses, as well as centrally on the website of the National Bank. Contrary to the previous practice when banks and savings houses individually chose which data on their products they publish and in what form, the new unified approach of the entire banking system provide citizens with more accurate, full information about the most important aspects that they should take into account when considering certain loans and deposits, in order to choose the appropriate product, taking into account also the possible risks. This activity is part of the activities envisaged in the **Strategy for Financial Education and Financial Inclusion 2021 - 2025**, which we adopt as a strategic framework for action with other financial regulators. This is an extremely important document that will provide systematic access to all parties involved in order to strengthen the financial literacy of the population, improve the level of financial inclusion, while ensuring adequate consumer protection. For this purpose, the **Code of Good Practices for Financial Education**, which established the principles that all involved parties from the public, private and civil sector should apply in financial education, has been adopted. In addition, at the end of the year, we established an organizational unit within the National Bank that will conduct systematic activities in the field of consumer protection and financial education of the population.

Recognizing that greater financial inclusion of the population is possible through the application of digital financial services, as well as through the

application of FinTech services, the National Bank encouraged the development of the first version of the National Strategy for Support of the FinTech Sector. The activities in this domain have continued at the beginning of 2022 when we signed the Memorandum of Understanding in the field of FinTech sector between the financial regulators. This memorandum sets up a system which enables coordinated actions of regulators, each in its own competence in relation to the implementation of the national strategy for supporting the FinTech sector.

The National Bank also paid attention to raising awareness about green finances. To this end, we have identified green finance as a strategic goal and have joined the international green finance network of central banks. Following the global trends for the development of the economies of the countries, as well as the needs for taking into account the climate change that can affect the price and financial stability, in 2021, a Survey was conducted among commercial banks on the current implementation of green finances. According to the results of the Survey, about 70% of the banks approve loans for projects that have positive impact on the environment, while about 43% of the banks have also implemented a formal system for identifying green projects. The share of green loans is about euro 150 million, or only 2.5% of total loans. This relatively low share of these loans indicates the need for further intensification of the activities of the National Bank in this segment, which is encompassed also into the planned program tasks for 2022, according to which more detailed data collection, risk analysis of climate change for the banking system and preparation of guidelines for banks for green finance, as well as planning stress-testing of the banking system's resilience to climate change are envisaged.

The availability of quality and verified statistics is one of the preconditions for making quality decisions, both by policy makers and by the corporate sector and citizens. In that regard, the National Bank continued to implement projects in the past year to improve the available statistical data. The project for further harmonization of the financial accounts statistics with the standards of the European System of Central Banks and the European Central Bank was successfully completed. This project was also part of the twinning project "**Strengthening the institutional capacity of the National Bank on the road to its membership in the European System of Central Banks**", which was finalized in March 2021. The main aim of this Twinning- project funded by the European Union (EU) is to support our central bank in the further harmonization with the rules, regulations, policies and the operations with the standards of the European System of Central Banks (ESCB) and with the best international practices, in order to further maintain the macroeconomic and financial stability. In addition to statistics, the project covered activities in the area of payment system, banking supervision and policy analysis.

In 2021, the National Bank continued to improve transparency in operations by introducing new mechanisms and practices. In this area, we went one step further and initiated an IMF assessment mission to study and compare our practices and processes of ensuring transparency in operations with the standards set out in the IMF Transparency Code adopted in July 2020. We are one of the two banks in the world where the International Monetary Fund has made such an assessment, and according to the IMF findings, we apply advanced practices in terms of transparency and the National Bank enjoys high public confidence, thanks to consistent policies that enable macroeconomic stability. For us, transparency in operations and communications with the public is a high priority, because the easier it is to understand monetary policy decisions, the greater the efficiency and effectiveness of achieving the set goals. Therefore, the National Bank, in accordance with the Strategic Plan 2022 - 2024, as one of the strategic goals indicated the undertaking of activities for timely information on the decisions, activities, perceptions and assessments of the National

Bank, which are important for economic agents and citizens, including decision-making processes. For that purpose, it is planned to implement the Project for Promotion of Transparency and Available Information on the Functions, Activities and Operations of the National Bank, in accordance with the recommendations of the IMF mission, as well as conducting a survey on the National Bank communication strategy and organizing journalist workshops and briefings.

These are just some of the achievements and projects that we have accomplished in the previous year and together with the regular activities enable the realization of the legal goals of the National Bank, as well as the goals that we set as necessary preconditions that we create for our better functioning and more efficient operation of the banking system for the welfare of the whole economy.

Dear Sir/Madam,

The National Bank, through teamwork and well-coordinated operating, in recent years has managed to successfully deal with unprecedented challenges imposed by the global environment. We live in a time of increased shocks and when we need strong support of the team to deal with the shocks that may happen to us. I believe that in 2021 we proved that National Bank capacity was actively used for quality implementation of our competencies and for maintaining macroeconomic stability as the most appropriate environment for economic growth. However, in order to grow faster and to sustain that growth, involvement of all relevant institutions is necessary, which through continuous implementation of structural reforms will contribute to increase the growth potential. Improving the economic, social and digital infrastructure, i.e. creating preconditions for building such infrastructure is imperative to ensure not only higher, but also better quality growth driven by technologically sophisticated and innovative sectors. We should all follow that path in the coming period.

26 April 2022
Skopje

Governor
and Chairperson of the National Bank Council
Anita Angelovska Bezhoska

Short review of the macroeconomic developments in 2021

In 2021, the global economy began to recover as expected, after the corona pandemic outbreak in 2020, which led to a decline in global economic activity, decrease in demand and a consequent slowdown of economies worldwide. Despite the gradual relaxation of preventive health measures, which created environment for economic recovery, 2021 was another pandemic year, marked by new types of the corona virus, as well as start of a process of mass immunization, which allowed for some optimism in overcoming this health crisis. On the economic level, in the second pandemic year, some of the risks related to global supply chains and the prices of basic products on world markets materialized.

The recovery of the Macedonian economy started in the second quarter of 2021. Namely, after the small decline in the first quarter, a significant increase followed in the second quarter, in accordance with the low comparison basis of the previous year, and then a moderate growth in the following two quarters, which enabled a real annual GDP growth of 4% in 2021. The recovery was mainly driven by domestic demand, especially private consumption and investments, supported by a more favorable environment, strong fiscal stimulus, and further conduct of loose monetary policy. On the other hand, net exports had a negative contribution to GDP, while the imports accelerated, especially in the last quarter, partly under the pressure of the energy crisis.

During 2021, average inflation accelerated moderately, mainly influenced by movements in world prices of primary commodities, especially food and energy. On average, in 2021, the annual growth of prices equaled 3.2% compared to the growth of 1.2% in the previous year. Price pressures are mainly due to the growth of prices of primary commodities, especially pronounced at the end of the year, and mainly arise from global factors on the supply side, without greater pressures from demand. The uncertainty associated with price changes remains pronounced, given the uncertain economic effects related to the development and dealing with the pandemic, as well as the increased uncertainty on world energy markets additionally intensified due to the geopolitical risks in Eastern Europe which emerged in the first months of 2022.

In 2021, a moderate current account deficit of 3.5% of GDP was realized, which is almost at last year's level, with opposite movements in the basic components compared to last year being registered. Namely, this year the deficit widened in the trade of goods, partly under the influence of the strengthened economic activity, the growth of energy prices and disruptions in global supply chains, and on the other hand, contrary to the previous year, the private transfers normalized, in accordance with the relaxed measures for cross-border movement in the second pandemic year. The foreign reserves have been maintained at an appropriate level, additionally increased mainly on the basis of the inflow from the new government Eurobond, the distribution of new SDRs from the IMF, the macro financial assistance from the European Union, and payments of the overdue Eurobond to abroad. Foreign direct investments increased and reached 3.7% of GDP.

The banking system is characterized by a low level of non-performing placements, even after the end of the loans rollover period due to the pandemic, while maintaining a solid liquidity and capital position. Positive trends in bank deposits and loans continued during 2021 (annual growth of 7.5% and 8.3%, respectively). However, during the pandemic, the economic entities' inclinations changed in favor of a greater contribution of foreign currency

savings, which is common in vague periods, leading to a moderate slowdown of the multi-year deposit denarization trend at banks. It is significant to emphasize the intensified lending to the corporate sector, compared to the previous year, as a support for the economic recovery.

Amid moderate inflation, solid external position and risks posed by the pandemic both globally and nationally, the National Bank continued to conduct accommodative monetary policy. After the decrease in 2020, the policy rate fell further by 0.25 pp in March 2021 it was reduced to 1.25%, which is a historical low. The monetary measures taken during the pandemic, including the measure to prolong the loan repayments to the private sector (which ended during 2021), contributed to maintain solid credit support throughout the pandemic. In line with the recovery of the economic activity, there were more favorable movements in the foreign exchange market, realizing net sale of foreign currency by the National Bank being significantly lower compared to 2020, mainly reflecting the impact of the energy crisis in the last quarter of the year. Also, in order to deal with the consequences of the corona crisis, it is particularly important to highlight the approved access to foreign currency liquidity in euros, which was provided to the National Bank by the European Central Bank, initially until June 2021, and then extended until March 2022 (when these funds were not used). In March 2022, taking geopolitical risks into account, the ECB approved a new prolongation of the repo line until 15 January 2023.

The revival of economic activity in the post-pandemic period is still a priority task for the creators of the macroeconomic policies. However, given the unfavorable global environment, the macroeconomic movements will remain uncertain. Some of the future risks are related to the consequences of the pandemic at the national and global level, as well as the uncertainty regarding the duration of the health crisis and the vaccination process dynamics. Also, at the end of 2021, disruptions to global supply chains came to the fore, as well as the rising inflationary pressures and the energy crisis. However, such unfavorable trends and their effects on the economy are assessed as temporary, expecting their stabilization in 2022. However, the escalation of the Russian-Ukrainian crisis and hostilities in the first months of 2022 is a new and unexpected unfavorable geopolitical factor, which imposes serious risks to the global economy, given the general growing uncertainty and possible impact on global energy demand and deepening energy crisis.

The National Bank remains firmly focused on the determinations for maintaining the price stability and the stability of the denar exchange rate, through the use of all available instruments.

Basic economic indicators for the Macedonian economy

annual changes, in %	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Real sector														
Gross domestic product *	5.5	-0.4	3.4	2.3	-0.5	2.9	3.6	3.9	2.8	1.1	2.9	3.9	-6.1	4.0
Inflation	8.3	-0.8	1.6	3.9	3.3	2.8	-0.3	-0.3	-0.2	1.4	1.5	0.8	1.2	3.2
Unemployment rate	33.8	32.2	32.1	31.4	31.0	29.0	28.0	26.1	23.7	22.4	20.7	17.3	16.4	15.7
External sector														
Current account balance (% of GDP)	-12.7	-6.8	-2.0	-2.5	-3.2	-1.6	-0.5	-2.0	-2.9	-1.0	-0.1	-3.3	-3.4	-3.5
Trade balance (% of GDP)	-28.6	-25.8	-21.6	-25.2	-26.5	-22.9	-21.7	-20.1	-18.8	-17.8	-16.2	-17.3	-17.0	-20.2
Foreign direct investments (% of GDP)	6.0	2.0	2.2	4.6	1.7	2.8	2.3	2.2	3.3	1.8	5.6	3.2	1.5	3.7
Gross external debt (% of GDP)	48.8	55.9	57.8	61.2	66.1	64.0	70.0	69.3	74.7	73.4	73.0	72.4	80.3	80.2
Gross foreign exchange reserves (in EUR million)	1494.9	1597.5	1714.5	2068.9	2193.3	1993.0	2436.5	2261.8	2613.4	2336.3	2867.1	3262.6	3359.9	3643.3
Monetary sector														
Money supply (M4)	11.8	5.7	12.1	9.5	4.4	5.2	10.6	6.9	6.2	5.1	11.8	9.3	6.9	7.0
Total credits	34.4	5.2	7.0	8.4	5.6	6.6	10.0	9.6	6,5***	5.4	7.3	7,6***	4.7	8.3
Total deposits (including transaction deposits)	8.9	17.8	12.8	9.1	4.4	5.4	10.5	6.4	6.1	5.0	12.1	9.0	5.7	7.5
Fiscal sector														
Budget balance (% of GDP)	-0.9	-2.6	-2.4	-2.5	-3.8	-3.8	-4.2	-3.5	-2.7	-2.7	-1.8	-2.0	-8.2	-5.4
Public debt (% of GDP)	23.0	26.2	27.2	32.0	38.3	40.3	45.8	46.6	48.8	47.7	48.4	49.2	61.0	60.8
Banking sector														
Capital adequacy ratio (%)	16.2	16.4	16.1	16.8	17.1	16.8	15.7	15.5	15.2	15.7	16.5	16.3	16.7	17.3
Non-performing loans of the non-financial sector/Gross loans (%)	6.8	9.1	9.3	9.9	10.5	11.5	11.3	10.8	6.6	6.3	5.2	4.8	3.4	3.2
Liquid assets / Total assets (%)	22.9	25.6	30.9	31.2	32.4	31.2	29.8	28.2	28.9	27.1	26.7	26.9	23.3	23.0

Source: NBRNM, SSO, Ministry of Finance.

* Preliminary data for 2020, estimate for 2021.

** Without obligations for the monetary authority (without repo agreements)

*** Corrected for the write-offs.

I. Monetary Policy in 2021

1.1. Monetary policy objectives

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

Based on these legal provisions, the National Bank adjusted its monetary policy during 2021 to ensure continuity in achieving the legally defined goals, while there were still risks and uncertainties caused by the COVID-19 pandemic. The National Bank has successfully attained the monetary policy objectives, as perceived through the maintenance of price stability and exchange rate stability. Viewed from the aspect of price stability, on average for the whole 2021, moderate annual growth of domestic prices of 3.2% was realized. Price pressures mainly arise from the factors on the supply side, in conditions of more pronounced upward movement of prices of energy and food components (influenced by the growth of import prices), and more moderate in core inflation in the absence of higher pressures by domestic demand. The exchange rate remained stable, whereby all foreign reserves adequacy indicators remained in the safe zone. In 2021, the financial stability was successfully preserved in support of the achievement of the primary goal. In conditions of adequate level of foreign reserves and moderate inflation rate, during 2021 the National Bank continued to ease the monetary policy, in order to maintain credit flows and support the recovery of the Macedonian economy, in conditions of prolonged pandemic.

Chart 1
Output gap and inflation*

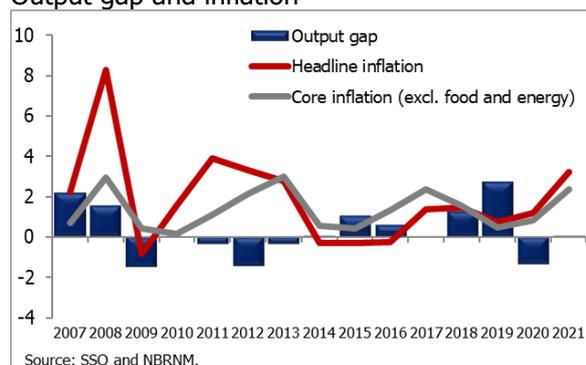
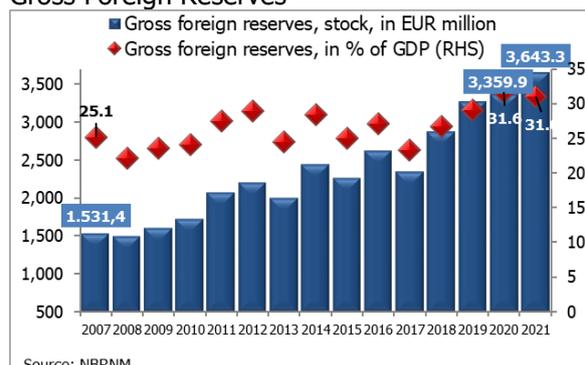


Chart 2
Gross Foreign Reserves



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

Chart 3
Foreign reserves adequacy indicators

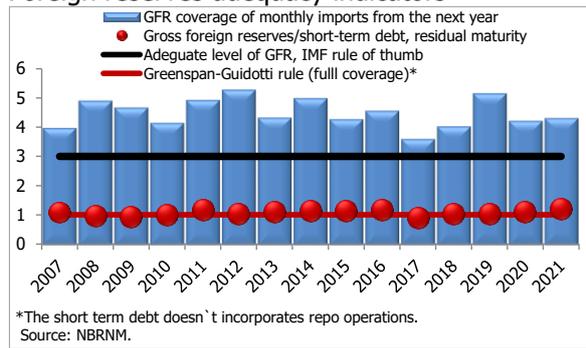
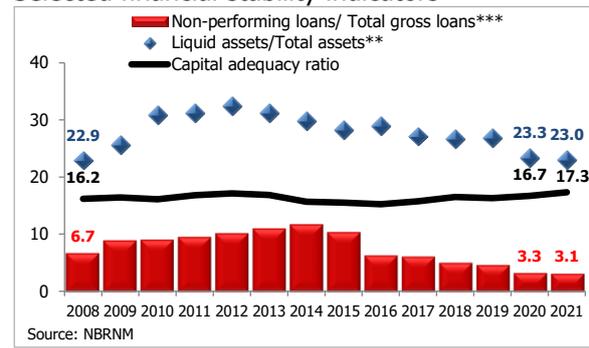


Chart 4
Selected financial stability indicators



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

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

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

Source: NBRNM and SSO.

1.2. Monetary policy setup

The National Bank continued to loosen the monetary policy during 2021, thus contributing to the further easing of financial conditions and further support of the domestic economy, in conditions of uncertainty related to the course of the health and economic crisis caused by COVID-19. The National Bank reduced the policy rate during the first quarter of 2021 to the historically lowest level of 1.25%, while keeping the offered amount of CB bills at the level of Denar 10,000 million. At the same time, in February 2021, the National Bank made a decision, temporary limiting the distribution and payment of dividends to shareholders of banks and savings houses until August, when the decision was revoked. This decision was adopted in order to contribute to further increase the banking system resilience and stability, amid uncertainty and protracted COVID-19 pandemic effects. Such monetary policy setup supported the credit flows in the economy and increased the liquidity in the banking system, amid a solid level of foreign reserves and moderate inflationary pressures. Total deposits and loans continue to grow on an annual basis, despite the present uncertainty arising from the pandemic. The National Bank carefully monitors the indicators and potential risks of the domestic and external environment, in order to adequately adjust the monetary policy setup.

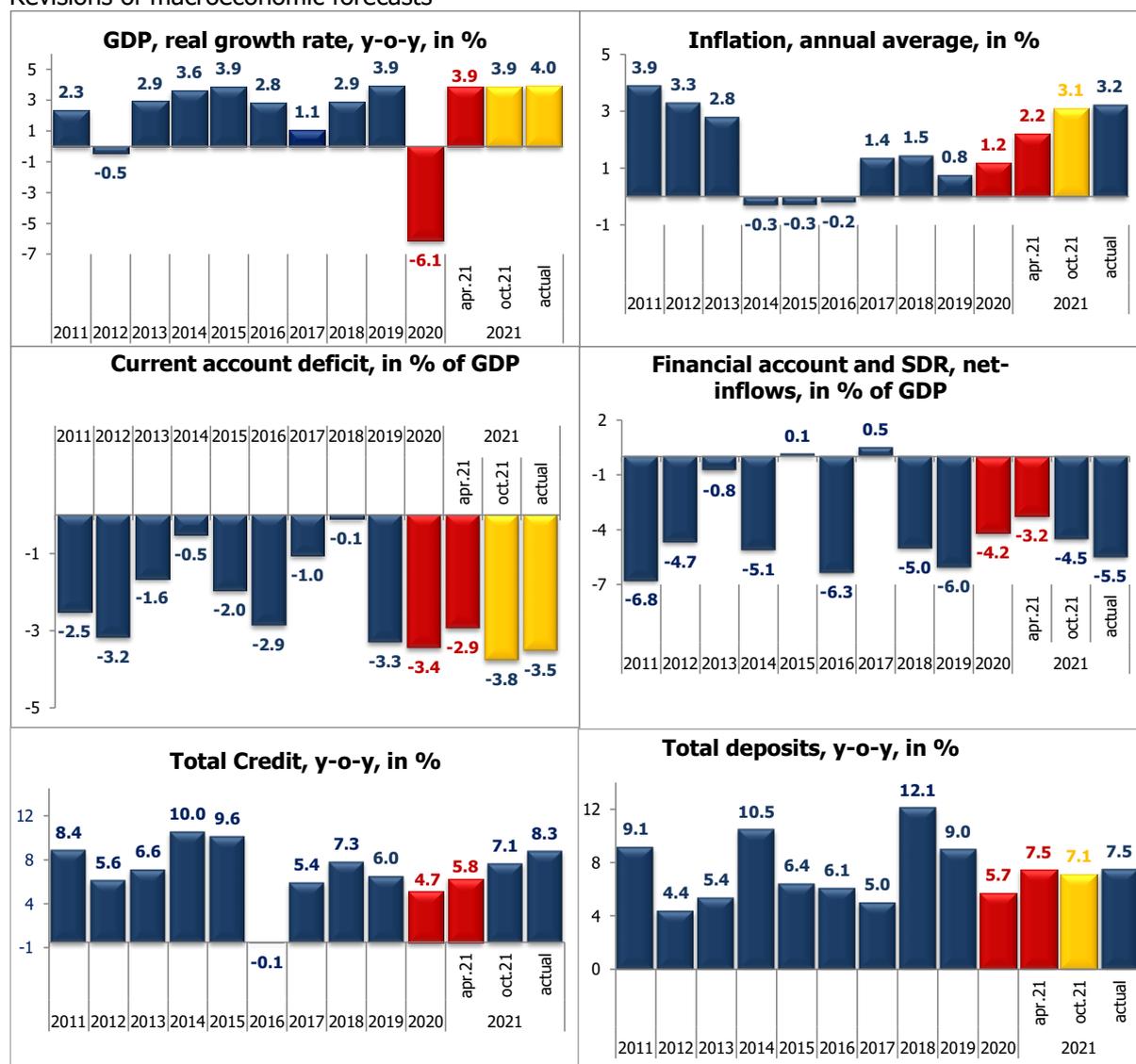
The circumstances for the implementation of the monetary policy in 2021 imposed an adjustability of the policies in order to support the recovery of the Macedonian economy, in environment of still present COVID-19 pandemic. The National Bank was present on the foreign exchange market, with moderate interventions for sale of foreign currency. The household deposits registered an increase as a result of the restraint from spending in conditions of uncertain pandemic-driven developments, in conditions of growth of disposable income.

The general price level in 2021 registered an average annual growth of 3.2%, which results from the growth of prices in all three main components, and most pronounced in the energy component. This performance is in line with the forecasted inflation rate for 2021 of the October forecasts, which resulted in an upward revision of the expected rate in the April forecasts. The upward movements of inflation in both, our country and in the world, are due to the global factors on the supply side, without greater pressures on the demand side.

Domestic economic activity started to recover from the second quarter of the year, with which the economic growth in 2021 reached 4.0% and was in line with expectations. The

growth was supported by the rapid recovery of the export activity, but also by the domestic demand, with a stronger recovery in the personal in relation to the investment consumption.

Chart 5
Revisions of macroeconomic forecasts

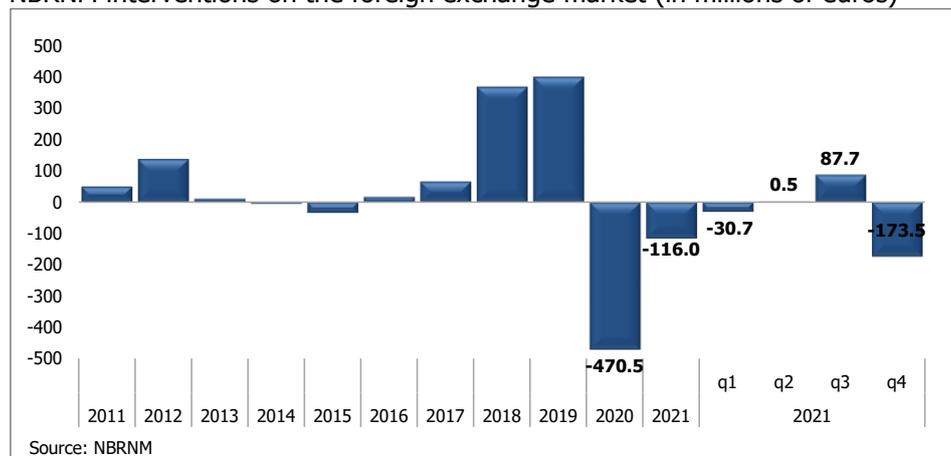


Source: NBRNM and SSO. Forecasts for all indicators refer to the macroeconomic forecasts of the NBRNM.

Foreign reserves increased in 2021, remaining in the safe zone during the year. The increase in foreign reserves is largely due to transactions at the expense of the state¹. On the other hand, the National Bank intervened with net sale of foreign currency in order to maintain the balance between supply of and demand for foreign currency, significantly less compared to 2020 and mainly concentrated in the last quarter of the year, when the first effects of the energy crisis emerged. However, the solid positive financial flows within the financial account of the balance of payments enabled full financing of the current account deficit and further growth of the foreign reserves.

¹ The eight Eurobond has been issued in the beginning of March 2021 in the amount of Euro 700 million: the withdrawal of the second tranche of the EU macro financial assistance in the beginning of June 2021 in the amount of euro 80 million, out of total Euro 160 million micro financial assistance from the EU to overcome the crisis caused by the corona virus; using the new special drawing rights (SDR) to finance budget expenditures and debt repayment of the Republic of North Macedonia, which the International Monetary Fund (IMF) granted to the state on 23 August 2021, in the amount of about Euro 161 million. Moreover, in July 2021 the government repaid the Eurobond issued in 2014 in the amount of Euro 500 million.

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



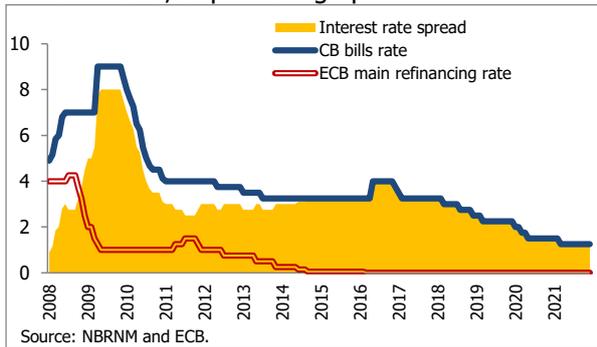
Source: NBRNM

Deposits of the private sector continued to grow during the year. The uncertainty due to the pandemic, and in addition the price pressures under the influence of the newly emerging energy crisis that started at the end of the year, had an impact on the currency, maturity and sector structure. The annual growth of total deposits in 2021 was largely due to the increase in demand deposits and foreign currency deposits, while domestic currency deposits recorded a decline. Also, during the year there was an increase in short-term deposits at the expense of long-term deposits, as well as a moderate growth in the level of euroization². Observed by sector, the annual growth of total deposits largely results from the household loans, with a positive contribution of corporate deposits. In terms of credit flows, their growth accelerated during 2021, influenced by the intensified growth of corporate loans, as well as the further growth of household loans, which contributed to steady solvency and liquidity position of banks, increase in the sources of financing, as well as accommodativity of the monetary policy.

Given the application of stable nominal exchange rate of the denar against the euro, changes in interest rates in the euro area, as the anchor economy, play an important role in the monetary policy setup in the country. In 2021, the European Central Bank (ECB) pursued conducting a loose monetary policy through a series of quantitative easing measures, while keeping the policy rates at the same level. As a result of the decrease in the policy rate of the National Bank, a narrowing of the spread between the interest rates of the National Bank and the ECB from 1.5 pp to 1.25 pp was registered. Regarding the interest rates of the banks in the domestic economy, the spread between the interest rate on denar and the interest rate on foreign currency deposits in 2021 registered a minimal narrowing (from 0.8 pp to 0.6 pp), as a result primarily of the downward movement of the interest rate on denar deposits, with a minimal decline in the interest rate on foreign currency deposits.

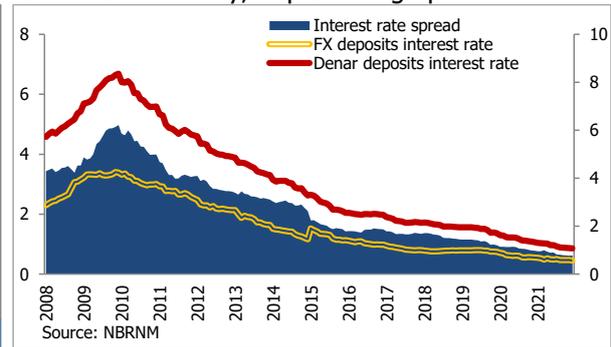
² Share of the foreign currency deposits in the total financial system deposits

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



NBRNM policy rate: interest rate on CB bills.
 ECB policy rate: interest rate on ECB's main refinancing operations

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



II. International environment³

After the strong pandemic blow, the global economy recovered in 2021 supported by the monetary and fiscal stimulus, further relaxation of restrictive measures and population immunization process.

The estimated global economic growth for 2021 is 5.9%, which is considered the highest growth in the last 40 years.⁴ The intensified economic activity was widespread, but the recovery in economic activity is uneven, with developed countries expected to reach pre-pandemic levels faster, while in emerging and developing countries the recovery is weaker due to a slower immunization process and mostly smaller set of stimulating measures compared to advanced economies.

The forecasts for the global economic growth continue to be accompanied by exceptional uncertainty, related to the further development of the pandemic, and from the beginning of 2022, to geopolitical tensions and developments between Russia and Ukraine. Even before the outbreak of these tensions, the risks in the short and medium term were assessed as downward, related to the further prolongation of the pandemic caused by the new strain of COVID-19 ("omicron") and consequently the risk of new restrictive measures. This would contribute to further deterioration in supply chains, rising inflation and inflationary expectations, and thus earlier and sharper tightening of monetary policies in many economies. Consequently, these factors may also increase the risk of financial stress, given the vulnerability of the public and private sectors, especially in highly indebted emerging and developing countries, and in addition, the possible consequences related to climate change would have a negative effect on the recovery of this group of countries. Currently, a more pronounced risk for the global economy is the escalation of the Russian-Ukrainian conflict, which may cause an increase in the prices of primary energy and non-energy products, destabilization of global trade flows and increased instability in financial markets, adversely affecting global inflation and global economic recovery. In the long term, the global economy faces the risk of a more evident fall in the fundamental growth generators, especially pronounced in emerging and developing economies, in the context of weaker investments in fixed assets, as well as consequences on human capital with limited access to education and health services. Other global risks are the possible slower growth of the Chinese economy and the possible emergence of global social unrest. On the other hand, upward risks to future growth are mainly related to additional fiscal support in developed economies and faster adoption of new technologies, which could lead to increased productivity and a stronger-than-anticipated global economic recovery.

The average inflation rate in 2021 accelerated, reaching 4.3% (3.2% in 2020) and mostly reflects the increase in energy and food prices, in conditions of larger supply and demand mismatch and gridlock in the supply chains. By groups of countries, the inflation rate in 2021 in developed economies accelerated significantly and reached 3.1% (compared to 0.7% in 2020), while in emerging economies it was 5.7% (5.1% in 2020).

³ The analysis is based on the IMF's 'World Economic Outlook, updated in October 2020 and January 2021; the World Bank's World Economic Outlook, January 2018; the quarterly reports of the National Bank.

⁴ It refers to the period since the publication of global growth data from the IMF database (WEO October 2021), since 1980.

Chart 9
Global economic growth (in %)

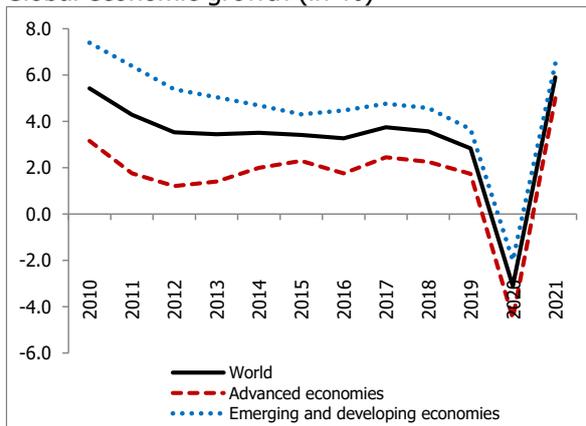


Chart 10
GDP growth in developed countries (in %)

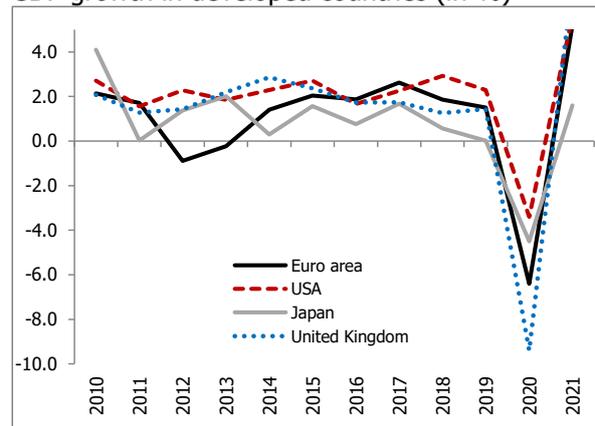
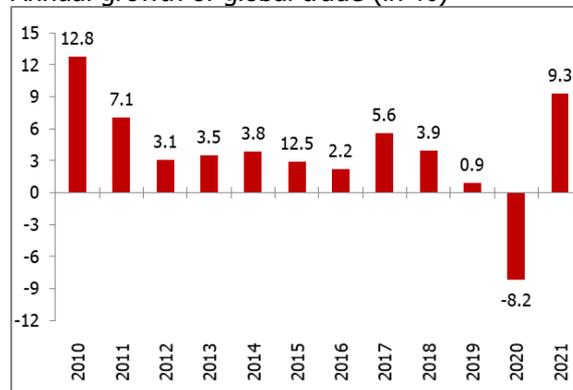


Chart 11
Annual growth of global trade (in %)



Source: World Economic Outlook, October 2021 and update January 2022, IMF

Relative to the specific quantitative indicators that depict the external environment of the Macedonian economy, the foreign effective demand and foreign effective inflation in 2021 registered relatively high annual rise. Namely, the evaluations point to a growth in foreign effective demand of 4.1% (against the fall of 5.1% in 2020), in conditions of favorable economic performance in all trading partner countries, with the largest positive contribution of Germany, Italy and Greece. Such movements are due to the low comparison base (especially in the second quarter) and increased economic activity in conditions of reduction of restrictive measures as a result of mass immunization, as well as further stimulating monetary and fiscal policy. As for foreign effective prices for 2021, on average, they grew by 2.7% (accelerating from 0.3% growth in 2020), mainly reflecting price growth in all countries, with the biggest contribution to the acceleration of inflation being made by Germany, Croatia and Italy⁵.

⁵ Inflation in Serbia and Croatia is adjusted for exchange rate changes

Chart 12
Foreign effective demand

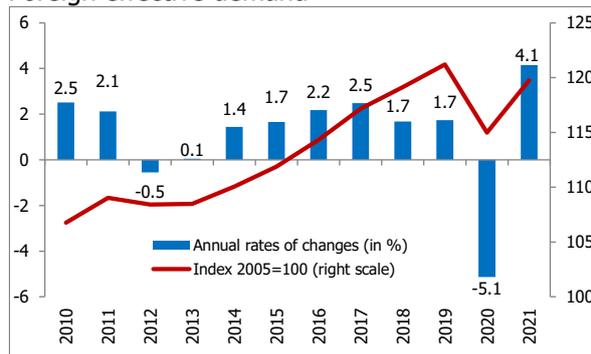
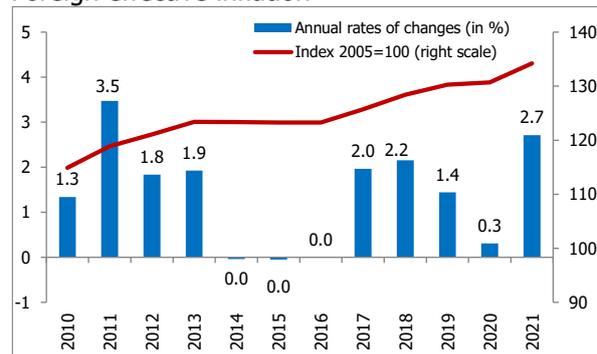


Chart 13
Foreign effective inflation



Source: National statistical offices and National Bank calculations⁶.

In the primary products markets, significant upward movements were registered in 2021. Namely, the average oil price in 2021 was Euro 59.7 per barrel and was higher by 61.1% compared to 2020 (Euro 37 per barrel), mostly as a result of the recovery of global demand due to the revival of the economic activity in conditions of reduced restrictive measures and mass immunization, as well as the extension of the agreement on limited oil production by OPEC+ member countries throughout the year. The base metal price index and the food index in 2021 also saw significant growth, reaching growth rates of 42% and 23.5%, respectively. Such movements, in conditions of growth in global demand, were primarily a reflection of factors on the supply side (reduced metal stocks, hold-back in supply chains and the consequent high growth of transport costs, unfavorable weather conditions for food production).

Chart 14
Monthly movement of prices of primary energy and non-energy sources (euro, index: 2010=100)

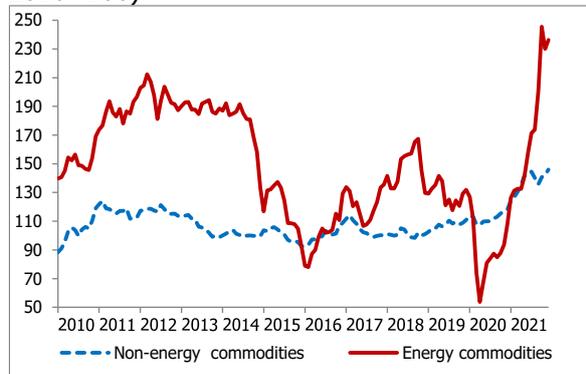
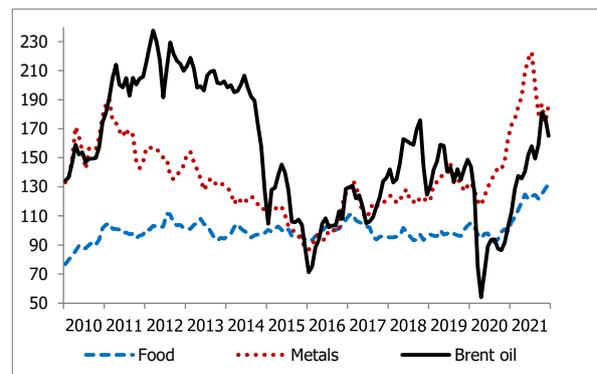


Chart 15
Monthly movement of prices of crude oil, metals⁷ and food (euro, index: 2010=100)



Source: IMF's database on primary commodity prices.

During 2021, the central banks of developed countries kept up with stimulative monetary policy to encourage economic growth, but at the end of the year, some of them made decisions to begin with gradual tightening, due to increased inflationary pressures. The

⁶ Foreign effective demand is the sum of weighted GDP indices of the major trading partners of our country. The index calculation includes: Germany, Greece, Italy, the Netherlands, Belgium, Spain, Serbia, Croatia, Slovenia and Bulgaria. The weights are calculated on the basis of the share of exports to these countries in the total export. The foreign effective inflation is the weighted sum of consumer price indices of the countries that are major partners of our country in the field of import of consumer goods. The weight structure is based on the normalized shares of nominal imports from each country in the total nominal imports in the period 2013 - Q3 2016. The calculation of this indicator includes: Bulgaria, Germany, Greece, France, Italy, Austria, Slovenia, Croatia and Serbia.

⁷ Metals Price Index is a composite index, which includes prices of copper, aluminum, iron ore, tin, nickel, zinc, lead and uranium.

Bank of England kept the quantitative easing measures throughout the year⁸, but at the regular meeting in December, it made an upward correction of the reference interest rate, which increased from 0.1% to 0.25%. At the same time, it announced that a moderate tightening of the monetary policy might be necessary in the coming period in order to meet the target inflation. On the other hand, the FED kept the interest rate spread at the level of 0 to 0.25% throughout the year, but on two occasions (in November and December) it decided to reduce the purchase values volume of long-term and treasury securities. Thus, through the two reductions, the FED halved the monthly purchase of long-term securities, which starting in January 2022 will amount to US dollar 60 billion, instead of US dollar 20 billion. A further reduction in the pace of net asset purchases was also announced in the following period, but this will be adjusted depending on the economic prospects.

The European Central Bank (ECB) didn't change the interest rates in 2021, but made changes in terms of measures to stimulate post-pandemic economic growth, as well as in monetary strategy. Namely, on 8 July 2021, revision of the monetary strategy was announced, according to which the achievement of price stability continues to be the main objective of the monetary policy, and the main changes refer to the definition of target inflation (2% symmetrical target inflation in the medium term), as well as widening of the inflation scope by including housing costs⁹. In terms of measures, changes were made during the year within the Pandemic Emergency Economic Support Program (PEEP), with the ECB increasing the pace of net asset purchases in the second and third quarters, while in the last quarter it moderately reduced the purchase dynamics, and according to the decision made at the meeting in December, there will be a further reduction in the first quarter of 2022, which will end the program in March 2022. The reinvestment period of due assets within this program was prolonged for another year, i.e. at least to the end of 2024. In addition, in December, ECB decided to change the amount of the securities purchase program (APP)¹⁰. It is possible that the recent geopolitical tension to postpone the leading central banks' tightening of the monetary conditions.

⁸ Throughout the year, the Bank of England decided to keep the volume of corporate bond purchases for non-financial investment at British pound 20 billion and to continue the existing government bond purchase program, with a target amount of British pound 875 billion, with the total volume of the purchase of funds resulting from these measures equaling British pound 895 billion pounds.

⁹ More information on the strategy see at the following [link](#).

¹⁰ In the second quarter of 2022, the monthly net purchase of securities will amount to Euro 40 billion (instead of the previous Euro 20 billion), to then decrease to 30 billion in the third quarter, while starting from October 2022, the amount of Euro 20 billion will be retained as long as necessary and the program will end.

III. Macroeconomic developments in 2021

3.1. GDP and inflation

According to the estimated data of the SSO, in 2021 the real GDP increased by 4%¹¹. Namely, after the deep fall of 6.1% in 2020 as a result of the health and economic crisis caused by the COVID-19 pandemic, a gradual recovery of the domestic economy was registered during 2021. Moreover, the economic growth in 2021 is due to several factors, such as the gradual adjustment of the behavior and habits of the entities in pandemic circumstances, the immunization process in the country, the reopening of the economies and the application of targeted and less restrictive measures to deal with the pandemic, as well as the measures taken to support the economy. Analyzed by components, the intensification of the economic activity in 2021 is entirely due to the positive contribution of domestic demand, in conditions of annual growth and positive contribution in all its categories (private consumption, gross investments and public consumption), while the net export component has a negative contribution, in conditions of greater growth of imports in relation to the growth of exports. On the production side, growth was driven by services (trade, transport, tourism, information and communications and real estate), while industry faced disruptions in supply chains and, towards the end of the year, the negative effects of the energy crisis, and construction registered further decrease.

Chart 16
GDP and foreign effective demand (annual real growth rates, in %)

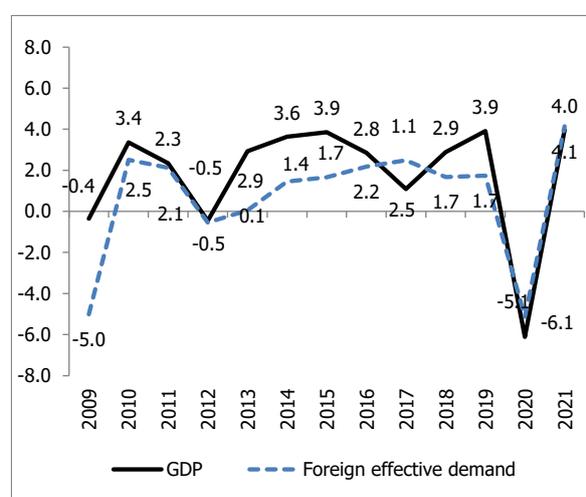
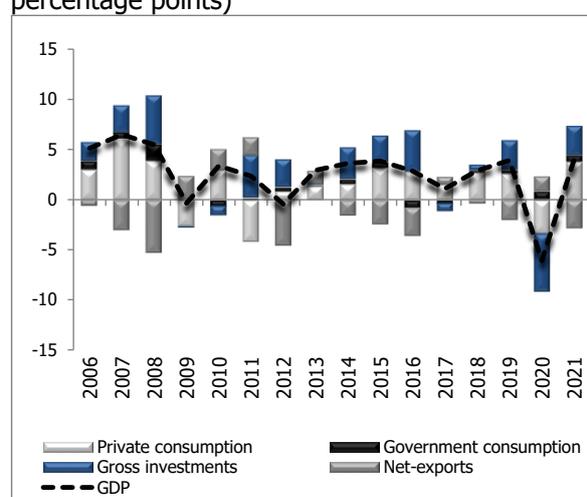


Chart 17
GDP (real growth, in %) and GDP expenditure components (contributions to growth, in percentage points)



Source: State Statistical Office and Eurostat, NBRNM calculations GDP data for 2020 are preliminary, and data for 2021 are estimated.

Observed in details through the production side, the economic growth in 2021 is widely dispersed, and it is most pronounced in the part of the group of activities "trade, transport and hospitality", which during the previous year was the most affected by the pandemic-related crisis. Moreover, the increase in **trade** is due to high growth of wholesale trade and retail trade, while the trade in motor vehicles registered a decline. Also, according to more detailed data on transported passengers and goods, growth in activity is also recorded in **transport**, with intensified activity in all types of transport being registered, in conditions of facilitated movement of the population, both locally and internationally, compared to the

¹¹ In 2021, the real GDP dynamics was as followed: Q1: -1.8%, Q2: 13.4%, Q3: 3% and Q4 2.3%.

previous year. In addition, high activity growth has been registered in **catering**, which was one of the sectors most affected by the pandemic, given the high growth in the number of tourists and overnight stays, as well as the total turnover. When it comes to the **industry**, analyzed through the industrial production index, favorable achievements in the manufacturing industry are observed mostly in the activities performed by foreign export facilities, such as the production of electrical equipment and the production of machines and devices (an activity with the most significant negative contribution in the previous year), with the production of chemicals and chemical products, as well as the production of rubber and plastic products having an additional positive contribution. When it comes to the traditional activities, a more notable positive contribution was made by the production of other non-metal mineral products and production of tobacco products. On the other hand, unfavorable performance within the manufacturing industry is observed in the production of motor vehicles (to some extent reflecting the disruptions in global supply chains that had an effect on the automotive industry), the production of fabricated metal products, except machinery and equipment, as well as textile and clothing production. The value added in the construction sector decreased in 2021 as well, which, seen through high-frequency data, is mainly a result of the large fall in civil engineering, with a smaller decline being also registered in building construction.

Chart 18
Contribution to the real annual GDP change (in percentage points)

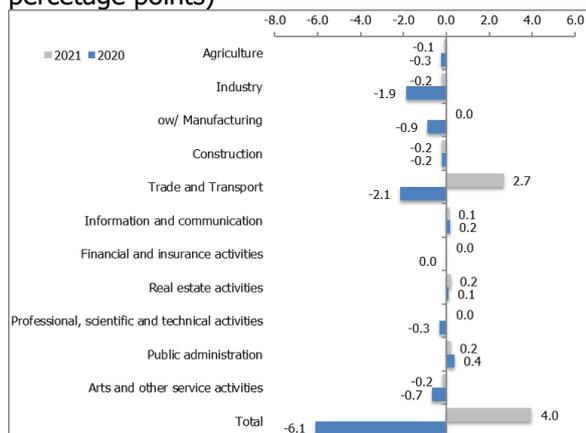
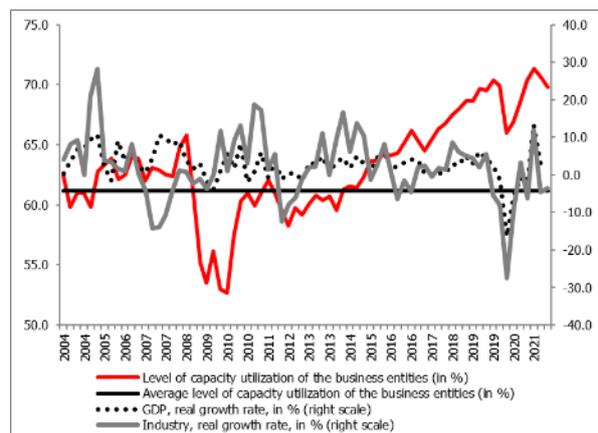


Chart 19
GDP, industry and capacity utilization



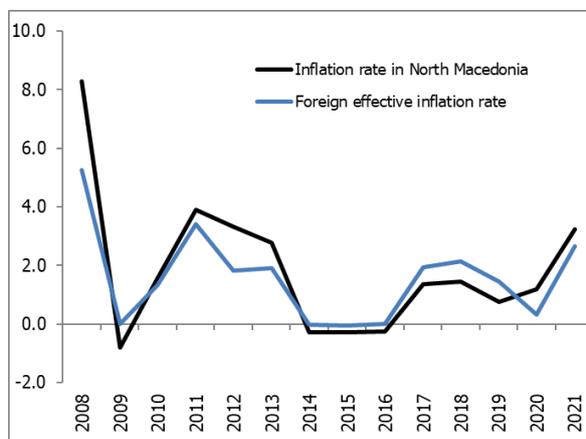
Source: State Statistical Office and National Bank calculations GDP data for 2020 are preliminary, and data for 2021 are estimated.

From the perspective of aggregate demand, in 2021 the growth of economic activity is entirely due to the recovery of domestic demand, while net exports had a negative contribution. Within the domestic demand, favorable performance has been observed in all three categories, and the largest positive contribution is made by **household consumption**, in conditions of solid growth of disposable income, driven by the high growth of private transfers with the facilitated international movement of the population, as well as the growth of wages during the gradual stabilization of the labor market situation. In addition, **investments** also had a positive contribution, registering high growth of foreign direct investments, as well as government capital investments and the import of working capital, with **public consumption** also having a positive contribution as a result of higher expenditures for goods and services. Also, during 2021, exports quickly recovered and recorded a relatively high growth, driven by the increased export activity of some of the foreign-owned production facilities. The growth of exports and domestic demand contributed to a high growth of import of goods and services, which is why the net export component recorded a negative contribution to the total GDP.

In 2021, the average inflation rate was 3.2%, which represents a moderate acceleration compared to the performance in 2020, when inflation was 1.2%. Broadly speaking, this growth in domestic prices during the year reflects changes in the prices of primary commodities on the world stock exchanges, which is related to the disruption of global supply chains and the reopening of economies, the transmission effects of the administrative and regulatory changes made last year, as well as to certain pandemic-specific factors, in conditions of relaxed restrictive measures at the end of the second quarter of the year. Hence, the price pressures in 2021 mainly stemmed from supply-side factors.

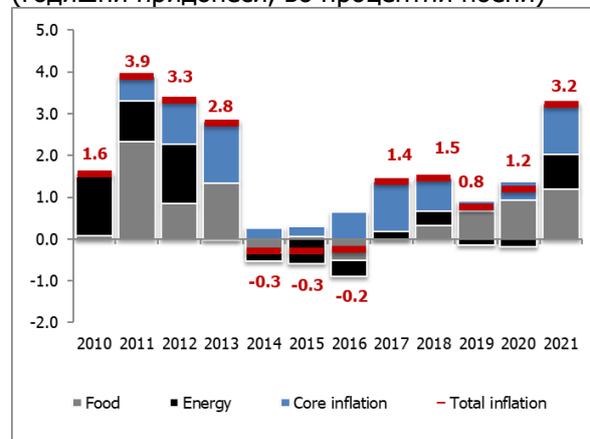
According to the dynamics, the growth of consumer prices accelerated during the year, and a slightly higher increase in prices on an annual basis was registered in the second half of the year.¹²

Chart 20
Domestic inflation and foreign effective inflation¹³, annual growth rates (in %)



Source: State Statistical Office, Eurostat and NBRNM calculations.

Chart 21
Volatile (food and energy) and long-term component of inflation (годишни придонеси, во процентни поени)



Regarding the main components of the consumer price index, unlike the previous two years, in 2021 all three components had a positive contribution to the total inflation. Thus, in contrast to the past two years, this year the **energy component** recorded a growth of 6.3% (contribution of 0.8 pp to the total inflation). Such an increase reflects the transmission effect of the regulatory increase in the electricity in August 2020¹⁴, accompanied with the high annual rise in the prices of oil derivatives in line with the upward movements of the brent oil on the world stock markets. However, in conditions of depletion of the transmission effect of the increase in the domestic price of electricity, as well as decrease in the central heating prices¹⁵, the increase with the energy component was more moderate in the second half of the year. The increase in **food prices** of 3.3% (a contribution of 1.2 pp in the headline inflation mainly

¹² The annual growth of consumer prices during 2021 had the following dynamics: 2% in the first quarter, 2.8% in the second quarter, 3.5% in the third quarter and 4.6% in the fourth quarter.

¹³ The calculation of foreign effective inflation derives from the weighted sum of consumer price indices of the countries that are major partners of the Republic of North Macedonia in the field of import of consumer goods. The weight structure is based on the normalized shares of nominal imports from each country in the total nominal imports in the period 2010-2012. The calculation of this indicator includes Bulgaria, Germany, Greece, France, Italy, Austria, Slovenia, Croatia and Serbia.

¹⁴ By the decision of the ERC, as of 1 August 2020, the price of electricity is higher by 7.4%, i.e. for a high tariff it equals 5.95 den/kWh, for a low tariff it is 2.99 den/kWh, while for one-tariff measurement it is 4.77 den/kWh (<https://www.erc.org.mk/pages.aspx?id=153>). Also, with the decision of RCE, starting from 1 July 2021, the price of electricity has been increased by 12.4% (without VAT), but with the reduction of the VAT rate (from 18% to 5%), the price of electricity including VAT remains unchanged.

¹⁵ On 29.7.2021, the Energy Regulatory Commission adopted a decision to reduce heating price by 4%, i.e. as of 1 August, the heating tariff for households and educational institutions will be Denar 1.8498/ kWh, while for other consumers this tariff will be Denar 2.5898/kWh.

arises from the higher rise in oil and fat prices, as well as the prices of bread and cereals, caused by the surge in oil and cereal prices on world markets. An additional contribution to the growth of food prices was made by the prices of meat related to the growth in the prices of cereals, which increase the price of fodder for livestock, and there was also growth in the prices of vegetables, especially pronounced in the second half of the year. From a dynamics point of view, a higher growth in food prices can be observed towards the end of the year, under the influence of price growth in oil and fats, bread and cereals, meat and vegetables, and growth was also registered in the prices of milk, cheese and eggs, which is why in December 2021, the Government adopted a Decision on determining the highest prices of basic food products in wholesale and retail trade¹⁶. **Core inflation** registered annual growth of 2.4% (contribution of 1.2 pp in the headline inflation), which is mostly explained with a positive contribution of the tobacco prices as a result of the amendments to the regulations¹⁷, as well as from the growth of restaurants and hotels prices in conditions of less restrictive measures, but which are still in force due to the emergence of new variants of COVID-19, which conditions reduced operating capacity of the entities from this services activity. In the second half of the year, there was also a positive contribution of the higher prices in air traffic in accordance with the increased international trips with less restrictive measures. Also, the growth of prices of pharmaceutical products, IT equipment and cars had a positive, but smaller contribution to the basic component.

3.2. Labor market

In 2021, on the labour market¹⁸ evident stabilization and gradual decrease in the transmission negative effects of the COVID-19 pandemic on this market segment was registered. A decrease in the number of employed persons was registered only in the first quarter, while in the rest of the year the number of employed persons recorded annual growth. These shifts are consistent with the recovery of economic activity after the first pandemic blow in 2020. However, given the prolonged pandemic, the recovery is not yet complete, and the number of employed persons has not yet returned to the pre-pandemic level. In addition, during 2021, the number of the inactive population increased, with which the activity rate recorded a decrease for the second consecutive year.

In 2021, several anti-crisis measures¹⁹ were adopted to further mitigate the impact of the crisis on the labor market, and the implementation of active employment measures²⁰ to support employment growth continued. The number of employees remained the same in 2021, amid simultaneous increase in the employment rate of 0.1 pp to the level of 47.3%. Analyzed by sector, employment growth was registered in the service sector, there was a

¹⁶ On 4 December 2021, the Government of the RNM made a decision to freeze the prices of bread, sugar, flour, edible sunflower oil, milk, fresh meat and cured meat products, cheese and cottage cheese at the level of 1 December. On 14 December, the list of products was expanded to cover the prices of rice, eggs and pasta. The decision to freeze the prices of basic food products from early December was temporary and initially valid until 31 January 2022, but was later extended until 28 February 2022. Due to the price recording method of the SSO (at the middle of each month), this decision had no full effect when recording the December 2021 prices (<https://vlada.mk/node/27162> ; <https://vlada.mk/node/27234> и <https://vlada.mk/node/27591>).

¹⁷ The increase was also caused by the amendments to the Law on Tobacco and Tobacco Products which require all packs of cigarettes to have 20 cigarettes from November 2020 (previously there were packs of 19 cigarettes), as well as the increased excise charged per cigarette. Additionally, the annual growth of tobacco price reflects the increase in cigarette prices in July 2021, in line with the annual scheduled increase in cigarette excise duties by Denar 0.20 per piece as of 1 July 2023.

¹⁸ Labor market analysis was made using quarterly labor force surveys, that is, the annual indicators for 2021 were derived as an average of the published quarterly data.

¹⁹ For more information about the adopted measures visit: <https://vlada.mk/ekonomski-merki-covid19>

²⁰ In 2021, the Ministry of Labor and Social Policy and the Employment Agency continued to implement active measures and programs aimed to increase employment. With the Operational Plan for active programs and measures for employment and services on the labor market in 2021, around 12,000 unemployed people were covered, through 8 different types of programs, which also contain separate measures (more information at <https://av.gov.mk/operativen-plan.nspj> и <https://vlada.mk/node/27001>).

decrease in the number of employees in the agriculture and construction sectors, while in industry the number remained unchanged. If analyzed in more details by activity, positive movements were observed in several service activities, above all in activities related to wholesale and retail trade, health care, "public administration and defense; mandatory social insurance", as well as information and communications. On the other hand, employment in the activities related to hotels and restaurants, agriculture and "transportation and storage" decreased further.

Chart 22
Selected labor market indicators (in %)

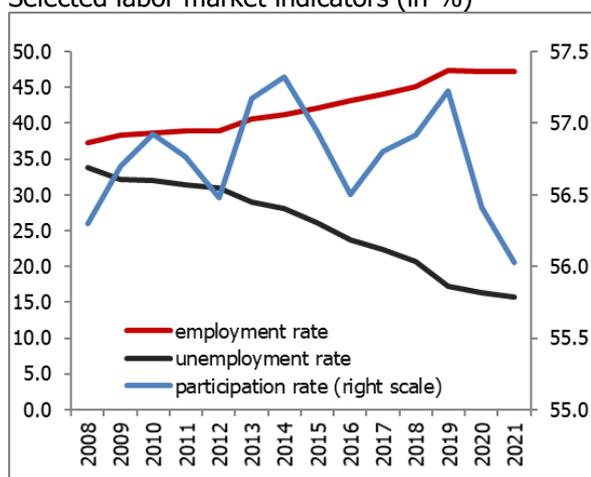
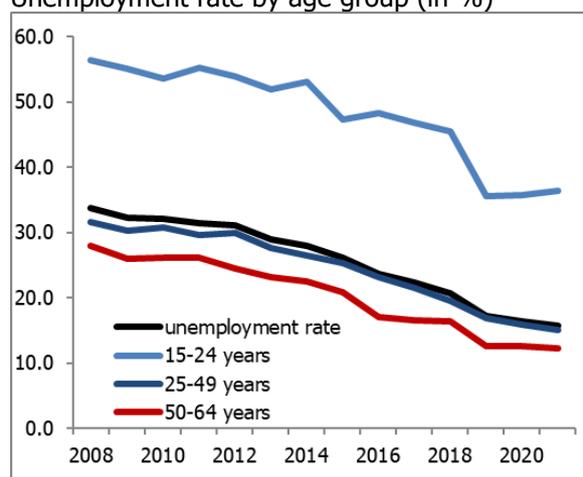


Chart 23
Unemployment rate by age group (in %)



Source: State Statistical Office and National Bank calculations

From the aspect of the supply of labour force, the total active population decreased by 0.8%, and the simultaneous increase in the inactive population of 0.7% resulted in downward movement of the activity rate (of 0.4 percentage points) that equaled 56%. Despite the unfavorable movements on the supply side, the stabilization of the labor demand side led to a decrease in the number of unemployed persons by 5.2%, and the unemployment rate was reduced to the historically lowest level of 15.7% (an annual decrease of 0.7 pp). At the same time, analyzed by age groups, the reduction of the total unemployment rate is explained by the lower unemployment among the age groups from 25 to 49 years and from 50 to 64 years, while unemployment in the category of young people from 15 to 24 years registered an increase.

Growth in average paid wages continued in 2021, in part due to the transmission effect of minimum wage increases in 2020²¹, as well as the regular minimum wage increase from April 2021²². Certain structural factors, such as the lack of labor in certain segments, but also as an effect of the crisis, which comes to the fore through the reduction of the number of employees with a wage lower than the average, had an additional influence on the increase of the average wage. Thus, nominal net and gross wages²³ registered an annual growth of

²¹ According to the announcement of the Ministry of Labor and Social Policy, published in the Official Gazette of the Republic of North Macedonia No. 75/20 and the Decree with legal force on the enforcement of the Law on Minimum Wage in the Republic of Macedonia Official Gazette of the Republic of North Macedonia No. 88/20, the minimum net wage in July 2020 increased by 3%, i.e. by Denar 434.

²² Regular adjustment for increasing the minimum wage (with the increase for the previous year of the average wage paid in the RNM, the consumer price index and the real GDP growth-one third of the growth of each indicator, respectively) was made in April 2021. According to the announcement of the Ministry of Labor and Social Policy in the Official Gazette of the Republic of North Macedonia No. 80/21 enforcing the Law on Minimum Wage in the Republic of Macedonia Official Gazette of the Republic of North Macedonia No. 11/ 12.30/14, 180/14, 81/15, 129/15, 132/17 and 140/18 and Official Gazette of the Republic of North Macedonia No.

²³ 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.

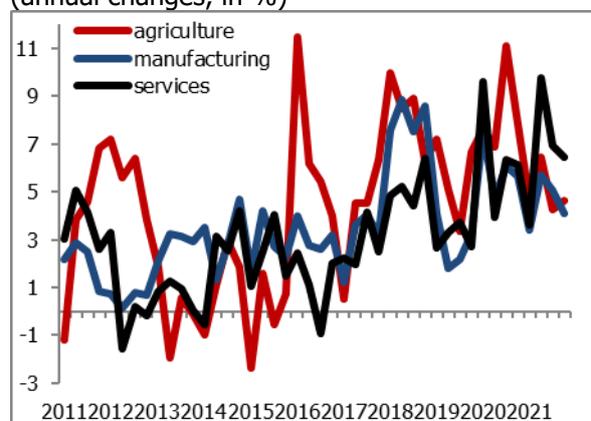
3.9% and 5.7%²⁴, respectively (2020: 7.8% and 8.3%, respectively). An upward correction of net wages was observed in all sectors of activities, and a particularly high growth was registered in the activities that were initially most affected by the pandemic, as well as the activities that can be connected with the trend of ever greater digitization, further emphasized in pandemic conditions. Thus, the highest growth was observed in the wages of activities related to "accommodation facilities" (10.9%), "art, entertainment and recreation" (10.7%), other service activities (10.5%), "information and communications" (10.1%). Further growth was observed in professional and scientific activities (9.4%), mining and quarrying (7.7%), administrative and auxiliary service activities (7.8%), as well as wholesale and retail trade; the repair of motor vehicles and motorcycles (7.4%). Amid growth in general consumer prices, net and gross wages registered a real growth of 2.4%, respectively.

Chart 24
Average gross and net wages
(annual changes, in %)



Source: State Statistical Office and National Bank calculations

Chart 25
Average net wages, by sector
(annual changes, in %)

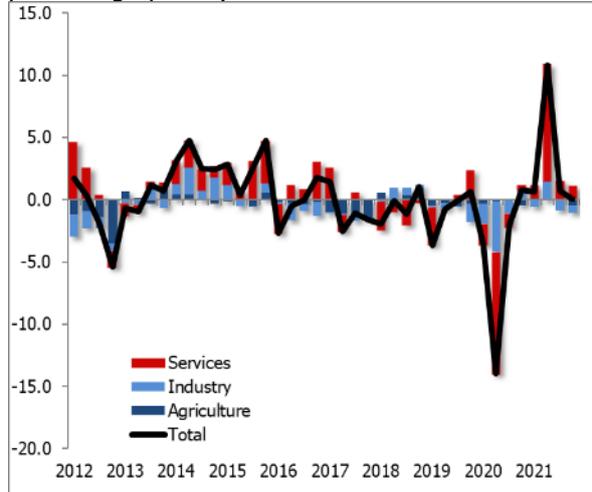


Analyzing competitiveness ratios²⁵, they improved in 2021. Namely, during the year, labor productivity increased by 2.8% (after a drop of 4.6% in 2020), as a result of the growth of added value, in conditions of unchanged number of employed persons. Looking by sectors, the positive contribution comes from the service sector, while industry and agriculture have a minimal negative contribution. Consistent with higher wage growth than productivity growth, unit labor costs in 2021 are moderately higher at 2.6% (vs. 13.8% growth in 2020), with a larger increase in service labor costs sector, and to a lesser extent in industry, while a slight decrease in labor costs was registered in agriculture.

²⁴ The rates at which contributions are paid in 2021 are 18.8% for compulsory pension and disability insurance and 7.5% for compulsory health insurance, as in the previous year.

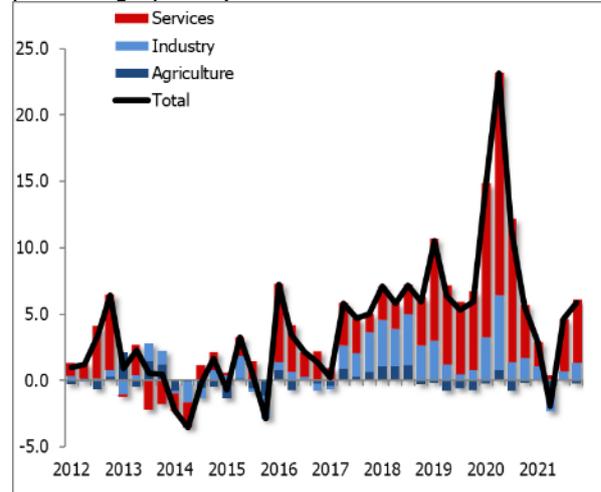
²⁵ Productivity and unit labor costs for the overall economy are calculated using SSO's data on GDP, number of employees and average gross wages. Total productivity is a weighted sum of productivity of each sector. Within each sector, the productivity is calculated as a ratio between the value added in that sector and the number of employees.

Chart 26
Labor productivity
(contributions to the annual growth, in percentage points)



Source: State Statistical Office and National Bank calculations

Chart 27
Unit labor costs
(contributions to the annual growth, in percentage points)



3.3. Public finance

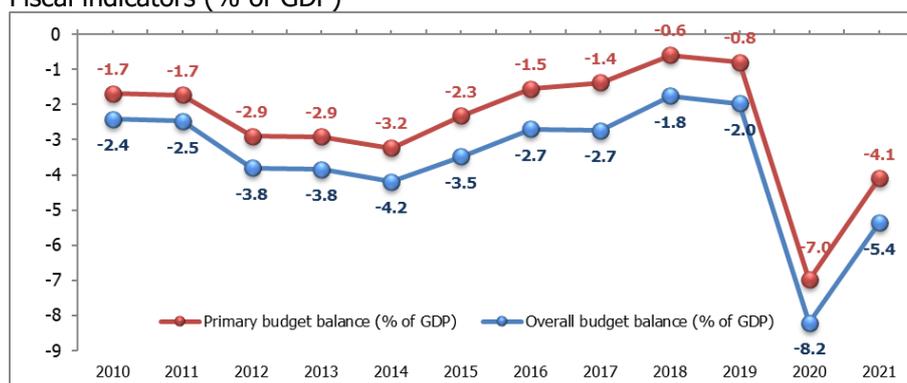
The budget deficit in 2021 recorded a moderate narrowing and amounted to 5.4% of GDP, after a significant deepening from 8.2% of GDP in the previous year. Similar movements were registered in primary budget balance²⁶ which in 2021 equaled 4.1% of GDP, compared to 7% of GDP in 2020. The favorable movements in the budget deficit are the result of the more moderate growth of budget expenditures, with the increased growth of budget revenues in conditions of recovery of economic activity.

Taking into account the prolonged health crisis, as a global shock in the last two years and the emergence of different variants of the COVID-19 virus, and thus the need to further mitigate the effects of the pandemic on the economy, in the middle of the year an upward correction was made to the planned deficit for 2021, from the initially planned amount of Denar 34,938 million (4.8% of GDP) to Denar 46,230 million (6.4% of GDP), with a more pronounced increase in expenditure compared to the income side²⁷. However, the realized deficit was lower than the planned one (by 1 percentage point of GDP).

²⁶ 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.

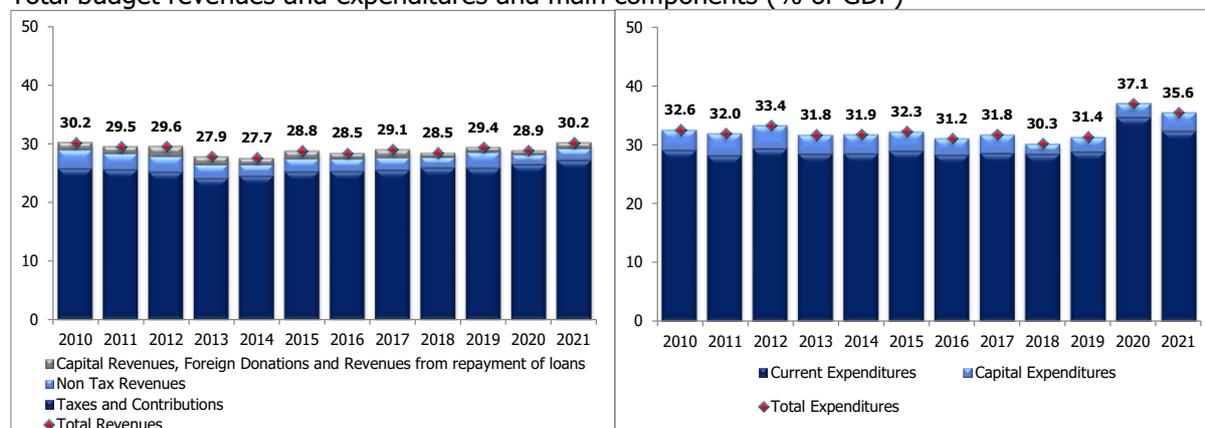
²⁷ Budget Revision for 2021 was adopted on 28 July 2021 (Official Gazette of the Republic of North Macedonia No. 171 of 28.7.2021), while on 9 December 2021, a decision on the redistribution of funds between budget users of the central government and between funds ("Official Gazette of RNM" no. 273 of 9 December 2020) was adopted.

Chart 28
Fiscal indicators (% of GDP)



Source: Ministry of Finance and NBRNM calculations.

Chart 29
Total budget revenues and expenditures and main components (% of GDP)

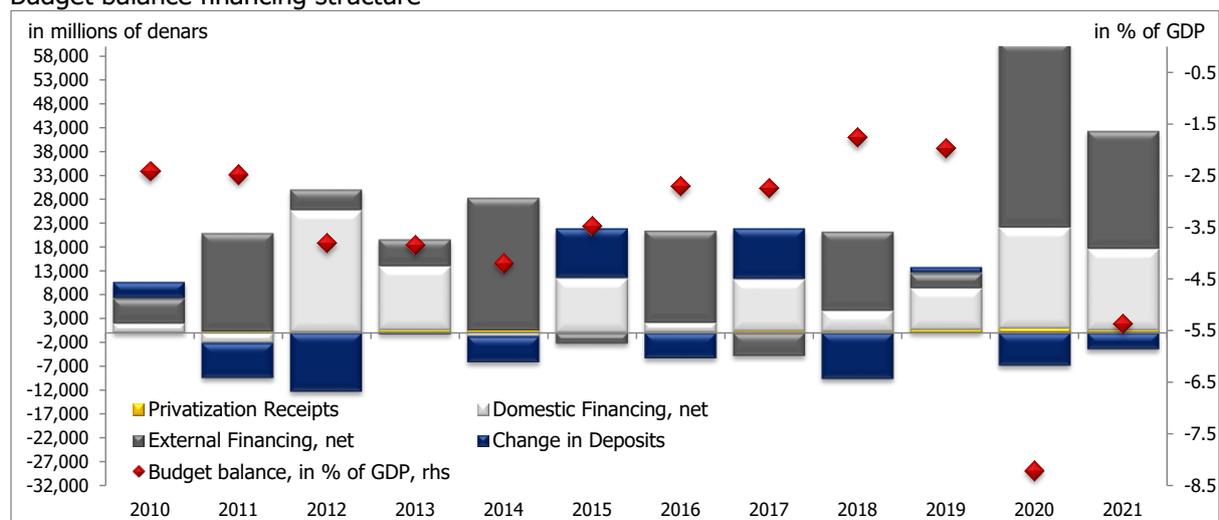


Source: Ministry of Finance and NBRNM calculations.

Total budget revenues in 2021 are up 15.3% year-on-year (after a 7% decline in the previous year). The annual growth of budget revenues is partly the result of the recovered economic activity, with a lower comparative basis than the previous year as a reflection of the worsening economic activity due to the pandemic and the measures to prevent its spread, which led to a decline in total revenues in 2020. The largest part of the growth of total revenues results from the increase in tax revenues. During 2021, the state continued the payment of transfers to support enterprises and households, but more moderately, with budget expenditures recording a more moderate growth of 5.7% on an annual basis (growth of 11.9% in the previous year). Expressed in relative terms, the share of budget revenues and expenditures in GDP in 2021 was 30.2% and 35.6%, respectively (28.9% and 37.1% in 2020, respectively). The budget deficit in 2021 was mostly financed through foreign borrowing²⁸ of the Government, with part of the inflows were kept as government deposits with the National Bank. At the same time, in this period, the government additionally borrowed on the domestic government securities market.

²⁸ The borrowing of the state on the foreign market is mostly due to the eighth Eurobond issued in early March worth 700 million euros with a maturity of seven years and an interest rate of 1.625% and the withdrawal of the second tranche of the macro-financial aid from the European Union, in the beginning of June in the amount of 80 million euros (out of a total of 160 million euros of macro-financial assistance from the European Union to overcome the crisis caused by the corona virus), as well as the use of the new special drawing rights (SDR) to finance budget expenditures and repayment of the debt of the Republic of North Macedonia, which the International Monetary Fund (IMF) granted to the state on 23 August 2021, in the amount of about Euro 161 million. Moreover, in July 2021 the government repaid the Eurobond issued in 2014 in the amount of Euro 500 million.

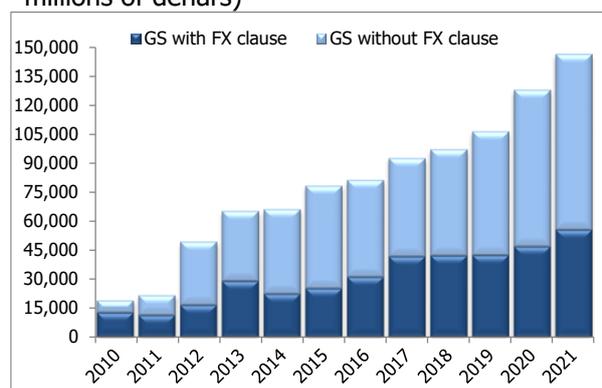
Chart 30
Budget balance financing structure*



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

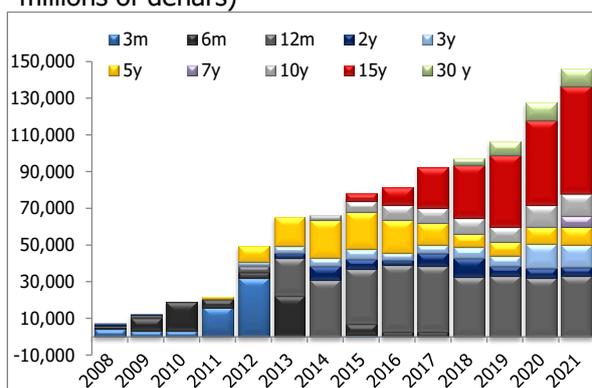
The increased needs for financing the 2021 budget were partly provided through the domestic primary market of government securities, increasing the stock of issued securities by Denar 18,444 million to Denar 146,309 million at the end of the year. The maturity of most of the new issues of government securities was longer than the maturity of securities that were about to fall due, which increased the average maturity of issued government securities, enhanced this financial market segment and increased the share of government bonds in the securities structure. Favorable movements were also registered in the currency structure seen through the growth of the government securities portfolio in domestic currency.

Chart 31
Currency structure of government securities (in millions of denars)



Source: Ministry of finance and NBRNM.

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

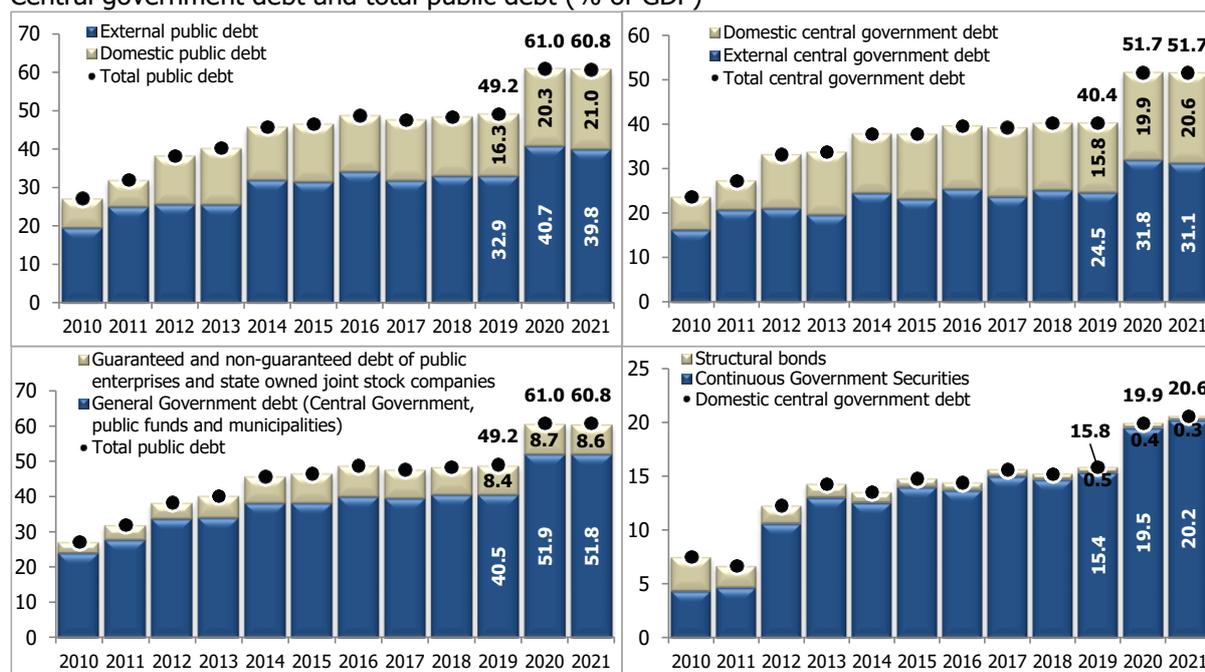


In 2021, the central government debt registered no changes compared to the previous year and equaled 51.7% of GDP, with the external and internal debt of the central government amounting to 31.1% and 20.6% of GDP, respectively (31.8% and 19.9% of GDP in the previous year, respectively). The total public debt²⁹ at the end of 2021 was 60.8% of GDP (61% of GDP in the previous year), with a slight decrease in external public debt (from 40.7%

²⁹ 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.

to 39.8% of GDP) and a small growth in domestic public debt (from 20.3% to 21% of GDP). Within the public debt, the total government debt (debt of central government, public funds and municipalities) in 2021 equaled 51.8% of GDP, similar to the previous year (51.9% of GDP), while the debt of public enterprises (guaranteed and non-guaranteed)³⁰ was 8.6% of GDP. At the end of 2021, the share of government debt in total public debt was 85.2% (85.1% in 2020), while the share of public enterprises debt (guaranteed and non-guaranteed) in total public debt was 14.1% (14.3% in 2020).

Chart 33
Central government debt and total public debt (% of GDP)



Source: Ministry of Finance and NBRNM calculations.

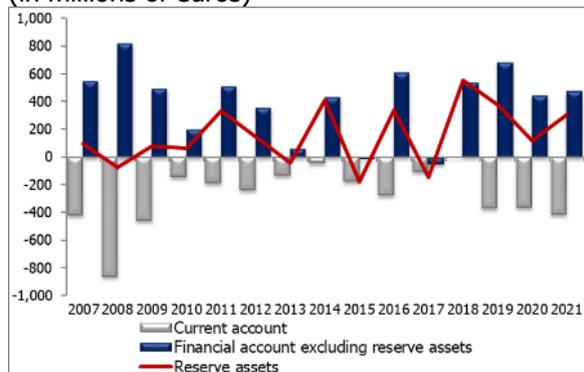
3.4. Balance of payments, IIP and external debt

In 2021, amid economic recovery, yet problems in global supply chains and protracted uncertainty caused by new strains of COVID-19, the current account deficit remained moderate. Thus, the negative current account balance recorded a minimal annual expansion of 0.1 pp and amounted to 3.5% of GDP. Analyzed by component, the slight deepening of current account deficit is mainly due to the increased trade deficit (by 3.3 pp of GDP), i.e. the higher growth of imports than the growth of exports of goods, which is mainly due to the price effect from the increase in stock exchange prices of commodities on the world markets in 2021, especially pronounced in energy sources. An additional contribution to the higher current account deficit was made by the increased primary income deficit, which mostly results from higher outflows of investment income, as a result of the higher newly created value from foreign-owned companies in conditions of recovery of economic activity. Such unfavorable developments in the current account were largely mitigated by the improved performance of the secondary income surplus. They mainly reflect the growth of private transfers, primarily as a result of the gradual lifting of containment measures related to travel, unlike the limited international movement of passengers in 2020, which contributed to significant increase in

³⁰ 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 state or municipalities, municipalities within the City of Skopje and the City of Skopje is calculated in the public debt (Official Gazette No. 62/2005, 88/2008, 35/2011, 139/2014 and 98/2019).

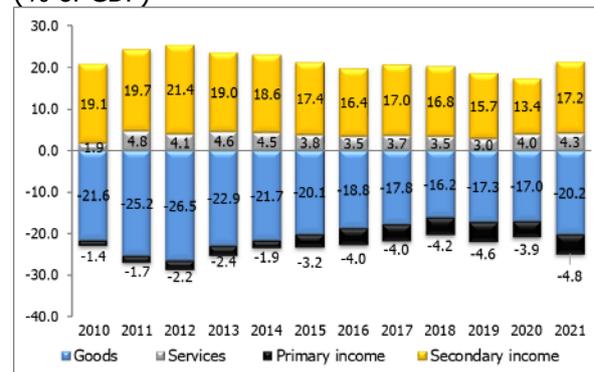
inflows in the net purchased cash on the currency exchange market. The growth of foreign exchange inflows through formal channels, in the category of personal transfers, had the same effect. In 2021, improved performance was also observed in services, which is mostly due to the increased surplus in computer services as a category that has seen significant growth since the beginning of the pandemic, as well as in travel, given the growth in international travel, as well as in business services.

Chart 34
Current and financial account
(in millions of euros)



Source: NBRNM.

Chart 35
Main current account components
(% of GDP)

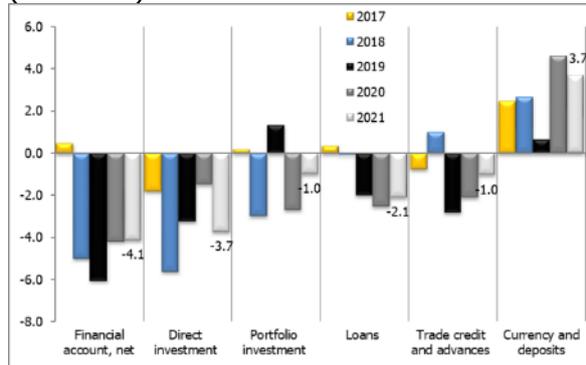


In 2021, net inflows of Euro 480.5 million, or 4.1% of GDP, were registered in the financial account of the balance of payments, which ensured full deficit financing and increase in foreign reserves. The favorable performance is the result of net inflows in almost all financial account components, with the exception of currency and deposits. Most financial account inflows are from direct investment, which in 2021 amounted to Euro 435.2 million, or 3.7% of GDP, which is a significant growth of 2.3 pp compared to the previous year. Analyzing direct investment structure, net inflows from intercompany debt prevail, with significant net inflows from reinvested profits and equity. Additional financial account inflows came from short-term loans as a result of the specific foreign reserves management activities of the central bank, as well as from long-term borrowing of depository institutions and the government. A positive contribution to the financial flows in 2021 was also made through the portfolio investments, which are due to the external government borrowing on the basis of issued debt securities³¹, as well as net inflows of trade credits. On the other hand, currency and deposits registered high net outflows reflecting continuous yet moderate net outflows in the other sectors. Regarding the current account financing, there was a net inflow in 2021 based on a new SDR allocation from the International Monetary Fund³².

³¹ In March 2021, the eighth seven-year Eurobond of RN Macedonia was issued worth Euro 700 million with the historically lowest interest rate of 1.625%, the funds of which were mostly used in July 2021 to repay the Eurobond issued in 2014.

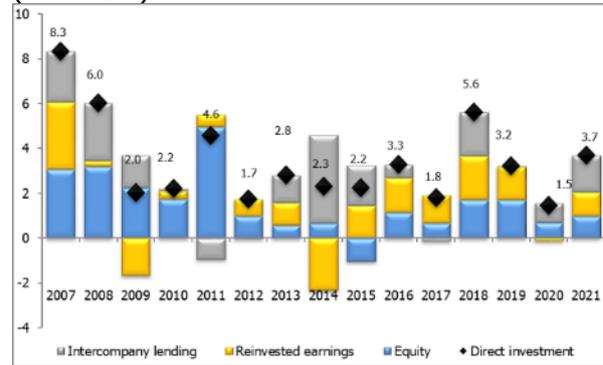
³² In August 2021, the International Monetary Fund granted the RN Macedonia new 134.47 million SDRs worth about Euro 162 million.

Chart 36
Financial account
(% of GDP)



Source: NBRNM.

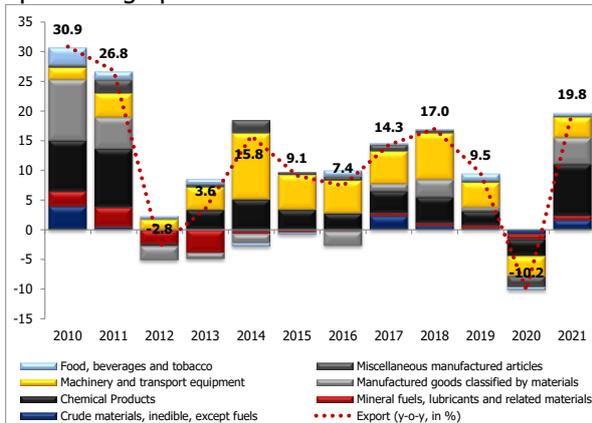
Chart 37
Direct investment
(% of GDP)



The foreign trade deficit in 2021 significantly expanded on an annual basis by 49.5% (5.9 pp of GDP), despite the narrowing in the previous year. The trade deficit expansion was mostly driven by global factors, where despite the initial positive impulses from worldwide vaccination, new COVID-19 strains caused further negative effects. Also, shortages of important raw materials and automotive parts and problems with global transportation caused additional pressures on already disrupted supply chains, which, compounded by the rise in commodities prices on world markets³³, adversely affected the trade balance in 2021. The export of goods recorded an annual growth of 19.8%, which is mainly due to the export-oriented capacities in foreign ownership, as well as to the better export activity of some traditional sectors, namely, metal processing industry and mining. Data on trade by product category point to export of chemical products and export of equipment and machinery, related to the automotive industry as the main contributors to the growth of exports, amid foreign demand recovery. Positive achievements of some traditional sectors, as seen through the increased export of iron and steel and ore, mainly reflect the price effects, that is, the growth of market prices of metals. On the import side, the annual growth in 2021 was more pronounced and equaled 26.9%. The higher import of goods is largely due to the higher energy import, in conditions of dynamic growth of import prices in line with the movements of energy prices on the world stock markets, especially pronounced in imported prices of electricity and natural gas. The improved activity of export-oriented automotive capacities led to increased raw material imports, where, viewed by category, the import of equipment and machinery, inorganic chemical products, as well as the import of non-ferrous metals had a significant positive contribution. The growth of import of equipment and machinery in part reflects the favorable performance of domestic investments in 2021. Corresponding to the export performance and higher prices of metals, growth was also registered in the import of iron and steel.

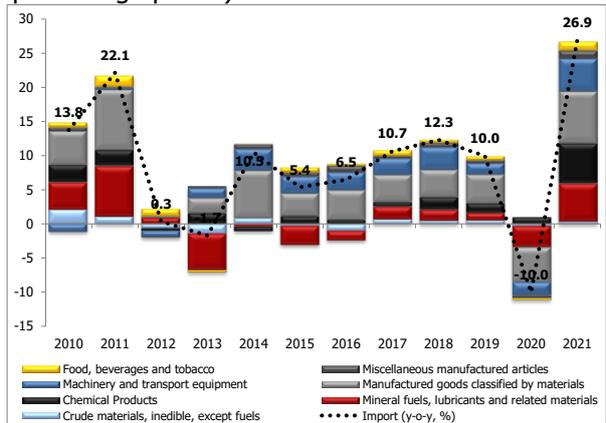
³³ In 2021, there was a significant upward shift in commodities prices on the world stock markets, primarily due to the base effect from last year (especially the second quarter) and the recovery of global economy, but also as a result of the unadjusted supply to the recovery of global demand, as well as the influence of certain geopolitical factors on energy prices, and especially on the price of gas and electricity.

Chart 38
Contributions to the annual export growth (in percentage points)



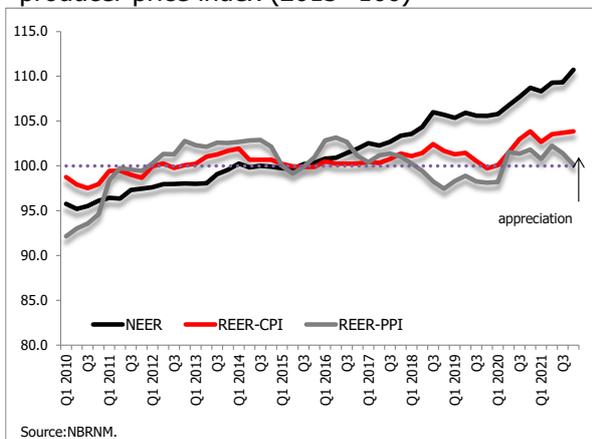
Source: State Statistical Office.

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



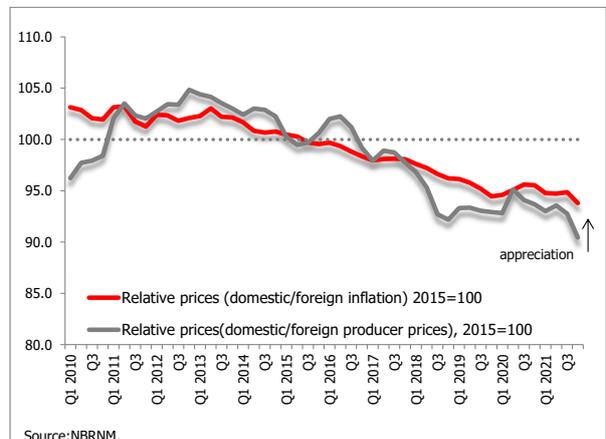
With regard to the price competitiveness indicators of the domestic economy³⁴, in 2021 the real effective exchange rate deflated by consumer prices appreciated by 1.3% annually, while the increase in producer price index is more moderate (0.4%). This results from the annual appreciation of the nominal effective exchange rate of 2% due to the further depreciation of the Turkish lira against the denar. The relative consumer and producer prices decreased (by 0.7% and 1.6%, respectively) amid higher rise in foreign prices compared to domestic prices in 2021.

Chart 40
NEER and REER, without primary commodities calculated according to the consumer price and producer price index (2015=100)



Source: NBRNM.

Chart 41
Relative prices (2015=100)



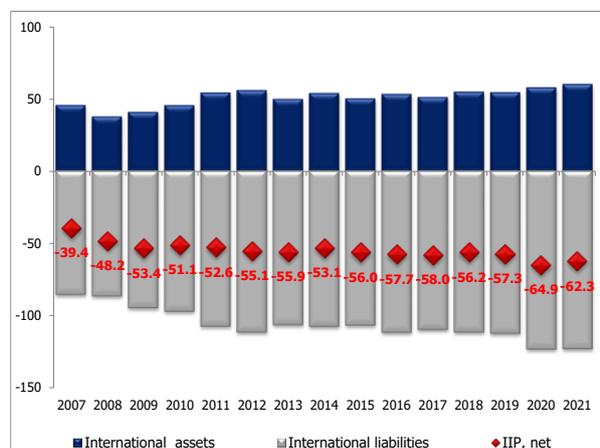
Source: NBRNM.

At the end of 2021, the net international investment position (IIP) of the domestic economy amounted to Euro 7,307.7 million, or 62.3% of GDP. Compared to the end of the previous year, it is lower by 2.6 pp of GDP, given the increase in international assets and slight decrease in international liabilities (of 2.3 pp and 0.3 pp of GDP, respectively). The sector-by-sector analysis of IIP shows that the better position of the economy is due to the lower net liabilities of other sectors, as a result of the growth of assets in direct and portfolio investments and the simultaneous reduction of long-term loan liabilities. Also, lower net government

³⁴ 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.

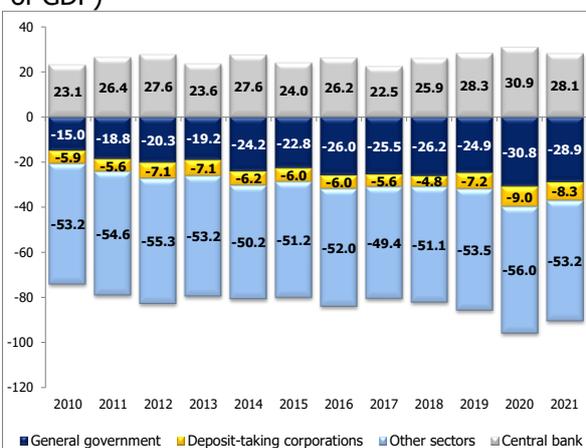
liabilities have been reported, as a result of lower liabilities on portfolio investments³⁵, with slightly better net international investment position in deposit institutions. On the other hand, the central bank experienced an annual decrease in net assets given the higher liabilities on special drawing rights (SDRs) due to the additional allocation by the IMF.

Chart 42
International Investment Position (% of GDP)



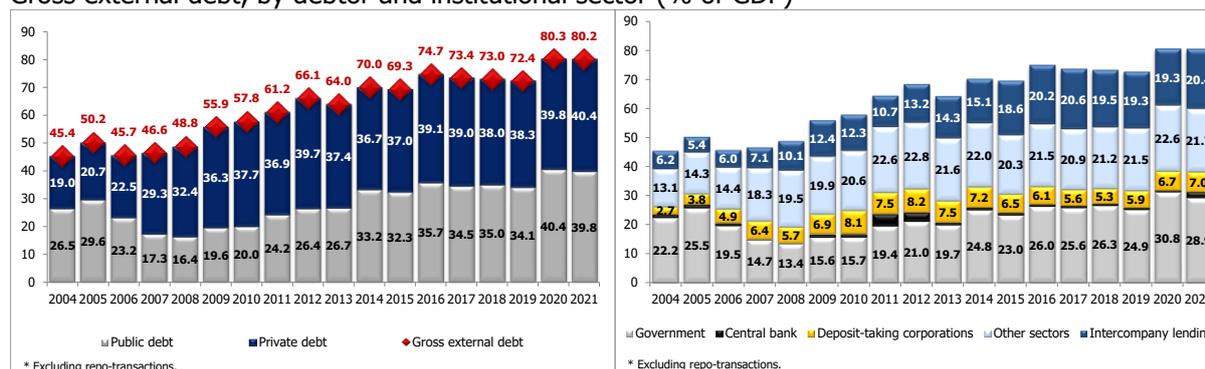
Source: NBRNM

Chart 43
International Investment Position, by sector (% of GDP)



At the end of 2021, the gross external debt stood at Euro 9,411.6 million³⁶, or 80.2% of GDP, which is a minimum annual decrease of 0.1 percentage points of GDP. This mainly reflects the decreased public debt of 0.7 pp of GDP, amid higher private debt of 0.6 pp of GDP. The lower public sector debt is the result of the reduction of central government debt (repayment of the Eurobond) as well as the debt of public enterprises (servicing of long-term loans), while the additional SDR allocation increased the central bank debt. On the other hand, the annual growth of private debt mainly results from the higher intercompany debt, with a simultaneous reduction in the debt of other sectors as a result of lower long-term loans.

Chart 44
Gross external debt, by debtor and institutional sector (% of GDP)



Source: NBRNM

External debt ratios of the national economy remain in the safe zone. Only the gross external debt to GDP ratio still shows high indebtedness, while all other indicators point to low indebtedness of the domestic economy.

³⁵ In 2021, the government continued with the regular repayment of external liabilities based on Eurobonds.

³⁶ Gross and net external debt data does not include central bank liabilities under repo agreements.

As of 31.12.2021, net external debt stood at Euro 3,537 million, or 30.1% of GDP, which is a decrease of 0.9 percentage points of GDP compared to the previous year. Lower net external debt is due to lower public and private net debt (by 0.3 pp and 0.6 pp of GDP, respectively).

Table 1
External debt indicators

	<i>Solvency</i>				<i>Liquidity</i>		
	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	2.1	122.4	76.3	9.0	1.6	1.0	25.6
31.12.2020	1.9	123.0	78.5	13.7	1.9	1.1	20.4
31.12.2021	2.2	127.1	83.9	16.3	1.8	1.3	21.3
<i>Moderate indebtedness criterion</i>	<i>12 - 20%</i>	<i>165 - 275%</i>	<i>30 - 50%</i>	<i>18 - 30%</i>	<i>1.00</i>		

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

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

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

Source: NBRM.

3.5. Monetary and credit aggregates³⁷

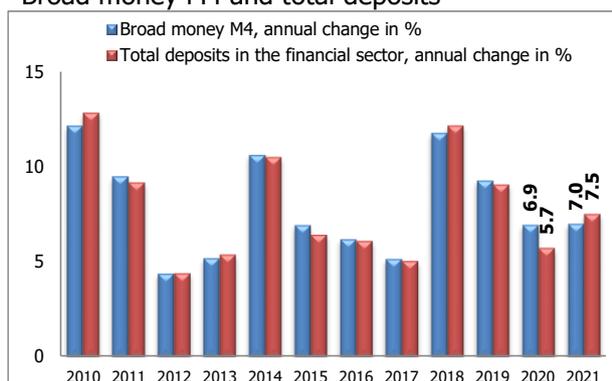
3.5.1. Monetary aggregates

In 2021, the domestic economy gradually recovered from the strong impact of the pandemic in the previous year, amid constant uncertainty caused by new COVID-19 variants, which continued to partially affect consumption and investments. In such circumstances, money supply and total financial sector³⁸ deposits continued to grow. At the same time, the government measures to support companies hit by the crisis (especially in the energy sector) and the funds paid this year to deal with the consequences of the pandemic partly contributed to the growth of the money supply and deposits same as last year.

³⁷ Data on total deposits and loans since August 2020 do not include data on a bank whose founding and operating license was revoked and who went into bankruptcy in August 2020. For more realistic understanding of the banking system flows without the effect of this change in the monetary statistics chart, the total deposit and credit flows in 2020 were adjusted with data for the respective bank. The adjustment in total deposits was made by including the amount of deposits which is not subject to compensation by the Deposit Insurance Fund in the current balance of total deposits, while the adjustment of total loans was made by including the July data on bank's loan balance in the current balance of total loans.

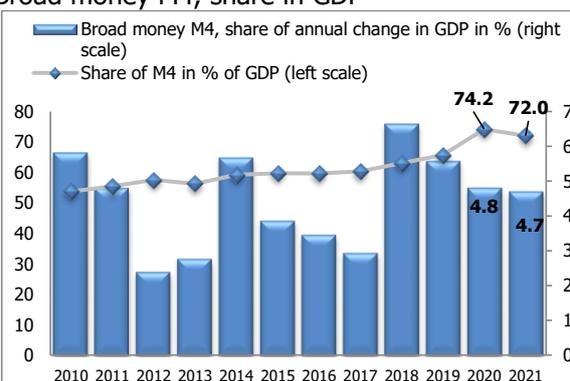
³⁸ Data refer to non-government deposits in banks and savings houses, funds of other financial institutions on the accounts with the National Bank and funds of local government authorities on the accounts with the National Bank. The data are consistent with the methodological changes made by the National Bank in June 2018. For more information on the methodological changes visit: http://www.nbrm.mk/monetarna_statistika_i_statistika_na_kamatni_stapki.nspk.

Chart 45
Broad money M4 and total deposits



Source: NBRNM.

Chart 46
Broad money M4, share in GDP



In 2021, broad money M4 grew by 7%, similar to last year. Structurally, amid increased uncertainty due to the pandemic and the preference for holding liquid assets, there is a further increase in the most liquid components of M4 - cash in circulation and demand deposit, more moderate though compared to last year. Namely, cash in circulation registered an annual growth of 1.8%, making up 8.5% of M4 (9% in 2020). From a maturity point of view, there was a decrease in long-term deposits, amid acceleration of the growth of short-term deposits. Money supply annual growth-to-GDP remained relatively stable at 4.7% at the end of the year (4.8% in 2020). In conditions of economic recovery, money supply-to-GDP ratio at the end of the year was 71.6% (74.2% in the previous year).

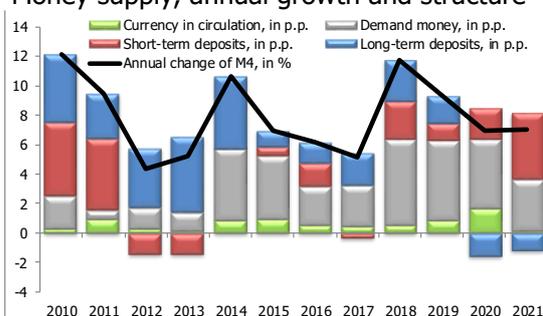
Table 2
Money supply components - balance and changes

	Balance as of			Annual change		
	2019	2020	2021	2019	2020	2021
	in millions of denars			in %		
Currency in circulation	36,108	43,696	44,480	12.0	21.0	1.8
Demand money	139,580	160,765	177,716	18.7	15.2	10.5
M1	175,688	204,461	222,196	17.2	16.4	8.7
Short term denar deposits up to 1 year	49,042	44,042	40,033	-0.9	-10.2	-9.1
Short term foreign currency up to 1 year	120,160	134,950	160,778	4.9	12.3	19.1
M2	344,889	383,453	423,007	9.9	11.2	10.3
Long term denar deposits over 1 to 2 years	36,845	30,665	27,727	-3.4	-16.8	-9.6
Long term foreign currency over 1 to 2 years	22,294	22,108	24,020	3.9	-0.8	8.6
M3	404,028	436,226	474,753	8.2	8.0	8.8
Long term denar deposits over 2 years	35,767	34,667	29,376	21.8	-3.1	-15.3
Long term foreign currency over 2 years	15,616	16,092	16,876	11.5	3.0	4.9
Total deposits*	279,723	282,523	298,809	4.8	1.0	5.8
Total deposits	419,303	443,288	476,525	9.0	5.7	7.5
M4	455,411	486,984	521,005	9.3	6.9	7.0

*without demand deposits.

Source: NBRNM.

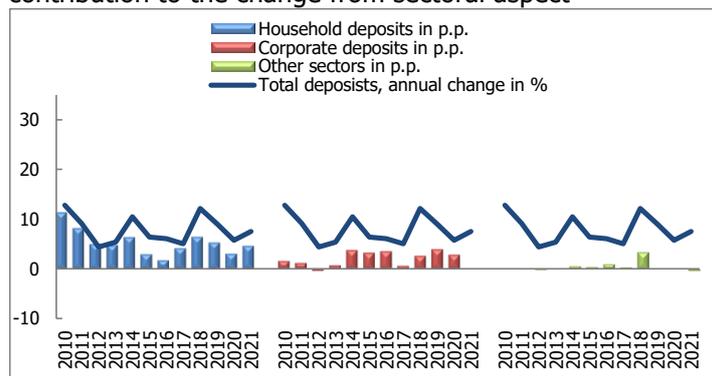
Chart 47
Money supply, annual growth and structure



In 2021, total financial sector deposits registered an increase of 7.5%³⁹, stronger though compared to the previous year (9.0%). Sector-by-sector analysis point to household deposits as generators of growth along with the corporate deposits. Analyzed by currency and maturity, same as last year, there is a larger contribution of foreign currency deposits and short-term deposits. Denar deposits continued to grow (entirely as a result of demand deposits), weaker though compared to the previous years.

³⁹ If we include the data from the bank in bankruptcy, the deposit growth in 2020 was 6.3%.

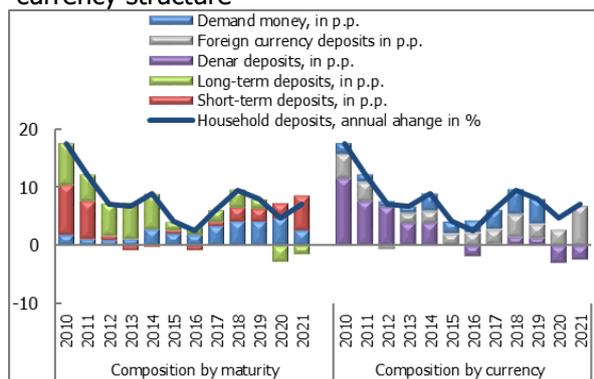
Chart 48
Total deposits (with demand deposits), annual change and contribution to the change from sectoral aspect



Source: NBRNM.

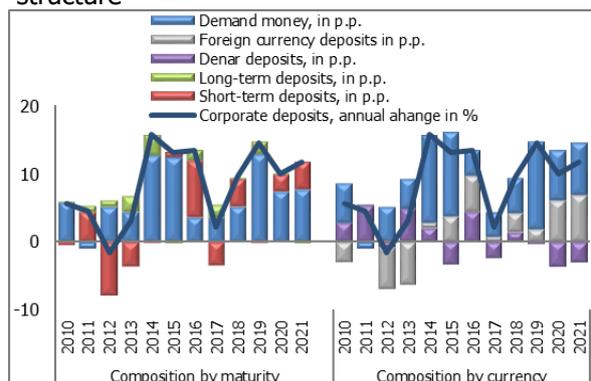
Household deposits⁴⁰ registered an annual growth of 7.1% in 2021 (4.6% in 2020). Analyzed by maturity and currency structure, in 2021, there was a faster increase in household short-term and foreign currency savings, with a further reduction in long-term deposits and slower growth in denar deposits.

Chart 49
Total household deposits, annual change and contribution to the change by maturity and currency structure



Source: NBRNM.

Chart 50
Total corporate deposits, annual change and contribution to the maturity and currency structure



In 2021, corporate deposits increased by 11.6% (10.1% in 2020). Demand deposits continued to have the greatest contribution to growth, amid increasing short-term deposits, while long-term deposits decreased minimally. Analyzing by currency, foreign currency deposits contribute to most of the growth of total corporate deposits, with positive contribution of denar deposits (including demand deposits).

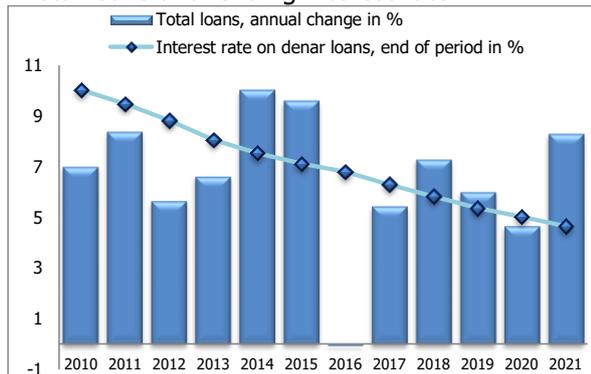
Taking into account such performance, in 2021, the degree of euroization, measured as a ratio between deposits with FX component and total deposits of the banking system, moderately increased to 43% (39.8% in the previous year). In household deposits, the share of deposits with foreign currency component reached 50.3% (47.1% in the previous year), which nevertheless is a moderate increase in the propensity of households to save in foreign currency, compared to the more pronounced upward shift at the beginning of the global financial crisis.

⁴⁰ Deposit data also include demand deposits.

3.5.2. Lending activity

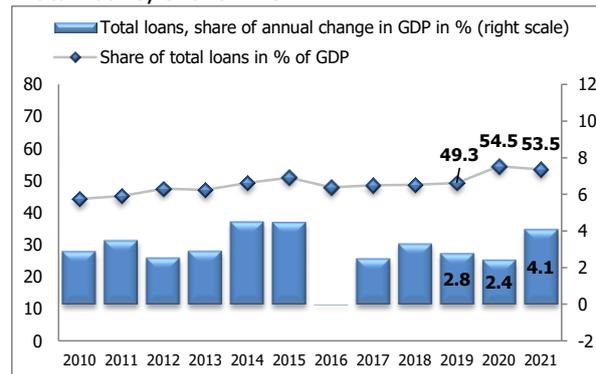
In 2021, the banking sector provided solid credit support to the domestic economy, and the growth of total credits accelerated and reached 8.3% (4.7%⁴¹ in 2020). The maintained relaxed monetary policy, as well as the sound solvency and liquidity position of the banks, coupled with the state package of measures to support credit activity at the end of the year, are factors that had a stimulating effect on the supply of loans. The annual growth of total credits in GDP at the end of 2021 reached 4.1% (2.4% in 2020), while the loan-to-GDP ratio decreased to 53.2% (54.5% in the previous year).

Chart 51
Total loans and lending interest rate



Source: NBRNM.

Chart 52
Total loans, share in GDP

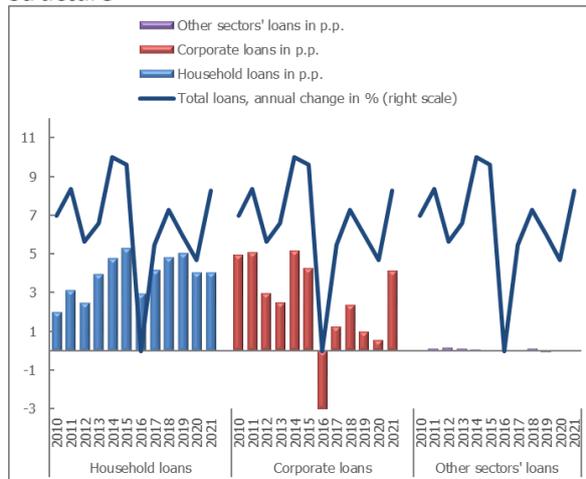


According to the Lending Surveys of the National Bank, in 2021 there was a net increase in the demand for loans by households and companies, amid net easing of credit standards for households and moderate net tightening for companies. Analyzing risks, there is continuing increase in the risk perceptions by companies, significantly more moderate though compared to last year, analyzed through the banks' expectations for the total economic activity.

In 2021, the banks' credit support was almost equally aimed at companies and households, with a notable acceleration of corporate lending. Regarding lending to households, the analysis by loan type point to housing loans as drivers of growth, with certain faster growth of consumer loans as well. From currency and maturity aspect, the annual growth of total loans largely results from denar loans and long-term loans.

⁴¹ If we include the stock of loans approved by the bankrupt bank, the loan growth in 2020 was 6.4%.

Chart 53
Total loans, annual change and sectoral structure



Source: NBRNM.

Chart 54
Total household loans, annual change and structure by use

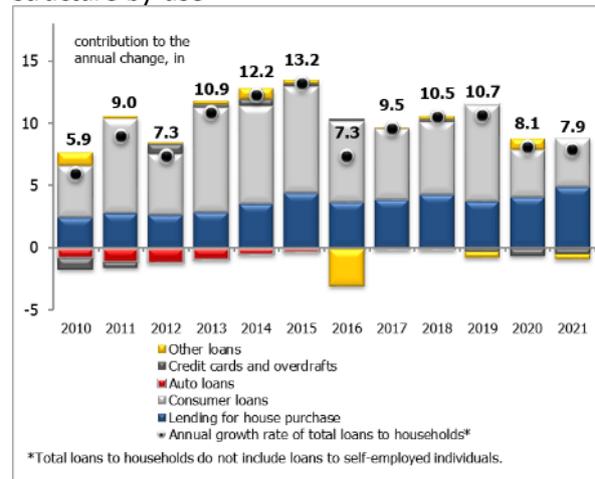
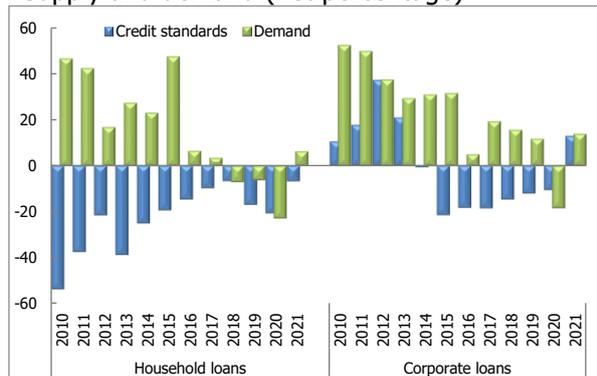


Chart 55
Supply and demand (net percentage)*

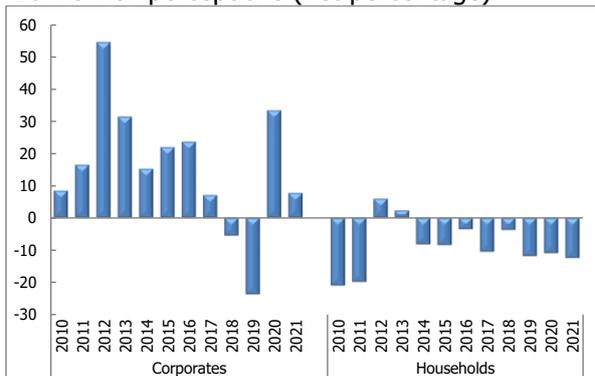


*In terms of credit standards, negative net percent means easing of the credit standards. In terms of demand, negative net percent means reduced demand.

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

Source: Lending Survey, NBRNM.

Chart 56
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.

IV. Macroeconomic environment and monetary policy in 2022 - 2024⁴²

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 recovery, amid protracted pandemic and geopolitical risks, 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 entities arises from the specifics of the domestic economy, as small, open and highly import-dependent. The operational monetary policy framework will remain flexible and will ensure stable liquidity and equilibrium on the foreign exchange market. Thus, the monetary policy will contribute to preserving the overall macroeconomic stability, as a key factor for creating favorable environment for sustainable economic growth.

In 2021, the National Bank conducted an accommodative monetary policy, reducing the policy rate to the historically lowest level of 1.25%, while since the outbreak of the pandemic, it has continuously contributed to supporting credit flows and maintaining liquidity in the banking system aimed to mitigate the effects of pandemic on the domestic economy. Loose monetary policy was implemented in conditions of solid level of foreign reserves and moderate inflation, under the influence of supply side factors and temporary mismatches of supply and demand caused by the pandemic, which were more pronounced in the last quarter of the year.

According to the latest official macroeconomic forecasts of the National Bank, the domestic economic recovery is as expected, despite the uncertainty associated with the pandemic crisis and the resurgence rates at the end of 2021. Growth forecasts contain the previous assumptions for improvement of the external environment, amid assessments for more pronounced foreign demand recovery and more favorable price conjuncture in metals, which will have a stimulating effect on the domestic export segment. On the other hand, unfavorable external factors that have become particularly pronounced recently disrupt the global supply chains, transport and logistics, thus affecting regular production process worldwide, especially in the automotive sector and food industry, and enhance inflation pressures and energy crisis. Such unfavorable trends and their effects on the economy are assessed as temporary, while expectations for their stabilization during 2022 have been preserved. However, the current escalations of the Russian-Ukrainian crisis and military actions are a new and unexpected unfavorable risk factor for the forecast growth, through the channel of foreign demand and deepening of the energy crisis, but also through the generally increased uncertainty. Analyzing the domestic environment, the latest forecasts indicate that the immunization will continue to have positive effects on the trust and behavior of economic agents, improve economic conditions with expectations for gradual stabilization of the epidemiological situation and gradual depletion of the negative effects of the health crisis. Accordingly, in 2022, domestic economic activity is expected to rebound to pre-pandemic levels at an expected growth rate of 3.9%. The growth of the economy will continue in 2023 and 2024, with the same expected rate of 4%, as in April. Analyzing the GDP structure, the economic growth in the coming period is still expected to be entirely due to domestic

⁴² This section gives a review of the macroeconomic forecasts of the National Bank from October 2021.

demand, and would make a higher positive contribution to growth, compared to net exports, which would have a more pronounced negative contribution.

After the temporary acceleration in 2021, under the influence of supply factors, the performance and expectations in October indicated that during 2022 a slowdown in price growth of the domestic economy can be expected, with an average inflation rate of 2.4%. With the stabilization of global commodities markets and reduction of pressures from import on domestic prices, it is envisaged that inflation will decrease in 2023 and will again reduce to the historical average of 2%, stopping at that level also in 2024. Such downward movement of inflation largely resulted from the built-in assumptions of a more moderate growth of energy prices on the world stock markets, for which currently there are pronounced upside risks, further emphasized by the developments in Ukraine, which, among other things, causes strong pressure on the prices of raw materials on the world markets.

The assessments for the external position of economy, according to the performance are favorable for the mid-term period. According to the expectations for stabilization of the movements in the global economy in the second half of 2022, the current account deficit would remain at 3.8% of GDP in 2022, amid forecast stabilization of trade deficit, a slightly lower primary income deficit and relatively stable net inflows from current transfers. For the period 2023 - 2024, further improvement of the current account is envisaged, whereby the average deficit would be 2% of GDP, in conditions of a gradual exhaustion of the risks from the pandemic, stabilization of the situation globally, with both the value chains and the temporary price pressures especially on energy, which would lead to more significant improvement in the balance of goods and services. It is envisaged that the public sector borrowing and the further growth of foreign direct investments will be primary sources of financing of the current account deficit, which would also enable an additional increase in the foreign reserves. Throughout the forecast horizon, foreign reserves are expected to remain appropriate. The indicated geopolitical risks also refer to the external sector forecasts, considering the import dependence of the Macedonian economy, but also the possibility of increasing risk aversion of global investors, with an effect on capital flows.

Credit activity of the banking system is still considered a great supporter of economic growth. Contribution was also made by the continuing relaxed monetary policy and sound solvency and liquidity position of banks, as factors that continue to stimulate credit supply. Credit market data for 2021 indicate accelerated credit activity and solid growth rates for the next three years. Given the growth of the domestic economy, stabilization of expectations and increased demand for household and corporate loans, a gradual stabilization of credit activity is expected in the next period, with an average growth rate of 6.9% in the period 2022 - 2023 and 7.8% in 2024. Credit growth will continue to be supported by the solid deposit growth as the main source of bank financing. In accordance with the estimates for stabilization of environment, intensification of economic activity and further growth of the propensity to save in banks, forecast average annual deposit growth rate of 7.5% is expected for the period 2022-2023 and 8% in 2024.

Uncertainty and risks are currently pronounced, both in global frameworks and in the domestic economy. In addition to the main downside risk associated with the future course of the pandemic, i.e. with the risks of spread of new strains, which could lead to potential re-introduction of stricter containment measures and deterioration of global trade flows as well as to more pronounced and longer-lasting disruption of global supply chains, the geopolitical risk also materialized, the duration and effects of which are currently highly uncertain. Amid continuing increase in commodities prices, the current developments may lead to increased

inflationary pressures and longer-term inflationary expectations, requiring stronger tightening of monetary policy in the developed countries.

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 fiscal policy setup is accompanied by risks which, as in the monetary policy, arise from the pandemic management prospects both in domestic and global terms as well as from the changing financial conditions.

The National Bank will continue to prudently monitor the current domestic and foreign movements and risks, and will evaluate and accommodate the monetary policy setup accordingly.

V. Monetary instruments

Amid solid economic growth with changing movements in the domestic economy, mainly caused by the developments in the external environment, but also by the uncertain economic effects related to the development and handling of the pandemic, in 2021, the National Bank was implementing a loose monetary policy through further policy rate cut and maintaining denar liquidity at a relatively high level. There was an one-time policy rate cut to a record low of 1.25%, and due to increased liquidity support of the banking system, expansion of investment opportunities of banks and financial support of economic growth, the National Bank kept the amount of the main instrument at the same level. The economy was supported by further implementation of the non-standard reserve requirement measure, providing targeted credit support to the most affected sectors.

Amid solid level of foreign reserves, absence of pronounced inflationary pressures and striving for further easing of financial conditions and support for the real flows in the economy, the National Bank in the first quarter of 2021 continued the cycle of easing the monetary policy. Namely, in March, it reduced the policy rate applied to CB bills by 0.25 pp, to the historic low of 1.25%⁴³. The relaxed nature of monetary policy, the application of less restrictive measures to deal with the new waves of COVID-19, the immunization and the normalization of business processes had a positive impact on the domestic environment, creating favorable trends in the domestic financial markets that began in the second half in 2020. In the first three quarters of the year on the foreign exchange and currency exchange market, the reduced propensity of households to hold foreign currency and the increased foreign currency inflows from private transfers ensured constant increase in net supply of foreign currency from these entities and its normalization to pre-crisis levels. These trends increased foreign currency liquidity of banks and the National Bank net purchase of excess foreign currency from the banking system. The stabilization of expectations of domestic entities was also seen through the normalization of the demand for denar cash⁴⁴. In the same period, the targeted budget measures for revitalization of domestic economy, although more moderate compared to 2020, further increased banks' liquid assets in domestic currency.

Favorable trends in the foreign exchange market changed in the fourth quarter of the year, as a result of the risks that came from the external environment of the domestic economy. The changes in this market segment that led to increased demand for foreign currency were driven by energy companies, as a result of the higher energy prices on the world markets. The growth in energy and commodities prices on the international financial markets, as well as the moderate growth of inflation in domestic and international frameworks, created expectations for higher inflation among the population, which urged them to hold foreign currencies. Such developments required strengthened public communication of the National Bank as well as sale of foreign currency to domestic banks, ensuring further maintenance of the stability of the denar exchange rate. The presence of the National Bank on the foreign exchange market, supported by the solid level of foreign reserves, made sure that the foreign currency liquidity of the banking system is at an appropriate level⁴⁵, so that the National Bank did not need to use funds from the repo line with the ECB in 2021, for

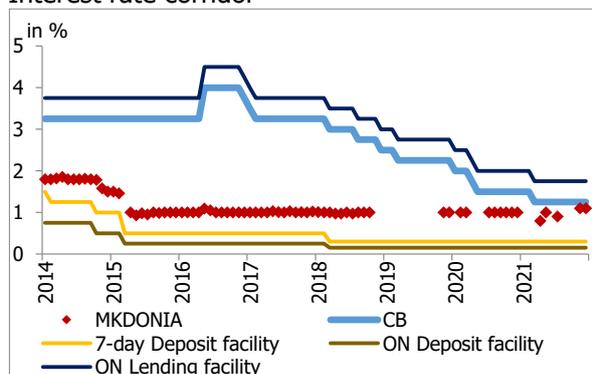
⁴³ Consequently, lower interest rates were applied to both liquidity repo auctions and overnight loan facilities, whose interest rate is equal to or by 0.5 percentage points exceeds the CB bills interest rate, respectively.

⁴⁴ The change in cash in circulation in the first nine months of the year followed the dynamics of the pre-crisis years, but was still at a moderately higher level.

⁴⁵ The foreign exchange liquidity management by banks included the possibility for them to place 1- and 3-month risk-free placements in euros with the National Bank. Banks had a moderate interest in placing funds in this instrument, which the National Bank launched in August 2020.

providing euro liquidity⁴⁶. The liquidity effect of the National Bank interventions with the market makers was partially overcome by the increased budget consumption, due to the financial support for electricity import and production. Cash in circulation also contributed to the growth of a part of the banks' available funds, which, with exception of the seasonal growth in the demand for denar cash immediately prior to the New Year holidays, had a marked downward trend in the fourth quarter of 2021⁴⁷.

Chart 57
Interest rate corridor



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

Chart 58
CB bills and banks' excess liquidity⁴⁸

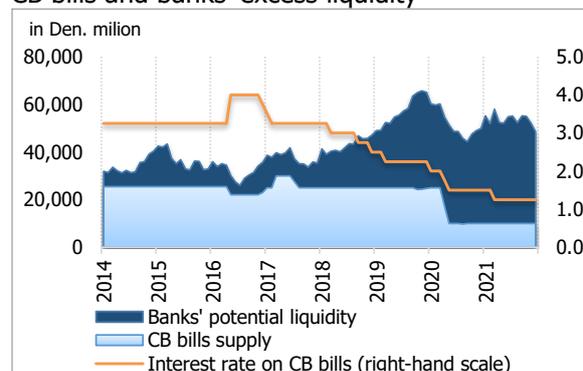
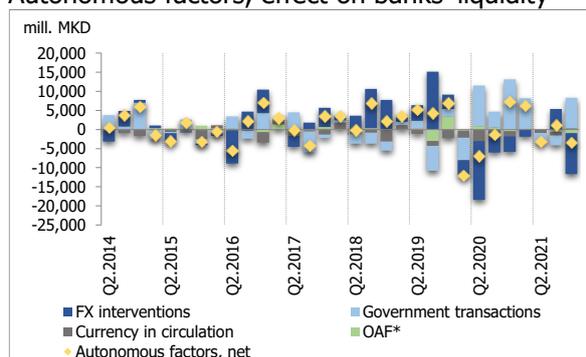


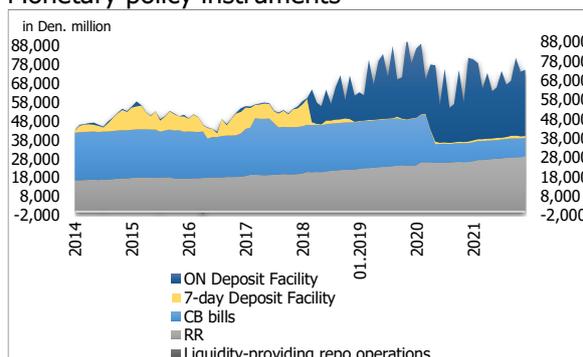
Chart 59
Autonomous factors, effect on banks' liquidity



* OAF – other autonomous factors

Source: NBRNM.

Chart 60
Monetary policy instruments



In order to create space for the use of surplus denar assets for further credit support of the economy, despite the annual growth of the banks' denar liquidity, which is constantly relatively high, the National Bank throughout the year kept the same amount of CB bills of Denar 10 billion⁴⁹. In 2021, the banks again invested surplus funds mainly in the available deposits with the National Bank⁵⁰, which enable flexibility in the management of short-term liquidity changes and high availability of funds. In terms of maturity, similar to the previous

⁴⁶ In August 2020, the ECB established a repo line for the National Bank to provide foreign currency liquidity in the amount of Euro 400 million. This line is available until March 2022 and creates additional space for fast and efficient response of the National Bank if there is a need to provide euro liquidity for the banks in the country. In March 2022, the repo line was extended until January 2023, due to the global consequences of the Russian-Ukrainian crisis.

⁴⁷ The downward trend in the last three months of the year caused a twice as weak annual growth of cash in circulation (Denar 1.3 billion) compared to the average for the pre-crisis years, thus neutralizing about 50% of the higher growth in the demand for denar cash in 2020.

⁴⁸ 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 banks' accounts with the National Bank, the matured CB bills and deposit facilities with the NBRNM on that day as well as money market claims reduced by money market liabilities and reserve requirement for the forthcoming period.

⁴⁹ At the auctions of CB bills, which are held on the first day of the reserve maintenance periods, volume tender was used (offered amount of the CB bills and fixed interest rate).

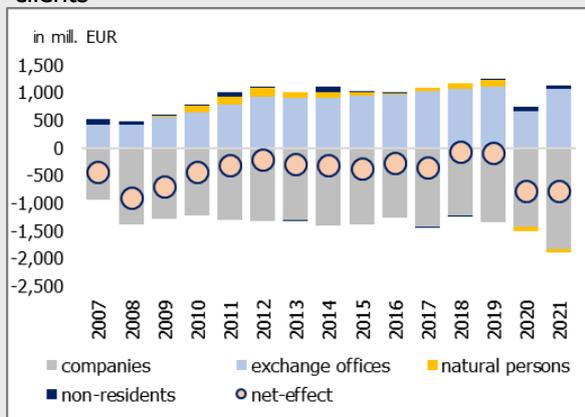
⁵⁰ In 2021, interest rates on overnight and seven-day deposit facilities remained at 0.15% and 0.30%, respectively.

few years, in 2021 banks intensively used available overnight deposit facilities, whose average year-end balance was Denar 34.5 billion, which is by about Denar 3 billion higher than the level before the outbreak of the pandemic⁵¹. Just because of the high amount of free funds, the banks did not need to provide funds from the National Bank through overnight loans and repo auctions to create liquidity (held once a week). However, the solid liquidity position ensured that banks have only occasional and small need to borrow on the interbank unsecured deposit market.

Box 1. Developments on the Foreign Exchange Market⁵² and National Bank Interventions

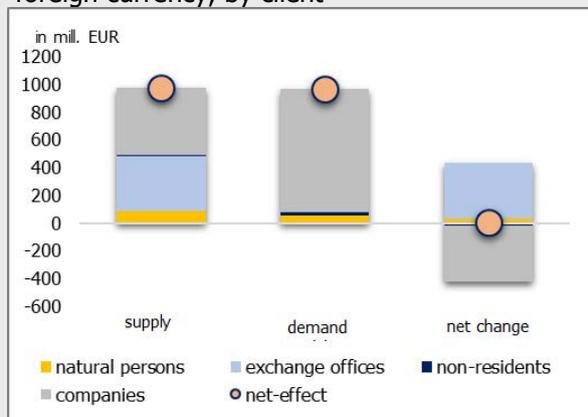
In 2021, the foreign exchange market in the transactions of banks with their customers reported significantly improved annual performance with natural persons and exchange offices. The targeted measures to prevent any virus spread, the immunization and easing of measures of international movement of passengers had a positive effect on the supply of foreign currency by natural persons on the foreign exchange and currency exchange market, which recorded a solid growth and contributed to increased foreign exchange inflows into the banking system. The higher supply of foreign effective cash by natural persons on the foreign exchange market (especially in transactions with exchange offices) contributed to significant increase (of Euro 399.7 million, annually) of excess foreign currency that exchange offices offer to domestic banks and full normalization of movements to pre-pandemic levels. There were also favorable trends in transactions with natural persons, where the net sale of foreign currency to banks for the needs of these entities was by Euro 32.3 million lower, compared to 2020.

Chart 61
Net sale of foreign currency of banks for their clients



Source: NBRNM

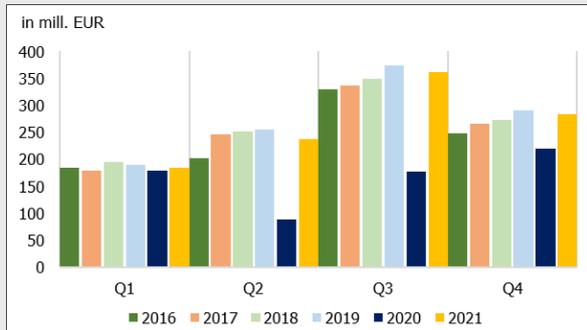
Chart 62
Annual growth in the supply of and demand of foreign currency, by client



⁵¹ Placements in seven-day deposit facilities with the National Bank during the year were relatively low and stable, averaging around Denar 1,000 million.

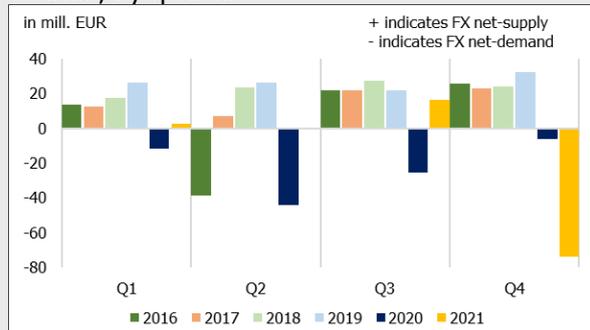
⁵² The foreign exchange market within this analysis encompasses transactions between banks and their clients and interbank trading.

Chart 63
Banks' purchase of foreign currency from exchange offices, by quarter



Source: NBRNM

Chart 64
Net-supply of/demand for foreign currency by natural persons on the foreign exchange market, by quarters



The gradual recovery of domestic economy, the stagnation in the global supply and production chains as well as the price changes in international markets in the last quarter of the year affected the corporate supply of and demand for foreign currency. The net sale of foreign currency to banks for the needs of the corporate sector was higher on an annual basis (by Euro 406 million), with two times higher annual increase in demand than in supply of foreign currency. The increased need for foreign exchange liquidity arose from oil and electricity production and trade companies, given the multiple increase in energy price on the global markets. The changing dynamics of commodities and food prices globally also contributed to a moderately higher demand for foreign currency from companies for trade and production of food, beverages and tobacco and wholesale trade. A part of the increased demand was met by the higher supply of foreign exchange liquidity from IT service companies and companies from the metal and automotive industries.

Chart 65
Demand for foreign currency by companies on the foreign exchange market, by quarters

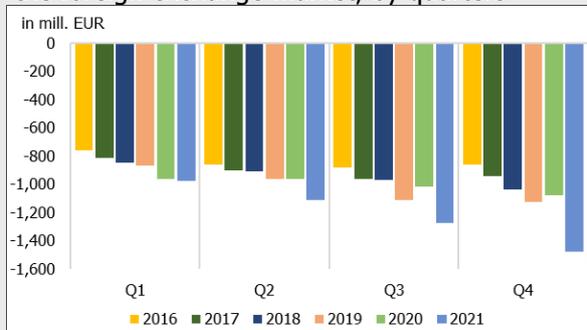
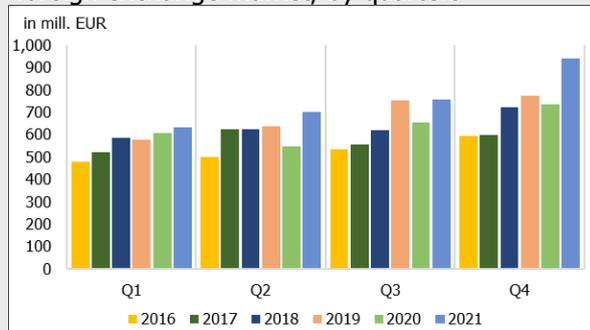


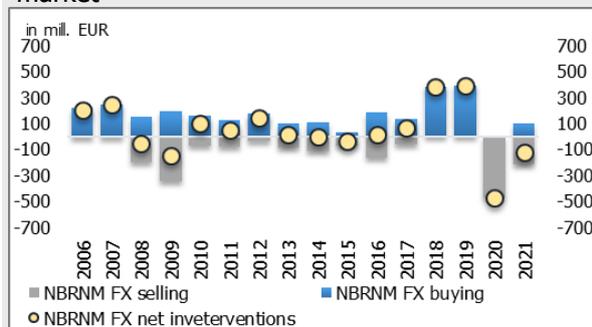
Chart 66
Supply of foreign currency by companies on the foreign exchange market, by quarters



Consequently, the banks' net sales of foreign currency for the needs of customers remained at a relatively high level (Euro 769.6 million) for the second year in a row. Taking into account that banks provided most of the necessary foreign exchange liquidity from their own sources, but also on the interbank foreign exchange market (turnover of Euro 1,025 million), the National Bank's net sale of foreign currency in 2021 (Euro 120 million) was four times lower, compared to the previous year. Moreover, unlike in 2020, when the National Bank participated in the foreign exchange market only by selling foreign currency (with the exception of the small purchase made at the end of the year), in 2021 it intervened in both directions. Amid improved market trends and solid foreign currency liquidity of the banks in the first nine months of the year, the National Bank intervened occasionally, by purchasing excess foreign exchange liquidity. The higher demand for foreign currency (mainly by companies) in the fourth quarter of the year was transferred to the interbank foreign exchange market through an increase in the demand for foreign currency. In such circumstances, the National Bank intervened in the foreign exchange market in the last three months of the year by selling foreign currency. In addition to the interventions in the spot segment, the National Bank during this period maintained active communication with the public in order to normalize the expectations of domestic entities and to

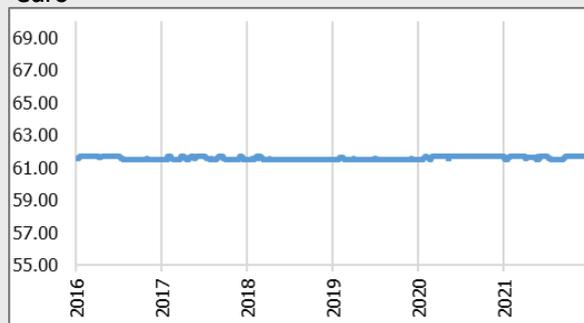
preserve stability of the exchange rate of the denar against the euro. The National Bank comfort to participate in the foreign exchange market was supported by the solid and adequate level of foreign reserves, due to which the exchange rate of the denar against the euro remained stable.

Chart 67
NBRNM interventions on the foreign exchange market



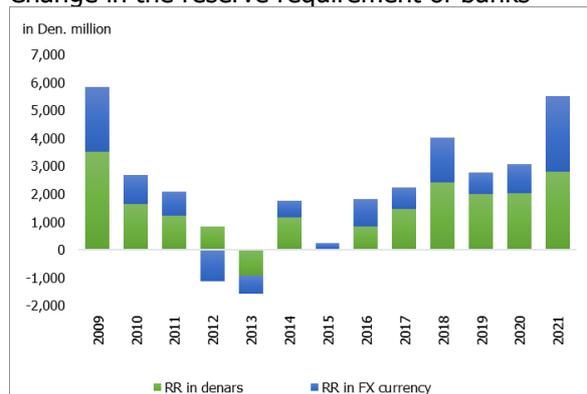
Source: NBRNM

Chart 68
Middle exchange rate of the denar against the euro



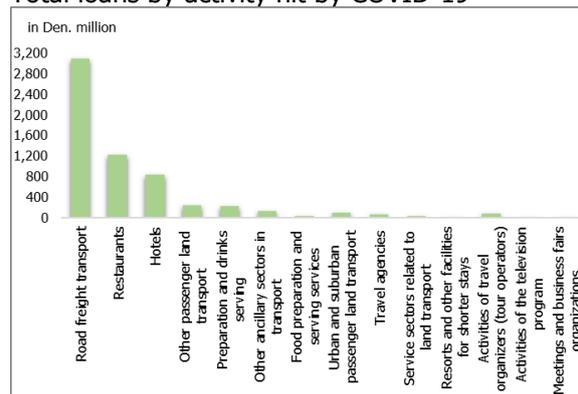
For the purposes of achieving the monetary policy goals, in 2021, the National Bank again used reserve requirement for liquidity management. Moreover, in addition to the main function of this instrument, the National Bank continued to apply the non-standard measure to the reserve requirement (introduced in March 2020), in order to facilitate an uninterrupted credit support for the companies that were most affected by the health crisis⁵³. In 2021, with the further gradual normalization of business processes, the lending to targeted sectors slowed down, thus decreasing (by Denar 1,257 million) the loan stock to Denar 5,696 million at the end of December. Most of targeted loans (49%) were granted to freight road transport businesses, which has not been supported since the September maintenance period⁵⁴, followed by service activities, hotels and restaurants, which account for 15% and 22%, respectively. Since the introduction of the non-standard measure to the reserve requirement, a total of Denar 456 million have been released in the banking system.

Chart 69
Change in the reserve requirement of banks



Source: NBRNM.

Chart 70
Total loans by activity hit by COVID-19



⁵³ The measure releases part of the liquid assets that banks allocate with the National Bank as a reserve requirement, by reducing the base of denar liabilities for the amount of newly approved and restructured loans approved to enterprises that, according to the information from the Government of the Republic of North Macedonia, are the most affected by COVID-19.

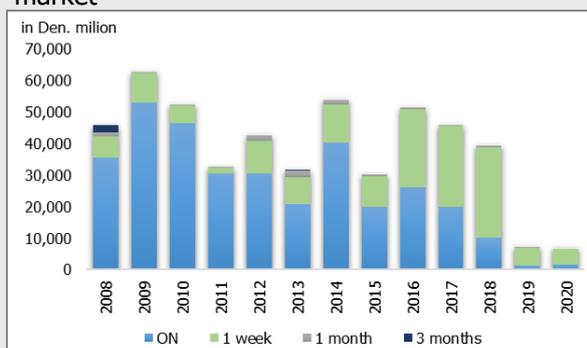
⁵⁴ Since the September maintenance period, changes have been made in the scope of activities supported by the non-standard measure in the reserve requirement, taking into account the List of activities supported by measures of the Government of the Republic of North Macedonia.

Changes in denar and foreign exchange liabilities of banks⁵⁵ generated the historically highest annual growth of banks' reserve requirement, of Denar 5,518 million. Thus, denar reserve requirement increased by Denar 2,799 million (to Denar 29,071 million) on an annual basis, with an exceptional growth in euro reserve requirement (denar equivalent of Denar 2,719 million denars), reaching Denar 21,013 million at the end of the year. Such changes in reserve requirement from currency aspect reflect the relatively stronger growth of banks' foreign currency liabilities compared to the further growth of their denar liabilities⁵⁶.

Box 2. Developments on the interbank market for unsecured deposits and the secondary market⁵⁷

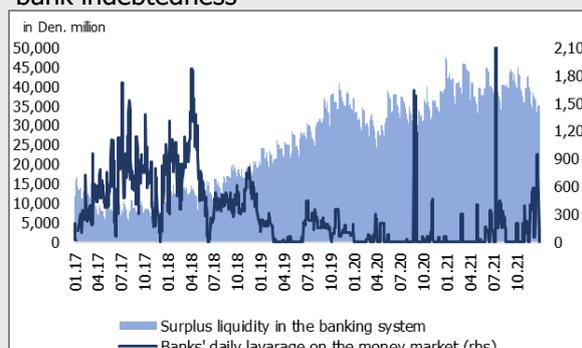
In 2021, due to the high amount of available denar funds, banks also had a very small and occasional need to borrow in the domestic financial markets. Consequently, on the interbank unsecured deposit market, the demand (Denar 8.93 billion) was only moderately higher on an annual basis, yet considerably lower (by about 80%) compared to the average bank's need to offset their short-term needs for denar liquidity in 2008– 2018 period.

Chart 71
Turnover on the unsecured interbank deposit market



Source: NBRNM

Chart 72
Excess liquidity in the banking system⁵⁸ and bank indebtedness



The weak demand for liquid assets by banks also affected their average daily debt (around Denar 142 million), which was relatively stable on an annual basis. Besides the solid denar liquidity, the maturity structure of trading also contributed to the low volume of trading in unsecured interbank deposits in 2021. Banks secured most (85%) of the required funds with a maturity of up to one week, thus for the fourth year in a row these unsecured deposits significantly exceed the stock of overnight loans. The interest rates on the unsecured interbank deposit market in 2021 were stable. The average interbank interest rate on all transactions (MBKS) at the end of the year was 1.09% and was lower by only 0.01 percentage points compared to December 2020. The most common one-week interbank uncollateralized loans were granted at stable interest rate (average of 1.07%), with an unchanged level (around 1%) of the interest rate on uncollateralized overnight deposits which were traded occasionally. The interbank interest rate on overnight transactions (MKDONIA) was also maintained at this level.

In 2020, securities in the amount of Denar 5,602 million were traded on the secondary market which is by 27% more compared to the previous year. Analyzing types of transactions, the higher turnover is mainly due to outright securities transactions, and only one transaction in the amount of Denar 140 million was concluded in the repo market. Observing outright transactions, trading in government

⁵⁵ In 2021, the National Bank did not make any changes to the reserve requirement rates and base. Reserve requirement rate of 8% is applied to banks' denar liabilities, 15% to banks' foreign currency liabilities, and 50% to banks' liabilities in denars with currency clause.

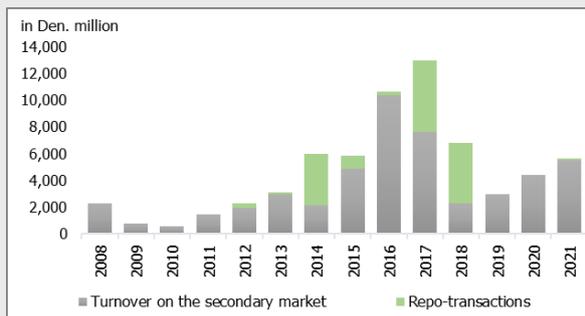
⁵⁶ For more details on changes in banks' deposit base, see Monetary Aggregates.

⁵⁷ Money market analysis in North Macedonia includes unsecured deposit market, secondary market of short-term securities and long-term government securities (excluding structural bonds), secured deposits market (repo market).

⁵⁸ Liquidity surplus in the banking system is a sum of banks' assets on the main account with the National Bank and assets placed in deposit facilities, reduced for the amount of assets used from the overnight loan facilities.

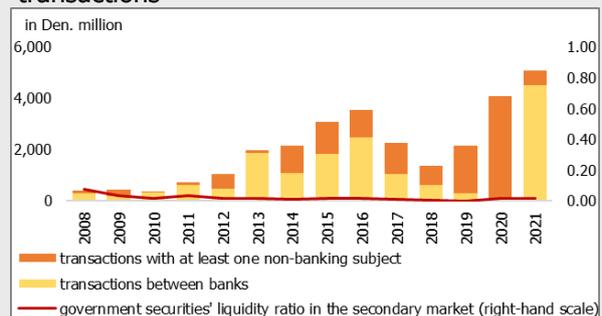
securities prevailed in the amount of Denar 5,202 million (or 92.9% of the total turnover). In the total amount of traded government securities, the volume of trading in government bonds is four times higher, which is mainly explained by the status changes of one bank. These transactions, together with the active participation of banks in this market segment in the short-term liquidity management contributed to domination (Denar 4,352 million or 83.6%) of interbank outright transactions in total trade in government securities. On the other hand, the volume and frequency of transactions with government securities with at least one non-bank participant were the lowest in the last seven years. However, notwithstanding the annual increase in traded government securities on the secondary market, its share in the total amount of government securities issued in the country was very low (0.02%), indicating further weak liquidity of these instruments on the domestic financial markets.

Chart 73
Turnover on the secondary securities market



Source: NBRNM

Chart 74
Structure of outright government securities transactions⁵⁹



⁵⁹ 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.

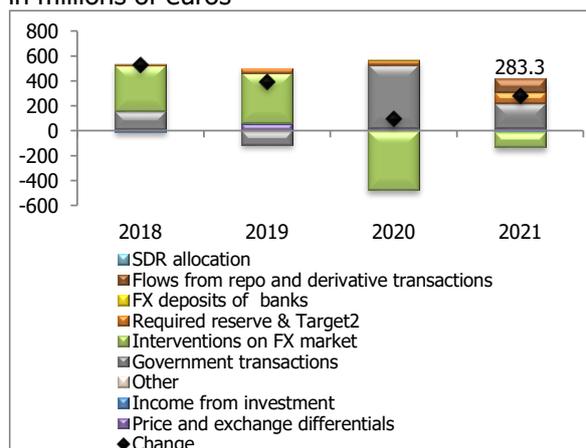
VI. Foreign Reserves Management and Investment

In 2021, the foreign reserves of the Republic of North Macedonia (hereinafter referred to as: foreign reserves) were maintained at a high level, allowing the National Bank to adequately respond to liquidity needs and ensure a stable exchange rate of the denar against the euro. International markets were dominated by expectations for a solid global economic recovery amid increased expectations for inflationary pressures, with occasional periods of investor pessimism related to the emergence of new virus strains. Foreign reserves management in 2021 was prudent, despite the global optimism, adjusting investment decisions to the volatile developments in the international markets, which enabled further achievement of the core principles: safety and liquidity of foreign reserves, reaching certain profitability through active management.

6.1. Foreign reserves stock and flow

In 2021, the foreign reserves increased by Euro 283.4 million and reached Euro 3,643 million at the end of the year, despite the National Bank interventions in the foreign exchange market, amid pronounced inflationary pressures and energy crisis in the last quarter. The growth of foreign reserves resulted from the net government inflows from abroad in the amount of Euro 198.2 million, mainly due to the general allocation of funds of the International Monetary Fund (Euro 166.5 million)⁶⁰. Inflows from concluded secured swap transactions (Euro 103 million) used in the active foreign reserves management contributed to the increase, same as the higher allocated euro reserve requirement and funds of domestic banks on MIPS-EUR accounts (Euro 90.3 millions). A smaller contribution was made by the growth of the US dollar and gold⁶¹, mainly amid yield growth and favorable performance on the equity securities (shares) market in the United States due to increased expectations for a solid global economic recovery, as well as investors' perceptions for tightening of the Fed policy earlier than expected.

Chart 75
Foreign reserves growth factors
in millions of euros



Source: NBRNM.

Chart 76
Foreign Reserves Tranching
average level, in millions of euros



⁶⁰ These funds were allocated by the IMF to the Republic of North Macedonia in August 2021, and in December, their use was regulated with the Law on Regulating the Liabilities of the Republic of North Macedonia towards the International Monetary Fund on the Basis of Using the Funds from the General and Special Net Cumulative Allocation of Special Drawing Rights Approved under Resolution of the IMF Board of Governors.

⁶¹ The US dollar appreciated against the euro by 7.7%, which increased the value of gold in foreign reserves by 4.3%, despite the annual decline in the price in US dollars of 3.8%.

In 2021, 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 foreign exchange assets on the domestic foreign exchange market and future repayments of external public debt. Besides for short-term liquidity needs, the funds in the operating tranches were maintained at a relatively higher level given the expectations for more favorable investment conditions, amid extremely low and negative returns on the international financial markets. Within the foreign reserves, there was a special tranche to manage gold whose security and liquidity is particularly pronounced amid fluctuating movements in the financial markets.

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

In 2021, international markets were dominated by increasing investors' expectations worldwide for a solid global economic recovery, amid further economic support by policy makers and progress in the corona virus vaccination process, while the periods of investors' pessimism were temporary. During the year, with the lifting of containment measures to deal with the pandemic and the gradual recovery of private demand, the disruption of global supply chains was increasingly pronounced, which, combined with labor shortages, border controls, demands for higher wages and flexible working arrangements, reduced the supply of products and services and set off a cycle of galloping inflation globally. Inflationary pressures were further strengthened towards the end of the year due to the energy crisis (primarily in Europe)⁶². Consequently, the participants in international financial markets strengthened their expectations for normalization of monetary policies of the leading central banks. In such conditions, US government bonds yields rose significantly on an annual basis, while yields on the safest government bonds of the euro area followed this trend, but more moderately (the growth in bond yields containing a credit premium was more pronounced⁶³), and share prices registered double-digit growth rates, hitting a record high. The leading central banks announced the start of the cycle of gradual withdrawal of monetary stimulus and normalization of global monetary conditions, in line with market expectations. Thus, at the end of the year, the Fed not only reduced bond purchases, but decided to do so quickly. At the ECB meeting in July, in accordance with the new central bank strategy, it was announced that interest rates were expected to be kept at the current or lower level, which would stabilize inflation at 2%, in the medium term. In December, the ECB announced termination of the Pandemic Emergency Purchase Program (PEPP) by the end of March 2022, and temporary increase in net bond purchases through the Asset Purchase Programme (APP), the application of which would continue as long as needed. The ECB president expressed concern about inflationary pressures and confirmed that they are more permanent compared to previous estimates.

The continued presence of the largest central banks in the financial markets and the extensive monetary and fiscal programs to support economies improved the outlook of instruments that contain a credit premium, as well as for financial institutions, thus renewing short-term placements with commercial banks, on unsecured and secured basis. The announcements for monetary policy normalization and, consequently, the growth of yields, lowered the market value of fixed-income instruments, but opened new investment opportunities for the available funds and, in conditions of a short adjusted duration of the portfolios, enabled more favorable reinvestment conditions. However, volatile international market developments called for caution and active adjustment of investment decisions in foreign reserves management for further smooth achievement of the basic investment

⁶² The energy crisis caused a strong increase in the price of natural gas (by about 254% on an annual basis) and a several-fold increase in electricity price in Europe.

⁶³ It refers to government bonds of peripheral economies of the euro area, collateralized securities, corporate securities of banks, etc.

principles: safety, liquidity and profitability. Guided by the principle of security of foreign reserves investments, which is of the highest priority, in 2021, the National Bank directed a large portion of new foreign reserves investments to safe havens, and in order to ensure additional income, continued actively managing the foreign reserves by concluding repo and reverse repo transactions and secured gold transactions (swap transactions), with euros and Japanese yen, as well as through futures transactions.

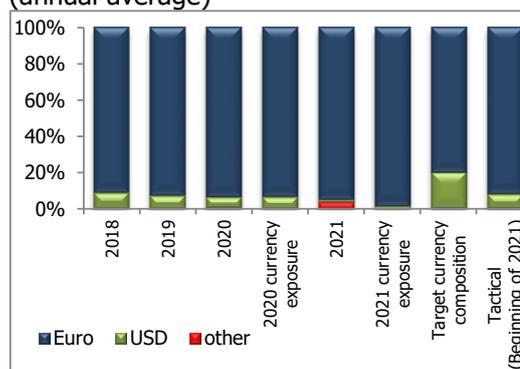
6.3. Foreign reserves structure

In 2021, the **currency structure** of foreign reserves was further dominated by assets invested in financial instruments in euros with an average share of about 95%, which is in line with the need to hold funds to support the monetary strategy of stable exchange rate of the denar against the euro. The rest of the foreign reserves consists of special drawing rights, acquired with the general allocation of funds from the International Monetary Fund, Japanese yen from the concluded secured transactions, as well as instruments in US dollars⁶⁴.

In January, the share of US dollar in foreign reserves was reduced in anticipation of depreciation of the US dollar in 2021 and a low tolerance to currency risk. Analyses early this year pointed to a possible lower value of the US currency due to structural deficits in the US fiscal and external sectors, the revised monetary strategy of the Fed, the reduced interest advantage in the US financial markets and expectations for faster global economic growth supported exactly by the reduced value of the US dollar.

The cautious and active approach of foreign reserves management, which included targeting of the safest financial instruments in order to meet the principle of foreign reserves security, contributed to a moderate increase in the average share of instruments issued by issuers/countries with the **highest credit ratings** (from AAA to AA) (at about 70%). These instruments have the lowest exposure to credit risk and are considered safe havens. Also, the low and negative returns and yield curves shape during 2021 did not offer adequate compensation for taking interest and credit risk. However, given the negative yields on debt securities, and in order to preserve the value of foreign reserves, a significant part of the investments (about 18% on average) were invested in instruments with a credit rating of A+ to A-. These investments are highly safe and liquid, but provide moderately higher returns on assets. Most of these instruments have shorter maturity and are issued by renowned commercial banks (6.5% of foreign reserves). Such distribution affected the **geographical structure** of placements of foreign reserves. Thus, in 2021, they were mostly invested in instruments issued by the leading economies of the euro area (48% on average)⁶⁶, but the extremely low returns of these financial products conditioned exposure to other euro area and EU member states (23.7%)⁶⁷.

Chart 77
Currency structure⁶⁵ and foreign reserves exposure (annual average)



Source: NBRNM.

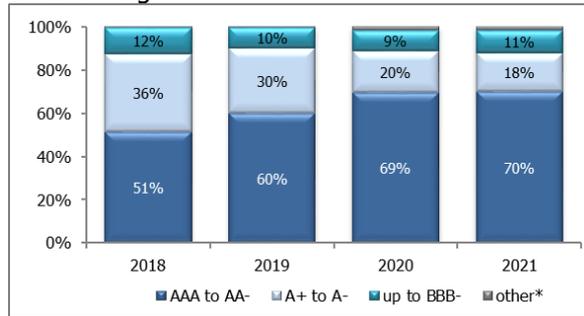
⁶⁴The currency structure is analyzed in terms of the stock of foreign reserves reduced by the amount of gold.

⁶⁵ The target currency composition of the foreign reserves is in line with the currency structure of the interventions in the domestic foreign exchange market, government liabilities abroad, foreign trade of country 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.

⁶⁶ Refer to the so-called euro area core which include Germany, Austria, Luxembourg, Finland, the Netherlands, France and Belgium.

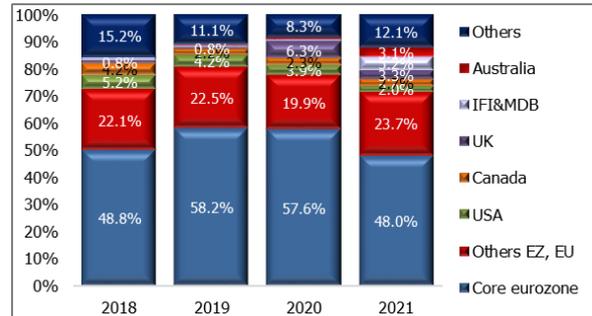
⁶⁷ Other euro area and EU countries include: Sweden, Lithuania, Poland, Czech Republic and Slovenia.

Chart 78
Average annual structure of investments by credit rating



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

Chart 79
Average annual geographical structure of investments

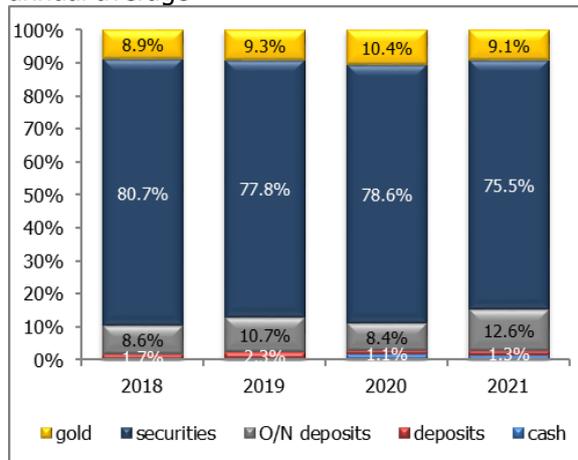


*IFI and MDB - international financial institutions and multilateral development banks

Observing by **type of instruments in which the foreign reserves are invested**, most of the assets were still placed in securities (75.5%). Government securities and securities issued with a state guarantee prevailed, and are considered the safest investments. During the year, short-term placements with commercial banks were also renewed, on an unsecured and secured basis, but in a volume lower than the average in 2020. Also, part of the investments in corporate bonds issued by financial institutions are in green bonds, which is in line with the National Bank commitments for establishing sustainable and responsible investment and managing climate risks in the financial sector. Part of the foreign reserves in 2021 was also maintained on current accounts (about 12.6% on average), mainly with central banks, and to a small extent with foreign commercial banks, in order to ensure liquidity of the foreign reserves, but also in anticipation on more favorable conditions for investment, in accordance with the forecasts for growth of yields amid gradual withdrawal of the monetary stimulus by the central banks of the leading economies.

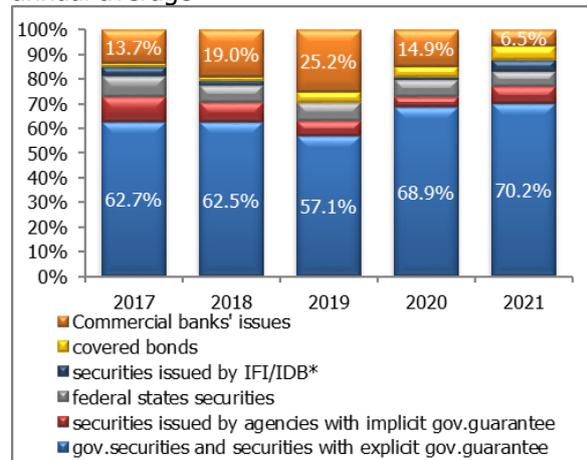
In the foreign reserves structure, the average share of **gold** moderately decreased, from 10.4% in 2020 to 9.1% in 2021, which, amid unchanged quantity and higher value in euro, solely results from the increase in foreign reserves.

Chart 80
Investment structure, by instrument annual average



Source: NBRNM

Chart 81
Structure by type of securities annual average



6.4. Results from the management and investment of foreign reserves

The positive financial results in 2021 were due to the favorable performances of the active management of gold, currencies, repo and reverse repo transactions, as well as futures transactions, so that the **total rate of return on investment and management of foreign reserves was 0.15%**. In terms of investment, the negative yield of the instruments at the moment of investment largely contributed to the return on the portfolios of foreign reserves, coupled with the growth of yields in 2021 which caused a moderate decline in the market value of securities with a fixed yield. The active foreign reserves management, by taking positions different from those contained in the reference portfolios, had a favorable effect on the performances and contributed to moderate exceeding of the results of the trading portfolios relative to the appropriate reference portfolios. The relatively higher return was mostly due to the selection of instruments, i.e. to the higher-yielding instruments in which the foreign reserves are invested compared to the instruments contained in the reference portfolios.

Analyzed by portfolios, the operational portfolio in euros makes a negative contribution to the income from investment of the foreign reserves, given the need for maintaining readily available funds in euros on current accounts with central and commercial banks, and which are regulated by negative interest rates. The investment portfolio in euros⁶⁸ which covers most of the foreign reserves and includes instruments with longer maturities (despite the safest instruments, it also contains investments in instruments that offer a credit risk premium) and the liquidity portfolio in euros, which are with a shorter duration compared to the investment portfolio, had negative rates of return under the influence of the negative yield to maturity of the instruments and the growth of the yields in the euro area. The performances of all portfolios in euros exceeded the appropriate reference portfolios, which contain only the safest instruments with significantly negative yields.⁶⁹

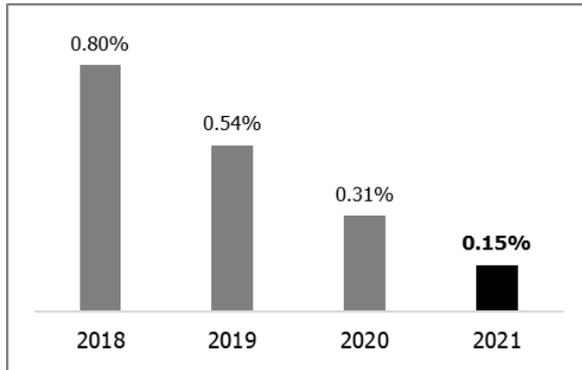
The liquidity portfolio in US dollars had a positive return, due to the positive yields in the USA, as well as due to the positive performances of the active foreign reserves management through interest rate futures.

⁶⁸ Which are intended to satisfy all contractual and potential outflows during one year.

⁶⁹ The investment portfolio in euros is managed in relation to a reference portfolio, represented by a combination of the following reference indices published by Intercontinental Exchange® (ICE): EG6Y 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 0 to 3 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 3 to 5 years; EG63 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 5 to 7 years. The basic adjusted duration of the reference portfolio corresponds to the adjusted duration of the investment portfolio.

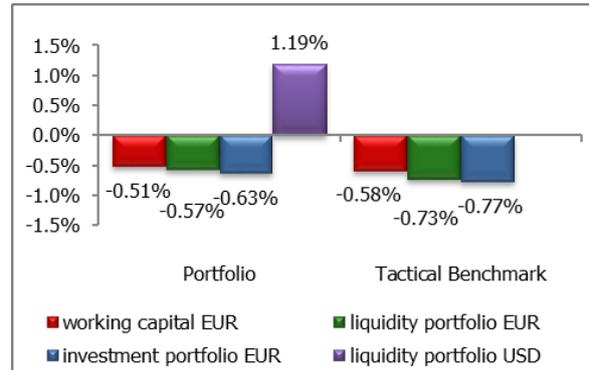
The liquidity portfolio in euros is managed in relation to a reference portfolio, represented by a combination of the following reference indices published by Intercontinental Exchange® (ICE): EG6W composed of government securities issued by member states of the euro area with credit rating of at least "AA" with a residual maturity from 0 to 1 year; EG61 composed of government securities issued by member states of the euro area with credit rating of at least "AA" with a residual maturity from 1 to 3 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 3 to 5 years. The basic adjusted duration of the reference portfolio corresponds to the adjusted duration of the liquidity portfolio.

Chart 82
Foreign reserves return rates⁷⁰
in %



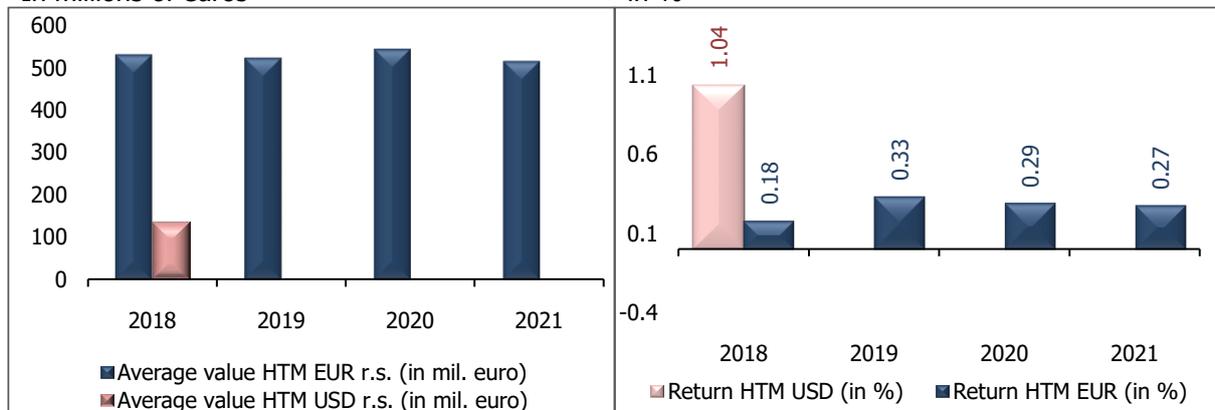
Source: NBRNM.

Chart 83
Return rates by tranche in 2021



Part of the investments of the foreign reserves within the investment portfolio are also aimed at securities held to maturity⁷¹. These securities, according to their characteristics, have a predictable and stable return and consequently reduce the exposure to interest rate risk. The level of the portfolio to maturity in euros during 2021 was relatively stable. This portfolio registered positive rates of return, considering that it is composed of government bonds issued by member states of the euro area that have a positive return to maturity.

Chart 84
Characteristics of the portfolios to maturity in 2021
In millions of euros



Source: NBRNM.

*HTM (Held-to-maturity) - securities to maturity

⁷⁰ 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.

⁷¹ Securities classified in financial instruments measured at amortized cost.

VII. Payment services and payment systems

One of the main tasks of the National Bank is to secure smooth functioning of the payment system in the country which consists of payment service providers, payment infrastructure, payment service users and regulations that regulate the payment operations. According to the legal mandates, the National Bank establishes, registers and oversees the safety, soundness and efficiency of payment, settlement and clearing systems⁷². At the same time, the National Bank has supervisory competences over the operations of the payment systems, as well as supervisory competences over the banks and the other entities providing payment services in the country. The National Bank activities that refer to the policy and the development of the payment systems and improvement of payments are encouraged by the impact of the changes driven by innovations and the process of digitalization and, within the regulatory and catalyst role of the National Bank, are constantly aimed at integration of the innovations into the existing payment system and creation of conditions for development of innovative solutions for making payments with harmonization of the national with the European regulation and practices.

The multi-year activities of the National Bank and the Ministry of Finance for harmonization of the national with the European legislation in the field of payment services and payment systems led to the adoption of a new Law on Payment Services and Payment Systems⁷³. The new legal framework, which will start to be applied mostly at the beginning of 2023, will enable entry of new payment service providers and payment system operators and thus it is expected that it will create conditions for competition from the fintech sector, by offering new advanced solutions for making payments. This enriched offer of payment services is expected to raise the quality and security of services, providing lower prices of services and a higher degree of protection of users.

In order to achieve greater awareness about the development level of digitalization of our country in the field of payments and financial inclusion of population, the National Bank adopted new bylaws⁷⁴ which expanded the set of data from the payment area which will enable more efficient monitoring and basis for the future strategic guidelines in this domain.

7.1. Payment operations realized with cashless payment instruments

The total number of payments⁷⁵ in the country in 2021 amounted to 176 million transactions and registered an annual growth of 26.7%, with simultaneous growth of 63.3% of their value which reached Denar 5,714 billion.

⁷² 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.

⁷³ The Law on Payment Services and Payment Systems was adopted by the Assembly of the Republic of North Macedonia at the beginning of April 2022.

⁷⁴ "Decision on submitting and publishing payment operations data" (Official Gazette of the Republic of North Macedonia No. 88/21) and "Instructions on submitting payment operations data" (Official Gazette of the Republic of North Macedonia No. 118/21 and 189/21). The adoption of these new bylaws superseded those from 2016, which regulate the domain of payment statistics.

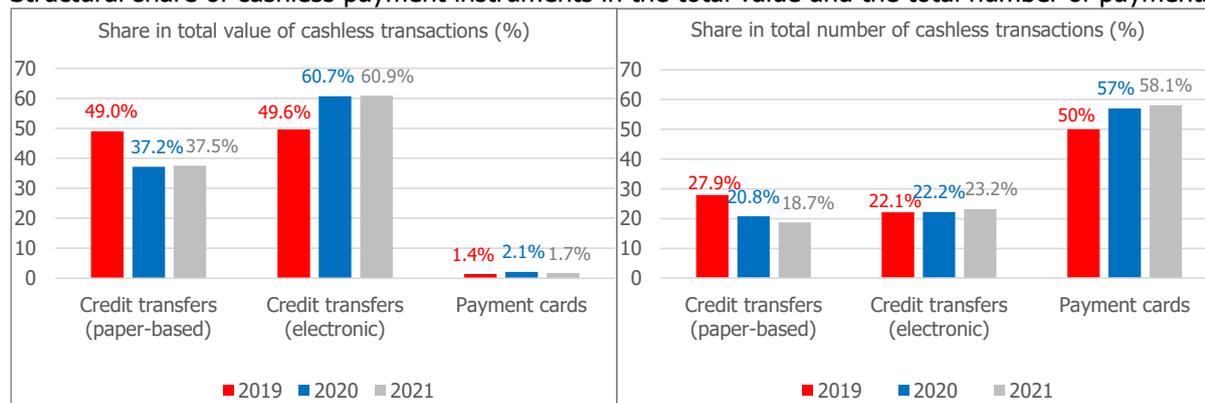
⁷⁵ Payments refer to transactions of legal entities and individuals (excluding the monetary financial institutions - MFI sector). Non-monetary financial institutions (non-MFIs) denote any natural person and legal entity that does not belong to the MFIs sector. For the purposes of payment statistics, payment service providers are not included in the non-MFIs sector. The payment instruments used for making payments in the Republic of North Macedonia are credit transfers and payment cards, whereas cheques were used until 2007, and direct debits are still not introduced as a payment instrument.

The changes in the habits of citizens and companies, in particular the more frequent use of the benefits of digitalization in the payment service market, to a certain extent derived from the occurrence of the corona-crisis, are still visible through the increased use of payment cards and digital channels for the execution of payments. Thus, 2021 registered a high annual growth of 29.1% in the number of transactions with payment cards which increased their share by 1.1 percentage point in the total number of payments, and reached 58.1%. At the same time, credit transfers initiated electronically registered an annual growth of 32.5%, which increased their share by 1 percentage point in the total number of payments, at the expense of the decline in the share of 2,1 percentage points in credit transfers initiated in paper-based form.

The value of payments is still predominated by credit transfers (payment orders) with 98.3%, amid increased structural share by 0,2 percentage points (share of 60.9%) of credit transfers initiated electronically and by 0.3 percentage points (37.5%) of credit transfers initiated in paper-based form, at the expense of a decline of 0.4 percentage points (or share of 1.7%) of payment cards in the total value realized with cashless payment instruments.

Chart 85

Structural share of cashless payment instruments in the total value and the total number of payments



Source: NBRNM

7.2.1. Credit transfers initiated by natural persons and legal entities

The total number of credit transfers initiated by natural persons and legal entities in the country in 2021 was 65.7 million, which is an annual growth of 10.2%.

Table 3
Credit transfers as cashless payment instrument for natural persons and legal entities

Number of credit transfers (structural share) (2020)	Natural persons (%)	Legal entities (%)
<i>By method of initiation</i>		
Paper-based	69.7	37.2
electronic	30.3	62.8
<i>By device of initiation of the electronic credit transfers</i>		
PC	60.1	98.2
Cell phone	39.3	1.8
ATM	0.6	/

Source: NBRNM

The structure of credit transfers, in terms of user, is still predominated by legal entities with 65.9%, while, the rest of 34.1% are initiated by natural persons. From the beginning of the corona-crisis, it is noticeable that natural persons more frequently used the benefits of electronic banking (share of 30.3% in the total number of credit transfers,

or increase in the share of 8.6 percentage points compared to 2019), but the initiation of payments at the banks' counters still prevails (69.7%). Moreover, despite the predominant use of personal computers for initiation of electronic credit transfers with a share of 60.1%, citizens significantly use the advantages and the comfort of the use of the mobile phone applications (39.3% or increase in the share of mobile applications of 6.6 percentage points, at the expense of a reduction in the share of personal computers by 6.5 percentage points compared to 2020), and a small portion of the population used ATMs to initiate payments. Unlike natural persons, legal entities made 62.8% of the total credit transfers electronically. Regarding legal entities, the situation is similar to the last year, i.e. the use of the personal computer prevails, as much as with 98.2%, and only 1.8% for that purpose used the mobile banking applications which registered an increase in their share of 0.4 percentage points, compared to 2020.

While the electronically initiated payment is increasingly used in the country for its efficiency, the comparative data show that the Republic of North Macedonia has a relatively lower structural share in the electronically initiated credit transfer transactions (51.8%), compared to the the old EU⁷⁶ member states from CESEE⁷⁷, where the share of electronically initiated credit transfers in the total number of credit transfer transactions is 94% and 91%⁷⁸, respectively.

7.2.2. Payment cards

The total number of transactions with payment cards issued by domestic issuers at terminals located in the country in 2021 was 132.5 million, which is a high annual increase of 22.7%. The structural share of the number of POS transactions kept on increasing, by 2 percentage points reaching 71% in 2021, caused by the high annual growth of 25.9%, at the expense of the reduced share of transactions for ATM cash withdrawals (20%) which registered a more moderate growth of 8.9%. As a result of the change in the habits and the culture of payments of citizens and companies, the use of payment cards at the domestic virtual (Internet) points of sale registered a high annual growth of 32.4%, although their share remained at a stable and still relatively low level (share of 8%).

Significant annual growth of 55.9% in 2021 was registered in the use of payment cards issued by domestic issuers at terminals located abroad, whereby 8.8 million transactions were carried out. There was an increased use of payment cards at the virtual (Internet) points of sale of foreign entities with an annual growth of 66.3%, which increased their share by 2 percentage points, which reached 33% in 2021, at the expense of the decline in the structural share of payments at POS terminals (amid annual growth of 53.8%) and the ATM cash withdrawals by 1 percentage point, respectively, compared to 2020.

In 2021, 8.1 million transactions with payment cards issued by foreign issuers were carried out at terminals located in the country, whereby an annual growth of 82.5% was registered, amid annual growth of POS transactions of high 94.1%, i.e. annual growth of the virtual points of sale of 58.4%. The high growth in the number of transactions is due to the opening of the borders and the eased procedures for entry of non-residents in our country in the second year of the pandemic. Moreover, in terms of the structure and habits of using foreign payment cards in the country, also during 2021 there is a growing use for payments at POS terminals whose share increased by 5 percentage points and reached 78%, at the

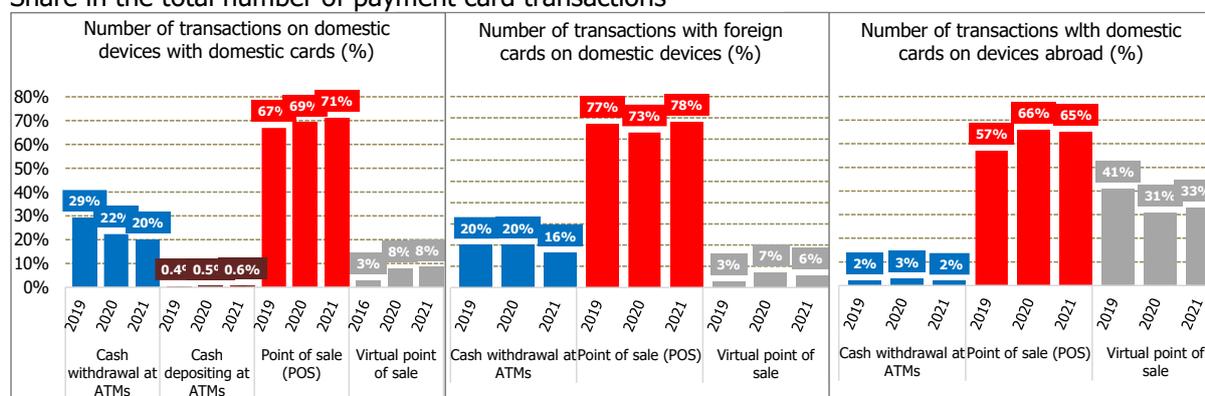
⁷⁶ Austria, Belgium, Germany, Greece, Denmark, Ireland, Italy, Portugal, Finland, France, the Netherlands, Sweden and Spain.

⁷⁷ Bulgaria, Estonia, Cyprus, Latvia, Lithuania, Poland, the Czech Republic, Romania, Slovakia, Slovenia, Hungary and Croatia.

⁷⁸ The latest available data for the EU member states are as of 2020.

expense of the reduction of ATM cash withdrawals by 4 percentage points (share of 16%) and the reduction in their use at the virtual points of sale by 1 percentage point (share of 6%).

Chart 86
Share in the total number of payment card transactions



Source: NBRNM

7.2. Payment infrastructure

Electronic payment infrastructure in the country was developing also in 2021, as a result of the constant development of contactless technology, which assumes greater proportions in the field of payment card payments. At the end of 2021, out of 2.1 million cards issued in the Republic of North Macedonia, 68.3% cards are based on contactless technology and 83.8% POS terminals that support contactless payments, out of a total of 30,045, which is also an increase in their number of 10.2% and 6.3%, respectively, compared to the end of 2020. Increased offer and use of modern digital devices for making payments in 2021 is also noticed through the steady growth of 2% in the number of ATMs with an additional function for depositing cash, in addition to withdrawing (201 ATMs).

Besides the infrastructure that supports acceptance of electronic payments in the country, the development of digitalization opened excellent innovative opportunities for end users, offering them virtual wallets. At the end of 2021, the number of digitalized payment cards for making payments through mobile phones and through other smart devices for making contactless payments, reached 43,638, out of which the highest percentage (75.7%) are digitalized payment cards with a debit function, and the rest belongs to digitalized payment cards with a credit function.

The total number of transaction accounts of clients with banks for making payments in the country at the end of 2021 was 3.78 million and registered a small annual decline of 1.1%, due to the fall in the accounts of natural persons. In terms of structure, most, or 95% of transaction accounts still refer to natural persons and 5% refer to legal entities. Every third natural person - depositor holds accounts for making payments by using personal computers and/or mobile applications for electronic initiation of credit transfers, while, in legal entities, 40.8% of the total number of transaction accounts enable electronic payments, which is an increase of 0.1 percentage points compared to the end of 2020.

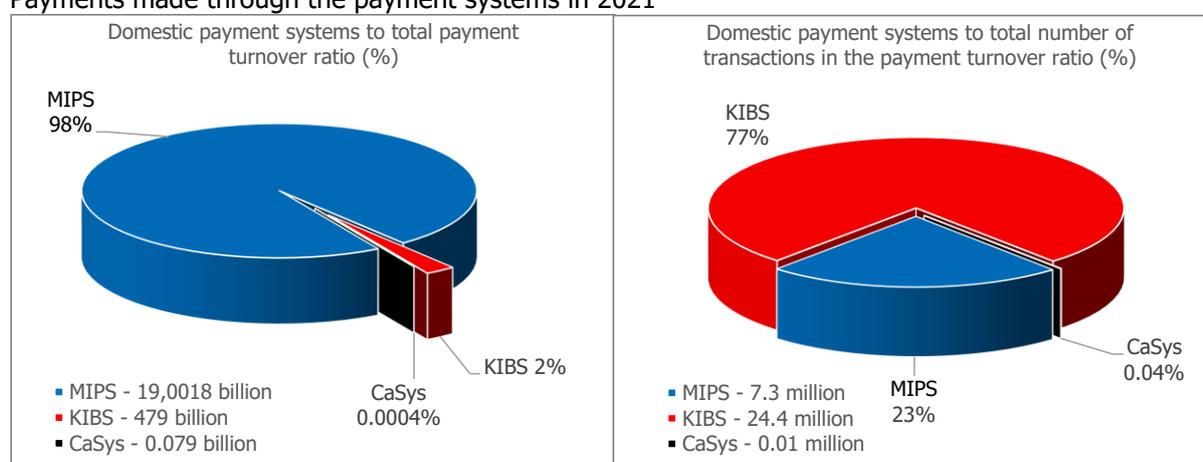
At the end of 2021, there was an annual fall of 1.8% in the total number of merchants in the country accepting payment card payments (12,885), caused by the drop in the number of merchants at POS terminals by 3.1% (11,539). On the other hand, the need for keeping social distance for protection of citizens directed companies towards opening virtual stores.

Thus, compared to last year, there was an annual growth in the number of merchants accepting card payments at the virtual points of sale by 11.2% (1,346).

7.3. Payment systems in the country

In 2021, the total value of transactions in the country realized through the payment systems - MIPS, KIBS⁷⁹ and CaSys⁸⁰ reached Denar 19,480 billion, amid executed 31.7 million transactions, recording an annual growth of 23.9%, i.e. 7%, respectively. In terms of the value of transactions, the largest part are executed through the payment system MIPS, or 98%, while the remaining part of 2% of the total payments are executed through the payment system KIBS. In the structure of the number of transactions in the same period, the largest share was that of the payment system KIBS (77%), followed by the payment system MIPS with 23%, while CaSys has a small share (0.04%).

Chart 87
Payments made through the payment systems in 2021



Source: NBRNM

Net settlement of payments through KIBS and CASYS is made on a regular basis through MIPS, which in 2021 worked for 248 days, with high accessibility of the participants to the system of 99.99%.

7.4. Payment systems oversight in accordance with the internationally established standards

The supervisory activities of the National Bank, also in conditions of a pandemic, were carried out on a regular basis, in accordance with the national legal framework that regulates the oversight⁸¹ which translates the internationally established oversight standards⁸². The payment systems oversight performed by the National Bank is aimed at minimizing the risk associated with possible disturbances in the functioning of the payment systems by identifying the potential risks in their operation, and is carried out through direct oversight, by insight with the operator who is managing the payment system and indirectly, through regular off-

⁷⁹ Clearing House - Clearing InterBank Systems AD Skopje operates the payment system for multilateral deferred net settlement for processing of small payments of below Denar 1,000,000.

⁸⁰ International Card System AD Skopje (CaSys) is a system of multilateral deferred net settlement of payments with domestic brands of payment cards.

⁸¹ Decision on the manner and the methodology for payment systems oversight (Official Gazette of the Republic of Macedonia No. 17/16 and Official Gazette of the Republic of North Macedonia No. 177/21) and the Decision on criteria and standards for payment systems operations (Official Gazette of the Republic of Macedonia No. 17/16).

⁸² Principles for Financial Market Infrastructure (PFMI) of the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions.

site monitoring of the payment systems operations. In this way, through the supervisory activities, the National Bank contributes to the security and efficiency in the execution of payments.

During 2021, the National Bank completed the direct partial oversight of the operator of the payment system KIBS for assessment of the compliance of the operations of this payment system with the requirements of the remaining seven principles for important payment systems⁸³, thus giving recommendations for further improvement of the payment system operations. The completion of this oversight wrapped up the first cycle of the oversight over the payment system KIBS according to all requirements of the principles that are applicable to important payment systems.

Also, the National Bank completed the direct partial oversight of the payment system MIPS for assessment of the compliance with nine principles and gave recommendations for improving the operations of this systemically important payment system.

At the same time, off-site monitoring of the payment systems was conducted on a regular basis, on the basis of which it was determined that during 2021 the payment systems in the country also in conditions of a pandemic, operated with a high level of operativeness, availability and efficiency, without registered significant falls and disturbances.

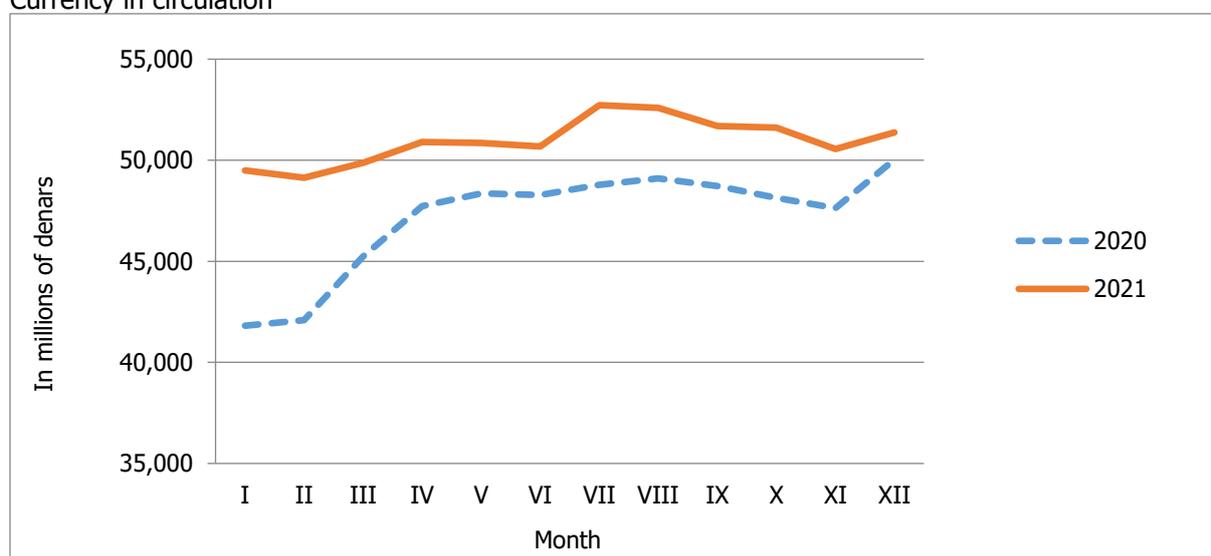
⁸³ The oversight of KIBS for assessment of the compliance of the operation of this payment system with the requirements of the other 6 applicable principles for important payment systems was performed with two partial oversights. The first partial oversight, which covered two principles, started in November 2017 and ended with the implementation of all recommendations by the operator KIBS in November 2019. The second partial oversight whose aim were four principles started in December 2018 and ended with the implementation of the relevant recommendations in December 2020.

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

8.1. Currency in circulation

As of 31.12.2021, the total amount of the currency in circulation amounted to Denar 51,381 million, which is by Denar 1,352 million or 2.7%⁸⁴ more compared to the end of 2020. The structure of the currency in circulation suggests that at the end of the year, banknotes and coins make up 97.7% and 2.3%, respectively of the total value. In terms of the number of pieces of currency in circulation, the share of banknotes equals 27.8% (112.3 million pieces), and the share of coins equals 72.2% (291.8 million pieces).

Chart 88
Currency in circulation



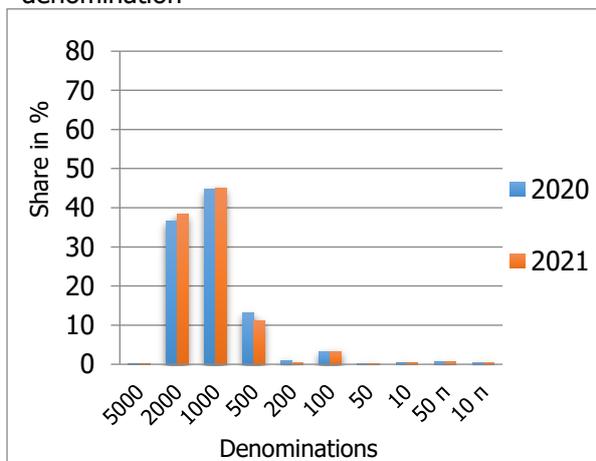
Source: NBRNM.

Banknotes in denomination of Denar 1000 (45%), Denar 2000 (38.3%) and Denar 500 (11.2%) account for the most of the total value of banknotes in circulation. Other banknotes account for 5.5% of the total value. In 2021, coins in denominations of Denar 10 (32.5%), Denar 50 (24%) and Denar 5 (19.1%) had the largest share in the value of coins.

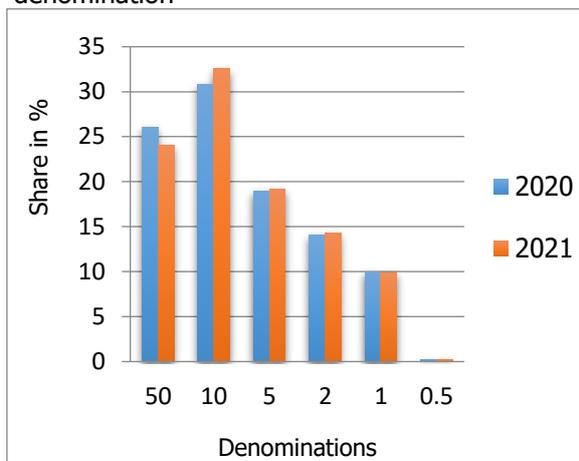
⁸⁴ The presented data on the currency in circulation do not include the quantities and value of the collector coins, which were made and put into circulation by the National Bank for artistic, cultural and promotional reasons. Collector coins are available primarily abroad, but also in the Republic of North Macedonia. The value of the collector coins in circulation, as of 31 December 2021, was Denar 11.7 million.

Chart 89⁸⁵

Value share of banknotes in circulation, by denomination



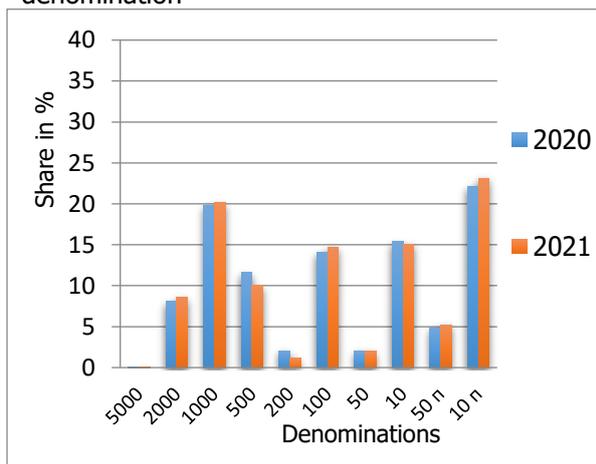
Value share of coins in circulation, by denomination



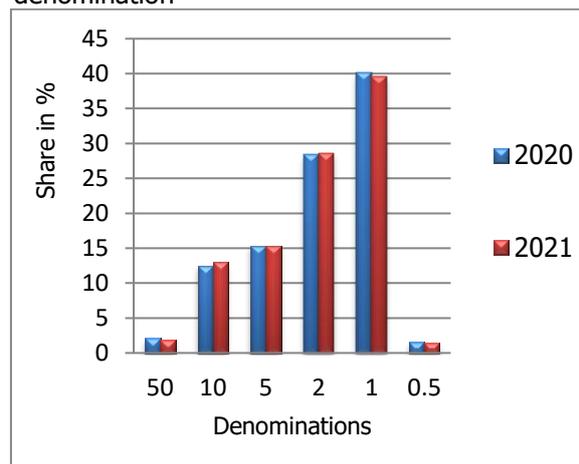
Source: NBRNM.

Chart 90

Quantity share of banknotes in circulation, by denomination



Quantity share of coins in circulation, by denomination



Source: NBRNM.

In the structure of the currency in circulation, according to the number of pieces, the share of banknotes in denomination of Denar 10 - polymer (23.1%), Denar 1000 (20.1%), Denar 10 (15.1%) and Denar 100 (14.7%) is the largest. Other banknotes constitute 27% of the total quantity of banknotes in circulation. The largest share of coins in circulation is that of the denomination of Denar 1 (39.6%) and Denar 2 (28.6%).

In the structure of the issued currency in circulation, polymer banknotes have an insignificant share (1.1%) relative to the other banknotes, whereby one should bear in mind their low nominal value and the relatively short period of circulation. According to the quantity, the share of polymer banknotes in the total number of banknotes in circulation is substantial and amounts to 28.3%, taking into account their important role in retail.

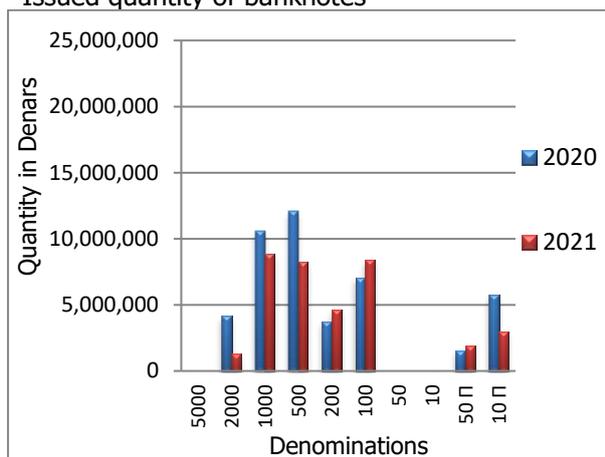
⁸⁵ The letter "p" in the charts denotes polymer banknotes.

8.2. Supplying banks and cash centers with banknotes and coins

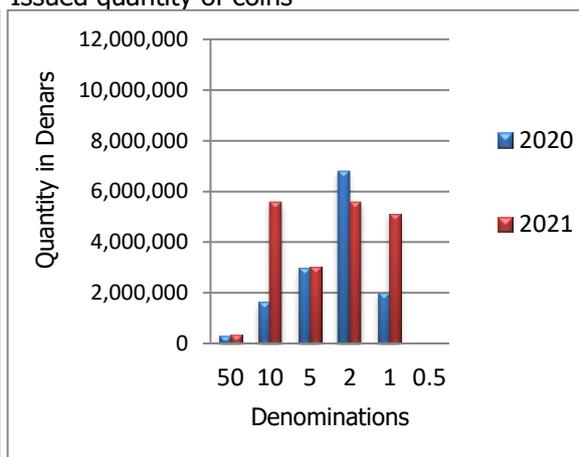
During 2021, the National Bank issued cash to banks and cash centers⁸⁶ in the amount of Denar 17,553 million (decrease of 34% compared to 2020). At the same time, cash has been received from banks and cash centers in the amount of Denar 16,206 million (decrease of 20% compared to 2020). The analysis of the denomination structure of banknotes and coins suggests that in the total turnover, the largest banknote is the denomination of Denar 500 with a share of 25.4% in 2021 (i.e. 25.5% in 2020) and the most common coin is the denomination of Denar 10 with a share of 32.7% in 2021 (versus 22.5% in 2020).

Chart 91

Issued quantity of banknotes



Issued quantity of coins



Source: NBRNM.

8.3. Processing and destroying banknotes and coins

During 2021, in the process of control of the quality of banknotes in circulation, a total of 34.4 million pieces were processed, out of which 8 million pieces were destroyed due to unfitness for circulation (4.1 million banknotes in 2020). Most destroyed banknotes were denominated in Denar 100 (41.8%) and Denar 500 (27%). In 2021, 3.2 million pieces of coins in denominations of 1, 2, 5, 10 and 50 denars were processed, 16 thousand pieces of which being withdrawn as unfit for circulation.

8.4. Expertise of suspicious / counterfeit money

In 2021, 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.⁸⁷

The expert analyses of the submitted suspicious banknotes denominated in denars, which are made during 2021, found 231 counterfeit sample, which is an increase of 272.6%

⁸⁶ During 2021, 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.

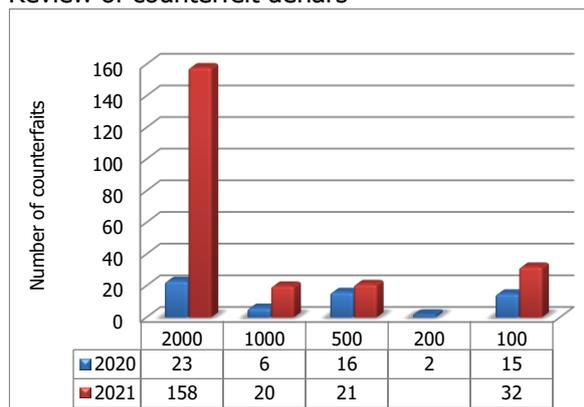
⁸⁷ Due to the measures for prevention of the spreading of the coronavirus, the National Bank also during 2021 postponed the specialized trainings of the employees in the banks and the cash centers, as well as the trainings planned according to the national training plan, within which the National Bank experts were supposed to provide trainings for the police officers and the employees in the other institutions involved in the combat against counterfeiting money.

relative to the counterfeit banknotes detected during 2020. Of the total number of detected counterfeit banknotes in 2021, the most common is the denomination of Denar 2000 - 158 pieces, or 68.4% of the total number of counterfeits, followed by the denomination of Denar 100 - 32 pieces, or 13.9% of the total number of counterfeits and the denomination of Denar 500 - 21 pieces, or 9.1% of the total number of counterfeits. The total value of Denar counterfeits in 2021 amounted to Denar 349,700.00, which is a negligible share compared with the total value of the currency in circulation. The increase compared to the previous year is due to the appearance of a new type of counterfeit in denomination of Denar 2000.

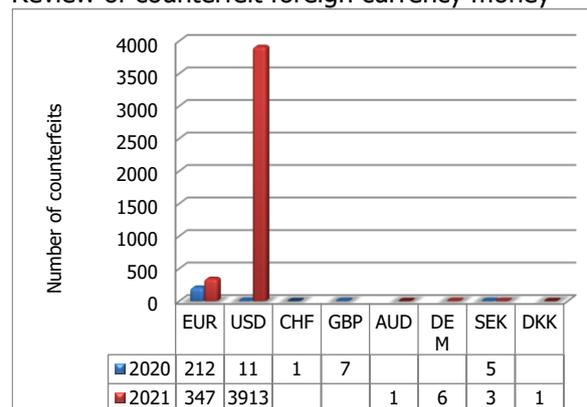
Within its authorizations, and in order to determine the possibility for a replacement on the basis of the prescribed criteria, the National Bank in this time period also performed professional expertise on 211 samples of damaged banknotes submitted by banks and cash centers.

Also, during 2021, 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 4,799 pieces of damaged banknotes/coins and 13,709 pieces of banknotes withdrawn from circulation.

Chart 92
Review of counterfeit denars



Review of counterfeit foreign currency money



Source: NBRNM.

In terms of committed expert analyses of received suspicious banknotes and coins denominated in foreign currency in 2021, of total 4636 analyses, 4271 counterfeit and 365 original money were identified. Of the total number of counterfeit banknotes, the banknotes in US dollars (3,913 pieces) and euros (347 pieces) prevailed. The large number of registered banknotes denominated in US dollars is due to the police confiscation of a larger quantity of counterfeits. During 2021, no counterfeit coins were detected. The general conclusion is that counterfeit banknotes are of relatively poor quality, allowing simple and easy identification and determination of their properties⁸⁸.

⁸⁸ 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.

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

Observing the measures for prevention of spreading of the coronavirus, the National Bank during 2021 dedicated itself to the indirect controls of the data for the type and the number of the money processing machines, their locations and the quantity of the money processed through the processing machines and the money processed manually, that banks and cash centers submit to the National Bank on a quarterly basis.

In the reference period, a total of 38 regular tests of banknote and coin processing machines were conducted, due to expiration of the validity of the confirmations proving the machines' ability to perform proper money processing.

8.6. Issuance of collector coins

Collector coins are unique, representative and 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 country⁸⁹. In 2021, a total of 38 pieces of collector coins were sold, of which 32 pieces through the National Bank and 6 pieces through the commission agent.

⁸⁹ In order to increase the interest in these coins and to make them available, the National Bank enabled commission sale through the Mother Teresa Memorial House, Skopje in the afternoon and on non-working days.

IX. Internal audit

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

The Internal Audit Department (IAD) operates in accordance with the Standards for the Professional Practice of Internal Auditing (Standards), as well as in accordance with the Code of Professional Ethics of Internal Auditors (Code) of the Institute of Internal Auditors in Florida, USA, which are accepted as national standards for the operation of internal audit. In 2021, experts from De Nederlandsche Bank made the third external assessment of the operation of the IAD, thus assessing that the operation of the IAD “generally conforms” with the Standards and the Code⁹⁰.

IAD uses dual reporting, administratively to the Governor of the National Bank and functionally to the Audit Committee and the National Bank Council, ensuring independence of the internal audit. During 2021, 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 2021, 16 audits were carried out (12 regular audits and 4 extraordinary audits), giving 19 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 mainly observed and implemented within the given deadlines. The level of realization of a total of 27 given recommendations, from last years (11) and from 2021 (16), with a realization deadline in 2021, is 92.6%, i.e. only 2 recommendations are not realized and a new realization deadline is set for them.

Besides the ongoing activities, the internal audit also implemented the Quality Assurance and Improvement Program in the Internal Audit Department. From this aspect, during 2021, the Internal Audit Department reviewed and updated the list of the work processes that can be subject to audit, and made a periodic self-assessment of the operation of the IAD in terms of the compliance of its operation with the Standards for the Professional Practice of Internal Auditing and with the Code of Ethics of Internal Auditors. The operation of the Internal Audit Department was closely supervised by the Audit Committee at its regular meetings during 2021.

9.1. Work of the Audit Committee

The Audit Committee (Committee) is a permanent working body of the National Bank 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. The work of the Committee is regulated by the Decision on the work of the Audit Committee and determining its scope of work, which defines its composition, goals, scope of work, authorizations, responsibilities and method of reporting.

⁹⁰ There are three levels of conformity: Generally Conforms, Partially Conforms and Does Not Conform.

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

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

During 2021, the Audit Committee held five meetings at which the following documents were discussed and approved:

- The Annual Account and the Financial Statements of the National Bank of the Republic of North Macedonia for 2020,
- The report of the independent auditor on the performed audit of the financial statements of the National Bank of the Republic of North Macedonia for 2020,
- The Draft-Letter to the management for the findings of the previous audit for 2021, carried out with analyzed period January - October 2021;
- The annual report on the operation of the internal audit in 2020, with particular reference to the findings and the implementation of the recommendations,
- The Report on the operation of the internal audit in the first half of 2021,
- The External Quality Assessment Report 2021;
- The Work Program of the Internal Audit Department for 2022;
- The medium-term work program of the Internal Audit Department for the period 2022 - 2024;
- The Policy on selecting a company for external audit of the financial statements of the National Bank of the Republic of North Macedonia;
- The Decision on forming the Audit Committee and determining its scope of work;
- The new Rules and Procedures for the Audit Committee.

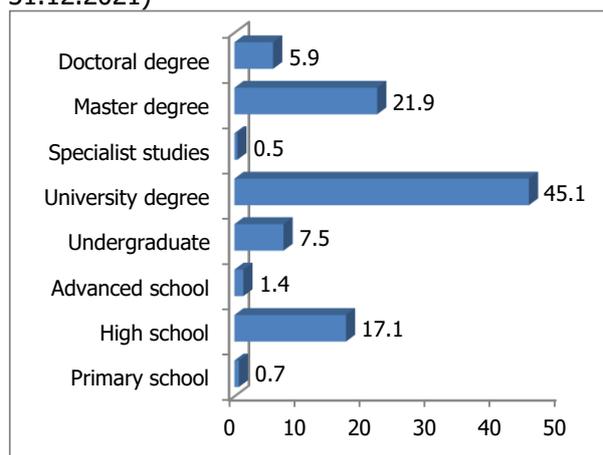
The members of the Committee actively participated in discussions and analyses about the topics which were discussed and gave recommendations and conclusions for more detailed informing of the members of the Council about issues related to the Draft-Letter to the management for the findings of the previous audit of the financial statements for 2021.

X. Human resources management

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 2021, the number of employees⁹¹ of the National Bank was 426 and it reduced compared to the end of 2020 (434 employees). Accordingly, there is also a slight change in the gender structure of the employees of the National Bank compared to the previous year. Namely, the female population in 2021 is 57.3%, and the male population 42.7% of the total employees, as opposed to 57.6% of the female population, i.e. 42.4% of the male population in 2020.

Chart 93
Qualification structure of the employees in the National Bank according to the Macedonia Qualifications Framework (in percentages, as of 31.12.2021)



Source: NBRNM

Employees with higher education (four-year university studies) dominate the qualification structure with 45.1%, followed by employees with masters degree (21.9%). In terms of age structure, the median age of employees in 2021 was 44.4 years (44.8 years in 2020).

Despite the numerous challenges posed by the global pandemic, the National Bank continued with its efforts for the employees, providing them with a healthy, safe and motivating working environment, which contributes to increasing the job satisfaction, through the constant learning processes. The key processes that refer to constant improvement and development of the

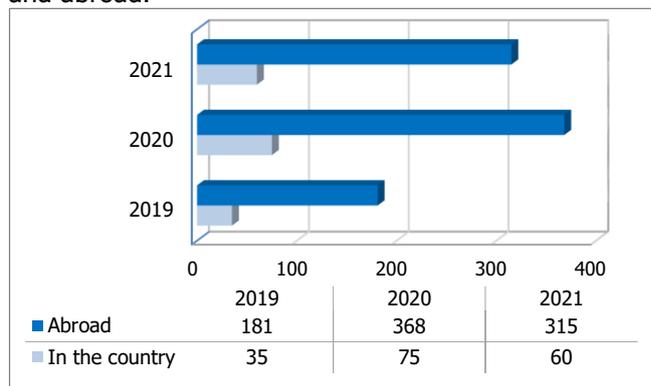
employees, which undoubtedly represent an important tool for motivation, retention of the employees, as well as for reduction of the staff outflow, were regularly carried out also during 2021. For that purpose, the Human Resources Department currently carried out the processes of professional development, employee evaluation and remuneration. Also this year, the organizational units were advised about the implementation of the process of employee evaluation, where among other things subject of discussion were the challenges faced by the evaluators, the career development of the employees, i.e. the possibilities for career progression and regression, as well as appropriate valuation of their work engagement. Also, at these meetings, the Human Resources Department presented the data from the conducted Survey on the level of job satisfaction, whereby the evaluators were requested to contribute with their own suggestions and recommendations to increasing the job satisfaction. Based on a previous analysis, to strengthen and improve the skills of the employees, the Human Resources Department conducted specialized e-trainings for an advanced level of "Microsoft

⁹¹ The total number, including those hired through temporary employment agency, was 439. The charts in this section take into account the total number of employees.

Excel”, with an internal lecturer, thereby using the capacity and potential of internal human resources.

The National Bank, despite the harder conditions for exchanging and acquiring knowledge in conditions of a global pandemic, managed to fully maintain the high level of implementation of the good practices which refer to the professional development of employees, to achieve the strategic goals, the mission and the vision of the institution. During 2021, 375 professional training courses were attended in the country and abroad. Moreover, the total number includes different categories of professional trainings such as e-courses, seminars, workshops, lectures and webinars.

Chart 94
Number of professional training courses in the country and abroad.



Source: NBRNM

Compared to the previous 2020, the total professional trainings decreased by 15%, which would be largely due to the fact that in the current year compared to the previous one, the Human Resources Department organized a smaller number of trainings that cover topics dedicated to the challenges posed as a result of the pandemic and the possible ways to deal with them. Namely, to adjust to the new working conditions, in response to the pandemic, the organizers also this year carried out most of the events in a virtual format.

During 2021, the professional trainings organized by foreign organizers slightly declined by 14.4% compared to the previous year, while, the professional trainings with domestic organizers decreased by 20%. In 2021, the number of employees who attended professional training course was 201, which is a decrease of 4.7% compared to the previous year. Maintaining high attendance of professional trainings is due to the fact that some of the organizers enabled attendance of several participants at the same event, as well as to the fact that the professional trainings in a virtual form with foreign organizers do not incur costs for the National Bank.

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 Deutsche Bundesbank and the Bank of France who are the National Bank’s major partners in the mutual cooperation programs, and the projects financed by the pre-accession funds of the European Union. The professional training courses in the country are primarily hosted by domestic education centers, which cover the topics in the field of amendments to legislation, as well as topics that refer to the operations of the National Bank.

XI. Risk management in the National Bank in 2021

The risk management is a necessary element of the good corporate governance which contributes to the efficient realization of the set strategic objectives, mandate and vision. In the performance of its everyday activities, the National Bank is exposed to strategic, operational or financial risks which arise from the internal or the external environment. Due to the importance of the risk management, the National Bank in the [new Strategic Plan for 2022 - 2024](#), set a separate strategic goal for strengthening of the risk management.

11.1. 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 times of rapid global changes, as a result of the processes of globalization, digitalization, innovation, climate changes and the global crisis caused by the pandemic, the role, the functions and the activities of the central bank are constantly evolving. In this regard, the National Bank, like the other central banks, faces a constant challenge since it must adapt and take into account in the accomplishment of its goals also the changes in the society, the domestic economy and the trends in the global economy.

During 2021, the National Bank managed the strategic risks through constant monitoring of the internal and external environment and taking of timely measures about which it regularly informs the market users, the stakeholders and the general public through the [press releases](#), [speeches](#), [interviews](#) and [notifications](#), as well as about the decisions of the [Operational Monetary Policy Committee](#) (OMPC) and of 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.

11.2. Operational risks

The operational risk management framework⁹² 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. When accomplishing the set goals and tasks, the National Bank takes into account the **operational risk tolerance, i.e. the limits of the acceptable exposure to operational risk**, as well as the risk levels that require taking appropriate measures⁹³.

In 2019, the National Bank formed the **Strategy and Prevention Office⁹⁴**, as a **separate independent organizational unit within the model - three lines of**

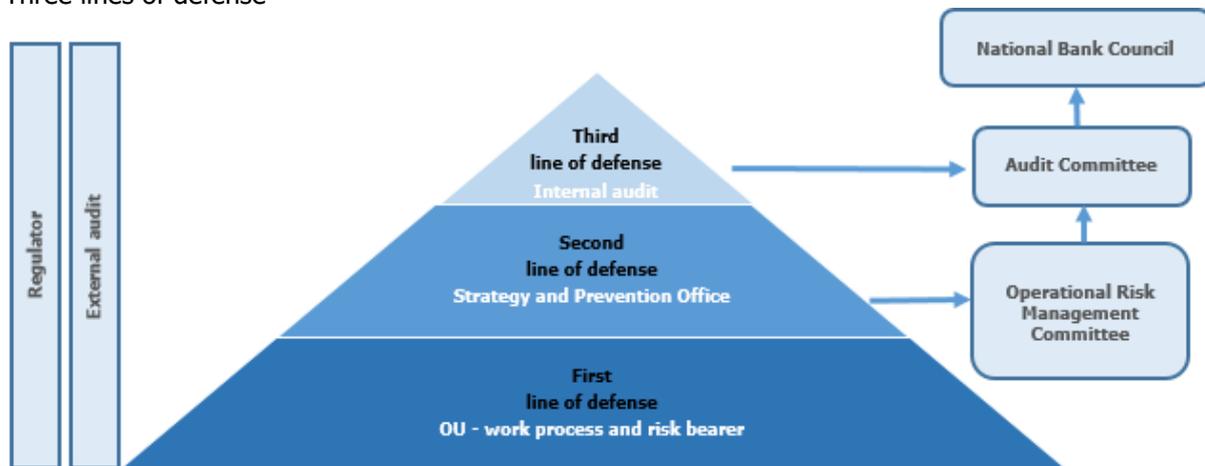
⁹² The Operational Risk Management Policy is based on the practices and standards prescribed by the international standard COSO II ERM, Enterprise Risk Management - Integrated Framework, the risk management standard ISO 31000:2009, the principles of the Basel Committee on Banking Supervision, and the experiences of several central banks, primarily the European Central Bank, the Dutch Central Bank, the Bank of Poland and the Bank of Italy.

⁹³ According to the Operational Risk Policy, the following operational risks are unacceptable to the National Bank: failure to accomplish the goals and tasks provided by the Law on the National Bank, causing significant damage to the interests of the National Bank, the state and the citizens, violation of legal regulations, occurrence of significant financial loss, jeopardizing the reputation with long-term effects on the credibility, as well as endangering the health and life of the people.

⁹⁴ For more details please see Section XII. Implementation of the Plan of Activities for 2021, strategic objective 10, item 10.4 Strategy and prevention.

defense⁹⁵. The Strategy and Prevention Office encompasses **three functions**: Strategy and Operational Risk Function, Information Security, Personal Data Protection and Classified Information Function and Compliance Function. The formation of a separate organizational unit was in accordance with the international practices and standards for good corporate governance and effective risk management.

Chart 95
Three lines of defense



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.

Chart 96
Operational risk management organization



Main benefits of the development of the operational risk management include⁹⁶: **better decision-making, increasing efficiency and better forecasting and optimizing disposable resources.** With an in-depth analysis of the operational risks for 2021, the National Bank updated the register of the work processes and their criticality, identified the sources of the operational risks and the potential risk events, the risk profile, determined strategy and action plan with measures for managing risks, reporting and monitoring. Also, it

⁹⁵ **The first line of defense** consists of organizational units which operationally perform the basic functions and support functions, manage the risks arising from their work and which have the deepest understanding of the work processes and changes in the environment in the areas within their competence. **The second line of defense** is carried out through identification, analysis and risk management, training, advice and raising awareness among employees about the risks, control mechanisms and measures, as well as the manner of application of the regulation in their operation. **The third line of defense**, the internal audit, carries out activities of audit of the operation of the first and the second line of defense.

⁹⁶ The National Bank is constantly working on improving the operational risk management capacity by maintaining regular contacts with other central banks, following the novelties in the field of operational risks that take place through the international association IORWG and implementing the proposals acquired in cooperation with the IMF and the ECB. The International Operational Risk Working Group (IORWG) is devoted to improving the operational risk management in the central-banking activity.

was found that the National Bank regularly monitors the exposure to operational risks (human factor, management and work processes, systems and external factors) and actively manages and implements the established measures and activities, which aim to reduce the potential operational risks, despite the extraordinary and harder working conditions due to the occurrence of new waves and mutation of the coronavirus.

11.3. Risk management in times of crisis

According to the Business Continuity Policy, the National Bank has established a system for coordinated planning, updating and testing of measures necessary to ensure business continuity in a crisis. The well-established infrastructure in this respect was a very important tool for securing smooth functioning of the National Bank in the period of the pandemic. Thus, with the commencement of the **global pandemic in 2020**, the National Bank **introduced work protocols and activated the business continuity plans**, thereby ensuring **continuity of the processes and their execution with high quality, without jeopardizing the safety of people, systems and processes.**

The accelerated digitalization and technological changes contribute to increasing the trend of cyber threats, which imposes a need for frequent monitoring and timely identification of the new risks, strengthening of the measures for ensuring information system security, including cyber resilience, as well as business continuity. Therefore, the National Bank continues to take activities to further increase the information system security, the awareness and the knowledge of the various types of cyber attacks, rapidly detect suspicious messages (fishing), follow the trend, the forms and the sources of cyber attacks, etc.⁹⁷ Also, the constant investments in the information infrastructure and the processes of information technology provided conditions for the National Bank to efficiently manage the IT risks. The COVID-19 crisis also emphasized the current efforts of the National Bank to understand the dependence between its own operations and the operations of the **outsourcing service providers** (third parties) for timely risk management and effective conduct of the business operations. Therefore, the National Bank took measures for improving the cooperation with the outsourcing service providers for the efficient execution of its activities, and for the accomplishment of its mandate.

At the same time, in order to mitigate the potential effects on the economy, caused by the health crisis, the National Bank in accordance with its competences adopted several decisions and took specific activities to maintain monetary and financial stability, as well as to improve the overall working environment of the companies and support the Macedonian economy. The National Bank constantly informed about the undertaken activities and measures, for which it opened a [special section](#) on its website.

11.4. Financial risks

Financial risks are the risk of potential financial losses. The financial risks 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 operations⁹⁸.

The risk management framework in the foreign reserves management and investment is given 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

⁹⁷ For more details please see Section XII. Implementation of the Plan of Activities for 2021, strategic objective 10, item 10.4 Strategy and prevention and strategic objective 11 - Maintaining a stable information system and its upgrading in accordance with the existing capacities and international standards.

⁹⁸ The exposure to the individual types of financial risks arising from the foreign reserves management is described in Section VI of this Report.

achievement of the goals in the foreign reserves management and investment. On the basis of the adopted framework, the financial risks are managed on a daily basis through an established internal control system and automated processes and procedures that enable risk assessment in real time, their maintenance within the given frames and support in making investment decisions based on information.

With the onset of the global pandemic in 2020, the volatility of yields and interest rates in international financial markets has increased. In 2021, in conditions of gradual opening of the international economies and normalization of the economic activity, market movements stabilized, whereby the foreign reserves' exposure to interest rate risk was maintained at a low level, significantly lower than the acceptable level of interest rate risk. The liquidity of foreign reserves is provided by investing in liquid instruments, i.e. securities for which there is a secondary market. During 2021, the level of the most liquid assets was maintained at a relatively high level and enabled smooth execution of the functions of foreign reserves. In 2021, 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 principle of safety of foreign reserves.

During 2021, the National Bank did not perform monetary operations to provide denar liquid assets to the banking system. In any case, all monetary operations for providing liquidity for the purposes of the banking system by the National Bank are performed as repo transactions, i.e. on a collateralized basis, whereby high-quality debt securities are accepted as instruments used as collateral of the regular monetary operations. The financial risks are described in details in the [Report of the independent auditor and the financial statements of the National Bank for 2021](#).

11.5. Risks of climate changes⁹⁹

The risks of climate changes, as one of the greatest global threats, become increasingly important in the activities of central banks, as socially responsible institutions. Given these trends, the National Bank amended the Strategic Plan for the period 2020 - 2022¹⁰⁰ by including activities for monitoring and managing the risks from climate changes, as well as an analysis of the impact of the risks arising from climate changes on the banking system, the financial stability and the economy as a whole. Due to the importance of the climate risk management, the National Bank in the new [Strategic Plan for 2022 - 2024](#), set a separate strategic goal for **increasing the awareness of climate changes and contribution to a "green" and sustainable economy**, which would ultimately provide a higher standard of living and improvement of the quality of life of the citizens. By setting a separate strategic goal, the National Bank, as a socially responsible institution, showed that it has clear and strong commitments within its competences for contributing to the development of the management of the financial sector risks arising from climate changes. Also, at the beginning of this year, [the National Bank became a member of the international network for a green financial system](#), which is currently constituted of 100 members and 16 observers from among central banks and supervisory institutions from the entire world, thereby supporting the international declaration within the UN Conference on climate changes. Given the importance of this issue, several specific activities are envisaged in the field of researches

⁹⁹ Information on the activities related to climate risk management can be found in Section XII. Implementation of the Plan of Activities for 2021, strategic objective 2 - Maintaining stable and reliable banking system as the main prerequisite for financial stability and sustainable economic growth of the country, as well as in the [Plan of Activities for 2022](#).

¹⁰⁰ [Strategic Plan of the National Bank for 2020 - 2022](#).

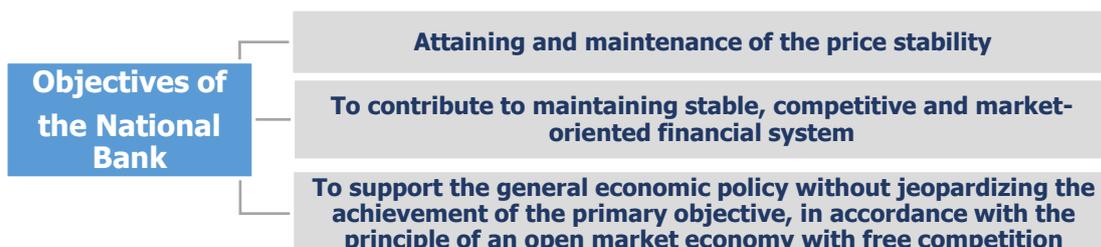
for climate changes and their impact on the domestic economy¹⁰¹, and a system for regular reporting on “green” loans and the sources of financing will also be established. Also, consideration will be given to the possibilities and capacities for conducting stress testing for the financial risks arising from climate change on the banks and activities will be initiated for preparation of guidelines to the banks for proper management of the climate risks. Also, efforts were made to increase the investments in “green bonds” which enabled diversification of the foreign reserves portfolio, by investing in financial instruments issued in the global financial markets as a concrete contribution to preserving environment and improving social responsibility.

¹⁰¹ At the end of 2021, the National Bank prepared a **Survey for banks with questions related to climate changes**, in accordance with the initiatives taken by other central banks for mitigating the undesirable economic consequences of the climate changes, including the effects on financial systems, which become increasingly important. The survey results will be processed in the first months of 2022, and will be the basis to understand the practices and the policies of banks for management of the climate risks, and their awareness of the challenges (risks) arising from climate changes, and they will also be used to prepare guidelines/expectations of the National Bank in terms of the management of the climate risks by banks.

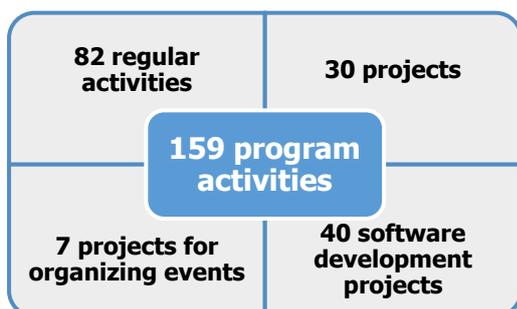
XII. Implementation of the Plan of Activities for 2021

Introduction

The COVID-19 pandemic continued during 2021, whereby 2021 was also marked by prolonged uncertainty and unpredictability. In such circumstances, the National Bank accomplished its strategic objectives¹⁰² and took several specific activities which ensured continuity in its operations and everyday performance of the given legal goals and functions.



[The Plan of Activities of the National Bank of the Republic of North Macedonia for 2021](#) includes 159 program activities aimed to achieve the 11 strategic goals set in the [Strategic Plan of the National Bank of the Republic of North Macedonia for the period 2020 - 2022](#). The Plan of Activities is implemented by optimal targeting of available resources to priority areas, strengthening of all work capacities, further improving of the quality of operations, thus ensuring monitoring and evaluation of the results and effectiveness of the measures and activities taken.



The program activities include implementation of the regular work processes and activities related to the projects that introduce changes in the operations such as increasing efficiency, quality, transparency and reliability, compliance with the new legal requirements, European regulations, international standards and the requirements of the International Monetary Fund.

¹⁰² The objectives of the National Bank are defined in the Law on the National Bank.

Points

"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 recognizable as an *"independent, responsible, professional, innovative and transparent institution that has high credibility and public confidence"*.



The denar was and will be one of the key pillars of the stability of the Macedonian economy



The high level of foreign reserves enabled the National Bank to act in a timely manner in response to the pandemic



Highest evaluations for the monetary policy and the National Bank in the Progress Report for 2021, of the European Commission



Banking regulations and supervision of banks are in line with the high EU standards



High quality of the statistical function of the National Bank



The payment infrastructure is developed and modernized: the fintech sector is expanding rapidly in the payment industry

The new Strategic Plan, in addition to the traditional goals related to the mandate of the central bank, will place emphasis on the challenges and the new trends to which attention will be paid in the next three years.



Raising awareness of climate change and contribution to a green and sustainable economy



The National Bank became a member of the international network for a green financial system



The first national strategy for financial education and inclusion was adopted



Special emphasis on consumer protection and financial education



Fintech sector strategy: accelerating digitalization and application of the latest technologies in finance



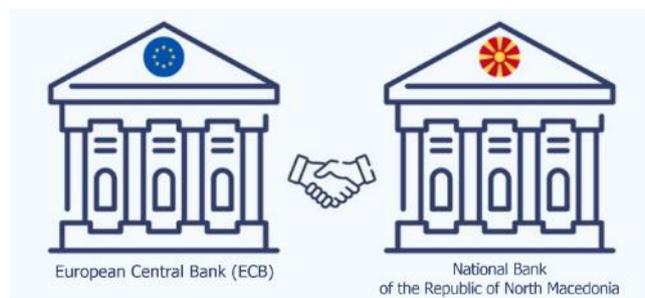
Strengthening of the risk management with emphasis on cyber and operational resilience

Strategic objective 1 - Maintaining price stability through a stable exchange rate of the denar against the euro



During 2021, the activities related to the maintenance of the macroeconomic stability were performed in specific conditions which imposed careful and detailed planning for timely making and execution of appropriate decisions. Within the operational **implementation of monetary policy**, the National Bank regularly conducted the monetary operations for further successful accomplishment of the main goal. In the analyzed period, the National Bank completed the activities related to the establishment of the by-laws and the operational aspects of the use of the repo line of the European Central Bank (ECB) for providing euro liquidity to the National Bank for the domestic banking system. [In March 2022, the ECB decided that the additional foreign currency liquidity of Euro 400 million will be available to the National Bank through the repo line until 15 January 2023.](#)

The repo line is just another buffer, given the high level of foreign reserves and the high liquidity of banks, which guarantee the denar and macro-financial stability.



In response to the adverse effects of the health crisis, the **National Bank also in 2021 applied the non-standard measure to the banks' reserve requirement, which stimulates the credit support to the currently most affected activities.** The by-laws of this measure were regularly harmonized with the fiscal packages of measures of the Government of the Republic of North Macedonia.

In the process of operational implementation of the monetary policy, the National Bank regularly monitored the foreign exchange market developments, and the activities for further maintenance of the stability of the exchange rate of the denar included: analyses and active monitoring of the trends of the supply of and the demand for foreign currency on the domestic foreign exchange market; communications with the banks to better understand the movements with their clients; and interventions with the market makers in order to meet demand or accumulate the excess foreign currency.

Most of the program activities in the area of the monetary policy setup related to the preparation of the macroeconomic forecasts, the regular surveys and analyses that are used when making the monetary policy decisions took place with the regular dynamics and contributed to the maintenance of the price stability through a stable exchange rate of the denar against the euro, as the main strategic objective of the National Bank.

The program activities for further development of the analytical infrastructure of the macroeconomic forecasts were regularly carried out. Namely, in addition to the usual checks on the short-term forecasting models, during the year the National Bank improved the existing models, and it also constructed new models by using new approaches and new variables. During the year, the National Bank also made the usual checks on the MAKPAM model, whereby the forecasts in April and October 2021 were entirely made with the new software infrastructure (of the codes of the Matlab and Iris model). In addition,

the National Bank continued the activities¹⁰³ for improving the performances and structure of the model. The National Bank also made “shadow forecasts”, for the purpose of full transition of the new model from 2022. The improvements and enrichments of the MAKPAM model increase the possibility of more comprehensive analyses, larger consistency, better power to explain and forecast, and thus better recommendations for the policies.

During 2021, the National Bank updated the main indicators underlying the existing monetary strategy, by reassessing the monetary transmission through interest rates and assessing the harmonization of the real effective exchange rate with its fundamentals by applying the two approaches (BEER and FEER)¹⁰⁴. During the year, the indicators for the vulnerability of the Macedonian economy and for the individual countries in the region were also discussed, and the regular revision of the sustainability of the external and the public debt was also carried out. On a regular basis, the National Bank conducted the Bank Lending Survey, as well as the Survey on Inflation Expectations and Expectations for the Movement of the Real GDP in order to obtain important input elements when forecasting the future macroeconomic flows. For the needs of the balance of payments forecast, the National Bank conducted surveys of the business plans of the largest exporters and importers.

In order to better understand the latest economic developments in the domestic economy, as well as to assess their influences on the monetary policy, during the year the National Bank also prepared the regular monthly and quarterly reports, and also the [Annual Report on the operations of the National Bank](#). Within the **efforts for increased transparency of the monetary policy**, the National Bank regularly prepared and **published press releases and presentations for the public** which in a synthesized manner gave a detailed review of the current situation and the expectations for the following period related to the economic situation and the monetary policy. At the same time, the National Bank published several macroeconomic analyses, in the form of analytical appendices¹⁰⁵ within the regular quarterly reports, and some of them were related to the effects of the pandemic on the currency exchange and the credit markets and on the economy as a whole.

Strategic objective 2 - Maintaining stable and reliable banking system as the main prerequisite for financial stability and sustainable economic growth of the country



In 2021, the National Bank 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. For the purpose of strengthening the banking system, the National Bank took numerous activities to amend bylaws to mitigate the consequences caused by the corona crisis and to actively adjust to the new situation.

Box 3. Continuous improvement of the banking regulation and supervision for harmonization with the EU provisions.

In 2021, the European Commission adopted a decision which assessed that the banking regulation and supervision conducted by the National Bank is in accordance with the high EU standards. The decision confirms that the banking regulation, as well as the manner of performing supervision of banks in the Republic of North Macedonia is equivalent to the one conducted in the EU. This adds our country to the

¹⁰³ The activities in relation to re-weighting, recalibration of the existing variables/equations and enrichment (added equation for loans) which were completed by the end of the year.

¹⁰⁴ BEER-Behavioral Equilibrium Exchange Rate; FEER-Fundamental Equilibrium Exchange Rate.

¹⁰⁵ https://www.nbrm.mk/analitichki_prilozi_vo_kvartalnitie_izvieshtai.nspX

list of 26 countries in the world, including the USA, Canada, Japan and New Zealand, which meet these high standards.

The assessment was conducted by the European Banking Authority, whereby the domestic banking regulation and supervision were analyzed by European experts over a period of more than one year. The positive assessment means that the domestic banking regulation and supervision achieved the same goals as those established in the Union in terms of maintaining the stability and integrity of the financial system, efficiency and adequacy of the protection of financial services users, cooperation between different participants in the financial market, independence and efficiency of the supervision and effective implementation of international standards. Consequently, the assessment of the European Banking Authority was adopted by the European Commission.

The positive assessment of the harmonization of the banking regulation and supervision to the one in the EU is a confirmation of the National Bank's continuous efforts and activities for harmonization with the EU standards. Receiving equivalent treatment is important in terms of the perceptions of potential investors and easier and more effective connection of the domestic banking system to the international financial markets. The positive assessment facilitates the approach of domestic institutions to international financial market, gives advantage in the National Bank's conduct of the monetary policy and facilitates the cooperation with the supervisory authorities in the EU.

The decision of 1.10.2021 was published in the Official Gazette of the European Union and is available at the following link. In order to bring the supervisory practices closer to the guidelines of the EBA and the practices of the ECB, during the first half of 2021, the assessment of the process of determining the internal liquidity was completed, as an activity within the twining project supported by the EU. The activities resulted in development of a supervisory tool for assessing this process, i.e. the National Bank has developed an internal methodology, which includes principles, guidelines for providing consistent use of the approach in the supervisory assessment of this process, as well as improvement of the framework and management of this process with banks. The initial perceptions for the first ILAAP reports were discussed at the working meetings held with representatives of banks, for further promotion of the ILAAP process, and thus the risk management process in banks.

During the year, activities for several **draft-regulations** were completed: Draft-Law on the National Bank, Draft-Law on Resolving Banks, Draft-Law on Payment Services and Payment Systems, which are to be adopted in the near future. A number of working groups were involved in these processes, with representatives from the National Bank and other institutions, which prepared multiple bylaws. Regarding the **Draft-Law on Solving Banks**, it was completed within the technical assistance by FinSAC (World Bank), which will establish a legal framework for implementation of this new function by the National Bank, and will also prescribe the preparatory activities for bank resolution, the requirements for initiating a procedure for bank resolution and instruments and mechanisms for its implementation.

The technical mission with the IMF, in the area of stress testing was significantly important, which represents the basis for further improvement of the existing framework for stress testing of the banking system, as well as raising the capacity for stress testing of banks themselves and use of the results for individual banks by both the banks and the National Bank. For the purpose of further strengthening of the readiness and the resilience of banks to possible reforms, the National Bank made an analysis on the reforms related to global policy rates, in order to familiarize the banks with the general guidelines regarding the activities that banks need to (are expected to) take in relation to these reforms.

In 2021, **the two subcommittees had regular meetings within the Financial Stability Committee**. The work of these subcommittees significantly contributes to risk monitoring in all segments of the financial system, which is one of the tools in the overall process of monitoring and maintaining financial stability. With the amendment to the National

Bank's Strategic Plan in 2021, for the first time, **the activities related to climate changes were set as strategic priorities, in order to contribute to creating green and sustainable economy.** The National Bank's initial activities aim to **raise the awareness of climate risks and understand the meaning of climate changes in the context of bank's operations and financial stability, as well as the economy as a whole.** Thus, at the end of 2021, a **Survey for banks with questions related to climate changes was prepared¹⁰⁶**, in accordance with the initiatives taken by other central banks for mitigating the undesirable economic consequences of the climate changes, including the effects on financial systems, which become increasingly important.

Regarding **the off-site supervisory activities**, during 2021, assessment of the overall risk profiles of banks was regularly performed, which also included assessment of the process of determining internal liquidity, the process of establishing internal capital, assessment of the recovery plans for systemically important banks, preparation and monitoring of the corrective measures on the basis of identified non-compliances and irregularities in the operations of banks and savings houses, holding meetings with companies for external audit and members of the management and supervisory Board of banks. The National Bank regularly carried out activities for licensing of members of banks' and savings houses' bodies, as well as for issuing licenses for performing exchange operations and fast money transfer services. During this year, the National Bank continued to strengthen the institutional capacity for assessing the process of determining the internal liquidity by banks. For the purpose of digitalization of work processes, and in order to use the numerous technological advantages, recently, we have been actively involved in a project for introduction of an electronic report for natural persons from the Credit Registry, which will increase the efficiency of this process by replacing the human factor and facilitating the citizens' access to these reports. Special attention was given to the preparation of the by-laws on licensing of payment institutions and participation in the preparation of by-law on supervision and supervision of payment institutions.

Table 4
Processed applications for issuance of prior approval in 2021

Type of license/approval (banks)	issued	rejected	halted
Approval for acquiring shares in a bank	1	/	/
Approval for commencing financial activity	1	/	1
Approval for status changes	1	/	/
Approval for changing name and address	1	/	/
Approval for amending the statute	10	/	2
Approval for appointment of a Supervisory Board member	23	/	5
Approval for appointment of a Management Board member	21	/	1
Approval for including a gain in Common Equity Tier 1 capital	3	/	/
Type of license/approval (savings hoses)	issued	rejected	halted
Approval for appointing a manager	/	/	/
Total:	61	0	9

The On-Site Supervision Department in 2021 continued **conducting regular on-site examinations**, in difficult working conditions due to COVID-19 pandemic. However, despite the present restrictions and extraordinary environment during 2021, 11 regular on-site examinations were performed, 9 out of which in corporate banks and 2 in savings houses,

¹⁰⁶The survey results will be processed in the first months of 2022, and will be the basis to understand the practices and the policies of banks for climate risk management and their awareness of challenges (risks) that stem from climate changes, and they will also be used to prepare the National bank's guidelines/expectations in terms of climate risk management by banks.

targeted supervision of the banking system related to cyber risk assessment and 104 on-site examinations of licensed exchange offices, thus realizing the Plan for 2021. The process of upgrading the current methodological framework for risk assessment was also realized through the improvement of internal procedures for individual risk assessment with corporate banks, which were also harmonized with the latest amendments to the laws and by-laws, as well as with the rules of the European Central bank.

Regarding the activities for **strengthening the framework for anti-money laundering and combating the financing of terrorism**, a survey was conducted among licensed exchange offices and fast money transfer service providers, in terms of the manner of implementing the AMLCFT process. Based on the conducted survey, a draft-version of the Circular for the best practices of the fast money transfer service providers and licensed exchange offices for the purpose of harmonized operations with the AMLCFT regulations, which is to be adopted by the National Bank Council in the first half of 2022.

Table 5
On-site examination performed in 2021

1.1.2021-31.12.2021				
Type of entity	Total number of entities	Number of on-site supervisions	Number of thematic AML/CTF supervisions	Number of AML/CTF supervisions combined with other risk-based supervisions
FINANCIAL SECTOR				
Banks and savings houses	13 banks and 2 savings houses	9 banks and 2 savings houses	/	8 banks
Money transfer providers and licensed exchange offices	8 money transfer providers, 242 subagents and 244 licensed exchange offices	2 money transfer providers and 104 licensed exchange offices	/	2 money transfer providers and 104 licensed exchange offices

Following the trend of the other central banks in the EU and in the region in the field of the IT and cyber risks management, the National Bank established an Information System Supervision Office in December 2021, as a new organizational unit within the Supervision. The new organizational unit will perform monitoring and harmonization with the EU regulation in the field of IT and cyber risk management in the licensed entities by the National Bank, by preparing relevant regulation, as well as by using the best practices in the area of banks and payment services institutions. At the same time, it will continue with the prudent supervision of the information system of banks by performing on-site and regular off-site inspection.

The activities for development of the first National Fintech Strategy that includes recommendations to support the Fintech sector, and whose implementation is within the competences of the financial regulators, continued in 2021¹⁰⁷. At the same time, **A Memorandum of understanding for creating conditions that support the development of innovations in the financial system in the Republic of North Macedonia**, was developed. In accordance with the memorandum, a framework for cooperation in the Fintech area between financial regulators in the country is established. More specifically, a system through which the regulators will act in coordination, each within its competences, regarding the implementation of the National Fintech Strategy whose initial version has already been prepared in the National Bank.

¹⁰⁷The document is expected to be adopted soon.

According to the envisaged activities for financial inclusion and protection of consumers of financial services in the Financial, the **consumer protection work group** in the National Bank undertook several activities in 2021. Since the beginning of August, all banks and savings houses initiated implementation of Contents Guidelines, the form and the manner of publishing data on the most representative credit and deposit products for natural persons, adopted by the National Bank and the Macedonian Banking Association in July 2021. The objective is to achieve greater transparency and comparability of data on household deposits and loans, with all banks and savings houses, including on interest rates, for the purpose of better awareness of citizens and making decisions based on more detailed information¹⁰⁸. Moreover, an analysis on the experiences of the countries with financial Ombudsman was performed, while initial activities for preparation of a Draft-Law on Financial Ombudsman were taken, which will be revised along with other financial regulators in the future. In order to strengthen the activities in the area of consumer protection, a special organizational unit for financial education and consumer protection was established in December 2021.

Strategic objective 3– Holding and managing the foreign reserves pursuant to security and liquidity principles and ensuring optimum return¹⁰⁹



The volatility of the developments in the international financial markets and series of uncertainties around health crisis globally, coupled with the more and more present inflationary pressures, which enhanced towards the end of the year due to the energy crisis, imposed a need for active management of the portfolios of the foreign reserves according to the changed market condition, as well as future active monitoring and timely reaction of the National Bank to mitigate the effects of the risks arising from the changed circumstances. In that sense, the investment setup and exposure to market risks in the context of market conditions was revised, on the basis of which changes in the investment were proposed, which included reduction of the exposure to currency risk, maintenance of a high level of the operational tranche, efforts for increasing investments in green bonds and possibilities for changes in the investment policy which were considered according to the changed market circumstances and trends of foreign reserves investment globally.

Strategic objective 4– Increasing the efficiency of banknotes and coins supply and processing system and increasing the quality and functionality of currency in circulation¹¹⁰



During 2021, the National Bank regularly **supplied banks and cash centers with banknotes and coins**. Moreover, because of the specific working conditions due to the health crisis, the efficiency of the cash supply system was taken into account, as well as timely undertaking measures. Within the regular activities, the National Bank monitored the demand for effective foreign currencies for the needs of the National Bank, government institutions and governing bodies and intervened in a timely manner to adequately meet the needs.

According to the measures for dealing with the pandemic, **the control of the implementation of cash operations standards and criteria** in banks and cash centers was limited to indirect inspections, until complete security conditions for carrying out these activities were created through on-site inspections. The amendment to the Law on the National Bank in 2021, provided legal basis for supervision of the conditions and the manner

¹⁰⁸Data, in such a unified form, are available on the websites of banks and savings houses, as well as in a centralized manner on the new part of the website of the National Bank, intended for informing consumers.

¹⁰⁹ For more details see Chapter VI. Foreign Reserves Management and Investment.

¹¹⁰ For more details see Chapter VIII. Issuance and management of the banknotes and coins of the Republic of North Macedonia - vault operations.

of supplying banknotes and coins. Regular procedures for testing the cash processing machines are implemented according to the defined dynamics, while the updated List of successfully tested machines is regularly published on the website of the National Bank.

The Project for upgrading of the application for expertise of counterfeits, in the section of the module for replacement of damaged money is fully completed. The measures to protect against the COVID-19 pandemics postponed the activities for implementing the standardized platform for trainings for staff in banks and cash centers for authenticity and fitness checking of the currency in circulation, as well as for realization of the national training plan, according to the recommendations of the Twinning Project “Strengthening of the capacities of the system for fight against counterfeiting of the EUR.” These activities will continue once the conditions for such trainings with larger number of participants are created.

Strategic objective 5– Safe and efficient payment systems operation and payment services market development¹¹¹



In 2021, the National Bank made special efforts for its **development and catalyst role in the area of payment services**. Moreover, the National Bank, in cooperation with the Ministry of Finance, was actively involved in completing the Draft-Law on payment services and payment systems, continuing with the consultations with the banking sector and other stakeholders and government institutions. The Draft-Law was harmonized with the Secretariat for legislation and adopted by the Government at the end of the year. In conditions of prolonged health crisis, the National Bank organized a safe and smooth work of the critical operations related to: the operations of the payment systems in the country, implementing monetary operations and foreign reserves management operations and executing international payment operations of government authorities, thus successfully performing the **operational role** in this area, in pandemic environment. Thus, with this approach and undertaken protective measures for cyber resilience, the National Bank applied the best practices of modern central banks. In terms of **the inspection role in the payment systems**, the National Bank performed on-site and off-site supervision which shows that payment system operators continue to perform their operations in conditions of pandemic, which is a result of the previously established and tested procedures for ensuring business continuity in accordance with the standards for their operations prescribed by the National Bank.

Moreover, for the purpose of strengthening the capacities, the National Bank completed the EU Twinning Project, within which a large number of e-trainings were realized in cooperation with central banks of the EU member states which support the preparation of bylaws for implementation of the Law which will enable the entry of new payment services providers, primarily from the Fintech sector, and will also encourage digital transformation of the current payment services providers.

Strategic objective 6– Support of the domestic financial markets development



In terms of **domestic financial markets**, the regular activities continued as follows: Regular monitoring of the interbank trading in deposits, trading in foreign currency assets, as well as the secondary securities market, regular publishing of data on the financial markets development. The National Bank continued with regular monthly analysis of the foreign exchange market movement, especially of the segment between banks and savings houses, as well as natural

¹¹¹ For more details see Chapter VII. Payment services and payment systems.

persons, and the currency position of banks was also monitored as scheduled. The survey on the movements in the foreign currency market which started to be submitted to foreign exchange market makers in the beginning of the health crisis, continued at a monthly pace due to acquired findings on banks' expectations for the trends in the foreign exchange market in the forthcoming period. In the fourth quarter of 2021, in conditions of increased volume of trading in the foreign exchange market and supplying part of the foreign liquidity through National Bank's interventions for sale of foreign currency of market-makers, we prepared a more detailed analysis on the movements in all segments of the foreign exchange market and a work meeting was held with the most significant foreign exchange market participants, whose perceptions on the current movements and expectations for the future period were discussed. Regarding the stock exchange trends, the preparation of a short weekly reference to the more significant stock exchange movements continued, while in the first half of the year the price movements of shares of domestic commercial banks was monitored on a daily basis. In line with the global processes of reform and strengthening the policy rates on the money markets, the National Bank prepared an analysis on the possibilities for establishing new reference interest rate on the domestic money markets, taking into account the current practice of banks in determining interest rates in contractual activities with their clients, as well as current developments on the domestic money markets. In 2021, the National Bank participated in the Regional Working Group for Financial Markets organized by the Regional Cooperation Council, as well as in the Capital Market Development Council in our country, through which the National Bank contributed to the preparation of the Financial Markets Liberalization and Development Strategy, with special emphasis on the capital market.

Strategic objective 7– Promotion and further development of research activity in areas crucial for efficient achievement of the National Bank's objectives



The National Bank pays close attention to the efforts to achieve its objectives efficiently. Within these efforts, **the research in the fields of monetary policy, financial stability and macro-prudential policy** is crucial. Such activities place the National Bank among central banks that constantly invest in and improve their research activity for the purpose of creating solid analytical grounds used in policy and decision making for the needs of the National Bank. Thus, in 2021, the National Bank worked on several working materials in the field of macroeconomics¹¹². In order to strengthen the National Bank transparency, an analysis was conducted on the comprehensibility of its communication with the public.

The research paper [„A DSGE model with partial euroization: the case of the Macedonian economy.“](#) was realized within the EU Twinning Project “Strengthening of the institutional capacity of the National Bank of the Republic of North Macedonia in the process of its accession to the European System of Central Banks” [the case of the Macedonian economy.](#) The aim of this research is to determine the connection between real and financial cycles in the Macedonian economy, by applying the Dynamic Stochastic General Equilibrium (DSGE model) adjusted to the specifics of the Macedonian economy. This model is an important complement to the analytical infrastructure of the National Bank, given that the model framework contains the connections between individual sectors in the economy, including banks, households, companies. Hence, through this model, one can simulate the effects of different shocks and assess the effects on the economy as a whole, but also on the behavior of the individual sectors. It can be used for economic analysis and researches, as well as simulations, thereby making a large contribution to the formulation of the monetary policy, as well as for other policy makers because it

¹¹²Working materials: Monetary versus macro-prudential transmission: Efficiency and effectiveness: effects of the increased minimum wage on the performances of companies, as well as analysis on the euroization of the households in the Republic of North Macedonia.

provides **analysis of the economic cycle in our country in the last 15 years**. Moreover, it is the first of this kind, which makes it a significant reference for further researches and analysis of the impact of financial sector developments on the economy. At the same time, during 2021, the National Bank actively worked on research analysis in the fields of consumption of durable goods in North Macedonia, the existence of asymmetries was also investigated in the adjustment of the interest rates and the analysis of margins in the domestic economy by using macroeconomic data.

Regarding the research activities in the field of financial stability, several research papers that improved the analytical opportunities and the overall knowledge and experience were also developed. Several analysis in the aforementioned field were conducted to support the macro-prudential policies and practices in order to maintain financial stability. In the last quarter of 2021, a questionnaire was developed regarding the banks' policies and practices in housing lending, as well as their estimates on the current real estate market developments. After summarizing the results, a detailed analysis was conducted in terms of lending to this segment, in order to perceive the risks to the banking system in this domain of lending and revise the draft-measures in case of a need for possible preventive, macro-prudential or other measures in these domain.

In order to perceive the consequences of the corona crisis on the operations in the largest debtors companies during 2020, their profitability, liquidity and indebtedness, i.e. the impact on their overall debt profile, and ultimately on the risks arising from these companies, an analysis on the twenty companies from the domestic corporate sector toward which domestic banks are exposed, was performed for the needs of the domestic banks.

For the purpose of understanding all aspects related to the competences and role of the Supervisory Board in corporate governance of banks in the Republic of North Macedonia, the National Bank conducted a survey on the manner of work of the banks' Supervisory Boards, for the period December 2020 to January 2021. Based on the survey responses, a general picture was obtained about the basic features, advantages or disadvantages in bank corporate governance in the country, which is crucial for the stability of banks and efficient performance of the role of financial intermediaries. It may serve as a supervision guideline, primarily for banks, on identifying the fields of operation of Supervisory Boards, where the analysis indicates the need for certain improvements or changes.

In 2021, the National Bank continued to organize the Research on a quarterly basis and in a virtual format, where working materials and research papers on relevant topics are being presented and discussed. The National Bank awarded the Annual Prize for young researchers this year as well, while the prizewinning paper was presented at the [39th Research Club session](#). In 2022, the National Bank will continue to promote the research activity and organize the Research Club.

Strategic objective 8– Providing quality statistical data, fully consistent with international and European statistical standards, taking into account the reporting burden and their effective, timely and easy dissemination to users



In 2021, the negative shock due to COVID-19 pandemic had no impact on the quality and the process of compiling, and thus dissemination of the statistical data in the National Bank. Namely, in this year of uncertainties due to the health crisis, the National Bank **continually collected, prepared and published statistical data in the area of external, monetary statistics and financial account statistics**, in accordance with the Advance Release Calendar without

delays, while the scope and the quality of data sources and production remained unchanged and at a high level.

Despite the specific circumstances, the National Bank continued **to improve the statistical data quality and the cooperation with both, national and international institutions**, which mostly referred to activities within international projects, of which we should highlight the following:

- **The project for further harmonization of financial accounts statistics with the ESCB/ECB standards** (Component 3 of the Twinning Project of the NBRNM), registered a successful implementation of all activities. The main results of this project are: a) Compiling a pilot/ experimental version of annual financial account data- flows, by sectors/ sub-sectors; b) identifying data sources and methods of assessment for compiling initial quarterly financial accounts on the balances and flows, by sectors and sub-sectors; c) development of methods for data consolidation of financial accounts between institutional units of the same sector/ sub-sector, for 2018;
- **IPA 2017 project of the State Statistical Office (SSO)** on microeconomic imbalance indicators (IIP indicators), which prepares three additional indicators in the field of financial accounts (loans to private sector) and two indicators in the field of supervision, with adequate methodological explanations (metadata);
- **Participation in IPA 2017 project of the SSO for statistics on foreign trade in services**, whose primary objective is replacement of the existing sources of data on exports and imports of services and introducing direct reporting;
- **Participation in the UN project “Evidence-based policy planning and migration discourse”**, whose primary objective is to provide support to the management of the migration and demographic dynamics in the RNM. The needs of the National Bank for conducting a survey on private transfers were defined within the project, whereby a draft-methodology and a questionnaire were developed. The survey is planned for the first half of 2022;
- During the year, **the inter-institutional cooperation of the National Bank, the Ministry of Finance (MF) and the State Statistical Office (SSO)** continued in the area of the financial accounts statistics, the government statistics on excessive debt and deficit, as well as in the joint technical assistance projects for further development of several statistical domains. The participation of the National Bank in **the IMF project for government finance statistics with the MF and the SSO** is especially important.

Also, certain segments were further developed and upgraded during the year, related to statistical data dissemination and their methodological advancement. Significant activities that marked 2021 were:

- In the area of **the financial accounts statistics**, besides working on the production of the annual balance data, the National Bank also worked on preparation of experimental data on quarterly financial accounts, by sectors/sub-sectors and financial instruments. Development activities were performed in the new financial account production system. At the same time, the National Bank made an intensive effort to develop the debt securities indicator of the SDDS Plus. The debt securities data are prepared, by sector of issuers and holders (data time series for the period of the first

quarter of 2016 to the fourth quarter of 2020). The data and the prepared methodology were submitted to the IMF for initial review and were approved by the official representative of SDDS Plus.

- In the field of **external statistics**, for the purpose of establishing an efficient reporting system, the National Bank worked on several projects to streamline the process of collecting data (for external debt and direct investment) by introducing electronic reporting: With a new project, in 2021, the NBRNM continued with the activities to develop a single statistical data warehouse for external statistics, aimed at including this project within IPA III, for which the necessary project documents were prepared.
- In the field of **monetary statistics**, within the long-term project for establishing an integrated reporting system for statistical and supervisory purposes ISIDORA, several activities were undertaken, related to: a) determining the level of details, which will be used for reporting by individual instruments (primarily loans and deposits); b) preparing initial reporting documents-technical instruction and functional specification; c) several workshops on further harmonization of the reporting requirements were held with banks.

Despite the regular publication of statistical press releases, additional activities were taken during 2021, **to promote communication with the public and strengthen transparency, such as:**

- Improvement of the manner of communication with public, through better visualization, publishing texts with statistical contents in the media and social networks;
- Within the project for improving the availability and understanding of statistical data published by the National Bank, an e-workshop for journalists was held and lectures at the Faculty of Economics at UKIM, dedicated to financial accounts statistics.
- The National Bank's involvement in the celebration of the European Statistics Day, through lectures for students in several highly educational institutions in the country (The Faculty of Economics and the Faculty of Agriculture at UKIM, the Faculty of Economics at UGD and the University American College Skopje).

Moreover, in October 2021, **the second survey on the satisfaction of the reporters and statistics users within the competences of the National Bank** was conducted, and the results show that the high quality of the statistical function of the National Bank remains and that there is a satisfactory level of satisfaction among both, data users and providers.

Strategic objective 9– Preparation of the National Bank for joining and membership in the European System of Central Banks



The activities related to the National Bank's strategic commitment to adopt the best European practices continued during 2021, despite the aggravating circumstances due to the health crisis. Thus, within the **Regional EU funded Program for strengthening of the capacities of the central banks of the candidate countries and potential candidates for membership in the EU from the Western Balkans**, which formally ended in December 2021,

representatives of the National Bank participated in seven trainings during 2021, in the fields of: banking supervision, financial stability, bank recovery and resolution, statistics, internal audit and compliance with the EU regulations and integration. Moreover, one high-level workshop was held, on issues in the field of management, as well as two bilateral measures¹¹³ and one practical training¹¹⁴.

The Twinning Project “Strengthening of the institutional capacity of the NBRNM in the process of its accession to the ESCB” formally ended in March 2021. The sixth and the seventh meeting of the Management Board, the closing workshop and the sustainability workshop were held in the last quarter of the project, as well as [the closing conference of the project](#). Within the four project components - payment services and payment systems, banking regulations and supervision, financial accounts statistics and knowledge and skills in policy analysis, nine virtual expert missions were performed and one virtual study visit was made. Moreover, one visibility event for each component was held. A video of the project was made public in March 2021, while the last edition of the regular quarterly bulletin of the project was also prepared and published¹¹⁵.

Representatives of the National Bank, in cooperation with the State Statistical Office and Eurostat, participated in projects in the field of statistics, under **the Multi-beneficiary Statistical Co-operation Programme IPA**. Moreover, the representatives of the NBRNM 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 of the Economic Reform Programme, as well as in the preparation of the input of the Republic of North Macedonia to the Annual Report of the European Commission on the progress for the period October 2020-March 2021 and the period April 2021-June 2021.

In 2021, the bilateral technical cooperation of the NBRNM with other central banks was performed virtually with a reduced intensity and number of trainings. Within the Memorandum of Cooperation with the Central Bank of Montenegro, the NBRNM exchanged experiences in the field of foreign reserves management, the role of the central banks as fiscal agent and accounting aspects in the measurement of financial assets within foreign reserves.

Strategic objective 10– Further improvement of corporate governance, transparency and social responsibility of the institution



The implementation of program activities related to the improvement of the corporate governance, transparency and social responsibility, covers several aspects of the National Bank operations¹¹⁶.

¹¹³The first bilateral measure was conducted in cooperation with the Croatian National Bank and was aimed at further strengthening of the function international relations, especially in the process of European integration of the country. The experts from the CNB along with the National Bank's experts have drafted a lead for the NBRNM towards its membership in the European System of Central Banks (ESCB), compiled on the basis of the Croatian Bank's experience in the process of accession to the ESCB, as well as their cooperation with the European institutions after their entry into the EU. The second bilateral measure was implemented in cooperation with the central bank of Portugal and was aimed at further compliance and harmonization with the statistical requirements of the ESCB (accounts database).

¹¹⁴The practical training was held virtually, with the central bank of Ireland in the field of consumer protection. In the project, this activity was planned to be conducted as practice, but given the circumstances caused by the pandemics, it was held in a form of a virtual training.

¹¹⁵The bulletins are available on the website of the National Bank: [Macedonian -Project Bulletins \(nbrm.mk\)](http://Macedonian-Project-Bulletins(nbrm.mk))

¹¹⁶Activities related to internal audit and human resources as part of this strategic objective are included in part IX and X of the Annual Report of the NBRNM.

12.1. Public relations

In 2021 the National Bank continued with the activities to increase the transparency and improve the communication with the public (media, press, business community, citizens, general public and experts, relevant international organizations). The National Bank informed the public on information, activities and news in its operations by issuing regular press releases, making this communication channel particularly useful with about 4 press releases weekly. Moreover, the national Bank has strengthened its presence in the social media and at the same time improved the quality of the publications. The determined standards for compiling and transmitting content appropriate to social media have been applied during the year. The language and the content are significantly simplified for the purpose of transmitting the National Bank activities through these channels of communication, intended for the general public. At the same time, the National Bank started using designed illustrations, to encourage interaction with the audience and to increase the website traffic¹¹⁷.

Throughout the year, we regularly answered questions addressed to the National Bank, from the media, as well as other natural persons and legal entities sent through the official communication channels of the National Bank. The National Bank was also available to the public through numerous interviews of the National Bank managers on topics in the field of the National Bank operations, as well as through participation in number of events.

Besides the regular activities in the field of public relations, the National Bank pursued the realization of series of project activities aimed at the improvement of the level of comprehensibility on subjects that concern the National Bank operations. Moreover, among other things, the National Bank organized two workshops for journalists in 2021-[workshop on financial accounts statistical data](#) and [workshop on the supervisory function of the National Bank](#). Moreover, the regular annual meeting with journalists was also held, where the IMF findings on the Transparency Code were presented

In 2021, **the National Bank was the second central bank in the world that was assessed by the IMF on the application of the transparency practices, by the specified principles within the revised IMF Transparency Code**, adopted in July 2020. This assessment was made at the initiative of the National Bank. The IMF implemented a mission for detailed examination of the setup of processes and practices that introduce transparency of the National Bank in terms of operations, reporting on policies, activities, results, as well as in terms of business relations. Moreover, within the mission, the IMF representatives conducted several interviews with several stakeholders, such as government institutions, representatives of financial services providers and media. According to the IMF mission findings¹¹⁸, for half out of the total 90 principles of transparency, the National Bank applies more comprehensive practices than the required in the Code, while the practices in other segments are within the Code requirements. The high harmonization of the practices applied by the National Bank as specified in the Code, is a significant confirmation of the National Bank efforts in the past period to improve the communication, transparency in the operations, and thus the public credibility of the institution.

¹¹⁷The number of publications on social media on Facebook was around 250, with a similar number of publications on Instagram and Twitter. The number of followers on social media on Facebook was 19.164 (31.12.2021), on Instagram 1.277 followers, while 495 followers were on Twitter. The number of visits to the National Bank website is higher than the number of followers, for instance, the visits to the Facebook profile, without sponsored publications, reached 40.000 visits by different users in 28 days, according to the network analytics.

¹¹⁸The report is available on the website of the IMF: <https://www.imf.org/external/datamapper/CBT/reports/> .

12.2. Financial education and inclusion

In 2021, the National Bank continued with the regularly activities that contribute to the further building of the capacities for development of financial education and further improvement of the financial inclusion of the population. Moreover, the National Bank took activities to finalize the strategic document, the five-year national Financial which was adopted by the financial regulators and promoted on 8 July 2021 at an e-event attended by all involved entities-financial sector regulators, civil and private sector. The strategy¹¹⁹ should contribute to strengthening of the coordination and cooperation between the financial regulators, the private and civil sector, as well as systematic approach of all involved entities in order to strengthen the financial literacy of the population, improve the level of financial inclusion, amid simultaneous provision of adequate consumer protection. On 16 and 17 September 2021, the National Bank, along with other financial regulators, in collaboration with INFE-OECD and the Ministry of Finance of the Netherlands, held **a workshop** to promote the Strategy titled: „*Coordinated efforts to strengthen the financial literacy in North Macedonia*“. The workshop discussed issues on financial literacy in terms of digital financial services, as well as aspects related to digital financial education.

According to the activities provided by the Strategy, the National Bank, in cooperation with the Coordinating Body of Financial Education and Financial Inclusion, worked on the preparation of the Code which was adopted in September 2021. The Code sets out principles that should be applied by the involved entities in the public, private and civil sector in the implementation of the financial education of the population. For the purpose of the strategy implementation, **a Working group was formed to monitor the implementation of the Strategy**, composed of representatives of the financial regulators, private and civil sector, which held its first session in December 2021.

The National Bank continues with the financial education activities for the adult population, by publishing **educational texts** from the serial "Economy for Everyone", **educational videos** from the serial "With the National Bank in the world of finance", and at the same time started to prepare and publish the educational. Moreover, an increasing number of **e-educational presentations** (102 educational lectures to 6.007 students and 264 teachers and professors) were performed for the elementary and secondary schools students during the year. In the period from February to April 2021 the National Bank implemented activities for the European, among which is the working meeting with the teachers and professors on the preparations of this quiz. The **Global Money Week** was marked in March 2021, through e-lectures to students from elementary and secondary school and publications of educational materials. The traditional **Competition for the students from elementary and secondary education on the occasion of "the World Savings Day-31 October"**, was organized in October and aroused a great interest among youngsters. Within the "**Financial Literacy Days**", held from 1 to 3 December, four virtual presentations were performed on the following topics: "National Bank Monetary Policy"; "Information Required When Choosing Loans"; "Payment System and Payment Services" and "Banking Supervision", which were attended by the citizens who registered for the public call.

¹¹⁹The Strategy was developed within the regional project for financial education supported by the Ministry of Finance of the Netherlands and the INFE OECD.

12.3. Museum operations, Library and Archive

In 2021, the Museum performed its current activities related to operating processes which refer to professional museum activities, but at the same time it prepared and performed series of educational activities in relation to the celebration of the International Museum Day. For this purpose, in the second half of May, the Museum held **18 interactive educational e-meetings** with students from 3rd to 9th grade from six primary schools from the Municipality of Centar, which **were attended by around 100 students**. Moreover, the educational activities of the Museum also included **promotional publication of six videos for the most exclusive and significant monetary editions** that were produced on the territory of the modern Macedonian state, starting from the 6th century BC until the Ottoman period. The videos, fully prepared by the curators in the Museum, are available on the official website [of the National Bank](#) and on the official sites of the social networks, thereby the general public is provided with video access to the most important and exclusive values of the Numismatic Collection.

The National Bank Library is the **only library in the country that constantly enriches its holdings with the latest publications of foreign central banks** and publications of international institutions and organizations, such as the International Monetary Fund, the European Central Bank, the Bank for International Settlements etc. In 2021, the National Bank Library and Archive enriched their fund with professional literature of periodical and monograph titles by foreign and domestic authors. The regular cataloging and recording in the library application and COBISS contributed to greater availability of professional literature for both National Bank employees and external users. [The archival fund](#) was enriched with digitalized archival material from the National Bank operations, with regular controls of each new entry. Certain functions in the application for digital archive were improved, and a conventional material registry was also developed, in order to better record archival materials, that are not only in a digital form, but also physically kept as a part of the National Bank Library and Archive fund.

12.4. Strategy and prevention

In 2021, despite the extraordinary and harder conditions, **the Strategy and Prevention Office, as a second line of prevention**, continued with the realization of its functions of strategic planning, operational risk management, business continuity, information systems security, protection of personal data and classified information, as well as compliance activities. In 2021, the National Bank actively monitored the situation with the pandemic in the country, as well as the process of immunization of the employees, on the basis of which **proactive measures were taken to mitigate the risk of interruption of working processes due to loss of key personnel, to ensure full functionality of the work processes**.

During the first half of 2021, the National Bank conducted harmonization of the revised plans for business continuity and prepared an Annual Report on the implementation of the Business Continuity Policy which was discussed at the XXII session of the Crisis Headquarters. According to the conclusions drawn in the meeting, a revised Business Continuity Plan of the National Bank was prepared and adopted in June 2021. Moreover, in order to confirm the completeness and enforceability of the Business Continuity Plan, all the testing of the continuity plans for 19 critical working processes within the competences of 11 organizational units were conducted during 2021.

To raise the awareness of the employees about the **information system security, protection of personal data and security of classified information**, the National Bank

conducted trainings for 119 employees in 2021. There are regular controls of the compliance activities for personal data protection, the condition and security of classified information, as well as the National Bank compliance with mandatory security controls with the SWIFT customers¹²⁰. The data on the National Bank compliance with all mandatory security controls provided for in the SWIFT Customer Security Control Framework were timely published in an appropriate register¹²¹. Moreover, reported incidents were regularly managed. The last year's activities for harmonization with the new Law on Personal Data Protection, continued in 2021. For that purpose, the compliance of over 100 acts was checked, whereby the competent organizational units implemented draft guidelines for amendments to around 60 acts.

In 2021, at the invitation of **the Coordinating Cyber Resilience Center¹²² at the Bank for International Settlement, the National Bank participated in the pilot project for assessment of the Cyber resilience**, whereby the results showed that **the National Bank actively manages its security position, by using well implemented risk management processes and business continuity, which leads to higher levels of resilience**. Moreover, in 2021 the National Bank started **a project to strengthen the Security operation center** in the field of monitoring of and ability to respond to cyber incidents. Following the dynamic IT development and accelerated digital transformation, the National Bank will continue to monitor and to harmonize with the standards in the area of information system security, personal data protection regulations and security of classified information.

The regular activities related to the **strategic planning** process were performed according to the envisaged frames. The strategic objectives of the National Bank were realized through program activities and projects, and thus according to the set [mission and vision](#). The National Bank regularly reported on the achieved results through the Reports on the implementation of the Plan of Activities¹²³. The Council of the National Bank adopted a new, as well as a [Plan of Activities for 2022](#), which precisely determines the working processes and project activities that will contribute to achieving of the strategic objectives. The National Bank regularly monitors the changes in the environment to identify the segments to which it should pay particular attention to, and in which, as a central bank, it should invest additional resources and energy. Thus, the last Strategic Plan 2022-2024 highlights several **new strategic goals (transparency, financial education and inclusion, climate changes and creation of a green and sustainable economy¹²⁴, strengthening of the risk management)** to which attention will be paid in the next three years. The status of implementation of the projects was monitored at the NOIS sessions¹²⁵, and the National Bank also worked on the advancement of project management regulation¹²⁶ as the main support for the accomplishment of the National Bank goals and tasks. During 2021, **the National Bank's exposure to operational risks was regularly monitored and reported**. The

¹²⁰ (CSCF Assessment Template for Mandatory Controls 2020 v3).

¹²¹ KYC Registry Security Attestation.

¹²² CRCC (Cyber Resilience Coordination Centre).

¹²³The Annual Report on the implementation of the Plan of Activities for 2020 is part of the National Bank Annual Report which is adopted by the Council and submitted to the Parliament of the Republic of North Macedonia. The Semi-Annual report on the implementation of the program activities is submitted to the strategic managers.

¹²⁴ At the beginning of 2021, [the National Bank became a member of the international network for a green financial system](#), which is currently constituted of 100 members and 16 observers among central banks and supervisory institutions from the entire world, thereby supporting the international declaration within the UN Conference on climate changes. Thus, the National Bank becomes a part of central banks that have clear and strong commitments within its competences to contribute to the development of the management of the financial sector risks arising from climate changes.

¹²⁵Information System Steering Committee of the National Bank

¹²⁶During 2021, the National Bank made an advancement of project management regulation, thus including the Strategy and Operational Risks Function and the Information System Security, Personal Data Protection and Classified Information Function, in an early stage of the software development projects, to timely determine the security control measures that need to be taken for the purpose of improving the risk management and cyber security.

annual¹²⁷ and the semi-annual report¹²⁸ on operational risk management were discussed and adopted by the Operational Risk Management Committee, after which they were also adopted by the National Bank Council. At the end of 2021, the National Bank started collecting and processing data from the operational risk assessments by the organizational units for the purpose of preparing the Annual Report on Operational Risk Management for 2021¹²⁹. The main purpose of this Report is to present the results of the in-depth assessment of the operational risks for 2021. The Report presents 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 objectives, the financial result and the reputation of the National Bank. It was concluded that the National Bank regularly monitors the exposure to operational risks and actively manages and implements the determined measures and activities, which aim to reduce the potential operational risks. The risk management is a necessary element of the good corporate governance which contributes to the efficient realization of the set strategic objectives, mandate and vision.

In 2021, **the compliance function** continued with its activities for development and application of preventive concept for achieving compliance in the National Bank. Within its operations and available resources, it ensured timely and adequate response to the requirements, to set an example of harmonized operation, to protect and preserve the reputation and integrity of the institution, efficient operation, open communication and internal cooperation with organizational units. Activities in the field of education and strengthening of the awareness for preventing possible occurrence of corruption and conflict of interest in the National Bank were undertaken. In the context of marking 2021 a year of fight against the corruption in the country, and in order to include itself and show determination to prevent occurrence of corruption and undertake activities to prevent and reduce the risk of corruption, the National Bank adopted an Anti-Corruption Policy in August 2021¹³⁰ for further implementation of which the compliance function will take care within the institution.

Moreover, opinions/ recommendations were provided in relation to the application of the current compliance regulation by the employees/ Council members, and the National Bank also carried out an ex post check of the application of the Law on Mobbing within which recommendations for improvement were given, which have been duly acted upon. An important segment in the preventive role was monitoring the new legislation and its amendments that concern the National Bank operations and informing the public on a regular basis. At the same time, the compliance function made its contribution by analyzing concrete draft laws that refer to the National Bank.

Depending on the needs of National Bank operations, legal issues were discussed, for which proper legal opinions were provided, including proposals to improve the operation/regulation. The compliance function will continue to be committed to further development of the compliance in the National Bank, especially in the capacity of additional mechanism to support and strengthen the compliance of the employees and Council members of the National Bank.

¹²⁷This is an Operational Risk Management Report for 2020.

¹²⁸This is a first Report on operational risks monitoring on a semi-annual basis which was envisaged with the latest amendments to the Operational Risk Management Policy from October 2020, for the purpose of intensified monitoring of the exposure to operational risks. The Report explains the status of implementation and the undertaken activities to implement the measures to address operational risks determined with an in-depth annual operational risk assessment in 2020.

¹²⁹The National Bank Council adopted this report at the session at the end of March 2022.

¹³⁰ P. No. 02- 15/ XIV -1/2021 of 26 August 2021.

12.5. Other corporate activities

In the fields of **accounting record of transactions, accounting policies and financial reporting, as well as planning and control**, the National Bank performed the activities timely and in line with the set deadlines. Namely, a Policy on selecting a company for external audit of the financial statements of the National Bank was adopted¹³¹ which formalizes the process for selecting an external auditor in line with the recommendation by the International Monetary Fund (IMF), during a mission carried out in 2020 (Safeguard Assessment Report from August 2020)¹³². While preparing the Policy on selecting an audit company, materials from several financial institutions were analyzed, which contributed to the perception and information about the processes related to the audit and the oversight role of the Audit Committee. Moreover, the National Bank revised the regulations for the Audit Committee and its scope of work. This activity resulted from the analysis on the set up of the Audit Committee and the need for compliance with the international recommendations and best practices for the role and tasks of this body in central banks. The National Bank regularly met the accountability obligations (through [the Annual Financial Statements of the National Bank](#), [the independent auditor's Report](#) and monthly balance sheets) by applying the highest transparency and clarity standards in legal reporting. In 2021, the National Bank paid special attention to **projects that improve the application accounting solutions** for the performance of the processes for planning and integrated material operations.

During 2021, **public procurements** were conducted transparently and timely for unimpeded National Bank operations, thus taking into account the streamlining of the National Bank funds. Special attention was paid to transparency, encouraging competition and providing equal treatment to all economic operators, as basic principles of this process, prescribed by law. The Annual Public Procurement Plan (APPP) for 2021 was timely published on the Electronic Public Procurement System in January 2021. According to the needs of the National Bank, two amendments to the APPP were made during 2021, as follows: In June (amendment with 1 new public procurement) and in December (amendment with 11 new public procurements). The regular reporting on the implementation of the plan was according to the internal acts, whereby besides the monthly reviews, regular quarterly reports were also prepared and presented, showing the overall developments for the corresponding period, as well as analysis of the adherence to the planned deadlines in the implementation of individual procedures and the reasons for possible delays. During 2021, the Public Procurements Bureau carried out three administrative controls and there were no irregularities detected in all three.

The legal support was given on a regular and consistent basis, through preparation and/or control of multiple legal acts. Laws and bylaws and the general internal acts in the Registry of regulations, as well as preparation of consolidated texts of regulations were regularly published on the website of the National Bank.

The activities for the **technical maintenance and physical security** were performed regularly, thus enabling necessary technical support and maintenance for smooth working processes and business continuity. The equipment and all the facilities were maintained according to the operations standards. **The containment measures in the area of safety and health at work in conditions of further threat of coronavirus spread remained at force**, thus the National Bank constantly followed the measures,

¹³¹ The National Bank Council adopted the Policy on selecting a company for external audit of the financial statements of the National Bank in the beginning of December 2021.

¹³² Namely, the appointment of the external auditor in the National Bank is performed in accordance with the Law on the National Bank and public procurement internal regulations. Although the process of selecting an external auditor by the National Bank is adequate, the Policy on selecting an auditor formalizes the key criteria for the selection and rotation of the external auditor.

protocols and recommendations of the Government and the National Bank Crisis Center, and gave guidelines to the employees. Regarding safety, **the National Bank constantly takes operational measures and activities that enable maintenance of adequate level of safety and fire protection, efficient management and safekeeping of the National Bank's facilities**, especially those in which regular activities are performed as well as creating conditions for unimpeded work processes.

Strategic objective 11– Maintaining stable information system and its upgrade in accordance with the existing capacities and international standards



The National Bank took all necessary activities to **maintain a safe and stable information system**, thereby provided a high degree of accessibility of information systems and enabled smooth functioning and regular implementation of working tasks within all organizational units of the National Bank, besides the extraordinary conditions that also continued in 2021. Due to the prolonged effects of the Covid-19 pandemic in the country, which had impact throughout 2021, the National Bank enabled technical conditions for work from a distance for the work that can be performed without physical presence in the National Bank and availability of the applications needed for carrying out tasks regularly, which reduced direct contacts between employees of the National Bank and helped with the measures to prevent the spread of the coronavirus. This activity preserved critical human resources, thereby ensuring smooth performance of regular and extraordinary operations and tasks.

During 2021, the National Bank worked on software development projects, and besides the current and extraordinary activities due to the health crisis, continued to improve the SWIFT infrastructure, according to the SWIFT recommendations and the regular annual procedures for maintenance of the equipment and services necessary for the National Bank operations. Regarding the maintenance of a high degree of information security by setting and improving the measures for protection against possible cyber-attacks, the National Bank carried out penetration testing of the bank's equipment, which included testing of servers, net equipment and applications, whereby no possibility for external attack of the system was detected. In addition to the mentioned, the National Bank continued with internal controls which contribute to strengthening of the bank's safety and regular upgrading of servers, workstations and other IT equipment.