



Report
on the implementation of the Plan of Activities of the National Bank of the
Republic of Macedonia for 2017

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Introduction

The Plan of Activities of the National Bank for 2017 (hereinafter: the Plan of Activities) is a detailed elaboration of the ten strategic objectives set in the Strategic Plan of the National Bank of the Republic of Macedonia for 2017-2018, S.P. No. 02-15/VII-1/2016 of 26 May 2016 (hereinafter: the Strategic Plan).

The Plan of Activities is implemented within one calendar year, from 1 January to 31 December.

The Plan of Activities includes activities related to the implementation of the primary objectives of the National Bank mainly related to the monetary policy, supervision, banking regulation and financial stability, financial markets, foreign reserves management, research development, issuance and management of banknotes and coins, payment systems, statistics, as well as other activities that support the primary functions of the National Bank of the Republic of Macedonia (hereinafter: the National Bank) such as finance and accounting, information technology and corporate governance. Moreover, the Plan of Activities also includes activities aimed at harmonization of the legal, organizational and resource requirements of the National Bank in the process of accession to the European Central Bank (ECB) and the European System of Central Banks, which is consistent with the recommendations contained in the report "Needs Analysis Programme for the National Bank of the Republic of Macedonia", prepared within the project funded through the Instrument for Pre-Accession Assistance (IPA).

The Plan of Activities contains 129 program activities out of which one part are regular work processes implemented during the year that directly ensure implementation of the strategic objectives of the National Bank, as well as project-oriented activities that enable introduction of changes in the operations aimed to rise efficiency, quality, transparency and security, compliance with the new legal requirements, European regulations, international standards and the International Monetary Fund (IMF) requirements.

An explanation of the implementation of the planned program activities is given below.

Performance of the planned program activities by strategic objective

Maintaining price stability through a stable exchange rate of the denar against the euro

The first strategic objective, maintaining price stability through a stable exchange rate of the denar against the euro, was implemented through several activities with different planned dynamics of execution by the Monetary Policy and Research Department and the Financial Market Operations Department.

Planned activities

- Preparing macroeconomic forecasts.
- Making analyses of the sustainability of public and external debt, balanced real exchange rate and monetary transmission.
- Conducting surveys.
- Developing ad hoc analyses.
- Producing regular reports.
- Regular conducting of monetary operations and maintaining balance in the foreign exchange market.
- Active promotion of denar savings.

When preparing macroeconomic forecasts, during 2017 additional amendments were made to the basic MAKPAM model¹, which will contribute to improving the power to explain the economic developments. In the context of short-term forecasting, the small structural inflation forecasting model was checked and modified, the testing of which is planned during 2018. In order to expand the set of instruments for modeling and researching monetary policy, the relevant literature and part of the existing DSGE models² for the developed countries, were discussed. The concrete activities are expected to begin in September 2018, within the technical assistance provided by the Czech central bank.

Within the regular activities, the National Bank assessed the sustainability of external and public debt and discussed the vulnerability indicators of the Macedonian economy. In order to assess the compliance of the real effective exchange rate with its fundamentals, the National Bank analyzed the main indicators on which the existing monetary strategy is based. Also, the National Bank reassessed the monetary transmission through the interest rate channel with more recent data.

Considering the need for obtaining important input elements when forecasting the future macroeconomic flows, the National Bank conducted the Bank Lending Survey and the Survey on Inflation Expectations on a regular quarterly basis. During the year, the Survey on Inflation Expectations was revised and structurally set in a manner similar to the practice of the ECB. For the needs of the balance of payments forecast, in April and October, the National Bank conducted the survey of the most important exporters and importers.

In the context of providing support when making monetary decisions, the National Bank prepared the following analytical notes:

"A long period of low interest rates and monetary easing in the euro area - effects on the region?",

"Analysis of the effects of the companies in the technological-industrial development zones",

"Note for assessing the effects of increasing the minimum wage",

¹ Macedonian Policy Analysis Model - MAKPAM.

² Dynamic Stochastic General Equilibrium.

"Structural analysis of foreign direct investments in the countries of Central and Southeast Europe - debt against non-debt component",

"Sector-by-sector analysis of labor productivity and unit labor costs in Macedonia",

"Integration of the Macedonian economy into the global economy - economic growth, international environment and convergence".

At the same time, within the regular quarterly reports, the National Bank published the following brief macroeconomic analyses, in the form of analytical appendices:

"Debt analysis of the Macedonian corporate sector and adaptation to the post-crisis period",

"Potential output in Macedonia - growth dynamics analysis" and

"Communication of monetary policy - results of a survey".

Besides the numerous analyses, in order to perceive the latest developments in the Macedonian economy as a whole and in individual sectors of the domestic economy, as well as assess their implications on the monetary policy, the National Bank prepared the regular monthly and quarterly reports, as well as the annual report on the National Bank operations. At the same time, in the context of the need for ensuring monetary policy transparency, the National Bank regularly prepared and published press releases and presentations intended for the public, which gave a detailed review of the expectations for the next period and their effects on the monetary decisions.

Regarding the operational monetary policy, the relatively stable environment, the high liquidity and the stable developments in the banking sector and on the foreign exchange market, reduced the policy rate in the first quarter at a level of 3.25%. Also, the National Bank actively managed the liquidity in the banking system through changes in the supply of CB bills, in accordance with the developments of the liquidity potential. At the end of the year, the National Bank conducted a survey with the domestic banks and analyzed the effects of the monetary measure to encourage credit support for significant sectors in the economy.

Within the activities for further promotion of Denar savings in the banking system, the National Bank produced a draft-version of the national Denarization Strategy.

Maintaining a stable and reliable banking system as the main prerequisite for financial stability and sustainable economic growth of the country

The strategic objective, maintaining a stable and reliable banking system as the main prerequisite for financial stability and sustainable economic growth of the country, was implemented through 12 program activities of the Financial Stability and Banking Regulations Department, the Off-Site Supervision and Licensing Department, the On-Site Supervision Department and the Advisor to the Governor on IFSR.

Planned activities

- Drafting and adopting regulations in the area of banking operations and bank supervision.
- Analyzing and monitoring banking and financial system developments.
- Regular off-site activities.
- Revision of the internal risk assessment methodology and the aggregate bank risk profile.
- Revision of the content of the off-site supervision reports (risk profile and financial analysis).
- Revision of the need for harmonization of internal on-site and off-site risk assessment procedures.
- Further development of the internal methodology for assessing banks' internal capital³ and capital supplements/needs of individual banks by the National Bank.
- Conducting regular on-site examinations.
- Revision of risk assessment procedures.
- Revision of the existing business continuity standards.
- Strengthening supervisors' capacity for supervision of payment institutions.
- Cooperation with international institutions to strengthen anti-money laundering capacities.

For further harmonization with the Basel principles for effective banking supervision, the Basel 3 standards and the relevant European regulations CRD/CRR⁴, and of course application of the amendments to the Banking Law of 2016, in 2017, several bylaws were adopted. The National Bank developed methodologies for identifying systemically important banks, for the contents of the recovery plan of a bank, for determining maximum distributable amount of earnings and for managing leverage risk.

The National Bank also adopted methodology for determining the rate of the countercyclical capital buffer of banks. At the same time, the National Bank introduced amendments into the licensing regulations and established new corporate governance rules, which were adopted in February 2018. During the year, efforts were made to amend the credit risk regulation, above all for the purpose of complying with the International Financial Reporting Standards (primarily IFRS 9)⁵ and the definition of non-performing and restructured loans with the definitions of the EBA⁶. This regulation, in working version, is expected to be submitted for consideration to banks by the end of the first quarter of 2018.

During the year, the National Bank developed a draft-strategy for managing troubled loans, which sublimates all aspects related to the emergence and dynamics of non-performing loans, especially the activities and measures from all relevant institutions, for further improvement of the process of collection of these claims.

Along with these activities, for the purpose of greater efficiency of the supervisory function and harmonization with the ECB's supervisory practices, the National Bank revised the elements of the supervisory review and evaluation process, introducing four main elements of the assessment: capital risks and assessment of the bank's capital position, assessment of the bank's liquidity position, assessment of the bank's business model and assessment of corporate governance in the bank. For each of these elements, new procedures were introduced or the existing assessment procedures were revised. Based on the improved framework for supervisory risk assessment, the Decision on the manner of conducting supervision and inspection was amended, thus increasing the level of supervisory transparency. Improved framework for supervisory risk assessment was applied in

³ Process of internal setting of the required capital adequacy ratio of banks.

⁴ Capital Requirements Directives (CRD) / Capital Requirements Regulation (CRR).

⁵ On 1 January 2018, the new standard IFRS 9 "Financial Instruments" came into effect, which replaces the International Accounting Standard IAS 39 "Financial Instruments: Recognition and Measurement". The new standard introduces significant changes in the approach of classification and measurement of financial assets compared to IAS 39 and introduces a new model of "expected credit loss" for impairment of financial assets.

⁶ European Banking Authority.

determining the overall risk profile of the banks, which was a basis for determining the minimum capital requirement level for banks for 2018.

During the year, the existing business continuity standards were revised, so a new Draft-Decision on information system security was prepared, which incorporates the best practices and recommendations from the EBA. The Decision provides for development and implementation of adequate IT strategies, technical measures for improving the business continuity and introduces additional standards for protection against the intrusions from the digital space in the area of modern channels.

In order to monitor the movements in the banking and financial system, as well as assess the banks' resilience to shocks, the National Bank made several monthly and quarterly analyses and reports on the banking system, vulnerability indicators, sensitivity tests and scenario analyses. The National Bank regularly prepared the reports on the risks in the banking sector, and the content of the Financial Stability Report was improved and enriched with new annexes. In order to improve the operations, the National Bank continued to cooperate with the other supervisory and regulatory authorities in the country and abroad by holding periodic meetings with financial regulators.

Besides the introduction of a large number of novelties in the operations, the National Bank regularly conducted the off-site supervisory activities with banks and savings houses. Within the on-site controls, the National Bank performed 14 regular controls of banks in the risk area and one control of an outsourcing company. The National Bank conducted controls of compliance with the regulations with all banks, two savings houses, three providers of fast money transfer services, twenty-two subagents and 156 controls of authorized exchange offices. Within the activities for strengthening supervisors' capacity for supervision of payment institutions, the National Bank conducted several trainings and participations in seminars. The acquired experiences for supervision of payment institutions are appropriately incorporated into the section concerning supervision of payment institutions in the Draft-Law on Payment Services.

During the year, the National Bank had cooperation with several international institutions to strengthen anti-money laundering capacities. Namely, within the project of the Council of Europe for combating economic crime, representatives of the National Bank, together with the Financial Intelligence Unit, took part in the preparation of the Draft-Instructions for determining the beneficial owner of the client. Also, the representatives of the two institutions prepared the Memorandum for strengthening mutual cooperation. The National Bank actively participated in the development of the National Strategy for Combating Money Laundering and Terrorist Financing, which was then adopted by the Government of the Republic of Macedonia. The National Bank prepared a new procedure for conducting on-site controls to assess this risk and prepared a Draft-Decision on managing the risk of money laundering and terrorist financing. Thus, they have been harmonized with the FATF⁷ Recommendations and the Law on Anti-Money Laundering and Terrorist Financing.

Efficient management of the foreign reserves of the Republic of Macedonia relying on the optimal balance of the principles of safety, liquidity and return on investment

Activities
<ul style="list-style-type: none">• Risk management.• Efficient monitoring and analyzing of investment positions.• Management of the foreign reserves of the Republic of Macedonia

⁷ Financial Action Task Force (FATF)

The management of the foreign reserves in 2017 was promoted from several aspects. Great benefit was the introduction of futures contracts for managing interest rate risk, which enabled implementation of new strategies for positioning the yield curves in the euro area and the United States. At the same time, low interest rate risk was maintained with the introduction of new instruments in the money market. In order to expand the diversification opportunities, business cooperation has been established with financial institutions from new geographical regions, and the currency risk has been actively managed. Also, the National Bank has set the credit risk quantification bases, and during the year, it has been continuously improving the manner of monitoring and reporting on the exposure of the foreign reserves to individual types of risks.

Supporting the development of domestic financial markets

In order to support domestic financial markets, representatives of the Financial Market Operations Department, which is the department responsible for the activities in this domain, participated in the work of the project group for promoting the quotation rules of the interest rates on the interbank money market. Also, direct communication with market participants continued. For that purpose, at the Annual Assembly of ACI Macedonia - Financial Markets Association, the National Bank gave a presentation on the current macroeconomic developments, with emphasis on the trends in the investment of the private sector and participated in a panel discussion in which the interest rate swap is presented as a risk management instrument.

Increasing the efficiency of the system of supplying and processing of banknotes and coins and increasing the quality and functionality of currency in circulation

The Banknotes Department is the department responsible for the activities related to the strategic objective for increasing the efficiency of banknotes and coins supply and processing system and increasing the quality and functionality of currency in circulation.

Activities

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| <ul style="list-style-type: none"> • Supplying banks and cash centers with banknotes and coins. • Controlling the implementation of cash operations standards and criteria in banks and cash centers. • Manufacturing/purchasing banknotes and coins, coin blanks, commemorative coins and collector coins. • Establishing a new modern cash management concept. • Activities for the needs of the National Bank, government institutions and administrative bodies. |
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Within the activities for supplying banks and cash centers with banknotes and coins, the National Bank regularly managed cash flows by regulating and balancing the denomination structure, maintained cash reserves at an optimal level, and registered and included new cash centers in the area of logistic operations. At the same time, in order to overcome the problem of the predominantly unidirectional movement of coins, the National Bank made the initial analyses for establishing a coin receipt and processing center. Within the activities for prevention of counterfeiting, the National Bank exchanged experiences with relevant domestic institutions, and several trainings of staff were conducted by foreign central banks.

During the year, the National Bank undertook several activities for controlling the implementation of cash operations standards and criteria in banks and cash centers. In this context, the National Bank adopted new regulation which strengthens the criteria for the maintenance of the quality level of the currency in circulation by testing the cash processing machines. At the same time, the National Bank introduced compulsory trainings for staff in banks and cash centers for authenticity and fitness checking of the currency in circulation,

which are the first barrier in the combat for effective removal of suspicious banknotes from circulation and prevention of their further distribution.

Concerning the activities related to the manufacture of banknotes and coins, efforts were made to introduce a changed composition of the alloy of coins in denomination of 2 denars. At the same time, according to the strategic decision to replace the existing coins with polymer banknotes as a viable alternative to paper money, the National Bank adopted a Decision on printing polymer banknotes in denominations of 10 and 50 denars. The delivery of the first quantities of these banknotes is expected in the first half of 2018. Simultaneously, for banknotes in denomination of 1000 denars, the National Bank performed preliminary research activities for incorporating new sophisticated security protection.

Given the commitment to establish a new modern cash management concept, efforts were made to consider the possibility of introducing a new standardized method of packaging banknotes and defining the technical characteristics of the new method of packaging, as well as modernization of technical capacities for logistical support of secondary cash operations.

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.

In the area of numismatics, the National Bank continued issuing collector coins, making significant contribution to the promotion of the national, historical, cultural and spiritual values of the Republic of Macedonia, as well as meeting the demand of numismatic collectors in the country and abroad. The National Bank issued and put into circulation the collector coins: "St. Seraphim of Sarov the Wonderworker", "Year of the Dog – Wealthy Year of the Dog", "Year of the Dog – Safe Year of the Dog", "Russian Labyrinth", "50 Years of the Macedonian Academy of Sciences and Arts", "Faith, Hope, Love and their mother Sofia" and "Wheel of Fortune", as well as the collector coins from the "Zodiac Signs" series: "Capricorn", "Aquarius" and "Pisces".

Maintaining the highest degree of reliability, stability and efficiency of domestic payment systems and providing conditions for cross-border payment systems connectivity

The strategic objective, maintaining the highest degree of reliability, stability and efficiency of domestic payment systems and providing conditions for cross-border payment systems connectivity, was implemented through several regular and project-oriented activities during the year the responsible department of which is the Payment Systems Department.

Activities

- Improving the MIPS performance for cross-border payments in euro via TARGET2.
- Implementing new regulations which transpose European Union directives in the area of payment services under the 2015-2016 IPA project.
- Analyzing the European Union Payment Accounts Directive.
- International payment operations on behalf of the government and administrative bodies.
- Processing and settling transactions related to foreign reserves management and to monetary policy implementation, monitoring and supporting the settlement of transactions on OTC markets.
- Overseeing payment systems.
- Support to MIPS participants and processing of forced payment orders.
- Organizing the Tenth Conference on Payment and Securities Settlement Systems

In early 2017, the National Bank of the Republic of Macedonia began operating a system for cross-border payments in euros, by connecting the Macedonian Interbank Payment System (MIPS) with TARGET 2 (Trans-European Automated Real-Time Gross

Settlement Express Transfer System) of the Eurosystem. The ultimate goal of this project is faster and safer cross-border payments in euro and reduction of cost for the benefit of the broader economy, including companies and households. This project has fully implemented the recommendation for creating an alternative channel for payments in euros, besides the correspondent banking, under the IPA Needs Analysis Report of the NBRM conducted by representatives of the European Central Bank and the central banks that form the Eurosystem.

At the beginning of the second quarter of 2017, the National Bank carried out the electronic banking project for conducting international payment operations for the purposes of the government and the public administration. In this way, the National Bank improved the quality of the services provided by the government and the public administration in the area of conducting international payment operations. With this project, the National Bank confirms its commitment to digitization of the national economy as a strategic goal of the Republic of Macedonia to approximate the EU standards in this area.

During 2017, the Draft Law on Payment Services and Payment Systems, which was initially prepared by experts from the European Union within the project "Further Harmonization with EU acquis in the field of Movement of Capital and Payments and Financial Services - Securities Markets and Investment Services", was upgraded with the latest directives and regulations of the European Union in the payment area. The new regulation is expected to increase competition, improve the rights of payment service users, reduce the prices of payment services, improve the stability of payment systems and achieve a higher level of harmonization with the European Union in the payment area.

In order to implement the international operating standards of the entities from the financial market infrastructure, the National Bank organized a workshop with payment system operators in order to implement the standards in a regular and consistent manner. At the same time, in October 2017, the National Bank started conducting targeted supervision of a payment system operator with regard to the harmonization with these standards, gathering the relevant information, which is a basis for assessing the harmonization with the requirements of the standards.

In the last quarter of 2017, the National Bank, in cooperation with the Ministry of Finance and the banking sector, developed a Strategy for reducing the cash usage in the country, which aims to increase the level of digitization in the area of payments. The Strategy states specific measures that will enable its effective implementation in accordance with the best world practices in this area. The implementation of the Strategy is expected to contribute to a significant change in the behavior of the population and companies in order to shift from cash payments in favor of cashless payments, whereby the Republic of Macedonia will join the global society digitalization trends.

The National Bank, in cooperation with the central banks of the Netherlands and Portugal, successfully organized the 10th Jubilee Conference on Payments and Market Infrastructures, attended by senior representatives from renowned institutions such as the ECB, the European Commission, the Bank for International Settlements, national central banks members of the European Union, the central banks from the countries of the region, the Commonwealth of Independent States, the Middle East and North Africa, as well as representatives of the domestic financial sector. The Conference covered many current topics related to innovations in the payment area, financial technology, digital currencies, payment security, development of the securities settlement infrastructure, as well as the new regulation in the payment area in the European Union.

Development of research activity

According to the Research Program for the period 2017 - 2019, adopted in mid-2016, the National Bank's research activities were directed towards the areas that support the decision-making process and timely consideration of future challenges, in order to achieve the main goals of the operations and further strengthening of the institutional capacity. Departments responsible for most of the research activities are the Monetary Policy and Research Department, the Financial Stability and Banking Regulation Department and the Chief Economist. Within this segment, the National Bank has undertaken activities related to several researches on the following topics:

"Determination of the indebtedness of Macedonian private enterprises and the impact of the amount of debt upon the basic macroeconomic variables";

"Empirical research of the factors that drive the changes in household savings";

"Empirical assessment of the effects of the sectoral structure of credits on the external position of the domestic economy";

"Investigating the connection between the policy rate and taking risks in the banking system";

"Assessing productivity of the economy through the use of microdata and assessment of the impact of the features of firms upon productivity";

"Constructing vector autoregressive model (VAR) for macroeconomic time series";

"Fiscal model for simulations of fiscal consolidation or expansion (application of the example of Macedonia, Croatia and Serbia)";

"Working paper for the model for decomposition of the inflation forecast obtained with the MAKPAM model",

"Assessing the credit channel of the monetary transmission in Macedonia - the traditional credit channel of Bernanke and Blinder, against the credit restriction of Stiglitz and Weiss";

"Effects of the ECB's quantitative easing on capital flows in the region - an empirical assessment";

"Financing of small and medium-sized enterprises: results of a survey".

In the area of banking regulation and financial stability, the researches covered the following topics:

"Determinants of the exposure to the interest rate risk with banks in the Republic of Macedonia";

"Setting the determinants of non-performing loans to companies and households";

"Analysis of the impact and the channels of transmission of the effects of the economic cycle on the growth and stability of the financial system";

"Assessment of the systematic risk of the banks in the Republic of Macedonia and empirical testing of the effectiveness of the financial market in the Republic of Macedonia";

"Macro-prudential measures and financial stability";

"Inappropriate market behavior and similar unethical practices when performing banking and financial activities - international developments and the situation in the Republic of Macedonia";

"Macroeconomic implications of the increase in household debt";

"Determinants of banks' stability".

Within the activities for development of the research activity, in cooperation with the London School of Economics, the Sixth International Research Conference was organized: "Central Banking under Prolonged Global Uncertainty: The Latest Lessons while Searching for the "New Normal"." The Research Conference of the National Bank was traditionally organized to mark the anniversary of the monetary independence of the Republic of Macedonia, and this year was marked by the celebration of the 25-year jubilee of this event. At the Conference, research papers of representatives of central banks and academic institutions in the region and beyond were presented.

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

The department responsible for most of the envisaged regular and project-oriented program activities related to the implementation of this strategic objective is the Statistics Department.

Activities

- Processing and disclosure of foreign trade data for internal use for preparing and publishing reports on the exchange rate and the real effective exchange rate.
- Reports on balance of payments, international reserves and foreign exchange liquidity.
- Reports on direct investments.
- Reports on external debt, external claims and net external debt.
- Reports on the international investment position of the Republic of Macedonia
- Establishing a system for managing, storing, processing and handling statistics, establishing a data warehouse.
- Submission of data on macroeconomic indicators of the Republic of Macedonia to BIS
- Submission of data on the National data page to IMF.
- Activities for uniform sectorization of institutional units nationwide.
- Securities statistics.
- Establishing financial accounts statistics for financial transactions and balances, according to SNA 2008 and ESA 2010⁹.
- Preparation of monetary surveys.
- Project for introducing integrated data reporting system by the National Bank, banks, savings houses, for statistical and supervisory purposes.
- Reports on weighted interest rates of banks and savings houses on received deposits and granted loans.
- Reports on assets and liabilities of financial institutions.
- Receipt and processing of data on foreign direct investment in the Republic of Macedonia and abroad.
- Receipt and processing of data on short-term claims and liabilities based on commercial operations with nonresidents.
- Receipt and processing of data on the financial results of the connected entities from foreign investment.
- Calculation of movements of foreign direct and portfolio investments in the Republic of Macedonia and abroad.
- Receipt and processing of data on external debt and external claims.
- Records of international credit operations.
- Receipt and processing of international payment operations data of authorized banks.
- Receipt and processing of data from international monthly transaction reports.

⁸ System of National Accounts SNA 2008

⁹ European System of Accounts ESA 2010

Activities

- Tool for analyzing statistical data and statistical web portal for external users of data.

In the area of financial accounts statistics, a detailed time series of data for the period 2013 - 2015 was prepared for all institutional sectors and sub-sectors, in accordance with the requirements of the latest statistical standard ESA 2010. In December 2017, the National Bank for the first time carried out the transmission of data on financial accounts - balances¹⁰ on an unconsolidated basis, to Eurostat. Also, for the first time, detailed data on the flows of financial assets and liabilities for the government sector for 2014 and 2015 were prepared as one of the key inputs for compiling the tables for excessive debt and deficit.

In the area of external statistics, efforts were made to improve the coverage and quality of data, but also to enrich the available data. In order to improve the methodology for assessing private transfers in the balance of payments, efforts were made to identify and consider acceptable alternative solutions for estimating the inflows from remittances from abroad, taking into account the available results from the surveys conducted and the registered inflows through the official channels. Also, based on additional data, primarily from the State Statistical Office, activities were undertaken to assess the unregistered export of goods and services, the gray economy, the tourism, the travels, etc. Within the activities for compliance with the requirements of the European Union for submitting more detailed data to Eurostat and other international organizations and external users, a long-term project for establishing a single statistical data warehouse for the needs of external statistics was continued, which will also enable optimal management of statistical databases in the National Bank.

Further harmonization with the international standards in the area of monetary statistics has been made. According to the latest Monetary Statistics Manual of the IMF from 2016, the National Bank has prepared a new time series of the monetary set of data. Within the long-term project for establishing an integrated reporting system for the needs of statistics and supervision, several activities have been undertaken to harmonize the scope of monetary data, in accordance with the recommendations of the ECB and the new regulations of the European Union on the statistics of balance schemes and statistics of flows, as well as the new requirements from ESA 2010.

In the field of securities statistics, and for the needs of external statistics from the aspect of examining the way of covering these transactions in the existing data sources in the National Bank, two analyses were made: for trading in securities within the project for regional connection of stock exchanges (through the so-called SEE Link Platform) and for trading in financial derivatives. At the same time, the promotion of this statistics creates prerequisites for enriching the data sources and improving the quality of the financial accounts statistics.

Within the activities for increasing the availability and improving the access of external users to statistical data, during the year, efforts were made to create a software tool intended for internal analysis of statistical data, which should become functional during 2018. Also, in order to improve the communication with data users, the National Bank joined the project of the State Statistical Office for publishing data through a mobile phone application, by disseminating data on the current account balance and the credit growth rate. Therefore, the activities for accession to the latest Special Data Dissemination Standard Plus of the IMF (SDDS¹¹ Plus) continue, whereby in April 2017, the National Bank, in the capacity of a national coordinator, officially launched the initiative for joining this highest data dissemination standard. In doing so, these activities were preceded by a thorough process of

¹⁰ The data are treated experimentally, until appropriate scope and details for their dissemination is reached.

¹¹ Special Data Dissemination Standard Plus

internal verification of the adequacy of the coverage and quality of the new indicators that are a necessary prerequisite for accession to the standard.

Within the continuous activities of the National Bank for improving the communication with reporting entities, in December 2017, amendments were adopted in the bylaws on the reporting on capital investments in and from abroad, in order to reduce the reporting burden and rationalize the data collection process in the National Bank. The most significant novelty is the introduction of the sample method instead of the current census method, when reporting on capital investments in the country, as well as reducing the reporting burden for portfolio investments in and from abroad. The efficiency of the existing reporting system will increase in the next period also by introducing electronic reporting.

Within the fulfillment of the statistical function, the National Bank participated in the work of the inter-institutional working group for the compilation of the Statistical Research Program for 2018-2022, which is an official document that contains all official statistical surveys at national level, including 27 statistical surveys under the jurisdiction of the National Bank.

At the same time, during the year, significant results were achieved in strengthening the inter-institutional cooperation between the National Bank, the Ministry of Finance and the State Statistical Office in the area of the financial accounts statistics, the fiscal statistics on excessive debt and deficit, the consistent sectorization of economic agents, as well as in the joint technical assistance projects for further development of several statistical domains.

Preparation of the National Bank for joining and membership in the European System of Central Banks

The activities related to the implementation of the strategic objective for preparation of the National Bank for joining and membership in the European System of Central Banks are carried out by the Governor's Office and several organizational units in the National Bank.

Activities
<ul style="list-style-type: none">• Management of projects funded by the Instrument for Pre-Accession Assistance - IPA.• Activities related to the process of accession of the National Bank to the European System of Central Banks.• Coordination of projects related to the technical cooperation between the National Bank and other central banks and international institutions

In the context of the projects funded by the Instrument for Pre-Accession Assistance - IPA, the implementation of the second phase of the project for creating an internal analytical tool and statistical web portal to external users, is under way, and financial support was provided within the Multi-beneficiary Statistical Co-operation Programme for participation of representatives from the National Bank in the regular meetings of Eurostat. Also, the National Bank organized and coordinated its activities for the development of the National Programme for the Adoption of the Acquis and for the Economic Reform Programme. The National Bank also participated in the implementation of the Stabilization and Association Agreement through the respective subcommittees. Within the regular technical cooperation with other central banks and international institutions, the National Bank carried out multiple projects with the central banks of the Netherlands, Germany and Belgium, as well as with the central banks from the countries in the region, while within the TAIEX instrument¹² three projects were successfully completed.

Following the trends in central banking, strengthening the resilience to changes imposed by the environment, effective risk management in all segments

¹² Technical assistance and information exchange

of operations, improving the transparency and social responsibility of the institution

This strategic goal was implemented through a large number of activities in the domain of finance and accounting, corporate governance, information technology, human resources development, public relations and cooperation with domestic and foreign institutions, legal affairs and public procurements, as well as the development of the museum, library and archives.

Finance, Accounting and Control

Besides its regular activities in this domain, the National Bank continued to develop and promote financial recording and reporting in order to enable more efficient financial management, dynamic planning and monitoring of the balance sheet of the National Bank. As part of the preparations for the introduction of the new IFRS 9 and their impact on the central banks, several trainings for employees were conducted, the World Bank carried out an expert mission for analyzing and monitoring of the preparations for the introduction of IFRS 9, and the National Bank took part in round table talks organized by the central bank of Ukraine in cooperation with the central bank of Canada and the IMF. In this respect, during 2017, the National Bank carried out an analysis of the investments in the financial assets, the business management model, as well as verification of the characteristics of the contractual cash flows of the financial assets. In the last quarter of 2017, the National Bank adopted new harmonized accounting policies for accounting record and financial reporting of the National Bank, revised the accounting rules for recording foreign assets, foreign liabilities and transactions with gold of the National Bank and transactions carried out within the portfolio managed by the World Bank. They were revised because of the need for defining the manner for recording of the new instruments, as well as for the purpose of determining the manner of recording expected credit loss according to the requirements of the new IFRS 9.

With all the undertaken activities, on 1 January 2018, the National Bank enabled timely introduction of IFRS 9 into its accounting records.

During 2017, the National Bank improved the internally developed accounting softwares in the part of the calculation of the wages, wage contributions, income tax and other compensations, thereby enabling more efficient and more integrated operations, as well as harmonization with the latest amendments to the laws in this area.

Strategic planning, risk management, ensuring business continuity and information security, and data protection

In May 2017, the new Strategic Plan of the National Bank for the period 2018 – 2020 was adopted. The strategic objectives establish the critical points of the National Bank's operations in the next three-year period, on the basis of which the plans of the organizational units and the Plan of Activities of the National Bank for the next year were prepared.

Regarding the activities for developing the project management process in the National Bank, a special emphasis was placed on the criteria for the selection of projects that should be treated as program activities for the next year. At the same time, the National Bank permanently monitored the execution of projects, adherence to the timeframes, preparation of the necessary documentation and the reports that ensure timely and quality execution of the planned projects in the National Bank.

Taking into account the set framework for managing operational risks, during 2017, the National Bank revised the business process register and updated the degree of their criticality. Also, based on the systemic monitoring of the business processes and the potential sources of operational risk, the main risk events were identified. Starting from the assessment of the probability and the possible consequences of the probable materialization

of the risk events, the level of operational risk was assessed. The strategies and measures for dealing with operational risks are included in the program activities of the organizational units of the National Bank.

In January 2017, the Business Continuity Plan of the National Bank for the current year was adopted. Based on the Plan, the National Bank conducted 18 tests of the business continuity plans of the business processes, thereby confirming their completeness and feasibility.

In terms of the activities for ensuring compliance of the relevant internal regulations and the National Bank's operations with the data protection regulations, as well as the changes in the environment that pose a potential risk to jeopardizing the information system security, the National Bank conducted periodical controls, on the basis of which it gave recommendations for addressing the identified shortcomings. At the same time, within the regular activities, the National Bank analyzed past incidents in the operations, whereby the annual report on the incidents recorded during the previous year was reviewed by the Information System Supervisory Board.

Internal audit

In the area of internal audit, within the regular activities, the National Bank revised the audit universe, collected additional data on the possible audits from all the interested parties and prepared the three-year and annual plan of activities. Also, during the year, all planned 20 audits were carried out. The recommendations for improving the internal control system were monitored on a regular quarterly basis. The findings of the monitoring suggest that the recommendations are mainly observed and implemented within the given deadlines. At the same time, in order to assess the effectiveness and the level of compliance of the operations of the Internal Audit Department with the International Standards for the Professional Practice of Internal Auditing, experts from the central bank of the Netherlands carried out an external assessment of the operations. The results of the assessment of the operations are expected to be presented in the next period.

Legal affairs

During the year, several activities were carried out for providing legal support to the organizational units of the National Bank. In this respect, the National Bank prepared legal opinions in relation to proposals for amending legal texts in the field of the National Bank's operations, as well as opinions on general and individual legal acts, legal acts in the field of public procurements and other contracts, memorandums of cooperation, protocols and agreements. At the same time, the changes to the regulations, as well as the recommendations of the audits and controls, required continuous monitoring and control of the legal risk. Hence, starting from the Compliance Plan, the National Bank conducted several controls and gave recommendations and legal advice for addressing the identified risks in the operations.

Public procurements

In the area of public procurements, we continued with the activities for increasing transparency in the operations fully employing electronic procurement, continuous improvement of the process and simplification of procedures. Also, within the project for construction of the new facility, the National Bank undertook regular activities for monitoring of the realization of the performance of construction works for construction and carrying out professional surveillance of the new facility of the National Bank, as well as other activities related to the execution of this project. During 2017, the National Bank promoted the internal operations in the part of the implementation of contract award procedures in order to comply with the latest amendments to the laws in this area.

Information technology

During 2017, efforts were made to further improve information technology and the measures for strengthening the information system security. In this respect, efforts were made to improve the MIPS infrastructure, systems were upgraded according to the SWIFT recommendations, as well as other changes in the system that contribute to the information systems security. At the same time, an outsourcing company conducted penetration testing the aim of which was to examine the possible weaknesses of web applications, servers and other system components. The results of the testing showed no serious risks to the security of the National Bank's infrastructure, indicating the ability to withstand a first-line attack, i.e. an internal and external attack. Also, in the context of improving security, during the year, the new audit trail system was installed and put into operation, which contains much more information than the old, and it is also significantly faster.

Besides the regular activities for managing user names and their privileges, upgrading and maintaining applications, upgrading and maintaining the infrastructure and other equipment, management of IT incidents and the activities related to business continuity testing of the organizational units in the National Bank, a large number of software development projects were implemented. Taking into account the plan of software development projects, 25 projects were fully completed, the development of five projects is under way, while four projects were canceled, at the expense of which eight extraordinary projects were developed.

In the period May - December 2017, the National Bank implemented an extraordinary project the aim of which was to check and confirm the National Bank's compliance with the mandatory security controls specified in the document titled "Customer Security Controls Framework"¹³, published by SWIFT on 31 March 2017. The project team for confirming the National Bank's compliance with the mandatory security controls prescribed by SWIFT, checked the National Bank's compliance with 225 security requests, grouped into 16 mandatory controls, and in December 2017 it published the document of the National Bank's compliance with the mandatory controls envisaged by the "Customer Security Controls Framework" in the KYC Registry¹⁴ of SWIFT.

Human resources management

During the year, we continued with the activities for professional trainings and development of employees through a constant process of training courses, increasing their expert knowledge and strengthening their skills, providing highly educated staff that fights off any challenge encountered in the current operations and contributes to achieving the goals of the operations. At the same time, in order to ensure greater engagement, productivity and utilization of the knowledge and creative potential in the institution, we continued with the activities for improving the evaluation process, by ensuring impartial application of the established framework for evaluating and informing employees about their performance. As every year, these processes require intensive development of the professional and soft skills of the employees and managers in the institution.

Technical maintenance, security and archive

Activities were undertaken for further improvement of the office and archive operation, upgrading security measures and assets, strengthening and continuous training of employees and improving internal regulations in this domain.

¹³ Customer Security Controls Framework

¹⁴ The "Know Your Customer" application is used to exchange information between SWIFT members.

Museum, library and archive

Within the activities of the Museum, the National Bank continued with its regular activities related to the collection and the research work in the field of numismatics. Besides the current working tasks, the National Bank carried out several activities related to education of children and youth by organizing visits to the existing museum exhibition, and several educational materials were produced and published.

In the area of library and archive activity, the National Bank undertook several activities for purchase and maintenance of the library fund of the National Bank, and at the same time it digitalized the archival material of historical significance arising from the National Bank operations.

Public relations

During the year, the National Bank intensively communicated with the public by publishing numerous contents on its website, timely organizing meetings and press conferences, preparing press releases, as well as answering questions in the field of the National Bank's operations addressed by legal entities and individuals through the official contact forms. Also, the National Bank carried out many events and activities for developing the educational function and raising the level of financial literacy with the public.

Conclusion

Generally, it can be concluded that the Plan of Activities has been successfully completed thanks to the good organization, the efficient utilization of the planned resources and the timely provision of all relevant information. During the year, the organizational units successfully carried out all program activities and followed the planned dynamics of implementation of the Plan of Activities.