



ANNUAL REPORT



2019



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**2019 BUSINESS REPORT AND
FINANCIAL STATEMENTS
OF THE MAGYAR NEMZETI BANK**

2019

Published by the Magyar Nemzeti Bank

Publisher in charge: Eszter Hergár

H-1054 Budapest, Szabadság tér 9.

www.mnb.hu

ISSN 1216-6197 (print)

ISSN 1585-4604 (on-line)

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Part A)
2019 Business Report
of the Magyar Nemzeti Bank

1 The Governor's foreword

The Magyar Nemzeti Bank continued its effective work and successful financial management in 2019, completely fulfilling all three of the central bank mandates stipulated in the MNB Act. The Hungarian economy continued to expand dynamically, with average annual inflation coming in at 3.4 per cent.

In 2019, the Monetary Council maintained loose monetary conditions by fine-tuning its conventional instruments and overhauling and actively using unconventional instruments, to achieve the medium-term inflation target in a sustainable manner and stimulate the real economy accordingly. In the Monetary Council's assessment, the current loose monetary conditions are in line with the central bank's primary objective. The Monetary Council continuously indicated that monetary policy would remain accommodative, and it employs a conservative approach in its decision-making, relying heavily on the quarterly Inflation Report. The necessity of further steps will be determined by future developments in the inflation outlook.

In 2019, the Monetary Council left the base rate as well as the overnight and one-week collateralised lending rates unchanged at 0.9 per cent. In order to meet the inflation target in the medium term and stimulate the real economy to the extent necessary for that, the MNB adjusted the overnight deposit rate once and the crowded-out liquidity target three times.

Actual crowding-out was consistent with the target in all quarters of 2019. The swap holdings providing forint liquidity, which played a key role in achieving the targeted crowding-out effect, fell from the initial level of HUF 1,987 billion in January to HUF 1,704 billion by July and then rose to HUF 2,273 billion by the end of the year.

In 2019, the stability of the Hungarian financial system continued to improve, while the remaining vulnerabilities declined. The domestic banking sector is stable, and its shock-absorbing capacity can be deemed strong, both in terms of liquidity and loss absorbency. The favourable macroeconomic environment and banks' profitability – which was exceptional even by international standards – help keep the banking system's balance sheet total on a growth trajectory. Banks' capitalisation is stable, despite the dynamic balance sheet growth: in other words,

Hungarian banks reinvest enough profits in their operations to increase their balance sheet in a sustainable manner. The results from the latest MNB stress test show that Hungarian banks would meet the regulatory requirements even in the event of a significant adverse macroeconomic shock. The fundamentals of the Hungarian economy and banking system have strengthened considerably since the beginning of the 2008 global financial crisis, and thus the Hungarian financial system is prepared for the risks arising from a deterioration in the external environment.

Corporate lending continued to grow at double-digit rates in 2019, as the outstanding borrowings of the corporate sector as a whole increased by 14 per cent, with growth of 15 per cent registered in the SME segment. The MNB launched a new phase of the Funding for Growth Scheme called FGS *fix* in early 2019, with the primary objective of improving the structure of SME lending. The new phase was introduced with an allocated amount of HUF 1,000 billion. Compared to the requirements of the previous phases of the FGS, it is identical in terms of its key parameters and mode of implementation, but it is more targeted. By the end of December 2019, loan and leasing contracts with a volume of HUF 400 billion were concluded. The outstanding loans of households expanded by 17 per cent in 2019. In this segment, lending developments were strongly influenced by the prenatal baby support loans launched by the government in the middle of the year as part of its Family Protection Action Plan.

In 2019, the MNB's macroprudential activity continued to focus on developments in systemic risks and monitoring market participants' adjustment to previously introduced measures and the supporting methodological developments, as well as fine-tuning its set of macroprudential instruments. In connection with the review of the debt service-to-income ratio (DSTI) requirement, an amendment took effect in July 2019 allowing larger repayment instalments starting from a monthly income of HUF 500,000, with due consideration to the dynamic rise in wages. The Systemic Risk Buffer (SyRB) was extended to take into account the risk posed by non-problem project loans denominated in FX. The revision of the Mortgage Funding Adequacy Ratio (MFAR) contributed to reducing the forint maturity mismatch and supported the deepening of the Hungarian mortgage bond market.

The performance of the supervisory duties in 2019 was characterised by a proactive approach and rapid response. The MNB fulfilled its responsibilities as the supervisory authority in the financial intermediary system, applying its constantly evolving methodology in practice to monitor the development of the sector and technology and actively utilise the results. Following the appointment of the new deputy governor, Dr Csaba Kandrás, an important task for 2019 was to revisit the supervisory strategy and determine the duties and objectives for the next six years.

Numerous measures contributed to maintaining the stable, sustainable and reliable operation of the financial sector, such as – with regard to credit institutions – operations following transition to the International Financial Reporting Standards (IFRS), and the priority treatment of reporting and institutions' large exposures, or – with regard to the insurance industry – the supervision of operations according to the ethical life insurance regulation and Solvency II, and – on the capital market – the controlling of reliable institutional operation and compliance with the requirements implemented on the basis of the regulated market regulatory frameworks.

In addition to the Certified Consumer-Friendly Housing Loans, the MNB also elaborated the framework for Certified Consumer-Friendly Home Insurance in 2019, allowing insurers to apply for such certification from 10 January 2020.

Consumer protection was also a key area in the new supervisory strategy for 2020–2025. Another important element is digitalisation: consequently, the MNB took a leading role in facilitating the introduction of financial innovations and fintech solutions in a regulated environment. The third main pillar of the strategy is sustainability, and in that spirit the MNB launched its Green Programme, established the MNB Green Finance Award, published the 'Green Finance in Hungary' consultation document and held its first International Green Finance Conference on 15 November 2019 in cooperation with the EBRD.

In 2019, the MNB reviewed the resolution plans and at the same time conducted the resolvability assessment procedures in a scheduled manner. Acting as the group-level resolution authority and working with its foreign counterparts, it determined the consolidated MREL requirement for a banking group domiciled in Hungary and actively participated in setting the individual MREL requirements for the Hungarian subsidiaries of banking groups headquartered in the European Union. With respect to the Hungarian Resolution Asset Management Company

(Magyar Szanálási Vagyongkezelő Zrt. or MSZVK) and its subsidiaries, the MNB – exercising its ownership rights – decided on a dividend payment to the Resolution Fund, raising the Fund's capitalisation.

In preparation for the introduction of the instant payment system, in early 2019, as originally planned, business testing by the voluntary system participants started, and the developments of the central infrastructure entered the final phase for both GIRO and the MNB. The MNB continuously monitored participants' preparation and held personal consultations on the progress made by the banks that were on a critical path. Based on the in-depth analysis of system participants' preparedness, the Financial Stability Council decided to extend the testing period with a view to the smooth introduction of the instant payment service to customers and secure operation of the system. Therefore, the service was made available to customers on 2 March 2020, although the central system had gone fully live on 1 July 2019, as originally planned.

MNB Decree No. 35/2017 (XII. 14.) on the execution of payment transactions (MNB Decree) was amended in connection with the instant payment service, as warranted and necessitated by several proposals and queries raised during the implementation of the country-wide project and based on the opinions requested from the market participants concerned.

PSD2 entered into the final stretch on 14 September 2019, from which date the detailed rules on strong customer authentication and secure communication need to be applied. Account-servicing payment service providers had to open up their access interfaces enabling secure communication to so-called third-party service providers. This channel allows the latter to communicate securely with the payment service provider managing their customer's account. Due to the complex regulations of the PSD2 and in line with the EU-wide decision, the MNB acted in conformity with the final deadline adopted at the European level regarding online payment transactions initiated with payment cards, and extended the transition period for introducing strong customer authentication in such payment transactions until 31 December 2020.

In order to facilitate compliance with European Union payments legislation, the European Banking Authority issued detailed guidelines on the conditions to benefit from exemptions from the contingency mechanism, and the MNB published these guidelines in the form of a recommendation to enhance the predictability of the application of the law and facilitate uniform implementation of the relevant legislation.

In 2019, the MNB issued 35 legal interpretations and professional opinions on payments and concluded 9 payment service control procedures. Of the completed procedures, a fine was imposed in 6 cases, in addition to the prescribed corrective measures.

In connection with payments and payment systems, the MNB published its study entitled '*A hazai lakossági pénzforgalmi szolgáltatások árazása nemzetközi összehasonlításban*' (Pricing of Hungarian retail payment services in international comparison) as well as the Payment Systems Report for the eighth time.

The MNB's international reserves increased by around EUR 1 billion in 2019, with holdings at the end of December 2019 amounting to EUR 28.4 billion. During the year, the rise in the level of FX reserves mainly stemmed from EU transfer inflows from the European Commission. Further contributors to the rise were, *inter alia*, the MNB's FX swap transactions, i.e. transactions related to the FX pillar of the third phase of the Funding for Growth Scheme, and the amount of foreign currency received during the forint liquidity providing swap tenders. At the same time, the government's debt repayment outlays resulted in lower international reserves, thus partially offsetting the above items.

On 31 December 2019, the total value of currency in circulation amounted to HUF 6,530.4 billion, representing an increase of 9 per cent, or HUF 532.6 billion, compared to the end of the previous year.¹ The strong growth in forint cash holdings seen since 2012 decelerated in 2019.

In 2019, the MNB managed cash turnover for its clients in the total amount of HUF 2,670 billion; within that it distributed 232 million banknotes to its clients, while 187 million banknotes were delivered to the central bank.

Between 2014 and 2019, the MNB renewed the forint banknote series, issuing redesigned, modern banknotes with state-of-the-art protection against counterfeiting. The banknote replacement process ended with the issuance of the 500-forint note in 2019. The old 500- and 10,000-forint banknotes were withdrawn on 31 October 2019 and 31 December 2019, respectively. Since 1 January 2020, only the redesigned notes can be used in cash payments.

On 1 October 2019, the MNB issued 100-forint coins with new base material. The new coins will actually enter

circulation in 2020 Q2, to allow the operators of coin-operated vending machines to prepare their devices to accept the 100-forint coins with the new base material. Despite a slight uptick, the counterfeiting of forint banknotes has remained low, with a total of merely 751 counterfeit forint notes removed from circulation in 2019. The number of counterfeit banknotes per one million genuine banknotes in circulation per year was only 1.4, an extremely favourable value by international standards.

Pursuant to the MNB Act and in the spirit of the sales policy valid since 2014, in order to foster coin collection, the central bank issued 17 commemorative coins on 10 topics in 2019. One of these was gold commemorative coins, 6 were silver commemorative coins and 10 were non-ferrous metal commemorative coins. In 2019, the MNB also put into circulation a new commemorative version of the 50-forint circulation coin.

Following effective, intensive discussions with the credit institution sector, a uniform, high-quality central bank credit register reporting standard was formulated, in conformity with the data collection models that represent a strategic direction internationally and contain microdata with a wide range of uses. Credit institution sector data are first received by the MNB in February 2020, in accordance with the stipulations of the data reporting decree.

Publications were produced on the financial accounts of households and non-financial corporations, using microdata and presenting new, unprecedented detailed breakdowns.

After years of planning and development, in June 2019 the MNB introduced its new, integrated data reception application, replacing the supervisory and central bank data reception systems that had been used in parallel. As a result, the reporting entities providing reports for various purposes can now submit their data to the central bank using a single system.

The MNB realised a profit of HUF 254.7 billion in 2019, well in excess of the previous year's figure. This was mainly attributable to the rise in profits on account of the change in FX rates, while net interest income improved further, and the realised net income of financial operations also showed a gain.

Actual operating costs amounted to HUF 41,804 million in 2019, exceeding the expenses incurred in the previous year by 2.6 per cent. Firstly, the increase in cost compared

¹ This figure does not include the value of the withdrawn but still convertible banknotes that are recorded in the central bank's balance sheet among liabilities.

to 2018 stemmed from personnel costs, attributable partly to raising the wage bill in some areas, in accordance with the decision of the MNB's Executive Board, to maintain the level of highly trained staff in the long run, and partly to the statistical average headcount expanding by 1.3 per cent in connection with the filling of vacancies. Secondly, general operating costs also rose somewhat, mainly as a result of an increase in depreciation and IT costs, while operating costs declined.

In relation to normal operations, the approved capital expenditure budget for 2019 amounted to HUF 7,153 million. In 2019, expenditure on investments amounted to HUF 5,024 million, including advance payments for investment purposes. A large portion of the capital expenditures in 2019 was related to various IT projects and the purchase of IT equipment. In addition, the upgrade and modernisation of the security and IT system of the building at Szabadság tér was completed as part of the development of the security environment.

In 2019, the MNB's environmental sustainability activities were dominated by the implementation of the Green Programme launched by the Executive Board of the central bank. As a first step in involving market participants, the MNB awarded the Green Finance Award to the 'greenest' institutions. On 3 July 2019, the MNB published the consultation document 'Green Finance in Hungary', ushering in the long-term, step-by-step process of developing the Hungarian green finance segment. The MNB joined the Network for Greening the Financial System (NGFS), an international organisation for central banks. The NGFS was established two years ago to promote financing and investments for environmental sustainability and explore the effects of climate change on financial risk. In July, the

MNB joined the European Energy Efficient Mortgages Initiative, participating in its Advisory Council. In another important international development, the MNB held its first International Green Finance Conference in November 2019 in cooperation with the European Bank for Reconstruction and Development (EBRD), to analyse the interactions between environmental and financial risks. To facilitate the further greening of its operations, the MNB implemented its environmental protection strategy adopted for 2017–2019 as well as a Green Office Campaign to promote employee education. At the end of the campaign, the MNB acquired the Green Office certification, which needs to be renewed every other year.

The MNB also considerably expanded its publications in 2019. In addition to a report summarising the MNB's activities in 2013–2019, the *Competitiveness Programme in 330 Points*, the *Competitiveness Mirror*, which aims to monitor the implementation of the recommendations in a structured manner, and the *Commercial Real Estate Market Report*, which is published on a semi-annual basis, were also launched. 2019 saw the publication of *Long-Term Sustainable Econo-Mix* edited by Barnabás Virág, the fifth volume of the economic and monetary policy book series that first appeared in 2015.

In 2019, as in previous years, the MNB considered it important to continuously and transparently present the central bank's activities, achievements, reports and recommendations. In order to supply comprehensive information and continuous updates on its technical work, the MNB issued a total of 300 press releases, held more than 30 press conferences and published 102 professional articles in the printed press, on online portals and on its own website.

2 A brief overview of the Magyar Nemzeti Bank

Company name: Magyar Nemzeti Bank

Registered Office: H-1054 Budapest, Szabadság tér 8-9.

Form of operation: company limited by shares. The form of operation, i.e. the 'company limited by shares' designation or its abbreviation need not be included in the company name of the Magyar Nemzeti Bank.

Year of foundation: 1924

Owner (shareholder): the Hungarian State, represented by the minister in charge of public finances (hereinafter: the Minister of Finance)

Scope of activities: as defined by Act CXXXIX of 2013 on the Magyar Nemzeti Bank (hereinafter: MNB Act)

Subscribed capital: HUF 10 billion

2.1 OBJECTIVES, BASIC AND OTHER TASKS OF THE MNB

The Magyar Nemzeti Bank (hereinafter: MNB, the central bank) is a legal entity operating as a special company limited by shares, which conducts its operations in accordance with the provisions of the MNB Act.

In accordance with Article 127 of the Treaty on the Functioning of the European Union, the MNB Act – which contains provisions governing the MNB's primary objectives, basic and other tasks as well as its institutional, operational, personal and financial independence and operation – stipulates that the primary objective of the MNB is to achieve and maintain price stability. Without prejudice to its primary objective, the MNB supports the maintenance of the stability of the system of financial intermediation, the enhancement of its resilience and its sustainable contribution to economic growth, as well as the economic policy of the government using the instruments at its disposal.

The MNB Act also stipulates the independence of the central bank in accordance with Article 130 of the Treaty on the Functioning of the European Union. On the basis of central bank independence, the MNB and the members of its bodies shall be independent in carrying out their tasks and meeting the obligations conferred upon them by the

MNB Act, and shall neither seek nor take instructions from the Government, the institutions, bodies and offices of the European Union, the governments of its Member States or any other organisations or political parties, except from the European Central Bank (ECB) and as required based on its membership in the European System of Financial Supervision. The Government or any other organisation shall adhere to this principle and shall not attempt to influence the MNB or any member of its bodies in the course of performance of their tasks.

The basic tasks of the MNB are as follows:

- it defines and implements monetary policy;
- it has the exclusive right to issue banknotes and coins, including commemorative banknotes and coins, which shall be the legal tender of Hungary;
- it has the exclusive right to hold and manage official foreign exchange and gold reserves, in order to preserve the external stability of the Hungarian economy;
- it has the exclusive right to conduct foreign exchange operations in relation to the management of foreign exchange reserves and the implementation of exchange rate policy;
- it has the exclusive right to oversee payment and securities settlement systems, including overseeing the operation of the system and the operation of the organisation performing central counterparty activities, in order to ensure the sound and efficient operation of these systems and the smooth circulation of money. Within the scope of its powers set forth in the MNB Act, it participates in the development of payment and securities settlement systems;
- it collects and publishes the statistical information required for carrying out its tasks and fulfilling its statistical reporting obligations toward the European Central Bank as defined in Article 5 of Protocol (No. 4) on the Statute of the European System of Central Banks and of the European Central Bank attached to the Treaty on the Functioning of the European Union;
- it establishes the macroprudential policy for the stability of the entire system of financial intermediation, with

the objective to enhance the resilience of the system of financial intermediation and to ensure its sustainable contribution to economic growth. To that end and within the limits specified in the MNB Act, the MNB explores the business and economic risks threatening the system of financial intermediation as a whole, promotes the prevention of the development of systemic risks and the reduction or elimination of evolving systemic risks; furthermore, in the event of disturbances to the credit market, it contributes to the balanced functioning of the system of intermediation in financing the economy by stimulating lending and – in the event of excessive credit outflow – by restraining lending.

Above and beyond its basic tasks, the tasks of the MNB are the following:

- it acts as a resolution authority;
- it acts as the sole supervisor of the financial intermediary system, in order to
 - a) ensure the smooth, transparent and efficient functioning of the system of financial intermediation;
 - b) facilitate the prudent operation of the persons and organisations comprising the system of financial intermediation and supervise the prudent exercise of owners' rights;
 - c) discover undesirable business and economic risks to individual financial organisations or individual sectors thereof, reduce or eliminate specific or sectoral risks which have evolved, and take preventive measures to ensure the prudent operation of individual financial organisations;
 - d) protect the interests of users of the services provided by financial organisations, and strengthen public confidence in the system of financial intermediation;
- via the Financial Arbitration Board, it administers the out-of-court resolution of disputes related to the establishment and fulfilment of contracts for services, established between the consumer and the organisations of the financial intermediary system.

Any further tasks of the MNB shall be defined by acts and, in relation to the supervision of the system of financial intermediation, by legal regulations adopted pursuant to the authorisation of an act. Such tasks of the MNB shall comply with the basic tasks and responsibilities of the MNB as defined in the MNB Act.

Pursuant to Act CXCV of 2011 on the Economic Stability of Hungary, the Governor of the MNB is a member of the Fiscal Council (hereinafter: FC), and thus the information and professional expertise available in the MNB supports

the work of the FC. The MNB prepares background analyses for the duties of the FC stipulated in the Stability Act and makes such available to the FC.

2.2 BODIES AND MANAGEMENT OF THE MNB

The MNB operates as a legal person functioning in the form of a single-member company limited by shares. The general rules pertaining to companies limited by shares and the relevant provisions of Act V of 2013 on the Civil Code are applicable to the MNB, with the exceptions laid down by the MNB Act.

The Hungarian State as the shareholder is represented by the Minister of Finance. The MNB operates without a General Meeting.

The **shareholder** is entitled to adopt decisions, by way of a shareholder's resolution, on the establishment and in the amendment of the Statutes as well as on the appointment, dismissal and remuneration of the auditor.

As a guarantee of independence, in contrast to the practice of other companies limited by shares, the remuneration of the MNB's Governor, Deputy Governors and other members of the Monetary Council as well as the members of the Supervisory Board are determined by the MNB Act rather than by the shareholder.

Likewise, the bodies of the MNB are specified by the MNB Act as follows: the Monetary Council, the Financial Stability Council, the Executive Board, and the Supervisory Board.

The MNB's supreme decision-making body is the **Monetary Council**.

The scope of competence of the Monetary Council includes:

- strategic decisions concerning monetary policy, the issue of legal tender, the holding and management of foreign exchange and gold reserves, strategic decisions relating to foreign exchange transactions in the context of foreign exchange reserve management and the implementation of exchange rate policy, as well as strategic decisions concerning statistical tasks, including in particular decisions on the level of the reserve ratio and the interest rate payable on the minimum central bank reserves, and decisions related to the exchange rate regime and determining the central bank base rate;
- in relation to macroprudential tasks, the oversight and the supervision of the financial intermediary system and the MNB's role as a resolution authority, decisions on the strategic framework within which the Financial Stability Council makes its decisions;
- establishing the rules of procedure;

- decisions on any other matter in the exclusive competence of the Monetary Council as defined by law.

Members of the Monetary Council are: the Governor of the MNB as Chairman of the Monetary Council, the Deputy Governors of the MNB and the members elected by the Parliament for six years. The Monetary Council has at least five and at most nine members.

At the first meeting of each year, the Monetary Council elects a Deputy Chairman from among the Deputy Governors of the MNB, who substitutes for the Chairman in the event of his absence – with the exception of the issuance of decrees. In 2019, the Monetary Council elected Márton Nagy, Deputy Governor, as deputy chairman.

In 2019, the members of the Monetary Council were:

- Dr György Matolcsy, Governor of the Magyar Nemzeti Bank and Chairman of the Monetary Council since 4 March 2013, reappointed on 4 March 2019
- Dr Mihály Patai, Deputy Governor from 22 April 2019,
- Dr Csaba Kandrács, Deputy Governor from 2 October 2019,
- Márton Nagy, Deputy Governor from 1 September 2015,
- Dr Gusztáv Báger, from 6 July 2015,
- Dr Kolos Kardkovács, from 12 September 2016,
- Dr György Kocziszky, re-elected from 6 April 2017,
- Dr Bianka Parragh, from 23 March 2017,
- Gyula Pleschinger, re-elected from 5 March 2019,
- Dr Ferenc Gerhardt, Deputy Governor from 22 April 2013 to 21 April 2019,
- Dr László Windisch, Deputy Governor from 2 October 2013 to 1 October 2019.

Concerning the matters falling within the MNB's competence, the **Financial Stability Council** acts on behalf of the MNB within the strategic framework defined by the Monetary Council during the decision-making in relation to oversight, macroprudential tasks and resolution authority duties, as well as the supervision of the system of financial intermediation.

Within this scope of competence, the Financial Stability Council

- continuously monitors the stability of the system of financial intermediation as a whole and of the financial markets, in order to maintain the stability of the system of financial intermediation as a whole;

- takes account of risk factors threatening the system of financial intermediation as a whole;

- analyses the risks related to certain types of institutions or products or to the spread of these which may represent a threat to the system of financial intermediation as a whole;

- monitors developments on international and European markets and risks which may represent a threat to the stability of the system of financial intermediation as a whole, and makes decisions on the necessary measures within the strategic framework defined by the Monetary Council;

- discusses strategic, regulatory and risk-related issues affecting the system of financial intermediation as a whole and issues opinions if necessary;

- in situations threatening the stability of the system of financial intermediation, assesses systemic risks and decides on the measures required to mitigate or eliminate such risks;

- places on its agenda, as necessary, the recommendations, opinions and risk warnings of the European Systemic Risk Board relevant to the system of financial intermediation as a whole;

- discusses the recommendations and decisions issued by the European Supervisory Authorities as needed, including decisions addressed to national supervisory authorities calling for specific measures in the event of serious risks to the stability of the European financial system and expresses its opinion on the tasks arising from such decisions;

- publishes non-binding recommendations for persons and organisations supervised by the MNB describing the basic principles of the legal enforcement practices of the MNB;

- annually defines the priority target areas of the MNB's control activities;

- makes decisions within the framework of performing the MNB's resolution tasks concerning the decisions ordering resolution and applying resolution measures, as well as in administrative proceedings related to performing the resolution tasks under the MNB decree on the detailed rules of exercising of powers relating to certain decisions taken by the Magyar Nemzeti Bank as an authority as well as of the substitution of the body that exercises such powers;

- makes decisions in administrative proceedings relating to exercising the supervision of individuals and organisations as well as activities falling under the scope of the acts defined in Articles 39–41 of the MNB Act and the

directly applicable legal acts of the European Union, in administrative proceedings related to exercising supervision under the MNB decree on the detailed rules of exercising of powers relating to certain decisions taken by the Magyar Nemzeti Bank as an authority as well as of the substitution of the body that exercises such powers; and

- makes decisions in administrative proceedings related to performing the macroprudential tasks under the MNB decree on the detailed rules of exercising of powers relating to certain decisions taken by the Magyar Nemzeti Bank as an authority as well as of the substitution of the body that exercises such powers.

Members of the Financial Stability Council:

- the Governor of the MNB as its Chairman,
- the Deputy Governor responsible for monetary policy, financial stability and lending incentives, the Deputy Governor responsible for the supervision of financial institutions and consumer protection as well as the Deputy Governor responsible for international relations, cash logistics, financial infrastructures and digitalisation,
- as executives appointed by the Governor of the MNB, the Executive Director responsible for monetary policy and economic analysis, the Executive Director responsible for prudential and consumer protection supervision of money market institutions, the Executive Director responsible for licensing and legal enforcement, the Executive Director responsible for financial system analysis and lending incentives, the Executive Director responsible for digitalisation and the development of the fintech sector, and
- the Director General.

In accordance with the MNB Act, responsibility for implementing the decisions of the Monetary Council and the Financial Stability Council, as well as for managing the operation of the MNB rests with the **Executive Board**.

The scope of competence of the Executive Board includes:

- managing the implementation of the decisions of the Monetary Council and the Financial Stability Council;
- approving the accounting report of the MNB and adopting decisions on the payment of dividends;
- approving the draft report to be sent to the shareholder on the management and assets of the MNB;
- approving matters related to the organisation and internal management of the MNB;
- approving the study plans and programmes relating to the operation of the MNB and the performance of its tasks,

including the costs of the development and operational plan;

- managing the MNB's internal audit organisation in respect of tasks falling outside the scope of competence of the Supervisory Board, and discussing the observations and plans of the internal audit;
- amending the collective agreement in respect of employment rights and obligations, the exercise and performance of these rights and obligations, and the associated procedures; and
- adopting decisions in respect of the central bank's powers to manage accounts and other financial and auxiliary financial services, as well as certain auxiliary services supplementing investment service activities.

The members of the Executive Board, which is the executive body of the MNB, are the Governor, as the Chairman of the Board, and the Deputy Governors of the MNB.

Provisions relating to the functions and operational procedures of the Monetary Council, the Financial Stability Council and the Executive Board are set forth in the MNB Act, the MNB's Statutes, Organisational and Operational Rules as well as the rules of procedure formulated by these bodies.

The **auditor** of the MNB can be appointed for a maximum of 5 years. The shareholder decides on the appointment, dismissal and remuneration of the auditor by way of a shareholder resolution. Prior to the appointment or proposal for the dismissal of the MNB's auditor, the Governor of the MNB consults the President of the State Audit Office.

In addition to the auditor appointed by the shareholder, the MNB is also audited by the State Audit Office and the Supervisory Board.

The supervisory competence of the **State Audit Office** over the MNB is set forth in the Act LXVI of 2011 on the State Audit Office. The State Audit Office supervises the financial management of the Magyar Nemzeti Bank and its activities that are not included in its basic tasks. In this regard, the State Audit Office examines if the MNB operates in accordance with the applicable law, its Statutes and the shareholder's resolutions.

As set forth in the MNB Act, the **Supervisory Board** is the body responsible for the continuous supervision of the MNB on behalf of the owner. The supervisory competence of the Supervisory Board defined by the MNB Act does not cover the supervision of the MNB's performance of its basic tasks, its actions as a resolution authority and its supervisory activity in respect of the financial intermediary system, or the impact of such on the MNB's profit and loss. Accordingly, the Supervisory Board compiles the report on

the annual accounts as specified in the Act C of 2000 on Accounting within the above limitations.

The members of the Supervisory Board as defined in the MNB Act are its Chairman elected by the Parliament, three additional members elected by the Parliament, the representative of the Minister of Finance and an expert appointed by the Minister of Finance. The Chairman of the Supervisory Board elected by the Parliament is nominated by the parliamentary panels of the governing parties, whereas the other members elected by the Parliament are nominated by parliamentary groups. The mandate of the members of the Supervisory Board lasts until 31 December of the year in which the mandate of the Parliament terminates.

On 17 September 2018, the Parliament elected the members of the Supervisory Board nominated by the parliamentary groups; then the Minister of Finance designated his representative delegated to the Board and the expert appointed by him.

Members of the Supervisory Board in 2019:

- Dr Ferenc Papcsák, Chairman,
- László Madarász,
- István Molnár,
- Dr László Nyikos,
- Dr Gábor András Szényei, and
- Dr Attila Simon Tóth.

2.3 ORGANISATION OF THE MNB

The organisation of the MNB is based on the operating and operational governance model introduced on 1 July 2013 and, in respect of the integrated organisation, on 1 October 2013. Although the organisational structure has changed several times since then, these changes did not fundamentally alter the organisational structure developed in 2013.

Fulfilment of the statutory and operational tasks of the MNB is controlled and supervised by, in addition to the members of the Executive Board, the Director General, and, in their capacity as the top level executors of the decisions, the executive directors.

In 2019, modifications to the MNB's organisational structure were introduced in relation to areas controlled by the Governor, the Deputy Governor responsible for monetary policy, financial stability and lending incentives, the Deputy Governor responsible for financial institutions supervision and consumer protection, and the Deputy Governor responsible for international relations, cash logistics, financial infrastructures and digitalisation, as well as the Director General. The primary objective of these changes was to enhance efficiency.

The organisational structure as at 31 December 2019, which emerged as a result of the organisational changes, is illustrated on the **organisation chart**.

2.4 THE MNB AS A MEMBER OF THE EUROPEAN SYSTEM OF CENTRAL BANKS

Hungary's accession to the European Union also entailed the MNB's membership in the European System of Central Banks (ESCB). The ESCB comprises the European Central Bank (ECB), which was established in June 1998 with its registered office in Frankfurt, and the national central banks of the EU Member States. Its governing bodies are the Executive Board and the Governing Council, the latter consisting of the members of the ECB's Executive Board and the governors of the central banks of the euro area Member States. The third decision-making body of the ECB is the General Council, which is responsible for maintaining an institutional relationship between the Eurosystem and the central banks of non-euro area Member States. The General Council holds its meetings quarterly and consists of the President and the Vice-President of the ECB and the governors of the central banks of all EU Member States. The key responsibilities of the General Council include consultancy concerning preparations for accession to the euro area, approval of the convergence reports of the ECB and monitoring the functioning of ERM II. Within the framework of the latter activity, it assesses the sustainability of the bilateral exchange rate of non-euro currencies participating in ERM II against the euro and provides a forum for the alignment of monetary and exchange rate policies and the management of intervention and financing mechanisms in ERM II. In addition, the General Council is involved in verifying whether the central banks of EU Member States and the ECB comply with the prohibition of monetary financing of the budget and privileged access of the public sector to financial institutions. The General Council also participates in the ECB's advisory functions and in the collection of statistical information; it must be consulted in respect of any changes in the rules of accounting and financial data reporting, as well as issues related to the adjustment of the keys for subscriptions to the ECB's capital. The mandate of the General Council will expire on the date when all of the member states of the European Union have adopted the euro.

The number of ESCB members did not change in 2019.

The ESCB members are also the owners of the ECB. The respective ownership shares of Member States are determined according to their shares in the GDP and total population of the EU (on the basis of statistical data compiled by the European Commission). Since 1 July 2013, the paid-up capital of the ECB amounts to EUR 10.825 billion.

Members of the Executive Board and the Monetary Council of the Magyar Nemzeti Bank



Dr György Matolcsy
Governor,
Chairman of the Monetary Council



Dr Csaba Kandrás
Deputy Governor,
Member of the
Monetary Council



Márton Nagy
Deputy Governor,
Deputy Chairman of the
Monetary Council



Dr Mihály Patai
Deputy Governor,
Member of the
Monetary Council

Members of the Monetary Council of the Magyar Nemzeti Bank



Dr Gusztáv Báger
Member of the Monetary Council



Dr Kolos Kardkovács
Member of the Monetary Council



Dr György Kocziszky
Member of the Monetary Council



Dr Bianka Parragh
Member of the Monetary Council



Gyula Pleschinger
Member of the Monetary Council

Members of the Supervisory Board of the Magyar Nemzeti Bank



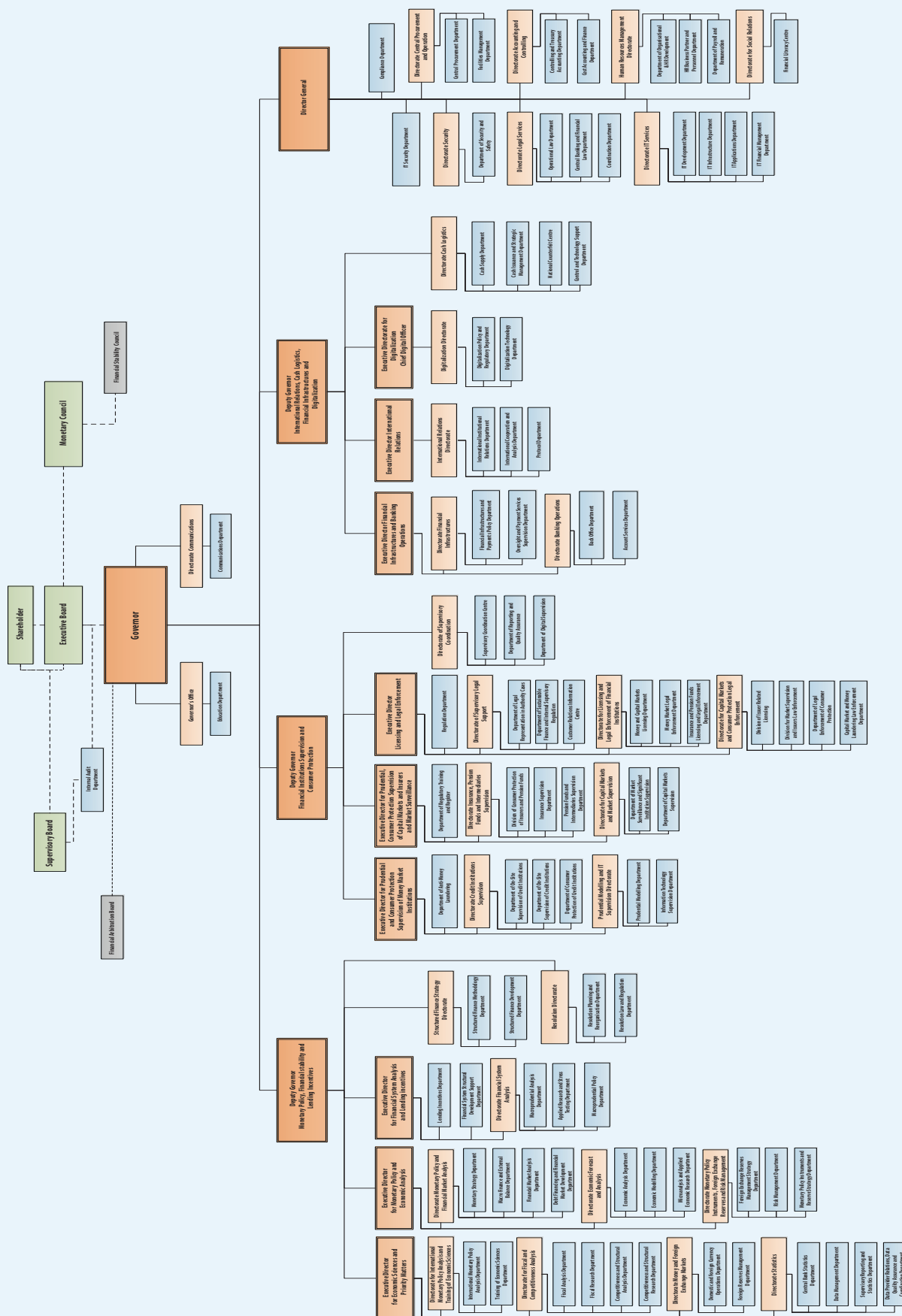
Left to right: Dr Attila Simon Tóth, Dr László Nyikos, László Madarász, Dr Ferenc Papcsák (Chairman), Dr Gábor András Szényei, István Molnár

Currently, euro area central banks subscribe to 70 per cent of the ECB's capital, while the remaining 30 per cent is divided among the central banks of non-euro area Member States. These latter central banks pay a pre-defined minimum quota of their respective subscriptions to the ECB's capital as a contribution to the operational costs of the ECB which are incurred in connection with their ESCB membership. With effect from 29 December 2010, this contribution was defined as 3.75 per cent of the respective subscriptions (previously it had been 7 per cent). As set forth in the Statute of the ESCB and of the ECB, the capital keys are adjusted every five years, or whenever the number of national central banks contributing to the ECB's capital changes. In 2019, the capital keys were adjusted. Consequently, on 1 January 2019, the share of the MNB in the ECB's paid-up capital decreased from 1.3798 per cent to 1.3348 per cent. As a result of Brexit, the Bank of England left the ESCB, which called for another adjustment in the ECB's capital keys, and the MNB's capital key increased to 1.5488 per cent as of 1 February 2020.

The ESCB Committees play an important role in the work of the ECB's decision-making bodies. The basic role of these committees is to prepare decisions and facilitate coordination as per the horizontal division of various central bank duties, covering all areas of central banking operations from monetary policy through communication to statistical data reporting. Experts from the central banks of non-euro area Member States attend those committee meetings where the agenda includes items affecting the ESCB as a whole and which fall within the competence of the General Council. (For a detailed description of the ESCB Committees and the activities of the various fora assisting them, see Chapter 3.14.) The committees meet and discuss current issues relevant to their professional areas in ESCB composition, 4-5 times a year on average, according to a schedule determined for a year in advance.

The senior executives and relevant experts of the MNB continue to play an active role in the activities of these committees and their working groups. In 2019, the ESCB committees continued to be useful fora for the exchange of professional experience.

Organisation Chart



3 Review of the MNB's performance in 2019

3.1 MONETARY POLICY

In 2019, the Monetary Council maintained loose monetary conditions by fine-tuning its conventional instruments and overhauling and actively using unconventional instruments, to achieve the medium-term inflation target in a sustainable manner and stimulate the real economy accordingly. Over the long term, the central bank can contribute to economic growth and a favourable macroeconomic environment by maintaining price stability and by ensuring the stability of the financial system.

International financial market developments

In 2019, global risk appetite improved overall, in the midst of strong volatility. The major stock indices rose during the year as a whole, while bond markets were characterised by substantial capital inflows. The euro depreciated against other developed market currencies. In the course of the year, risk appetite was mainly influenced by developments in international trade policies, the uncertainty surrounding Brexit, incoming macroeconomic data, oil price developments and expectations regarding measures to be taken by the world's leading central banks.

Among the major central banks, the Federal Reserve (Fed) lowered its policy rate by a total of 75 basis points during the year, while the ECB decided to reduce the deposit rate by 10 basis points in September. The ECB also restarted its asset purchase programme in November, at a monthly pace of EUR 20 billion. According to the forward guidance of the major central banks and analyst expectations, looser monetary policy conditions are set to persist. In the CEE region, monetary conditions remained unchanged apart from a 25-basis point rate increase by the Czech National Bank in May.

Domestic macroeconomic environment

Average inflation amounted to 3.4 per cent in 2019. The consumer price index remained within the tolerance band throughout the year, similarly to the previous two years. There continued to be a dichotomy in the factors determining inflation developments in 2019: buoyant domestic demand boosted the pace of inflation, while persistently muted external activity had a restraining effect. At the start of the year, the consumer price index was around 3 per cent, followed

by a temporary rise to the upper third of the tolerance band in the spring months, in tandem with accelerating fuel price increases. Inflation declined in the summer months. The rise in the price index in December was attributable to the base effect from lower fuel prices at the end of 2018. In 2019, the Hungarian economy continued to expand dynamically. GDP grew by 4.9 per cent, supported by a wide range of industries. This expansion was accompanied by historically high investment activity. Hungary's external debt continued to decline in 2019, and its financing capacity remained high. Stable fundamentals were also supported by a low fiscal deficit and a declining government debt-to-GDP ratio.

Monetary policy measures

After the reduction in the volume of the 3-month deposit to zero, the role of the main policy instrument was taken over by the reserve requirement from 2019, which contributed to simplifying the monetary policy toolkit and increasing transparency. The Monetary Council did not change the policy rate in 2019, leaving the base rate, the overnight collateralised lending rate and the 1-week collateralised lending rate at 0.9 per cent since the May 2016 interest rate decision. However, after the March rate-setting meeting, the overnight central bank deposit rate was increased by 10 basis points to -0.05 per cent. In March, the Monetary Council reduced the average amount of liquidity to be crowded out by HUF 100 billion to HUF 300–500 billion, before lowering it by another HUF 100 billion in June. In September, as a further fine-tuning step and in response to the downside risks to inflation, the Monetary Council raised the average amount of liquidity to be crowded out by HUF 100 billion to HUF 300–500 billion, which is taken into account in determining the stock of central bank swap instruments. The flexibility in shaping the FX swap instrument facilitates appropriate interest rate transmission. In the Monetary Council's assessment, the current loose monetary conditions are in line with the central bank's primary objective. The Monetary Council continuously indicated that monetary policy would remain accommodative and employs a conservative approach in its decision-making, relying heavily on the quarterly Inflation Report. Due to the accommodative monetary conditions, short-term money market yields were low during the year, while long-term government bond yields fell compared to the beginning of the year.

With a view to boosting the share of long-term fixed-rate loans, the Monetary Council launched the Funding for Growth Scheme

Fix (FGS fix) in January 2019. As an integral complement to this, a corporate bond purchase programme was launched on 1 July 2019, to improve the efficiency of monetary policy transmission. The MNB neutralised excess liquidity arising from these two programmes using the preferential deposit facility bearing interest at the central bank base rate.

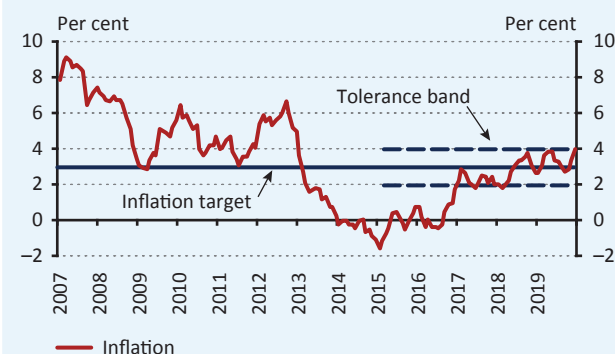
Inflation developments in 2019

In 2019, inflation was within the central bank's tolerance band, around the 3-per cent inflation target. However, within the year, individual months were characterised by fluctuations due to volatile global commodity prices. At the start of the year, the consumer price index was around 3 per cent, after which inflation temporarily rose to the upper third of the tolerance band in the spring months due to rising fuel prices, before returning to around the 3-per cent target. The year-end rise in inflation was mainly attributable to the base effect of the end-2018 drop in fuel prices. Average annual inflation was 3.4 per cent in 2019.

A dichotomy persisted between the factors determining inflation developments. Buoyant domestic demand gave

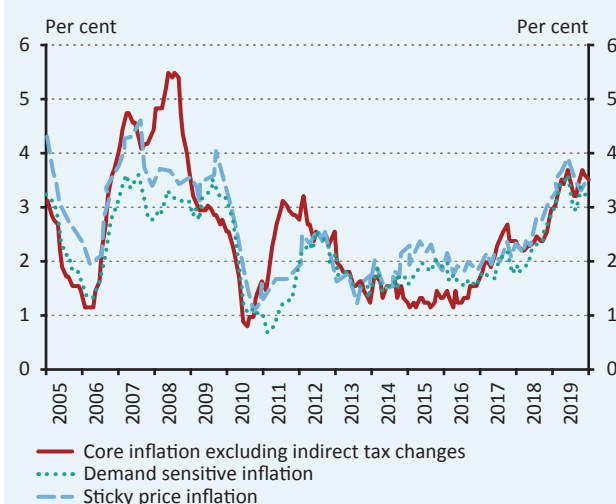
more leeway for companies in pricing, while deteriorating external activity restrained the pace of inflation. Indicators capturing longer-term inflation trends (the inflation of demand-sensitive products and sticky-price products and services) were up at the beginning of the year. The rise in core inflation excluding indirect taxes early in the year was mainly caused by the repricing of market services and an increase in the price growth of processed food. The inflation of industrial goods gradually diminished during the year, leading core inflation excluding indirect taxes to fall to 3.2 per cent. In autumn, in line with the non-tax-induced rise in tobacco product prices and the price hikes in market services due to telecommunication fees in September, core inflation excluding indirect taxes rose. At the end of the year, indicators capturing longer-term inflation trends were stable. Average annual core inflation excluding indirect taxes was 3.4 per cent in 2019. The cost-side inflationary effect of the dynamic, double-digit growth in wages was mitigated by a further reduction of the social contribution tax in July 2019.

Chart 1
Inflation target and inflation developments



Source: HCSO, MNB.

Chart 2
Underlying inflation indicators



Source: MNB.

Table 1
Consumer price index and its components
(percentage change, year-on-year)

	2017	2018	2019	2019			
				Q1	Q2	Q3	Q4
Core inflation	2.3	2.5	3.8	3.5	3.8	3.8	4.0
Unprocessed food	0.9	6.9	8.9	8.9	9.8	9.1	8.0
Fuel and market energy	7.1	8.2	1.2	0.8	4.4	-2.0	1.7
Regulated prices	0.3	0.1	0.7	0.7	0.7	0.7	0.6
Consumer price index	2.4	2.8	3.4	3.2	3.7	3.1	3.4
Inflation with constant tax rate	2.8	3.2	3.2	3.0	3.6	2.9	3.3

Note: In the case of price indices with constant tax rates, the HCSO adjusts the consumer price index for the technical effect of changes in indirect taxes.
Source: HCSO.

Changes in monetary policy instruments

Monetary policy instruments of the Magyar Nemzeti Bank

In 2019, the Monetary Council left the base rate as well as the overnight and one-week collateralised lending rates unchanged at 0.9 per cent.

The Monetary Council kept monetary conditions unchanged in December 2018 and determined that the targeted average liquidity to be crowded out in 2019 Q1 should also remain stable at at least HUF 400–600 billion. The MNB published its strategic framework for policy instruments, which first involves steps related to unconventional instruments. The Monetary Council stated that, in line with the adopted strategic framework, looking ahead the central bank would formulate the monetary conditions necessary through the optimal combination of two instruments, the swap holdings providing forint liquidity and the interest rate corridor.

The Monetary Council announced in March that since the annual consumer price index had been continuously fluctuating around 3 per cent since mid-2018 and core inflation excluding taxes had risen to 3 per cent in early 2019, the MNB had met its inflation target. In order to maintain price stability, the Monetary Council set the overnight deposit rate at -0.05 per cent by raising it by 10 basis points on 26 March and keeping it steady until the end of the year. Moreover, the average amount of liquidity to be crowded out in 2019 Q2 was reduced by HUF 100 billion to at least HUF 300–500 billion.

From the second quarter, there was some duality in the factors shaping expected inflation: buoyant domestic demand boosted the pace of price increases, while deteriorating external activity restrained it. Accordingly, the Monetary Council reduced the targeted average amount of liquidity to be crowded out in the third quarter by HUF 100 billion to at least HUF 200–400 billion, stating that this would be taken into account when determining the amount of swap instruments held by the central bank. A corporate bond purchase programme was launched by the MNB on 1 July 2019 with an allocated amount of HUF 300 billion, to improve the efficiency of monetary policy transmission. With the new monetary policy instrument, the Bond Funding for Growth Scheme (BGS), the MNB seeks to help diversify corporate sector financing in a targeted manner.

In the third quarter, the external monetary policy environment turned looser once again, on account of deteriorating global growth prospects and subdued inflation trends. The MNB increased the targeted average amount of liquidity to be crowded out in the fourth quarter by HUF 100 billion to at least HUF 300–500 billion.

By the end of the year, fears of recession had subsided in the euro area. As a result, risks to the outlook for domestic inflation became balanced again. In December, the Monetary Council left the targeted average amount of liquidity to be crowded out in 2020 Q1 unchanged at at least HUF 300–500 billion.

Taking into account excess reserves and overnight central bank loans, actual average crowding-out amounted to HUF 547 billion, HUF 525 billion, HUF 355 billion and HUF 648 billion in the individual quarters, respectively, which was consistent with the target set by the Monetary Council.

Table 2
Actual crowding-out effect in 2019
(HUF billion)

Month	Crowded-out liquidity
January 2019	520
February 2019	312
March 2019	788
April 2019	717
May 2019	510
June 2019	349
July 2019	368
August 2019	282
September 2019	416
October 2019	401
November 2019	638
December 2019	906

Forint liquidity management of the banking system, recourse to the central bank instruments

In 2019, as a result of the rise concentrated in the last two months of the year, the net forint liquidity of the banking system (balance on payment accounts, value of preferential and overnight deposits less central bank loans) increased in total by HUF 444 billion to HUF 1,668 billion between early January and 31 December. The largest items in the autonomous processes were linked to the Treasury Single

Account (TSA), cash holdings and the MNB's FX swap transactions and other operations: the liquidity impact of the balance of the Treasury Single Account (TSA) related to budgetary processes expanded the banking system's liquidity by HUF 521 billion, while the growth in cash holdings tightened liquidity by HUF 543 billion. In addition, the MNB's operations (including the effects of fine-tuning swaps and the depreciation of the FGS programmes) increased the banking system's liquidity by HUF 554 billion in total.

In 2019, banks' monthly reserve requirement was HUF 223–238 billion. In the period under review, credit institutions subject to minimum reserve requirements exceeded their reserve requirement by a monthly average of HUF 40 billion. A substantial share of excess reserves was held by some smaller credit institutions. In September, excess reserves amounted to an exceptional HUF 63 billion, while they reached their low at HUF 25 billion in the last month of the year. Compliance with the reserve requirement exhibited seasonality within the month, similar to earlier years: credit institutions typically prepared for their regular payment obligations in the second half of the month (especially the liquidity tightening resulting from tax payments) by amassing excess reserves in the first half.

Table 3
Monthly amount of required reserves in 2019
(HUF billion)

Month	Compulsory reserves
January 2019	225
February 2019	224
March 2019	223
April 2019	226
May 2019	226
June 2019	228
July 2019	231
August 2019	224
September 2019	227
October 2019	230
November 2019	232
December 2019	238

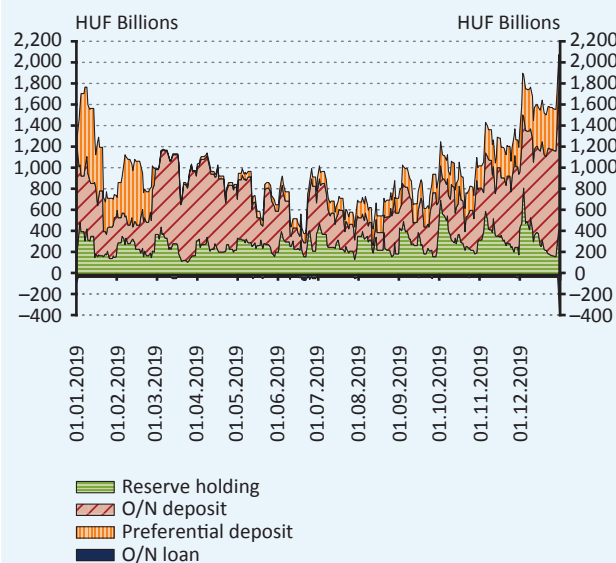
Banks may deposit their liquidity in excess of the required reserves in a preferential deposit at the base rate, up to a pre-determined individual bank limit. The preferential deposit option related to the Market-Based Lending Scheme was cancelled at the end of February 2019 as

the scheme was wound down, and it was replaced, under different conditions, with the preferential deposit linked to the FGS *fix* scheme in early 2019; subsequently, in July, it was complemented by the deposits that can be placed under the BGS. The MNB uses the preferential deposit to sterilise the excess money that enters the banking system through these schemes. Average preferential deposit holdings amounted to HUF 430 billion in February, while March saw HUF 11 billion deposited in the new facility, due to the time required to ramp up the FGS *fix*. As a result, crowded-out liquidity changed in terms of its structure from early March, materialising in more O/N deposits than in February (see next paragraph). The monthly average of new preferential deposits continuously increased, amounting to HUF 88 billion in June and HUF 172 billion in September. As regards the BGS, banks used the preferential deposit option from October, due to the start of auction purchases in September. In the last three months of the year, average monthly new deposits increased strongly, totalling HUF 224 billion, 273 billion and 385 billion, respectively.

The liquidity crowded out by the MNB that did not make it into deposit instruments bearing interest at the base rate is either part of excess reserves or deposited in central bank overnight deposits. O/N deposits moved in line with interbank liquidity, which fluctuated within the year and showed a rising trend at the end of the year: average holdings in the individual quarters amounted to HUF 520 billion, 487 billion, 300 billion and 620 billion, respectively. As a result of the change to the preferential deposit in March, the money that could not be deposited in this instrument flowed to the overnight deposit: in parallel with the decline of HUF 419 billion in preferential deposit holdings, the monthly average of overnight deposits increased by HUF 483 billion to HUF 765 billion, before gradually diminishing in the following months. As a result of the liquidity-augmenting effect of the massive increase in budgetary expenditures in December, net O/N deposits amounted to HUF 893 billion on a monthly average basis, and to HUF 1,355 billion on the last day of the year.

During the year, as a result of the excess liquidity in most of the banking system, counterparty banks only relied on the central bank's loan instruments to a limited degree. Compared to 2018, the average amount of loans taken out increased, while the number of loans was slightly down: 58 overnight loans were disbursed in 2019, with an average amount of HUF 12.3 billion, while the corresponding figures in 2018 were 67 and HUF 6.4 billion. Banks did not use any 1-week loans.

Chart 3
Recourse to the central bank's monetary policy instruments



Note: Excluding forint liquidity providing fine-tuning FX swaps.

Source: MNB.

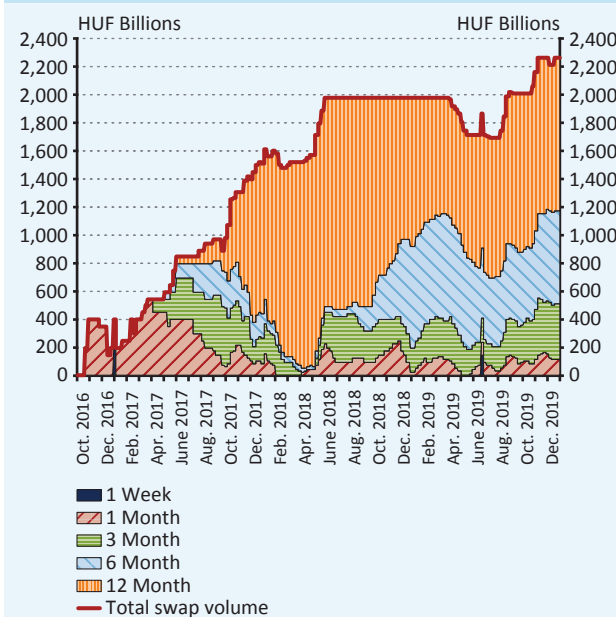
In 2019, the MNB actively used the central bank swap instrument providing forint liquidity, while taking into account autonomous processes, to achieve the crowding-out effect prescribed by the Monetary Council. It kept central bank swap holdings at HUF 1,987–1,988 billion between the beginning of the year and early April, then reduced such holdings to the annual minimum level of HUF 1,704 billion by early August. After that, holdings increased to HUF 2,025 billion by the end of August and to HUF 2,274 billion by the start of November. Following the fine-tuning measures in December, swap holdings remained steady until the end of 2019.

Similar to the previous year, the regular weekly tenders for the central bank FX swaps providing forint liquidity in exchange for euro liquidity were held with maturities of 1, 3, 6 and 12 months. In ascending order of the maturities, during the year

the MNB held 51, 50, 48 and 45 tenders, respectively, offering amounts of HUF 1,168 billion, 1,063 billion, 1,014 billion and 939 billion (in exchange for EUR 3,593 million, 3,265 million, 3,109 million and 2,874 million) and allotting HUF 1,231 billion, 1,140 billion, 1,178 billion and 1,096 billion (EUR 3,781 million, 3,498 million, 3,614 million and 3,356 million), respectively. Total demand per maturity fluctuated between 3.7 times (1 month) and 5.1 times (6 months) the offered amount on average.

In addition to the maturities regularly offered at the auctions on Mondays, the MNB responded to the temporary liquidity shortage on 19 June by holding a one-week technical swap tender, with an offered amount of HUF 100 billion (EUR 308 million). The central bank accepted bids with a volume of HUF 150 billion (EUR 463 million) at this tender, with demand 2.9 times the offered amount.

Chart 4
Central bank swap holdings and their maturity structure (2016–2019)



Forrás: MNB.

Table 4
Offered, bid and allotted amounts at FX swap tenders in 2019
(cumulative values)

Tenor	Offered amount (EUR million)	Offered amount (HUF billion)	Bid amount (EUR million)	Bid amount (HUF billion)	Allotted amount (EUR million)	Allotted amount (HUF billion)	Demand
1 month	3,593	1,168	13,462	4,374	3,781	1,231	3.7
3 month	3,265	1,063	14,684	4,769	3,498	1,140	4.5
6 month	3,109	1,014	15,967	5,191	3,614	1,178	5.1
12 month	2,874	939	12,978	4,225	3,356	1,096	4.5
Total	12,841	4,183	57,091	18,559	14,249	4,645	4.4

In line with the MNB's monetary policy stance, short-term yields were at low levels both in interbank and other relevant markets. The HUFONIA, which measures the level of interest rates on the overnight market, fluctuated around 0 per cent during the year, with a few exceptions. The annual average for this indicator was 6 bps, reaching its minimum of -5 bps on 18 March and its maximum of +58 bps on 19 June.

The 3-month reference yields, which are of key importance in terms of interest rate transmission, also moved around 0 during the year. The three-month money market BUBOR quotes exhibited a slightly upward trend, rising from 13 bps at the beginning of the year to 27 bps by the end of August, before slowly declining to 16 bps by the end of the year. The annual average of the 3-month BUBOR was 19 bps.

Yields on the 3-month discount treasury bill fluctuated: rising from 0 bps early in January, they slowly reached their high at 22 bps on 25 June, before moving on a downward path. Between the middle of November and the end of the year, the market was characterised by near-zero negative yield, with a trough of -12 bps. The annual average of the yields was +4 bps.

The yield derived from the forward rate agreements (FRAs) concerning the 3-month BUBOR expected in a year fluctuated between 53 and 105 basis points in the first quarter of the period, between 51 and 90 basis points in the second quarter, between 26 and 58 basis points in the third quarter and between 27 and 43 basis points in the fourth quarter. The closing value at the end of the year was 43 basis points.

In line with the BUBOR quotations and other money market yields, swap market yields were at low levels in 2019. In the case of the EUR/HUF foreign exchange swap market spreads, the yields on short maturities fluctuated around 0. For overnight maturities, outstanding values were observed at the end of the year, while high values were seen before public holidays and VAT payment periods. The annual average of implied interest rates amounted to -7 and -11 bps at overnight maturities (overnight and tomnext). The annual averages varied between +10 and +16 bps at maturities of 1 week to 3 months, and stood at 25 and 47 bps at 6 and 12 months, respectively.

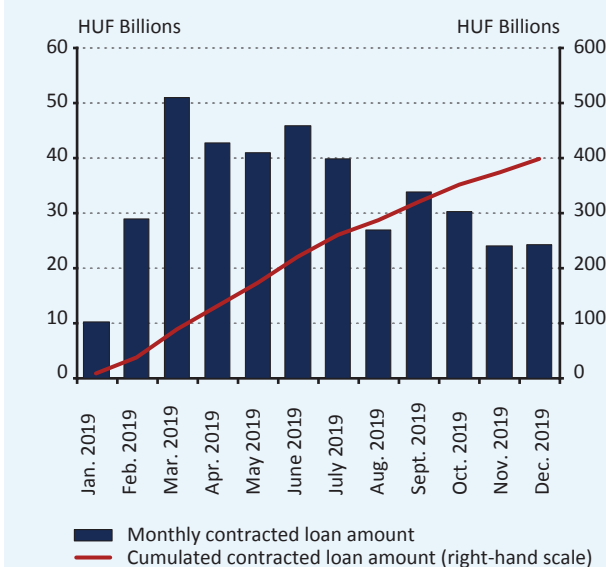
In 2019, the MNB did not use any FX liquidity-providing instruments.

Launch of the Funding for Growth Scheme Fix and the Bond Funding for Growth Scheme

The MNB launched a new programme of the Funding for Growth Scheme called FGS *fix* in early 2019, with the primary objective of improving the structure of SME lending.

The new scheme was introduced with an allocated amount of HUF 1,000 billion. Compared to the requirements of the previous phases of the FGS, it is identical in terms of its key parameters and the mode of implementation; therefore, the MNB will provide refinancing to credit institutions at 0 interest that they can lend to SMEs at an interest margin of up to 2.5 per cent. The new scheme is more targeted than the previous ones, and it is liquidity-neutral, since the additional liquidity stemming from the loan volume disbursed under the framework of the FGS *fix* is sterilised at the base rate by the preferential deposit facility. Until the end of December 2019, credit institutions concluded loan and lease contracts with almost 13,400 SMEs with a volume of HUF 400 billion (Chart 5). At year-end, actually outstanding FGS loans, i.e. excluding already repaid and undrawn loans (tranches), amounted to HUF 294 billion.

Chart 5
Recourse to the FGS *fix* in 2019



Source: MNB.

To increase the liquidity of the corporate bond market, the central bank launched the Bond Funding for Growth Scheme (BGS) on 1 July 2019, as a complement to its unconventional monetary policy instruments and the FGS *fix*. The considerations behind the introduction of the corporate bond purchase programme and its features were published by the MNB in a background study following the Monetary Council's decision on 26 March 2019, and the detailed terms and conditions were released on the central bank's website at the end of April 2019. Under the programme, the central bank may purchase bonds with a rating of at least B+ issued by non-financial corporations seated in Hungary as well as securities secured with credit claims against companies, for a total amount of HUF 450 billion.

By increasing the liquidity of the corporate bond market, the programme may help encourage Hungarian companies to rely, to the appropriate extent, on financing other than bank loans. This could improve the efficiency of monetary policy transmission, since healthy competition among the markets providing funding to firms may ensure better implementation of the central bank's interest rate decisions, and thus the sustainable attainment of the inflation target can be effectively supported via various transmission channels. The surplus money supply that emerges in the banking system as a result of the central bank purchases under the BGS is sterilised by the MNB with a preferential deposit facility bearing interest at the base rate.

The aim, framework and operation of the BGS is closely modelled on the ECB's corporate sector purchase programme (CSPP). Under the CSPP, the ECB purchased euro area corporate bonds between June 2016 and December 2018, thereby improving the efficiency of monetary policy transmission. In November 2019, the ECB restarted corporate bond purchases under its asset purchase programme.

After the launch of the MNB's corporate bond purchase programme, 15 companies issued bonds by the end of 2019, and the central bank purchases were close to two-thirds of the originally announced allocated amount. The total face value of the bonds issued under the BGS amounted to HUF 310 billion at the end of the year. The corporate bonds issued in 2019 typically have an original maturity of 7–10 years. Having identified the great interest shown by companies at the end of 2019, the Monetary Council increased the originally allocated amount of HUF 300 billion to HUF 450 billion as of 1 January 2020, leaving all other conditions unchanged.

3.2 STABILITY OF THE FINANCIAL INTERMEDIARY SYSTEM

Pursuant to the MNB Act, the primary objective of the MNB is to achieve and maintain price stability. Without prejudice to its primary objective, the MNB supports the maintenance of the stability of the financial intermediary system, the enhancement of its resilience and its sustainable contribution to economic growth and the economic policy of the government using the instruments at its disposal. In addition, based on its mandate linked to its membership in the European System of Financial Supervision, the MNB performs the tasks imposed on it, originating from the competence of the European Banking Authority, the European Insurance and Occupational Pensions Authority, the European Securities and Markets Authority and the European Systemic Risk Board, supervises the Hungarian

financial intermediary system and also acts as a resolution authority.

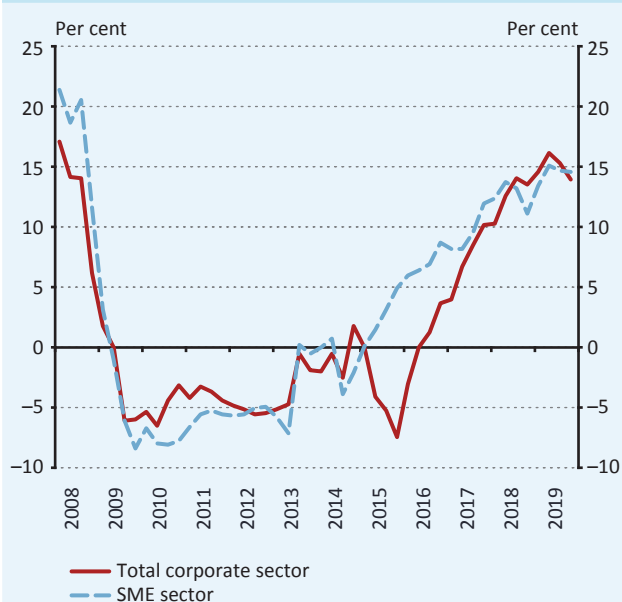
The domestic banking sector is stable, its shock-absorbing capacity can be deemed robust both in terms of liquidity and loss absorbency. The favourable macroeconomic environment and banks' profitability, exceptional even by international standards, help keep the banking system's balance sheet total on a growth trajectory. Outstanding credit expands as economic fundamentals strengthen. Banks' capitalisation is stable despite the dynamic balance sheet growth: in other words, Hungarian banks reinvest enough profits in their operations to increase their balance sheet in a sustainable manner. The results from the latest MNB stress test show that Hungarian banks would meet regulatory requirements even in the event of a significant adverse macroeconomic shock. The fundamentals of the Hungarian economy and banking system have strengthened considerably since the beginning of the 2008 global financial crisis, and therefore the Hungarian financial system is prepared for the risks arising from the deterioration of the external environment.

In 2019, the risks affecting the functioning of the Hungarian banking system and their possible mitigation were presented in detail in the *Financial Stability Reports*, which regularly evaluate the risks to financial stability in a comprehensive manner. The global macroeconomic environment was characterised by mounting trade and geopolitical tensions as well as growing fears of recession. In response to the slowdown in growth, central banks cut interest rates again and implemented further expansionary measures. The deterioration in the external environment adversely affects the Hungarian economy's growth prospects, posing risks to the Hungarian banking system as well. In the context of the favourable Hungarian economic growth, banks' profitability is outstanding, even by international standards, which, however, conceals certain structural problems in the sector. In the past year, strong bank profitability was influenced to a decreasing but still considerable degree by the reversal of the impairment loss recorded in the crisis years. Some Hungarian banks need to take further measures to improve their efficiency, with a view to ensuring sustainable profitability. The steep rise in the housing market price index came to a halt in 2019, and the growth rate of house prices is now easing off in Budapest as well as in the country as a whole. The real estate market exposure of the banking system is limited by the fact that banks' exposure which is sensitive to real estate market changes relative to own funds is low. The length of interest rate fixation period increased considerably within new household mortgage loans, but most outstanding loans are still characterised by variable rates, rendering them vulnerable to the changes in the interest rate environment.

Key developments in the financial system

The biannual publication *Trends in Lending* provides a detailed overview of developments in lending in Hungary. The double-digit growth in corporate lending continued in 2019: the outstanding borrowing of the corporate sector as a whole increased by 14 per cent and by almost 15 per cent in the SME segment. This growth was broad-based both in terms of the overall sector and the individual banks, and thus, as a result of credit transactions, corporate lending increased by the appropriate extent to promote economic growth (Chart 6).

Chart 6
Annual growth rate of outstanding corporate loans



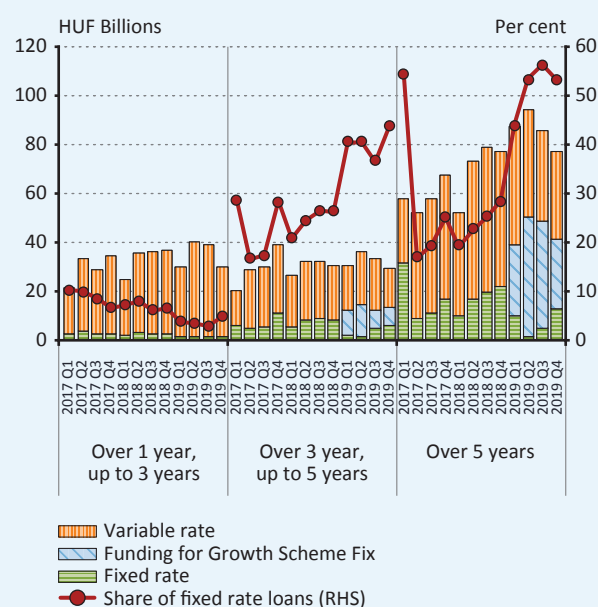
Note: Transaction-based data, prior to 2015 Q4, data for SMEs are estimated based using banking system data.

Source: MNB.

The structure of corporate credit growth was also influenced by the new phase of the central bank's Funding for Growth Scheme. The primary objective of the FGS *fix* launched in early 2019 is to improve the structure of SME lending, i.e. to boost the share of long-term, fixed-rate loans. The FGS *fix* is more targeted than the earlier phases of the FGS: only forint investment loans may be disbursed, with maturities of at least 3 years. By the end of 2019, credit institutions concluded contracts with Hungarian SMEs worth HUF 400 billion. 55 per cent of the transactions were investment loans, while 45 per cent were leasing deals. Approximately half of these funds, amounting to HUF 200 billion, facilitated the investments of microenterprises. As a result of the FGS *fix*, the proportion of loans with fixed interest rate for the whole maturity period increased to over 50 per cent at longer maturities

for new, small-value loans. This contributed to the increased resilience of the corporate sector to interest rate risk (Chart 7).

Chart 7
Disbursement of new low-amount HUF corporate loans by interest rate fixation and maturity



Source: MNB.

Based on banks' responses in the *Lending Survey*, credit conditions were unchanged in 2019 for both large enterprises and SMEs. However, banks tightened the conditions of commercial real estate loans in all subsegments (logistics and shopping centres, residential and offices) during the year, owing to caution related to rising real estate prices and the announcement of the extension of the systemic risk buffer. According to banks' assessment, credit demand increased steadily in all size categories while conditions were unchanged. The respondent institutions expect demand to continue strengthening, but only plan to tighten in the first half of 2020 in the case of project loans.

Households' outstanding loans also expanded considerably in 2019, rising by 17 per cent. In this segment, lending developments were strongly influenced by the prenatal baby support loans launched by the government in the middle of the year as part of its Family Protection Action Plan: the corresponding borrowing amounted to HUF 470 billion by the end of the year. In the first six months of the programme, 48,000 contracts were concluded and most credit applicants signed for the maximum loan amount of HUF 10 million, which may be linked to the fact that at present the customers who borrow are typically higher earners. Banks believe that prenatal baby support loans are

mostly taken out for housing purposes and their utilisation as a supplemental funding source for down payment is less typical. Thanks to the appearance of the prenatal baby support loans, banks continued to observe a pick-up in demand in the consumer credit segment; nevertheless, the growing demand for housing loans was somewhat more muted in the second half of the year than earlier. Based on disbursement volumes, the additional impact of the prenatal baby support is significant, exceeding the crowding-out effect.

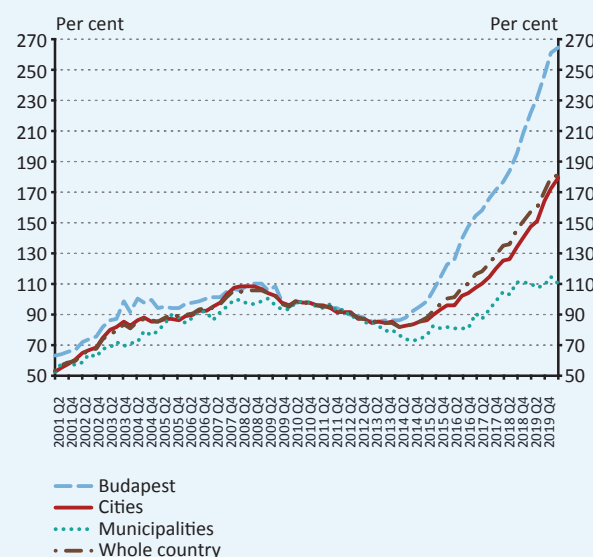
Prices on the Hungarian housing market continued to rise until 2019 Q3. According to the MNB house price index published in the *Housing Market Report*, the annual growth rate of housing prices in Budapest fell considerably in the third quarter, and a slowdown was seen outside the capital as well (Chart 8). In the third quarter, the average annual growth rate of house prices was 14.8 per cent in nominal terms across the entire country, down from the 17.8 per cent in 2019 Q2. Annual price growth slowed in Budapest, from 24.4 per cent in 2019 Q2 to 18.9 per cent.

The demand side of the Hungarian housing market continues to be supported by high employment, expanding real incomes, large savings, the low interest rate environment and the extension of the home purchase subsidies. Nevertheless, the number of transactions recorded in Budapest in the third quarter was down 30 per cent year-on-year. This may have been influenced by the large number of preliminary contracts concluded in the past years on the new home market, which will only show up in transaction figures later. In Budapest, the significant rise in the median bargain and the median time on the market of flats may also signal a contraction in demand, and the introduction of the Hungarian Government Security Plus (MÁP+) could also partly explain the drop in the demand for residential real estate. Outside the capital, the number of transactions shrank less in year-on-year terms, rising by 3 per cent in villages, which shows that demand persists outside the capital.

In 2019, credit institutions' outstanding commercial real estate loans increased slightly, albeit new disbursements fell short of those seen in the same period of 2018. Slightly more than 80 per cent of the outstanding loans are FX-denominated loans, although this share is lower than the 2008 figure (98 per cent), but still considered high. To prevent the emergence of related systemic risks, the MNB modified the conditions of imposing the systemic risk buffer. In the past decade, concentration on the commercial real estate market has declined, and banks' exposure relative to their own funds is also lower. According to the responses

to the Lending Survey, more and more banks worry about a potential overheating of real estate prices, which is related to the tightening of credit conditions.

Chart 8
Nominal MNB house price index break down by type of settlement (2010 = 100%)



Source: MNB.

Following the trend from recent years, the non-performing loan portfolio of the credit institutions sector continued to decrease in 2019, although there are still several credit institutions with substantial non-performing portfolios. Cleaning these loan portfolios requires further actions by the banks. By the end of 2019, the non-performing household loan portfolio dropped to HUF 300 billion, with over 60 per cent comprising loans over 90 days past due. During the year, the share of non-performing household loans dropped by approximately 3 percentage points to 4.2 per cent, mainly owing to credit institutions' portfolio cleaning activities, but the dynamic expansion of credit also contributed to the fall in the ratio. The ratio of non-performing corporate loans (NPL ratio) calculated in line with the broader definition of non-performing loans was 3.9 per cent. For total outstanding loans, this ratio amounted to 4.0 per cent, in contrast to the 6.1-per cent figure registered at the end of 2018.

According to preliminary data, credit institutions' after-tax profit was HUF 499 billion at the end of 2019, HUF 29 billion lower than in 2018. The after-tax 12-month rolling ROE was 11.6 per cent in December 2019, a high figure among EU banking sectors. Income was positively influenced mostly by the increase in net commission and fee income and dividends received, while the profit-improving effect of the reversal of

impairment losses seen earlier is fading. Despite the growth in nominal terms, operating costs as a proportion of assets exhibited a decline, while net interest income contracted as income and expenses rose. Based on international examples, increasing the balance sheet total and the wide-ranging application of digital solutions may play a crucial role in improving cost-effectiveness in the years to come. Although the capital adequacy of the credit institutions sector remains high, the total consolidated capital adequacy ratio was close to 16.4 per cent at the end of December. All credit institutions meet the statutory capital adequacy of 10.5 per cent valid for 2020 together with the capital conservation buffer. The sector has a high free capital buffer, although around two-thirds of it is still concentrated at three banks.

The central bank conducted the twelfth *Market Intelligence survey* in 2019, within the framework of which MNB staff members visited 9 banks to discuss with representatives of the credit institutions the current state of the business and digital strategy of the given institution, the condition of the Hungarian banking sector as well as the expected developments in lending and the factors shaping the sector's future. The main findings of the survey were presented in the May issue of the Financial Stability Report.

Macroprudential activity of the MNB

The MNB continued to actively monitor changes in cyclical systemic risk in the financial intermediary system in 2019. At present, in the expansion phase of the financial cycle, no signs of overheating can be identified regarding the cyclical position of either corporate or household lending; therefore, the goal is to preserve the healthy structure of growth, while continuously following up on the efficiency of the macroprudential measures already implemented. With respect to household over-indebtedness, the MNB pays special attention to changes in the stock of variable-rate mortgages, the disbursement of the prenatal baby support loans available since 1 July 2019 and the trends in the Budapest housing market. In connection with the review of the debt service-to-income ratio (DSTI) requirement, an amendment took effect in July 2019 allowing a higher ratio of repayment instalments from a monthly income of HUF 500,000 instead of HUF 400,000, with due consideration of the dynamic rise in wages.

The MNB has operated the framework for the countercyclical capital buffer (CCyB), which serves to boost the through-the-cycle resilience of the financial intermediary system, since January 2016. As no major change in the level and dynamics of cyclical systemic risks was identified compared to the previous quarterly revision,

the MNB decided to maintain the 0-per cent capital buffer in 2019.

In 2019, the MNB reviewed the conditions for using the systemic risk buffer (SyRB), which led to a change in the methodology of calculating the capital buffer: in addition to the problem exposures already taken into account, non-problem project loans denominated in FX are also included with a weight of 5 per cent when calculating the capital buffer rates. According to the 2019 rate setting in the new, preventive framework, no bank needed to hold a systemic risk buffer from 1 January 2020.

As a result of the review of the MNB's liquidity and financing instruments, the amendment of the mortgage funding adequacy ratio (MFAR) entered into force in two steps. In the first phase, on 1 February 2019 the *de minimis* limit on outstanding mortgages was raised to HUF 10 billion. On 1 October 2019, the expected MFAR level was raised to 25 per cent, while the expected maturity of eligible funds increased to 3 years, and the quality requirements on eligible mortgage bonds were also expanded.

Based on the methodology approved by the Financial Stability Council, the MNB performed the annual review of other systemically important institutions (O-SII) in 2019 as well. Taking into account the end-2018 consolidated balance sheet data, the group of systemically important institutions did not change; eight domestic institutions are still identified as systemically important. The additional capital buffer rates prescribed by the MNB gradually in order to boost these institutions' resilience to shocks reached their final value of 0.5–2 per cent on 1 January 2020.

By the end of 2019, the market share of the loan products with the Certified Consumer-Friendly Housing Loan (CCHL) certification introduced by the MNB reached over 70 per cent among the housing loans that can potentially be certified. The spread of the products that are available with an interest rate fixation of at least 5 years played a prominent role in reducing the proportion of variable-rate housing loans among new loans to a minimum by the end of 2019. In 2019, the MNB decided to expand the scope of certified products, introducing, as a first step, the Certified Consumer-Friendly Home Insurance (CCFHI) certification in January 2020.

The experts of the central bank monitored the systemic risk evaluations and the international regulatory developments affecting the financial intermediary system in 2019 again, and participated in various European institutions' working groups dealing with macroprudential policy.

The MNB's activities promoting financial innovation and digitalisation

In 2019, the MNB enhanced its innovation-promoting framework with several elements. The central bank continuously and actively analyses the current stance of digitalisation in the Hungarian financial system, and develops the central bank instruments to improve the digital competitiveness of institutions providing financial services. Accordingly, the central bank formulated and published its fintech strategy in 2019 Q3. The main strategic objectives included promoting the spread of competitive and innovative services in Hungary, strengthening the financial system's efficiency and stability, boosting the Hungarian fintech ecosystem and developing overall financial awareness and the training of experts, and the MNB produced specific recommendations for achieving these goals. The digital transformation of the Hungarian financial system may be supported by the fact that in 2019 Q4 the MNB assessed the level of digitalisation in the Hungarian banking system and identified the areas where the systemic application of digital technologies could considerably increase competitiveness and efficiency.

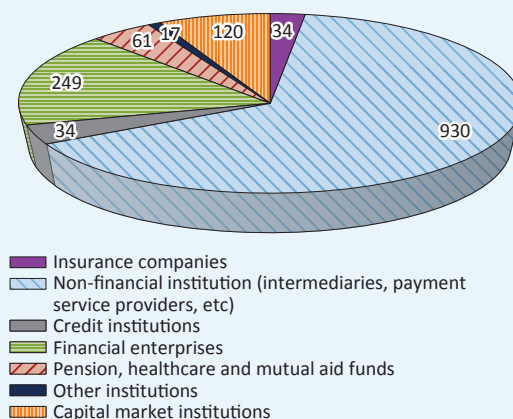
In addition to developments falling within its own purview, the MNB also seeks to provide broad support for digitalisation in its cooperation with both Hungarian and international actors. In the Central European region, it was among the first to join the Global Financial Innovation Network (GFIN), which aims to foster international cooperation between authorities and innovative market participants and provide joint support in spreading fintech solutions around the world. The GFIN announced the first cross-border financial innovation test environment in January 2019, with the MNB's involvement. In September 2019, the central bank established the Digitalisation and FinTech Advisory Board, which meets on a semi-annual basis and serves as a knowledge-sharing platform with renowned Hungarian and international experts and helps in the exploration of the market needs and opportunities offered by digitalisation as well as potential risks.

Moreover, the central bank continued to facilitate the safe digital transformation of the Hungarian financial system. In the Innovation Hub, the MNB supported financial institutions and fintech firms in the clarification of legal issues arising in connection with their financial innovations with regard to several initiatives. Furthermore, the operation of the MNB Regulatory Sandbox (Financial Innovation Testing Environment) also supports the safe spread of fintech innovations in the financial system without jeopardising financial stability.

3.3 SUPERVISION AND CONSUMER PROTECTION

Based on the data from 31 December 2019, the MNB is responsible for the prudential supervision of 1,445 institutions. The distribution of the institutions by type is shown in Chart 9. The number of institutions continued to shrink (by 3 per cent). This is mainly attributable to the concentration of the markets, while at the same time the number of payment service providers almost doubled, with 12 institutions holding a supervisory licence at the end of 2019 instead of the earlier 7. During the year, 187 prudential, 22 market surveillance and 3 issuer oversight related inspections were launched, and 161 prudential, 25 market surveillance and 2 issuer oversight related inspections were closed. In the period under review, the MNB issued a total 3,035 prudential licensing and legal enforcement decisions, while in the market surveillance and issuer oversight and licensing areas 1,698 official decisions were made in total. In the course of measures taken related to prudential supervision, penalties totalling HUF 1,236.9 million were imposed, along with market surveillance and supervisory penalties totalling HUF 109.3 million.

Chart 9
Number of supervised institutions by type on 31 December 2019
(Pieces)



Source: MNB.

Supervision of money market institutions

Within the framework of the supervision of credit institutions, financial enterprises and payment institutions, the MNB launched 76 investigations and closed 71 inspections. In the inspection procedures which were finished, investigations were completed at 15 banks and banking groups, 4 mortgage banks, 3 home savings and loan associations, 3 financial enterprises, 5 payment institutions

and 1 financial market multi-agent, *inter alia*, with the application of various measures that were in line with the gravity of the revealed infringements. The MNB concluded investigations at 7 banks and 2 branch offices within the framework of supervisory proceedings. In the course of the investigations, prudential penalties of HUF 456.3 million were levied on institutions, particularly related to capital requirements, transaction rating, client rating, collateral valuation, debt break rules and reporting, as well as the failure to observe legislation related to the prevention and combating of money laundering and terrorist financing and the measures set forth in previous decisions. During the year, internal liquidity adequacy assessment processes (ILAAP²) were launched at 11 credit institutions, of which 4 processes were closed as well. Altogether 16 internal capital adequacy assessment processes (ICAAP³) were launched, of which 13 were concluded in 2019. In addition, 9 validation processes were initiated, of which 5 were closed in the reporting year. During the on-site and off-site inspection procedures conducted at financial institutions, penalties totalling HUF 512 million were imposed in addition to the measures applied.

In accordance with the recommendation of the European Banking Authority (EBA), the MNB's supervisory activity focuses on the business model-based approach. Accordingly, the MNB continuously maintains the supervisory indicators assessing the risks arising in the business models applied by the institutions and the future development of earnings potential, and the number of these indicators continued to expand in 2019. The supervisory review and evaluation process of banks' internal capital adequacy assessment process (ICAAP) and the validation of the internal models necessary for calculating the capital requirement are of utmost importance for the stability of the financial intermediary system. During the year, the MNB initiated the ICAAP review at 16 institutions, involving in the inspection all banks that are risk-sensitive and significant from the perspective of the financial intermediary system's stability. The MNB launched validation processes, at the banks' request, in the case of several risk models. The ICAAP review of smaller institutions was also a focus area in 2019: in their case, the MNB quantified the risks that had been assessed with a less risk-sensitive approach, using the benchmark models designed based on the experience with large banks. The supervisory activities also focused on the assessment of banks' vulnerability with stress tests. Based

on its continuously developing methodology, the MNB examines banks' capital loss potential, proposing, where it deems necessary, an additional capital buffer for institutions in accordance with the uniform supervisory methodology.

In 2019, the central bank continued to reinforce its work that started in connection with the supervisory treatment of large exposures. In response to developments in the sector, the MNB pays more and more attention in its supervisory inspections to institutions' largest transactions and the related large exposure-treatment processes as well as to verifying compliance with the requirements laid down in MNB Recommendation No. 28/2018 on the definition of the notion of group of connected clients (client group), largely applicable from 1 July 2019. During continuous supervision, the central bank developed new monitoring indicators (mainly by using analytical reporting data and other databases), further deepening the vertical monitoring and analysis of risks. Hungarian credit institutions' willingness to undertake large exposures has increased in recent years, and the share of commitments linked to the owners of the institution within large exposures has become greater and greater. According to the preamble of one of the most important EU regulations pertaining to the credit institution sector, the CRR,⁴ institutions need to be particularly careful when undertaking exposures against their owners and their interests. This is because the promotion of owners' interests can often run counter to the prudent risk-taking behaviour of the given credit institution, thereby entailing considerable risk. This called for the creation of a supervisory regulation that clearly stipulates the MNB's requirements for the institutions regarding the CRR. Therefore, the requirements on exposures related to owners were new elements in the MNB recommendation on the measurement, management and control of credit risk. The recommendation that entered into force on 1 September 2019, lays down requirements on exposures to companies under the influence of the owners of credit institutions, the procedure for identifying internal loans, the keeping, controlling and assessment of records as well as the information provided to executive bodies with management and supervisory powers.

In connection with the reduction of the risks of supervised institutions, the MNB decided to set up an appraiser database. One major component of the risks related to NPL⁵ portfolios is the value of the real estate collateral for exposures. This considerably influences returns and

² Internal Liquidity Adequacy Assessment Process

³ Internal Capital Adequacy Assessment Process

⁴ Regulation (EU) No 575/2013 of the European Parliament and of the Council on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012

⁵ Non Performing Loans

thus institutions' profitability. The reliability of asset and collateral valuation can be critical in credit institutions' activities from several aspects. The MNB decided to create a database to strengthen the consistency and reliability of the valuation, in line with the goal laid down in Point 33 of the publication *Competitiveness Programme in 330 points* that appeared in 2019 at the initiative and with the support of the Hungarian Banking Association. No high-quality database is available to appraisers on properties used as collateral. It is therefore important to set up a comprehensive transaction database that enables reliable, unique property appraisals and the observation of real estate market trends and can potentially improve the efficiency of the statistical methods used for tracking valuation changes. The property database managed by the MNB can be an early step towards the practice aimed at a uniform quality of appraisers supervised by the MNB. From a supervisory perspective, the information gained during the thematic, targeted and comprehensive inspections has been incorporated into the database to ensure that it is of adequate quality, the recommended scope of data of the relevant data table has been subject to consultation in close cooperation with the professional organisations concerned in the sector, and a consensus data table has been prepared. At the end of 2019, the MNB approached supervised institutions with a survey, to assess the expectations about the central appraiser database. The responses were processed in early 2020, and the results will be utilised by the MNB when creating the database.

The central bank once again closely monitored compliance with the credit institutions' reporting obligations in 2019, putting great emphasis on the reliability of data supply underlying the analyses and the improvement of data quality. Within the framework of its on-site and off-site inspections, the MNB examined this subject matter at several institutions and took measures on a number of occasions regarding amendments to inadequate data and corrections of related report-compilation processes. Along with reporting, another focus areas were the examination of the transition to IFRS 9, the related asset classification (SPPI test⁶) and the establishment of staging⁷ categories. Another key area was the examination of the provisions in the MNB's recommendation on setting up and using internal safeguards, in particular the requirements on compliance, as well as collateral valuation practices, and the verification of compliance with the provisions to prevent

excessive indebtedness of households, in the case of both credit institutions and financial enterprises. In order to control the above, several on-site targeted inspections were conducted even among the institutions that were not subject to comprehensive examinations in 2019. The MNB has set the goal of reacting to the problems that arise within the shortest possible time. Accordingly, when consumers report systemic problems or in the case of suspected fraud, the MNB gathers information on the situation by conducting immediate targeted inspections and takes urgent measures for the elimination of the shortcomings, as necessary.

In 2019, the central bank withdrew the operating licence of NHB Növekedési Hitel Bank Zrt. and ordered its dissolution. Before that, the credit institution had been unable to adequately ensure the conditions necessary for long-term operation, despite the central bank's measures. Therefore, with a view to safeguarding customers' interests and the stability of the financial intermediary system, the MNB decided to withdraw the licence of the credit institution. Also during the reporting period, due to facts that were uncovered in the inspection procedure at VirPay Pénzforgalmi Szolgáltató Kft. and in order to protect the legal and economic interests of those concerned, a temporary measure was applied at that market participant. In the course of this, the MNB appointed a supervisory administrator to the payment service provider, a small player on the Hungarian market, restricting the provision of payment services. After this, the withdrawal of the operating licence of VirPay was initiated due to the failure to improve the capital position and the problems related to the institution's accounting for customer payments.

From a licensing perspective, one major event was the entry into force of Act CCXXXV of 2013 on Certain Payment Service Providers, amended to ensure compliance with the PSD2 Directive,⁸ on 13 January 2018. Pursuant to the amendment, the MNB registered the first payment institution providing only account information services in early 2019 and then did the same for other payment institutions with such activities. Not only financial market institutions but also other market participants showed keen interest in the new services introduced by PSD2 (account information and payment initiation services), the acquiring of payment transactions activity, open banking and open standards of communication (exemption from the contingency mechanism, exemption from strong customer

⁶ Solely Payments of Principal and Interest

⁷ Pursuant to IFRS9, institutions' financial instruments need to be classified into different stages

⁸ Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication

authentication and information in the certificates issued to third-party providers). The MNB received a large number of licence applications and requests for legal interpretation and information in these topics. There were also several personal consultations with market participants. Moreover, the central bank registered the Hungarian branch office of a UK payment institution based on notification from the British supervisory authority. During the year, the procedures launched against four fuel distributor companies in respect of the issuance of specific payment instruments in accordance with Section 289/A of Act CCXXXVII of 2013 on Credit Institutions and Financial Enterprises (Credit Institutions Act) were concluded. During the procedures, the MNB established that the services provided by the notifier companies, the issuance of so-called post-paid and prepaid fuel cards is not a payment service or the issuance of electronic money.

The number of players in the credit institution sector decreased in 2019, with 3 institutions ceasing their credit institution activities. The branch of the Banco Primus S.A., headquartered in Portugal, terminated its activities on 3 June 2019, and Porsche Bank Hungary Zrt. and Kinizsi Bank Zrt. transformed into other types of financial organisation. In the case of Kinizsi Bank, the first step was the portfolio transfer, following which its transformation into an investment firm was authorised. This was the first licensing procedure for the provision of investment services initiated by a credit institution since the entry into force of the MiFID II regime. Later during the year, the investment firm asked for its operating licence to be withdrawn. Porsche Bank Hungary Zrt. returned its bank licence at the end of 2019, continuing to operate as a financial enterprise from 2020. Takarékbank Zrt. merged with 11 members

of the cooperative integration operating in the form of a cooperative society and TakaréK Kereskedelmi Bank Zrt. on 31 October 2019. No authorisation from the MNB was required for the merger. However, this called for several other licensing procedures (for example, authorisation of the election of senior executives at member institutions and amendments to the articles of association, CRR authorisation procedure related to the funds of the cooperative integration, authorisation of holding cooperatives joining the integration, etc.).

Several authorisation procedures on the acquisition of qualifying holdings in credit institutions were completed during the year. The MNB authorised a number of portfolio transfers during the year. Notable examples include the authorisation of the transfer of the complete portfolio of AEGON Magyarország Lakástakarék to ERSTE Lakástakarék necessitated by the fact that AEGON Magyarország Lakástakarék decided to withdraw from the market in 2020. In 2019, the players in the credit institution sector opened up towards foreign markets through the acquisition of non-resident entities and the establishment of branches. The series of acquisitions by OTP Bank Nyrt. and the OTP Group continued, and they received authorisation for acquiring holdings in several non-resident entities. The purchased entities include SG Banka Srbija, SG Osiguranje, SG Banka Montenegro, Mobias-banca (Moldova) and SKB Banka Ljubljana. Bank of China (Hungária) Hitelintézet Zrt. established a branch in Romania.

Relatively few (3) new institutions entered the market of financial enterprises. Still, in the final days of the year, in view of the increased initial capital requirement effective from 1 January 2020, a large number of applications were

Table 5
Number of inspections conducted at credit institutions, financial enterprises and payment institutions

Type of entity	Type of inspection	Closed in 2019		Started in 2019	In progress on 31 Dec 2019
		Started in 2018	Started in 2019		
Credit institutions (and Branches)	Comprehensive	5	2	10	8
	Targeted	15	6	13	7
	Thematic	1	1	3	2
	Follow-up	3	2	4	2
	Validation and SREP	3	18	25	7
	ILAAP	3	4	11	7
	Supervisory inspection	0	12	17	5
Financial enterprises	Comprehensive	0	0	2	2
	Targeted	2	0	4	4
	Follow-up	0	1	1	0
Payment service providers	Comprehensive	1	1	2	1
	Targeted	0	4	5	1

received for the establishment of financial enterprises and operating licences. The number of procedures on the acquisition of qualifying holdings in financial enterprises was also high. Receivables purchases are still dominant among the activities of these sector, and safe deposit box services appeared as a major new feature. There was no considerable realignment among financial market intermediaries. Several mortgage intermediaries, multi-agents and brokers received an operating licence during the year, but a number of intermediaries returned their licences. The number of procedures on the authorisation of senior executives and the amendment of agency contracts remained high.

Supervision of insurance companies, funds and intermediaries

In the insurance sector, 19 new inspections were initiated and 12 inspections were concluded in 2019. The penalties imposed in 2019 in connection with inspection procedures conducted at insurance market participants amounted to a total HUF 190.3 million. In 2019, the MNB conducted business model-based inspections at four insurers, and minor shortcomings were identified. Overall, the inspected institutions have strategies that realistically take into account the external factors, potential risks and the available resources and guarantee sustainable profitability for the institution and business plans consistent with their strategies, the fulfilment of which is continuously measured. The central bank imposed penalties of HUF 150 million in the course of continuous supervision.

The most important provisions of the MNB's ethical life insurance regulation and the corresponding further regulations entered into force in 2017. As the next step in implementing the ethical concept, the commission ceiling rules became even tighter as of 1 January 2019. The central bank verifies compliance with the new regulatory environment on a continuous basis. The focus areas of the inspections include, *inter alia*, the analysis and backtesting of the product development steps taken. The further amendments introduced in 2019 supplement or clarify the rules concerning to insurance intermediaries and ancillary insurance intermediaries to ensure the straightforward application of the law.

Following the success of its earlier housing loan initiative, the MNB developed the certification system of consumer-friendly home insurance in 2019. Insurers can apply with their products for the Certified Consumer-Friendly Home

Insurance (CCFHI) certification from 10 January 2020. The certification is awarded to schemes that provide a basic insurance package and procedural conditions that are comparable and transparent for customers. After close consultation with professional associations and insurers and taking into account the market's best practices, the MNB defined the content of the basic package. The CCFHI framework contains minimum standards for the qualified products' conditions and procedural issues. Beyond these, insurers may undertake additional commitments serving the interests of consumers in their individual terms and conditions. The CCFHI seeks to strengthen competition and increase customer mobility on the home insurance market by focusing on family-friendly, green and digitalisation aspects.

The promotion of digital solutions also plays a part in other initiatives of the MNB. 2019 saw the creation of an itemised database of compulsory motor third-party liability (MTPL) insurance, as well as the launch of the MNB's DLT-based⁹ IT system project. Populating the itemised database IT system for MTPL insurance concluded in the second quarter of the reporting period. In accordance with MNB Decree No. 42/2019. (XII. 3.) on the detailed rules of data requests from the policy and damage database covering motor third-party liability insurance published on the fourth quarter, Hungarian insurers offering MTPL may request aggregate data from the database to support their premium and provision calculations. The use of aggregate data helps reduce risks and is expected to strengthen competition, especially in the non-retail market. Publication of the decree concluded the creation of the first 'SupTech' instrument for insurers in Hungary.

The DLT project seeks to implement state-of-the-art information exchange between the banking and the insurance sector based on a secure technological solution in the records of home insurance collateral. The MNB engaged in close consultation with professional associations and representatives of the sectors from the beginning of the year, and specified implementation with the use of DLT. The consultations continue with the sectors. The MNB trusts that the technological development allows the quality of the services provided to the customers concerned to be improved and boosted on the banking and insurer side as well.

In 2019, the Austrian supervisory authority (FMA¹⁰) visited the MNB within the framework of the cross-border cooperation of supervisory colleges. During this, the

⁹ Distributed Ledger Technology

¹⁰ Finanzmarktaufsicht

supervisors shared their experiences with each other on the insurers that have an Austrian parent company as well as the best practices developed during supervision.

In the course of comprehensive audits, the verification of compliance with the Solvency II regulation by assessing corporate governance areas, key functions and the operation of the institutions' own risk and solvency assessment process while focusing on continuous operation remained a priority in 2019. Moreover, with respect the new legal requirements (IDD, PRIIPS¹¹), the examination of the application of the IDD¹² by insurers and insurers' sales activities began. During its inspections, the central bank paid special attention to the adequacy of insurers' capital and reserve calculation, the efficient action against financial violations, the suitability of the practice applied for preventing and combating money laundering and terrorist financing and the data quality of supervisory reporting. In the reporting period, the sector-specific findings concerned, *inter alia*, the inappropriate operation of the corporate governance and the internal control systems, infringements related to the contractual terms of the distributed products and customer information documents, as well as to customer information and complaint management. The MNB also identified irregularities in connection with portfolio management and registration systems, reporting and IT requirements, outsourcing contracts as well as accounting rules, the prevention of abuse and money laundering.

Due to shortcomings identified in a targeted inspection, the MNB suspended the cross-border sales of an insurer until the conclusion of the inspection, but for not more than for one year. The measure aims to mitigate the potential future risks related to this portfolio that could affect the own funds situation and to urge the insurer to assess the risks and take steps to further mitigate them.

Penalties were imposed in the case of some of the identified infringements, especially due to the poor functioning of the internal controls within corporate governance as well as the problematic portfolio management and product terms of various insurance segments, inaccuracy in customer communications and the violation of IT, outsourcing and anti-money laundering provisions. Aggravating circumstances included the shortcomings of records and control systems that in many instances led to unlawful practices and inadequate communications with customers and also the fact that the problems of the

MTPL portfolio management could affect the Hungarian MTPL market as a whole due to the related reporting. The consumer communication issues also included complaint management, which is related to customers' crucial enforcement right.

The MNB withdrew the operating licence of ERGO Életbiztosító Zrt. upon request and authorised the transfer of the insurer's portfolio in 2019. In addition, it authorised the acquisition of qualifying holdings for an insurer.

Within the framework of the integrated prudential and consumer protection supervision, the central bank concluded 9 prudential targeted inspections and launched 7 consumer protection procedures in 2019, in addition to the 5 new inspections and 1 extraordinary (repeated) targeted inspection. The penalties imposed in the completed prudential inspections and those levied during continuous supervision in 2019 totalled HUF 108.7 million.

In the case of insurance intermediaries, the central bank's 2019 inspections focused on compliance with the provisions of the IDD. The MNB verified the conflicts of interest policy, the circumstances of making offers, customer information and the switching of policies in the inspection of several insurance intermediaries, and infringements were identified. According to the findings of a targeted inspection at a major insurance intermediary (multi-agent), the agent failed to provide complete information to customers in some cases, and the inspection revealed several other serious infringements. Based on this, the MNB imposed a penalty. During a targeted inspection with a limited scope at another multi-agent, the MNB deemed it an infringement that the agent had not appropriately taken into account all necessary circumstances while developing its conflicts of interest policy, which is required to be prepared pursuant to EU regulation, even though the violation of the relevant provisions could have disadvantaged the customer. In view of the above, the MNB temporarily suspended the sales of certain life insurance products offered by the multi-agent. The central bank also imposed a penalty on the multi-agent, *inter alia*, because of its unlawful mediation practices aimed at the termination of life insurance customer contracts and the signing of new ones as well as the inadequate specialised information provided to customers.

The MNB withdrew the operating licence of 7 financial market intermediaries and 5 insurance intermediaries in 2019. They failed to meet their regular reporting

¹¹ Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs)

¹² Insurance distribution directive: Directive (EU) 2016/97 of the European Parliament and of the Council on insurance distribution

requirement, a basic condition facilitating the safe operation of the market, despite repeated requests. The central bank withdrew the licence of another 6 financial market intermediaries due to their non-compliance with personal or material conditions. On account of violation of the reporting requirement or the delay in its observance, the MNB levied 8 insurance mediation and 17 financial market mediation penalties on 22 institutions. Supervisory penalties were also imposed on the intermediaries that failed to meet their reporting requirement.

In the funds sector, 14 comprehensive, 4 targeted and 2 follow-up inspections were commenced in 2019. Including the inspections not finished in the previous period, 16 inspections were closed. In 2019, the MNB levied penalties totalling HUF 43.2 million in its on-site and off-site supervision. The central bank seeks to identify the risks on a risk basis, using targeted inspections covering a narrower aspect of funds' operation, in addition to the comprehensive inspections that are required by law for this sector and are compulsory every five years. In addition, the central bank also aims to check compliance with the decisions published as the conclusion of earlier inspections as well as with the recommendations made by the MNB in follow-up inspections. To this end, 2019 saw the commencement of 4 targeted inspections and 2 follow-up inspections, a common feature of which is that they are faster than comprehensive inspections due to their focused, operational nature. This allows the MNB to respond quicker to emerging risks. At an institution with few members, a supervisory administrator was appointed as a temporary measure, on account of the serious infringements revealed during the ongoing comprehensive inspection. The administrator, fulfilling their main task determined by

the MNB, restored lawful operation and was also actively involved in the decision of the fund's general meeting that the institution would merge into a considerably larger peer.

In the course of these inspections, similar to the case in previous years, the MNB mainly identified problems related to the regulation and organisation of delegate elections, shortcomings in the internal control system and IT security, the adequacy of policies, the violation of accounting rules and reporting requirements as well as complaint management. In the case of benefit expenditures, inspections mainly found failures to observe the deadlines, and in some institutions the date of receipt was not shown on members' documents. This was assessed by the MNB as a shortcoming in the records and control systems, since in the absence of acknowledgement of receipt, it cannot be verifiably ascertained whether the performance was in line with the requirements. In connection with the identified infringements, penalties were imposed related to the operation of the control committee, IT security, accounting and reporting as well as member settlements.

The MNB's other major innovation was the introduction of the pension funds' total cost indicator (TCIPf) to complement the fee burden indicator and its other version upgraded in 2018, the adjusted fee burden indicator of voluntary pension funds and its other version upgraded in 2018, the adjusted fee burden indicator, with the aim of improving the comparability and transparency of voluntary pension funds' fee burden. For this reason, the MNB issued its related recommendation in 2019.¹³ The TCIPf aims to make the average direct and indirect fees and costs levied on an annual basis on the members' contributions and the invested savings be merged into a single indicator for each

Table 6
Number of inspections conducted at insurance companies, funds and intermediaries

Type of entity	Type of inspection	Closed in 2019		Started in 2019	In progress on 31 Dec 2019
		Started in 2018	Started in 2019		
Insurance companies	Comprehensive	6	3	12	9
	Follow-up	0	2	5	3
	Targeted	1	0	2	2
Pension, healthcare and mutual aid funds	Comprehensive	5*	6	14	8
	Targeted	1	3	4	1
	Follow-up	0	1	2	1
Intermediaries	Targeted	8	2	6	4
	Thematic	0	0	0	0

* 1 inspection commenced in 2017

¹³ Recommendation No. 20/2019 (IX.20.) of the calculation and publication of the total cost indicator of voluntary pension funds

pension fund and optional portfolio, facilitating comparison with the data of other pension funds. Another important consideration during the development of the TCIPf was that it must be comparable with the cost indicator of a savings products for similar purpose, i.e. pension insurance. Therefore, the principle and calculation assumptions of the methodology are identical to those of the insurance TCI. The TCIPf values expected from pension funds in early 2020 will be published by the MNB on its TCI search platform. According to the MNB's expectations the publication of the TCIPf data in a comparable form may encourage people to join pension funds and increase savings.

Supervision of capital market institutions

In 2019, the MNB launched 45 new inspections and supervisory proceedings and closed 37 inspections and supervisory proceedings, levying a total of over HUF 230 million in institutional and personal penalties in relation to such.

In connection with investment service providers, the MNB once again verified compliance with the changed regulatory framework (MiFID II/MiFIR¹⁴) in 2019. It continued to pay special attention to checking the continuous availability of the assets owned by customers. To support the control function introduced by the new regulatory framework and discuss certain practical issues, the central bank held a workshop at the investment service provider for safeguarding officers. All market participants concerned were represented at this event.

With regard to investment fund management companies, the MNB's supervisory objectives continued to include the analysis of risk management and capital adequacy as well as the examination of how investment decisions are made and implemented, and how the continuous monitoring of investments is ensured. During continuous supervision and the inspections in the reporting period, the assessment of liquidity management was a top priority. This was of special importance in the case of public real estate funds. The MNB also issued a recommendation on this topic during the year. In order to manage the liquidity risk of real estate funds, the MNB required real estate funds with a short redemption period of no more than T+180 days to introduce a trading cap and launch real estate funds or investment unit series with a redemption period of at least T+180 days.

The trends seen in earlier years continued as the number of licensing procedures for investment fund management companies entering the market remained high: 12 new (operating) licences were granted to alternative investment fund management companies (4 real estate fund managers, 8 venture capital fund managers); 3 new fiduciary asset management companies obtained an operating licence for regular business activity; and in one case the MNB withdrew the licence on an ex officio basis. Acting in its stock exchange licensing capacity, the MNB authorised the establishment of Első Értékpapírosítási Tanácsadó Zrt. as the subsidiary of BSE, and this company's engagement in advisory facilitating securitisation activity, and registered the BSE's Xtend MTF platform as an SME capital financing market. In connection with the distribution of government securities, it registered

Table 7
Number of audits and administrative inspections conducted at capital market institutions

Type of entity	Type of inspection	Closed in 2019		Started in 2019	In progress on 31 Dec 2019
		Started in 2018	Started in 2019		
Investment fund managers (exc. venture capital fund managers)	Comprehensive	12	1	10	9
	Supervisory inspection	0	0	2	2
Venture capital fund managers	Comprehensive	8	4	11	8
	Supervisory inspection	1	0	0	0
Stock exchange	Comprehensive	0	1	1	0
	Follow-up	0	0	1	1
Investment firms	Comprehensive	8	0	9	9
	Targeted	2	0	8	8
	Thematic	0	0	1	1
	Follow-up	0	1	1	0
	Supervisory inspection	0	1	1	0

¹⁴ MiFID II/MiFIR – Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU; Regulation (EU) No. 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No. 648/2012

an unusually large number of capital market intermediaries. The number of additional intermediaries registered for a market participant was over 800 by the end of the year, related to distribution of the new Hungarian government securities. The MNB registered Magyar Posta Zrt. as the tied agent of the Hungarian State Treasury. The investment firm Magyar Posta Befektetési Szolgáltató Zrt. exited the capital market, and in connection with that the MNB removed from the records the firm's more than 1,900 tied agents registered in 2019. Similar to earlier years, the volume of personal authorisation procedures for investment fund management companies remained significant.

IT supervision

In 2019, the MNB conducted 52 planned and unplanned, ad-hoc IT supervisory inspections. Several of these were conducted within the prudential supervisory inspections. In the course of the inspections, special attention was paid to the IT strategy and the management of IT security vulnerabilities at the supervised institutions. Thanks to the stronger supervisory action, the percentage of obsolete IT systems has become perceptibly lower in the sector. Within the framework of methodological developments and in response to market needs and regulatory trends, the MNB reviewed its recommendation on the usage of community and public cloud computing services (the so-called 'Cloud Recommendation') (4/2019 (IV.1.)). An executive circular on written contracts and written declarations concluded by electronic means was also published.

Supervisory activity related to the prevention of money laundering and terrorist financing

Similar to earlier years, one of the focal points of the supervisory activity in 2019 concerned inspections linked to the prevention of money laundering and terrorist financing and the implementation of pecuniary and financial restrictive measures as well as other administrative duties related to the topic. In 2019, the MNB conducted inspections covering the prevention of money laundering and terrorist financing at 41 institutions. Out of this, the examination formed part of 18 prudential comprehensive inspections, 3 follow-up inspections and 20 independent targeted or thematic inspections. In its decisions issued in 2019, the supervisory authority imposed substantial supervisory penalties in several cases related to the above-mentioned requirements.

The new regulatory framework that entered into force in 2017 not only established broader requirements for the financial sector, it also introduced the risk-based supervisory

procedure for inspections related to the prevention of money laundering and terrorist financing. According to the methodology, the central bank regularly identifies the risks related to money laundering and terrorist financing at the supervised institutions, and analyses and evaluates these together with other available information. Using risk analysis and targeted selection, the MNB increased its capacity dedicated to independent procedures in 2019, launching independent inspection procedures in relation to combating money laundering and terrorist financing. This practice will persist in the years ahead. Moreover, in 2019 the central bank closely monitored the progress made in the repeated customer due diligence procedures required by law and performed until the end of October 2019. Supervised institutions fulfilled the requirement by the deadline.

With the spread of continuously changing new technologies, the need for financial service providers to establish online customer relations and for the option of carrying out online customer due diligence has increased. The renewed regulatory framework allowed the establishment of business relations through an electronic communication system previously audited by the MNB. The central bank upgraded the authorised technologies in 2019, and more and more institutions are able to conduct non-real-time online customer due diligence (with a selfie) and real-time online customer due diligence (via video connection), and to operate administrative systems independent of space, in accordance with the requirements of our times.

Market surveillance and oversight of issuers

In 2019, the MNB launched 22 market surveillance procedures, in relation to the suspicion of unauthorised activities in 12 cases, to market manipulation in 6 cases, to violation of short selling rules in 2 cases and to violation of acquisition rules in 1 case. In addition, the MNB closed 25 market surveillance procedures, as a result of which market surveillance penalties amounting to more than HUF 66 million and supervisory penalties of HUF 37 million were imposed.

In 2019, the central bank's top market surveillance priorities included the proactive detection and exclusion of unlicensed or unregistered market participants, strong action against market abuse as soon as possible after the beginning of the activities as well as press communication aimed at general prevention. These efforts help the MNB to protect and assist market participants in maintaining and building confidence in the financial intermediary system. During the performance of its duties related to issuers of publicly traded securities, the central bank launched

3 targeted inspections and closed 2. In the course of the year, it levied supervisory penalties totalling HUF 6 million in relation to the supervision of issuers.

Supervision of compliance with issuers' disclosure obligations in relation to publicly traded securities was further strengthened in 2019. The MNB regularly took preventive measures to achieve its objective of establishing a more transparent capital market. The substantive analyses used by the MNB during continuous supervision in this area also deepened. As a result, in order to ensure that investors have access to adequate information, it was quickly possible to have issuers disclose regular or extraordinary information in line with the legal provisions. Issuers of publicly traded securities became even more disciplined in 2019 in terms of their disclosure obligations. Similar to the previous year, during the examination of the annual and semi-annual reports from 2019 no shortcomings were found the gravity of which warranted stricter measures (e.g. suspension of trading). The MNB's long-term goal is to encourage voluntary compliance with the disclosure obligations among issuers of publicly traded securities, rather than imposing ex-post sanctions on issuers that violate the legal obligation. Therefore, similar to previous years, in 2019 the central bank offered an opportunity for companies to clarify their capital market requirements and any questions arising in tailored issuer workshops.

In issuance licensing, the supervisory authority authorised the publication of prospectuses for 8 bond programmes and the stock exchange admission of 2 bonds and 6 equities. In addition, prospectuses prepared for the introduction of bonds to the regulated market were authorised in 2 cases. In the case of one equity, a decision had to be made in connection with stock exchange admission, concerning whether the information in the equivalence document was identical to that in the prospectus. The MNB approved public bids for the purchase of three listed companies, registered 75 new investment funds and removed 32 funds from the records. Furthermore, it authorised money market fund management and operation as a money market fund in nine cases. The MNB exempted one financial group from development of the risk management procedures for collaterals under EMIR.

Consumer protection

In the field of consumer protection, the MNB launched 35 targeted and thematic inspections ex officio, and 153 inspections upon consumer requests in 2019. Moreover, consumer protection was a part of several comprehensive inspections. Together with the fines levied in the prudential procedures, the central bank imposed consumer protection penalties of HUF 186.6 million.

In the financial markets, the MNB continued its thematic inspections of compliance with the fair banking rules introduced in 2015. The inspections evaluating the unilateral interest rate change of mortgage loans and the corresponding practices of providing advance information did not identify a system-wide problem. However, the MNB found unlawful practices at 8 market participants out of the 10 inspected, typically on account of failure to send out the information letters on unilateral interest rate changes by the specified deadline or in a verifiable manner. It was also found that certain institutions did not reprice some loans in lien with the value of the interest change indicator. These problems involved a low number of transactions, and the institutions took the necessary steps to remedy them, under the MNB's monitoring.

As a result of the certified consumer-friendly housing loan (CCHL) initiative launched by the MNB in 2017, by the end of November 2019 more than 62,000 consumers had opted for CCHL products, which have a long interest rate period, transparent terms and conditions, and are made available in a fast administrative procedure. The total value of such outstanding loans exceeded HUF 770 billion in November 2019. In the period under review, the central bank 'fine-tuned' several elements of its CCHL framework. It supplemented the requirements with detailed rules on online applications, and the group of certifiable loans with state interest rate subsidy expanded (with loans combined with the rural family home creation allowance or CSOK). Through its regular consumer protection inspections and continuous supervision in 2019, the MNB monitored compliance with the provisions governing CCHL products and had the institutions concerned resolve the identified shortcomings.

Within the framework of continuous consumer protection supervision, in addition to the recurring inspection topics, the MNB reviewed and analysed the conduct and procedures of the institutions in relation to several individual topics. As a result of this, upon identifying undesirable market practices, it issued 101 consumer protection warnings, which resulted in the efficient, immediate elimination of phenomena and information content alarming consumers. Inspections of undesirable market practices were closed with measures and penalty resolutions in several cases. Investigations of suspected infringements were performed within the framework of 19 targeted inspections aimed at complaint management, the calculation and communication of the annual percentage rate of charge (APR), the calculation of the payment-to-income ratio and at the identification of unfair commercial practices to the detriment of consumers. In addition to institutions with registered offices in Hungary, in the capital market in particular, the measures and inspections also affected non-resident service providers engaged in cross-

border activities. The MNB continued to pay special attention to the APR calculation practices of financial institutions offering loans against pledge, imposing consumer protection penalties on 5 institutions during the inspections.

Consumers' petitions and complaints initiating consumer protection inspections also contained important information for the central bank. Provided that the statutory conditions for launching a procedure were fulfilled, these were investigated in 117 cases on the money market. In 2019, the MNB imposed consumer protection penalties for infringements identified in 84 cases, while it imposed procedural penalties due to institutions' lack of willingness to cooperate and for hindering inspections. In addition, it issued a recommendation on managing the claims against consumers, specifying the behaviour with debtors and the expected information-provision and cost accounting practices, and called on institutions during its continuous supervision to comply with the recommendations' stipulations. The MNB also pays special attention to ensuring that the general contract terms and conditions applied in the consumer contracts of financial organisations comply not only with the consumer protection provisions of the sectoral legislation but also with the civil law requirements of good faith and fairness. Following previous years' analyses of vehicle financing and mortgage loan contracts, also paying attention to the dynamic expansion in bank card turnover, the MNB started to analyse the general terms and conditions of credit card contracts concluded with consumers, focusing on unfair elements. Covering almost the entire market, the investigation concerns a number of financial institutions and is expected to be completed in 2020.

On the capital market, the evaluation of capital market institutions' observance of the consumer protection provisions introduced by the MiFID II/MiFIR regulatory framework was treated as a priority by the MNB once again in 2019, both during the inspections conducted and during its continuous supervision. In 2019, the central bank issued unique product intervention requirements for the investment service providers offering CFDs.¹⁵ This was because prior to this, ESMA had placed the imposition of constraints on selling CFDs within national competence as part of the consumer protection aspects of the MiFID II/MiFIR regulatory framework. From 2019, a thematic inspection determined by the ESMA IPISC working group will be conducted every year to strengthen the supervisory convergence among national authorities and ensure compliance with some investor protection requirements of the MiFID II Directive. In 2019, the MNB examined the

practices of 5 investment service providers in thematic inspections.

Among insurers and pension funds, there were a total of 14 institutions (5 insurers and 9 pension funds) where a comprehensive inspection involving consumer protection examination was conducted by the central bank in 2019. In these comprehensive inspections, the MNB examined – from a consumer protection perspective – the information provided to customers on certain products, the compliance with legal provisions on complaint management and the observance of the stipulations on safeguarding insurance and fund secrets. In 2019, one targeted consumer protection inspection was launched where the MNB examined the insurer's activities from the aspect of whether its insurance activities, related to a life insurance linked to a selected investment unit, provided in Hungary as cross-border services were in line with the relevant consumer protection provisions. During this, the central bank specifically focused on whether the insurer observed the laws pertaining to the Hungarian concepts of public interest and general good while fulfilling its requirements prior to contract conclusion and the information and other requirements related to the contract. Consumers' petitions and complaints initiating consumer protection inspections also contained important information for the central bank. These inspections concerned 89 insurers and 6 funds.

Within the framework of continuous consumer protection supervision, in addition to the recurring inspection topics, the MNB analysed the conduct and procedures of the insurers and funds in relation to individual topics. As a result of this, upon identifying undesirable market practices, it issued 8 consumer protection warnings, which resulted in the efficient, immediate elimination of phenomena and information content alarming consumers. The MNB imposed consumer protection penalties in 48 cases for the infringements identified during its inspection of insurers and funds.

Customer service activity

Customers can reach the customer service of the MNB in person, over the phone, by e-mail, at the e-government customer portal and by petitions submitted on paper. In 2019, the customer service received 23,930 enquiries and 2,466 petitions in total. The breakdown of customer petitions and enquiries by sector is identical to what was observed in the previous period: more than half of them concerned the financial market, nearly one quarter of them pertained

¹⁵ Contracts for Differences

to the insurance sector, four per cent to the capital market and one per cent the funds sector, while the rest cannot be linked to any sector. The number of enquiries and complaints received in respect of non-resident institutions rendering cross-border services and other institutions was negligible in 2019. In the financial market, one third of the enquiries and complaints were related to lending, while almost one quarter of the cases concerning the insurance sector were related to compulsory motor third-party liability insurance. The complaints and customer service enquiries were mainly based on the settlements concerning contracts, service quality, deficiencies in the provision of information, petitions of equity and various administrative errors.

Other official and recording activity

Following a rising trend in recent years, the MNB's official examination organisation activities declined slightly in 2019. The number of examinees appearing at the examinations organised by the training organisations was down from the earlier figure of approximately 20,000 to 17,366. Out of them, the MNB issued an official examination certificate to 10,458 individuals. In addition to off-site inspections, the MNB examined the regularity of the training, the exam rooms with computers and the examinations 36 times in the year under review. According to the experiences of the inspections, although there were some minor irregularities, performance of the activity was in compliance with the law.

In 2019, the Core Data Repository, which contains the data of the supervised and registered institutions, received 14,664 forms as a result of core data notifications from organisations and individuals under the supervision of the financial intermediary system. In addition, 6,424 documents were used to make data entries related to authorisation and supervisory procedures.

3.4 RESOLUTION

During the year, the MNB evaluated whether the conditions for resolution were met by a small Hungarian bank. It established insolvency in the case of the institution concerned. There was no supervisory or market solution to settle the situation of the institution, but the institution's size, exposure to systemic risk, its role in the financial intermediary system and the impact of removing it from the system on financial stability were negligible, and therefore resolution was not justified by public interest. Consequently, the legal conditions necessary for ordering resolution were not jointly met.

In 2019, in order to prepare for possible future crisis situations, the MNB revised and further deepened the

resolution plans. The objective of resolution planning is the elaboration of the resolution strategy taking into account the structure and operation of the given credit institution or investment firm (hereinafter jointly: institution), in order to enable the resolution authority to have a scenario for handling crisis situations that cannot be or cannot be adequately managed with market and/or supervisory tools.

To support resolution planning, procedures aimed at the assessment of resolvability (including on-site inspections) were launched at several institutions. One of the main tasks of these procedures is to assess which crisis management strategy (liquidation or resolution) is credible and feasible in the case of the given institution or group, to what extent the chosen strategy serves the achievement of one or more resolution objectives and whether there are any material impediments regarding its implementation. In order to facilitate the planning process and to measure the amount of own funds and eligible liabilities (MREL) of the institution, the MNB also requested data submissions. The objective of meeting the individual and group-level MREL requirements to be set forth in the resolution plans is to have an adequate amount of funds available for loss-absorbing or recapitalisation during resolution.

In the case of banking groups domiciled in Hungary which also have cross-border group members, the MNB – as the group-level resolution authority – reviewed the group resolution plan. As a result of extensive preparatory work, a unanimous joint decision regarding the adoption of the plan and the size of the MREL requirement was made together with the respective foreign resolution authorities.

The MNB also actively participated in the preparation of group-level plans as the host resolution authority of the Hungarian subsidiaries of banking groups domiciled in the European Union and formulated proposals on the size and scheduling of the individual MREL requirements to the Single Resolution Board (SRB) and the resolution authorities of other Member States.

With respect to collective funds, it calculated member institutions' regular annual contributions for 2019 payable to the Resolution Fund on the basis of the respective EU regulation, and took part as an external observer in evaluating the objectivity regarding the 2019 stress test of the Hungarian National Deposit Insurance Fund (NDIF).

The majority of the assets managed by MSZVK Magyar Szanálási Vagyongazdálkodó Zrt. (MSZVK Zrt.) and its subsidiaries were sold by July 2018. The successful asset management enabled MSZVK Zrt. to pay dividends to the founding Resolution Fund in June 2019 in accordance with the

decision of the MNB exercising its ownership rights, and this increased the capitalisation of the Fund.

The MNB started to prepare for the stipulations of the EU regulatory package aimed at reducing the risks of the banking system pertaining to the resolution function. The rules, most of which are applicable from the end of 2020, are already taken into account by the MNB in its current planning processes.

In order to deepen the international network of relations in the field of resolution and to collect know-how, the MNB was once again actively involved in the work of various EU authorities in 2019. It participated in various working groups of the EBA, EIOPA and ESMA dealing with the preparation of future regulations concerning resolution.

3.5 PAYMENT AND SECURITIES SETTLEMENT SYSTEMS

Efficiency and security of Hungarian financial infrastructures

Implementation of the instant payment system

In preparation for the introduction of the instant payment system, in early 2019, as originally planned, business testing by the voluntary system participants started, and the developments of the central infrastructure entered the final phase for both GIRO and the MNB. During the first quarter's voluntary test period, all of the future system participants gradually joined, and the overwhelming majority of the players successfully sent and received transactions by the end of March; however, in some cases issues arose regarding the progress made in the developments of certain banks. After conclusion of the voluntary tests, the compulsory system participant testing phase was launched on 1 April 2019, where the complexity of the tasks to be completed by system participants increased. Although a large portion of the players made good progress in the preparations and met the requirements, developments and tests ran so late in banks with considerable customer bases that this seriously jeopardised the appropriate conclusion of their preparations by the originally planned go-live date.

The MNB continuously monitored the preparation of the players and held personal consultations on the progress made by the banks that were on a critical path. Based on in-depth analysis of system participants' preparedness, the Financial Stability Council decided to extend the testing period with a view to the smooth introduction

of the instant payment service to customers and secure operation of the system. Even though the service was made available to customers on 2 March 2020, the central system had gone fully live on 1 July 2019, as originally planned, to enable a longer live test period. Between 1 July 2019 and 31 August 2019, participants took part in the central system on a voluntary basis, while from 1 September 2019 a great number of parties concerned had to join the test operation mandatorily, to be able to complete the tasks in both the test and the live systems.

To ensure the appropriate preparedness and mature operation of the system, a tight schedule with advanced requirements was developed for the compulsory live test run, which allowed the MNB to closely monitor the preparation of the players concerned for the introduction of the instant payment service to customers on 2 March 2020. The rigorous requirements for the operation of the test and the live systems were intended to ensure that all system participants obtain the necessary certainty about the preparedness of their systems, so that the transition on 2 March 2020 would be implemented smoothly. Although there were obstacles to the completion of the specified tasks and delays in the progress made by system participants, the existing risks were managed within the framework of the personal consultations organised by the MNB and GIRO as well as the expert and executive forums. This allowed even the players in fairly critical situations to make major headway in preparing to provide the basic service.

Meanwhile, in order to assist the developments concerning the provision of innovative payment solutions based on the central infrastructure, the guidelines facilitating the interoperability between the payment and data entry services were finalised jointly by the MNB, GIRO and the auxiliary service working group of the instant payment project, and the documents were published in July 2019. The primary objective of the guidelines on the payment and data entry processes applicable in the instant payment system and on the standardisation of the basics of certain related business services¹⁶ and on the QR-code data entry solution applicable in the instant payment system¹⁷ is to promote the early emergence and spread of innovative auxiliary services based on the basic service.

Amendment of the MNB's payment decree

MNB Decrees No. 10/2019. (II. 21.), 23/2019. (VI.5.) and 44/2019. (XII.17.) amending MNB Decree No. 35/2017 (XII. 14.) on the execution of payment transactions (MNB Decree) were published on 21 February, 5 June

¹⁶ <https://www.mnb.hu/letoltes/fizetesi-folyamatok-utmutato-20190712-en.pdf>

¹⁷ <https://www.mnb.hu/letoltes/qk-kod-utmutato-20190712-en.pdf>

and 17 December 2019. During the country-wide implementation of the project, there had been requests by market participants for legal interpretations, which also included suggestions and requests from their side to be discussed and decided, not to mention that the MNB itself had also identified risks to be addressed before the launch of the instant payment system, making amendment of the MNB Decree warranted and necessary mainly in connection with the instant payment services. As – based on the MNB's decision – the instant payment service has been available for the customers of payment service providers since 2 March 2020, the entry into force of the MNB Decree provisions was also moved to that date. Amendment of the MNB Decree also facilitated consistency with changes in the legislation that had occurred in the meantime, requiring amendments to the provisions related to cheque collection and a few, mostly technical modifications.

The activities of the Hungarian AMI-SeCo

In 2019, the European Central Bank's (ECB) Advisory Group on Market Infrastructures for Securities and Collateral, the *AMI-SeCo*, held its meetings on 13–14 May, 2 July and 4–5 December. The MNB performs the secretarial duties of the relevant Hungarian working group, the *NSG*, and therefore it always analyses the topics of the *AMI-SeCo* meetings to allow the Hungarian market to establish its relevant position. High on the agenda of the 2019 meetings was European harmonisation, which not only covers harmonisation related to the T2S system responsible for pan-European securities settlement, but also that of European collateral management. Both sets of standards serve as guidelines for Hungary, and therefore the *NSG* included among its objectives compliance with the collateral management standards, in addition to the T2S standards that are being implemented. In connection with the former, KELER Ltd. prepared its own compliance roadmap at the end of 2019, to provide guidance for the Hungarian securities market. In addition to harmonisation, the *AMI-SeCo* placed other European issues on its agenda in 2019, such as the project for consolidating the ECB's cash and securities settlement systems (T2, T2S, TIPS), the improvement of the settlement efficiency of T2S, the future Eurosystem Collateral Management System (ECMS), the regulatory developments in the securities business and digital innovations in the market of post-trading infrastructures. The MNB performed its related tasks in 2019, informing the Hungarian market about these topics and facilitating the establishment of a common position.

PSD2 implementation now in its final phase

From 14 September 2019, account-servicing payment service providers had to open up their access interfaces enabling secure communication to so-called third-party

service providers, the new players of the payment market. The interface allows the latter to communicate via a secure channel with the payment service provider managing their customer's account. In practice, this enables customers to manage their finances more simply and to use account information services or even to initiate transfers through online or mobile applications developed by third-party providers.

The rules on strong customer authentication have also applied since 14 September 2019, marking the final phase of the introduction of strong customer authentication, one of the largest changes introduced by PSD2. In practical terms, this means that banks and other payment service providers need to offer at least two factors during authentication (e.g. password, biometric fingerprint) before customers can access their online payment accounts and initiate electronic payment transactions in a secure manner.

Several European payment service providers have reported difficulties to the European Banking Authority (EBA) on electronic payment transactions initiated with payment cards in connection with the implementation of strong customer authentication, and they asked for a postponement. Having considered the question, the EBA informed the national competent authorities in its EBA-Op-2019-06 opinion of 21 June 2019 that it was not possible to postpone a deadline set out in law. However, on an exceptional basis, national competent authorities could decide to allow additional time to prepare, provided that payment service providers had a so-called migration plan discussed with their own supervisory authority and would introduce it in an expedited manner. Due to the complex regulations of the PSD2 and in line with the EU-wide decision, the MNB first allowed 12 months for the Hungarian financial sector to prepare for full compliance with the laws on online payment transactions initiated with payment cards. The MNB acted in conformity with the final deadline adopted at the European level and extended the transition period for introducing strong customer authentication in such payment transactions until 31 December 2020.

Legal interpretations and inspections

Based on the requests by payment service providers and other companies, the MNB published 35 legal interpretations and professional opinions on payments in 2019, of which 12 legal interpretations pertained to interpretation of the provisions related to strong customer authentication applicable from 14 September 2019. In addition, the MNB published 16 updated or new legal interpretations and professional opinions on the "Frequently asked questions" page of its website launched

to facilitate the interpretation of the provisions based on the Payment Services Directive.

In 2019, the MNB conducted inspections in the context of payment-related administrative procedures at 3 banks, 1 EEA credit institution branch and 2 cooperative credit institutions, and in the course of continuous supervision, inspections commenced at a total of 27 institutions, including 19 banks, 6 EEA credit institution branches, 1 payment institution and 1 financial enterprise. 2019 saw the conclusion of 9 payment inspection procedures, launched against 5 banks, 3 cooperative credit institutions and 1 EEA credit institution branch. Of the completed procedures, total fines of HUF 130.8 million were imposed in 6 cases, in addition to prescribing corrective measures. The breaches concerned:

- with respect to Act LXXXV of 2009 on the Pursuit of the Business of Payment Services, the provision of information to customers, the format and content requirements of framework contracts, the amendment and termination of framework contracts, the opening and disposition of payment accounts, the authorisation and correction of payment transactions, liability rules, and the queueing of official transfer orders and credit transfers based on remittance summons,
- with respect to MNB Decree No. 35/2017 (XII. 14.) on the execution of payment transactions, the time of the start and end of the working day and the final submission deadline, the receipt and identification of payment orders, rejection of the execution of payment orders and payment transactions between payment service providers, the rejection, queueing, and partial execution of payment orders, the execution of payment transactions initiated to a payment account between payment service providers, the rules concerning the value date, and making the funds of the payment transaction available to the beneficiary,
- with respect to Government Decree No. 263/2016 (VIII. 31.) on payment account switching, the cancellation of payment accounts on the day specified in the power of attorney or at the end of the notice period as well as the provision of information on account switching.

In 2019, due to failure to comply with the provisions of an earlier MNB decision by the deadline, a repeated decision was taken in 1 case in addition to the repeated imposition of a penalty of HUF 5 million. Accordingly, the MNB imposed a total of HUF 135.8 million in fines due to breaches established in the MNB's payment-related administrative procedures. Of the control procedures completed, 6 procedures had commenced in 2018, and of the control

procedures commenced in 2019, in the case of 3 procedures a decision will be made in 2020.

Miscellaneous information

Publications related to payments and payment systems

'A hazai lakossági pénzforgalmi szolgáltatások árazása nemzetközi összehasonlításban' (Pricing of Hungarian retail payment services in international comparison), a study by the central bank's experts, was published in February 2019. The analysis finds that – relative to income – the costs incurred by Hungarian retail customers for payments is outstanding by European standards, even without the transaction tax. The study argues that the high charges and unfavourable structure of domestic credit transfers significantly hinders the development of electronic payments and thus also the economy as a whole. The minimum fees and the often large value-based fees can be detrimental to the spread of electronic payments, especially the introduction of instant payments.

The MNB published the *Payment Systems Report* for the eighth time in July 2019. The first part of the report analyses the efficiency of Hungarian payments to explore the changes in the volume of the major payment methods as well as the growth trends in the infrastructure underlying electronic payment methods and provides an overview of fraud related to payments and the income from the provision of payment services. This is followed by the description of the developments in the operation and oversight of the Hungarian financial infrastructures, and the lessons learnt from payment service control procedures. The second part of the report discusses in detail three key topics: the main questions related to the introduction of the instant payment system, the current pricing problems related to payment services and the material, practical issues of the new Payment Services Directive and the related guidelines and recommendations.

The MNB issued a recommendation on the conditions to benefit from exemptions from the fall-back mechanism

If the account-servicing payment service providers implement the API as a dedicated interface (dedicated API), a fall-back mechanism should also be provided, but the MNB may grant an exemption from this based on a corresponding request. In order to facilitate compliance with European Union payments legislation, the EBA issued detailed guidelines on the conditions to benefit from exemptions and the assessment of compliance with the

conditions, and the MNB issued these guidelines in the form of a recommendation to enhance the predictability of the application of the law and facilitate the uniform implementation of the relevant legislation.

Conferences, professional presentations and consultations

Several professional consultations were held in 2019 related to the establishment of the instant payment system, regarding for example the clarification of issues related to liquidity management in the system, the postponement of the introduction of the system to customers, the implementation of the compulsory live test period and the management of the issues and risks that arose in system participants' preparation efforts. Furthermore, the MNB gave professional presentations at the course organised by the Budapest Institute of Banking (BIB) in the second quarter of 2019, on the instant payment service as well as its experience with PSD2. The MNB was also represented at the biennial payment conference organised by the ECB, presenting the Hungarian instant payment model to a large audience of international experts.

In the period under review, the MNB consulted the market participants concerned (account servicing payment service providers, international card companies, service providers and the Hungarian E-commerce Association) several times regarding the regulation of strong customer authentication applicable in the case of online payments with payment cards, granting them additional time for the preparation to mitigate the arising risks and avoiding failed payment transactions in e-commerce.

3.6 FOREIGN EXCHANGE RESERVE MANAGEMENT

Purposes of holding reserves

Similarly to other central banks, one of the key tasks of the MNB – as specified in the MNB Act – is to manage the country's foreign exchange reserves. The MNB holds foreign exchange reserves for the purpose of fulfilling several functions:

- to ensure the level of reserves expected by market participants ('international collateral'),
- to support the monetary and exchange rate policy (providing intervention capacity),
- to provide foreign currency liquidity for the banking sector,

- to meet the state's transaction-related foreign currency needs.

The MNB regularly reviews the desirable level of reserves and, if necessary, takes measures – within the permitted limits – to reach the adequate level. Throughout 2019 the foreign exchange reserves exceeded the safe level expected on the basis of the Guidotti-Greenspan rule, which is closely monitored both by the central bank and investors.

In terms of transaction goals, servicing the management of government debt continued to be the most important objective last year. Through the negative net foreign currency issuance, the Government Debt Management Agency repaid the foreign currency debt with the foreign currency purchased from the central bank to the debit of its increased forint deposit. In addition, in this context mention should be made of the continuous provision of foreign currency to cover the needs of budgetary institutions. The transfers received from the European Union also flow through the MNB, and they boosted the foreign exchange reserves in 2019 as well. The aforementioned transaction goals were satisfied smoothly in 2019 as well.

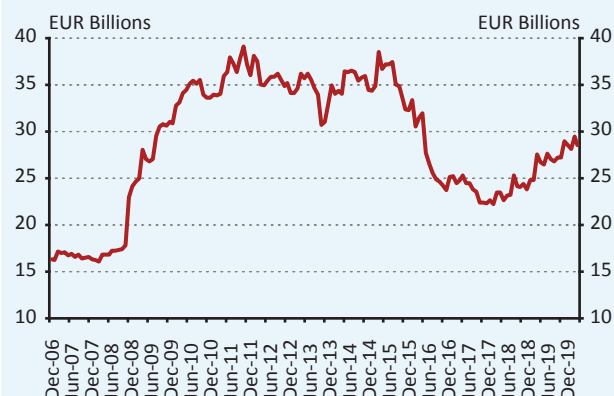
Reserve size

The level of Hungary's international reserves rose by nearly EUR 1 billion in 2019 and amounted to EUR 28.4 billion at the end of the year.

The Government Debt Management Agency's (ÁKK) items serving the repayment of debt, particularly the net foreign currency financing of the government and net foreign currency interest expenditures as well as the foreign currency expenditure of the Hungarian State Treasury, reduced foreign exchange reserves by a total of EUR 4.8 billion. The change was primarily the combined result of the retail bond maturities with original face values of EUR 1 billion in January, USD 1 billion in March, RMB 1 billion in April and close to EUR 200 million in September, respectively, the USD bond buybacks before maturity of USD 800 million by the ÁKK, and other items.

The EU transfers received from the European Commission in the net amount of EUR 4 billion resulted in an increase in the reserves. The net payment flows of almost EUR 800 million related to the FX pillar of the third phase of the Funding for Growth Scheme and the FX swap tenders providing forint liquidity as well as the revaluation of foreign currency assets other than the euro and of the euro-denominated price of gold by EUR 670 million increased the level of reserves even further.

Chart 10
Developments in the size of foreign exchange reserves



Source: MNB.

Financial performance and risks of foreign exchange reserves

In carrying out its core tasks as stipulated in the MNB Act and managing the country's foreign exchange reserves, the MNB inevitably faces financial risks. The basic principles are that the degree of the assumed risks should be aligned with the objectives of the core activity, the size of the risks should be known, and risk assumption should be conscious and limited, in accordance with the institution's risk-taking capacity. In the course of foreign exchange reserve management, the threefold objective of liquidity, security and yield must be satisfied, meaning that the MNB strives to achieve the highest yield level while continuously keeping the risks at the pre-defined low level.

Similarly to the core duties of the central bank, the Monetary Council is also the supreme decision-making body in respect of foreign exchange reserve management: it defines the objectives and requirements related to the foreign exchange reserves such as the level and liquidity of the reserves, decides on the currency used for optimisation, the risk strategy and the most important quantitative strategic parameters of reserve investment. The operative decision-making powers are exercised and the foreign exchange reserve management strategy is implemented by the Executive Board, within the framework stipulated by the Monetary Council. The Executive Board approves the limit system serving as a framework for risk taking: the permitted maximum deviation of the reserve portfolios from the benchmarks, the counterparty limits and the range of investment instruments permitted in the field of reserve management.

The benchmark system and the limit system comprise the two main pillars of reserve management. Independent performance measurement is an important element of

the risk-taking policy. In order to measure the success of portfolio management, the performance of each reserve portfolio is compared against the performance of a reference (benchmark) portfolio. The benchmark portfolios show the yield that would have been earned by a passively managed portfolio representing a wide market segment with the same investment parameters. The performance of foreign exchange reserve management activity is presented in comparison to these benchmark portfolios. The benchmarks reflecting the risk-return preference of the MNB and serving the performance measurement of the portfolios are maintained by the risk management unit, independently of portfolio management.

The most important risk categories related to foreign exchange reserve management comprise market risk, liquidity risk and credit risk (settlement risk and counterparty risk). The MNB controls the possible degree of financial risks related to foreign exchange reserve management with limits. In accordance with the conservative reserve portfolio management characteristics of central banks, the MNB applies a strict limit system, which considers market and other indicators, in addition to the expected high level of credit ratings.

In the course of foreign exchange reserve management, the MNB applies a variety of risk-minimising techniques to ensure that the assumed risks correspond to the MNB's risk tolerance. In the case of derivative instruments, the MNB concluded ISDA (International Swaps and Derivatives Association) and related CSA (Credit Support Annex) agreements with its counterparties, which keep the credit risk exposure potentially arising in respect of the counterparty at a low level through the margin arrangement. In the case of the repo transactions regulated by the GMRA (Global Master Repurchase Agreement), the prescribed margin also assists in limiting the risks. In the case of foreign exchange transactions, in accordance with the international best practices the MNB settles its transactions in the CLS system, thereby minimising its settlement risks. In the course of reserve management, the MNB also considers the foreign currency liquidity requirement of the monetary policy instruments.

In the decreasing yield environment resulting from the global crisis that commenced in 2008, most central banks realised a profit on their foreign exchange reserves as a result of the typically rising prices of the bonds managed in the central banks' portfolios. With the government bonds and other bonds of predominantly high credit rating in its portfolios, as a result of the decreasing yield environment the MNB also benefited from this process through the revaluation of the positions. In the ensuing interest environment, which was close to zero or even negative in certain markets,

the largest challenge faced by the central bank in reserve management was to ensure capital preservation. (In the euro area, the expected yield of the assets relevant for central banks remained negative even in 2019). Following a brief transitional period, global central banks shifted again towards looser monetary policy in 2019. After many years, the Fed cut rates for the first time and concluded its balance sheet reduction measures it started in 2017, while the ECB began to ramp up its asset purchases instead of its earlier reinvestment strategy. These steps pushed the US yield curve considerably lower, while the EUR government securities curve continued to fall in negative territory. In the long run, the decline in interest rates is unfavourable from the perspective of the expected return of reserves, although it has a positive impact on the performance of the reserves in the short run. In other words, over the medium term, central banks face an even acuter risk of decreasing reserves. Continuously monitoring the processes that represent a risk for the reserve level, the MNB – similarly to most central banks – regularly revises the reserve investment framework. In line with the reserve holding objectives and bearing in mind the conservative investment framework, the MNB continued to diversify its investments in 2019.

In 2019, Brexit was of key importance to the MNB on account of the pound sterling exposure and the wide range of partners seated in London which it engages in its reserve management. While continuously monitoring developments, the MNB took the necessary steps to minimise the related risks. The geopolitical risks that emerged during the year had a major impact on the foreign exchange reserves of the countries with sizeable gold reserves, including Hungarian gold reserves that expanded in 2018, through the increase in the price of gold.

In 2019, the MNB basically managed the foreign exchange reserves in six currencies (EUR, USD, JPY, GBP, AUD, RMB), in a variety of portfolios. The MNB assumes exchange rate exposure predominantly in euro: it hedges the other currency/euro cross rate risks via derivative instruments. The holding of foreign currency instruments denominated in currencies other than euro is justified by the higher diversification and, in the case of the US dollar, the higher liquidity available. Altogether, the MNB actively manages eight portfolios in euro, US dollar, British pound, renminbi and Australian dollar. The MNB manages the Japanese yen portfolio, containing government securities only, as an index-linked portfolio strictly following the benchmark. From the end of 2012 – in the form of a mandate given to an external asset manager and custodian – US agency mortgage backed securities (MBS) also form part of the MNB's investment strategy. The strategic average duration (target duration) of the reserve portfolios was around 1 year. In 2018, the MNB raised its gold reserves tenfold to 31.5

tons. Gold has special significance in the foreign reserves due to its international and regional role in the central bank's reserves, its national strategic importance and its ability to strengthen confidence and play a stabilising role in a potential crisis situation or in the event of structural changes in the international financial system. Within the framework of the MNB's Green Programme and to facilitate the achievement of its social responsibility and environmental strategy objectives, the Monetary Council decided to create a dedicated green bond portfolio, and in connection with this, the building of the portfolio of green investments was started in 2019.

The euro risk-free portfolio represents the backbone of the foreign exchange reserves and may only include highly-rated government securities, state-guaranteed securities and the issues of (supranational) international institutions. Highly-rated corporate and bank issues, and covered securities may be purchased for the second largest, euro investment portfolio, and for the investment portfolios in general; this portfolio typically includes government securities only for the purpose of adjusting the maturity structure. After the euro exposure, the combined share of the US dollar portfolios represent the most substantial item in the reserves, where – along with the investment portfolio – the considerable proportion of the agency MBS exposure deserves special mention.

In 2019, the Fed cut the federal funds rate on three occasions, by 25 basis points on each occasion, to the band of 1.5 to 1.75 per cent. Economic growth in the euro area decelerated compared to the dynamics of 2018. The ECB did not change the base rate during the year, but it restarted the net asset purchase programme in November. The euro yield curve, a key determinant of reserve performance, flattened during the reporting period: at short-term maturities it shifted downwards by 2–5 basis points to a varying degree at each maturity; over one year, it shifted downwards by 5–40 basis points and remained in negative territory up to the 15-year tenor. The US dollar yield curve experienced a parallel downward shift: yields fell by 75–100 basis points at short-term maturities and by 60–90 basis points at maturities over one year. After growing steadily in 2019, the gold price in USD reached a six-year high. The steep rise in the price was supported, among other things, by central bank gold purchases and geopolitical uncertainties. With respect to the EUR/USD exchange rate, as another dominant factor in reserve management, continuous appreciation of the US dollar was observed in 2019 (from 1.15 to 1.12).

Short-run market developments were favourable from the perspective of the MNB, as it achieved larger gains with the gold and foreign exchange reserves in 2019 than in 2018. The performance of bond portfolios in their own

currency was around 1 per cent overall, slightly exceeding the benchmark. Gold and foreign currency open positions realised a gain of over 5 per cent; therefore, all in all the performance of foreign reserves amounted to over 1.5 per cent in 2019. The liquidity allocated for the attainment of the monetary policy objectives was continuously available during the year, and credit risk events that would have had an adverse effect on the MNB's reputation were avoided.

In respect of the future performance of the foreign exchange reserves, the risk persists that the performance of the reserve portfolios could be negative because yields on highly rated assets are at extreme lows and could move as a result of a yield increase, which undermines the reserve performance over the short run due to the revaluation loss arising from the depreciation of bonds in positions. On the other hand, due to the short duration of the reserves, a yield rise has a positive medium-term impact on the results, as the maturing reserve components can be reinvested at higher yields.

3.7 CASH LOGISTICS ACTIVITY

Currency in circulation

On 31 December 2019, the total currency in circulation amounted to HUF 6,530.4 billion, representing a 9-per cent increase of HUF 532.6 billion compared to the end of the previous year.¹⁸

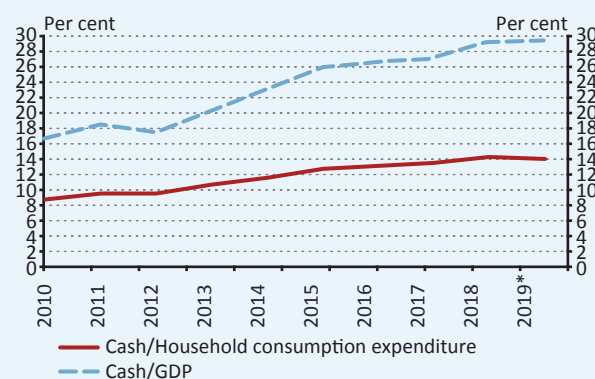
The strong growth in forint cash holdings seen since 2012 decelerated in 2019.

The change in the volume of banknotes in circulation varies by denomination, which also reflects the one-off effect of the withdrawal of old banknotes resulting from the replacement of banknotes. The 20,000-forint note continues to account for the largest share in turnover, with a dynamic expansion of 21.7 per cent. The volume of the 10,000-forint note increased by merely 7.8 per cent, although this is partly attributable to the impact of the withdrawal of the old 10,000-forint notes at the end of the year. It is worth noting that the volume of 1,000-forint notes grew by 6.5 per cent. The stock of 2,000- and 5,000-forint notes increased only slightly.

The two largest banknote denominations still play a dominant role in cash turnover: at the end of 2019 they jointly accounted for 72 per cent of the volume and almost 96 per cent of the value of all banknotes in circulation.

Compared to the end of previous year, the volume of the forint coins in circulation expanded by 8 per cent on average.

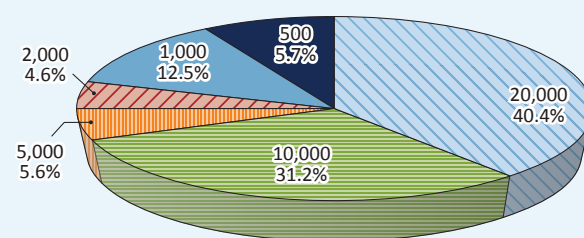
Chart 11
Cash/GDP and cash/household consumption expenditure



*The 2019 GDP figure and the household consumption expenditure data are MNB estimates.

Source: MNB.

Chart 12
Breakdown of banknotes in circulation by quantity at the end of 2019



Source: MNB.

Banknote and coin production

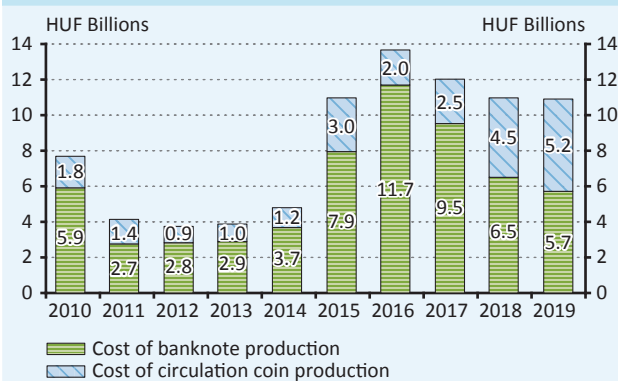
In order to meet the increasingly strong cash demand and replace unfit and hence, destroyed banknotes and coins, the central bank has banknotes and coins produced.

The MNB's expenditures related to cash production amounted to a gross sum of HUF 10.9 billion in 2019, almost the same as in the previous year. Owing to the sharply increasing demand for coins, coin manufacturing represents a growing share in the central bank's cash production expenditures.

¹⁸ This figure does not include the value of withdrawn but still convertible banknotes that are recorded in the central bank's balance sheet among liabilities.

Chart 13
Banknote and circulation coin manufacturing

(gross expenditure)



Source: MNB.

Distribution of cash

In 2019 – partly in connection with the replacement of banknotes – the MNB managed cash turnover for its clients, i.e. credit institutions and the Hungarian Post, in the total amount of HUF 2,670 billion; within that it distributed 232 million banknotes to its clients, while 187 million banknotes were delivered to the central bank.

In the past year, the MNB scrapped 98 million end-of-life banknotes due to the withdrawal of the old 500- and 10,000-forint notes, and replaced them with new, high-quality ones.

Table 8
Banknotes and coins in circulation¹⁹

(figures as at 31 December 2019 and 31 December 2018)

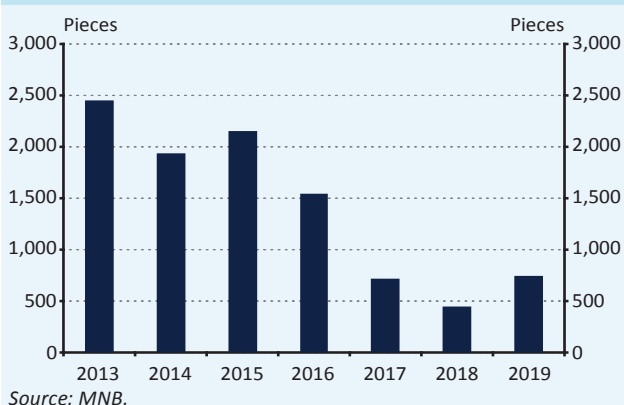
	2019				2018			
	Volume	Value	Ratio (Per cent)		Volume	Value	Ratio (Per cent)	
	Million pieces	Billion HUF	Volume	Value	Million pieces	Billion HUF	Volume	Value
Banknotes								
20 000 forint	221.8	4,436.8	40.4	68.9	200.1	4,002.3	38.3	67.7
10 000 forint	171.5	1,714.7	31.2	26.6	163.6	1,636.5	31.3	27.7
5 000 forint	31.0	155.0	5.6	2.4	28.7	143.7	5.5	2.4
2 000 forint	25.3	50.6	4.6	0.8	24.4	48.8	4.7	0.8
1 000 forint	68.9	68.9	12.5	1.1	62.4	62.4	11.9	1.0
500 forint	31.3	15.7	5.7	0.2	43.3	21.6	8.3	0.4
Total	549.8	6,441.6	100.0	100.0	522.5	5,915.2	100.0	100.0
Coins								
	Volume	Value	Ratio (Per cent)		Volume	Value	Ratio (Per cent)	
	Million pieces	Billion HUF	Volume	Value	Million pieces	Billion HUF	Volume	Value
200 forint	164.9	33.0	8.2	42.1	153.2	30.6	8.2	42.1
100 forint	206.2	20.6	10.2	26.3	193.4	19.3	10.3	26.6
50 forint	199.8	10.0	9.9	12.8	182.7	9.1	9.7	12.5
20 forint	363.5	7.3	18.1	9.3	336.2	6.7	18.0	9.2
10 forint	410.5	4.1	20.4	5.2	384.0	3.8	20.5	5.3
5 forint	667.1	3.3	33.2	4.3	623.4	3.1	33.3	4.3
Total	2,011.9	78.3	100.0	100.0	1,872.8	72.8	100.0	100.0

¹⁹ The table does not include holdings of commemorative coins and commemorative banknotes issued by the central bank, which – as legal tender – form part of the means of payment in circulation, but in accordance with their role, do not participate actively in the execution of cash turnover.

Prevention and reduction of counterfeiting

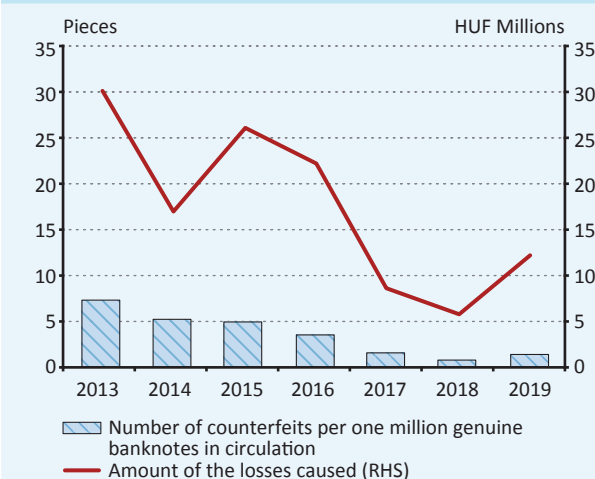
Despite a slight uptick, the counterfeiting of forint banknotes has remained low, with a total of merely 751 counterfeit forint notes removed from circulation in 2019.

Chart 14
Annual trends in the number of counterfeit forint banknotes eliminated from circulation



Last year, the number of counterfeit banknotes for each one million genuine banknotes in circulation per year was only 1.4, which is an extremely favourable value by international standards.

Chart 15
Trends in counterfeits for each one million genuine banknotes and the value of the resulting damage



Besides the replacement of forint banknotes, the free educational activity performed by the MNB in respect of banknotes contributes significantly to maintaining the low counterfeit indicator. In addition to the printed educational materials provided by the central bank and also published on the internet, in 2019 the MNB's experts trained more than 2,300 retail cashiers on the features of banknotes and the possibilities of verifying the genuineness of banknotes.

As in previous years, the counterfeiting of higher denominations (mainly the 10,000-forint and 20,000-forint banknotes) remained most typical in 2019, accounting for 93 per cent of counterfeit forint notes.

Table 9
Denomination breakdown of forint banknote counterfeits discovered in 2019

Denominations	500	1,000	2,000	5,000	10,000	20,000
Breakdown (Per cent)	3.1	2.0	0.4	1.7	24.6	68.2

No significant change occurred in counterfeiting methods, which are still characterised by the use of office reproduction equipment (colour copy machines, printers). Persons familiar with the features of authentic banknotes can detect the counterfeits using simple checks (touching, holding up to light or moving) or in a cash office environment using combined checks with UV-A and UV-C light.

The occurrence of counterfeit foreign currency shows a slightly rising trend, but remains negligible. The central bank's experts inspected 881 various foreign currency counterfeits in 2019, including 654 counterfeit euro banknotes.

Cash distribution administrative inspections

In 2019, the MNB inspected compliance with the provisions of the MNB Act pertaining to cash issuance,²⁰ of the Banknote Decree²¹ and of the MNB decrees on the central bank data reporting²² at 9 banks, 1 cash processing provider, 1 payment institution and 1 special services intermediary (currency exchange company). The purpose of the cash

²⁰ Subtitle 16 of Act CXXXIX of 2013

²¹ MNB Decree No. 11/2011 (IX. 6.) on the processing and distribution of banknotes and on technical tasks relating to the protection of banknotes against counterfeiting effective until 15 July 2019 (old Banknote Decree) and MNB Decree No. 19/2019 (V. 13.) on the processing and distribution of banknotes and on technical tasks relating to the protection of banknotes against counterfeiting effective from 15 July 2019 (new Banknote Decree)

²² MNB Decrees No. 38/2018 (XII. 12.) and No. 27/2017 (XI. 21.) on the data reporting obligations to the central bank's information system primarily to enable the MNB to carry out its basic duties

distribution administrative inspections was to ensure the proper quality of the forint banknotes in circulation, the mitigation of operational risks to ensure smooth cash circulation and the provision of fair services by the credit institutions to households. In 2019, the MNB launched 11 administrative inspections, 8 of which were closed in 2019 and 3 in 2020. All the inspection procedures launched in 2019 found shortcomings or omissions. Of the inspections concluded in 2019, in one case the MNB issued a decision requesting the inspected institution to resolve the unlawful situation and imposed a penalty, and in seven cases it sent a notification letter to the concerned parties to resolve the unlawful situation. Of the inspections launched in 2018, four procedures ended in 2019, and the central bank found shortcomings and omissions at all inspected institutions. The institutions were requested in a decision to resolve the unlawful situation, with penalties imposed in three cases.

In the course of the administrative inspections, the MNB detected the violation of certain rules pertaining to banknote distribution, the operation of banknote handling machines, the action plan for the management of extraordinary situations occurring in cash distribution, the handling of incomplete or damaged banknotes, and the denomination exchange and exchange of forint banknotes fit for circulation and of banknotes qualifying as legal tender but unfit for circulation.²³ The most common infringements were related to the violation of the provisions of the MNB Act and the Banknote Decree on the handling of incomplete and damaged banknotes.

Redesign of Hungarian banknotes

In 2014–2019, the MNB renewed the banknote series and issued redesigned, contemporary banknotes that satisfy the cash distribution requirements of the cash processing machines and automated teller machines, while at the same time providing state-of-the-art protection against counterfeiting.

Of the series comprising 6 denominations, the first banknote redesigned by the MNB was the 10,000-forint note in 2014, followed by the 20,000-forint banknote in 2015. The 2,000- and 5,000-forint notes appeared in 2017, while the 1,000-forint note appeared in 2018. The last to be replaced was the 500-forint note with its issuance in 2019. The old 500- and 10,000-forint banknotes were withdrawn on 31 October 2019 and 31 December 2019, respectively. Since 1 January 2020, only the redesigned notes can be used in cash payments.

By the end of 2019, 94 per cent of the old 10,000-forint notes had been replaced by the redesigned notes. After the date of withdrawal of individual denominations, the cash-desks of credit institutions and the Hungarian Post will exchange the withdrawn forint banknotes for legal tender for another three years and the MNB for 20 years, free of charge.

New 100-forint coin issued

On 1 October 2019, the MNB issued 100-forint coins with new base material. The use of a more modern base material for the coin improves both the stable operation of coin-operated machines and the security of supply.

The new 100-forint coins will actually enter circulation in 2020 Q2, to allow the operators of coin-operated vending machines to prepare their devices for accepting the 100-forint coins with the new base material.

The overall appearance and most important features (e.g. diameter, thickness) of the new 100-forint coin remained the same, but its base material has been changed from steel to an alloy of copper, nickel and zinc. The 100-forint coins currently in use will remain in circulation.

New banknote and coin decrees published

The MNB has reviewed and revised the MNB decrees on the distribution and processing of banknotes and coins and on the tasks relating to their protection against counterfeiting. The review and the amendment of the regulations were necessitated mainly by the fact the Hungarian cash supply chain has changed considerably in recent years. Branches without a cash office have appeared and are increasingly spreading. Meanwhile, the number of customer-operated cash recycling machines and traditional bank branches and post offices has declined steeply, and as the number of banknote processing machines operated by credit institution staff increased, the role of decentralised banknote processing strengthened.

Having taken into account these trends and changes, the MNB determined an operational framework for the recycling of banknotes and coins and business continuity that can ensure the appropriate quality of banknotes, the protection against counterfeiting and the security of supply in the long run. Based on the experiences of the central bank's on-site inspections, the rules on the exchange of withdrawn and damaged banknotes and denomination

²³ Article 23(3) and (8) of MNB Act; Article 4(2), Article 5(3), Point 2.1.1 of Annex 2, Article 18(2) and (5), Article 19(2) and (5), Article 20(4), Article 21, Article 22(1) of the old Banknote Decree; Article 5(3), Article 21(5), Article 22(2) and Article 23(1) of the new Banknote Decree.

exchange have been strengthened in the decrees, in the spirit of consumer protection.

The new laws, i.e. MNB Decree No. 19/2019 (V. 13.) and MNB Decree No. 20/2019 (V. 13.) entered into force on 15 July 2019, and different effective dates have been set for certain provisions that required more preparation time.

Issuance of collector coins and commemorative versions of circulation coins

Pursuant to the MNB Act, the central bank has the exclusive right to issue banknotes and coins, also including commemorative banknotes and collector coins, which are also legal tender of Hungary. The MNB – in line with the practice of foreign central banks – issues collector coins with the aim of creating a worthy memorial of Hungary's major historic, cultural and scientific anniversaries, events and persons in a lasting form for succeeding generations. The collector coins are not meant for circulation.

Since 2014, the MNB has issued all collector coins made of precious metal also in a cheaper, non-ferrous metal version, with a view to promoting the collector coins' value-conveying, attention-raising and educational roles in a wider circle. This purpose is also served by the MNB's decision with regard to the distribution of collector coins at face value, namely, that silver and non-ferrous metal collector coins are available at face value for 3 months and for 1 year after issue, respectively, at the primary distributor of collector coins, Magyar Pénzverő Zrt.

Based on statutory powers and in the spirit of the sales policy in place since 2014, in 2019 the central bank issued 17 collector coins in 10 topics. Of these, 1 was a gold coin, 6 were silver coins and 10 were non-ferrous metal collector coins (of which 3 coins had an independent theme, and 7 coins were issued as the non-ferrous metal versions of precious metal coins).

The MNB's 2019 collector coin issuance programme started with the most valuable piece. In honour of the Saint Irene of Hungary, on 18 January 2019 the central bank issued a gold collector coin with a face value of HUF 50,000 and a non-ferrous metal collector coin with a face value of HUF 2,000. The collector coins appeared as the second piece in the collector series presenting the Hungarian saints of the Árpád dynasty.

To mark the 175th anniversary of the birth of Gyula Benczúr, on 28 January 2019 the central bank issued a silver collector

coin with a face value of HUF 10,000 and a non-ferrous metal collector coin with a face value of HUF 2,000. The collector coins form part of the collector series presenting major figures from the Hungarian visual arts scene.

The series continued on 20 February 2019 with a silver collector coin with a face value of HUF 10,000 and a non-ferrous metal collector coin with a face value of HUF 2,000 dedicated to Mihály Munkácsy. The issuance marked the 175th anniversary of Munkácsy's birth.

At the centenary of the death of Loránd Eötvös, on 8 April 2019, the MNB issued silver coin of HUF 10,000 and the non-ferrous metal version with a face value of HUF 2,000 in honour of the scientist's work.

The collector coin issuance programme's next phase was dedicated to scientific anniversaries. On 26 April 2019, the MNB issued special, rectangle-shaped silver and non-ferrous metal collector coins to mark the 150th anniversary of the existence of Hungary's oldest research institute, the Geological Institute of Hungary (today called Mining and Geological Survey of Hungary). The topicality of the issuance of the collector coins with a face value of HUF 10,000 and HUF 2,000 was increased by the fact that the construction works on the headquarters of the research institute, Art Geo Palace, declared a monument, were completed 120 years ago.

On 2 July 2019, the MNB issued an especially large silver collector coin named 'Musical Setting to the Anthem' with a face value of HUF 20,000 and its non-ferrous version of HUF 3,000, to mark the 175th anniversary of the first public performance of the Anthem.

In honour of the FIE World Fencing Championships, on 8 July 2019 the MNB issued a commemorative version of the HUF 50 circulation coin in 2 million copies. (Of these, 12,000 coins were put into circulation in decorative packaging as first day mint in BU finish).

On 9 July 2019, the 150th anniversary of Kálmán Kandó's birth, the popular non-ferrous metal series presenting Hungarian scientists, inventors and their inventions continued with the issuance of a non-ferrous metal collector coin with a face value of HUF 2,000. The special, rectangular collector coin was the 12th piece in the series.

On 6 September 2019, the central bank issued the silver collector coin 'Simmelweis University' with a face value of HUF 10,000 and a non-ferrous metal version with a face value of HUF 2,000. With these collector coins, which are genuine

works of art, the MNB commemorates the 250th anniversary of the start of organised medical training in Hungary.

On 7 September 2019, the central bank launched a series presenting Hungarian shepherd and hunting dogs, considered Hungarikums. The face value of the non-ferrous metal 'Hungarian vizsla' collector coins is HUF 2,000.

The 2019 collector coin issuance programme ended with the 'Esztergom, Castle Hill and Víziváros National Memorial Site' non-ferrous metal collector coin in a bronze coated finish on 15 November 2019. The collector coin, which has a face value of HUF 2,000, appeared as the 6th piece in the series presenting Hungarian national memorial sites.

3.8 STATISTICAL SERVICES

For the purpose of fulfilling its duties as specified in the MNB Act, the central bank collects statistical information and publishes the statistics thus compiled for the analysis of financial developments, the preparation of monetary policy decisions, oversight of the operation of the payment and settlement systems to ensure the smooth execution of payments with a view to supporting the stability of the financial system, and for the performance of micro and macroprudential supervisory activities.

The MNB publishes statistical information, analyses and time series on its website for the public, in accordance with the release calendar for statistics. In relation to the individual statistical areas, the MNB also issues methodological and thematic publications.

In 2019, the MNB issued 6 decrees related to data reporting in 2020: one of these primarily contains data reporting ordered for the fulfilment of the MNB's basic tasks,²⁴ supplemented by four decrees ordering data reporting primarily necessary for the fulfilment of supervisory tasks.²⁵ In addition, in order to ensure its prompt announcement, the MNB Decree on the data reporting obligations for the central bank's information system with respect to specific data related to the provision of payment services was published in a separate structure.²⁶ In 2019, the effective 2019 MNB decrees related to data reporting were amended on two occasions during the year due to changes in the domestic legislative environment and the transition to the MNB's new data reception system and in order to ensure

the receipt of data necessary for carrying out the MNB's basic duties and its tasks related to the supervision of the financial intermediary system.²⁷

Results of the MNB's credit institution data collection projects

The project launched in 2017 aimed at the development of the uniform **Central Bank Credit Register (HITREG)** synthesising the central bank's analytical and supervisory requirements reached several important milestones in 2019 by elaborating the detailed methodological requirements, formulating verification rules and carrying out the related development tasks for smooth data receipt and processing. MNB experts consulted with reporting entities 15 times to develop a detailed methodological guide and rules and thus also ensure adequate data quality. After the related system development tasks were completed, the data collection test environment was opened in September 2019. The testing process is constantly monitored so that the first batch of credit institution sector data of adequate quality will be received by the MNB in February 2020, in accordance with the stipulations of the data reporting decree.

In parallel with the activities related to data receipt, preparations started for the extension of the scope of the relevant MNB Decree No. 35/2018. (XI. 13.) to certain finance corporations from 2021. In a consultation, the MNB provided detailed information to the reporting entities concerned, and a survey was sent to reporting entities in December 2019 to assess the expected costs of the planned changes. The amending MNB decree, to be published in the first half of 2020, extends the scope of HITREG reporting to the finance corporation sector, and it will contain the data requirements stipulated in the ESRB recommendation that was published for monitoring real estate financing and is binding for credit institutions.

Using micro data for presenting household and corporate data in more detail

Based on the 2014 and 2017 data from the household wealth survey called '*What do we live from?*', the aggregate data on household balance sheets were presented in detailed breakdowns, by various characteristics (wealth decile, age, location). Using the data from companies' individual reports, the aggregate balance sheet data of

²⁴ MNB Decree No. 37/2019 (XI. 19.)

²⁵ MNB Decrees No. 38/2019. (XI. 20.), 39/2019. (XI. 20.), 40/2019. (XI. 21.), and 41/2019. (XI. 21.).

²⁶ MNB Decree No. 32/2019. (XI. 25.)

²⁷ The amendments affected the MNB decrees prescribing data reporting necessary for the fulfilment of the MNB's core and supervisory duties [MNB Decrees No. 36/2018 (XI. 13.), 37/2018 (XI. 13.), 38/2018 (XI. 14.), 39/2018 (XI. 14.), 40/2018 (XI. 14.)]

non-financial corporations were broken down based on various characteristics (sector, size, owner, location). Unprecedented publications appeared on the central bank's website on the household and corporate figures produced using micro data.

Long-run revision of statistics

At the end of September 2019, in line with the practice of the Hungarian Central Statistical Office (HCSO) and the requirements of international institutions, the entire time series of financial accounts and balance of payments data were revised and the justified changes appeared in the statistics. The long-run revision significantly improved the consistency of published statistics. In a substantial methodological change to the statistics prepared by the central bank, from September 2019 venture capital funds and private equity funds will be presented in the non-money market investment fund subsector going back until 2017 (and until 2013 in financial accounts).

Supervisory statistics

As a result of the process that started in 2017 and concluded in early 2019, all credit institutions have kept their books and prepared their data reporting to the MNB on an IFRS basis since 2019.

The publication of the new time series developed in 2018 is now possible because from 2019 all banking groups report their consolidated data in a uniform manner, including the FINREP templates containing financial data, under IFRS. The new prudential time series, which are harmonised with the time series published by the ECB, include the data and main risk indicators for credit institution groups, solo institutions and credit institution branch offices, i.e. the whole credit institution sector, going back to 2015, in six thematic parts (general information, balance sheet composition, profitability, asset quality, capital adequacy, liquidity). In parallel with the publication of the consolidated time series, the previously published unconsolidated time series were closed, however, the time series continue to contain some relevant, unconsolidated financial data in the seventh thematic part.

The press release related to the consolidated time series was also revised and was first published with a new approach, new methodology and in interactive form on 12 March 2019. The interactive format allows users to flexibly change the reference date or other features of the data in the graphic view.

Based on the recommendation by the Association of Hungarian Insurance Companies, the MNB also expanded its quarterly publications that utilise insurers' supervisory data reporting. Besides quarterly data, the set of data published annually also grew, and thus from 2019 Q2, the time series contains data on the number and written premium/portfolio premium of new sales in a breakdown by sales channels as well as the breakdown of life-related claim payments by causes of damage. Besides the expansion in content, the short analytical note related to insurers' time series has also been revised, and it has been published in an interactive form since 2019 Q3. In the first half of 2019, the annual time series containing the prudential data on insurance intermediary brokers and multi-agents was also supplemented with the contracted volume and commission data intermediated on the electronic platform, and the publication frequency of contracted volume and commission data changed from annual to semi-annual.

International data supply, international cooperation

As follows from its status, the expectations arising from international cooperation and its membership obligations, the MNB regularly supplies data and information to the ECB, the Statistical Office of the European Communities (Eurostat), the European supervisory authorities (EBA, EIOPA), the Bank for International Settlements (BIS), the International Monetary Fund (IMF), the World Bank and the Organisation for Economic Co-operation and Development (OECD).

With a view to complying with the international recommendations and requirements and monitoring the changes therein, the MNB regularly participates in international forums related to the central bank's statistical activity and plays an active role in the work of the international working groups dealing with methodological developments and current statistical issues.

Publication changes in MNB statistics

In 2019, the MNB launched a new project to overhaul the statistical publications available on its website. The project aims to develop state-of-the-art statistical publication procedures that use new presentation and visualisation technologies to open the door more and more to self-service data analysis opportunities, providing databases and instruments that help interested parties make sense quickly of the data and offering a wide range of querying and display options.

As a first step in the modernisation of the publication system, the press release and time series on the prudential data of credit institutions, investment fund data, the stock of securities issued by residents and their breakdown by ownership, the statistical publications of the balance of payments, the results of the household wealth surveys, the national economy's financial accounts and insurers' prudential data were published in a new, interactive form in 2019. This allows users to flexibly change the reference date or other features of the data in the graphic view.

MNB Safe Centre

In 2019 Q3, the MNB opened the MNB Safe Centre. Similar to the principle of the Safe Centre operated by the HCSO, the MNB Safe Centre offers an opportunity to access data sets containing individual-level data compiled from the data managed by the MNB not suitable for the direct identification of the entity concerned, in full compliance with data protection requirements and under controlled conditions, free of charge.

Data quality, administrative inspections

During its continuous evaluation of the compliance with the reporting requirement, including timely fulfilment and adequate data quality, in 2019 the MNB imposed penalties 66 times on 49 reporting entities (totalling HUF 29.2 million), in addition to the warnings and the resolutions imposing measures and notices.

The administrative inspection launched against a credit institution in 2018 concerning the reporting stipulations E21 and M01 MNB of MNB Decree No. 27/2017. (XI. 21.) on the data reporting obligations to report data to the central bank's information system primarily to enable the Magyar Nemzeti Bank to carry out its basic duties continued in 2019, and it was closed with corrective measures prescribed in a decision.

Transition to the MNB's new, integrated data reception system

The earlier data reception systems (EBEAD, KAP) were replaced by the new statistical and supervisory integrated data reception system (STEFI) introduced in 2019, which satisfies all supervisory and central banking statistical needs. During the creation of the new data reception system, a key requirement was that the transition should not call for developments on the side of reporting entities, so that they can smoothly use the new system, thereby reducing the difficulties around the switchover. In the course of the system's development, the constantly changing

international data reporting environment (e.g. ESMA data requirements) had to be taken into account.

In 2019, the work on the gradual introduction of the Common Data Compilation System and Integrated Pre-Processing System (KAR-ITER) continued, for example the preparation for the introduction of receiving credit institutions' EBA ITS data in XBRL format from 2020.

3.9 THE MNB'S ACTIVITY IN THE AREA OF SOCIAL RESPONSIBILITY

The Pallas Athena Public Thinking Programme forms a key element of the MNB's social responsibility strategy. In the implementation of the programme, the central bank considers it to be its task to enhance financial literacy, financial awareness, the underlying economic and social thinking, as well as the related institutional system and infrastructure.

With a view to achieving the defined goals, the MNB works to renew and enhance education (primarily tertiary education) and the system of economics and financial training, and to support scientific activity and financial literacy. The programmes supported by the MNB and its foundations are partly its own initiatives, and partly realised through partnerships with various institutions.

Aside from the previously established cooperation with universities (Corvinus University of Budapest, Budapest Business School, the University of Sopron, the University of Miskolc, Károli Gáspár University of the Reformed Church in Hungary, University of Nyíregyháza), in 2019 the MNB entered into a cooperation agreement with the University of Debrecen and the Budapest University of Technology and Economics. Upon the closure of the 2018/2019 academic year, the MNB reviewed the professional and financial performance of the cooperation programmes; the parties jointly evaluated the programmes and enhanced them in accordance with the objectives and the experiences so far. The MNB renewed its cooperation agreements with the universities for the 2019/2020 academic year.

The cooperation between the MNB and the Corvinus University of Budapest (BCE) has been continuous since 2015 and has become the central bank's largest education programme over time. With the professional support of and under the coordination of the MNB, BCE and Fudan University of Shanghai launched a Double Degree MBA Programme in February 2019. Inter-institution coordination for the programme is provided by the central bank. With the professional involvement of the MNB, the Corvinus-MNB International Executive Project Center has been also

established at the BCE, for programme coordination and the development and further extension of international relations. The second class of the MBA programme began in September 2019.

Similar to the cooperation with the BCE, the establishment of a large-scale cooperation covering several research areas started with two prestigious institutions of Hungarian higher education, the Budapest University of Technology and Economics and the University of Debrecen.

In cooperation with John Von Neumann University and as a dual corporate partner, the MNB participates in the training of students in Business Management bachelor courses. Under this scheme, more than 40 students completed their traineeship at various functional areas and subsidiaries of the MNB.

As part of the implementation of the MNB's corporate social responsibility strategy, for the 2019/2020 academic year the MNB has announced, for the fourth time, the MNB Scholarship of Excellence for students of economics participating in bachelor and master programmes relevant to the central bank's activity. In the 2019/2020 academic year, 515 students of 27 Hungarian higher education institutions were granted the scholarship. From the second semester of the 2018/2019 academic year, the monthly scholarship increased to HUF 40,000. In 2019, the students who were awarded the Scholarship of Excellence, obtained their degrees at the biggest ever conference with over 800 participants, organised in the Budapest Congress Center.

In 2019, the cooperation between the MNB and TDK-ért Közhazsnú Alapítvány ('For the Scientific Students' Circle' Non-Profit Foundation) continued.

With the professional participation of the MNB, as an incentive for the continuing education of the Tiszaroff sub-region the 'Tiszaroff Scholarship Tender' has been announced each year since 2015 to support students in higher education. Under the title 'Tiszaroff Further Education Scholarship Tender', in 2017 the programme was extended to the support of the studies of high school students. In the spring semester of the 2018/2019 academic year 69 university students (including 2 PhD students) and 40 high school students won scholarships, while in the autumn semester of the 2019/2020 academic year 57 university students (including 4 PhD students) and 22 high school students won scholarships.

In order to enhance the public's financial awareness, the MNB operates the Financial Navigator Advisory Office

Network (FNAON) in 18 county seats. In 2019, the advisers handled 22,786 customer enquiries and held external counselling on 452 occasions.

In accordance with the agreement between the central bank and the Government Office of Borsod-Abaúj-Zemplén County, the experts of the Office Network and the MNB joined, in a pilot programme, the Mobilised Government Customer Service operated in the county by the Government Office. The project sought to reduce the financial vulnerability of the consumers living in small settlements of the county and provide free financial consumer protection advice to them at 33 locations.

The MNB implemented several comprehensive communication campaigns focusing on financial literacy issues in 2019. At the beginning of the year, the activities promoted the country-wide Financial Navigator Advisory Office Network, while the campaign early in the summer focused on the importance of travel and home insurance. The financial consumer protection campaign before Christmas mainly emphasised responsible borrowing.

Responsible financial decisions are supported by the search and comparison applications available on the central bank's website (e.g. Credit Calculator, Loan and Lease Selector Programme, Bank Account Selector Programme). Moreover, a mobile app called Pénzügyi Navigátor (Financial Navigator) has also been developed, helping in gaining information with up-to-date news and exchange rate data, online search services and calculators, customer service appointment scheduling and a financial dictionary.

Within the framework of the Civilian Network Support Programme, a tender aimed at improving financial literacy and financial awareness, the proposed projects of seven organisations received funds. Moreover, in view of the success in previous years, the MNB announced its university student contest organised jointly with leading higher education institutions in 2019, too.

In addition, within the constraints of available resources, the MNB participated, under strategic agreements or via ad-hoc grants, in value creation, the preservation of national values, intellectual and cultural heritage (e.g. Pannonhalma Archabbey Non-Profit Foundation) and supported scientific activities and financial literacy (e.g. Hungarian Economic Association, Economic Review Foundation). It contributed to improving the equal opportunities of disadvantaged groups and to alleviating the difficulties arising from extraordinary life situations (e.g. Hungarian Interchurch Aid, Hungarian Charity Service of the Order of Malta).

3.10 THE MNB'S ENVIRONMENTAL SUSTAINABILITY ACTIVITY

The MNB's environmental sustainability activity was dominated by its Green Programme in 2019. In addition, the implementation of the environmental strategy adopted in 2017 by the MNB's Executive Board was also a priority, and the 15-point action plan facilitating the execution of the strategy was carried out.

The objective of the environmental strategy for the period 2017-2019 was to have the 'Very good' rating confirmed for the Head Office building and to maintain the 'Very good' rating obtained for the building of the Logistics Centre. 2019 saw the full recertification of the two buildings, with the rating of the Head Office building rising over 60 per cent, while the Logistics Centre came close to the next, 'Excellent' level.

Table 10
Environmental certifications of the Head Office and the Logistics Centre

Rating	Head Office Building	MNB Logistics Centre
BREEAM In-Use 2019	60.3 % (Very Good)	68.9% (Very Good)
BREEAM In-Use 2016	58.8% (Very Good)	62.7% (Very Good)
BREEAM In-Use 2013	48.1% (Good)	58.4% (Very Good)

The MNB's Green Programme

The fight against and the adaptation to climate change as well as the environmental issues that are becoming graver and graver overall, materially impact the economy as a whole and thus the financial intermediary system as well. The MNB launched its Green Programme in 2019 in view of this. The Programme aims to reduce the risks related climate change and other environmental issues, expand green financial services in Hungary, broaden the corresponding Hungarian and international knowledge and further mitigate its own and financial players' ecological footprint. The Programme has three pillars: the various initiatives cover the financial sector, fostering the MNB's social and international relations and further 'greening' its own operating activities.

As a first step in involving market participants in the Green Programme, the MNB awarded the Green Finance Award to the 'greenest' institutions to provide a positive incentive for business policies and operating activities promoting

environmental sustainability and climate change initiatives. On 3 July 2019, the MNB published the consultation document 'Green Finance in Hungary'. It reviewed the options of jump-starting and developing the Hungarian green finance segment, explicitly requesting comments and input from Hungarian stakeholders. The MNB considered it important to learn not only about expert views in the narrow sense (financial market) regarding the topic but also the views of all stakeholders. These efforts bore fruit: the consultation 'channelled in' the opinion of several NGOs and even individuals.

Building on the consultation, the MNB started the long-term development of Hungarian green finance segment. As a first milestone, at the end of 2019 the Financial Stability Council adopted the programme foreseeing a capital requirement allowance applicable to lending for green housing purposes. This makes the MNB the first authority in the world that stimulates green lending in an innovative manner while taking into account risk and prudential considerations.

Under the second pillar of the Green Programme, the MNB joined the Network for Greening the Financial System (NGFS), an international organisation for central banks, in January 2019. The MNB wishes to actively participate in the joint international efforts through all three working groups (microprudential, macroeconomic and green financing) of the NGFS. The European Supervisory Authorities (EBA, ESMA and EIOPA) also started intensive work individually and through their so-called Joint Committee in the area of sustainable finance. The MNB also plays an active part in this, thereby contributing to the establishment of the common European green finance framework. In July, the MNB joined the European Energy Efficient Mortgages Initiative, participating in its Advisory Council.

In another important international development, the MNB held its first International Green Finance Conference in November 2019 in cooperation with the EBRD.²⁸ The event aimed to analyse the interplay of environmental and financial risks. In the second half of 2019, the MNB's Green Finance website (<https://www.mnb.hu/greenfinance/english>) became available, compiling and offering news, special articles and trainings to interested parties. In preparation for the continuation of last year's work, the promotion of sustainable economic growth is a top priority in the supervisory strategy and mission for 2020–2025.

The MNB also introduced several measures to make its operations even greener. In the spring of 2019, a two-

²⁸ European Bank for Reconstruction and Development (EBRD)

month campaign was conducted. It aimed to involve employees, raise awareness about sustainability and promote environmentally sound work. The campaign was organised around the Green Office Certification system, which assesses operations based on an office operation standard. Awareness-raising among employees was ensured through targeted knowledge transfer. In the first month of the campaign, thematic weeks were organised to provide an overview about energy and waste management, water and wetlands, air pollution and climate change. In the structure of the knowledge behind the thematic weeks, the international overview was followed by the presentation of the situation in Hungary. All topics were concluded with the question 'What can you do?', listing practical tips that can be used in an office setting. The campaign also included an exhibition and a film club, and employees could provide ideas on making office operations more environmentally conscious. After the ideas were classified, the 25-point Green Office Action Plan was drawn up, which was adopted by the Executive Board of the MNB. The campaign was concluded with the Green Office external audit, where the MNB acquired the Green Office certification. To ensure continuous development, the Green Office Certification needs to be renewed every other year.

Energy indicators

The MNB's direct environmental impact is mostly determined by energy consumption and particularly by energy consumption related to the operation of the buildings. As regards the total energy consumption of the properties included in the MNB's environmental management system (Head Office, Logistics Centre, business site at Krisztina krt.), it can be stated that the hidden reserves of the system have been identified in recent years, and a number of measures were implemented resulting in energy savings. However, the changes in operations in the meantime (increased staff numbers,

implementation of the new bank security strategy, the installation of new equipment, such the stormwater storage facility, air conditioners, air curtains) have led to increased energy consumption. In respect of the targets set for the reduction of energy consumption, it is difficult to formulate a responsible commitment due to the extreme weather conditions accompanying global warming; nevertheless, the MNB is making continuous efforts to improve energy consumption. For example in 2019 hot water in the Head Office was provided in the summer months using waste heat, thereby reducing gas consumption. The energy used for heating increased somewhat, while the streamlining of the motor vehicle fleet resulted in a roughly 10-per cent decline in fuel consumption.

The decrease in the per capita total energy consumption that characterised the previous years continued, with a 5.5-per cent decline registered at the end of 2019 compared to the baseline of 2016 specified in the environmental strategy.

Waste management

There was no significant change in the separate waste collection system in 2019, and new waste fractions were included in the separate collection scheme at the end of the year. In 2019, 47.4 per cent of the total annual waste was collected separately. All the scrapped electronic devices and equipment were donated to charity organisations for recycling purposes in 2019. The proportion of hazardous waste in total waste was minimal at 0.25 per cent.

Water management

As a result of global warming, the quantity of groundwater used for cooling the Head Office and watering the lawn at the Logistics Centre rose significantly in 2019 again, by 21.5 per cent.

Table 11
Total energy consumption

Total energy consumption	2016 base				2019				Change from 2016 base (%)
	Head Office Building	MNB Logistics Centre	Krisztina Boulevard Building	Total	Head Office Building	MNB Logistics Centre	Krisztina Boulevard Building	Total	
Electricity consumption (GWh)	2,886	2,379	1,397	6,662	3,030	2,906	1,226	7,161	7.5
Heating, hot water energy consumption (GWh)	1,855	890	1,257	4,002	1,719	1,117	1,265	4,101	2.5
Fuel energy consumption (GWh)	501			501	453			453	-9.6
Total energy consumption (GWh)				11,165				11,716	4.9
Unit energy consumption (GWh/person)				9.4				8.9	-5.5

Environmental burden related to travel

The rules on the use of taxi services were tightened, which resulted in a decline in the volume of travel by over 50 per cent compared to the baseline of 2016. In addition, a decrease of 12.4 per cent was observed in the case of foreign assignments involving air and car travel. In 2019, the MNB replaced 134,000 kilometres of travel by the use of video conferencing, resulting in nearly 29 tons of CO₂ emission savings.

3.11 FACTORS SHAPING THE COMMUNICATION OF THE MNB

In 2019, as in previous years, the MNB considered it important to continuously and transparently present the central bank's activities, achievements, reports and recommendations. In order to supply comprehensive information and continuous updates on its technical work, the MNB issued 300 press releases, held more than 30 press conferences, coordinated several conference communication events, responded to approximately 850 press enquiries, its executives and press officers gave numerous interviews and it published 102 professional articles in the printed press, on online portals and on its own website.

In the course of its communication, the MNB focused on disclosing and explaining the key decisions concerning the core tasks of the MNB, monetary policy, supervisory and consumer protection activities and financial stability. The MNB regularly presented the substance and background of its major decisions, disclosed the outcomes of Monetary Council meetings and published on an ongoing basis the results of supervisory inspections and procedures and the content of the measures, and not least those responsible for the established infringements. Warnings about the precautions necessary for identifying risk related to financial operations once again formed part of supervisory communication in 2019.

The regular publication of professional articles in 2019 was intended to present an in-depth view of the MNB's activities in adequate detail and in accordance with the requirements of clarity, while at the same time bringing interested parties closer to the work of the various functional areas and the explanation of the key results. More than 100 publications appeared this year, and the MNB was assisted in this by reputable news and economic websites.

Key communication topics included the 330-point Competitiveness Programme of the MNB published in February: the implementation of the recommendations and initiatives in it were continuously in the focus of proactive communication and interest. In the same fashion, the MNB continuously communicated the launch of the BGS and its developments. The central bank also announced its Green Programme at the beginning of the year, and its significance and certain elements appeared at the conferences held during the year. Furthermore, at the end of 2019, the MNB put out a notice on its new supervisory strategy announced for 2020–2025.

In 2019, the MNB routinely informed the public about the latest developments in the banknote replacement programme, new issuances and withdrawal dates, and it officially concluded the banknote replacement programme at the end of the year. In the widespread communication of the related information, the MNB partnered with editorial offices of radios, television channels and the printed and online press, and the communication was also assisted by larger retail store chains, commercial bank branches and post offices by allowing the information posters and flyers to be displayed.

During the year, the MNB continuously updated the public on the international activities of the central bank and its executives, the foreign visits of Hungarian delegations as well as the international meetings and conferences organised in Hungary.

Increasing financial awareness and consumers' knowledge was a focus area in the central bank's communication in 2019 again, not only through supervisory press relations but also in the form of topical campaigns. For example, awareness-raising communication activities characterised the summer regarding information about travel insurance, while online and print contents pointed out the importance of responsible borrowing before the Christmas holidays. Last year's key topics also included the communication about the features of insurers' and funds' new total cost indicator, the introduction of the consumer-friendly home insurance, the advantages of converting housing loans into fixed-rate ones and comprehensive customer authentication.

With respect to the new means of communication, the MNB places great emphasis on social media platforms: its Facebook page has a wide reach with its 58,000 followers. Information is typically and mainly communicated to international economic actors through the central bank's Twitter account, which also allows for continuous and direct interaction.

3.12 THE MNB'S INCOME IN 2019

In 2019, the MNB recorded a profit of HUF 254.7 billion. In 2019, the following main developments had an effect on the balance sheet and the profit:

- the level and composition of international reserves defined by monetary policy, risk management considerations and foreign currency purchases and sales affecting the level of reserves: net foreign exchange inflows from EU transfers, operations performed by the Government Debt Management Agency in relation to debt management, the foreign exchange conversions performed by the Hungarian State Treasury for purposes not related to debt financing;
- developments in instruments absorbing forint liquidity, which are correlated with changes in foreign exchange reserves and the MNB's net foreign currency receivables;
- monetary policy instruments supporting banks' lending activity (the Funding for Growth Scheme, interest rate swap tenders) and the Bond Funding for Growth Scheme aimed at the diversification of lending to the corporate sector;
- changes in forint interest rates and international foreign exchange interest rates; and
- changes in exchange rates.

Net interest and interest-related income amounted to HUF 49.4 billion, which represents an improvement of HUF 22.3 billion compared to the previous year. Both the forint and

foreign exchange interest income showed a gain, which can be explained partly by the central bank's balance sheet structure and partly by the impact of monetary policy measures and the favourable composition of international reserves on the profits.

Net forint interest and interest-related income amounted to HUF 30.6 billion, surpassing the profit of 2018 by HUF 7 billion. The monetary policy instruments introduced in 2018 and 2019, such as the mortgage bond purchase programme and the corporate bond purchase programme, raised forint interest income. The average balance of credit institution liquidity-absorbing instruments diminished in 2019, which entailed a decline in forint interest expenditures in the context of an unchanged base rate and the slight uptick in the O/N deposit rate. The share of cash holdings within the balance sheet did not continue to rise in 2019.

Foreign exchange net interest and interest-related income amounted to HUF 18.8 billion, representing a HUF 15.3 billion improvement compared to 2018. The favourable change in profit can still be attributed to the rise in the interest income on international reserves, which partly reflects the increase in the level of the reserves in 2019 and partly the change in some elements of the investment strategy in 2018.

The realised gains from financial operations contain, for the most part, gains and losses realised from changes in the market price of securities generated upon the sale of the securities. This profit/loss category showed gains in 2019, related to the decline in US dollar yields and euro yields at longer maturities during the year, with a gain of HUF 7.3 billion realised on financial operations.

Table 12
Abbreviated income statement and individual balance sheet items of the MNB
(HUF Billions)

No.	Description (P/L line)	2018	2019	Change
1	Net interest and interest-related income (I+II)-(X+XI)	27.1	49.4	22.3
2	- net forint interest and interest-related income (I-X)	23.6	30.6	7.0
3	- net foreign exchange interest and interest-related income (II-XI)	3.5	18.8	15.3
4	Realised gains/losses arising from financial operations (IV-XIV)	-7.5	7.3	14.8
5	Income arising from exchange rate changes (III-XII)	74.0	229.1	155.1
6	Other constituents of net income* (V+VI+VII+VIII)-(XIII+XV+XVI+XVII+XVIII)	-45.8	-31.1	14.7
7	Profit/loss for the year (1+4+5+6)	47.8	254.7	206.9
8	Selected items of equity in the balance sheet			
8	Retained earnings	200.4	198.2	-2.2
9	Revaluation reserves due to unrealised foreign exchange gain/loss	169.6	187.8	18.2
10	Revaluation reserves due to changes in the market value of the foreign currency securities	6.6	32.2	25.6

* Revenues on supervisory activities, net profit/loss of banking operations, costs of issuing banknotes and coins, net creation and release of provisions, income/expenses from commission and from other items.

Income arising from exchange rate changes is determined by the difference between the forint's official exchange rate and its cost rate on the one hand and by the volume of foreign currency sales on the other hand. The rise in the cost rate continued during the year, but at the same time the depreciation of the forint lifted the official exchange rate more than that. Foreign currency sales were related to the Government Debt Management Agency's debt management operations and the management of international reserves in 2019. The realised income from exchange rate changes rose significantly compared to 2018 and amounted to HUF 229.1 billion.

Other components of net income include operating income, costs and expenses, the costs of issuing banknotes and coins, creation and release of provisions, income from supervisory activity and income/expenses from fees and commissions and other income/expenses. Net expenditures resulting from these items amounted to HUF 31.1 billion in 2019, down HUF 14.7 billion compared to the previous year, largely on account of the seigniorage of HUF 7.4 billion recorded in connection with the expiry of the option for exchanging the 500-, 1,000- and 5,000-forint notes withdrawn from circulation in 1999.

The MNB's equity amounted to HUF 682.9 billion on 31 December 2019. In accordance with the Executive Board's decision, the MNB paid HUF 50 billion in dividends from its retained earnings to the central budget in 2019. The amount of equity was reduced by the dividend payment and increased by the revaluation reserves and the developments in the profit/loss for the year.

The positive difference between the official forint exchange rate and the average cost rate widened compared to the end of 2018, causing the revaluation reserves due to forint exchange rate changes to grow by HUF 18.2 billion, coming in at HUF 187.8 billion on 31 December 2019.

On 31 December 2019, unrealised gains on foreign currency securities marked to market amounted to HUF 32.2 billion, which exceeds the previous year's level by HUF 25.6 billion.

3.13 THE MNB'S FINANCIAL MANAGEMENT IN 2019

The internal operations of the MNB are essentially aimed at providing the resources required for the efficient discharge of the duties stipulated by the MNB Act.

Operating costs

Actual operating costs in 2019 amounted to HUF 41,804 million, which is 7.0 per cent below the approved budget (excluding central reserves) and 2.6 per cent above the expenditures incurred in 2018.

The increase in personnel costs for 2019 compared to the previous year was mainly recorded in the wage costs of staff members, while basic benefits and welfare expenses diminished. Within general operating costs for 2019, depreciation and IT costs rose the most, whereas operating costs (mainly related to properties) declined.

Personnel costs

In 2019, personnel costs (HUF 24,850 million) exceeded the previous year's figure by 3.0 per cent (by HUF 731 million).

The difference mainly reflects the fact that, pursuant to the decision of the MNB's Executive Board, in order to ensure and retain highly qualified personnel over the long term, the 2018 wage bill limits within the wage bill management scheme were raised by 5 per cent on average from 1 January 2019. Nevertheless, the phase-out of the holiday and meal subsidy benefits in 2019 (and the absence of the related tax payments) reduced personnel costs. At the same time, the statistical average headcount rose by 1.3 per cent, mainly as a result of filling the vacant positions of functional areas.

In the reporting period, there were no material changes in the wage structure and the remuneration system compared to the previous year.

Table 13
Operating costs of the MNB in 2019

Description	Actual data for 2018	Budget for 2019	Actual data for 2019	Index (2019 actual / 2019 budgeted)	Index (2019 actual / 2018 actual)
	HUF millions			Per cent	
Staff expenditures	24,119	26,010	24,850	95,5%	103,0%
General operating costs	16,643	18,943	16,954	89,5%	101,9%
Total	40,762	44,953	41,804	93,0%	102,6%

Besides the above, personnel costs also rose on account of the previously not incurred representation expenses of several internationally recognised MNB events (e.g. the Budapest Eurasia Forum).

General operating costs

In 2019, general operating costs (HUF 16,954 million) were 1.9 per cent higher than in 2018 (up HUF 311 million); the changes in the components can be attributed to the following reasons.

IT costs rose by HUF 225 million (7.8 per cent) compared to the previous year. This was mainly attributable to the rise in the costs of the services used for the expanding IT security software systems. The costs of the new Bloomberg news services acquired in 2018 and 2019 also increased, which was largely offset by the contraction in the costs of hardware and telecommunication equipment, owing to the lower user demand for parts, and accessories and the leasing and maintenance of IT devices.

Compared to 2018, *operating costs* were down by HUF 415 million or 6.5 per cent, mainly due to the decline in armed security costs. This is attributable to the fact that owing to the cost savings of MNB-Biztonsági Zrt. in 2019, service fees dropped considerably relative to the previous year, and the volume of private security activities also diminished. Moreover, the costs of ad-hoc transportation in 2019 fell well short of those in the previous year, since the transportation of high-risk stocks in 2018 produced a higher baseline.

The *depreciation* of tangible and intangible assets in 2019 was 12.2 per cent (HUF 400 million) higher than the amortisation costs in the previous year. This is mainly the result of that fact that the value of the investments completed in 2018 and 2019 exceeds that of previous years, and within that IT developments dominate (this is because the useful life of hardware and software is usually shorter than in the case of other assets, and therefore their gross value is written off earlier).

Other expenses were down by 0.6 per cent (HUF 29 million) in 2019 relative to the previous year, attributable to several factors. The costs of communication services nosedived, partly because certain elements of the communication campaigns planned for 2019 (e.g. Instant Payment System) will only be realised in 2020, due to, among other things, the postponement of tasks and the failure of the public procurement procedure for the campaign communication. The other reason behind the decline is that the communication campaign on the Certified Consumer-

Friendly Housing Loan and banknote replacement programmes on social media entailed considerable expenses in 2018. However, based on the decisions of the MNB's Executive Board during the year, legal expert costs in 2019 increased (on account of the legal service fee related to the NHB claims) and so did other expert costs (related to the credit ratings linked to the Bond Funding for Growth Scheme).

The absolute value of the *transfer of costs* – which reduces operating expenses to ensure that the total amount of operating expenses reflects only the actual expenses incurred by the MNB – decreased significantly. This is mainly because in 2018 operating expenses were reduced by the costs of the IOSCO Conference that were offset by revenues (e.g. entry fee). On the other hand, the value of the performance accounting of IT developments implemented from own funds increased.

Capital expenditure

Various development projects and procurements are required for the achievement of the MNB's objectives and maintaining the volume and quality of its assets. In relation to normal operations, the approved capital expenditure budget for 2019 amounted to HUF 7,153 million. HUF 5,024 million was paid related to investments in 2019. Moreover, the expenses incurred on the payments for the art treasures purchased under the Depository Programme, which had been concluded by the MNB's Executive Board in 2018, that were carried over to the period under review as well as the expenses on acquiring other cultural assets based on individual approvals in 2019 totalled HUF 441 million.

A large portion of the capital expenditures in 2019 was incurred in relation to various IT software development projects and the purchase of IT equipment. Larger investments included the MNB's purchases of servers, network devices, printers, photocopiers and Microsoft licences, and the projects related to statistical applications that began in earlier years, such as the STAFIR Programme aimed at the integration of statistical and supervisory IT systems, continued.

The upgrading and modernisation of the security and IT system of the building at Szabadság tér was completed as part of the development of the security environment.

Personnel management at the MNB

The MNB continues to treat human resource management as a strategic issue with a view to fostering efficient and

profitable operation. The MNB provides stable employment and has developed a work culture where employees are able to perform their tasks efficiently, focusing on performance, in a value-driven atmosphere. They acquire and enhance the knowledge, skills and competence necessary for efficient work, and the productive work performed by the employees is supported by incentives and moral appreciation. In return, the MNB expects ethical behaviour on the part of its employees. All of this helps the employees realise their individual interests in harmony with the interests of the institution.

Based on the human resource strategy, highly educated and motivated employees can be secured in the required number. The MNB strives not only to hire excellent employees, but also to retain its employees. To this end, it also helps support individual ambitions in line with the objectives of the organisation. The MNB still considers it important to employ highly qualified, knowledgeable, dedicated and loyal employees, who enable the central bank to take active part in the changes arising in line with the renewing domestic economic and social interests and values.

Employees typically attended professional trainings, personal skills development programmes, domestic leadership trainings and language trainings, which – tailored to individual needs – served the participants' development in terms of efficiency, approach as well as the development of cooperation skills.

With the extension of its internship system, also incorporating international best practices, the MNB continued to support university students in acquiring professional skills. Within the framework of the internship system, the MNB received higher-education students for the period of their field practice and also within the framework of dual training. New graduates and career starters also had the opportunity to participate in the internship programme, which helped their integration in the labour market, and also provided the MNB with the opportunity to select students showing outstanding performance and employ them in the bank.

In 2019, the human resource area continued with the development of HR systems, which supported the integration of new entrants, the relations between the employee and the organisation for the duration of the legal relationship, and supported the process of departure from the organisation.

The heads of functional areas play a key role in determining the headcount and defining the wages necessary for

fulfilling the tasks. The MNB's wage and income policy reflects its special position and supervisory function. The wages recognise the special knowledge and professional skills that the staff of the individual functional areas possess in performing the tasks described above.

The wage bill management system operating in the MNB provides the opportunity, in accordance with the objectives specified upon the implementation thereof, to manage changes and requirements arising in the various functional areas in a fast and flexible manner by regrouping the employees, temporarily as well if necessary. In addition, wage bill management also supports executives in the most complete performance of the tasks of the areas they manage, in a way that the heads of the various areas can directly evaluate excellent work and the relevant achievements, which may also be reflected in the remuneration of the employees. Accordingly, the system that was introduced became suitable for the long-term retention of high-quality, highly qualified personnel and also for strengthening responsible financial management by granting much wider possibilities for the heads of wage management areas to give proposals.

With its multi-component fringe benefit system, the MNB provided a wide range of benefits to its employees in 2019 and also preserved its family welfare scheme. In this context, it provided special support for families and contributed to the mitigation of burdens related to the occurrence of unexpected situations in life. For the preservation of the personnel's health, a complete medical check-up programme was available for each employee once a year.

It is of key importance in the MNB's organisational culture that employees can also fulfil their roles and grow in their private life, while performing their tasks at the workplace supported by a well-balanced family background. As a result of a number of measures and successful initiatives and as an acknowledgement of its Child-focus and Family-friendly Programme, once again in 2019 the MNB won the title of 'Family-friendly Workplace' presented by the Ministry of Human Capacities. With this title, the Ministry honoured the efforts, programmes, initiatives and system-level solutions undertaken by the central bank voluntarily, in order to support employees with family and children. Within the framework of its Family-friendly Programme, the Government of Hungary announced its first call for applications for the Family-friendly Place Certification in 2019, and having submitted an application, the MNB obtained the Bronze certificate, the highest that could be acquired in the first round of certification.

Changes in staff number

The headcount of the MNB in 2019 was shaped by the labour-intensiveness of the tasks to be completed.

As a result of natural migration, quality-driven replacements and changes in inactive payroll, 168 employees were removed from the MNB's statistical headcount.

In order to secure an adequate workforce for the operating structure aligned with the challenges and the MNB's tasks to fill vacant or new positions, 174 persons were recruited and added to the MNB's statistical headcount in 2019.

As the combined balance of the decreases and increases, the closing headcount of 2019 was 1,452, exceeding that of 2018 by 6 persons.

In 2019, the average staff number of the MNB was 1,452.5 employees, exceeding that of the previous year by 18.3 persons.

In dual education, the MNB supported and accepted 44 students as trainees.

The average age of employees in 2019 was 40.9.

Procurement

Like other central banks in the European Union, the MNB conducts public procurement procedures in respect of purchases where the value reaches the value limits of national public procurements. In accordance with Directive 2014/24/EU of the European Parliament and of the Council on public procurement and repealing Directive 2004/18/EC and Act CXLI of 2015, the MNB is subject to public procurement jurisdiction.

The procurement processes of the MNB are regulated by the internal regulations and the Business Management Manual, in accordance with the effective Act on Public Procurement.

The procurement needs arising in 2019 resulted in a total of 1,018 procedures. The total value of the successful procedures amounted to HUF 8,959.0 million based on the signed contracts.

No legal remedy was sought in relation to the procurement procedures launched and concluded in 2019; the tasks were performed by the deadline without any reputation risk.

Operational risk management

The successful implementation of the MNB's strategic objectives and the safeguarding of its reputation and assets are crucially important values. An efficient operational risk management system plays an important role in the protection of these objectives and values. With this in mind, the identification, assessment and continuous in-house monitoring of operational risks and the implementation of the appropriate response measures constitute an integral part of the MNB's corporate governance. In order to continuously maintain the operational risk management activity at a high level, it is essential to monitor international best practices and to improve the MNB's procedures and systems in line with such practices. Within the framework of the continuous development of the operational risk framework, the MNB started to employ the internationally accepted IAP (Integrated Assurance Program) methodology.

In order to be able to adequately fulfil its fundamental tasks in critical situations as well, the MNB has efficient business continuity management in place. In this context, it continuously updates its business continuity and disaster recovery plans, the reliability of which is tested every year. The live integrated test performed in respect of the operation of the payment system and foreign reserve management bears the utmost importance.

3.14 INTRODUCTION OF THE ESCB COMMITTEES

Since Hungary's accession to the European Union, the MNB's management and experts have been participating in the work of the ESCB committees and their working groups. This membership and cooperation provides an opportunity for national central banks to work together and formulate coordinated positions, and also enables the representatives of national central banks to obtain information on the ECB's activities on a regular basis.

On 31 December 2019, fifteen ESCB committees and two other committees assisting the work of the ESCB were in operation. In connection with the launch of the Single Supervisory Mechanism (SSM) in November 2014, in addition to the two existing configurations (euro area composition and ESCB composition) a number of committees have held meetings in SSM composition since 2014 as well, with the attendance of representatives of the supervisory authorities operating as organisations independent of the central banks of the Member States participating in the SSM.

The following provides a brief summary of the fields of activity (mandates) of each ESCB committee:

Accounting and Monetary Income Committee (AMICO):

This Committee develops and regularly reviews the accounting policy principles which define the framework of financial statements in accordance with the Statute of the ESCB and the methodology of the preparation of regular financial reports, facilitating their coordination at an international level. It monitors the calculation of monetary income in accordance with the risk management process developed by the security framework system of accounting.

Banknote Committee (BANCO):

This Committee determines the euro banknote needs of euro area countries, coordinates the production of banknotes and works out the stockpiling and banknote processing policies of euro banknotes. Its tasks include sharing experience in the production of euro banknotes, the examination and development of security features to prevent euro banknotes from being counterfeited, and the assessment of security risks related to the production of the euro. It contributes to the harmonisation of practices applied in the euro area, the development of the system which monitors counterfeiting and the verification of statistics regarding euro banknotes and coins.

Committee on Controlling (COMCO):

COMCO has been an ESCB committee since July 2007 (only euro area NCBs participate in the work of this committee). It contributes to the application and enhancement of the Common Eurosystem Cost Methodology and prepares analyses on the cost data and cost structure of certain functions and products of the Eurosystem/ESCB. In the area of management information systems, it serves as an important forum for cooperation and information exchange on issues concerning the ESCB as a whole.

Eurosystem/ESCB Communications Committee (ECCO):

This Committee contributes to the development of the external communication policy of the Eurosystem, the ESCB and the ECB, with the aim of making the objectives defined by the Eurosystem/ESCB more transparent and understandable, and informing the public of the tasks and activities of the Eurosystem and the ESCB.

Financial Stability Committee (FSC):

The FSC has been operational since 2011, when the Banking Supervision Committee (BSC) ceased to operate. Its task is to provide professional support to the decision-making bodies of the European Central Bank in their functions relating to financial stability and macroprudential policy issues.

Internal Auditors Committee (IAC): By reviewing the relevant common projects, systems and activities and by providing for cooperation in certain auditing issues which are of 'common interest' for the ECB and national central banks, this Committee assists the ESCB in achieving its targets.

International Relations Committee (IRC):

The IRC assists in carrying out those tasks of the ESCB that are related to international cooperation and contributes to formulating the position of the Eurosystem regarding the various areas of relations with non-EU countries.

Information Technology Committee (ITC):

This Committee contributes to the development of the information technology policy and strategy of the Eurosystem and the ESCB as well as the related guidelines with special regard to security concerns and provides technical advice to other committees. Furthermore, it initiates and implements Eurosystem and ESCB level developments and independent projects.

Legal Committee (LEGCO):

LEGCO provides legal assistance for the work of the ESCB; in particular, it contributes to the maintenance of the regulatory framework of the Eurosystem and the ESCB and to the review of the transposition of legal regulations into national law, and monitors and reports on how national authorities and EU institutions comply with their consultation obligations relating to draft legislation in areas falling within the ECB's competence.

Market Infrastructure and Payments Committee (MIPC):

The group operates under the name of MIPC since 1 April 2016; previously it had been known as the Payment and Settlement Systems Committee (PSSC). This Committee assists the ESCB in the smooth operation of payment systems and in connection with the cross-border use of collateral. Furthermore, it supports the ESCB in general and 'oversight' issues relating to payment systems, as well as in strategic decisions related to securities clearing and settlement systems. It pays special attention to the strengthening of the oversight activity, the fostering of pan-European developments in the area of high- and small-value payments, securities and collateral management.

Market Operations Committee (MOC):

The MOC assists the ESCB in the implementation of the single monetary policy and the execution of foreign exchange transactions, the management of the ECB's foreign reserves and in the appropriate adaptation of the monetary policy tools applied by the central banks of Member States where the euro is yet to be introduced, as well as in the implementation of ERM II.

Monetary Policy Committee (MPC): This Committee assists the ESCB in the implementation of the single monetary and exchange rate policy of the Community. In addition, it provides assistance in the execution of the ESCB's tasks related to the coordination of the monetary and exchange rate policies of the NCBs of non-euro area Member States and the ECB.

Organisational Development Committee (ODC): The ODC was set up in July 2013 with only euro area members. It assists the work of ECB decision-makers with proposals regarding the planning and organisational issues related to the operation of the Eurosystem and the Single Supervisory Mechanism (SSM). In addition, it also coordinates the work of the Eurosystem Procurement Coordination Office (EPCO) and runs the operational risk management and business continuity system of the Eurosystem/ESCB.

Risk Management Committee (RMC): The RMC was set up in September 2010 and comprises euro area members only. Its task is to assist the work of ECB decision-makers in managing and controlling risks arising from the market operations of the Eurosystem by means of analyses and proposals.

Statistics Committee (STC): The STC assists in the collection of statistical information required for carrying out the tasks of the ESCB. It contributes, *inter alia*, to the elaboration and cost-effective application of necessary modifications in statistical data collection.

Other committees assisting the work of the ESCB:

Budget Committee (BUCOM): This Committee assists the Governing Council of the ECB in issues concerning the budget of the ECB; its members are the central banks of euro area Member States.

Human Resources Conference (HRC): Established in 2005, the objective of this committee is to serve as a forum for the central banks of the Eurosystem/ESCB in the exchange of information, opinion and experiences on issues concerning the management of human resources.

3.15 RESEARCH ACTIVITY OF THE MNB

The purpose of the research activity performed by various directorates of the MNB is to support the central bank's decision-making. The results of the research are published in international and domestic scientific journals and the MNB's internal publications, in the *MNB Working Papers* (typically published in English only), in the *MNB Occasional*

Papers series and in the *Financial and Economic Review*. In addition to the publications, the representation of the MNB at international conferences and in the research networks and working groups coordinated by the ECB all form a part of the MNB's research activity.

Among the top international journals, in July the *American Economic Journal: Macroeconomics* published a paper co-authored by an MNB researcher that examined the monetary transmission mechanism through the effect of VAT changes. In addition, the *Economic Systems* accepted for publication in 2020 a study written by MNB researchers on the impact of EU subsidies on Hungarian small and medium-sized enterprises.

Among Hungarian journals, the *Financial and Economic Review* published eight studies, two essays, seven book reviews and five conference reports by MNB experts in its 2019 issues. In addition, the *Hungarian Economic Review* published a study co-authored by an MNB staff member on measuring scientific performance, and the MNB's internal series also published numerous applied research studies. The *MNB Working Papers* series and the *MNB Occasional Papers* series published five studies relevant from a central banking perspective. In addition to its Hungarian and English language issues, starting from 2019 the *Financial and Economic Review* also has a special issue in Chinese.

3.16 PUBLICATIONS AND CONFERENCES ORGANISED BY THE MNB

Regular publications

Inflation Report

The *Inflation Report* is published quarterly in order to enable the public to understand and follow the Bank's policies. The *Report* provides a regular presentation of past and expected future trends in inflation, evaluates the macroeconomic developments that determine inflation and provides a summary of the forecasts and considerations on the basis of which the Monetary Council makes its decisions.

Report on Financial Stability

Published twice a year, this *Report* outlines the position of the Bank regarding the changes experienced in the financial system and describes the effect of these changes on the stability of the financial system. The analysis in the *Report* focuses on the forward-looking assessment of long-term trends and risks.

Growth Report

The annual *Growth Report* is intended to present Hungary's longer-term growth path (occasionally encompassing an entire business cycle) and its determinants, also using standard and alternative indicators. The Report provides an annual overview of the most important trends shaping economic growth over the short, medium and longer term.

Housing Market Report

The MNB's semi-annual publication entitled *Housing Market Report* presents the current trends in the Hungarian housing market. The purpose of the publication is to provide a comprehensive overview of the short-term and long-term trends affecting the residential real estate market and to present the regional differences in the domestic market. Housing market developments are closely related not only to financial stability issues, but also fundamentally determine the short-term and long-term prospects of economic activity.

Commercial Real Estate Market Report

This thematic MNB publication analyses the developments on the commercial real estate market on a semi-annual basis. It presents the macroeconomic factors influencing the market as well as supply and demand trends characterising various market segments. The report also covers banks' real estate financing activities, the main link between real estate market developments and financial stability.

Macroprudential Report

The purpose of the annual *Macroprudential Report* is to present the macroprudential instruments applied by the MNB to prevent and address the systemic risks identified and communicated in the *Financial Stability Report*, as well as their effects and the adjustment of market participants. In line with the MNB's Statute and macroprudential strategy, the publication intends to make the MNB's macroprudential measures easier to follow and understand both for the actors of the sector and the general public.

Competitiveness Report

The purpose of the *Competitiveness Report* is to provide a comprehensive, objective picture of aspects of Hungary's competitiveness that usually are given less attention in the Bank's traditional macroeconomic analyses, although they are determinants in terms of economic developments. The report uses over 100 indicators to assess Hungary's

competitiveness, comparing it to the European Union and the Visegrád region.

Competitiveness Programme in 330 points

In 2015, the Hungarian government requested the MNB to use its central banking expertise to support Hungary's sustainable convergence by improving the country's competitiveness. The *Competitiveness Programme* integrates into this workflow and formulates 330 recommendations in 12 areas to unleash the full growth potential of the country, allowing the economy to sustainably converge to the most advanced national economies. The 330-point *Competitiveness Programme* published in 2019 specified the measures to be implemented to complete the path set.

Methodology for measuring competitiveness

Over the past years, the MNB has analysed Hungary's competitiveness in a number of publications, putting forward proposals for improving it. The central bank remains committed to improving and measuring Hungary's competitiveness, and thus reinforces its system for the analysis and measurement of competitiveness. In order to improve competitiveness, it should first be measured properly, and in Hungary this task is being performed most comprehensively by the MNB. It analyses the evolution of competitiveness from two aspects: the continuous monitoring of structural measures concerning competitiveness on the one hand, and the objective measurement of the factors shaping competitiveness on the other. This report summarises the methodological elements of future analyses focusing on this.

Competitiveness Mirror

The publication seeks to monitor in a structured manner the realisation of the competitiveness directions and recommendations formulated by the MNB, facilitating the necessary competitiveness turnaround by supporting implementation. The *Competitiveness Mirror* assesses Hungary's progress in competitiveness every autumn from 2019, based on the 330 recommendations in the Competitiveness Programme. The monitoring system uses both descriptive and analytical methods for evaluating the implementation of the central bank's recommendations.

Financial Consumer Protection Report

The purpose of the publication is to inform the institutions of the financial system and the public on current financial

consumer protection issues, thereby also enhancing the risk awareness of stakeholders, while at the same time maintaining and strengthening confidence in the financial system. The *Report* provides a detailed description of the MNB's financial consumer protection, administrative and customer service activities and the priority cases that affected a wide range of consumers in the period under review.

Insurance, Funds and Capital Market Risk Report

The publication is limited to the presentation of the risks of insurers, funds, non-banking group financial enterprises and intermediaries. It provides primarily a more in-depth analysis of the sectors which are not or only briefly discussed by the Financial Stability Report, and therefore it does not contain findings about the credit institution sector discussed in detail in the former. The main objective of this publication is to increase the risk awareness of those active in the supervised markets and to strengthen confidence in these sectors.

Trends in Lending

The objective of the publication *Trends in Lending* is to present a detailed picture of the latest trends in lending and to facilitate the appropriate interpretation of these developments. To this end, it elaborates on developments in credit aggregates, the demand for loans perceived by banks and credit conditions.

Report on the Balance of Payments

The *Report* is published four times annually to inform market participants on developments in the balance of payments and to provide deeper insight into the correlations in the economy. Developments in the external balance are key to financial stability, as processes relating to the balance of payments allow for conclusions to be drawn concerning the sustainability of economic growth and the relevant risks. The MNB carries out comprehensive and regular analyses of trends relating to Hungary's external balance, examining a number of indicators to assess macroeconomic imbalances.

Payment Systems Report

Once a year, this *Report* provides a comprehensive review of the trends in payments and the functioning of the overseen payment and securities settlement systems in Hungary, the main risks and any measures taken by the MNB which are necessary to maintain the smooth provision of payment

services and facilitate the reliable and efficient operation of the supporting payment and settlement systems.

Public Finance Report

With the aim of supporting the fulfilment of its fundamental duties stipulated in the MNB Act, and particularly the task related to the definition and implementation of monetary policy, the MNB analyses the developments in the budgetary deficit and debt, monitors the financing of the general government, analyses the impact of financing on the monetary processes, on the capital markets and on liquidity, and researches fiscal policy issues. Pursuant to Act CXCV of 2011 on the Economic Stability of Hungary, the Governor of the MNB is a member of the Fiscal Council (FC), and thus the professional expertise and accumulated information available in the MNB can indirectly support the work of the FC. The MNB prepares background analyses for the duties of the FC stipulated in the Stability Act and makes such available to the FC. The general public can learn about the most important results of these expert analyses from the *Public Finance Report* (formerly known as the *General Government Analysis*).

Annual Report

Published once a year in Hungarian and English, this publication presents the Bank's business report on the previous year and its audited annual financial statements.

Semi-annual Report: Semi-annual Report on the MNB's Activities

The *Semi-annual Report* is published once a year in September. The report is the central bank's business report pertaining to the first half of the year.

Interim Report: Quarterly Report on the MNB's Activities

The *Interim Report* is published twice a year, in April and November, between the annual and semi-annual reporting periods. It gives an account of the basic activities of the central bank's operating units as stipulated in the MNB Act, in respect of the first and the third quarters: monetary policy, overview of the financial system, FX reserves, payment transactions, cash logistics activities and statistical changes.

Supervisory Board Report

Pursuant to the MNB Act, members of the Supervisory Board have reporting obligation to the Parliament that

elects them and the Minister who appoints them. The focus of the Supervisory Board's duties is on controlling the central bank's continuous operation. The Supervisory Board performs its activity based on the laws applicable to it, its own rules of procedure, and the internal operational principles defined by the members jointly during the operation of the Board. The meetings of the Supervisory Board constitute the main form of the control activity, the topics of which are determined by the annual rolling work-plan based on the audit universe. The *Supervisory Board Report* is a presentation of the Supervisory Board's activity.

Analyses, studies, statistics

MNB Occasional Papers

The *MNB Occasional Papers* series primarily presents practical (applied) research related to the central bank's professional areas, summarises existing theories and international findings in certain topics, and provides analyses facilitating the understanding of central bank decision-making.

MNB Working Papers

The *MNB Working Papers* series presents the results of more theoretical research conducted at the MNB. The studies published in this series are primarily directed at academic, central bank or other researchers, with the goal of encouraging readers to offer comments that the authors may use in their future research.

Financial and Economic Review

The *Financial and Economic Review* is a journal in social science with a history of over a decade. Since the end of 2014, the journal has been edited and published quarterly by the MNB in separate volumes in Hungarian and in English. Starting from 2018, a Chinese-language compilation of the most important studies is also published once a year. The journal publishes scientific studies, short essays, book reviews, conference reports and reports on other scientific activities.

Other publications

Fintech Strategy of The Magyar Nemzeti Bank

The MNB considers it especially important to develop the digitalisation of the financial system and support the market introduction of innovative financial services in a secure manner, as – in addition to creating value for consumers

– it also strengthens the financial sector and contributes to supporting economic growth in a sustainable way. The MNB's FinTech strategy has been drawn up with a view to providing an overarching framework for the directions and initiatives relating to digitalisation objectives, in order to keep inevitable changes expected in the financial sector on a controlled and regulated track.

Magyar Nemzeti Bank Report 2013-2019

The Report was published with the subtitle '*With responsibility to the nation – the measures taken by the Magyar Nemzeti Bank to foster the economic and social development of our country*' as a one-off publication in March 2019. Also produced in English, its principal aim is to present the activities and achievements of the Bank's management in office since 2013 under the Governor's term in the period between 2013 and 2019. The Report discusses in detail the programmes and measures through which the renewed Magyar Nemzeti Bank was transformed from a conventional, often passive follower of events into an innovative and proactive participant, achieving results by standards of economic history in many areas by implementing both conventional and unconventional measures.

Budapest Institute of Banking (BIB)

No competitive financial system could be managed without cutting-edge market information. Nor can such knowledge be maintained in the absence of internationally recognised quality education. The BIB publication is an educational and scientific booklet on a diversified spectrum of education, supplemented with modern financial and economic information.

Financial Navigator Papers

The thematic booklet series targeting financial consumers helps in providing information to the public and preparing individual financial decisions. The booklets are available in the branches and customer service offices of various financial institutions and in the customer reception areas of the Financial Navigator Advisory Office Network. In accordance with changes in legislation and ensuring that the wording remains clear and easy-to-understand, the MNB regularly updates the contents of the booklets. In order to ensure that these publications reach the broadest swathes of the public, the MNB assessed its partner institutions' needs and produced over 900,000 updated booklets. The publications reached over 100 partners (mainly financial service providers).

Flyers and posters

The leading organisations of the Hungarian retail and services sectors offer several opportunities for the MNB's financial consumer protection communication campaigns to appear. This allowed posters to be displayed in around 800 department stores and approximately 500 post offices in each campaign.

MNB book series

The MNB considers the development of financial literacy in Hungary as one of its priority tasks, hence, relying on its available means, it intends to facilitate education in the field of economics as well as the widening and enhancement of financial literacy. The central bank supports the achievement of this goal using a wide range of instruments, a fundamental element of which is the book series on economic and monetary policy subjects launched in 2015.

2019 saw the publication of the fifth volume, *Long-Term Sustainable Econo-Mix*, edited by Barnabás Virág. The fifth volume of the series of trade books of the Magyar Nemzeti Bank was written with the aim of leading the reader with open, new, sometimes provocative questions and thoughts related to these questions through the trends and problems that are the main determinants of our sustainable future in these life-changing times. The MNB is planning to publish further volumes of the book series.

Events organised by the MNB

In respect of the events organised, the MNB pursues a strategy of openness with its associate and partner institutions, which is aimed at strengthening professional partnership. Another objective of the MNB is to achieve broad recognition and to integrate the work of the Hungarian central bank, to the greatest possible extent, into that of the international professional community. To this end, the MNB arranges international conferences, internal events and cultural events.

International conferences

The majority of the international, professional conferences that typically last for several days usually involve 70-100 persons, although the number of participants in some events reached 200-300 guests. The international conferences are primarily held in the building of the MNB.

The most important international conference events organised in 2019 were as follows:

Lamfalussy Lectures Conference

The objective of this annual event launched in 2014 under the name '*Lamfalussy Lectures Conference*' is to invite distinguished lecturers to Hungary to share with and present to the audience and fellow professionals their views on current issues in global economic policy, specifically in monetary policy and the financial system. Parallel to launching the international conference, the Governor of the MNB established the Lámfalussy Sándor Award to recognise outstanding international professional performance and lifetime achievements that influence the MNB's activity and have a major long-term impact on developments in international monetary and financial policies. The award is presented annually at a gala ceremony linked to the conference.

Organised for the sixth time in February 2019, the conference was dedicated to discussing the challenges of economic convergence in two sections (Europe and Asia). Contributors and presenters at the conference included Ewald Nowotny, then Governor of the Oesterreichische Nationalbank; Yves Mersch, Member of the Executive Board of the European Central Bank and former governor of the Banque centrale du Luxembourg; Lúcio Vinhas de Souza, Head of the Economics Team at the European Political Strategy Centre (EPSC) of the European Commission; William R. White, former chairman of the Economic and Development Review Committee at the Organisation for Economic Co-operation and Development (OECD); Christian Kopf, Managing Director at Union Investment Privatfonds GmbH; Povilas Lastauskas, Director of Centre for Excellence in Finance and Economic Research at the Bank of Lithuania; Kairat Kelimbetov, Governor of the Astana International Finance Centre (AIFC), former governor of the National Bank of Kazakhstan; Denis Hew, Director of the Asia-Pacific Economic Cooperation (APEC) Policy Support Unit; Khee Giap Tan, Co-Director of the Asia Competitiveness Institute of the National University of Singapore and Associate Professor at the Lee Kuan Yew School of Public Policy, and Chairman of the Singapore National Committee for Pacific Economic Cooperation (SINCPPEC); Hyeonjung Choi, Director of the Centre for Global Governance at the Asian Institute for Policy Studies and a research fellow at the Asian Institute for Policy Studies; and Andrew Sheng, Distinguished Fellow of the Asia Global Institute at the University of Hong Kong and former Chairman of the Hong Kong Securities and Futures Commission.

The 2019 conference was held again at an external location in Budapest and was attended by more than 500 guests.

Budapest Renminbi Initiative Conference

The MNB organised its international conference within the framework of the Budapest Renminbi Initiative for the fifth time. The event was opened by Márton Nagy, Deputy Governor of the central bank, followed by speeches of Levente Magyar, Deputy Minister at the Ministry of Foreign Affairs and Trade, Dr Mihály Patai, then Chairman of the Hungarian Banking Association, Gui Yonghao, Executive Vice President of Fudan University, and Marco Iannaccone, then Deputy CEO of UniCredit Bank Hungary. Presentations at the 2019 Budapest Renminbi Initiative Conference were also held by the representatives of the Ministry of Foreign Affairs and Trade, the Bank of China London Trading Center, Alipay, UniCredit and the Corvinus FinTech Center as well as professors from Fudan University Shanghai.

During the conference, the first Alipay terminal was presented, allowing access to China's most widespread mobile payment solution for Chinese customers in Hungary. The professional event also offered an opportunity for Hungarian and foreign decision-makers, senior executives and experts from the economic and financial sectors to discuss the current status of Sino-Hungarian economic, commercial and financial relations and possible steps forward, both in deepening and widening existing relations to a higher level and in establishing new relationships.

Cash Issuance Committee meeting

The Cash Issuance Committee (CIC), comprising cash experts of European central, held its annual meeting in June 2019 in Budapest, at the MNB's Head Office and Logistics Centre. Organising the committee meeting in Budapest also allowed the MNB to showcase its cash logistics operations, considered a benchmark by other central banks, at this forum.

Analysing the reports of the committee members, meeting participants assessed the most important cash logistics challenges faced by European central banks and shared their experiences with each other. The most important issues discussed by the CIC included the changes in cash holdings and the components of cash demand in the individual member countries, the analysis of households' payment habits, the analysis of central bank cash operation models and their changes, the automation of the cash supply chain and the presentation of commemorative coin issuance practices.

The automated operation of the MNB's Logistics Centre attracted much attention from CIC members, and therefore

the meeting in Budapest provided a good opportunity to visit the central bank's cash centre also for those who had not been there before. The external session at the Logistics Centre also enabled participants to learn about the MNB's cash strategy, its achievements and reforms.

Forum marking the 70th anniversary of the establishment of Hungarian-Chinese diplomatic relations

On the occasion of the 70th anniversary of the establishment of Hungarian-Chinese diplomatic relations, the economic forum 'Hungary and China: 70 years of diplomatic relations' was organised jointly by the municipality of the city of Shanghai and the MNB, with the support of Fudan University Shanghai. The opening ceremony included speeches by Zhu Yonglei, Deputy Secretary-General of the CPC Shanghai Municipal Committee and Deputy Director of the Publicity Department of CPC Shanghai Municipal Committee; Levente Magyar, Deputy Minister of Foreign Affairs and Trade; Duan Jielong, Ambassador Extraordinary and Plenipotentiary of the People's Republic of China to Hungary; and Chen Zhimin, Vice President of Fudan University.

Following the welcoming remarks, a panel discussion was held within the framework of the Hungary–China Economic Forum titled 'Opportunities, Challenges and Reciprocity', with the participation of Hungarian and Chinese experts. The event was concluded by a PhD Forum in the afternoon, focusing on the history and future outlook for Sino–Hungarian relations.

Preventing Financial Risks: Chinese and European Perspective – Workshop

The MNB and the Chinese Academy of Social Sciences (CASS) organised their joint workshop entitled "Preventing Financial Risks: Chinese and European Perspective" at the Antall József Conference Centre on 24 September 2019. The event was the continuation of the workshop organised in Beijing on 19 November 2018. The program brought together Chinese experts and representatives of the Visegrád country central banks in two panel discussions to exchange their views about financial risks and their management, focusing on financial stability, the fintech sector, the banking system and the real estate market.

Polish–Hungarian central banking conference

The event 'High-level Conference on Successes and Challenges in the CEE Region' organised jointly by the MNB and the National Bank of Poland with the support of OMFIF was held on 4 October 2019.

Participants included representatives of the central banks in the region, internationally renowned experts with expertise in the region, representatives of Hungarian banks and analysts.

Four panel discussions were held on the following topics:

- The region before the next crisis – Macroeconomic and monetary policy situation and outlook
- Financing sustainable economic growth
- Preparing for the fintech revolution from the perspective of banks and the payment system
- Maintaining the convergence process – Short- and long-term challenges in competitiveness

Financial innovation and stability: The MNB's engagement in the safe stimulation of financial innovation

The conference “Financial innovation and stability: The MNB's engagement in the safe stimulation of financial innovation” was organised at the MNB's Szabadság tér building on 25 October 2019. Its primary objective was to present the MNB's Fintech Strategy, and it also sought to shed light on the paths of development in the financial system, its opportunities and potential challenges arising from both business and technological perspective, and to explore potential further sources of innovation.

The event was opened by Dr Csaba Kandrács, Deputy Governor of the MNB. The keynote speech was given by Anikó Szombati, Executive Director of the MNB, presenting the MNB's FinTech Strategy. The two guest presenters at the conference, Attila Kincses (McKinsey) and Tamás Shenk (Deloitte), examined the short- and long-term effects of global technological and consumer trends on financial intermediation and presented the digital maturity of the Hungarian and regional banking systems. At the roundtable discussions following the speeches, the following topics were discussed by the invited experts:

- Payment innovations, new horizons – Instant payments and PSD2;
- Remote customer authentication and its fintech implications;
- Knowledge transfer – What can fintech firms learn from innovators in other industries?

The event was attended by approximately 120 participants, representing the government, the Hungarian State Treasury, fintech firms, banks and insurers.

The Pre-Forum Session of Budapest Eurasia Forum

The Pre-Forum Session of Budapest Eurasia Forum was held on 29–31 October 2019. The pre-forum session of the conference series, planned to be organised in Budapest annually from 2020 in the spirit of Eurasian cooperation, focused on the promotion of the long-term sustainable future as well as the geopolitical and economic topicalities needed to reach this aim. Dr György Matolcsy's welcome address was followed by keynote speeches by Péter Sijjártó, Minister of Foreign Affairs and Trade, and Veronika Skvortsova, Minister of Health of the Russian Federation. Following the high-level political opening ceremony, representatives of the Hungarian and international political, economic and scientific life held panel discussions on geopolitical, economic, financial issues related to multilateral cooperation, infrastructure, connectivity and culture.

The newly established international conference also showcased the latest volume of the MNB book series, ‘Long-Term Sustainable Econo-Mix’, focusing on sustainable economic theories.

Building on the success of the event, the Budapest Eurasia Forum's objective is to strengthen – through the Eurasian cooperation – Hungary's role as a bridge between the East and the West, to facilitate a dialogue among different cultures and countries with different characteristics and to lay down the theoretical foundations of long-term sustainable economics.

International Green Finance Conference

The first ‘International Green Finance Conference’ – organised jointly by the MNB and the EBRD – was held in November 2019, focusing on the impact of climate change on financial stability as well as the financial sector's related challenges and opportunities. Participants included officials from central banks and financial supervisory authorities from 13 countries, the EBRD, the ECB, the European Investment Bank, the International Investment Bank, the Global Green Growth Institute and the Asian Financial Cooperation Association from China. The international joint reflection concerned not only the challenges of financial supervision arising from climate change, but also sustainable lending as well as the new, economically and

socially responsible investment opportunities with so-called ESG aspects. At the conference, the MNB presented its planned measures aimed at making the financial system greener. In addition to the MNB and the EBRD, important presenters included the representative of Central Banks and Supervisors Network for Greening the Financial System (NGFS), whose main message focused on the climate protection responsibility of financial supervisory authorities. The inevitable environmental impact entailed by the conference was offset by a complex, long-term investment in the ecological restoration of habitats by the MNB in cooperation with WWF Hungary.

MNB–Bank of Korea conference marking the 30th anniversary of the establishment of diplomatic relations

On the occasion of the 30th anniversary of the establishment of diplomatic relations between Hungary and South Korea, for the first time in its history, a delegation of the highest level officials of the Bank of Korea arrived in Hungary, to discuss current issues related to long-term sustainable economic policy as well as the future of money and monetary policy at a conference organised jointly by the two institutions.

At the opening ceremony of the event, along with Governor Dr György Matolcsy, speakers included Juyeol Lee, Governor of the Bank of Korea, Levente Magyar, Deputy Minister of Foreign Affairs and Trade, and Kyoo-Sik Choe, Ambassador Extraordinary and Plenipotentiary of the Republic of Korea to Hungary. On the margins of the event, the commemorative coin prepared by the MNB for

the diplomatic anniversary was presented, the first piece of which was given by Dr György Matolcsy to the head of the Korean central bank.

Other international events

Courses at the central bank's 'Budapest School for Central Bank Studies' Training Centre

Spring courses 2019

Fabio Canova (Norwegian Business School): Time series methods for the study of the transmission of monetary and fiscal policies. 1–5 April 2019

Francesco Lippi (LUISS University and EIEF): Sticky price models for monetary economics: methods and limits. 8–12 April 2019

Summer courses 2019

Gianni de Nicoló (Johns Hopkins Carey Business School): Early Warning Systems (EWS) for Systemic Risk. 15–19 July 2019

Chris Carroll (Johns Hopkins University): Hands-On Heterogeneous Agent Macroeconomics. 22–26 July 2019

Daniel Waggoner (Federal Reserve of Atlanta): Advances in structural vector autoregressions (SVAR) and dynamic stochastic general equilibrium models (DSGE). 29 July - 2 August 2019

4 Additional information on the supervisory activity of the MNB in 2019

4.1 INSTITUTION OVERSIGHT

As at 31 December 2019, the MNB conducted the oversight of 1,445 institutions according to the breakdown in Table 14.

4.2 INSPECTIONS COMPLETED

The MNB carries out the inspections on the basis of an annual planning system, according to detailed daily schedules.

In preparing the inspection plans, the MNB considers the following criteria:

- the cycle plan of supervisory inspections defined in the MNB Act;
- the risk rating of the institutions and the resource requirements and inspection duration based on the risk ratings;
- the supervisory scoring system designed to establish the order of institutions to be inspected, also considering other individual characteristics of the institutions concerned; and
- the available resources.

The number of prudential on-site inspections and their breakdown by sector and inspection type are summarised in the following Table.

Table 14

Number of institutions supervised as at 31 December 2019

Capital market	120
Investment fund manager	90
Investment firm	12
Trust (fiduciary asset manager)	10
Clearing house	1
Central counterparty	1
Stock exchange	2
Tied agent	4
Funds	61
Private pension fund	4
Voluntary funds	56
Voluntary healthcare fund	2
Voluntary pension fund	37
Voluntary mutual fund	3
Voluntary healthcare and mutual fund	14
Occupational pension provider	1
Financial market	812
Non-financial institutions	528
Electronic money issuer	1
Independent intermediary	513
Special services intermediary	2
Payment service provider	12
Financial institutions	283
Credit institutions	34
Bank	22
Specialised credit institution	11
Cooperative credit institution	1
Financial enterprises	249
Financial enterprise equivalent to credit institutions	2
Other financial enterprises	247
Organiser (NOK)	1
Insurance	452
Insurance institutions	34
Insurance association	12
Insurance company	22
Insurance intermediaries	417
Insurance broker	379
Insurance multiple agent	38
Advocacy	1
Total	1,445

Table 15

Inspection statistics

Number of prudential on-site inspections	2018		2019		2020 terv	
	Comprehensive	Other*	Comprehensive	Other*	Comprehensive	Other*
Large banks and bank groups	3	31	4	26	2	19
Small and medium-sized banks	4	11	4	15	4	12
Integration (acceded credit institutions)	1	4	0	2	0	1
Specialized credit institutions	1	6	2	4	1	2
Branch of banks	0	1	0	3	0	0
Financial enterprises	0	2	2	7	0	0
Payment service providers	3	0	2	5	2	1
Insurance companies	5	2	7	10	4	4
Insurance associations	5	0	5	0	1	0
Intermediaries	0	10	0	6	0	5
Funds	13	1	14	6	11	10
Capital market institutions	31	12	31	9	17	12
Inspection targeting different types of supervised institutions	0	0	0	0	0	3
Total	66	80	71	93	42	69

* Including the ICAAP-BMA and ILAAP inspections.

4.3 LICENSING AND LEGAL ENFORCEMENT

The licensing and legal enforcement activity of the MNB comprises the entire spectrum of the legal activities linked to the supervision of the financial intermediary system, including the execution of all authorisation procedures

related to the overseen institutions and the performance of the legal enforcement tasks of the prudential inspection activity.

The statistics on the licensing and prudential legal enforcement activities of the MNB are shown in the following Tables, broken down by sector.

Table 16**Measures taken in the financial market sector***(Pieces)***Prudential measures**

Resolutions closing supervisory proceedings	99
of which: resolutions imposing fines	67
Other prudential measures, resolutions	207
Rulings	27
Total amount of fines (million HUF)	512.3

Authorisation resolutions/rulings

Authorisation of the operation of payment service provider	4
Authorisation of the foundation and operation of financial enterprises	3
Withdrawal of authorisation of the foundation and the operation of financial enterprises	2
Resolutions concerning the amendment of the scope of activities	11
Authorisation of the election of senior executives	215
of which: credit institutions' senior executives	93
Approval of the amendment of agency contract	162
Authorisation of multiple agents	19
Authorisation of brokers	5
Authorisation of the employment of intermediaries	20
Resolution withdrawing the activity license of intermediaries	18
Authorisation of the amendment of the bylaws	41
Authorisation of other regulations	10
Authorisation of the acquisition of qualifying holdings	32
Refusal of the acquisition of qualifying holdings	2
Authorisation of merger and division	2
Authorisation of transformation	2
Authorisation of the acquisition of qualifying holdings in a nonresident enterprise	6
Authorisation of the transfer of client accounts	5
Resolutions issued under CRR	31
Other resolutions	34
Substantive rulings	74
Non-substantive rulings	577
Total amount of resolutions and rulings	1,608

Table 17	
Measures taken in the capital market sector	
<i>(Pieces)</i>	
Prudential measures	
Resolutions closing supervisory proceedings	36
of which: resolutions imposing fines	32
Other prudential measures, resolutions	23
Rulings	7
Total amount of fines (million HUF)	232.6
Authorisation resolutions/rulings	
Authorisation for activities	26
Withdrawal of authorisation for operations	4
Authorisation of regulations	14
Authorisation of senior executives	153
Authorisation of the acquisition of qualifying holdings	3
Registration of intermediaries	202
Cancellation of intermediaries	211
Substantive rulings	63
Non-substantive rulings	361
Other resolutions	9
Total amount of resolutions and rulings	1,112

Table 18	
Customer inquiries and requests in a sectoral and monthly breakdown	
<i>(Pieces)</i>	
Prudential measures	
Resolutions closing supervisory proceedings	15
of which: resolutions imposing fines	15
Other prudential measures, resolutions	48
Rulings	5
Total amount of fines (million HUF)	448.95
Authorisation resolutions/rulings	
Authorisation of executive officers	72
Authorisation of professional executives	37
Withdrawal of authorisation for operations	25
Other resolutions	24
Authorisation of activities closely related to insurance activities	1
Authorisation of the activities of insurance intermediaries	6
Interlocutory decision	0
Rulings	37
Total amount of resolutions and rulings	270

Table 19**Measures taken in the funds sector***(Pieces)***Prudential measures**

Resolutions closing supervisory proceedings	15
of which: resolutions imposing fines	13
Other prudential measures, resolutions	4
Rulings	5
Total amount of fines (million HUF)	43.2

Authorisation resolutions/rulings

Authorisation of executive officers	1
Authorisation of professional executives	1
Withdrawal of authorisation for operations	1
Other resolutions	11
Interlocutory decision	0
Rulings	7
Total amount of resolutions and rulings	45

4.4 MARKET SURVEILLANCE AND ISSUER SUPERVISION

The summary data on measures required within the framework of the MNB's market surveillance activity in 2019 are presented in the following Tables.

Table 20**Market surveillance and supervision-related measures***(Pieces)***Market surveillance and supervisory measures**

Resolutions related to market surveillance	23
of which: resolutions imposing fines	12
Rulings related to market surveillance	531
Resolutions related to issuers supervision	22
Rulings related to issuers supervision	16
Other resolutions and rulings	0
Fines - market surveillance (million HUF)	66.4
– related to unauthorised and unreported activities	59.4
– related to insider dealing and unlawful market manipulation	6.95
– related to compliance with company takeover rules	0
Fines - supervisory (million HUF)	42.95
– related to issuers supervision	5.95
Total amount of fines (million HUF)	109.3
Total amount of resolutions and rulings	592

Table 21
Licensing related to securities issuance
(Pieces)

Licensing related to securities issuance	
Number of issues	8
– stock	0
– bonds and mortgage bonds program	8
Number of stock exchange listings	19
– stock	7
– bonds and mortgage bonds	12
Number of resolutions related to issuers	749
Number of rulings	357
– number of resolving discrepancies	341
Total amount of resolutions and rulings	1,106

4.5 CONSUMER PROTECTION AND CUSTOMER SERVICE

The following Tables contain a summary related to the MNB's administrative activity in 2019 in the area of financial consumer protection.

Table 22
The MNB's consumer protection administrative activity, number of procedures

Type of entities	Targeted inspections ex officio	Thematic consumer protection inspections ex officio	Inspected entities by thematic consumer protection inspections ex officio	Inspections along with prudential inspections	Consumer protection inspections by request
Credit institutions	24	2	6	1	117
Financial enterprises	6	0	0	1	24
Independent intermediary (financial market)	0	0	0	2	1
Insurance	1	0	0	4	5
Capital market	1	1	5	11	6
Funds	0	0	0	0	0
Total	32	3	11	19	153

Table 23**The MNB's consumer protection administrative activity, result of the procedures**

Sector/measures	Financial market	Insurance	Capital market	Funds	Total
Rulings	289	102	7	4	402
of which: substantive	137	95	7	4	243
non substantive	152	7	0	0	159
Resolutions	169	77	20	8	274
of which: without breach of law	47	26	1	2	76
with breach of law	122	51	19	6	198
Total amount of consumer protection fines (million HUF)*	74.3	102.5	7.5	2.4	186.6

* Including consumer protection fines imposed in prudential processes.

The following Tables show the main data related to the activity of the Financial Consumer Protection Centre.

Table 24**Distribution of customer inquiries and requests received by channel of submission**

Incoming channels of customer inquiries	No.	Per cent
Letter	2,466	9.3
E-mail	4,716	17.9
Personal	2,449	9.3
Phone	16,765	63.5
Total	26,396	100.0

Table 25**Customer inquiries and requests broken down by sectors**

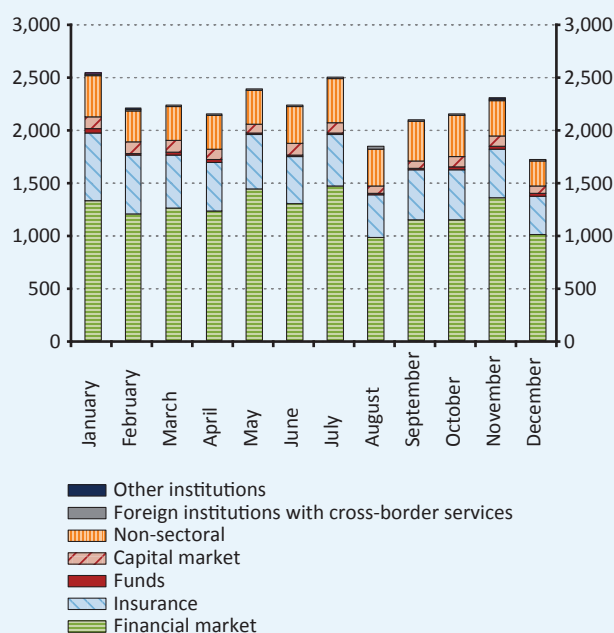
Sector	No.	Per cent
Financial market	14,849	56.3
Insurance	5,840	22.1
Funds	265	1.0
Capital market	1,114	4.2
Non-sectoral	4,156	15.7
Foreign institutions with cross-border services	169	0.6
Branch of Hungarian institutions	0	0.0
Other institutions	3	0.0
Total	26,396	100.0

Table 26**Number of customer inquiries and requests broken down by sector and quarter**

Sector	Q1	Q2	Q3	Q4	Total
Financial market	3,796	3,970	3,575	3,508	14,849
Insurance	1,706	1,429	1,397	1,308	5,840
Funds	89	63	45	68	265
Capital market	329	288	226	271	1,114
Non-sectoral	1,014	998	1,170	974	4,156
Foreign institutions with cross-border services	47	42	40	40	169
Other institutions	2	0	0	1	3
Total	6,983	6,790	6,453	6,170	26,396

Chart 16

Number of customer inquiries and requests in a sectoral and monthly breakdown



4.6 ADMINISTRATIVE REPRESENTATION AT PROCEEDINGS

Administrative representation at proceedings comprises the representation of the MNB in the assertion of claims of public interest, as well as litigation and non-litigious

proceedings related to the MNB's administrative decisions passed in the context of its supervisory and consumer protection activities, as well as representation of the Financial Arbitration Board in litigation launched for the abrogation of the FAB's resolutions or recommendations, and keeping records pertaining to such procedures.

Table 27

Cases commenced in 2019, broken down by type and sector

Type	No.	Per cent	Sector	No.	Per cent
Judicial review of resolutions	21	67.7	Financial market	19	61.3
Judicial review of rulings	9	29.0	Capital market	7	22.6
Other administrative decisions	1	3.2	Insurance	3	9.7
			Funds	1	3.2
			Non-sectoral	1	3.2
Total	31	100.0	Total	31	100

5 Explanation of abbreviations and terms specific to central banking

ABBREVIATIONS

AFCA: Asia Financial Cooperation Association

APRC: Annual Percentage Rate of Charge

BGS: Bond Funding for Growth Scheme

BIB: Budapest Institute of Banking

BIS: Bank for International Settlements

BISZ Zrt.: BISZ Central Credit Information Plc.

BREEAM: Building Research Establishment Environmental Assessment Methodology

BSE: Budapest Stock Exchange

CCFHL: Certified Consumer-Friendly Housing Loans

CCFHI: Certified Consumer-Friendly Home Insurance

CCIS: Central Credit Information System

CCyB: Countercyclical Capital Buffer

CEBS: Committee of European Banking Supervisors

CFD: Contract for Differences

DLT: Distributed Ledger Technology

EBA: European Banking Authority

EBRD: European Bank for Reconstruction and Development

ECB: European Central Bank

ECMS: Eurosystem Collateral Management System

EIOPA: European Insurance and Occupational Pensions Authority

EMU: Economic and Monetary Union

ESCB: European System of Central Banks

ESRB: European Systemic Risk Board

ESMA: European Securities and Markets Authority

FCPC: Financial Consumer Protection Centre

FFAR: Foreign Exchange Funding Adequacy Ratio

FGS: Funding for Growth Scheme

FMA: Austrian Financial Market Authority

FSC: Financial Stability Committee

GIRO: Giro Clearing House Ltd.

GSP: Growth Supporting Programme

HCSO: Hungarian Central Statistical Office

ICAAP: Internal Capital Adequacy Assessment Process

ICS: Interbank Clearing System

IFR: Interbank Funding Ratio

IFRS: International Financial Reporting Standards

ILAAP: Internal Liquidity Adequacy Assessment Process

IMF: International Monetary Fund

IOCCI: Integration Organisation of Cooperative Credit Institutions

IOSCO: International Organization of Securities Commissions

ISDA: International Swaps and Derivatives Association

KELER: KELER Central Clearing House and Depository Ltd.

LCR: Liquidity Coverage Ratio

LIRS: Interest Rate Swap (IRS) conditional on lending activity

MFAR: Mortgage Funding Adequacy Ratio

MIRS: Interest Rate Swap (IRS) facility of monetary policy purpose

MLS: Market-Based Lending Scheme

MNB: Magyar Nemzeti Bank

MOF (PM): Ministry of Finance

NPL: Non Performing Loans

OECD: Organisation for Economic Co-operation and Development

O-SII: Other Systemically Important Institutions

SyRB: Systemic Risk Buffer

SPPI: Solely Payments of Principal and Interest

SRM: Single Resolution Mechanism

SSM: Single Supervisory Mechanism

TCI: Total Cost Indicator

TSA: Treasury Single Account

VIBER: Real-time gross settlement system, a payment system operated by the MNB

GLOSSARY

Access interface: Pursuant to the PSD2 requirements, all account-servicing payment service providers had to design an interface that, subject to specific rules, enables third-party providers to provide any one of the following services to customers.

Cash turnover: The sum of exchanges and payments to and from the central bank.

Clearing: Control and transmission of payment transactions, calculation of interbank balances in accordance with specified rules; in the case of securities transactions: matching and confirmation of positions, calculation of accounts receivable/payable and managing the arising financial risk.

CLS (Continuous Linked Settlement): A clearing and settlement model that enables the elimination of FX settlement risks. It is based on a multi-currency payment versus payment (PvP) mechanism. The CLS is operated by the CLS Bank.

CRR (Capital Requirement Regulation): Regulation No. 575/2013/EU of the European Parliament and of the Council on the prudential requirements for credit institutions and investment firms.

Currency interest rate swap (CIRS): Usually a medium or long-term transaction involving the exchange of different currencies, a series of interest payments on the principal and repayment of principals when the transaction is settled.

Duration: Average remaining maturity of bonds. It is an indicator measuring the level of risk associated with the bond portfolio.

ERM II, Exchange Rate Mechanism II: An exchange rate mechanism for establishing the conditions for an exchange rate policy co-operation between euro area countries and EU Member States not participating in the third stage of EMU. The ERM II is a multilateral system of fixed but adjustable exchange rates, where the mid-rate is surrounded by a normal, +/-15 per cent fluctuation band. All decisions in relation to the mid-rate and, as the case may be, a narrower fluctuation band, are made on the basis of a joint agreement between the Member State concerned, the euro area countries, the ECB and the other Member States participating in the mechanism.

Foreign exchange funding adequacy ratio (FFAR): The ratio of the sum of stable foreign exchange funds and net foreign exchange swap stock with a maturity over one year and the weighted foreign currency denominated assets to be financed.

Foreign exchange futures: A stock exchange transaction where the basis of future settlement is a certain amount of standardised (expressed-in-contract) foreign currency specified at the time of the deal.

Foreign exchange swap: Usually a short-term transaction involving the exchange of different currencies and, when the transaction is settled, exchange of the currencies again at the price determined in the contract by the cross rate and the interest rate of the currencies.

FX swap: See Foreign exchange swap.

IDD (Insurance Distribution Directive): Directive (EU) 2016/97 of the European Parliament and of the Council on insurance distribution.

IMF reserve quota: The freely drawable, i.e. not yet drawn portion of the IMF quota paid to the International Monetary Fund in SDR (Special Drawing Right).

Interest rate swap (IRS): The exchange of fixed rate and variable rate interest on principal at pre-determined intervals, adjusted to certain market rates and conditions.

MIFID II/MIFIR: Directive 2014/65/EU of the European Parliament and of the Council on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU; Regulation (EU) No. 600/2014 of the European Parliament and of the Council on markets in financial instruments and amending Regulation (EU) No. 648/2012.

MNB Act: Act CXXXIX of 2013 on the Magyar Nemzeti Bank.

Monetary financial institutions: The central bank, financial institutions and money market funds together constitute this institutional category within financial corporations.

Money market funds: Money market funds are investment funds, the mutual fund shares of which are similar to bank deposits from the aspect of liquidity. Money market funds invest 85 per cent of their assets in money market instruments or transferable debt securities with a remaining maturity of maximum one year or instruments with a return similar to that of the interest rate of money market instruments.

Money market instruments: Low-risk, liquid securities traded in large amounts on markets where they can be exchanged for cash immediately at a low cost.

NSG (National Stakeholder Group): The Hungarian T2s National User Group adopted a mandate at its 5 December 2017 meeting, and since then it has functioned as an AMI-SeCo National Stakeholder Group (NSG).

Omnibus II directive: See Solvency II directive.

O/N: Overnight deposit/loan.

Option contract: For the owner of the foreign exchange option this means a right, but not an obligation, to buy or sell a certain amount of currency against another currency at a pre-determined rate, at or before a pre-determined

date. If the holder of the option exercises this right, it will become an obligation for the seller (writer) of the option.

Payment system: In the case of supervised systems, a form of cooperation established based on an agreement between the cooperating parties for the operation of the system defined in Section 6(1)(27) of the Credit Institutions Act. It is part of the financial infrastructure. It includes means of payment, bank procedures and interbank payment systems that together enable the execution of payments.

PRIIPS: Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products.

PSD2 (Payment Services Directive 2): The revised Payment Services Directive. Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market and Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 on strong customer authentication and common and secure open standards of communication.

Revaluation reserve: The revaluation reserve of the forint exchange rate and the revaluation reserve of foreign exchange securities are reserves that are part of the equity of the MNB. If the sum of the revaluation reserves is negative and exceeds the sum of the retained earnings and the profit for the year, the central government is liable to reimburse the difference by 31 March of the year following the current year to the credit of retained earnings. The amount of the reimbursement is recorded in the balance sheet of the current year as a receivable from the central budget.

Revaluation reserve due to forint exchange rate changes: Unrealised exchange rate gains and losses on the forint exchange rate changes of foreign currency assets and liabilities are indicated in the forint exchange rate revaluation reserve, which constitutes a part of the equity.

Revaluation reserve of foreign exchange securities: The valuation difference between the market value and cost rate of foreign exchange assets based on securities is indicated in the revaluation reserve of foreign exchange securities, which constitutes a part of the equity.

Repurchase and reverse repurchase transaction: An agreement on the transfer of the ownership right of a security with a repurchase obligation at a pre-determined price at a future date specified or to be specified at the time when the contract is concluded. During the term of

the contract the buyer may either obtain the security which is the subject of the transaction and freely dispose over it (delivery repo transaction) or may not obtain it and may not freely dispose over it, in which case the security is deposited as a bail to the benefit of the buyer during the term of the contract (hold-in-custody repo).

ROA: Return on assets.

ROE: Return on equity.

SCAr.: Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication.

SEPA: Single Euro Payments Area, an area within which economic operators can effect and receive payments in euro anywhere, using one single payment account, in the same manner as in their own respective countries. Geographically, the Area covers the 28 EU Member States, Iceland, Liechtenstein, Norway, Switzerland and Monaco.

Settlement: Final settlement of interbank liabilities and receivables on an account managed by a common bank, typically the MNB.

Solvency II directive: Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of insurance and reinsurance. A new, risk-based regulatory framework for insurers which is based on three pillars; namely, quantitative requirements, qualitative requirements and public disclosure. It is a European standard based on

which the supervisory authorities can create standard rules for capital in order to reduce/avoid the risk of insolvency. Applicable from 1 January 2016. The Omnibus II directive (Directive 2012/23/EU of the European Parliament and of the Council) includes the amending provisions of the Solvency II directive – which has been approved, but it is yet to become valid and applicable – and the Prospectus directive (Directive 2003/71/EC of the European Parliament and of the Council).

Strong customer authentication RTS: Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication.

TARGET2-Securities (T2S): The single technical platform of the Eurosystem through which central depositories and national central banks can provide basic, cross-border and neutral securities settlement services in central bank funds across all Europe.

Third-party providers: The new players on the payment services market: account information service providers, payment initiation service providers and payment service providers issuing card-based cash-substitute payment instruments.

Tomnext transaction: Overnight deposit or FX transaction, which starts on the first working day after the trade date (T+1) and ends on the following working day.

VaR: Value at risk – a method for measuring risks. VaR quantifies the maximum amount of loss to be expected at a given confidence level for a specific time horizon.

Part B
Audited financial statements
of the Magyar Nemzeti Bank

1 Independent auditor's report



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Company Registration Number: 01-09-071057

To the Owner of Magyar Nemzeti Bank

Opinion

We have audited the financial statements of Magyar Nemzeti Bank (the „Bank”) for the year 2019 which comprise the balance sheet as at December 31, 2019 – which shows an equal amount of total assets and total liabilities of million HUF 12.347.868 and profit for the year of million HUF 254.699 –, as well as the related profit and loss account for the year then ended and the notes to the financial statements including a summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Bank as at December 31, 2019 and its financial performance for the year then ended in accordance with Act C of 2000 on Accounting (the „Accounting Act”) effective in Hungary.

Basis for Opinion

We conducted our audit in accordance with the Hungarian National Standards on Auditing and the effective Hungarian laws and other regulations on audits. Our responsibilities under these standards are further described in the "The Auditor's Responsibilities for the Audit of the Financial Statements" section of our report.

We are independent of the Bank in compliance with the relevant effective Hungarian regulations and the "Rules of conduct (ethical rules) of the auditor profession and the disciplinary process" of the Chamber of Hungarian Auditors and, in respect of matters not regulated therein, the "Code of Ethics for Professional Accountants" (the IESBA Code) issued by the International Ethics Standards Board for Accountants, and we have fulfilled our other ethical responsibilities in accordance with the same ethical requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information: The Business Report

Other information includes the business report of the Bank for 2019. Management is responsible for the preparation of the business report in accordance with the relevant provisions of the Accounting Act and other regulations. Our opinion on the financial statements provided in the section of our independent auditor's report entitled „*Opinion*” does not apply to the business report.

Our responsibility in connection with our audit of the financial statements is to read the business report and, in doing so, consider whether the business report is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Furthermore, in accordance with the Accounting Act, our responsibilities also include assessing whether the business report was prepared in accordance with the relevant provisions of the Accounting Act and

other regulations, and to express an opinion on the above and on whether the business report is consistent with the financial statements.

In our opinion, the business report of the Bank for 2019 corresponds to the financial statements of the Bank for 2019 and the relevant provisions of the Accounting Act in all material respects. As the Bank is not subject to additional requirements under any other regulation in connection with the business report, we have not formulated an opinion on this matter.

In addition to the above, based on the information obtained about the Bank and its environment, we must report on whether we became aware of any material misstatements in the business report and, if so, on the nature of such material misstatements. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the Accounting Act, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Bank's ability to continue as a going concern, disclosing, as applicable, matters related to the going concern principle, and preparing the financial statements using the going concern basis of accounting. Management must apply the going concern principle, unless the use of this principle is precluded by any provision, or if any fact or circumstance prevails, which precludes the Bank to continue as a going concern.

Those charged with governance are responsible for overseeing the Bank's financial reporting process.

The Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives during the audit are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue, on the basis of the above, an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Hungarian National Standards on Auditing and the effective Hungarian laws and other regulations on audits will always detect a material misstatement when it exists. Misstatements can arise from fraud or error, and they are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the Hungarian National Standards on Auditing and the effective Hungarian laws and other regulations on audits, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's preparation of the financial statements in accordance with the going concern principle and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in the Bank's internal control that we identify during the audit.

Budapest, 1 April, 2020

The original Hungarian version has been signed.

Nagyváradiné Szépfalvi Zsuzsanna
on behalf of Deloitte Auditing and Consulting Ltd.
and as a statutory registered auditor

Deloitte Auditing and Consulting Ltd.
1068 Budapest, Dózsa György út 84/C.
Registration number: 000083

Registration number of statutory registered auditor: 005313

2 Balance sheet of the Magyar Nemzeti Bank

HUF millions

Reference number to notes on the Accounts	Assets	31 Dec 2018	31 Dec 2019	Change
1	2	3	4	4-3
	I. RECEIVABLES DENOMINATED IN FORINT	1,426,188	1,995,333	569,145
4.3.	1. Receivables from the central government	39,178	39,178	0
4.7.	2. Receivables from credit institutions	1,383,386	1,749,826	366,440
4.10.	3. Other receivables	3,624	206,329	202,705
	II. RECEIVABLES DENOMINATED IN FOREIGN CURRENCY	9,438,194	10,082,066	643,872
4.9.	1. Gold and foreign exchange reserves	8,793,473	9,360,769	567,296
4.4.	2. Receivables from the central government	0	0	0
4.8.	3. Receivables from credit institutions	4,968	7,829	2,861
4.10.	4. Other receivables	639,753	713,468	73,715
	III. BANKING ASSETS	93,646	109,918	16,272
4.12.	of which: invested assets	77,719	108,759	31,040
4.14.	IV. PREPAID EXPENSES/ACCRUED INCOME	171,414	160,551	-10,863
	V. TOTAL ASSETS (I+II+III+IV)	11,129,442	12,347,868	1,218,426
Reference number to notes on the Accounts	Liabilities and equity	31 Dec 2018	31 Dec 2019	Change
1	2	3	4	4-3
	VI. LIABILITIES DENOMINATED IN FORINT	8,669,779	9,452,741	782,962
4.5.	1. Central government deposits	1,136,720	599,542	-537,178
4.7.	2. Deposits by credit institutions	1,470,306	2,253,265	782,959
	3. Banknotes and coins in circulation	5,997,810	6,530,351	532,541
4.11.	4. Other deposits and liabilities	64,943	69,583	4,640
	VII. LIABILITIES DENOMINATED IN FOREIGN CURRENCY	1,810,490	2,027,735	217,245
4.5.	1. Central government deposits	593,962	743,025	149,063
4.8.	2. Deposits by credit institutions	62,246	43,732	-18,514
4.11.	3. Other deposits and liabilities	1,154,282	1,240,978	86,696
4.13.	VIII. PROVISIONS	668	703	35
	IX. OTHER BANKING LIABILITIES	125,132	101,463	-23,669
4.14.	X. ACCRUED EXPENSES/DEFERRED INCOME	88,925	82,294	-6,631
4.15.	XI. EQUITY	434,448	682,932	248,484
	1. Share capital	10,000	10,000	0
	2. Retained earnings	200,443	198,210	-2,233
	3. Valuation reserves	0	0	0
4.16.	4. Revaluation reserves due to exchange rate changes	169,601	187,801	18,200
4.16.	5. Revaluation reserves of foreign currency securities	6,637	32,222	25,585
	6. Profit/Loss for the year	47,767	254,699	206,932
	XII. TOTAL EQUITY AND LIABILITIES (VI+VII+VIII+IX+X+XI)	11,129,442	12,347,868	1,218,426

1 April 2020, Budapest

Dr György Matolcsy
Governor of the Magyar Nemzeti Bank

3 Income statement of the Magyar Nemzeti Bank

HUF millions

Reference number to notes on the Accounts	Income	2018	2019	Difference
1	2	3	4	4-3
4.18.	I. INTEREST AND INTEREST-RELATED INCOME DENOMINATED IN FORINT	35,382	40,765	5,383
	1. Interest on receivables from the central government	16	16	0
	2. Interest on receivables from credit institutions	6,137	9,998	3,861
	3. Interest on other receivables	35	795	760
	4. Interest-related income	29,194	29,956	762
4.18.	II. INTEREST AND INTEREST-RELATED INCOME DENOMINATED IN FOREIGN CURRENCY	180,556	307,746	127,190
	1. Interest on foreign exchange reserves	62,166	79,820	17,654
	2. Interest on receivables from the central government	0	2	2
	3. Interest on receivables from credit institutions	0	3	3
	4. Interest on other receivables	0	0	0
	5. Interest-related income	118,390	227,921	109,531
4.19.	III. INCOME ARISING FROM EXCHANGE RATE CHANGES	79,150	238,730	159,580
4.18.	IV. REALISED GAINS ARISING FROM FINANCIAL OPERATIONS	2,934	12,424	9,490
4.21.	V. OTHER INCOME	16,388	28,637	12,249
	1. Fees and commissions	1,125	1,337	212
4.22.	2. Income other than fees and commissions	2,927	13,784	10,857
4.23.	3. Income from supervisory activities	12,336	13,516	1,180
4.13.	VI. PROVISIONS RELEASED	51	579	528
4.13.	VII. IMPAIRMENT RELEASED	343	1,568	1,225
4.24.	VIII. OPERATING INCOME	506	241	-265
	IX. TOTAL INCOME (I+II+III+IV+V+VI+VII+VIII)	315,310	630,690	315,380

Reference number to notes on the Accounts	Expenses	2018	2019	Difference
1	2	3	4	4-3
4.18.	X. INTEREST AND INTEREST-RELATED EXPENSES DENOMINATED IN FORINT	11,819	10,108	-1,711
	1. Interest on central government deposits	129	738	609
	2. Interest on deposits by credit institutions	7,001	5,083	-1,918
	3. Interest on other deposits	40	40	0
	4. Interest-related expenses	4,649	4,247	-402
4.18.	XI. INTEREST AND INTEREST-RELATED EXPENSES DENOMINATED IN FOREIGN CURRENCY	177,018	288,956	111,938
	1. Interest on central government deposits	-1,358	-1,779	-421
	2. Interest on deposits of credit institutions	-54	-83	-29
	3. Interest on other liabilities	9,375	7,502	-1,873
	4. Interest-related expenses	169,055	283,316	114,261
4.19.	XII. EXPENSES RESULTING FROM EXCHANGE RATE CHANGES	5,195	9,665	4,470
4.20.	XIII. COST OF ISSUING BANKNOTES AND COINS	11,633	11,393	-240
4.18.	XIV. REALISED LOSSES ARISING FROM FINANCIAL OPERATIONS	10,394	5,151	-5,243
4.21.	XV. OTHER EXPENSES	5,390	6,002	612
	1. Fees and commissions	716	1,615	899
4.22.	2. Expenses other than fees and commissions	4,674	4,387	-287
4.13.	XVI. PROVISIONS CHARGED	78	614	536
4.13.	XVII. IMPAIRMENT	4,562	1,593	-2,969
4.24.	XVIII. OPERATING COSTS AND EXPENSES	41,454	42,509	1,055
	XIX. TOTAL EXPENSES (X+XI+XII+XIII+XIV+XV+XVI+XVII+XVIII)	267,543	375,991	108,448
	XX. PROFIT/LOSS FOR THE YEAR (IX-XIX)	47,767	254,699	206,932

1 April 2020, Budapest

Dr György Matolcsy
Governor of the Magyar Nemzeti Bank

4 Notes to the financial statements

4.1 THE MNB'S ACCOUNTING POLICY

The Magyar Nemzeti Bank (MNB), the central bank of Hungary, is owned by the Hungarian State (the shareholder). Ownership rights are exercised by the minister in charge of public finances (the finance minister).

The accounting policy of the MNB is based on the Act on Accounting (Act C of 2000), Act CXXXIX of 2013 on the Magyar Nemzeti Bank (hereinafter: the MNB Act) and Government Decree 221/2000 (XII. 19) on the special reporting and accounting requirements applicable to the Magyar Nemzeti Bank (hereinafter: the MNB Decree). Since the effective date of the Act promulgating the international treaty on the accession of Hungary to the EU, i.e. 1 May 2004, the MNB has been a member of the European System of Central Banks (ESCB).

The following sections present a brief description of the accounting system of the MNB, and the valuation and profit recognition rules, insofar as these differ from the general rules.

4.1.1 The MNB's accounting framework

One of the key accounting principles of the MNB is that transactions are booked for the period in which they occur unless the financial year is already closed. This is especially important for the accurate measurement of exchange rate gains and losses, with special regard to foreign exchange sales and purchases. Spot foreign currency transactions which involve foreign exchange conversions are recorded in the books at the date of the transaction. Assets and liabilities arising from such transactions affect the MNB's foreign currency position from the date of entering into the transaction. The same procedure is applied to recording the revaluation difference in the balance sheet relating to derivative transactions for hedging purposes.

On a daily basis, the MNB records:

- exchange rate differences arising from revaluation of its foreign assets and liabilities and derivative transactions for hedging purposes recorded off-balance sheet;
- amortisation of the securities' price gains and losses; and
- accrued/deferred interest arising from on and off-balance sheet assets and liabilities from hedging transactions.

Pursuant to the MNB Decree, for the purpose of reporting data to the owner, the MNB must close accounts relating to its assets, liabilities and income and prepare trial balances on a quarterly basis, in accordance with the procedures specified in its accounting policy.

For internal use, the MNB compiles a balance sheet and income statement on a monthly basis; these are supported by:

- market valuation of foreign currency securities;
- breakdown and recording of realised and unrealised portions of foreign exchange gains and losses deriving from daily revaluation; and
- charging of depreciation and amortisation.

Upon the quarterly closing of accounts, the MNB measures its off-balance sheet contingent and future liabilities arising from derivative transactions for other purposes and securities lending operations based on international agreements (in this case, the liabilities are equal to the purchase value of the collateral received) and other off-balance sheet liabilities. It also measures the receivables and securities in the balance sheet, and additionally measures the financial investments at the end of the year and at the second quarter. As a result of this measurement, the MNB recognises impairment losses as necessary and forms provisions for the balance-sheet liabilities.

The balance sheet date is the 15th working day of January of the year following the reporting year. For this report, the balance sheet date was 22 January 2020.

By law, the MNB is also required to report to Parliament. The MNB submits a single report to both Parliament and the Ministry in charge of public finances (Ministry of Finance), which exercises the rights of ownership as laid down in the MNB Act. This takes the form of an Annual Report, which contains a business report describing the MNB's structure, operations and state of affairs during the reporting year, and the MNB's annual financial statements defined by the Act on Accounting, as adopted by the Board of Directors with the auditor's opinion. The Supervisory Board submits an opinion on the Annual Report and a report on such to the shareholder. The Annual Report is published in unabridged form on the internet. The website is accessible at: <http://english.mnb.hu>.

Additionally, the Governor of the MNB also reports to the Parliament's committee responsible for economic affairs on the half-year activity of the MNB. This report is the Half-year Report which contains a business report describing the MNB's structure, operations and state of affairs during the reporting period, and the MNB's half-year financial statements as defined by the Act on Accounting. The Half-year Report is also published on the internet in Hungarian.

Pursuant to MNB Decree, the MNB is not obliged to draw up consolidated financial statements.

The financial statements of the MNB must be audited by the statutory auditor in compliance with the Act on Accounting. The registered auditor of the MNB is Zsuzsanna Szépfalvi Nagyváradiné (Deloitte Kft.), Chamber membership number: 005313.

The person authorised to sign the Annual Report is Dr György Matolcsy, Governor of the Magyar Nemzeti Bank.

The person responsible for accounting services is Gábor Kalina, registration number: 194599.

4.1.2 Major principles of valuation

Receivables from the central government

Securities stated under receivables from the central government are recorded in the balance sheet at amortised purchase price and include no interest. The difference between the purchase price excluding interest and the face value is shown in the MNB's income statement as a valuation gain or loss in proportion to the time elapsed.

Receivables from the central government also include any receivables associated with the reimbursement of revaluation reserves at year-end.

Impairment losses may not be recorded in connection with receivables from the central government.

Receivables from credit institutions

Mortgage bonds are recorded in the balance sheet under 'Receivables from credit institutions' at amortised purchase price net of interest. The market value difference at acquisition is shown in the MNB's 'Interest-related income' as a valuation gain or loss in proportion to the time elapsed.

Impairment losses on mortgage bonds are accounted in proportion to the risk of losses, if the difference (loss) appears to be a permanent, significant amount.

Interest-free refinancing loans within the framework of the Funding for Growth Scheme (FGS) and the base rate fixed security-backed loans provided to credit institutions are recorded in the balance sheet at the disbursed amount.

Other receivables

Corporate bonds are recorded in the balance sheet under 'Other receivables' at amortised purchase price, net of interest. The market value difference at acquisition is shown in the MNB's 'Interest-related income' as a valuation gain or loss in proportion to the time elapsed.

Impairment losses on corporate bonds are accounted in proportion to the risk of losses, if the difference (loss) appears to be a permanent, significant amount.

Receivables from supervisory activities are recorded in the balance sheet, along with any related impairment. The MNB records supervisory fees imposed in line with the incoming data reported by the institutions, and the penalties imposed are recorded in line with the finalised resolutions. Supervisory fees, penalties levied and used for support purposes defined by the MNB Act and fees from public proceedings are recorded as 'Income from supervisory activities'.

The balance of 'Other receivables' also contains employee loans and loans provided to other legal entities in the amount of the disbursements. The related interest income is stated under 'Interest on other receivables'.

'Other receivables' must be measured and subject to impairment if necessary.

Valuation of foreign currency assets and liabilities and the recording of exchange rate gains

In its books, the MNB records all foreign currency assets, including the precious metals held for central bank purposes based on the MNB Decree, and liabilities at the official exchange rate prevailing on the date of acquisition. If a foreign currency asset or liability is created as a result of foreign exchange conversion, the exchange rate gain or loss arising from the difference between the actual and the official exchange rate is recorded by the MNB as conversion income for that particular date and is recognised under 'Gains/losses from exchange rate changes' in the income statement.

The MNB carries out daily revaluation of foreign currency assets and liabilities as well as off-balance sheet assets and liabilities arising from derivative transactions for hedging purposes, taking account of variations in the official exchange rate. As a result of this revaluation, balance sheet items denominated in foreign currency are stated in an amount converted at the official exchange rate prevailing on the balance sheet date. Banking assets and banking liabilities in foreign currencies (with the exception of foreign investments) and foreign currency accruals and derivative transactions for purposes other than hedging do not form part of revaluation.

Income received in foreign currency is stated at the official exchange rate prevailing on the given date.

Daily accounting for accrued income is preceded by reversing the accrued income on the previous day. As a result, foreign currency accruals are recorded in the balance sheet at the official exchange rate without revaluation.

In respect of foreign exchange gains and losses arising in the course of daily revaluation, only realised exchange rate gains and losses can be stated as a profit item, while the unrealised result is reported under 'Equity' in the item 'Revaluation reserve due to exchange rate changes'.

Realised income in a particular currency arises as a result of a decrease in the net foreign currency position (in absolute terms). Realised income arises as the difference between the value of the change in the net foreign currency position at the official exchange rate and the average cost rate prevailing on that particular date.

Foreign currency securities

Foreign currency securities are stated at market price. The difference between the market value (mid prices applied by the instrument facilitating portfolio management) prevailing on the date of valuation and the amortised purchase value is recorded in the 'Revaluation reserve of foreign currency securities' as part of 'Equity'. Exchange rate gains or losses realised on selling are stated under 'Realised gains/losses arising from financial operations'.

The MNB measures its securities on the basis of market prices prevailing on the last working day of each month. However, if in respect of a certain foreign currency adequately liquid prices are not ensured on this day, the valuation of securities is based on the market prices available on the previous working day.

The foreign currency securities managed by the external trustee based on a mandate are also stated at market price, applying the prices received from the custodian.

Security repurchase transactions, based on international agreements, are recorded as credit/deposit transactions, while the related receivables or liabilities are stated as off-balance sheet items.

Securities lent through securities lending operations based on international agreements need not be removed from foreign exchange reserves; they are recognised as off-balance sheet items. Non-cash collateral and investments from cash collateral must be recorded as contingent liabilities under off-balance sheet items and if their market value is negative, and a provision of equal amount must be created for the investments on a quarterly basis.

Accounting rules relating to the IMF quota

Part of the IMF quota subscribed in foreign currency and denominated in SDR as a callable loan is stated under foreign exchange reserves.

The part of the quota paid in forint and recorded in SDR is presented under 'Other foreign currency receivables' in the balance sheet. The related IMF forint deposit is reported on the liabilities side of the balance sheet. It is the MNB's duty to ensure at least annually that the amount of the IMF's forint deposit is equal to the amount of the quota paid in forint. As this deposit account is only formally a HUF account, it is reported under 'Other foreign currency payables' in the balance sheet.

The SDR allocation aims to increase the foreign exchange reserves of the IMF's members and creates a liability without maturity date vis-à-vis the IMF on the liability side of the balance sheet. This transaction has an effect on profit and loss accounts (interest must be paid on the SDR amount received) if it is utilised.

Accounting rules relating to derivatives

On the basis of transaction purpose, the MNB distinguishes between two groups of derivative transactions: hedging transactions and derivative transactions for purposes other than hedging.

Hedging transactions are defined as transactions which reduce the risk arising from changes in the exchange rate or market value of a specific asset or liability or open position, are directly related to such, are announced as hedging transactions at the start of the contract and neutralise or significantly mitigate the risk that is intended to be hedged. Furthermore, derivative transactions with the government or non-resident counterparts to hedge these transactions are also regarded as hedging transactions. FX transactions for the purpose of setting the benchmark FX structure or decreasing the remaining average duration of the interest-bearing assets and liabilities, are deemed as macro hedging transactions.

Derivative transactions are stated under off-balance sheet assets and liabilities. The aggregate revaluation difference of foreign currency assets and liabilities arising from hedging transactions is reported in the balance sheet (depending on the balance of such, either in the item 'Other foreign currency receivables or liabilities', or 'Foreign currency receivables

from or liabilities to the central government or credit institutions'), including the interest accrued in proportion to the time elapsed (as accrued income or accrued expenses).

When derivative transactions for purposes other than hedging are closed, the income from such transactions is stated in the lines of income and expenses arising from exchange rate changes when foreign exchange transactions are involved, and in the lines of interest-related income and interest-related expenses for transactions linked to interest rate changes. While such transactions are not revalued, consistent with the principle of prudence, in reasonable cases – based on the information available at the balance sheet date – a provision is formed on a quarterly basis, equal to the negative market value of the transaction.

Banking assets and liabilities

Banking assets and liabilities are stated on the respective sides of the balance sheet. These consist of the following:

- assets and liabilities not directly related to central bank functions and bank operations (such as settlements relating to taxes, contributions, payments to employees, creditors, unsold precious metals held for non-central bank purposes);
- liabilities arising from banknotes no longer accepted as legal tender but not yet exchanged;
- investments; and
- assets required for operating the organisation (such as intangibles, tangibles, and inventories).

The MNB's balance sheet does not state cash among liquid assets. The central bank is the exclusive issuer of banknotes and coins. Notes and coins held at the Cashier and the Depository are not in circulation and are therefore deducted from banknotes and coins on the liabilities side of the balance sheet.

Depreciation rates applied by the Magyar Nemzeti Bank

		<i>Per cent</i>
		31 Dec 2019
Description		
Concessions, licences and similar rights		17
Trademarks patents and similar assets		10-50
Capitalised value of reorganisation		20
Owned and managed buildings		2-3
Vehicles*		20
Telecommunication devices, office equipment, machines		9-50
Office equipment		14.5—33
Computer hardware		9-33
Emission machinery		5-33
Instruments		9-33
Bank security devices		2-33
Other equipment and devices		3-33
* Residual value 20 per cent of the vehicles.		

The depreciation rates are determined individually based on estimated useful economic life. Depreciation is charged on a straight-line basis in every case. The Bank records no depreciation if the assets do not lose their value in use or if the value increases from year to year, given the particular nature of the assets (e.g. land, works of art, art treasures).

4.2 EFFECTS OF MACROECONOMIC TRENDS ON THE 2019 BALANCE SHEET AND INCOME STATEMENT OF THE MAGYAR NEMZETI BANK

In 2019, the MNB recorded a profit of HUF 254.7 billion. In 2019, the most significant profit item was once again income arising from exchange rate changes. The balance sheet total according to Hungarian Accounting Standards (HAS) was HUF 12,347.9 billion, higher by more than 10 per cent (HUF 1,218.4 billion) relative to the end-2018 balance.

The increase was caused by several item on the assets side. The foreign exchange reserves increased mainly due to the incoming EU transfers, while the balance of receivables from credit institutions rose owing to an individual year-end liquidity management transaction and the recourse to FGS fix loans. Additional growth was achieved by the Bond Funding for Growth Scheme (BGS) launched in 2019, within in the framework of which the MNB purchased corporate bonds. On the liabilities side, the volume of deposits by credit institutions and foreign currency liabilities increased, the balance of banknotes and coins in circulation expanded further. The MNB's equity also increased, which can be explained mainly by the higher profit for this year. At the same time, the decrease of the forint deposits of the central government reduced the stock of liabilities.

The net interest and interest-related result increased by HUF 22.3 billion, yielding a profit of HUF 49.4 billion in 2019. The forint interest result amounted to HUF 30.6 billion in 2019, which exceeded the profit of 2018 by HUF 7 billion. In addition to the additional profit realised on mortgage bonds and corporate bonds, the lower interest expenses resulting from the decline in the average stock of liquidity-absorbing assets and interest rate swaps with credit institutions also contributed to the result. The FX interest income rose by HUF 15.3 billion to HUF 18.8 billion in 2019, which is mainly due to the higher interest income on rising foreign exchange reserves.

The realised gain on financial operations was HUF 7.3 billion in 2019 compared to a realised loss of HUF 7.5 billion in 2018. This change is related to the decrease in FX market yields.

Net income from exchange rate changes – which is driven partly by the volume of foreign currency sales and partly by the difference between the official exchange rate and the average cost rate of the given currencies – represents a significant profit item in 2019. In relation to the decrease in the foreign currency position, the MNB realised a net gain of HUF 229.1 billion on exchange rate changes, which was HUF 155.1 billion higher than the gain from 2018. In 2019 again, foreign currency sales were also related to debt management operations of the ÁKK and the management of foreign exchange and gold reserves.

For more details on the factors affecting net income, see Section 3.12 of the Business Report.

4.3 FORINT RECEIVABLES FROM THE CENTRAL GOVERNMENT

The item for forint receivables from the central government contains government bonds, the amount of which remained unchanged again at HUF 39.2 billion at the end of 2019. The portfolio consists of a government debt bond with a maturity over 5 years.

4.4 FOREIGN CURRENCY RECEIVABLES FROM THE CENTRAL GOVERNMENT

Neither at end-2018 nor at end-2019 was any amount listed in the item for foreign currency receivables from the central government. The balance of currency swaps with the central government showed a net credit balance, and thus these items were stated as 'Foreign currency liabilities of the central government' (see Section 4.5.).

4.5 FORINT AND FOREIGN CURRENCY LIABILITIES OF THE CENTRAL GOVERNMENT

Forint deposits of the central government

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	Single Treasury Account (KESZ)	1,136,269	599,082	-537,187
	Deposit by Government Debt Management Agency (ÁKK Zrt)	393	402	9
	Other	58	58	0
VI.1.	Forint deposits of the central government	1,136,720	599,542	-537,178

The total balance of forint deposits of the central government declined considerably by HUF 537.2 billion by the end of 2019. The change was caused in the stock of the KESZ account, which is explained by budgetary and financing processes.

Foreign currency liabilities of the central government

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	Foreign currency deposits of the central government	232,539	343,044	110,505
	Currency swaps with the central government	361,423	399,981	38,558
VII.1.	Foreign currency liabilities of the central government	593,962	743,025	149,063

The balance of the foreign currency deposits currency swaps of the central government was HUF 743 billion at 31 December 2019, reflecting an increase of HUF 149 billion compared to the end of 2018. The change in foreign currency deposits is triggered by the debt management activities of the ÁKK.

Among the hedging transactions concluded with the central government, only the euro/US dollar currency swaps continued to have an outstanding amount at the dates under review. The bulk of the increase was driven by exchange rate changes, while the transaction effect caused a smaller, opposing movements.

Foreign currency liabilities of the central government in a breakdown by remaining maturity

HUF millions

B/S line	Remaining maturity	Balance		Change
		31 Dec 2018	31 Dec 2019	
	– within 1 year	232,539	400,635	168,096
	– within 1 to 5 years	263,075	303,385	40,310
	– over 5 years	98,348	39,005	-59,343
VII.1.	Foreign currency liabilities of the central government	593,962	743,025	149,063

4.6 NET POSITIONS VIS-À-VIS THE CENTRAL GOVERNMENT

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
I.1.—VI.1.	Net forint position	-1,097,542	-560,364	537,178
II.2.—VII.1.	Net foreign currency position	-593,962	-743,025	-149,063
	Total	-1,691,504	-1,303,389	388,115

4.7 FORINT RECEIVABLES FROM AND LIABILITIES TO CREDIT INSTITUTIONS

Forint receivables from credit institutions

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	FGS refinancing loans	908,150	967,064	58,914
	Covered mortgage bonds	402,099	393,853	-8,246
	Security-backed loans	73,239	387,851	314,612
	Other receivables	6,422	6,557	135
	Total receivables from credit institutions in gross value	1,389,910	1,755,325	365,415
	Impairment loss for receivables from credit institutions	-6,524	-5,499	1,025
I.2.	Total receivables from credit institutions	1,383,386	1,749,826	366,440

Receivables from credit institutions amounted to HUF 1,749.8 billion at the end of 2019, representing an increase of HUF 366.4 billion compared to end-2018. Within this, the balance of overnight loans changed the most (with an increase of HUF 314.6 billion) due to a rise in the stock on the last day of the year, as a result of liquidity management transactions. The amount of refinancing loans granted under the framework of FGS rose by HUF 58.9 billion in total: recourse to FGS fix loans increased the amount by HUF 292.8 billion, while maturing loans caused a decline of HUF 233.9 billion. The balance of mortgage bonds fell, due to maturity. The item 'Other receivables' contains the amount of the overdue receivables from credit institutions under liquidation.

Forint receivables from credit institutions in gross value by remaining maturity

HUF millions

Remaining maturity	Balance		Change
	31 Dec 2018	31 Dec 2019	
– matured	6,422	6,557	135
– within 1 year	111,846	418,178	306,332
– within 1 to 5 years	584,690	722,214	137,524
– over 5 years	686,952	608,376	-78,576
Total receivables from credit institutions in gross value	1,389,910	1,755,325	365,415

Forint liabilities of credit institutions

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	Current accounts	461,923	897,768	435,845
	O/N deposits	988,583	1,355,457	366,874
	Other deposits	19,800	40	-19,760
VI.2.	Deposits of credit institutions	1,470,306	2,253,265	782,959

The item 'Deposits of credit institutions' contains the liquidity-absorbing instruments, which are pegged to the base rate and mature within one year. The balance of deposits was HUF 2,253.3 billion on 31 December 2019, which was more than 50 per cent higher compared to one year earlier. The balance of current accounts increased by HUF 435.8 billion (of which the growth in preferential deposits amounted to HUF 195.8 billion), and the amount of overnight central bank deposits rose by HUF 366.9 billion. The separated balance of the additional margin account of a mortgage bank was released in the first half of 2019, causing a decline of HUF 19.8 billion.

4.8 NET POSITIONS VIS-À-VIS CREDIT INSTITUTIONS

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
I.2.—VI.2.	Net forint position	-86,920	-503,439	-416,519
II.3.—VII.2.	Net foreign currency position	-57,278	-35,903	21,375
	Total	-144,198	-539,342	-395,144

The net liabilities to credit institutions amounted to HUF 539.3 billion at the end of 2019 compared to HUF 144.2 billion at end-2018.

Within this, net forint liabilities increased significantly, rising by HUF 416.5 billion. The position was worsened by the increase in current account balances and overnight deposits of credit institutions as well as the reduction of mortgage bonds due to maturities. By contrast, the rising balance of security-backed loans improved the position and this was further strengthened by the expanding stock of FGS refinancing loans and the decline in other deposits.

The net foreign currency position vis-à-vis credit institutions improved by HUF 21.4 billion in 2019, with the year-end balance showing net liabilities of HUF 35.9 billion. The decline in the balance of foreign currency deposits in interest-bearing accounts at the MNB by domestic credit institutions and the change in the balance of foreign currency swaps both improved the net foreign currency position.

Foreign currency receivables from and liabilities to credit institutions in a breakdown by remaining maturity

HUF millions

B/S line	Remaining maturity	Balance		Change
		31 Dec 2018	31 Dec 2019	
	– within 1 year	4	8	4
	– within 1 to 5 years	119	167	48
	– over 5 years	4,845	7,654	2,809
II.3.	Foreign currency receivables from credit institutions	4,968	7,829	2,861
	– within 1 year	62,246	43,732	-18,514
	– within 1 to 5 years	0	0	0
	– over 5 years	0	0	0
VII.2.	Foreign currency liabilities to credit institutions	62,246	43,732	-18,514
II.3.-VII.2.	Net foreign currency position	-57,278	-35,903	21,375

4.9 GOLD AND FOREIGN EXCHANGE RESERVES OF THE CENTRAL BANK

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	Gold reserve	363,286	454,851	91,565
	Reserve position in the IMF	116,575	121,965	5,390
	Foreign currency deposits	2,082,826	1,517,954	-564,872
	Foreign currency securities	6,208,989	7,234,099	1,025,110
	Foreign currency repo transactions	21,797	31,900	10,103
II.1.	Gold and foreign exchange reserves	8,793,473	9,360,769	567,296

For statistical purposes, the MNB regularly publishes the amount of foreign exchange reserves. According to the statistical rules, foreign exchange reserves also include accrued interest, and consequently, gold and foreign exchange reserves differ in amount according to the statistical and accounting rules.

Foreign exchange reserves not including accrued interest amounted to HUF 9,360.8 billion at 31 December 2019, exceeding the figure for end-2018 by HUF 567.3 billion. In the course of 2019, the amount of foreign exchange reserves was increased by EUR transfers from the European Commission, the forint-liquidity providing fine-tuning FX swap tenders with credit institutions and revaluation of assets denominated in currencies other than euro. The level of reserves was reduced by the overall effect of the debt management and other activities of the Government Debt Management Agency, and by the net balance of foreign currency inflows and payments managed by the Hungarian State Treasury. As a consequence of these effects, the stock of foreign exchange reserves denominated in euro increased by a total of EUR 1 billion in 2019.

The end-2019 balance of foreign currency securities contained the securities which are managed by an external trustee based on a mandate amounting to HUF 829.4 billion (11.5 per cent in total).

4.10 OTHER FORINT AND FOREIGN CURRENCY RECEIVABLES

Other forint receivables

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	Total other receivables in HUF in gross value	12,288	215,814	203,526
	Impairment loss for other receivables	-8,664	-9,485	-821
I.3.	Other forint receivables	3,624	206,329	202,705

The gross value of other receivables in HUF amounted to HUF 215.8 billion at 31 December 2019. As part of the monetary policy instruments, the purchases of security by the MNB accounted for more than 90 per cent of this. The balance of receivables from supervisory activities amounted to HUF 8.8 billion at end-2019, and an impairment loss was recognised for 98.5 per cent of this, in line with the MNB's internal rules. The item 'Impairment loss for other receivables' also contains impairment on securities. The total amount of personal loans and preferential property loans granted by the MNB to its employees rose by HUF 0.8 billion to HUF 4.2 billion by the end of December 2019.

Other foreign currency receivables

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	Forint payment of IMF quota	639,191	668,741	29,550
	Foreign hedging transactions*	445	44,716	44,271
	Other	117	11	-106
II.4.	Other foreign currency receivables	639,753	713,468	73,715

* The revaluation difference of hedging derivative transactions is stated in net terms, in accordance with the MNB Decree.

The forint payment of the IMF quota rose, owing to the 4.6-per cent weakening of the forint exchange rate against the SDR. The item 'Foreign hedging transactions' includes the net debit balance of swap and forward transactions with non-resident counterparties concluded by the MNB. The aggregate balance of swap transactions with non-resident counterparties showed a net liabilities balance at end-2018, but a net receivables balance at end-2019.

4.11 OTHER DEPOSITS AND LIABILITIES

Other forint liabilities

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	International financial institutions' forint deposits	34,352	50,847	16,495
	Other liabilities	30,591	18,736	-11,855
VI.4.	Other forint deposits and liabilities	64,943	69,583	4,640

The item 'International financial institutions' forint deposits' mainly includes the forint deposits of the European Commission. The item 'Other liabilities' contains the deposits of other legal entities in domestic and foreign relation.

Other foreign currency liabilities

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	IMF deposit	1,025,275	1,072,674	47,399
	Foreign deposits and loans	78,399	148,078	69,679
	Hedging transactions*	50,313	20,065	-30,248
	Other liabilities	295	161	-134
VII.3.	Other foreign currency liabilities	1,154,282	1,240,978	86,696

* The revaluation difference of hedging transactions is stated in net terms, in accordance with the MNB Decree.

The balance of other foreign currency liabilities increased by HUF 86.7 billion to HUF 1,241 billion as of 31 December 2019. Within this, the amount of the IMF deposit rose by HUF 47.4 billion due to revaluation. The total increase of HUF 86.7 billion in the balance of foreign deposits mainly resulted from the change in margin deposits reflecting the market value of hedging transactions. The item 'Hedging transactions' includes the net credit balance of swap and forward transactions with non-resident counterparties concluded by the MNB. Due to a change in the sign, the aggregate net balance of swap transactions with non-resident counterparties was recorded under receivables in the balance sheet at end-2019.

Other foreign currency liabilities by remaining maturity

HUF millions

B/S line	Remaining maturity	Balance		Change
		31 Dec 2018	31 Dec 2019	
	– within 1 year	759,449	837,045	77,596
	– within 1 to 5 years	2,529	0	-2,529
	– over 5 years	6,220	0	-6,220
	– without maturity	386,084	403,933	17,849
VII.3.	Other foreign currency liabilities	1,154,282	1,240,978	86,696

The item 'Liabilities without maturity' includes the liabilities amounting to SDR 991.1 million, which is derived from the SDR allocation carried out by the IMF in 2009. The increase was caused by exchange rate changes.

Currency structure of other foreign currency liabilities – without foreign hedging transactions

HUF millions

Description	Balance		Change
	31 Dec 2018	31 Dec 2019	
– EUR	-88,465	-79,369	9,096
– USD	5,981	327	-5,654
– SDR	419,193	466,591	47,398
– Other	767,260	833,364	66,104
Other foreign currency liabilities	1,103,969	1,220,913	116,944

The item 'Other' amounted to HUF 833.4 billion at the end of 2019 and mainly contains the forint coverage of the IMF quota.

4.12 INVESTED ASSETS

Invested assets account for 99 per cent of the banking assets in the MNB's balance sheet. In addition to intangibles, tangibles and capital expenditure (HUF 34 billion), invested assets also include shares in investments (HUF 10 billion in foreign investments and HUF 64.7 billion in domestic investments). The receivable and the deposit escrow connected to the Buda Palota purchase at end-2018 was cleared from other banking assets in 2019 with the acquisition of Optimum-Penta Ingatlanbefektetési Kft., which – together with the subsequent capital increases – increased the balance of invested assets.

Changes in the gross value, depreciation, and net value of intangibles, tangibles and capital expenditure

HUF millions

	Assets							Intangibles, tangibles and capital expenditure
	Immaterial goods		Tangible assets				Capital expenditure and advances given	
	Intangible assets	Software under development	Buildings and accessories	Equipment	Cultural goods*	Assets of banknote and coin		
Gross value								
31 Dec 2018	16,029	827	13,649	16,632	11,013	243	2,617	61,010
Commissioning/ acquisition	1,714	487	906	3,513	443	2	-1,599	5,466
Acceptance of assets free of charge	4							4
Other addition/ reclassificaion								0
Retirement	-141			-9				-150
Selling				-32				-32
Transfer free of charge			-11	-1,897				-1,908
Other disposal/ reclassification				-2		-1		-3
31 Dec 2019	17,606	1,314	14,544	18,205	11,456	244	1,018	64,387
Details of depreciation								
31 Dec 2018	12,227	0	5,269	11,228	0	0	0	28,724
Ordinary depreciation	1,592		420	1,659				3,671
Other addition due to reclassificaion								0
Derecognition	-132		-6	-1,916				-2,054
Decrease due to reclassification								0
31 Dec 2019	13,687	0	5,683	10,971	0	0	0	30,341
Balance								
31 Dec 2018	3,802	827	8,380	5,404	11,013	243	2,617	32,286
31 Dec 2019	3,919	1,314	8,861	7,234	11,456	244	1,018	34,046
Change	117	487	481	1,830	443	1	-1,599	1,760
* 'Cultural goods' also includes art treasures acquired under the Depository Programme concluded in 2018.								

The net value of state-owned, managed buildings (3 buildings and 2 plots of land) was HUF 59.4 million at 31 December 2019. Equipment was transferred free of charge mostly for charity purposes and due to the closure of representative offices.

Foreign investments and dividends from investments

HUF millions

Description	Ownership share (%)		Book value		Dividends received	
	31 Dec 2018	31 Dec 2019	31 Dec 2018	31 Dec 2019	2018	2019
BIS	1.43	1.43	7,752	8,192	798	833
<i>SDR millions</i>			10	10		
<i>CHF millions</i>			14	14		
European Central Bank	1.38	1.33	1,801	1,791	-	-
<i>EUR thousands</i>			5,601	5,418		
SWIFT	0.03	0.03	15	15	0	0
<i>EUR thousands</i>			46	46		
Total investments			9,568	9,998	798	833

Ownership distribution in the ECB at 31 December 2019

National Central Banks (NCBs)	Subscribed capital	Paid-up capital	Capital key (%)
	EUR thousands		
Nationale Bank van België/ Banque Nationale de Belgique	273,656	273,656	2.5280
Deutsche Bundesbank	1,988,229	1,988,229	18.3670
Eesti Pank	21,304	21,304	0.1968
Central Bank of Ireland	127,237	127,237	1.1754
Bank of Greece	187,186	187,186	1.7292
Banco de España	902,708	902,708	8.3391
Banque de France	1,537,811	1,537,811	14.2061
Banca d'Italia	1,277,600	1,277,600	11.8023
Central Bank of Cyprus	16,270	16,270	0.1503
Latvijas Banka	29,563	29,563	0.2731
Lietuvos banka	43,939	43,939	0.4059
Banque centrale du Luxembourg	24,573	24,573	0.2270
Central Bank of Malta	7,924	7,924	0.0732
De Nederlandsche Bank	440,329	440,329	4.0677
Oesterreichische Nationalbank	220,018	220,018	2.0325
Banco de Portugal	177,173	177,173	1.6367
Banka Slovenije	36,383	36,383	0.3361
Národná banka Slovenska	86,643	86,643	0.8004
Suomen Pankki – Finlands Bank	137,564	137,564	1.2708
Subtotal for euro area NCBs	7,536,110	7,536,110	69.6176
Bulgarian National Bank	92,132	3,455	0.8511
Česká národní banka	175,062	6,565	1.6172
Danmarks Nationalbank	162,224	6,084	1.4986
Hrvatska narodna banka	61,410	2,303	0.5673
Magyar Nemzeti Bank	144,492	5,418	1.3348
Narodowy Bank Polski	563,636	21,136	5.2068
Banca Națională a României	264,888	9,933	2.4470
Sveriges riksbank	273,028	10,239	2.5222
Bank of England	1,552,025	58,201	14.3374
Subtotal for non-euro area NCBs	3,288,897	123,334	30.3824
Total NCBs	10,825,007	7,659,444	100.0000

Hungary joined the European Union on 1 May 2004, as a result of which the MNB became a member of the ESCB. The ESCB comprises the European Central Bank (ECB) and the national central banks of the EU Member States. The Eurosystem is composed of the ECB and of the national central banks of Member States which have already adopted the euro.

Pursuant to the provisions of Article 28 of the Statute of the ESCB and the ECB (hereinafter referred to as 'the Statute'), the MNB has become an owner of the ECB. Subscriptions depend on shares which are fixed in accordance with Article 29 of the Statute and must be adjusted every five years based on demographic and GDP data provided by the European Commission. Shares can additionally change with a new accession to the EU, a Member State leaving the EU, or due to a capital increase.

On 1 January 2019, the key subscription was adjusted, due to the five-year review. The MNB's key for subscription decreased to 1.3348 per cent, and its share fell to EUR 144.5 million. On 1 February 2020, due to the Bank of England's withdrawal from the ESCB, the subscriptions were adjusted again, resulting in the MNB's capital key increasing to 1.5488 per cent.

Pursuant to Article 47 of the Statute, non-euro area NCBs are required to pay 3.75 per cent of their subscribed capital to the ECB as a contribution to the operational costs of the ECB. As a non-euro area NCB, the MNB is not entitled to receive any share of the distributable profits of the ECB nor is it liable to fund any loss of the ECB.

The MNB's participation in the ECB is presented in the sub-item 'Invested assets' under 'III. Banking assets' in the balance sheet of the MNB. The value of the investment (i.e. paid-up capital) amounted to EUR 5.4 million (HUF 1.8 billion) in the MNB's balance sheet as at 31 December 2019.

Domestic investments and dividends from investments

HUF millions

Description	Ownership share (%)		Book value		Dividends received	
	31 Dec 2018	31 Dec 2019	31 Dec 2018	31 Dec 2019	2018	2019
Pénzjegynyomda Zrt. 1055 Budapest, Markó utca 13–17.	100.0	100.0	11,827	11,827	0	900
Magyar Pénzverő Zrt. 1239 Budapest, Európa u. 1.	100.0	100.0	575	575	0	425
Pénzügyi Stabilitási és Felszámoló Nkft. 1055 Budapest, Bajcsy-Zsilinszky út 78.	100.0	100.0	50	50	-	-
MNB-Jóléti Kft. 1054 Budapest, Szabadság tér 9.	100.0	100.0	688	577	0	0
MNB-Biztonsági Zrt. 1123 Budapest, Alkotás utca 50.	100.0	100.0	740	740	0	0
GIRO Elszámolásforgalmi Zrt. 1054 Budapest, Vadász utca 31.	100.0	100.0	9,779	9,779	0	0
MNB-Ingatlan Kft.* 1054 Budapest, Szabadság tér 9.	-	100.0	-	28,960	-	0
Budapesti Értéktőzsde Zrt. 1054 Budapest, Szabadság tér 7.	81.4	81.4	11,555	11,555	0	0
KELER Zrt. 1074 Budapest, Rákóczi út 70–72.	53.3	53.3	643	643	457	2,133
KELER KSZF Zrt. 1074 Budapest, Rákóczi út 70–72.	0.1	0.1	7	7	0	0
Total investments			35,864	64,713	457	3,458

* Previously: Optimum-Penta Ingatlanbefektetési Kft.

Participations of domestic investments

HUF millions

Description	Participations		
	Name Headquarter	Ownership share (%)	Share capital (HUF millions)
		31 Dec 2019	
Pénzjegynyomda Zrt.	DIPA Diósgyőri Papírgyár Zrt. 3535 Miskolc, Hegyalja út 203/1.	100.0	4,196
GIRO Elszámolásforgalmi Zrt.	BISZ Központi Hitelinformációs Zrt. 1205 Budapest, Mártonffy utca 25–27.	100.0	217
Budapesti Értéktőzsde Zrt.	Budapest Institute of Banking Zrt. 1054 Budapest, Szabadság tér 7.	100.0	120
	Első Értékpapírosítási Tanácsadó Zrt. 1054 Budapest, Szabadság tér 7.	100.0	50
	KELER Zrt. 1074 Budapest, Rákóczi út 70–72.	46.7	4,500
	KELER KSZF Zrt. 1074 Budapest, Rákóczi út 70–72.	0.1	2,623
KELER Zrt.	KELER KSZF Zrt. 1074 Budapest, Rákóczi út 70–72.	99.8	2,623

Pénzjegynyomda Zrt. (Hungarian Banknote Printing Plc.) produces forint banknotes, secure documents in paper and plastic card format, tax stamps and securities, and provides document personalisation services for domestic and foreign clients. The company's primary aim is to produce banknotes in adequate quantity and excellent quality, as well as to increase foreign penetration in market segments other than banknote production and to develop integrated IT systems and services related to the products. In 2019, the last year of the banknote changing programme which started in 2014, the priority of the company's operation was the production of the new, enhanced banknotes. The company has stabilised its presence in the production and personalisation of important domestic documents for the contracting period until 2022. The subsidiary of the Pénzjegynyomda is Diósgyőri Papírgyár Zrt. (DIPA, Diósgyőr Papermill Plc.), the sole security paper manufacturer in Hungary, the primary function of which is to produce domestic banknote base papers. At the centre of the company's product strategy are quality products applied with high-level security elements. In addition to banknote paper, DIPA produces paper for a significant share of documents used in public administration, base papers for tickets, as well as papers for passports and documents for numerous countries, in relation to which it also offers solutions providing complex protection against forgery. In its international relations as well, the company strives to boost customer satisfaction, based on traditions and innovative solutions, and to stabilise or improve its results, thereby ensuring an efficient investment for the shareholder.

On the basis of the MNB's orders, the primary duty of **Magyar Pénzverő Zrt.** (Hungarian Mint Ltd.) is to produce circulation coins for secure cash turnover and commemorative coins issued by the MNB as legal tender. Utilisation of the company's free capacity allows for the production of non-legal tender commemorative coins as well and other medals on the basis of its own coin programme and customised orders. Within the range of its commercial activities, the company sells commemorative coins, collector banknotes, medals and gold investment products in Hungary and abroad, both as a wholesaler and retailer. The company produces the national awards, for the mandate of the President's Office, in high quality. In line with the shareholder's strategy, a coin minting machine for precious metal coins was capitalised in 2019 as part of the investment programme for capacity replacement and expansion.

Pénzügyi Stabilitási és Felszámoló Nonprofit Kft. (PSFN Kft., Financial Stability and Liquidator Non-profit Ltd.) has exclusive right to perform the liquidation or winding-up proceedings of financial institutions, to phase out venture capital funds, and to perform tasks related to the resolution of financial institutions. Furthermore, it performs supervisory commissioner work for financial institutions with suspended authorisation for operations. When being ordered to a financial institution, PSFN Kft.'s duty is to perform tasks related to the administration, to the operative management and, if necessary, to the organised market derecognition of the institution. If, in spite of the supervisory measures of the MNB or the designation of

supervisory commissioners, the prudent and legal operation of the financial institution is not ensured, the experts of the company provide for liquidation or for winding-up proceedings of the institution following the withdrawal of authorisation for operations of the institution by the MNB. The purpose of these procedures is to enforce creditors' interests and to satisfy their claims, prior to the end of resolution proceedings. PSFN Kft. performs its functions for the public good, protecting the interests of the customers of financial services and its expressed aim is to perform the termination of financial institutions with a unified approach and methodology, emphasising prudence and transparency; and to complete resolution as soon as possible, keeping in mind its complexity and the interests of customers, and providing creditors with the highest return.

MNB-Jóléti Humán Szolgáltató és Üzemeltető Kft. (MNB-Welfare Human Services and Operating Ltd.) is responsible for the maintenance and operation of the Tiszaroff Training and Recreation Centre. In addition, the company operates the buffets at workplaces for employees of the MNB and provides other services (e.g. catering, operation of Teátrum) for the MNB as the owner. The book value of the investment decreased to HUF 577 million by the end of 2019 (end-2018: HUF 688 million) due to a share capital increase of HUF 48 million and an impairment loss of HUF 159 million during the year. As of 1 January 2020, the investment value of the company increases the amount of investment in the MNB-Biztonsági Zrt. due to merger.

MNB-Biztonsági Zrt. (MNB-Security Services Plc.) performs personal guarding and protection activities, i.e. the company carries out the personal guarding and protection of the office objects and premises of the MNB with armed security guards under legal obligation. Additionally, it is involved in performing the tasks of money and valuables transport and the maintenance tasks of CIT vehicles. Beyond its main activity with armed security guards, MNB-Biztonsági Zrt. carries out tasks of guarding and protecting and securing events for the MNB with personal and property protection guards on an ad-hoc basis, along with the accompaniment of consignments that require security surveillance. From 2017, MNB-Biztonsági Zrt. performs evaluative-analytical and advisory activity related to the guarding and protection activity to be performed by the central bank, helps the MNB prepare for preventive tasks, and furthermore provides security technical support for the central bank. MNB-Biztonsági Zrt. provides services for the MNB and for its subsidiaries. The company does not provide services to third parties.

MNB-Ingatlan Kft. (MNB-Real Estate Ltd.) lets, operates and manages owned and leased real estates. The company possesses real estates where there are related existing leasing contracts; while in the case of other real estates, there is an ongoing real estate development resulting in the renewal of the premise and in the building of a garage that will primarily serve the MNB's supervisory customer service and provide office areas for the employees. Moreover, the building will host the central bank's Money Museum and Visitor Centre. The company's business share was acquired by the MNB on 31 May 2019 with a book value of HUF 13.8 billion. The subsequent increase of capital and reserves totalled HUF 14.6 billion, resulting in the book value amounting to HUF 29 billion as at 31 December 2019. The capital and reserves of MNB-Ingatlan Kft. were increased further by HUF 0.4 billion in February 2020.

GIRO Zrt. operates the payment system for domestic interbank forint credit transfers and direct debits, the so-called Interbank Clearing System. The key objectives in its strategy include stable and safe operation, development of the clearing services, implementation of new services, and increasing the competitiveness of clearing fees. The company's most important development so far has been the implementation of the instant payment infrastructure which ensures, as of 2 March 2020, electronic payments up to HUF 10 million to be settled within 5 seconds 24 hours a day, each day of the year. Besides, customers are enabled to initiate transfers applying secondary account IDs (mobile phone numbers, e-mail addresses, tax ID/tax number) as well as to send and receive payment requests. To support the expansion of the electronic cash flow, the company reworked its clearing fee strategy, which means moving to a new system load based pricing model from the former transaction based approach, i.e. members are not charged with transaction fees during the clearing as of 1 January 2019.

With the strategic ownership of the **Budapesti Értéktőzsde Zrt.** (BÉT, Budapest Stock Exchange Plc.), the aim of the MNB is to develop the market and achieve an adequately sized, effectively operating capital market in Hungary. The new strategic policy of the Budapest Stock Exchange until 2020 consists of the following: successful official listings on the stock exchange, renewal of the market structure, strengthening investors and international relations, as well as intensification of government support related to these. The strategy contributes to establishing a healthier structure of the financial system and improving interest rate transmission and assists in confining the shadow economy by ensuring the transparency of the listed companies. While keeping the previously introduced platforms and programmes to strengthen the national small and medium-size companies' sector, the Budapest Stock Exchange launched the XBond platform in 2019 which offers simplified conditions (reduced administration, lower costs) for the bond issuing process for companies. The new platform contributes to the objectives of the Bond Funding for Growth Scheme (BGS) as it supports the number of corporate bond issues. At its extraordinary general meeting on 14 August 2019, BÉT decided to establish a securitisation advisory subsidiary. Securitisation of corporate loans provided by banks and their subsequent sale to institutional investors enable domestic companies to enter the capital market indirectly, offering them a wider range of alternatives for financing. New securities were added to the analysing-quotation programme and another company entered the Xtend platform. The Budapest Stock Exchange continued to emphasise maintaining international relationships in 2019. In 2019, the Hungary Investor Day was organised in Shanghai for the first time, and BÉT and Shenzhen Stock Exchange signed a cooperation agreement. In 2019, BÉT organised the meeting of the CEE stock exchanges, and the stock exchanges of the V4 countries, Croatia and Romania launched a new index, called CEEplus, with the aim of offering foreign and domestic institutional and retail investors more direct access to the CEE markets. Through its subsidiary company, **Budapest Institute of Banking Plc.**, it stimulated the demand side with educational initiatives. The company has a minority participation in the KELER Group consisting of **KELER Zrt.** and **KELER KSZF Zrt.**, in which the MNB holds a majority share. Therefore, as the majority owner of the Budapest Stock Exchange, the MNB has a strategic share in the KELER Group as well.

KELER Zrt. (KELER Ltd.) provides central depository services in the Hungarian capital market and beyond this function it acts as a specialised credit institution. KELER is the issuer of Hungarian ISIN codes and participates as a provider in all domestic securities issues. At the beginning of 2017, the company entered the TARGET2-Securities (T2S) securities settlement platform operated by European Central Bank, which aims to make cross border security trading more efficient. In order to enable the participants of the domestic capital market to fully enjoy all the advantages offered by T2S, KELER is implementing the Service Development Programme, in which the IT infrastructure of the company will be renewed. Besides, the re-licensing procedure has been started in accordance with the new European regulation on central depositories (CSDR).

As a subsidiary of KELER, **KELER KSZF Zrt.** attends to the clearing service and the CCP function in Hungary. As a clearing house, the company accounts the spot and derivative transactions traded on the Budapest Stock Exchange, and, as a CCP, also guarantees the transactions are completed. In addition to the capital market segment, dynamic growth was registered in transactions with electricity and natural gas trading in recent years. In several markets (e.g. the Hungarian power exchange HUPX), KELER KSZF Zrt. provides its services as a member of ECC AG, headquartered in Leipzig, while in other markets (e.g. the Central-European gas exchange CEEGEX) it acts as a CCP.

Transactions concluded with **domestic affiliates** are services or purchases of goods regulated by contracts and are priced on a market basis or with regard to own cost. The charging of fees with domestic investments is based on the valid regulatory fee schedules (MNB decree, public notices). The costs of banknote and coin production are presented in Section 4.20., and expenses related to support are presented in Section 4.22.

Equity of domestic investments

The latest data available upon compilation of the Annual Report are shown in the following table.

HUF millions

Investment	Share capital	Reserves	Profit/loss for the year	Equity
	31 Dec 2019			
Pénzjegynyomda Zrt.	11,827	6,638	699	19,164
Magyar Pénzverő Zrt.	575	1,222	561	2,358
Pénzügyi Stabilitási és Felszámoló Nkft.	50	3	0	53
MNB-Jóléti Kft.	856	-107	-173	576
MNB-Biztonsági Zrt.	210	530	0	740
GIRO Elszámolásforgalmi Zrt.	2,496	9,425	673	12,594
MNB-Ingatlan Kft.	10	28,167	-307	27,870
Budapesti Értéktőzsde Zrt.	541	5,978	1,549	8,068
KELER Zrt.	4,500	18,539	1,050	24,089
KELER KSZF Zrt.	2,623	5,513	442	8,578

MNB's receivables from and liabilities to affiliated companies

HUF millions

Investment	Receivables	Liabilities
	31 Dec 2019	
Pénzjegynyomda Zrt.	0	225
Magyar Pénzverő Zrt.	715	35
MNB-Jóléti Kft.	0	1
MNB-Biztonsági Zrt.	0	57
GIRO Elszámolásforgalmi Zrt.	0	2
Budapesti Értéktőzsde Zrt.	0	1
KELER Zrt.	20	4
KELER KSZF Zrt.	5	0
Budapest Institute of Banking Zrt.	0	18
Total	740	343

Receivables from Magyar Pénzverő Zrt. are mostly from financing for materials connected to the production of circulation coins, while receivables from KELER and KELER KSZF are related to the collateral needed to BÉT trading. Liabilities to Pénzjegynyomda Zrt. and Pénzverő Zrt. derive from the invoicing of banknotes produced, circulation and commemorative coins. Liabilities to MNB-Biztonsági Zrt. result from invoices for guarding and protection activities. The above table presents short-term receivables and liabilities except receivables from KELER and KELER KSZF, which will exist until the end of the MNB's clearing membership.

4.13 PROVISIONS AND IMPAIRMENT LOSSES

HUF millions

B/S line	Description	31 Dec 2018	Interim changes		31 Dec 2019
		Impairment losses / provisions	Increase (+)	Reversal (-)	Total impairment losses / provisions
1	2	3	4	5	3+4+5
I.2.	Forint receivables from credit institutions	6,524	541	-1,566	5,499
I.3.	Other forint receivables	8,664	822	-1	9,485
III.	Invested financial assets	3,313	159	0	3,472
III.	Other receivables	3	71	-1	73
VIII.	Off-balance sheet liabilities	668	614	-579	703
	– litigation related liabilities	459	48	-427	80
	– FGS+ refinancing loans	204	76	-147	133
	– derivatives	5	490	-5	490
	Total	19,172	2,207	-2,147	19,232

At 31 December 2019, provisions and impairment losses stood at the HUF 19.2 billion level of end-2018.

In relation to forint receivables from credit institutions, an impairment loss of HUF 0.5 billion was recorded during 2019, due to overdue receivables from credit institutions under liquidation, while an impairment loss of HUF 1.6 billion was released based on the expected recovery.

In relation to other forint receivables (receivables from supervisory activities and securities) an impairment loss of a total of HUF 9.5 billion was recognised during the quarterly impairment testing in 2019, based on the expected recovery.

In relation to invested financial assets, an impairment loss of HUF 0.2 billion was set aside, due to the investment in MNB-Jóléti Kft., based on the company's expected loss for the financial year 2019, and, considering the company's merge into MNB-Biztonsági Zrt., based on equity value.

In connection with litigation-related contingent liabilities, a provision of HUF 0.1 billion was necessary as of 31 December 2019, compared to HUF 0.5 billion at end-2018.

Associated with the FGS+, HUF 0.1 billion provision was released during 2019.

For the derivative transactions, a provision of HUF 0.5 billion was recorded at 31 December 2019.

4.14 PREPAID EXPENSES/ACCRUED INCOME AND ACCRUED EXPENSES/DEFERRED INCOME

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2018	31 Dec 2019	
	Due to banking transactions	170,234	159,306	-10,928
	Due to internal operation	1,180	1,245	65
IV.	Prepaid expenses/accrued income	171,414	160,551	-10,863
	Due to banking transactions	88,203	81,874	-6,329
	Due to internal operation	722	420	-302
X.	Accrued expenses/deferred income	88,925	82,294	-6,631

Prepaid expenses, accrued income, accrued expenses, and deferred income include interest received/charged and interest related income/charges and expenses incurred in the reporting period, independently of the date of financial settlement.

4.15 CHANGES IN EQUITY

HUF millions

B/S line	Description	31 Dec 2018	31 Dec 2019	Change
XI.1.	Share capital	10,000	10,000	0
XI.2.	Retained earnings	200,443	198,210	-2,233
XI.3.	Valuation reserves	0	0	0
XI.4.	Revaluation reserves due to exchange rate changes	169,601	187,801	18,200
XI.5.	Revaluation reserves of foreign currency securities	6,637	32,222	25,585
XI.6.	Profit/loss for the year	47,767	254,699	206,932
XI.	Equity	434,448	682,932	248,484

The share capital consists of a single registered share with a nominal value of HUF 10 billion.

The HUF 2.2 billion decrease in retained earnings is the net effect of the transfer of HUF 47.8 billion profit of 2018, and the payment of HUF 50 billion as dividend to the state budget in May, approved by the Board of Directors.

For more details on revaluation reserves, see Section 4.16.

4.16 REVALUATION RESERVES

HUF millions

B/S line	Description	31 Dec 2018	31 Dec 2019	Change
XI.4.	Revaluation reserves due to exchange rate changes	169,601	187,801	18,200
XI.5.	Revaluation reserves of foreign currency securities	6,637	32,222	25,585
	Total revaluation reserves	176,238	220,023	43,785

Revaluation reserves due to exchange rate changes are determined by the amount of revalued foreign exchange holdings and the difference between the official and average cost rate. In 2019, the depreciation of the forint increased revaluation reserves due to exchange rate changes, with the balance changing by HUF 18.2 billion to HUF 187.8 billion. The MNB undertook foreign exchange rate exposure mainly in the euro: the exchange rate was EUR/HUF 320.52 and the average cost rate was EUR/HUF 316.55 as at 31 December 2019.

Revaluation reserves of foreign currency securities are calculated as the difference between the market value and the amortised book value of securities. The market value differences on the foreign currency securities in the MNB's portfolio showed a positive balance of HUF 32.2 billion as at 31 December 2019.

4.17 OFF-BALANCE SHEET LIABILITIES AND OTHER SIGNIFICANT OFF-BALANCE SHEET ITEMS OF THE MNB

Hedging transactions and derivative transactions for purposes other than hedging

HUF millions

No.	Description	31 Dec 2018			31 Dec 2019		
		Receivables	Liabilities	Net market value	Receivables	Liabilities	Net market value
1.	Interest rate swap transactions	4,404,828	4,404,828	-39,698	3,122,223	3,122,223	56,719
	– IRS conditional on lending activity (LIRS)	906,350	906,350	-1,936	0	0	0
	– IRS facility of monetary policy (MIRS)	1,099,617	1,099,617	-42,574	1,099,617	1,099,617	22,390
	– IRS contracted with domestic credit institutions	1,342,080	1,342,080	26,698	919,910	919,910	26,941
	– IRS contracted with foreign partners	1,056,781	1,056,781	-21,886	1,102,696	1,102,696	7,388
2.	Futures	0	237,692	-420	97,236	16,969	-342
3.	FX swap, FX futures and forward transactions	4,827,139	4,872,986	-48,993	7,116,887	7,122,273	-5,327
	– Forint liquidity providing FX swaps	1,993,912	1,996,256	-7,049	2,499,053	2,503,358	-9,944
4.	Currency swap transactions (including transactions without capital replacement)	4,233,952	4,515,315	-290,914	4,299,412	4,567,579	-343,523
	– Currency swap transactions linked to FGS	161,385	156,421	14,847	137,649	129,825	11,824
5.	Total hedging transaction (1+2+3+4)	13,465,919	14,030,821	-380,025	14,635,758	14,829,044	-292,473
6.	Options	0	0	0	999	1,001	1
7.	TBA transactions	104,981	45,920	709	72,117	44,995	61
8.	Futures	201,796	0	502	260,972	0	-599
9.	Total derivative transactions for purposes other than hedging (6+7+8)	306,777	45,920	1,211	334,088	45,996	-537
10.	Total (5+9)	13,772,696	14,076,741	-378,814	14,969,846	14,875,040	-293,010

The above table includes all types of off-balance sheet receivables and liabilities arising from derivative transactions; it also includes FX swaps, currency swaps, FX futures and forward transactions for hedging purposes, which are part of the foreign currency position and are recorded in the balance sheet, except for currency swaps without capital movement. Hedging transactions reduce risks related to the net foreign currency position and risks arising from cross-rate fluctuations and interest rate changes and support the creation of the benchmark foreign currency structure.

The aim of interest rate swap transactions with foreign partners for hedging purposes linked to specific bond issuance is to achieve the interest structure deemed desirable by the MNB. The 3-year interest rate swaps conditional on lending activity (LIRS) matured at the end of February 2019. The tenders of the monetary policy interest rate swaps (MIRS) launched early 2018 were terminated at the end of the same year, the balance at end-2018 remained unchanged at end-2019. Since 2014, related to the self-financing programme, the MNB has concluded interest rate swap transactions with domestic credit institutions to reduce their interest rate risk. The balance of such swaps decreased due to maturities.

The aim of bond futures transactions is to reduce the duration of the reserve portfolios; these are hedging transactions maturing within 1 year.

FX swap, FX futures and forward transactions are primarily the main instruments for hedging foreign exchange risk, based on expectations related to foreign exchange rate changes; their aim is to achieve the targeted foreign currency position, and their maturity is less than 1 year. Fine-tuning FX swap transactions are for monetary policy purposes and provide forint liquidity for domestic credit institutions.

Currency swap transactions are used to manage foreign exchange and interest rate risks jointly over the long term. Of the end-2019 balance, 16 per cent of the currency swap transactions consisted of transactions without capital replacement maturing in 2023, and the EUR/HUF swaps linked to FGS refinancing loans amounted to 3 per cent.

The derivative transactions for purposes other than hedging have a maturity within 1 year. The maturity of hedging transactions is presented in the following table.

Liabilities from derivative transactions by remaining maturity

HUF millions

Remaining maturity	Balance		Change
	31 Dec 2018	31 Dec 2019	
– within 1 year	6,300,213	8,342,302	2,042,089
– within 1 to 5 years	5,777,915	5,081,844	-696,071
– over 5 years	1,952,693	1,404,898	-547,795
Liabilities from hedging transactions	14,030,821	14,829,044	798,223

Other off-balance sheet liabilities

HUF millions

Description	Balance		Change
	31 Dec 2018	31 Dec 2019	
FGS residual drawable credit facilities	33,532	53,190	19,658
FGS+ related contingent liabilities	204	133	-71
Litigation-related contingent liabilities	825	357	-468
Guarantees	1,721	1,806	85
Other off-balance sheet liabilities	15	11	-4
Total	36,297	55,497	19,200

In connection with the FGS, the MNB reports the following items as off-balance sheet liabilities: the still available credit facilities originally allocated in the framework of FGS+, but now drawable both in the additional phase of FGS Pillar I at the request of the banks, as well as the credit facilities drawable in the 3rd phase of FGS Pillar I and Pillar II.

In accordance with the contracts concluded in the framework of FGS+, up to a maximum of 50 per cent of the capital loss of credit institutions arising from SME loans are reimbursed by the MNB to the credit institutions subject to a portfolio-level limit. FGS+ related contingent liabilities are used to record the expected reimbursement for which provisions have been made, in line with the rules of qualification.

The majority of the legal proceedings are proceedings against penalty resolutions connected to supervisory activities and include indemnity cases. The related contingent liabilities are used to record paid but litigated penalties and other expected compensations connected to legal proceedings for which provisions have been made.

The item 'Guarantees' consists of export guarantees, to which an irrevocable indemnity bond is always linked. When exercising a guarantee, the MNB has the right to a reverse guarantee if needed. In 2019, the increase in the balance was caused by exchange rate changes.

Recording off-balance sheet securities transactions

HUF millions

Description	Balance		Change
	31 Dec 2018	31 Dec 2019	
Face value of securities lent - automatic securities lending	8,506	3,998	-4,508
Face value of securities lent - agency securities lending	139,835	371,471	231,636
Purchase cost of the non-cash hedge arising from security lending transactions	0	12,395	12,395
Purchase cost of investment of cash hedge arising from security lending transactions	142,029	367,963	225,934
Market value of investment of cash hedge arising from security lending transactions	142,029	367,963	225,934
Face value of securities bought under repo transactions	22,227	31,489	9,262

4.18 NET INTEREST INCOME AND REALISED NET INCOME OF FINANCIAL OPERATIONS

Net forint and foreign currency interest and interest-related income

HUF millions

P/L line	Description	2018	2019	Change
(I.1.+II.2.)—(X.1.+XI.1.)	Central government	1,245	1,059	-186
(I.2.+II.3.)—(X.2.+XI.2.)	Credit institutions	-810	5,001	5,811
(I.3.+II.1.+II.4.)—(X.3.+XI.3.)	Other	52,786	73,073	20,287
	Net profit/loss from interest	53,221	79,133	25,912
	Forint securities	-2,523	-3,404	-881
	Foreign currency securities	-24,418	-24,918	-500
	Derivative transactions for hedging and other purposes*	776	-1,425	-2,201
	Other	45	61	16
(I.4.+II.5.)—(X.4.+XI.4.)	Net interest-related profit/loss	-26,120	-29,686	-3,566
(I.+II.)—(X.+XI.)	Net interest and interest-related income	27,101	49,447	22,346

* For details on derivative transactions for hedging and other purposes, see the related table in this section.

In 2019, the MNB recorded a net interest and interest-related profit of HUF 49.4 billion, representing an increase of HUF 22.3 billion compared to the figure for end-2018.

Net interest income increased by HUF 25.9 billion in comparison to end-2018, as a combined effect of the following:

The main positive factors in net interest income were:

- interest income on foreign exchange reserves were higher by HUF 17.7 billion relative to 2018, which can be explained by rising gold and foreign exchange reserves and the transformation of some elements of the investment strategy in 2018;
- an increase in interest income on loans to credit institutions and mortgage bonds of HUF 3.9 billion as a result of the mortgage bond purchase programme in 2018 (at the same time, the amortised net purchase price loss, recognised among net interest-related expenses, amounted to HUF 3.1 billion in 2019);

- a decrease of HUF 1.9 billion in interest expenses on forint deposits of credit institutions, arising from the decline in preferential deposits connected to the maturity of LIRS-transactions and the phasing out of the 3-month MNB deposit facility;
- interest paid on the other deposits denominated in foreign currency decreased by HUF 1.9 billion originating in the offset in negative sums for interest paid on nostro accounts;
- an increase of HUF 0.8 billion in interest income on other forint receivables, compared to 2018, as a result of the corporate bonds purchased under Bond Funding For Growth Scheme (at the same time, the amortised net purchase price loss, recognised among net interest-related expenses, amounted to HUF 0.3 billion in 2019);

Net interest income was reduced by interest paid on HUF 0.6 billion higher forint deposits of the central government compared to 2018, resulting from the increase in deposits.

Net interest-related income decreased by HUF 3.6 billion. This item mainly includes the amortisation of the purchase price difference of securities and the net gain or loss on derivative transactions which are not related to exchange rate changes.

Negative sums for interest income/expenses in the net forint and foreign currency interest and interest-related income

HUF millions

P/L line	Description	2018		2019	
		Total	of which: Negative sums for interest	Total	of which: Negative sums for interest
II.	INCOME				
	Interest and interest-related income denominated in foreign currency	180,556	-11,960	307,746	-24,046
II. 1.	Interest on foreign currency reserves	62,166	-4,648	79,820	-5,211
II. 5.	Interest-related income	118,390	-7,312	227,921	-18,835
X.	EXPENSES				
	Interest and interest-related expenses denominated in forint	11,819	417	10,108	-544
X. 2.	Interest on deposits by credit institutions	7,001	-1,064	5,083	-783
X. 4.	Interest-related expenses	4,649	1,481	4,247	239
XI.	Interest and interest-related expenses denominated in foreign currency	177,018	-5,614	288,956	-6,642
XI. 1.	Interest on central government deposits	-1,358	-1,489	-1,779	-1,994
XI. 2.	Interest on deposits by credit institutions	-54	-54	-83	-91
XI. 3.	Interest on other liabilities	9,375	-463	7,502	-391
XI. 4.	Interest-related expenses	169,055	-3,608	283,316	-4,166

In accordance with the interest structure stated in the MNB Decree, negative interest income and expenses are recorded in the original P&L lines related to assets/liabilities (in net terms). For example, interest income on foreign currency deposits of the central government, arising from negative yields, is recorded in line 'XI. 1 Interest on central government deposits'. This method caused the negative balances in the statements.

Details of income from derivative transactions for hedging and for purposes other than hedging represented in interest-related income

HUF millions			
Description	2018	2019	Change
Interest margin on interest rate swaps	23,884	23,284	-600
Net interest on currency swaps	-20,268	-20,198	70
Net interest gains on FX swaps FX futures and forward transactions	-2,327	-9,785	-7,458
Net interest gains on futures transactions	-1,315	-1,963	-648
Net interest-related income on swap and option transactions	-75	273	348
Net interest and interest-related income on other transactions	877	6,964	6,087
Net income from derivative transactions	776	-1,425	-2,201

The decrease of HUF 0.6 billion in interest income on interest rate swaps arose from transactions concluded with foreign partners.

Foreign currency swap transactions include derivative transactions concluded with the Government Debt Management Agency (ÁKK), with foreign partners and with domestic credit institutions. The transactions concluded with foreign partners mainly serve to hedge transactions concluded with the Government Debt Management Agency. The transactions concluded with domestic credit institutions include the currency swaps related to Pillar II of the FGS. In 2019, the average amount of transactions concluded with the Government Debt Management and with foreign partners was also higher compared to the previous year. Net interest income on currency swaps was a loss of HUF 20.2 billion, remaining broadly unchanged compared to 2018.

Hedge FX swaps include short-term transactions concluded with foreign partners, with the Government Debt Management Agency and with domestic credit institutions. FX futures and forward transactions comprise short-term transactions concluded with foreign partners. Net interest expenses on these transactions rose by HUF 7.5 billion, which was related to the increase in the amount and the change in the foreign exchange composition of transactions concluded with foreign partners.

Net interest loss on hedge futures transactions increased by HUF 0.7 billion, due to higher net interest expenses on bond futures transactions.

Net interest-related income on hedge transactions includes the exchange rate gains or losses on swap transactions. Net interest-related income on hedge transactions was caused in 2019 by exchange rate gains arising from the termination of interest rate swaps concluded with domestic credit institutions.

The increase of HUF 6.1 billion in net interest and interest-related income on other transactions arose from TBA-transactions and from bond futures transactions other than hedging.

Realised gains/losses from financial operations

HUF millions

P/L line	Description	2018	2019	Change
	Realised gains on coupon bearing bonds denominated in foreign currency	2,934	12,424	9,490
IV.	Realised gains from financial operations	2,934	12,424	9,490
	Realised losses on coupon bearing bonds denominated in foreign currency	10,394	5,151	-5,243
XIV.	Realised losses from financial operations	10,394	5,151	-5,243
IV.-XIV.	Net financial gains/losses	-7,460	7,273	14,733

Net realised gains from financial operations arose in 2019 from sales of bonds denominated in foreign currency. Net income increased by HUF 14.7 billion relative to 2018, owing to the depreciation in foreign exchange market returns.

4.19 COMPONENTS OF INCOME FROM THE REVALUATION OF FOREIGN EXCHANGE HOLDINGS

HUF millions

Description	2018	2019
Net income from exchange rate changes (realised and conversion spread)*	73,955	229,065
Change in revaluation reserves in the balance sheet** (due to unrealised revaluation net income)	141,591	18,200
Total effect of exchange rate changes	215,546	247,265

* P/L line: III.-XII.
 ** Revaluation reserves due to exchange rate changes (balance sheet line XI.4.).

In 2019, the total net exchange rate change effect was a gain of HUF 247.3 billion, due to the increase in forint values of net foreign exchange assets. The MNB realised a gain of HUF 229.1 billion on sales related to a decrease in the daily net FX position and on FX conversions, while the amount of revaluation reserves increased by unrealised exchange rate gains of HUF 18.2 billion during the year. Foreign currency sales also occurred in 2019 in relation to debt management transactions of the Government Debt Management Agency and to the management of gold and foreign currency reserves.

4.20 COST OF ISSUING BANKNOTES AND COINS

HUF millions

P/L line	Description	2018	2019	Change
	Cost of banknote production	6,489	5,712	-777
	Cost of coin production	4,507	5,217	710
	Cost of production of commemorative and collector coins	637	464	-173
XIII.	Cost of issuing banknotes and coins	11,633	11,393	-240

The total cost of issuing banknotes and coins amounted to HUF 11.4 billion in 2019, down HUF 0.2 billion compared to the figure for 2018. The cost of banknote production decreased by HUF 0.8 billion compared to the previous year, owing to the closing of the programme for changing and developing the new banknotes. The cost of coin production increased by HUF 0.7 billion in 2019 compared to 2018 as a result of continued strong demand for coins. In 2019 the new 100 forint coins with more up-to date base material were issued, which also increased the expenditures. The cost of producing commemorative and collector coins decreased by HUF 0.2 billion compared to the previous year as demand for gold and silver commemorative coins eased, although the rise in demand for non-ferrous commemorative coins continued.

4.21 OTHER INCOME/EXPENSES

HUF millions

P/L line	Description	2018	2019	Change
V.1.	Income from fees and commissions	1,125	1,337	212
XV.1.	Expenses of fees and commissions	716	1,615	899
	Net income from fees and commissions	409	-278	-687
V.2.	Income from other than fees and commissions	2,927	13,784	10,857
XV.2.	Expenses of other than fees and commissions	4,674	4,387	-287
	Net income from other than fees and commissions	-1,747	9,397	11,144
V.3.	Income from supervisory activities	12,336	13,516	1,180
V.-XV.	Other net results	10,998	22,635	11,637

Net income from fees and commissions includes the balance of income from and expenses of fees and commissions linked to payment services, income from fees related to account management and expenses of fees related to holding foreign currency reserves. The increase in expenses of commissions in 2019 was caused by the rise in the latter fees connected to external asset management.

For more details on income other than fees and commissions, see Section 4.22; in respect of income related to supervisory activities, see Section 4.23.

4.22 INCOME OTHER THAN FEES AND COMMISSIONS

HUF millions

P/L line	Description	2018	2019	Change
	Profit from the withdrawal of notes and coins	0	7,377	7,377
	Dividends from investments	1,255	4,291	3,036
	Income related to coins and commemorative coins	808	645	-163
	Recommitment of financial money transfer	778	313	-465
	Income from assets assigned free of charge	37	33	-4
	Other income	49	1,125	1,076
V.2.	Income from other than commissions and charges	2,927	13,784	10,857
	Expenses related to coins and commemorative coins	764	599	-165
	Financial money transfer	3,768	3,556	-212
	Expenses related to public proceedings	103	140	37
	Expenses from assets assigned free of charge	21	72	51
	Other expenditures	18	20	2
XV.2.	Expenses from other than commissions and charges	4,674	4,387	-287
V.2.-XV.2.	Net income/expenses from other than commissions and charges	-1,747	9,397	11,144

Profit from the withdrawal of notes and coins arises from banknotes no longer constituting legal tender, which were not changed until the exchange deadline determined in an MNB announcement. The possibility to exchange 500 forint, 1000 forint and 5000 forint banknotes withdrawn from circulation in 1999 terminated in 2019. The MNB recognised an income of HUF 7.4 billion from banknotes not exchanged until the exchange deadline.

Dividends from investments increased by HUF 3 billion compared to 2018. In 2019, KELER paid a dividend of HUF 2.1 billion, Pénzjegynyomda of HUF 0.9 billion, BIS of HUF 0.8 billion (EUR 2.6 million) and Pénzverő Zrt. of HUF 0.4 billion to the MNB (see Section 4.12).

Net income related to coins and commemorative coins depends on the commemorative coin programme and arises mainly from the difference between income from sales of commemorative coins and expenses related to the removal of the coins' face value. Related income and expenses are almost equal, since by agreement, the sale of commemorative coins is accounted with the Pénzverő Zrt. at face value, except when the production cost exceeds the face value (the latter is typical for gold coins). In 2019, net income arose mainly from the issue of the gold commemorative coin 'Saint Irene of the House of Árpád'.

The item 'Financial money transfer' includes donations to professional organisations, foundations, as well as to organisations for charitable and other purposes. In 2019, the MNB gave HUF 3.6 billion as donations. This was HUF 0.2 billion lower than in the previous year. The highest amount was related to PSFN Kft., for the operation of which in 2019 net HUF 0.8 billion was paid, while HUF 0.3 billion was paid back as unused operating donation from 2018.

Other income and other expenditures usually include income and expenses assigned free of charge, the related fines, penalties, compensations received or paid. The largest two items among 'Other income' in 2019 were income of near HUF 0.5 billion from the penalty paid by credit institutions for not complying with the conditions of LIRS for 2018, and a receivable from a credit institution of HUF 0.5 billion from the penalty for not complying with the conditions of Market-based Lending Scheme (MLS). In relation to the latter, 100 per cent impairment loss was made based on the impairment testing of receivables.

Expenses related to public proceedings arose mainly from the remittance of penalties related to inoperative decisions and accounted earlier as income, as well as to the cancellation of penalties.

4.23 INCOME FROM SUPERVISORY ACTIVITIES

HUF millions

P/L line	Description	2018	2019	Change
	Supervisory fee and default interest	10,152	11,336	1,184
	Received penalties and reimbursement from public proceedings	1,876	1,748	-128
	Administrative servicing fee from public proceedings	301	417	116
	Late payment surcharge for supervisory claims	3	7	4
	Other income arising from administrative procedures	4	8	4
V.3.	Income from supervisory activities	12,336	13,516	1,180

The main item of income from supervisory activities is supervisory fee received from the supervised institutions obliged to pay such fee. In 2019, income arising from the assessment of the minimum charges for the entire year and of the quarterly payable variable-rate fees amounted to HUF 11.3 billion, while in 2018 the calculated obligation amounted to HUF 10.2 billion. Income from penalties imposed by the MNB which became final and from reimbursements totalled HUF 1.7 billion. Administrative servicing fees and magisterial exam fees amounted to HUF 0.4 billion in 2019.

4.24 OPERATING INCOME AND EXPENSES

HUF millions

P/L line	Description	2018	2019	Change
	Income from assets and inventories	62	19	-43
	Income from subcontracted services	47	50	3
	Income from invoiced services	360	146	-214
	Other income	37	26	-11
VIII.	Total operating income	506	241	-265
	Expenses of materials	13,955	13,721	-234
	Cost of materials	416	479	63
	Services contracted	13,506	13,204	-302
	– Maintenance, operation and rent of properties	2,493	2,384	-109
	– Postal and telecommunication services	623	725	102
	– Consultancy services	894	1,338	444
	– IT security services	2,261	2,485	224
	– Membership fees	700	775	75
	– Guarding services, transport of banknotes and coins	2,878	2,520	-358
	– Advertisements, market research	1,668	866	-802
	– Other, non-significant services*	1,989	2,111	122
	Other services	33	38	5
	Personnel-related costs	24,119	24,850	731
	Depreciation	3,271	3,671	400
	Transfer of costs of other activities	-583	-438	145
	Total operating costs	40,762	41,804	1,042
	Expenses incurred on assets and inventories	50	26	-24
	Expenses incurred on subcontracted services	44	47	3
	Expenses incurred on invoiced services	317	144	-173
	Other expenses	281	488	207
	Total operating expenses	692	705	13
XVIII.	Total operating costs and expenses	41,454	42,509	1,055
VIII.-XVIII.	Net operating expenses	-40,948	-42,268	-1,320

* 'Other, non-significant services' contains in particular maintenance of equipment, preparation of publications, travel and hotel services, services for education, translation and audit, as well as distribution of commemorative coins.

In 2019, net operating expenses amounted to HUF 42.3 billion, representing an increase of HUF 1.3 billion (3.2 per cent) compared to 2018.

Operating expenses were 2.6 per cent (HUF 1 billion) higher than in the previous year. While the cost of materials decreased, personnel-related expenses and depreciation increased compared to 2018.

The cost of materials in 2019 was more than 1.7 per cent (HUF 0.2 billion) lower than in the previous year.

Within the cost of materials, advertising, market research costs, armed security guarding and money transport costs decreased. The costs of consulting, forensic, and IT services and consultancy costs increased.

– The cost of communication services within 'Advertising and market research' costs decreased by 78 per cent, due to the high cost of the Certified Consumer-Friendly Housing Loans campaign (and the banknote replacement programme) in

social media in 2018; and some elements of larger campaigns planned for 2019 were postponed (e.g. instant payment system); and some campaigns as a result of unsuccessful public procurement procedures will be implemented in 2020.

- Within ‘security guarding, money transport’ costs, the cost of armed security guarding decreased by 12.6 per cent, because the guarding fee decreased significantly due to the 2019 annual cost savings of the security guarding company (MNB-Biztonsági Zrt.) and the lower volume of personal and property guarding.
- The increase in the costs of consulting and forensics was caused by two new significant items compared to the previous year: the legal service fee of NHB debt portfolio, and the cost of consulting for credit assessment related to Bond Funding for Growth Scheme.
- The increase in the costs of ‘IT services and consulting’ was mainly due to the maintenance and support contracts concluded in previous years. On the other hand, as a result of the investments implemented the support and operating costs of the new IT systems from 2019 appeared already for the whole year.
- ‘Cost of other, not significant services’ increased compared to 2018, mainly due to the higher cost of services for education, financial analysis and consultancy, and producing publications.
- The cost of financial statements and audit (due diligence based on accounting documents, occasional financial, accounting analysis, consulting) amounted HUF 103 million, of which the MNB’s annual audit fee was HUF 24.6 million in 2019.

Personnel-related costs increased by HUF 0.7 billion (3 per cent) compared to the previous year. One major factor in this regard was the decision by the MNB Board of Directors to increase the annual wage bill by 5 per cent from 1 January 2019, in order to secure and retain highly skilled employees. At the same time, the holiday and messing allowance derecognised in 2019 (non-payment of related taxes) had a downward effect on personal expenses. The average headcount rose by 1.3 per cent, due to the filling of vacant positions. In addition to the above, entertainment allowance of the MNB’s internationally significant events (e.g. the Budapest Eurasia Forum), which did not arise previously, also caused an increase in personnel expenses.

Depreciation of tangible and intangible assets in 2019 increased by HUF 0.4 billion (12.2 per cent) relative to the previous year. This resulted from the fact that value of investments in 2018 and 2019 exceeded those of previous years. Within these investments, the percentage of IT-equipment with high depreciation rates and developments was outstanding.

Transfer of cost is intended to ensure that the total amount of operating expenses reflects only actual expenses incurred by the MNB. The absolute value of transfers in 2019 was HUF 0.4 billion, accounting for 75.3 per cent of the total in 2018. The difference was mainly due to the fact that the revenue of the IOSCO conference (participation fee), reducing the linked operating costs in 2018, no longer occurred in 2019.

4.25 INFORMATION ON WAGES AND NUMBER OF STAFF

HUF millions

Description	2018	2019	Change (%)
Payroll costs incurred on staff	16,017	16,839	5
Other staff costs*	548	741	35
Payroll	16,565	17,580	6
Other payments to personnel	3,425	3,200	-7
Social contribution tax	3,282	3,691	12
Health contribution	504	0	-100
Contribution to vocational training	252	278	10
Contribution to rehabilitation	84	91	8
Sick-allowance	7	10	43
Taxes on personnel-related payments	4,129	4,070	-1
Payments to personnel	24,119	24,850	3

* Other wage costs include payments on termination and in exchange for vacation time used and amounts paid to non-staff and non-MNB workers.

Persons

Description	2018	2019	Change (%)
Average number of staff	1,434	1,452	1

Remuneration of executive officers

HUF millions

Bodies	2019
Monetary Council*	486
Supervisory Board	222

* Includes the salaries and other payments to personnel of internal and external members of the Monetary Council in an employment relationship with the MNB, pursuant to Article 9 (4) c) of the MNB Act.

Loans of executive officers

Bodies	Amount of loans	Outstanding at 31 Dec 2019	Maturity	Rate of interest
	HUF millions			
Monetary Council	5	2	01 Dec 2020	Floating*
Supervisory Board	-	-	-	-

* The preferential interest rate for housing loans is the central bank base rate, the interest rate for personal loans is the central bank base rate +1 per cent.

4.26 OTHER SIGNIFICANT INCIDENCE OCCURRING AFTER THE REPORTING PERIOD

The MNB plays a significant role in the Hungarian economy as the institution responsible for the implementation of monetary policy and for the supervision of the financial intermediary system, as well as the central factor of cash supply system and the payment systems. Accordingly, applying the state of emergency scenario based on the operational risk management and business continuity management strategy and based on the action plan for the pandemic situation, the MNB is prepared also during the coronavirus period to ensure business continuity on the expected high quality level, and to operate the vital systems. As a monetary policy authority, applying flexible central bank's policy instruments, the MNB does its utmost to maintain financial stability in market conditions influenced by the coronavirus and to reduce the adverse effects of the pandemic on the real economy. Higher volatility in global markets had an impact on the value of the MNB's assets as well. These impacts are monitored constantly by the central bank and it takes the adequate measures if necessary.

1 April 2020, Budapest

Dr György Matolcsy
Governor of the Magyar Nemzeti Bank

ANNUAL REPORT
2019 Business report and financial statements
of the Magyar Nemzeti Bank

Print: Prospektus Kft.
H-8200 Veszprém, Tartu u. 6.

mnb.hu

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