



ANNUAL REPORT



2020



ANNUAL REPORT

**2020 BUSINESS REPORT AND
FINANCIAL STATEMENTS
OF THE MAGYAR NEMZETI BANK**

2020

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)

Contents

Part A)

2020 Business Report of the Magyar Nemzeti Bank	5
1 The Governor's foreword	7
2 A brief overview of the Magyar Nemzeti Bank	8
2.1 Objectives, basic and other tasks of the MNB	8
2.2 Bodies and management of the MNB	9
2.3 Organisation of the MNB	12
2.4 The MNB as a member of the European System of Central Banks	12
3 Review of the MNB's performance in 2020	18
3.1 Monetary policy	18
3.2 Stability of the financial intermediary system	26
3.3 Supervision and consumer protection	32
3.4 Resolution	44
3.5 Payment and securities settlement systems	45
3.6 Foreign exchange reserve management	52
3.7 Cash logistics activity	55
3.8 Statistical services	61
3.9 The MNB's activity in the area of social responsibility	64
3.10 The MNB's environmental sustainability activity	66
3.11 Factors shaping the communication of the MNB	68
3.12 The MNB's income in 2020	70
3.13 The MNB's financial management in 2020	71
3.14 Introduction of the ESCB Committees	76
3.15 Research activity of the MNB	78
3.16 Publications and conferences organised by the MNB	79
4 Additional information on the supervisory activity of the MNB in 2020	85
4.1 Institution oversight	85
4.2 Inspections completed	85
4.3 Licensing and legal enforcement	87
4.4 Market surveillance and issuers supervision	89
4.5 Customer service	90
5 Explanation of abbreviations and terms specific to central banking	91

Part B)

Audited financial statements of the Magyar Nemzeti Bank	97
1 Independent auditor's report	99
2 Balance sheet of the Magyar Nemzeti Bank	102
3 Income statement of the Magyar Nemzeti Bank	103
4 Notes to the financial statements	104
4.1 The MNB's accounting policy	104
4.2 Effects of macroeconomic trends on the 2020 balance sheet and income statement of the Magyar Nemzeti Bank	109
4.3 Forint receivables from the central government	110
4.4 Foreign currency receivables from the central government	110
4.5 Forint and foreign currency liabilities of the central government	110
4.6 Net positions vis-à-vis the central government	111
4.7 Forint receivables from and liabilities to credit institutions	112
4.8 Net positions vis-à-vis credit institutions	113
4.9 Gold and foreign exchange reserves of the central bank	114
4.10 Other forint and foreign currency receivables	115
4.11 Other deposits and liabilities	115
4.12 Invested assets	117
4.13 Provisions and impairment losses	124
4.14 Prepaid expenses/accrued income and accrued expenses/deferred income	124
4.15 Changes in equity	125
4.16 Revaluation reserves	125
4.17 Off-balance sheet liabilities and other significant off-balance sheet items of the MNB	126
4.18 Net interest income and realised net income of financial operations	128
4.19 Components of income from the revaluation of foreign exchange holdings	131
4.20 Cost of issuing banknotes and coins	131
4.21 Other income/expenses	132
4.22 Income other than fees and commissions	132
4.23 Income from supervisory activities	133
4.24 Operating income and expenses	134
4.25 Information on wages and number of staff	136
4.26 Other major events after the reporting period affecting 2020	137

Part A)
2020 Business Report
of the Magyar Nemzeti Bank

1 The Governor's foreword

Hungary faced a complex crisis fraught with challenges in 2020, due to the coronavirus pandemic. The events had to be tackled on several fronts. First and foremost, the largest public health challenge in recent decades had to be managed, and naturally the most important task was to protect and save people's lives, because 'every life counts'. Additionally, the economic impact of the coronavirus also had to be addressed, to prevent the pandemic from undermining the results achieved in the past decade or disrupting Hungary's convergence. Crisis management was difficult, because – along with the health and economic crisis – uncertainty about day-to-day life also generated fears that had to be tackled. Another challenge was that the economic policy framework changed so significantly that one can say, without exaggeration, that during the past year we witnessed a paradigm shift in economic and financial history every day, in the world and in Hungary as well.

Paradoxically, however, the pandemic also generated opportunities and thus created value, along with the losses. Most importantly, the difficult times highlighted Hungarians' sense of solidarity. Facing these difficulties, the country joined together, creating a solid foundation to weather these challenging times. Although many issues remain to be solved, Hungary can be proud of how it managed this complex crisis, especially regarding the preservation of social stability and the mitigation of the fallout from the crisis. Several economic indicators suggest that Hungary was among the best European Union Member States in terms of crisis management.

The primary objective of the central bank, to achieve and preserve price stability, was once again accomplished in 2020. Despite the shock to the Hungarian economy, inflation remained almost continuously within the central bank's tolerance band, as in earlier years. With the MNB's active involvement, Hungary maintained its financial stability, and the economic difficulties did not turn into financial problems. A range of extraordinary measures supported the business sector and families, as well as the government's efforts. In 2020, the Magyar Nemzeti Bank contributed to controlling the pandemic and bolstering the financial system and the country's budget with an unprecedented series of measures, mobilising an enormous amount of money that reached almost HUF 5,900 billion in total. The coordinated steps carried out by Magyar Nemzeti Bank in 2020 represented the largest central bank intervention and assistance undertaken in the CEE region.

In a crisis, both the magnitude and the timing of the measures are crucial. In times like this, he who gives quickly, gives twice. That is why it was crucial for the MNB to respond to the new situation in last spring, when the virus appeared, with a great degree of flexibility by international standards. From the first moments of the state of emergency, the MNB did everything in its power to harness the available resources and instruments, in order to preserve the stability of the Hungarian economy and to protect Hungarian jobs, and to set the foundations for the post-crisis recovery of the Hungarian economy. In this regard, one source of valuable experience was that – following the monetary policy turnaround in 2013 – the Magyar Nemzeti Bank played a key role in putting the Hungarian economy back on a convergence path. The central bank utilised the lessons learnt from previous crisis management activities, while considerably expanding its set of instruments and room for manoeuvre. Thanks to this, the Monetary Council of the MNB and the central bank's management were prepared when the crisis hit, enabling them to adopt and implement a range of coordinated and targeted measures.

Among other things, these measures included immediate steps to support the liquidity of the banking system, which successfully prevented the drying up of the Hungarian credit market and the paralysis of corporate sector lending thanks to the Funding for Growth Scheme Go!, with an allocated amount of HUF 1,500 billion, and the Bond Funding for Growth Scheme. Another emblematic success of the Hungarian crisis management efforts was that, acting on the central bank's proposal and initiative, the government introduced, and subsequently prolonged, the repayment moratorium, which has provided security and stability to debtors and Hungarian economic actors for almost a year now. The central bank also took measures to preserve the stability of the Hungarian government securities market and paid an unprecedented dividend of HUF 250 billion, to help cover the budgetary spending that increased significantly due to crisis management.

Last year was an extraordinary period that required great dedication and competence from the management and staff of the Magyar Nemzeti Bank. The central bank of Hungary successfully accomplished its mission and discharged its duties set out by law in 2020. This is faithfully reflected by the Bank's business report and financial statements for 2020.

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: 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 the 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 consumers and organisations of the financial intermediary system.

Additional tasks of the MNB may 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 FC's tasks 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 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 is 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 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 2020, the Monetary Council elected Márton Nagy, Deputy Governor, as deputy chairman. Following his resignation, the Monetary Council elected Barnabás Virág, Deputy Governor, as deputy chairman, on 23 June 2020.

In 2020, 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,
- Dr Barnabás Virág, Deputy Governor from 22 June 2020,
- Márton Nagy, Deputy Governor from 1 September 2015 to 28 May 2020,
- Dr Gusztáv Báger, from 6 July 2015 to 31 December 2020,
- Dr Kolos Kardkovács, from 13 September 2016,
- Dr György Kocsiszkzy, re-elected from 6 April 2017,

– Dr Bianka Parragh, from 23 March 2017,

– Gyula Pleschinger, re-elected from 5 March 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 in the course of 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 controlling activities;
- makes decisions within the framework of performing the MNB's resolution tasks concerning decisions ordering resolution and applying resolution measures, as well as in administrative proceedings related to performing 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 Governors of the MNB,
- as executives appointed by the Governor of the MNB, the Executive Director responsible for licensing and legal enforcement, the Executive Director responsible for financial system analysis and statistics, the Executive Director responsible for digitalisation, the Executive

Director responsible for monetary policy and foreign reserve management, the Executive Director responsible for prudential and consumer protection supervision of financial market institutions, 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 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 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; the Minister of Finance then designated his representative delegated to the Board and the expert appointed by him.

Members of the Supervisory Board in 2020:

- 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 2020, modifications to the MNB's organisational structure were introduced in relation to areas controlled by the Governor, the Deputy Governor responsible for monetary policy and financial stability, the Deputy Governor responsible for financial institutions supervision and consumer protection, and the Deputy Governor responsible for international relations, cash logistics, financial infrastructures, digitalisation and lending incentives, as well as the Director General. The primary objective of these changes was to enhance efficiency.

The organisational structure as at 31 December 2020, which emerged as a result of the organisational changes, is illustrated on the **organisation chart**. (See the organisation chart on the page 16)

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

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



Dr Mihály Patai
Deputy Governor,
Member of the
Monetary Council



Barnabás Virág
Deputy Governor,
Deputy Chairman 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 Kocziszy
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

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

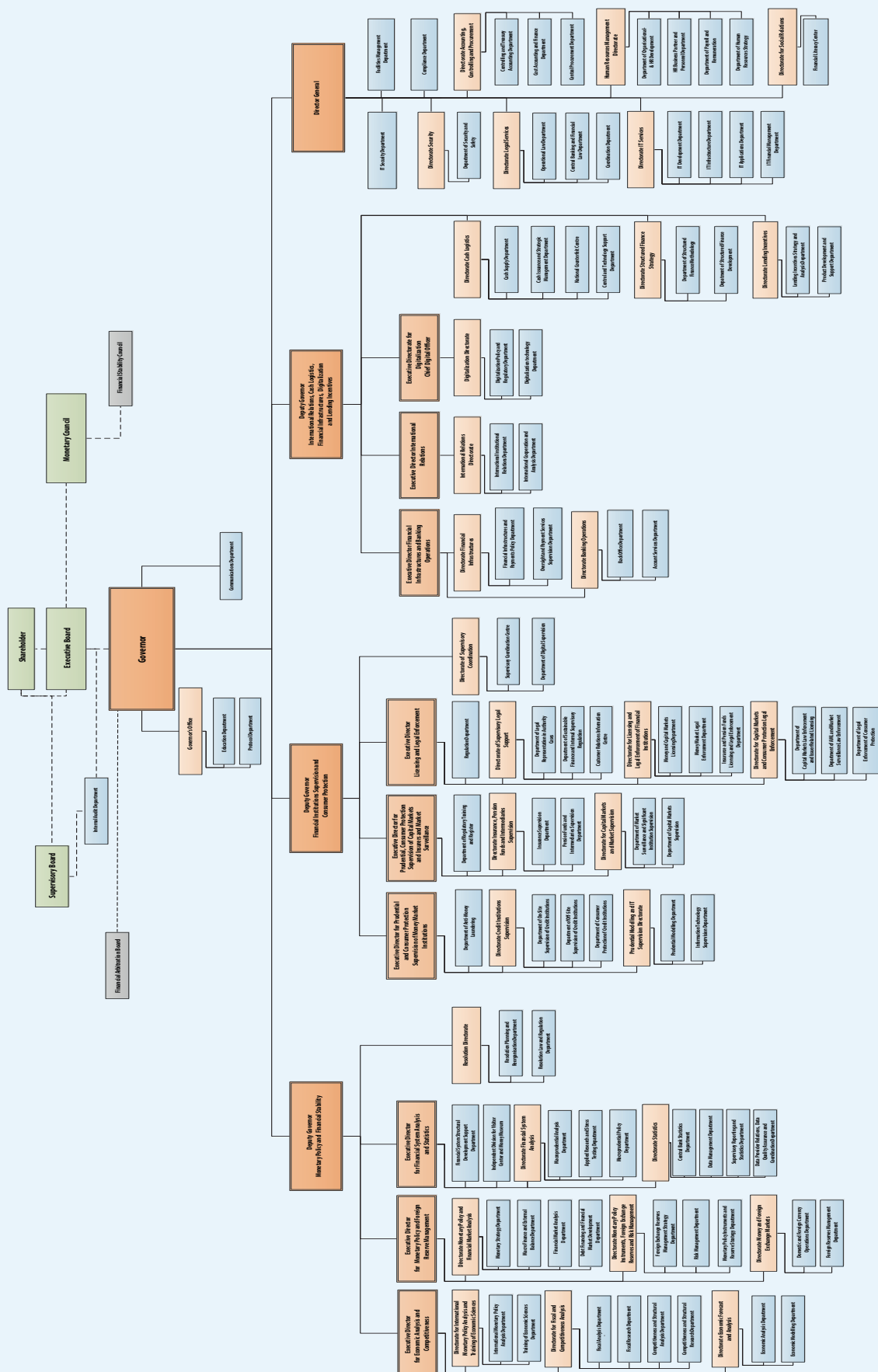
is involved in verifying whether the central banks of EU Member States and the ECB comply with the prohibition of monetary financing of the budget and privileged access of the public sector to financial institutions. The General Council also participates in the ECB's advisory functions and in the collection 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.

From 31 January 2020, the number of EU members, and thus also ESCB members, declined from 28 to 27 following Brexit, while the number of euro area members remained unchanged.

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

Organisation Chart

Organisation Chart of Magyar Nemzeti Bank – 31 December, 2020



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.

Currently, euro area central banks subscribe to 81 per cent of the ECB's capital, while the remaining 19 per cent is divided among the central banks of non-euro area Member States. These latter central banks pay a predefined 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. Due to Brexit, the ESCB membership of the Bank of England ceased, and thus the capital keys were adjusted in 2020. As a result, the capital key of the MNB increased to 1.5488 per cent as of 1 February 2020, and the amount of its paid-up capital rose to EUR 6.3 million.

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 2020, the ESCB committees continued to be useful fora for the exchange of professional experience.

3 Review of the MNB's performance in 2020

3.1 MONETARY POLICY

In 2020, the central bank reacted to the challenges posed by coronavirus pandemic with a series of coordinated steps and targeted measures, including the modification and expansion of its monetary policy instruments. The measures of the Magyar Nemzeti Bank in the first and second phase of the containment of the pandemic strengthened Hungary's economic fundamentals, provided the necessary liquidity to economic participants and mitigated the adverse economic impact of the pandemic. Even during the pandemic, the MNB remained committed to maintaining price stability. Inflation fluctuated within the tolerance band in almost every month of 2020, which meant that the central bank achieved its primary objective, in an almost unprecedented way since 2017.

In the first half of 2020, the central bank's toolkit was overhauled, in the course of which the MNB eliminated the announcement of the target band for the banking system liquidity to be crowded out from instruments bearing interest at the base rate and announced a comprehensive set of measures in several stages to counter the economic effects of the coronavirus. The new measures allow the MNB to ensure the necessary liquidity and shape the appropriate monetary conditions in a targeted and flexible manner on the sub-markets that are crucial from a monetary policy perspective.

At its meetings in autumn, the Monetary Council responded to the continued uncertainty on the market following the temporary respite from the virus by introducing measures to further increase the effectiveness of monetary policy transmission and foster the increased flexibility and simplification of the central bank's instruments.

International financial market developments

Significant dichotomy and volatility characterised global risk appetite in 2020. In parallel with the first wave of the pandemic, risk appetite declined in the spring months, leading to a substantial drop in stock indices. Accordingly, emerging bond markets saw massive capital outflows during this period. Subsequently, sentiment gradually improved, which was reflected by rising stock indices and capital inflows to bond markets. Overall, the euro appreciated against other developed market

currencies. The strong volatility seen in global financial markets was mostly linked to the pandemic and news on vaccine development. In addition to the pandemic, risk appetite was mainly influenced by developments in the US presidential election, the uncertainty surrounding Brexit, incoming macroeconomic data, oil price developments and expectations regarding measures by the world's leading central banks.

International monetary policy environment

To mitigate the negative effects of the pandemic on the economy and the financial markets, major central banks responded with numerous instruments. From March 2020, the Federal Reserve (Fed) reduced its policy rate by 150 basis points in total and also introduced liquidity-providing instruments. The European Central Bank (ECB) kept interest rates at historically low levels in 2020 and implemented several measures, including the pandemic emergency purchase programme (PEPP), to offset the damage to monetary policy transmission and ensure the necessary liquidity for markets. In 2020, the Fed's balance sheet rose from below 20 per cent to 35 per cent in GDP terms, while the ECB's balance sheet increased from around 39 per cent to over 60 per cent. According to the forward guidance of the major central banks and analyst expectations, loose monetary policy conditions will remain in place. In the CEE region, central banks mitigated the negative effects of the pandemic by reducing policy rates and deploying other unconventional instruments.

Domestic macroeconomic environment

Average inflation amounted to 3.3 per cent in 2020. On the whole, inflation remained within the central bank's tolerance band for almost the entire year. The consumer price index was characterised by considerable volatility in 2020. Following a temporary rise in early 2020, the consumer price index quickly returned into the central bank tolerance band before declining to its lower bound in May. Due to the pandemic, inflation rose to the upper bound of the tolerance band in the summer months after the economy restarted, which may have been influenced by the implementation of repricing postponed from previous months as well as price increases brought forward in certain cases. From the autumn, stronger disinflationary effects were observed, which resulted in rather muted price dynamics. This was primarily driven by market services,

fuel prices and food. Economic activity was characterised by substantial volatility in 2020. The negative impact of the pandemic was mostly reflected in the Q2 data, as GDP shrank by 13.6 per cent in year-on-year terms, while a 2.2-per cent increase was seen in Q1. A slump in economic output and postponed investments appeared in a wide range of industries. Hungarian economic activity adjusted significantly following the low levels of April and May, and GDP expanded by 11.4 per cent in the third quarter in quarter-on-quarter terms. With the restrictive measures, Hungary's economic activity is expected to weaken again in 2020 Q4 in year-on-year terms. The budget deficit may come in at roughly 8 per cent of GDP in 2020, around the international average, on account of pandemic-related expenditures and the economic slowdown. The debt-to-GDP ratio rose temporarily in 2020, before returning to a downward path from 2021.

Monetary policy measures

In the first phase of containing the pandemic, the MNB immediately took liquidity-providing and market-stabilising steps. The unlimited amount of the new, fixed-rate collateralised credit instrument, the expansion of eligible collateral to corporate loans, the one-week FX swap and the exemption from the reserve requirement significantly increased liquidity in the banking system.

In April 2020, the decision was taken to make the interest rate corridor symmetrical and to activate the one-week central bank deposit facility; these measures allow greater flexibility for the MNB in maintaining the effectiveness of monetary transmission. Accordingly, the interest on the overnight and one-week collateralised credit instrument rose to 1.85 per cent, while the base rate and the overnight deposit rate remained unchanged. The Monetary Council also decided that the interest on the one-week deposit instrument should be able to diverge from the base rate within the interest rate corridor, either upwards or downwards.

Besides the market-stabilising and liquidity-providing measures, the MNB also chose to introduce growth-supporting long-term instruments. On 20 April, a new programme under the Funding for Growth Scheme (FGS) called FGS Go! was launched, with an allocated amount of HUF 1,500 billion, providing to small and medium-sized enterprises an even wider range of options for utilising the loan than before. In addition, the central bank launched its government securities purchase programme and restarted its mortgage bond purchases on 4 May to increase the efficiency of monetary policy

transmission and preserve the stable liquidity position of the government securities market.

In the second phase of containing the pandemic, measures supporting the restoration of economic growth gained prominence. To maintain price stability and promote the restoration of economic growth, the Monetary Council cut the central bank base rate by 15 basis points in both June and July. The swap instrument providing FX liquidity, which was redeployed in September, ensured that short-term swap market yields were consistent with the optimal short-term interest rate level and that their volatility declined considerably. According to the Monetary Council's assessment, the established short-term monetary conditions support price stability, the preservation of financial stability and the restoration of economic growth in a sustainable manner.

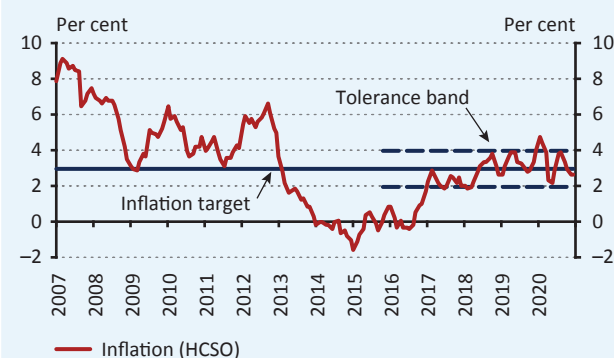
In view of the results achieved and the high utilisation, the Monetary Council increased the total amount for the Bond Funding for Growth Scheme (BGS) in September and for the FGS Go! in November. These two targeted programmes provide a widely useable resource for domestic companies, with favourable, predictable interest rates. The MNB continues to neutralise the additional amount of money issued within the programmes using the preferential deposit facility. Moreover, the asset purchase programme was expanded and made more flexible in October 2020, and a technical review of the government securities purchase programme was conducted in November.

Inflation developments in 2020

Overall, inflation was around the central bank's target in 2020, as consumer prices increased by 3.3 per cent on average. Inflation developments during the year were strongly influenced by changes in commodity prices as well as the pandemic, which caused substantial volatility. Following a temporary surge in late 2019 and early 2020, inflation returned to the central bank's tolerance band in March and was subsequently near the 3-per cent inflation target. The rise in inflation at the beginning of the year was caused by an increase in the excise duty on tobacco products in January as well as rising fuel and food prices. In the second quarter, the world market price of oil plummeted due to the deteriorating global economic growth prospects with the spread of the pandemic. As a result of the significant fall in fuel prices, year-on-year inflation thus dropped close to the lower bound of the tolerance band in May. In contrast to the usual pattern, more robust price dynamics were observed in the summer months, which was probably attributable to repricing arising from the sudden shift in supply and demand conditions

related to restarting the economy. Furthermore, excise duty increases (on tobacco products and fuel) also generated higher inflation. However, after the higher repricing in the summer months, disinflationary effects strengthened from September. Consistent with this, the final period of the year was characterised by more muted price dynamics overall.

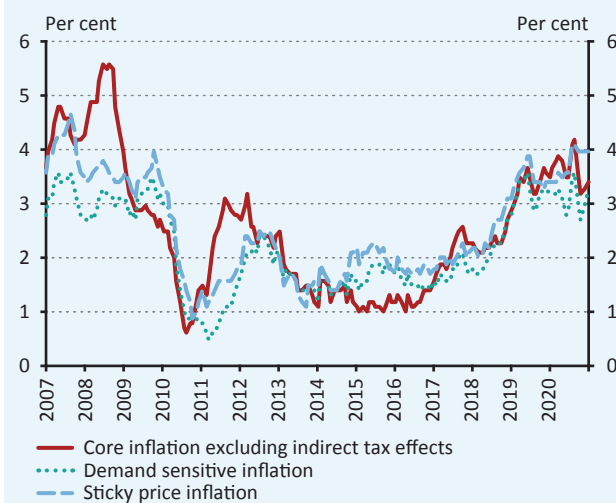
Chart 1
Inflation target and inflation developments



Source: HCSO, MNB.

After stagnating at the beginning of the year, indicators capturing longer-term inflationary trends (the inflation of demand-sensitive products and sticky-price products and services) rose in July in parallel with the restarting of the economy. The rise in core inflation excluding indirect taxes was mainly due to higher prices of industrial goods and the services most affected by pandemic restrictions (restaurant services, domestic holiday). In the autumn months, the indicator dropped again to close to 3 per cent, mainly as a result of the fall in the prices of market services (primarily mobile phone, internet and domestic holiday services). At the end of the year, core inflation excluding indirect taxes rose slightly to 3.4 per cent, as the market prices of tobacco products increased more than in previous years. Average annual core inflation excluding indirect taxes was 3.7 per cent in 2020.

Chart 2
Underlying inflation indicators



Source: MNB.

Changes in monetary policy instruments

At its meeting on 17 December 2019, the Monetary Council determined that the amount of targeted average liquidity to be crowded out in 2020 Q1 should be at least HUF 300–500 billion. Taking into account excess reserves and overnight central bank loans, average crowding-out amounted to HUF 499 billion in the first quarter, which was consistent with the target set by the Monetary Council.

In March and April 2020, the Monetary Council announced a comprehensive package of measures in several stages to offset the economic impact of the coronavirus.

As part of this, the announcement of the target range for the banking system liquidity to be crowded out from the instruments bearing interest at the base rate and the earlier framework of quantitative restrictions were eliminated

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

	2018	2019	2020	2020			
				Q1	Q2	Q3	Q4
Core inflation	2.5	3.8	4.1	4.2	4.1	4.4	3.9
Unprocessed food	6.9	8.9	11.7	11.9	14.8	12.0	7.8
Fuel and market energy	8.2	1.2	-4.6	6.0	-16.2	-3.3	-4.9
Regulated prices	0.1	0.7	0.4	1.2	-0.2	0.8	-0.4
Consumer price index	2.8	3.4	3.3	4.3	2.5	3.7	2.8
Consumer price index at constant tax rates	3.2	3.2	3.2	4.3	2.5	3.6	2.7

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.

starting from Q2. The package aimed to introduce new instruments to ensure greater flexibility and efficiency in achieving monetary policy objectives and to also provide large amounts of additional liquidity. The new measures affected the functioning of the instruments on both the deposit and the credit side.

In this economic and money market situation, the central bank's strategy seeks to establish an interest rate level on the short end of the yield curve that ensures the stability of financial and economic processes, while helping all economic actors obtain cheap and predictable funding by easing long-term conditions and reducing the slope of the yield curve. The new measures allow the MNB to ensure the necessary liquidity and shape the appropriate monetary conditions in a targeted and flexible manner on the sub-markets that are key from a monetary policy perspective:

- On 16 March, the MNB announced a flexible restructuring option and a moratorium on payments for loans created earlier under the FGS.
- At the 1-, 3-, 6- and 12-month tenders, announced weekly, the MNB announced daily tenders between 17 and 27 March for one-week foreign currency swap instruments providing forint liquidity, with a view to ensuring adequate liquidity in the banking system.
- The Monetary Council decided to expand the scope of eligible collaterals to corporate loans in March. Counterparty institutions can offer performing corporate loans as collateral, irrespective of the maturity and currency of the loans, above HUF 1 billion. Following the acceptance, from the end of September, of credit claims arising from refinancing loan contracts concluded for passing on the loan, this boosts banks' stock of available assets eligible as collateral by HUF 5,100 billion at adjusted market value, thereby considerably increasing the liquidity potentially accessible by banks.
- The Monetary Council also decided to introduce a new collateralised credit instrument at 3-, 6- and 12-month and 3- and 5-year maturities. The MNB provides the loans at a fixed rate, without quantitative restrictions.
- Also starting in March, the MNB granted exemption from the legal consequences of not complying with the reserve requirement for domestic counterparty credit institutions subject to reserve requirements. The introduction of this measure boosted the available liquidity in the banking system by around HUF 250 billion.
- In early April, the MNB activated the one-week deposit among its instruments, and chose to announce regular weekly tenders for it.
- The Monetary Council also decided to make the interest rate corridor symmetrical. While the 0.9-per cent base rate and the –0.05-per cent O/N deposit rate were left unchanged, the rate on the O/N and one-week collateralised credit instrument was increased from 0.9 to 1.85 per cent.
- To ensure the stable liquidity position of the government securities market, the MNB appeared on the secondary market and created demand by launching a government securities purchase programme, and resumed its mortgage bond purchase programme to improve the banking system's access to long-term funds.
- On 20 April 2020, the MNB launched the FGS Go! phase, with an allocated amount of HUF 1,500 billion.
- The total amount of HUF 450 billion for the BGS remained unchanged even after the meeting of the Monetary Council on 7 April, but the maximum maturity of the corporate bonds purchasable under the programme was increased from 10 to 20 years, and the maximum exposure to the same corporate group rose from HUF 20 billion to HUF 50 billion.
- The surplus funds issued within the framework of the FGS Go! and the FGS *fix* as well as the BGS will continue to be sterilised by the MNB with the preferential deposit facility. The preferential deposit will temporarily have tiered interest rates from 4 May 2020 until the end of 2021.
- To maintain price stability and promote the restoration of economic growth, the Monetary Council considered it necessary to undertake a general fine-tuning of interest rate conditions. Accordingly, the central bank base rate was cut by 15 basis points to 0.75 per cent at the Monetary Council's meeting on 23 June and then by another 15 basis points to 0.6 per cent at its meeting on 21 July. The upper and lower bound of the interest rate corridor did not change in the period under review, the overnight deposit interest rate remained at –0.05 per cent, while the interest on overnight and one-week central bank collateralised loans stayed unchanged at 1.85 per cent.

At its meeting on 8 September, the Monetary Council responded to the continued uncertainty on the market following the temporary respite from the virus by introducing new measures to increase the efficiency of monetary policy transmission and simplify the central bank's instruments.

To relieve any FX or FX swap market tensions, central bank FX liquidity-providing swaps were used on an ad-hoc basis along with regular tenders for the swap instrument providing forint liquidity. The MNB uses this instrument to ensure that the volatility of the yields on the Hungarian FX swap market decrease considerably in special periods (at the end of quarters, around holidays) relative to similar earlier periods and that yields are continuously consistent with the short-term interest rate set by the Monetary Council.

To bridge the period at the end of the quarter, the MNB provided roughly EUR 1.1 billion to the banking system at four tenders between 18 and 30 September. After this, banks accessed liquidity amounting to EUR 3 billion at four tenders between 21 and 31 December, spanning over the end of the year, with a maturity date of 7 January 2021. As a result of the active central bank presence, the MNB's tenders successfully smoothed swap market developments at the end of Q3 and Q4.

With respect to the long-term collateralised credit instrument, the MNB decided to announce only 3- and 5-year maturities at its tenders after 2 September, although the short-term maturities (at 3, 6 and 12 months) remained part of the toolkit. In a technical simplification, the indirect access of investment funds to the collateralised credit instrument (via bank players) was terminated, although direct access has remained available in unchanged form.

On 22 September, the Monetary Council raised the allocated amount for the Bond Funding for Growth Scheme to HUF 750 billion in view of the high utilisation of the HUF 450 billion allocated until then and the results of the programme up to that point.

On 24 September, the MNB modified the interest rate on the one-week deposit instrument announced at its tenders from 0.6 to 0.75 per cent, keeping it steady until the end of the year.

From 28 September, the MNB expanded the concept of corporate credit claims eligible as collateral: from that day, credit claims arising from refinancing loan contracts concluded for passing on the loan and mortgaged to the MNB are also considered corporate claims, and the central bank accepts them as collateral. At the same time, the size of haircuts on eligible collateral was also fine-tuned. To increase the efficiency of the central bank programmes affecting long-term yields, on 6 October the Monetary Council decided to increase the amount of securities series purchasable under the government securities purchase programmes from 33 to 50 per cent and to expand the scope of eligible assets to include debt securities issued with a state guarantee, while using strategic parameters identical to those applied to government securities purchases. In the rapidly changing environment, the central bank flexibly adjusted the amount of its purchases and used the programme to the necessary degree with a steady market presence, focusing the purchases on longer maturities.

On 1 October 2020, due to the considerable expansion in banking system liquidity, the Monetary Council restored the sanction applicable to credit institutions for reserve deficiency, which had been suspended in response to the effects of the pandemic. Since 1 October, the MNB has been paying either the current O/N deposit interest or 0 per cent, whichever is lower, on the balance of the reserve account in excess of the required reserves.

On November 16, the Monetary Council decided that – consistent with the MNB's Green Programme – the mortgage bond purchase programme would be enhanced and that it would also purchase mortgage bonds qualifying for green bond status in the future. The MNB has started consultations with the market participants concerned on the conditions of the green status required for eligibility in the programme and the details of green mortgage bond purchases. Until the programme enabling the purchase of green mortgage bonds is elaborated, the MNB will suspend primary market purchases in the mortgage bond purchase programme and the option for renewing mortgage bonds; however, it will continue its secondary market purchases to maintain the liquidity of the mortgage bond market.

Companies have shown particular interest in the FGS Go! since its launch, and therefore the Monetary Council raised the amount allocated for the phase by HUF 1,000 billion to HUF 2,500 billion on 17 November.

Table 2
Important central bank measures

Decision date	Measure
16 Mar 2020	Funding for Growth Scheme: payment moratorium
17 Mar 2020	Announcement of 1-week FX swap tender
17 Mar 2020	Extension of collateral-pool with corporate loans
24 Mar 2020	New collateralised loan with 3-m to 5-y tenor
24 Mar 2020	Suspension of sanction on reserve non-compliance
01 Apr 2020	Announcement of 1-week deposit tender
07 Apr 2020	Symmetrical corridor
07 Apr 2020	Government bond purchase programme
07 Apr 2020	Mortgage bond purchase programme
07 Apr 2020	Funding for Growth Scheme Go!
07 Apr 2020	Bond Funding for Growth Scheme: modification of key conditions
07 Apr 2020	Preferential deposit changes
23 Jun 2020	Decreasing base rate to 0.75 percent
21 Jul 2020	Decreasing base rate to 0.60 percent
02 Sep 2020	Covered loan announcement for 3 and 5 years
08 Sep 2020	FX-swap tenders providing euro liquidity
22 Sep 2020	Bond Funding for Growth Scheme: total amount increase
28 Sep 2020	Extension of collateral pool with ref. lending claims
06 Oct 2020	Extended government bond purchase programme
16 Nov 2020	Suspension of mortgage bond auctions
17 Nov 2020	FGS Go!: total amount increase

Recourse to central bank instruments and the development of short-term yields

In 2020, the banking system's average net forint liquidity (the balance of current and instant current accounts, the amount of preferential, overnight and one-week deposits less overnight and one-week loans) amounted to HUF 2,656 billion on average over the period under review, moving on a steadily upward trend. After averaging HUF 1,433 billion in H1, Q3 and Q4 featured dynamic expansion, with average holdings at HUF 3,360 billion and HUF 4,371 billion. This growth was primarily attributable to the MNB's liquidity measures, the effect of which was mainly reflected on the liabilities side, with the popularity of the one-week deposit instrument introduced in early April. Banking system liquidity was primarily expanded by the MNB's operations, especially the long-term credit instrument, and was reduced to a lesser degree by the growth in cash holdings.

The banking system's aggregate monthly reserve requirement fluctuated between HUF 241 billion and HUF 280 billion, with a slow rise over the course of the year. Average holdings on reserve accounts, including the balance of instant reserve accounts, amounted to HUF 278 billion.

The banking system's excess liquidity can be deposited in the overnight deposit and the preferential deposit instrument, and since April in the on-week instrument.

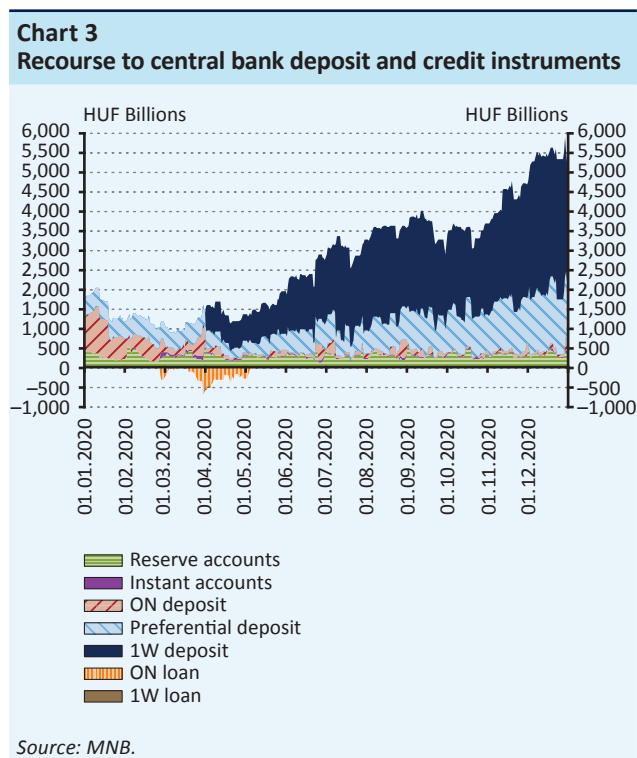
The role and average holdings of the O/N deposit decreased due to its interest rate of –5 basis points, even as banking system liquidity exhibited an upward trend, benefitting the one-week deposit instrument that appeared as an alternative. Average holdings amounted to HUF 512 billion in Q1 and then plunged to HUF 97 billion in Q2 on account of the MNB's new deposit instrument, before fluctuating somewhat in Q3 and Q4, at HUF 128 billion and HUF 75 billion, respectively.

The preferential deposit option is subject to participation in central bank programmes. The amount that can be deposited in the instrument depends on the amount lent by the banks in the different schemes of the FGS, as well as banks' participation in BGS issues and central bank purchases in the programme. The aggregate value of the preferential deposit limits was HUF 534 billion at the end of Q1, and the average recourse to the instrument was HUF 468 billion. In subsequent quarters, the monthly limits increased, first slower and then more quickly towards the end of the year due to the rising popularity of the FGS and

BGS programmes. By the end of the individual quarters, the preferential deposit limits had risen to HUF 678 billion, HUF 1,152 billion and HUF 1,836 billion, respectively, with high levels of recourse.

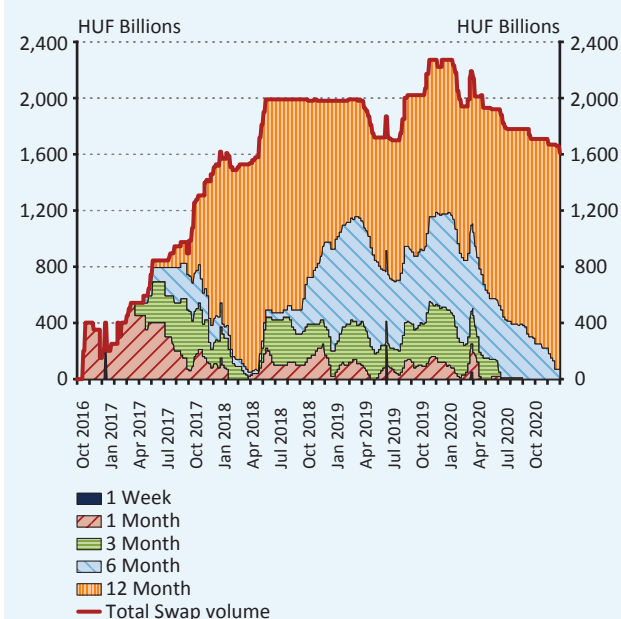
In terms of the deposit instruments, the banking system mostly used the one-week instrument for depositing liquidity. From May, all submitted bids were accepted, and the average quarterly acceptance amounts were HUF 986 billion, HUF 2,180 billion and HUF 2,730 billion starting from Q2. Bids per tender trended higher, with the highest bid amount standing at HUF 3,570 billion on 23 December.

During the quarter, banks took out the overnight collateralised loan approximately 150 times, with an average amount of HUF 73 billion.



The stock of central bank FX swaps providing forint liquidity totalled HUF 2,273 billion at the beginning of the year. With the exception of a brief transitional period, it moved on a decreasing trend throughout the year, dropping by HUF 667 billion to close the period at HUF 1,606 billion. The total amount accepted at the tenders providing forint liquidity was HUF 296 billion, HUF 215 billion, HUF 492 billion and HUF 1,539 billion.

Chart 4
Evolution of the stock of FX swaps providing central bank forint liquidity



As a result of the tensions on the swap market in earlier quarters, the MNB announced swap tenders providing euro liquidity at the end of September and December to mitigate any potential fluctuation in yields. Four tenders were held at the end of Q3, on 18, 25, 29 and 30 September, all with maturity spanning over the end of the quarter, on 1 October. Due the acceptance of the total demand

Table 3
Number of central bank FX swap tenders, announced and accepted amounts
in HUF billion

Tenor	Number of tenders	Offered amount	Total bids	Allotted amount
1 month	48	768	2,999	296
3 months	48	768	3,160	215
6 months	48	768	4,192	492
12 months	48	768	887	1,539
Total	192	3,071	11,238	2,541

at the first two tenders, amounting to EUR 1,104 million (HUF 399.4 billion), and the central bank's communication, the market was calm and characterised by low volatility. No bids were received at the last two tenders, and no market tension was observed at the end of the quarter.

Before the end of the year, the MNB held tenders on 21, 29, 30 and 31 December, all with a maturity date of 7 January 2021. All four tenders received bids, all of which were accepted by the MNB, thus providing liquidity of EUR 3,009 million (HUF 1,089.6 billion) to the tendering banks.

The MNB's new instrument influencing long-term yields is the collateralised credit instrument announced at 3-, 6- and 12-month and 3- and 5-year maturities. On 8 September, the Monetary Council decided to suspend tenders for the maturities of up to 1 year, and thus the subsequent tenders only featured maturities of 3 and 5 years. Total demand was highest at 5 years, amounting to HUF 6,390 billion. The MNB accepted HUF 45 billion at 3 years and HUF 2,218 billion at 5 years: consequently, total holdings amounted to HUF 2,263 billion at the end of the year.

Under the Mortgage bond purchase programme II, the MNB purchased mortgage bonds with a face value of HUF 281 billion in the period under review, of which HUF 144 billion was purchased on the primary market and HUF 137 billion on the secondary market. While auction purchases were suspended from mid-November, the MNB appeared on the secondary market with its purchases as a price maintainer.

In H2, the MNB stepped up its activity on the government securities market: the face value of total purchases in the government securities purchase programme was HUF 1,038 billion. Most of the purchased government bonds, at HUF 773.6 billion, came from the MNB's government bond purchases at weekly auctions. Meanwhile, the central bank purchased government securities from its banking partners outside of auctions, with a face value of HUF 216.6 billion. The amount of state-guaranteed bond purchases increased holdings by HUF 48.3 billion. The MNB mainly focuses its purchases on long maturities, as securities with maturities over 10 year represent 89 per cent, or HUF 886 billion, of the total holdings.

The HUFONIA, which measures the level of interest rates on the overnight market, remained below 100 basis points throughout the period. Three-month BUBOR quotes, which are of particular importance from the perspective of interest rate transmission, ranged between 16 and 110 basis points,

while the yields on three-month discount treasury bills (DKJ) came in between –1 and +138 basis points.

Funding for Growth Scheme and Bond Funding for Growth Scheme

To support businesses that were adversely impacted by the pandemic, in March 2020 the MNB allowed all loans taken out under any of the phases and schemes of the Funding for Growth Scheme (FGS) to be flexibly restructured and their maturities to be extended.

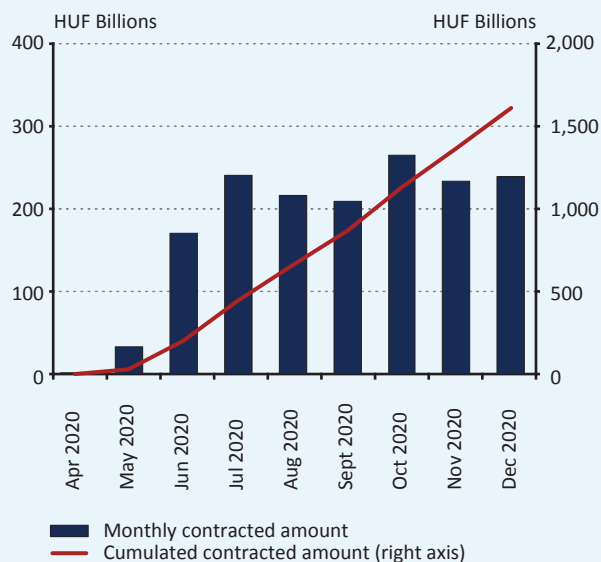
Also in an effort to mitigate the economic impact of the pandemic and to accommodate firms' changed needs, on 20 April 2020 the MNB launched a new phase of the FGS called FGS Go!, with an allocated amount of HUF 1,500 billion (with HUF 1,000 billion representing new funds and HUF 500 billion reallocated from the HUF 1,000 billion earmarked for FGS *fix*, which was terminated at the end of May). The new phase is identical in terms of its key parameters and the mode of implementation compared to the previous phases of the FGS; therefore, the MNB provides refinancing to credit institutions at 0-per cent interest, which they can lend to SMEs with an interest margin of up to 2.5 per cent. Similar to FGS *fix*, the additional bank liquidity arising from the volume of loans disbursed under FGS Go! is sterilised by the MNB with the preferential deposit instrument, thus making the programme liquidity-neutral.

FGS Go! is one of the most important tools for jump-starting the economy, as it provides funds to the SME sector at conditions that are more favourable than ever, with a wide range of option for utilisation. The maximum maturity of investment loans was set at 20 years, while in the case of working capital financing, loans up to 3 years can be extended. The maximum loan amount per SME under the phase is HUF 20 billion, which promotes the growth of medium-sized enterprises, preserves their stability and supports large-scale investments. The smallest loan amount is HUF 1 million. As the originally allocated amount would have been exhausted in early 2021, the Monetary Council decided to increase the amount by HUF 1,000 billion in November 2020, so that the programme could continue to support companies' access to credit in 2021.

Under FGS *fix*, credit institutions concluded loan and leasing contracts with a volume of HUF 564 billion until the phase was terminated at the end of May 2020. Under FGS Go!, credit institutions concluded contracts with over 23,000 SMEs with a volume of HUF 1,605 billion until the end of 2020; the credit drawn down until then stood at HUF 1,194 billion. For all of the phases and schemes of the

FGS, the total outstanding amount was HUF 2,152 billion at the end of 2020.

Chart 5
Utilisation of FGS Go! in 2020



Note: Based on data received by 18 February 2021.

Source: MNB

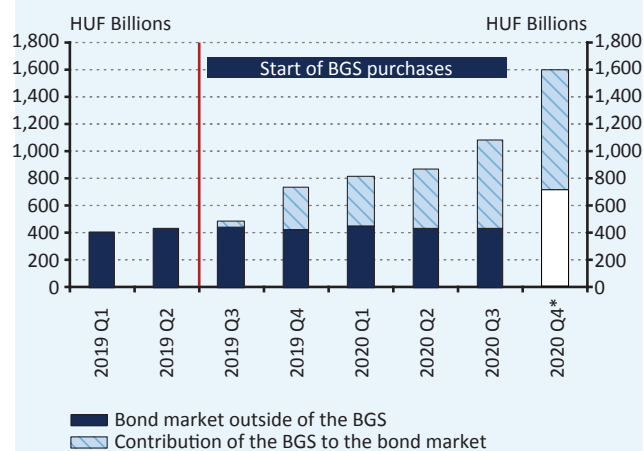
To increase the liquidity of the corporate bond market, the central bank launched the Bond Funding for Growth Scheme (BGS) on 1 July 2019, as a complement to its unconventional monetary policy instruments and FGS *fix*. Within the framework of this programme, the central bank purchases bonds with a credit rating of at least B+ issued by non-financial corporations domiciled in Hungary. 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 the preferential deposit facility. The aim, framework and operation of the BGS relies heavily on the ECB's corporate sector purchase programme (CSPP).

Several of the BGS' key initial parameters were modified in 2020. As the 2019 results of the bond programme were instrumental in expanding the liquidity of the corporate bond market and fostering diversification in corporate borrowing, the Monetary Council increased the original total amount of HUF 300 billion allocated for central bank bond purchases to HUF 450 billion effective from 1 January 2020. To ensure that the necessary funds are available to Hungarian businesses despite the negative real economy and financial market consequences of the pandemic, on 7 April 2020 the Monetary Council approved an increase in the maximum maturity of the securities purchased under the bond programme from 10 to 20 years and in the maximum exposure of the central bank to

a corporate group from HUF 20 billion to HUF 50 billion. In view of the robust demand for the bond programme and the high utilisation of the allocated HUF 450 billion, the MNB decided to raise the total amount of funds available for bond purchases to HUF 750 billion in September 2020.

In 2020, 36 companies successfully issued a total of 37 bond series under the BGS, raising funds over HUF 576 billion, of which the total face value of the MNB's purchases was over HUF 355 billion. The corporate bonds issued in 2020 have maturities between 7 and 11 years, although most BGS securities series have a maturity of 10 years. Since the launch of the bond programme, a total of 46 companies have issued 53 bond series, allowing the firms to raise HUF 889 billion. The face value of the central bank's bond purchases was close to HUF 543 billion. Thanks to the issues under the bond programme, the Hungarian market for non-financial corporations successfully continued its convergence started in 2019 to the average of the bond markets in the CEE region.

Chart 6
Contribution of the Bond Funding for Growth Scheme to the Hungarian non-financial corporations' bond market



* 2020 Q4 data on the bond market outside the BGS are based on estimates.

Note: based on securities market statistics available on 27 January 2021.

Source: MNB.

3.2 STABILITY OF THE FINANCIAL INTERMEDIARY SYSTEM

Despite the negative economic impacts of the pandemic, household and corporate credit expanded in 2020, with the general moratorium on payments introduced in March 2020 and extended until the end of June 2021, as well as the new phase of the Funding for Growth Scheme (FGS) called

FGS Go! playing a role in this regard. Credit institutions' household credit increased by 14 per cent in year-on-year terms. Following a decrease in the volume of new loans in Q2 due to the adverse developments related to the pandemic, an increase was seen in Q3 and Q4. The annual growth rate of corporate credit amounted to 9 per cent at the end of 2020. The moratorium used by companies, FGS Go! and the loan and guarantee schemes related to state institutions substantially mitigated the negative impacts of the pandemic in the corporate segment.

In 2020, the MNB's macroprudential activities focused on mitigating the potential negative effects of the pandemic on financial stability, in parallel with monitoring the evolution of systemic risks and the adjustment of market participants. The MNB assessed the macroprudential policy experiences and consequences of the pandemic in its 2020 Macroprudential Report. The macroprudential measures taken in Hungary help maintain lending activity, which was jeopardised by the macroeconomic consequences of the pandemic. The MNB temporarily suspended the capital buffer requirements for systemically important institutions, and it was decided to postpone the review of the systemic risk buffer. To prevent over-reliance on short-term external funds, the MNB temporarily tightened the requirements on the Foreign Exchange Funding Adequacy Ratio and the Foreign Exchange Coverage Ratio between March and September 2020. In the case of the Mortgage Funding Adequacy Ratio, the MNB decided to ease its requirements on bank's cross-holdings of mortgage bonds in view of the current market conditions.

In 2020, the MNB's activities promoting financial innovation and digitalisation focused on assessing and evaluating the level of digitalisation of the Hungarian financial system, and deepening the FinTech ecosystem. In the year, the MNB was the first central bank to publish a FinTech and Digitalisation Report, and a unique central bank application called Digitális Diákszéf (Digital Student Safe) was launched to promote financial literacy.

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.

In 2020, 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 pandemic increased the level of stress in the financial system, but the Hungarian banking system remained robust, and its shock-resistance is adequate from a liquidity and loss-absorbing capacity perspective as well. This is confirmed by the fact that despite the pandemic, household and corporate credit increased, largely due to central bank and government-run loan programmes and the moratorium on payments. Following the trend seen in recent years, the non-performing loan portfolio of the credit institutions sector continued to decrease in 2020. The adverse effect of the pandemic on the ability to repay loans is currently managed by the moratorium on payments, but credit institutions have already started to recognise impairments, in preparation for a potential rise in default rates by the end of the moratorium. According to the MNB's estimates, 5–10 per cent of household credit and 15–20 per cent of corporate credit can be considered vulnerable, where problems may arise in the ability to repay after the moratorium expires. Due to the rise in credit risks, the profitability of the Hungarian banking system deteriorated significantly, with the sector's profits after tax coming in at just HUF 207 billion in 2020, down by HUF 294 billion in the preceding year. The consolidated capital adequacy ratio of the banking system rose to 18.3 per cent by the end of December 2020, and all credit institutions meet the legislative capital adequacy. The banking sector continues to have a high level of free capital buffers, although their distribution is concentrated within the sector.

Key developments in the financial system

The biannual publication *Trends in Lending* provides a detailed overview of developments in lending in Hungary. Household and corporate credit expanded in 2020 despite the pandemic. By way of the suspended repayments, this was influenced by the general moratorium on payments introduced in March 2020 and extended until the end of June 2021, which affects 55 per cent of household credit and 41 per cent of corporate credit.

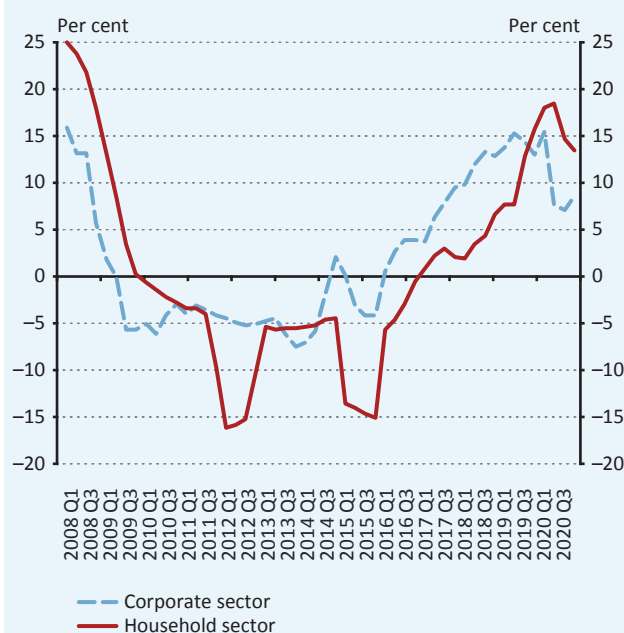
Credit institutions' household loans expanded by 14 per cent year-on-year as a result of disbursements and repayments (Chart 7). Following a decrease in the volume of new loans in Q2 due to pandemic-related developments (isolation

measures on the demand side, tightening of credit terms on the supply side), an increase was seen in Q3 and Q4. The volume of new contracts in 2020 fell short of the figure from 2019 by 4 per cent, still strongly influenced by the massive contraction in personal loans. At the same time, the volume of housing loan contracts was higher than one year previously. Subsidised loans related to the family protection and home creation programmes continue to support retail lending, with the subsidised schemes (family home creation allowance (CSOK), rural CSOK and prenatal baby support) making up over one third of the volume issued. The volume of prenatal baby support loans exceeded HUF 1,000 billion by the end of the year, accounting for 13 per cent of retail credit. Without the additional impact of the moratorium and the prenatal baby support loans, credit growth would have amounted to merely 4 per cent.

In the case of new housing loans, interest rate risk has also been reduced by the increasing popularity of the Certified Consumer-Friendly Housing Loans (CCFHL) in recent years, amounting to over two thirds of new loans with an interest period of at least 5 years. The scope of certified products will expand in 2021: the Consumer-Friendly Personal Loan certificate will be introduced, awarded to personal loan products with a maturity of up to 7 years, and a fixed rate until the end of the maturity. Banks can apply for the certificate with products, where the entire borrowing process can be conducted online, the disbursement and early repayment fee is preferential, and the interest rate spread may not be over 15 percentage points up to a loan amount of HUF 500,000, or 10 percentage points over HUF 500,000.

The annual growth rate of corporate credit amounted to 9 per cent at the end of 2020. In the past 12 months, transactions expanded by HUF 750 billion, down 35 per cent versus the previous year. The moratorium used by companies, FGS Go! and the loan and guarantee schemes operated by government institutions all helped in maintaining the expansion in volumes. To reduce the adverse effects of the pandemic and adjust to the changed funding needs of SMEs, in April 2020 the MNB launched a new phase called FGS Go!, which offers a wide range of options for utilisation. Loans concluded in 2020 amounted to HUF 1,605 billion, 31 per cent of which were new investment loans or leasing deals, while 55 per cent were working capital loans and 14 per cent were transactions related to redeeming earlier investment loans. More than one quarter of the volume of loans went to microenterprises, and one third went to small enterprises. Thanks to the increase in the allocated amount in November, the phase continues to support SMEs' access to funding at favourable terms and fixed rates in 2021.

Chart 7
Annual growth rate of outstanding corporate and household loans



Note: Credit institutions sector.

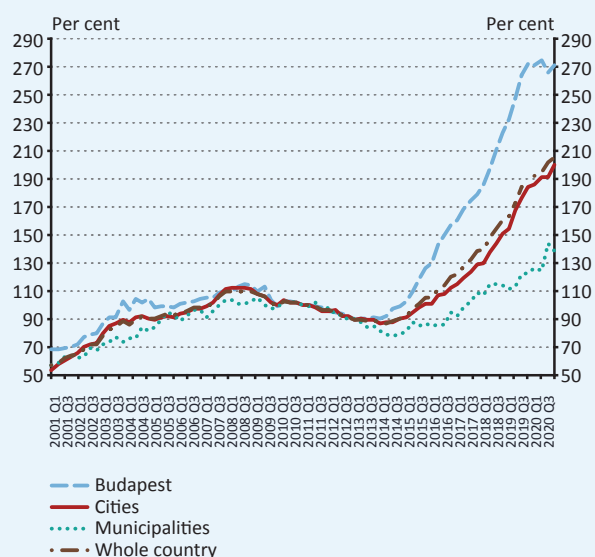
Source: MNB

The annual growth rate of residential real estate (RRE) prices eased considerably on the Hungarian housing market in 2020, and Budapest experienced an adjustment. According to the MNB house price index published in the *Housing Market Report*, the annual growth rate of housing prices in Budapest fell by 0.6 per cent in Q3, 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 7.9 per cent in nominal terms across the entire country, which is significantly lower than the rate of 18.1 per cent registered at end-2019. Based on preliminary data from real estate agencies, residential real estate prices may have climbed somewhat in Budapest and the country as a whole in Q4.

In 2020, the economic impact of the pandemic undermined the fundamentals determining housing market demand. Employment declined, wage growth slowed down slightly, households' real disposable income declined and banks tightened their credit conditions. In 2020 Q2, the number of housing market transactions dropped considerably, falling by 34 per cent, compared to 2019 Q2, owing to the pandemic, and within that, Budapest saw an even larger slump of 49 per cent. After the subdued market activity in the spring months, from June onwards the number of sales transactions exceeded the figure measured in the same period of the previous year. Then, in Q3 and Q4, the number of transactions grew by 7.1 and 3.6 per cent, respectively, year-on-year.

At the same time, development activity in the new home segment declined significantly in 2020, for three reasons: the return of the higher VAT rate at the end of 2019, the demand-reducing effect of the pandemic and the uncertainty, and the 'wait-and-see' approach on account of the regulation of the brownfield programme. However, the new home creation allowances from 1 January 2021 may give new impetus to housing market demand. Overall, looking at the distribution of loan-to-value ratios or the share of loan-financed home purchases, the massive rise in residential real estate prices in earlier years was not coupled with overheating on the credit market, which thus limits the potential financial stability risks of housing market developments.

Chart 8
The MNB's nominal house price index by type of settlement (2010 = 100%)



Note: Based on data available at the end of February 2021.

Source: MNB.

The spread of coronavirus had significant impacts on the sectors primarily responsible for commercial real estate (CRE) demand. In 2020, all commercial real estate segments saw demand decline, except for industry and logistics. Occupation/vacancy rates declined, and the retail segment also experienced a fall in rental fees. The vacancy rate of the stock of modern offices in Budapest rose from 5.6 per cent at the end of 2019 to 9.1 per cent by the end of 2020, while vacancy rates have remained low in industrial and logistics properties at 2 to 3 per cent. From 2020 Q2, banks steadily and substantially tightened their terms on commercial real estate loans due to the adverse economic impacts of the pandemic, and at the same time demand for housing loans also dropped. The tightening of loan conditions was due to banks' reduced risk tolerance, as well as industry-

specific risks. The risks of commercial real estate loans are temporarily mitigated by the moratorium on payments introduced in March 2020. At end-September 2020, 51 per cent of credit institutions' project loan portfolio secured by commercial real estate was affected by the moratorium. By type of property, the ratio was the highest for hotel financing loans, at 90 per cent. In the case of a prolonged recovery, the value of commercial real estate could fall, and this may adversely affect the stability of the financial system through multiple channels. However, the capital adequacy of the banking system is adequate to deal with potential risks arising from the commercial real estate market.

Following the trend from recent years, the non-performing loan portfolio of the credit institutions sector continued to shrink in 2020. The pandemic's negative effect on the ability to repay loans is currently addressed by the moratorium on payments, but credit institutions have already started to recognise impairments, in preparation for a potential rise in default rates after the end of the moratorium. By the end of 2020, the non-performing household loan portfolio dropped to HUF 250 billion, with nearly 60 per cent comprising loans over 90 days past due. During the year, the share of non-performing household loans dropped by 1.1 percentage point to 3 per cent, mainly owing to credit institutions' portfolio cleaning activities, but the dynamic expansion of credit also contributed to the decline in the ratio. Following an annual increase of HUF 6 billion, the volume of non-performing corporate loans amounted to HUF 327 billion in December 2020, resulting in an NPL ratio of 3.5 per cent, when calculated with the broader NPL definition. For total outstanding loans, this ratio amounted to 3.2 per cent, in contrast to the 4-per cent figure registered at the end of 2019.

Based on individual (unconsolidated) reporting data, the profits after tax of the credit institution sector amounted to HUF 207 billion in 2020, reflecting a decline of HUF 294 billion versus the previous year. The 12-month rolling return on equity (ROE) fell by 7.2 percentage points to 4.4 per cent, while the return on assets fell 77 basis points to 43 basis points. This decline is basically attributable to the sector's risk costs rising to HUF 269 billion, which was mostly linked to large banks. However, for most credit institutions, this already includes the expected increase in the riskiness of the outstanding loans, although further major rises in the risk costs of the sector are foreseen in the quarters ahead. On the revenue side, even though nominal net interest income rose in year-on-year terms, the net interest margin dipped somewhat. Nominal net commission and fee income exhibited a small year-on-year decrease of HUF 5 billion, which equates to a decline of 0.2 percentage points in proportion to total assets. The slowdown in credit

growth may have an adverse effect on operating income in the medium term.

The consolidated capital adequacy ratio of the banking system rose to 18.3 per cent by the end of December 2020, and the same figure was 19.3 per cent when calculated with total profits for 2020. The improvement is mainly attributable to the EBA decision on software valuation adjustments from October. Taking into account the lifting of buffer requirements in April, the sector's free capital amounted to HUF 2,102 billion, and the ratio of the free capital of each group and individual institution relative to their total risk exposure amount (TREA) is over 4 per cent.

The central bank conducted its thirteenth *Market Intelligence survey* in 2020, within the framework of which the MNB sent written questions on the economic impact of the pandemic and its survey for assessing the risks surrounding the Hungarian banking system to nine large Hungarian commercial banks. The main findings of the survey were presented in the May issue of the *Financial Stability Report*.

Macroprudential activity of the MNB

In 2020, the MNB's macroprudential activities focused on mitigating the adverse effects of the coronavirus pandemic on financial stability, in parallel with monitoring the evolution of systemic risks and the adjustment of market participants. To mitigate the negative impact of the unforeseen situation induced by the pandemic on the financial intermediary system, in the spring the MNB's Financial Stability Council adopted a comprehensive package including several macroprudential measures. The MNB provided a detailed assessment of the macroprudential policy experiences and consequences of the pandemic in the October 2020 issue of the *Macroprudential Report*.

Maintaining stable FX financing is a crucial factor in mitigating the risks arising from market turbulences. In view of this, the MNB preventively tightened its macroprudential rules on FX financing in March 2020. Modification of the Foreign Exchange Funding Adequacy Ratio (FFAR) regulation managed the risk of long-term funds potentially shortening by breaking down these items by residual maturity and considering funds from financial corporations with maturities between one and five years with a lower weighting. With the adjustment of the rules on the Foreign Exchange Coverage Ratio (FECR), the largest permitted open on-balance sheet FX position dropped from 15 per cent to 10 per cent, in order to maintain currency matching and restrict potential unilateral FX withdrawal and over-reliance on the FX swap market. As the potential

risks targeted by the measures did not materialise and the pandemic did not lead to any substantial transformation of the financing structure, the MNB decided to restore the pre-pandemic requirements in September 2020 by cancelling the tightening steps.

In September 2020, the MNB also decided to implement a technical modification of the Interbank Funding Ratio (IFR). Accordingly, on-balance sheet liabilities resulting from derivative transactions concluded with financial corporations and arising from the revaluation of these transactions are exempted from the IFR requirement, in order to facilitate compliance planning and avoid undesired adjustments.

Since non-bank demand for mortgage bonds on the market is uncertain due to market developments, the MNB decided to postpone tightening of the Mortgage Funding Adequacy Ratio (MFAR) requirement aimed at limiting cross-holdings of mortgage bonds and eliminate the prevailing limits on cross-financing. These measures support the raising of stable funds at favourable prices, which may also be reflected in retail mortgage loan interest rates.

Moreover, the MNB introduced several measures to support bank lending to the economy.

- To maintain banks' lending capacity, the MNB decided to lift the capital buffer requirements for Hungarian systemically important credit institutions (Other Systemically Important Institutions – O-SIIs) effective from 1 July 2020. To ensure a gradual approach that supports the recovery in lending and to strengthen loss-absorbing capacity, systemically important banks will have to build up the buffers consistent with the final rates already prescribed for 2020 and those that will be determined based on future reviews over three years starting in 2022. The MNB will only expect adherence to the planned final buffer rates from 2024.
- The stock of restructured commercial real estate exposures may increase temporarily due to the adverse effects of the pandemic on the economic environment, which may also entail a rise in the Systemic Risk Buffer (SyRB) requirement. This could have a negative effect on banks' lending capacity, lowering their lending activity in a procyclical manner. Although currently no bank needs to maintain a SyRB, in the case of some institutions even a smaller rise in the volume of problem project loans could have resulted in the prescription of a capital buffer. To mitigate this potential negative effect on capital, the MNB decided not to review the level of the SyRB requirement in 2020.

– The MNB has operated the Countercyclical Capital Buffer regulation, which aims to enhance the through-the-cycle resilience of the financial intermediary system, since January 2016. Based on the indicators assessed by the MNB, no overheating can be identified in lending, and therefore the MNB kept the countercyclical capital buffer at 0 per cent in 2020. Due to the adverse financial and economic effects expected from the pandemic, the lending level warranting introduction of the countercyclical capital buffer may be reached later than previously expected.

The experts of the central bank monitored the systemic risk evaluations and international regulatory developments affecting the financial intermediary system in 2020 as well, and participated in various European institutions' working groups dealing with macroprudential policy.

The MNB's activities promoting financial innovation and digitalisation

The central bank continuously and actively analyses the level of digitalisation of the Hungarian financial system, and fosters the improvement of the digital competitiveness of institutions providing financial services, partly in view of this assessment.

On 2 April 2020, the MNB was the first central bank to publish its *FinTech and Digitalisation Report*, intended to become a regular publication, in which it presented the most important FinTech trends, and provided a comprehensive and detailed analysis of the Hungarian FinTech ecosystem and a detailed assessment of the level and maturity of digitalisation of the Hungarian banking system.

In 2020, the MNB paid special attention to strengthening the Hungarian FinTech ecosystem and enhancing digital competencies. Within the FinTech Club programme series launched in 2020, Hungarian innovators familiarised themselves with the history of the development of start-ups that had achieved global success, and the possible uses of several innovative business models in Hungary were also discussed. At the same time, the MNB contributed to more complete financial and technological education via its cooperation with a number of Hungarian universities and colleges with a digital focus, by developing instruction materials, supporting research projects, holding trainings, participating in specialised events and organising student competitions (e.g. hackathons).

Within the framework of the digitalisation objectives, the MNB primarily focuses on implementing programmes that improve Hungary's competitiveness and also support several social objectives. In this context, the MNB not only encourages the establishment of efficiency-improving partnerships on the market, but also enters into partnerships with innovative firms. In accordance with these goals, the MNB Digital Student Safe was born, which is a savings and financial literacy mobile application using the opportunities offered by modern technologies, targeting young generation of 8–14-year-olds.

In addition to developments falling within its own competence, the MNB also seeks to provide broad support for innovation and digitalisation in its cooperation with both Hungarian and international actors. The MNB itself is a member of the Global Financial Innovation Network (GFIN) initiative. In cooperation with the Singapore FinTech Festival, the MNB organised an online event called World FinTech Festival in Budapest, which was held in Hungary on 8–9 December 2020. The two-day event discussed key topics such as modern financial infrastructures, cybersecurity, financial inclusion, and green and sustainable finance. During the event, the MNB's souvenir coin issued in connection with the 50th anniversary of the establishment of diplomatic relations between Singapore and Hungary was presented online. Moreover, the central banks of the two countries signed a cooperation agreement to strengthen the professional collaboration related to FinTech innovations.

In addition to the above, 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.

Due to the pandemic, several organisations – including the MNB – switched to online forms of communication and online events. During 2020, central bank experts participated at numerous online forums, round-table discussions and conferences, gaining first-hand experience with international FinTech and digitalisation processes and developments and regulatory approaches. The development of international cooperation and efficient information sharing provide great support to the MNB in gaining increasing prominence in the international community, thanks to its results achieved in promoting digital solutions and the development of digitalisation as well as its efforts supporting innovation.

3.3 SUPERVISION AND CONSUMER PROTECTION

In 2020, the MNB's supervisory activities were dominated by the pandemic and the related measures. The pandemic generated challenges to on-site and off-site supervision as well as consumer protection, and the central bank successfully overcame all of them. It employed several supervisory regulatory instruments in the financial and capital market sector, the insurance sector and the funds sector, with the intention to monitor the trends in the economic and financial system as well as to identify and mitigate risks caused by the pandemic. The MNB considered it a priority to respond to the enquiries from institutions, stakeholder organisations and consumers related to government and central bank requirements, and to provide information to the supervised institutions and consumers. Moreover, it reviewed and expanded the opportunities offered by methodologies and supervision so that supervisory activities can be conducted smoothly with minimal risks, while safeguarding the health of customers and central bank employees.

Within the framework of the MNB's supervisory objectives laid down in its supervisory strategy, Strategy and Trust 2.0, adopted in 2019, on supporting digital solutions and enhancing competitiveness, an executive circular was drawn up in 2020 based on the first Hungarian 'suptech' tool, an itemised database containing motor third-party liability (MTPL) insurance data. Among other things, it highlighted the necessity of using the central itemised MTPL database for appropriate pricing. The development project (DLT project) based on blockchain technology represents a ground-breaking digital innovation by international standards and aims to establish a network of digital relations between the insurance and the banking sector and record home insurance policies related to lending in a single system. 2020 saw the establishment of a consortium of participants in the development, allowing this innovative project to begin the IT implementation phase.

In terms of consumer protection, the number of Certified Consumer-Friendly Housing Loans continued to rise, Certified Consumer-Friendly Home Insurance appeared among the products on offer, and in 2021 several market participants will start selling Certified Consumer-Friendly Personal Loans, which were introduced last year as the third member of the family of certified products.

Based on the data from 1 January 2020, the MNB is responsible for the prudential supervision of 1,445 institutions, while according to data from 31 December 2020, the number of institutions was 1,381. The number of institutions continued to shrink (by 4 per cent). This was mainly due to the consolidation process affecting intermediaries on the insurance and financial markets.

Inspections and audits were hampered by the state of emergency declared on 11 March 2020, in view of which the MNB decided on 18 March 2020 to postpone its planned on-site inspections at financial organisations by two months. The MNB terminated some of the ongoing inspections and rescheduled planned procedures.

During the year, 107 prudential inspections, 334 consumer protection inspections, 27 market surveillance inspections and 4 inspections related to issuer supervision were closed. In the period under review, the MNB issued a total of 2,790 material decisions in prudential legal enforcement and licensing cases and 164 consumer protection decisions, while in the market surveillance and issuer oversight areas 27 and 37 official decisions were made, respectively. In 2020, the total penalties imposed by the MNB amounted to HUF 3,124 million. Out of this, the penalties imposed during measures related to prudential supervision¹ totalled HUF 1,059.8 million, consumer protection penalties totalled HUF 145.4 million, market surveillance penalties amounted to HUF 1,864.2 million, while issuer supervision penalties amounted to HUF 54.6 million.

Supervision of money market institutions

Within the framework of supervising credit institutions, financial enterprises, payment institutions and money market intermediaries, the MNB closed 37 prudential examinations and 12 supervisory inspections. In the course of the examinations and continuous supervision, the MNB imposed prudential penalties of HUF 544.3 million on institutions, in particular related to capital requirements, transaction rating, client rating, collateral valuation, debt cap rules, the equivalence of analytical records and the ledger, internal audits, the violation of legal provisions relating to the existence of personal and material conditions as well as the failure to implement legal provisions related to the prevention and deterrence of external and internal fraud and non-compliance with the measures set forth in previous decisions.

¹ All penalties imposed on institutions related to supervisory procedures, together with the consumer protection penalties applied during prudential inspections.

The MNB consistently places strong emphasis on eliminating errors in the supervisory reporting provided by the institutions that is used as a basis for its analytical and supervisory activities. Therefore, operational targeted inspections and supervisory proceedings were also conducted, in addition to comprehensive examinations. Along with checking data quality, the MNB also evaluated pawning activities, the adequacy of preparation for the instant payment system and the appropriateness of the implementation and reporting of Lombard credit facilities covered with government securities.

The MNB considered it a priority to inform the sector and respond to the enquiries by the Hungarian Banking Association and institutions related to the government decrees issued after the declaration of the state of emergency. The government introduced several financial market measures to mitigate the effects of the pandemic on the national economy. These included the moratorium on payments with respect to the principal, interest and fees arising from credit and loan contracts as well as financial lease contracts existing on 18 March 2020, and the capping of the annual percentage rate (APR) until 31 December 2020. The government universally expanded the moratorium on payments from 1 January 2021 and extended it until 30 June 2021.

To ensure the uniform implementation of the behaviour expected from institutions following the declaration of the moratorium on payments, the MNB issued several executive circulars typically related to mitigating the effects of the pandemic and handling the moratorium:²

- on the treatment of retail customers defaulting before the period of the payment moratorium in accordance with the CCIS Act,³
- executive circular on requirements relating to the evaluation of own funds for retail mortgage loans carried out by financial institutions,
- on the requirements regarding certification of the submission of the request for the registration of a mortgage as well as regarding appraisals related to

non-residential (commercial) properties during the state of emergency in the pandemic,

- on ensuring the continuity of lending activities during the period of the payment moratorium as well as the importance of preparation for payment difficulties arising after the end of the moratorium.

In connection with the government's measures introduced due to the pandemic, the MNB continuously inspected the supervised institutions' information documents on the payment moratorium and engaged in regular consultation with the institutions to ensure full compliance with the legislation and develop consumer-friendly practices.

Besides implementing the moratorium on payments, institutions are also expected to accurately monitor the development of their loan portfolio's quality, and to support this the MNB published a circular on the requirements related to credit institutions' monitoring processes.

In addition to the above, the MNB, using its supervisory powers, took several measures in accordance with the requirements set by international regulators to mitigate the potential negative economic consequences of the payment moratorium and the pandemic and to preserve institutions' shock-absorbing capacity as follows:⁴

- rescheduling on-site and off-site examinations,
- suspending ICAAP⁵ inspections and waiving the on-site phase of the ILAAP⁶ reviews,
- waiving application of the available supervisory measures in the case of potential violations of the P2G⁷ requirement until 31 December 2021,
- granting exemptions from building a systemic risk buffer and the temporary release of the capital conservation buffer and the buffers prescribed for systemically important institutions,
- imposing restrictions on dividend payments, share buybacks and variable remuneration until 30 September 2021,

² <https://www.mnb.hu/felugyelet/szabalyozas/felugyeleti-szabalyozo-eszkozok/vezetoi-korlevelek> (in Hungarian only)

³ Act CXXII of 2011 on the Central Credit Information System

⁴ <https://www.mnb.hu/sajtoszoba/sajtokozlemenyek/2020-evi-sajtokozlemenyek/az-mnb-szamos-intezkedest-hozott-a-bankok-mukodesenek-tamogatasara> (in Hungarian only)

⁵ Internal Capital Adequacy Assessment Process

⁶ Internal Liquidity Adequacy Assessment Process

⁷ Pillar 2 capital guidance

- postponing the tightening of the MFAR,⁸
- restoring the regulation of the indicators ensuring appropriate FX financing and the easing of the Interbank Funding Ratio,
- postponing MREL⁹ compliance for credit institutions,
- introducing temporary measures applicable in impairment calculations.

Furthermore, the MNB monitored the implementation of extraordinary measures in Q4 by requesting data.

In 2020, internal liquidity adequacy assessment procedures (ILAAP) were launched at 16 credit institutions, with 8 of these procedures closed by the end of the year. During the annual planning of inspections, institutions can be classified into three risk categories based on their riskiness and impact rating, complete with an appropriate review type (simplified, focused, comprehensive). To reduce the burden caused by the pandemic, the comprehensive category was modified to focused in several cases, and therefore the MNB audited the institutions via off-site inspections. In the inspections, only minor shortcomings were identified, which were pointed out to the institutions by the MNB during its continuous off-site supervision. Additional liquidity requirements were only set in the case of a concentration of depositors, and no further requirements in excess of this were laid down during the ILAAP reviews.

In the period under consideration, ICAAP reviews were only carried out at banks' request.¹⁰ As a result, the MNB had to reduce the number of complex ICAAP reviews in 2020: instead of the originally planned 16 inspections, only 8 were launched, and a total of nine ICAAP reviews were closed out of those started in 2019–2020. In the case of the institutions where no ICAAP review was performed in 2020, the MNB conducted continuous off-site supervision to monitor the risks.

Even though the ECB temporarily suspended model validation decisions (for six months), there were several such ongoing procedures related to credit institutions' Hungarian subsidiaries, with the MNB's active involvement. During the validation procedures, the MNB formulated findings in several cases, with the intention to continuously

improve the adequacy of Pillar 1 credit risk models. The supervisory activities also focused on the assessment of banks' vulnerability with stress tests. Based on its continuously developing methodology, the MNB examined banks' capital loss potential and, where it was deemed necessary, proposed an additional capital buffer for institutions in accordance with the uniform supervisory methodology. However, due to the pandemic, the MNB temporarily suspended the requirement of compliance with the capital guidance until the end of 2021.

In 2020, the MNB further enhanced its work in connection with the supervisory treatment of large exposures. In response to the developments in the sector, the MNB paid special attention in its examinations to compliance with legal provisions regarding institutions' customer group creation policies as well as the practical implementation of the requirements stipulated in such policies.

One major component of the risks related to NPL¹¹ portfolios is the value of real estate collateral for exposures. This considerably influences returns and thus institutions' profitability. Therefore, the examinations in 2020 focused particularly on the valuation practices of real estate collateral, especially on the incorporation of the requirements in the MNB recommendation¹² into policies and the practical application of the requirements. In connection with reducing the risks of supervised institutions, the creation of an appraiser database continued to strengthen the consistency and reliability of appraisals. Starting from 2021, the Real Estate Transaction Report is prepared on a quarterly basis, compiling the information on the properties derived from the appraisals on residential properties included as collateral.

After data of the necessary quantity and quality are uploaded, the resulting residential property database will enable the analysis of property market trends and the continuous monitoring of institutions' residential property financing activity and support supervisory examinations.

In addition, in 2019 Q4 and 2020 Q1 the MNB carried out an analysis with the involvement of major market participants to assess the risk management practices of the credit institution sector related to project loans for residential property development. The analysis served as the basis for the MNB recommendation on the treatment of project

⁸ Mortgage Funding Adequacy Ratio

⁹ Minimum requirement for own funds and eligible liabilities

¹⁰ With the exception of the simplified ICAAP review based on banks' self-assessment.

¹¹ Non-Performing Loans

¹² Recommendation No 11/2018 (II. 27.) of the Magyar Nemzeti Bank on the management of risks of financial organisations related to real properties

loans for residential property development. This aims to ensure that credit institutions engaged in project financing establish their risk-taking policies, regulations and rules of procedure related to residential property development within the framework of, and consistent with, the related supervisory regulatory instruments, so that they can ensure prudent operation in compliance with the relevant laws. The recommendation was published in early 2021 and entered into force on 1 April 2021.

In 2020, the key audit areas were the examination of the IFRS 9-related¹³ asset classification (SPPI test¹⁴) and the establishment of staging¹⁵ categories. Another key area was the examination of the provisions in the MNB's recommendation on setting up and using internal safeguards,¹⁶ in particular the requirements on compliance, as well as collateral valuation practices, and 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 2020.

At financial market intermediaries, one prudential targeted inspection was closed, related to one of the largest players on the market (Vöröskő Kft.). The MNB imposed supervisory and consumer protection penalties totalling HUF 42 million, due to violations of laws related to informing the clients, complaint handling, offer analysis and needs assessment requirements as well as the training and records of brokers.

In 2020, the MNB performed 40 IT supervisory inspections, many of which were conducted within the prudential examinations. During these, special attention was paid to PSD2 compliance at supervised institutions, as well as the audit of the systems related to the instant payment service and the facilitation of the phase-out of obsolete IT systems.

Taking into account technological progress and regulatory trends, the MNB reviewed its recommendation on the

protection of IT systems.¹⁷ In response to the IT changes brought about by the pandemic, a new recommendation was prepared on the information security requirements of teleworking and remote access,¹⁸ with which the MNB intends to support the appropriate implementation of remote working rules in the financial institution sector. The MNB also made considerable progress towards facilitating digitalisation developments with a decree,¹⁹ by improving the accuracy and flexibility of the IT requirements on remote customer authentication. Along with the new recommendations, IT Supervision sought to assist supervised institutions in IT compliance with the creation of a new subpage available on the MNB's website²⁰ and several consultations.

The integration process launched in the credit institution sector made significant progress. A joint memorandum of understanding was signed on 15 May 2020 by MKB Bank Nyrt. (MKB) and MTB Magyar Takarékszövetkezeti Bank Zrt. (MTB) to establish the Magyar Bankholding Zrt. (MBH), which was later joined by Budapest Bank Zrt., and on 26 May 2020 the MBH was established. The ultimate owners of the three banks signed a joint agreement on 30 October 2020, on contributing their share in the banks to Magyar Bankholding Zrt. The contribution of shares was completed on 15 December 2020, when the MBH started actual operations. Pursuant to Section 15/A of the Credit Institutions Act,²¹ the MBH requested permission to fulfil the role of the entity responsible for group governance and compliance of the group on a consolidated basis, which was approved by the MNB in its decision on 30 December 2020.

The MNB monitored implementation of the scheduled integration of the non-resident companies acquired by the OTP Group in 2019. In 2020, the integration processes were successfully completed in Albania, Bulgaria, Montenegro and Slovenia. In addition to the acquisitions, in November 2020 OTP announced that OTP Bank Slovakia had left the Group. During its supervisory activities, the MNB continuously monitors, with the involvement of partner authorities if necessary, the health and economic

¹³ International Financial Reporting Standard 9

¹⁴ Solely Payments of Principal and Interest

¹⁵ Pursuant to IFRS9, institutions' financial instruments need to be classified into different stages

¹⁶ Recommendation No 27/2018 (XII. 10.) of the Magyar Nemzeti Bank on setting up and using internal safeguards and on the management and control functions of financial organisations

¹⁷ Recommendation 8/2020 (VI.22) of the Magyar Nemzeti Bank on the protection of IT systems

¹⁸ Recommendation No 12/2020 (XI. 6.) of the Magyar Nemzeti Bank on the information security requirements of teleworking and remote access

¹⁹ MNB Decree No. 26/2020 (VIII. 25.) on the detailed rules concerning the implementation of the Act on the Prevention and Combating of Money Laundering and Terrorist Financing, as applicable to service providers supervised by the MNB, and concerning the minimum requirements for the development and operation of the screening system under the Act on the Implementation of the Financial and Economic Sanctions Imposed by the European Union and the UN Security Council

²⁰ <https://www.mnb.hu/felugyelet/szabalyozas/informatikai-felugyelet> (in Hungarian only)

²¹ Act CCXXXVII of 2013 on Credit Institutions and Financial Enterprises

implications of the pandemic in the countries of the OTP Group and the arising risks as well as the implementation of the required additional tasks regarding the group members. The MNB continuously aligns its supervisory activities with the changes in the structure of the OTP Group, for example increasing international supervisory activities.

Two new branches were created in the financial market sector in 2020. China Construction Bank (Europe) S.A., registered in Luxembourg, established a credit institution branch in Hungary, primarily seeking to focus on corporate lending. Viva Payment Services S.A., registered in Greece, established a branch dealing with electronic money issuance and payment services. During the period under review, three payment institutions – Budapest Eszközfinanszírozó Zrt., K&H Pénzforgalmi Kft., and KOIN Europe Kft. – received an operating licence and were registered by the MNB. Several financial market institutions left the market. At the institutions' initiative, the MNB withdrew the payment institution operating licences of AEGON Lakástakarékpénztár, Bóly és Vidéke Takarékszövetkezet and Retail House Kft.

In 2020, pursuant to Commission Delegated Regulation (EU) 2018/389 on strong customer authentication and common and secure open standards of communication, several credit institutions submitted requests for exemption from the establishment of a fallback mechanism and the requirements for strong customer authentication. Two credit institutions were granted exemption from the requirements for strong customer authentication, and one from the requirement to establish a fallback mechanism. While certain procedures are still under way, the MNB has terminated a number of them, since the requesters did not fulfil the stipulations contained in the MNB's notice by the deadline.

During the period, the MNB took five decisions on notifications by specific issuers of cash substitute payment instruments. In one case, it found that the service provided by the notifying company amounted to electronic money issuance and thus an action plan was requested from the institution.

Regarding money exchange services, the market that had previously contained two banks (MTB Magyar Takarékszövetkezeti Bank Zrt. and Raiffeisen Bank Zrt.) as principals was joined by a third institution (Magnet Bank Zrt.), which started to establish its intermediary network engaged in money exchange services.

With respect to the licensing of financial enterprises, out of the requests for establishment and the commencement of operation submitted at the very end of 2019 (due to the fact that the amount of start-up capital required for establishment increased considerably from 1 January 2020),

the MNB granted the licence to six companies and rejected the request in one case.

In 2020, the MNB used its most serious sanctioning option in a total of 26 cases, withdrawing the licence of 21 financial market multi-agents and 5 financial enterprises (Pannon Star Capital Pénzügyi Szolgáltató Zrt., Credit Unió Pénzügyi Zrt., VirPay Financial Group Zrt., KL Pénzügyi szolgáltató Zrt. and Duna Ingatlanfinanszírozó Zrt.). In the case of the financial market multi-agents, this was typically due to the failure to meet the reporting requirement or the absence of documented liability insurance. With three of the financial enterprises, the licence was withdrawn due to the continued violation of supervisory reporting requirements and because the MNB had already imposed penalties on them in addition to setting out the requirements, and they had nonetheless failed to meet their legislative requirement.

In 2020, the MNB took decisions requiring extraordinary reporting in a total of 353 cases, most of which were prompted by the intention to more closely monitor institutions' loan disbursement, liquidity and portfolio quality. The MNB used these decisions to eliminate the negative effects of the pandemic on the financial intermediary system by increasing the frequency of certain legal reporting requirements and expanding their scope, and by prescribing weekly written extraordinary reporting to obtain detailed information on the negative impacts that the pandemic had on the institutions concerned.

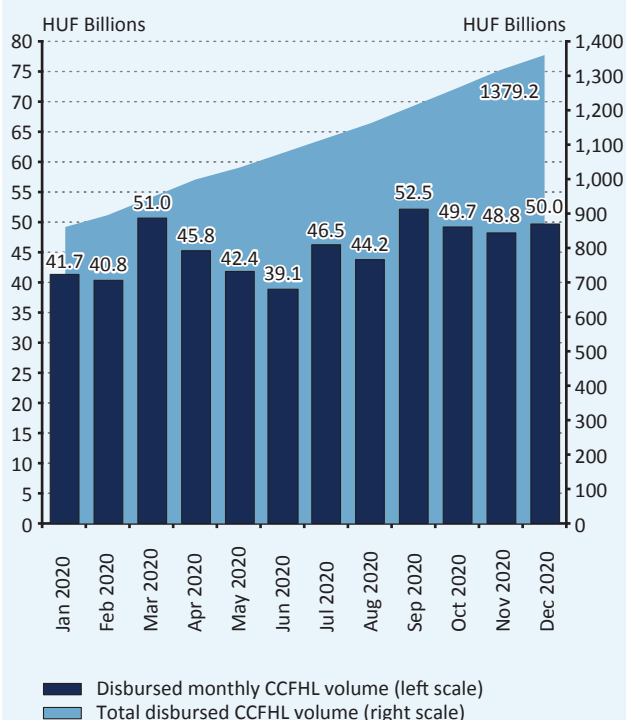
Within the framework of its continuous consumer protection supervision on the financial market, the MNB launched 6 targeted inspections and one thematic inspection concerning 10 institutions at its own initiative and 214 procedures based on requests. During the year, 245 consumer protection inspections were closed, and the consumer protection penalties imposed totalled HUF 101.5 million.

In 2020 H2, the thematic inspection targeting the commercial communication of vehicle leases, focusing on financial market players and their tied intermediaries, was closed. The MNB found shortcomings at all the 6 financial institutions examined: certain players did not display the amount of the APR in their advertising activities, the representative example presenting the product's material characteristics was missing or contained mistakes, and connected services that were compulsory were missing from several advertisements. The MNB decided to impose consumer protection penalties of HUF 33 million in total in this thematic inspection.

Between September 2017 and December 2020, the credit institutions offering Certified Consumer-Friendly Housing

Loans (CCFHL) concluded over 105,000 contracts, and the disbursed volume was close to HUF 1,380 billion by December 2020.

Chart 9
Evolution of the disbursed CCFHLs



Source: MNB.

With the CCFHLs, the products with long-term fixed rates have remained popular, as on average two thirds of the new loans are disbursed with a 10-year or longer interest period. By the end of 2020, the average loan amount of CCFHLs had reached HUF 14.6 million following a steady and slow increase, and average maturity was 18.5 years.

On 31 July 2020, the MNB published the tendering framework for Certified Consumer-Friendly Personal Loans (CCFPL), as the third member of the family of products after Certified Consumer-Friendly Home Insurance. The main advantages of the CCFPL include the simple comparability of offers as well as the increased predictability of the borrowing process and the repayment instalments and the lower interest rate spreads. Up to the end of last year, 5 institutions (OTP Bank Nyrt., Takarékbank Zrt., Erste Bank

Hungary Zrt., Cofidis Magyarországi Fióktelepe, Magyar Cetelem Bank Zrt.) had bid successfully, and the tender of another institution (Budapest Bank Zrt.) was evaluated in January 2021. Therefore, in 2021 Q1, consumers can choose the CCFPL product appropriate for them from up to six offers. CCFPL will become available to all customers with an end-to-end fully online borrowing process from July 2021.

In addition to the above, the MNB reviewed the recommendation to financial organisations on the application of consumer protection principles.²² Based on the experiences of consumer protection supervision, the technological innovation performed in the meantime and European Union regulatory directions, the recommendation on the application of new consumer protection principles²³ was drafted and then published on 14 July 2020. The MNB expects financial institutions to apply it from 1 September 2020. The recommendation contains a new element, namely the topic of inheritance. Consistent with European Union processes and digitalisation efforts, the recommendation was also complemented with a new chapter on the MNB requirements regarding information provision and contracting through electronic channels and on best practices.

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' examinations 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. The process covering almost the entire market is expected to end in 2021.

Supervision of insurers and funds

In the insurance sector, 5 comprehensive inspections were launched, while 11 comprehensive, 6 targeted and 3 follow-up inspections were closed in 2020. In the inspections which were closed, the MNB made findings on infringements related corporate governance, the exercise of ownership rights, risk management, the adequacy of internal

²² Recommendation No 10/2016 (X. 24.) of the Magyar Nemzeti Bank to financial organisations on the application of consumer protection principles

²³ Recommendation No 9/2020 (VII. 14.) of the Magyar Nemzeti Bank to financial organisations on the application of consumer protection principles

management and control systems, customer information and complaint management, IT security, compulsory motor third-party liability (MTPL) insurance, the management of investment stocks, data reporting, product control and reserve and capital calculation. The MNB imposed penalties totalling HUF 377.3 million for the established infringements in its on-site and off-site supervision. The identified shortcomings have no material effect on the reliable operation of insurers in the future.

Last year's procedures also focused strongly on the implementation and enforcement of the new directive on insurance distribution (IDD²⁴) in the insurance sector as well as on the assessment of claim settlement practices and the investment activities employed.

To monitor developments in the economic and financial system and identify the risks on the market caused by the pandemic, the MNB issued an executive circular to insurers and funds, noting its expectations in terms of safeguarding customer and member assets as well as ensuring business continuity. At the same time, weekly extraordinary reporting was ordered in both sectors to monitor fund outflows.

Prompted by responsible ownership and corporate governance aspects as well as the notice of the European Insurance and Occupational Pensions Authority (EIOPA) with similar content, in April 2020 the MNB called on insurers to suspend their dividend and share buyback payments. Taking into account the guidance of the European Systemic Risk Board (ESRB), this was reaffirmed in October by requesting insurers to refrain from dividend payments, the buyback of ordinary shares and creating a liability for paying variable remuneration to persons undertaking considerable risk in 2020.

Due to the low level of the yield curves seen in 2019 and 2020, MNB Decree No. 54/2015 (XII. 21.) on the Maximum Technical Rate of Interest was amended, as the level of potentially promised return dropped from 2.3 to 1.8 per cent in the case of the forint, and from 1.1 to 0.6 per cent in the case of the euro from 1 January 2021.

2020 saw the termination of the targeted inspection related to the cross-border Italian insurance activity of CIG EMABIT, during which the MNB imposed a significant penalty due to the infringements identified in connection with the activities

related to cross-border guarantor and guarantee insurances. When addressing the extraordinary situation linked to the operation of the insurer, in its decision of 30 June 2020 the MNB approved the plan submitted on 15 April 2020 and later supplemented by CIG EMABIT on restoring solvency, having assessed it as suitable for restoring the solvency of the institution by the legal deadline in August, which had been previously extended, provided that the measures contained in it are implemented.

In parallel with the approval, the MNB also prescribed an additional capital requirement in the amount of HUF 500 million for the institution, and approved the request by the insurer concerned regarding the HUF 400 million ancillary own fund item, a key element of its recovery plan. After the insurer performed its recovery plan, its own funds situation stabilised. Therefore, in its decision on 2 September 2020, the MNB eliminated the earlier limit it had prescribed, prohibiting the insurer from concluding new insurance contracts and extending existing contracts in all the sectors where the insurer was active. However, the prohibition was maintained for another year in the case of the insurer's risky guarantor and guarantee insurance activities in Italy.

A new milestone was reached in the MNB's initiatives for supporting digital solutions and enhancing competitiveness, such as the itemised MTPL database (KKTA) and the project for the IT system development based on DLT²⁵ technology. Prompted by the findings based on the MTPL database containing aggregate data (KKTA), as the first Hungarian insurer 'suptech' tool successfully established in 2019, an executive circular²⁶ used for appropriately pricing compulsory motor third-party liability insurance was issued on the KKTA claims statistics and the auditing of such during MNB inspections. In this circular, the MNB ordered the review of the statistically unjustified fees and surcharges and called attention to use of the central itemised MTPL database.

The development project based on blockchain technology (DLT project) is a ground-breaking digital innovation by international standards, aiming to establish a network of digital relations between the insurance and the banking sectors and record home insurance policies related to lending in a single system. In 2020, the company implementing the development was selected. Therefore,

²⁴ Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution

²⁵ Distributed Ledger Technology

²⁶ Executive circular on the KKTA claims statistics used for appropriately pricing compulsory motor third-party liability insurance and their auditing during MNB inspections

the consortium of the participants in the development was established, and this innovative project moved to the IT implementation phase.

Among insurance intermediaries, 3 targeted inspections were conducted in 2020. The inspections focused mostly on the error-free performance of intermediary reporting by the deadline, as well as on ethical sales. With several insurance intermediaries, the MNB also checked whether their operation was consistent with the operating licence, customer information, complaint management and the registration and records of brokers.

Penalties were imposed during the inspections for the violation of business rules on sales of insurance-based investment products, problems related to the records on and the further education of insurance intermediaries, insufficient customer information, shortcomings in need assessments as well as infringements related to complaint management. The MNB imposed penalties totalling HUF 27.4 million on the insurance intermediaries concerned, based on the evaluation of the infringements found and the circumstances. The MNB did not identify systemic risks related to the shortcomings identified in the inspections.

In a targeted inspection at a major player in the insurance intermediary market, (OVB Vermögensberatung Kft.), the MNB imposed a consumer protection penalty of HUF 24 million due to the violation of the prohibition of unfair commercial practices towards consumers.

In the funds sector, 10 comprehensive and 4 targeted inspections were started last year, and 13 comprehensive and 1 targeted inspection were closed, of which one comprehensive inspection concerned two institutions (simultaneous inspection of the voluntary pension fund and the private pension fund segments). The MNB imposed penalties totalling HUF 44.3 million for the infringements found in the inspections which were ended. The inspections focused on the soundness of the business model and the efficiency of internal control systems. In addition, particular attention was paid to the orderliness of payments to members, and, regarding investments, to the harmony between the investment policy and the actual composition of assets, as well as the expediency, market-basis and cost-effectiveness of transactions. Based on the infringements found, penalties were mainly imposed due to the violation of the legal provisions on delegate elections, the voting rights of non-paying members, operation of the control committee, IT security, funds' accounting and data reporting, asset management, settlement with

members and the services provided, as well as violations of regulatory provisions pertaining to customer information and complaint management.

Due to serious infringements significantly injuring the interests of members identified during the comprehensive inspection at a voluntary pension fund with a low number of members (Első Országos Iparszövetségi Nyugdíjpénztár), the MNB appointed a regulatory commissioner as a temporary measure in 2019. The administrator took the necessary steps to ensure compliance with the operating conditions, and initiated the merger into another fund to ensure the safety of members' savings in the long term. This process was completed on 30 June 2020, when the mandate of the supervisory administrator ended.

In 2020 Q1, a survey was conducted on voluntary pension funds' investment performance in the previous year. These funds achieved an average asset-weighted net rate of return of 9.84 per cent in 2019, which amounts to a real return of 5.62 per cent taking inflation into account. The good investment performance was mainly attributable to the double-digit growth in international and domestic capital market indices. In the past year, large price swings were seen on the Hungarian capital market due to increased uncertainty and volatility. The average 30-year cost indicator of voluntary pension funds was observable for the first time: it amounted to 0.84 per cent, while their adjusted fee burden indicator was 0.78 per cent. The MNB publishes these values on its website to help members gather consistent information.

The integration of funds continued in the period under review, partly owing to considerations related to economies of scale and partly on account of the economic consequences of the state of emergency in public health on funds' background institutions. In the period under review, 3 voluntary pension funds (NKM Önkéntes Nyugdíjpénztár, Első Országos Iparszövetségi Nyugdíjpénztár, Danubius Nyugdíjpénztár) and 1 health and mutual fund (Danubius Egészség- és Önszegélyező Pénztár) decided to merge, and the dissolution of 1 health and mutual fund (Tradíció Önkéntes Kölcsönös Kiegészítő Egészség- és Önszegélyező Pénztár) was completed. One new health fund (Medicover Egészségpénztár) entered the market after receiving its operating licence.

A statement was issued on treating IT devices as learning tools related to mutual fund services. This legal issue arose in connection with the organisation of digital working arrangements of education outside the classroom stipulated in a government decree from 16 March 2020. The request

focused especially on the eligibility of IT devices (laptops, tablets). According to the MNB, IT devices can only be considered learning tools in periods when public education is performed in digital working arrangements, in accordance with the effective decree issued by the competent ministry. Recognition as a learning tool can only be applied between the starting and end date of the digital working arrangements ordered in public education.

Among insurers and pension funds, there were a total of 10 institutions (4 insurers and 6 pension funds) at which the MNB conducted comprehensive inspections involving a consumer protection examination last year. In the course of such, the information provided to customers on certain products, claim servicing practices, the compliance with legal provisions on complaint management and the information letters and templates were examined. In addition, consumers' requests and complaints initiating consumer protection inspections also contained important information for the central bank. Building on these, 47 consumer protection inspections were launched based on requests, and 76 cases were closed in 2020. The MNB imposed penalties totalling HUF 20.5 million for the infringements identified.

In the case of an insurer providing cross-border services (NOVIS Biztosító), the MNB terminated its consumer protection targeted inspection in 2020 Q2. Sale of the service provider's product on the territory of Hungary was suspended until the identified shortcomings undermining consumers' interests were addressed and the legality of the situation was restored. The MNB also took part in the examination of the insurer coordinated by EIOPA, within the framework of international cooperation.

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. The identified undesired market practices were communicated to the institutions in an executive letter. In 2020, the central bank published an updated consumer protection recommendation revised and supplemented in several points to facilitate the harmonisation of the expected consumer protection practices and the consumer-centred business attitudes. It examines whether institutions comply with the recommendation's stipulations in its continuous supervision.

In connection with the Certified Consumer-Friendly Home Insurance (CCFHI) concept, the submission of the

bids started. A large portion of the players on the home insurance market developed the certified products, with 7 institutions bidding in 2020. Three insurers (Union Vienna Insurance Group Biztosító Zrt., Wáberer Hungária Biztosító Zrt., KÖBE Közép-európai Kölcsönös Biztosító Egyesület) already held the certificate necessary for offering the product in 2020, which means that the consumer-friendly products ensuring a higher quality of service are available at about 70 per cent of market participants, and several insurers are still engaged in product development. The MNB has made the examination of compliance with the requirements on CCFHI products a fixed part of its regular consumer protection audits and continuous supervisory activities.

Supervision of capital market institutions

The MNB's capital market department closed 45 inspections and supervisory proceedings in 2020. Related to this, penalties totalling over HUF 93.7 million were imposed on institutions.

On the capital market, the evaluation of capital market institutions' observance of the MiFID II/MiFIR regulatory framework and of the consumer protection provisions introduced by the framework were treated as priorities by the MNB once again last year, both during the inspections conducted and during continuous supervision.

In 2020, the MNB universally expanded the scope of its decision from 2019, constraining CFD²⁷ sales by the Hungarian investment service providers concerned to retail customers: accordingly, the constraint now applies to both Hungarian players and cross-border service providers. At the same time, the MNB, acting within its own competence, banned the sales of binary options to retail customers, consistent with the previously effective decisions by the European Securities and Markets Authority (ESMA) and the practices of other EU Member States. The MNB monitored the form and content of the risk notices of Hungarian and certain foreign investment service providers selling CFDs. It pointed out its findings to Hungarian institutions and foreign partner authorities in an executive letter.

The thematic inspection of the conformity assessment practices of investment service providers conducted within the framework of the oversight action encouraged and coordinated by ESMA was closed. During the inspection, the central bank formulated recommendations for 5 investment service providers. Last year also saw the

²⁷ Contract for Differences

launch of the thematic inspection of the suitability assessment practices, which completes the evaluation of the preliminary information practices of investment service providers. In 2020 Q4, during its continuous supervision, the MNB examined investment service providers' ex-post cost information provision practices in view of MiFID II and the related secondary and tertiary regulations. Based on the experiences, the central bank summarised its expectations regarding the deadline, structure and detailed content of cost information in an executive circular, considering the clarity and adequate detail of the cost information as well as the timeliness of the provision of this information to customers.

Similar to 2019, at the end of 2020 the MNB organised a specialised meeting for the so-called safeguarding officers, who are responsible for keeping customer assets safe and are appointed by the supervised institutions. The topics of the virtual event included the development and fine-tuning of controlling activities and the presentation of best practices on the market. In the course of its ongoing supervisory activities, the MNB paid even greater attention to the coverage of customer accounts with securities and funds, checking this on a daily basis, and in connection with this it also further enhanced its up-to-date monitoring activities in 2020 Q3.

At investment service providers offering leveraged transactions, the MNB conducted closer ongoing supervision during the pandemic than before. The supervision focused on the stock of leveraged positions, their management, the monitoring of the operation of critical functions and the impact of market turbulences on profitability.

In March 2020, the MNB published an executive circular underlining the expectations regarding risk management procedures for investment service providers, and then during the first wave of the pandemic it consulted with the institutions concerned first on a daily basis, and then weekly. Although the second wave of the pandemic did not cause exceptional volatility on the capital market in the latter half of the year as it did during the first wave, the previously initiated close supervisory practices were nevertheless maintained.

In 2020, the MNB did not identify any systemic issues during continuous supervision, and the investment service providers concerned conducted themselves appropriately in managing the new situation and maintaining business and customer service continuity. The profitability and

capital position of investment firms remained solid during the year; in fact, the volatile capital market environment actually boosted investors' activities, owing to which certain investment firms were able to considerably increase their profitability and customer assets.

It should be noted that in 2020 Interactive Brokers Central Europe Zrt., one of the most significant online retail discount broker groups in the world, established a subsidiary in Hungary functioning as a regional centre, thereby ensuring the continuity in the services offered to Central and Eastern European customers even after Brexit.

With regard to the supervision of investment fund management companies, the main topic last year was liquidity both at the international level and in the MNB's domestic supervisory practices. The necessity of continuously monitoring liquidity risks was highlighted by the economic impact of the pandemic.

During the pandemic, the MNB supervised investment fund management companies more closely than before, employing continuous supervision aligned with the altered circumstances and based on enhanced monitoring activities. During the year, it repeatedly stressed the importance of appropriate liquidity management to investment fund management companies. The continuous supervision focused particularly on real estate funds with a short redemption time of up to T+180 days, with a special emphasis on monitoring compliance with the MNB recommendation on the trading cap.²⁸

This recommendation sought to establish harmony between the investment strategy, the liquidity profile and the redemption policy, or, in the absence of such, to introduce a trading cap for public, open-ended real estate funds. The comprehensive inspection of investment fund management companies continued to place strong emphasis on investment decision-making, order management, cost checks and back-office procedures; the MNB also paid special attention to the operation of internal control functions, in particular the compliance area.

During the performance of its duties related to issuers of publicly traded securities, the MNB launched 3 targeted inspections and closed 4 in 2020, imposing issuer supervision and market surveillance penalties totalling HUF 44.6 million. Within the framework of the continuous supervision, the MNB placed special emphasis on issuers' compliance with the MAR.²⁹ Consequently, several decisions

²⁸ Recommendation No. 5/2019 (IV. 1.) of the Magyar Nemzeti Bank on issuing the shares of public, open-ended real estate funds

²⁹ Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse

sanctioning MAR infringements were issued, primarily due to violations of rules related to keeping an insider list, transactions by managers, and the identification of inside information and delaying its public disclosure.

In connection with capital market licensing, with regard to KELER Központi Értéktár Zrt. a decision was issued on its compliance with the provisions of the CSDR,³⁰ and accordingly KELER now conducts its activities based on EU rules. A large number of investment fund management companies continue to enter the market. During the year, 6 new such companies obtained an operating licence (including 5 new venture capital management companies). Authorisation to expand investment fund management companies' activities was granted in 11 cases, mainly in relation to managing private equity funds and venture capital funds. Two new investment firms, which are part of international corporate groups, received a licence, namely K&H Értékapapír Zrt. and the aforementioned Interactive Brokers. KBC Asset Management, seated in Belgium, established a branch for investment fund management activities.

The MNB continues to consistently employ its preventive measure policy in issuer supervision to achieve its objective of establishing a more transparent capital market. Similar to 2019, no major shortcomings were observed in the past year during the evaluation of the annual and semi-annual reports published by issuers. The central bank only took a more serious measure in the case of Kartonpack Nyrt., the trading of which was suspended.

In connection with the disclosure obligation of publicly traded securities issuers and compliance with the MAR, the MNB would like to encourage appropriate, voluntary compliance, and not necessarily resort to ex-post sanctioning of issuers committing infringements. Accordingly, significant resources are focused on the education of market participants. In this context, similar to previous years, in 2020 the central bank offered an opportunity for publicly traded securities issuers to clarify any questions arising related to their capital market requirements in tailored issuer workshops. Market participants used this opportunity 6 times in 2020.

Moreover, according to the new practice developed in 2020, players registering on the XBOND market receive a general information letter that describes their requirements

stipulated in the MAR. An educational series of articles was also launched, the first two parts of which, on market soundings and the transactions of managers, were published on specialised portals and the MNB's website³¹ in 2020. This activity is expanded to a broader audience through the expert presentations organised by the MNB Budapest Institute of Banking and the Budapest Stock Exchange, mainly on compliance with the MAR.

In issuance licensing, the MNB authorised the publication of base prospectuses for 8 bond and mortgage bond issuance programmes and the prospectuses on the stock exchange admission of 2 stocks. Furthermore, the prospectus on the introduction of stocks to a regulated market was rejected in 3 cases. The MNB registered 84 new investment funds, while 37 funds were removed from its records, and in one case it authorised an asset manager to turn over the 67 investment funds under its management to another asset manager. In the case of two previously public issuers, exemption was granted from the public reporting requirement, and the central bank exempted two financial conglomerates from the risk management procedures related to the collateral exchanges pursuant to EMIR.³²

Market surveillance

In 2020, the MNB launched 29 market surveillance procedures: these related to the suspicion of unauthorised activities in 16 cases, to insider trading in 4 cases, to market manipulation in 9 cases, and to violation of short selling rules in 1 case. the MNB concluded 27 market surveillance procedures and in connection with the infringement of market surveillance, and market surveillance penalties amounting to HUF 1,864 million in total and issuer supervisory penalties of HUF 10 million were imposed by the MNB.

In 2020, the 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 commencement of activities as well as media communications 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.

It should be noted that as part of the closed market surveillance procedures in April 2020, the central bank

³⁰ Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012

³¹ <https://www.mnb.hu/letoltes/dr-sarfy-katalin-piaci-tapogatozas-bennfentes-informaciok-atadasa-legalisan.pdf> and <https://www.mnb.hu/letoltes/dr-sarfy-katalin-mar-vezetok-ugyletei.pdf> (both are available in Hungarian only)

³² Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories

permanently prohibited two individuals from intermediary activities and also prohibited legal persons from performing portfolio management without a licence. The MNB imposed market surveillance penalties totalling HUF 830 million on those concerned.

Supervisory activities related to the prevention and combating of money laundering and terrorist financing as well as the implementation of asset- and finance-related restrictive measures

Similar to earlier years, one of the focal points of supervisory activity in 2020 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. Since 2019, the MNB has been carrying out independent inspection procedures in relation to combating money laundering and terrorist financing.

According to the methodology, the supervisory AML/CFT³³ strategy is based on risk assessment, in the course of which the central bank identifies the risks related to money laundering and terrorist financing at the supervised institutions, and analyses and evaluates these together with other available information. With risk analysis and targeted selections, the capacities for the procedures increased further in the past years, and independent inspection procedures were launched on AML/CFT.

In addition, acting in accordance with the guidelines of the European Banking Authority (EBA), the MNB continued the reform of its AML/CFT supervisory methodology, which includes closer cooperation between the AML/CFT and prudential supervision areas in the future, consistent with international expectations.

In the past year, inspections on AML/CFT activities were carried out at 37 institutions. These examinations formed part of 2 prudential comprehensive inspections and 35 independent targeted or thematic inspections. In its decisions related to the former, the MNB imposed large supervisory penalties for the violation of AML/CFT requirements in several cases, totalling HUF 186.4 million.

Due to the provisions in the European Union's fifth money laundering directive,³⁴ Act LIII of 2017 on the Prevention and Combating of Money Laundering and Terrorist Financing (hereinafter: Anti-money Laundering Act) had to be amended. The amended version entered into force on 10 January 2020. The service providers covered by the Anti-money Laundering Act had to modify their internal regulations within 90 days following the entry into force of the amendment. After the amendment, the MNB also amended the relevant MNB decree (MNB Decree No. 26/2020 (VIII. 25.)), laying down several important supervisory expectations aimed at the protection of financial markets. It also updated several of its recommendations on AML/CFT and published numerous documents on the supervisory website that assist and support service providers in AML/CFT compliance.

Customer service activity

Customers can reach the MNB's customer service in person, by phone, by e-mail, at the e-government customer portal and using petitions submitted on paper. In 2020, the customer service received 24,148 enquiries and 1,732 petitions in total. The distribution of customer petitions and enquiries by sector is identical to what was observed in the previous period. 58 per cent of them concerned the financial market, 20 per cent of them pertained to the insurance sector, 3 per cent to the capital market and 1 per cent to the funds sector, while the rest cannot be linked to any sector. The number of enquiries and complaints about foreign institutions providing cross-border services was less than 1 per cent in 2020.

In respect of the financial market, one third of the enquiries and complaints were related to lending, while 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 and petitions of equity. In the financial issues related to the government measures taken to ease the impact of the pandemic on the national economy, the MNB's customer service was contacted by customers 2,145 times in the past year. To reduce and prevent the spread of coronavirus, between 16 March and 8 June 2020 no in-person

³³ Anti Money Laundering and Combating the Financing of Terrorism

³⁴ Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU

administration was available at the customer service centre, which, however, could be reached by phone and e-mail.

Official training and examination

In contrast to the almost 20,000 candidates earlier, there were 17,000 candidates for the official examinations organised by training organisations, and in the end the number of those actually taking the examination was below 12,000 due to the suspension of examination activities for almost four months owing to the pandemic. Training organisations held a large number of trainings online from April 2020, and thus the MNB examined the appropriateness of the changed platform during its supervisory proceedings, and almost 30 trainings were audited. The inspections mostly revealed minor shortcomings. Since 1 January 2021, an official electronic certificate with an electronic signature is issued to successful examinees.

3.4 RESOLUTION

In 2020, the MNB's resolution planning activities focused on the review of resolution plans and the establishment and review of the minimum requirement for own funds and eligible liabilities (MREL), in the case of both cross-border banking groups and domestic institutions. In view of the pandemic, the MNB provided institutions a 6-month moratorium on meeting the MREL requirements for 2020.

The MNB actively participated in commenting on the resolution aspects of the draft law transposing into Hungarian legislation the regulatory package aimed at the reduction of European Union banking system risks. The MNB also contributed to the development of level 2 EU regulatory and implementing technical standards, and in connection with this, it prepared the peer review of the methodology on the MREL requirement calculation, to be finalised in 2021 Q1.

Resolution planning and MREL

Within the MNB's resolution responsibilities, resolution planning is a key area, which also includes the establishment of the minimum requirement for own funds and eligible liabilities (MREL requirement), as well as the enforcement of compliance. The MREL requirement seeks to ensure that institutions have enough instruments even in a potential crisis to absorb losses through write down and that they are able to transform those into equity when restoring the capital requirement after the resolution.

Within the framework of the international cooperation required by European Union and Hungarian laws, the group-

level resolution plan was reviewed in the case of a banking group registered in Hungary that also has cross-border group members. Thanks to the comprehensive preparatory work, a unanimous decision was taken together with the national resolution authorities concerned on adopting the plan as well as the parent institution's consolidated and individual MREL requirement and the affected subsidiaries' individual MREL requirements. In addition, the MNB, acting as the resolution authority responsible for the subsidiaries of certain European Union institutions registered in Hungary, takes part in the work of 15 resolution colleges, and in 11 cases the group-level resolution authority tasks are carried out by the resolution authority of the banking union, the Single Resolution Board (SRB). During the year, several banking groups reviewed their group-level resolution plans and determined the MREL requirements on a consolidated and individual basis with the active involvement of the MNB. In the case of domestic institutions that do not perform cross-border activities, including the institutions subject to the simplified resolution planning requirements, the MNB reviewed resolution plans and fully determined MREL requirements. In connection with resolution planning, special emphasis was placed on increasing the practical feasibility of the plans, and thus, depending on the resolution strategy, the activities at certain institutions were focused on the internal procedures facilitating the use of bail-in and the availability of the data necessary for valuation.

To mitigate the impacts of the state of emergency due to the pandemic on the financial intermediary sector, the MNB provided a 6-month moratorium on meeting the MREL requirements for 2020. At the same time, the MNB continues to monitor and analyse institutions' issue plans and market developments to ensure compliance with the MREL requirements.

Active engagement in domestic and international regulation

Fundamental changes – mainly in relation to the setting of the MREL requirement – were introduced by the regulatory package adopted by the European Parliament and the Council in June 2019 aimed at reducing the risks of the European Union's banking system, parts of which pertaining to the Resolution Directive have already been transposed into Hungarian law and most of which have been in effect since 26 December 2020. The MNB participated in commenting on the draft law, and in connection with this, it prepared a peer review of the methodology on the MREL requirement calculation, which will be finalised in 2021 Q1.

MNB experts actively participated in the development of the level 2 EU regulatory and implementing technical

standards based on the powers conferred upon the European Banking Authority (EBA) by the European Union's regulatory package, in the Subgroup on Resolution Planning Preparedness (SGRPP) and in the Subgroup on Resolution Execution (SGRE) dealing with regulatory issues arising during the practical implementation of resolution tools. With respect to the drafting of the European Union regulation on the resolution regulation of central counterparties, the consultations between the institutions empowered to adopt EU legislation continued in 2020, and the outlines of the concept for the establishment of the resolution framework for insurers also took shape. As part of this, the MNB assisted the relevant working group of the European Securities and Markets Authority (ESMA) with its comments and also contributed to the work of the European Insurance and Occupational Pensions Authority (EIOPA) on the future establishment of the resolution framework for insurers.

The MNB's resolution tasks related to institutions strengthening the financial stability safety net

The financial stability safety net is strengthened by the fact that – thanks to the annual ex ante contributions of the member institutions – the coverage level of the Resolution Fund is increasing as scheduled, for the purpose of reaching the target level specified in the Resolution Act.³⁵ Thus, by 31 December 2024 the available financial means of the Resolution Fund are to reach at least one per cent of the amount of covered deposits of all credit institutions authorised in Hungary. To achieve this, the MNB calculated the amount of the annual ex ante contributions for 2020 for all member institutions based on the methodology stipulated in the European Union regulation. The MNB's representatives continued to actively participate in the work of the boards of directors of the Resolution Fund and the National Deposit Insurance Fund.

The majority of the claims and properties managed by MSZVK Magyar Szanálási Vagyongazdálkodó Zrt. (MSZVK Zrt.) and its subsidiaries were sold by July 2018. Based on the proposal by MSZVK Zrt.'s Board, the MNB, exercising its ownership rights, updated the medium-term business plan of the MSZVK group, according to which sufficient funds are available to the group for its continued operation until 2024.

3.5 PAYMENT AND SECURITIES SETTLEMENT SYSTEMS

The instant payment system was launched successfully on 2 March 2020, and the service became available to all Hungarian bank customers. With respect to system participants' transition, no central intervention was required, and the individual errors on the banks' side were also quickly resolved by the players affected. Accordingly, outages were only temporarily and limited to a small extent at certain institutions. The system has been operating adequately since then: transactions are sent and received in accordance with the rules, and only ad-hoc disruptions affecting few customers and not materially influencing fundamental operations are observed on banks' side. The central infrastructure has been functioning without problems and outages since its launch.

Regarding payments, the MNB formulated a proposal to slow down the spread of coronavirus, to facilitate the rapid containment of the pandemic and thus to mitigate the negative economic effects.

Consistent with the final deadline published by the European Banking Authority (EBA) in 2019, the MNB allowed additional time to account-keeping payment service providers until 14 September 2020, or until 31 December 2020 for those who submitted special requests, for the smooth introduction of strong customer authentication fully compliant with legal stipulations regarding online payments initiated with payment cards.

Based on the requests by payment service providers and other companies, the MNB published 27 legal interpretations and professional opinions on payments in 2020, of which 11 legal interpretations pertained to instant payments. In 2020, the MNB launched 34 inspection procedures on payments.

Efficiency and security of Hungarian financial infrastructures and payments

Implementation of the instant payment system

On 2 March 2020, the instant payment system was successfully launched, following the comprehensive preparation of the service for the go-live vis-à-vis

³⁵ Act XXXVII of 2014 on the Further Development of the System of Institutions Strengthening the Security of the Individual Players of the Financial Intermediary System

customers in the first two months of the year. During this, the intensity of the compulsory test run started in September 2019 increased considerably, as from early January, participating institutions had to conduct an amount of test transactions in the live test environment that was close to their actual intraday credit transfer volume. System participants achieved continuously improving results and progressed with the compulsory test tasks as required, and thus nothing hindered introduction of the service. The instant payment system was launched successfully on 2 March 2020, and the service became available to all Hungarian customers without major problems. With respect to system participants' transition, no central intervention was required, and the individual errors on the banks' side were also quickly resolved by the players affected. Therefore, outages occurred only temporarily and were limited to a small extent at certain institutions. The system has been operating adequately since then: transactions are sent and received in accordance with the rules, and only ad-hoc disruptions affecting few customers and not materially influencing the fundamental operations are observed on banks' side. The central infrastructure has been functioning without problems and outages since its launch.

According to processing data from the central infrastructure, 94 million transfers were completed in a total amount of HUF 14,414 billion in 2020. 99.9 per cent of the transactions were successful and completed within 20 seconds. The overwhelming majority, 99.2 per cent, of these were completed within the 5 seconds required by law, and 95.4 per cent of transactions were completed within 2 seconds. Successful launch of the instant payment service marked the beginning of a new era in Hungarian payments, which opened up revolutionary opportunities in conducting day-to-day finances right from the outset. However, this was merely the first phase of the new age, as the range of innovative payment solutions built on the central infrastructure provided by the MNB and GIRO is continuously expanding, providing higher quality service to customers in more and more payment situations.

Six months after it became available, on 1 September 2020, the service entered its second phase as the range of items submittable for processing expanded to include new transaction types. In this context, additional types of transactions, typically used by companies, could be processed in the system based on the favourable experiences from operation and in line with the original plans. The transfers processed by payment service providers en masse (e.g. corporate batch transfers, recurrent

transfers and value date transfers) and corporate batch requests-to-pay can now be sent to the instant payment system. According to the MNB's preliminary survey, the IT systems of all payment service providers had the necessary excess capacity to process the additional volumes; however, potential overload risks are minimised by the fact that according to law, only a limited amount of these transactions can be sent to the central system, at up to one recipient institution per second per transaction. The new opportunities have also made companies' payments more efficient, as the transfers typically initiated by them in batches can now be completed on a 24/7/365 basis, within minutes.

At the same time, the intensity of the development of the innovative payment solutions built on the basic service picked up towards the end of the year. This may give a huge boost to the fulfilment, with instant payment, of a legal provision that providing an electronic payment option is compulsory from 1 January 2021, for those required to use an online cash register.

Payment measures introduced to reduce the impact of the coronavirus

Regarding payments, the MNB formulated a proposal to slow the spread of the coronavirus, facilitate the rapid containment of the pandemic and thus mitigate the negative economic effects. In this context, it took steps to reduce physical contact between people to a minimum and promote the more intensive use of electronic payment solutions. On 20 March 2020, it called on banks and card companies to lift the limit on contactless payment card purchases where a PIN code is required from HUF 5,000 to HUF 15,000. Building on the MNB's initiative, the government issued a decree³⁶ on the implementation of the above amendment, and as a result, by 15 April 2020 the limit for the compulsory use of a PIN code had increased in the case of almost all POS terminals and cards enabling contactless payment card purchases. Therefore, almost 90 per cent of contactless purchases were included among the transactions that can be conducted without the customer physically touching the POS terminal. An exception to this is the obligatory use of PIN codes due to strong customer authentication requirements (after 5 transactions or EUR 150). Still, much fewer physical contacts were necessary with card purchase transactions, which made payments safer. The innovative nature of the MNB's measures is reflected in the fact that on 25 March 2020 the European Banking Authority made

³⁶ Government Decree No. 60/2020 (III. 23.) on the Measures to Improve the Health Security of Contact Payments in View of the State of Emergency

a similar proposal in its official statement. As a result of the MNB's innovative measure and the temporary restrictions introduced due to the pandemic, the transformation of the commercial and services sectors and changed consumer habits, payments may shift permanently towards electronic forms.

Amendment of the MNB's payment decree

MNB Decree No. 29/2020 (IX. 16.) amending MNB Decree No. 35/2017 (XII. 14.) on the execution of payment transactions was promulgated on 17 September 2020, and its provisions entered into force on 1 October 2020. The MNB Decree was amended in connection with the instant payment service, as following the introduction of the latter on 2 March 2020, during consultations with GIRO Zrt. and market participants, fine-tuning needs of a technical nature as well as innovative amendment proposals that warranted amendment of the MNB Decree arose. The amendment resulted in a more precise formulation of certain rules related to secondary account identifiers. It became clear, inter alia, that in addition to e-mail addresses, phone numbers and tax numbers/tax identification codes, payment service providers may also agree with their customers on the use of other individual identifiers as secondary account identifiers. In addition, if the protection of the central infrastructure of instant clearing allows, as a result of the amendment it is possible to submit batch payment requests into the instant payment system at a higher rate than one payment request per second.

Publication of the MNB recommendation on immediate crediting

MNB Recommendation No. 10/2020 (VIII. 6.) on the immediate crediting of the amounts of payment transactions on the payee's payment account was published on 6 August 2020, and the MNB expected payment service providers to apply it as of 1 October 2020. By publishing this recommendation, the MNB clearly and transparently set its expectations as to how much time is available for crediting the amounts of payment transactions to a payee's payment account.

Activities of the Hungarian AMI-SeCo

In 2020, the European Central Bank's (ECB) Advisory Group on Market Infrastructures for Securities and Collateral, the AMI-SeCo, held its meetings on 29 June and 2-3 December. The MNB performs the secretarial duties for the relevant Hungarian working group, the NSG and therefore 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 2020 meetings was European harmonisation, which not only covers harmonisation related to the T2S system responsible for pan-European securities settlement, but, from 2019, harmonisation of European collateral management as well. Both standard groups serve as guidance for Hungary, and thus the Hungarian NSG also focused on compliance with European harmonisation efforts. The pandemic situation that evolved in 2020 forced the ECB's decision-makers to reschedule European money and securities market infrastructure development projects. In 2020, it was decided that the project aiming at consolidation of the ECB's payment and securities settlement systems (T2, T2S, TIPS) as well as the Eurosystem Collateral Management System (ECMS) development project to be set up for the Eurosystem would be postponed by one year each (with new deadlines of November 2022 and November 2023, respectively). In view of the delays in the pan-European infrastructure development projects, the deadline for the aforementioned collateral management harmonisation was also extended by the ECB by one year, to November 2023, which also means that in early 2021 KELER Zrt. must also revise its previously prepared compliance schedule. The MNB performed its NSG activity related tasks in 2020 as well, informing the Hungarian market about these topics and facilitating the establishment of a common position.

PSD2 implementation now in its final phase

In line with the final deadline published in 2019 by the European Banking Authority (EBA), in the area of online payments initiated with payment cards, the MNB allowed a further transition period for account servicing payment service providers until 14 September 2020, or until 31 December 2020 for those who separately requested it, in the interests of smooth introduction of strong customer authentication in full compliance with the relevant legislation.

The MNB continuously encouraged the account servicing payment service providers concerned to introduce – in spite of the additional time for preparation – the new solutions as soon as possible, increasing the security of these payments even further. The MNB provided professional support to the players concerned.

For 2020, the MNB required periodical extraordinary reports from the payment service providers concerned in order to be able to monitor the pace of implementation. Based on these reports, it established that the preparedness of the sector ensured that Hungary would also comply with the relevant legislation in the area of these payment transactions by the final deadline.

Based on the responses received, the MNB also concluded that in the case of electronic payment transactions initiated with payment cards, in terms of strong customer authentication, the use of the previously applied solution (giving the data indicated on the card) remained typical in 2020 as well, although customers may already have experienced changes in this area as well. The MNB considered it important and encouraged the early introduction of authentication elements complying with the relevant legal provisions, also paying attention to their being customer-friendly. Accordingly, already in 2020, many account servicing payment service providers introduced new authentication elements (such as messages containing pop-up codes on mobile devices) or additional ones.

In 2020, the MNB repeatedly called the attention of the sector and those directly engaged in trading activities on the Internet as well as their business federation to the changes taking place, and also officially contacted all card issuer and/or card acquirer payment service providers concerned, requesting them to inform their customers about the changes in time and in an adequate, easy-to-understand manner.

Executive circular and future MNB recommendation on the subject of ‘obstacles’

In 2020, the MNB issued an executive circular³⁷ on certain issues related to secure communication concerning payment initiation and account information services. This was necessary because – according to the provisions of the regulatory technical standards for common and secure open standards of communication (SCAr) – all account servicing payment service providers must make an interface (API) available, via which so-called third-party providers (payment service providers that provide payment initiation and account information services) can access their customers’ payment accounts. Account providers may create this interface as an access interface or a dedicated interface. In the first case, the third-party provider uses the same interface to access payment account data as the account provider’s customers that have an account, whereas in the second case the interface exclusively serves the third-party providers, i.e. it is dedicated to them.

When putting in place the dedicated interface, the provisions of Article 32(3) of the SCAr must be taken into account, i.e. the interface may not create obstacles to having access to the services even if customers use it

through a third-party provider and not directly through the account servicing payment service provider.

Although the text of the SCAr mentions cases when ‘obstacles are created’, it does not exhaustively list further possibilities, and does not always provide appropriate guidance for proper interpretation. Therefore, the EBA intended to provide a more precise explanation and answers to the questions that arose regarding the uniform interpretation of ‘obstacles’ by issuing the opinion EBA/OP/2020/10 of 4 June 2020. The MNB issued its executive circular taking such into account.

The MNB wishes to issue a recommendation in connection with the subject of obstacles as well, also complemented with its other expectations regarding the dedicated interface. It started the relevant preparatory work, and the full proposed text was also completed in 2020.

Registration and authorisation

In 2020, the MNB registered two payment service providers that provide account information services and one that operates as a payment initiation institution. In view of the ongoing authorisation procedures, their number is expected to increase.

Pursuant to the EBA/GL/2018/07 Guidelines on the conditions to benefit from an exemption from the contingency mechanism under Article 33(6) of Regulation (EU) 2018/389 on regulatory technical standards for strong customer authentication and common and secure open standards of communication, the competent authorities, including the MNB, may not make individual decisions in connection with the exemption following 31 December 2019 until they have received the EBA’s comments regarding the request or for a month following the authority’s consultation with the EBA, whichever is earlier. Upon making their decision concerning the request, the competent authorities must take into account the EBA’s comments. In 2020, one application for the authorisation of exemption was issued.

Preparation and introduction of new reports related to the provision of payment services

The MNB introduced reports with a uniform structure related to the provision of payment services as of January 2020. They serve as a basis for the quarterly publications

³⁷ <https://www.mnb.hu/letoltes/vezetoi-korlevel-a-fizetes-kezdemenyezesi-es-szamlainformacios-szolgalatasokhoz-kapcsolodo-biztonsagos-kommunikacioval-2020-07-13.pdf> (in Hungarian only)

and analyses related to payments, and contribute to the uniform, internationally comparable data disclosures to be forwarded to the European Central Bank and the EBA. Following entry into force in January 2020, the data collections with the new structure first had to be carried out by 30 October 2020, retroactively to 2020 Q1, Q2 and Q3.

In order to ensure adequate data reporting and for a proper change-over of payment service providers, during the year the MNB provided several opportunities for professional consultations for those concerned.

Legal interpretations and inspections

Based on the requests by payment service providers and other undertakings, in 2020 the MNB published 27 legal interpretations and professional opinions on payments, of which 11 legal interpretations pertained to instant payment. In addition, the MNB published 22 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.

During the half-year, the MNB published 14 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 of PSD2. Of these, 6 were related to the interpretation of the provisions concerning strong customer authentication, 5 to compliance with data reporting and 3 to the interpretation of authorisation.

In 2020, the MNB launched 34 payment inspection procedures, which can be classified into three main types. The MNB conducted general inspections regarding 3 banks and 4 so-called third-party payment service providers, whereas upon the introduction of the instant payment system the MNB verified three rules of its payment decree that expressly related to the instant payment system for the whole sector. This series of inspections covered 26 institutions in total, including 20 banks, 5 EEA credit institution branches and 1 payment service provider. In addition, in a case not included in the annual audit plan, the MNB launched an inspection at a bank on the basis of

information obtained within the framework of continuous supervision.

In 2020, the MNB closed 31 payment inspections, of which 22 were launched at banks, 6 at EEA credit institution branches and 3 at payment service providers (two of which were so-called third-party payment service providers). Based on the procedures completed, total fines of HUF 75 million were imposed in 2 cases, in addition to prescribing corrective measures. In addition, due to failure to comply with the provisions of an earlier MNB decision by the deadline, in 2020 the MNB obliged an institution again to comply with the decision, also imposing a penalty of HUF 2.2 million. Accordingly, the MNB imposed a total of HUF 77.2 million in fines due to breaches found in the MNB's payment-related administrative procedures. Decisions will be made in 2021 in the case of 6 of the inspection procedures launched in the year under review, whereas 3 of the completed inspection procedures started in 2019.

Securities settlement system in 2020

The MNB once again participated in the Post-Trading Standing Committee³⁸ (PTSC) of the European Securities and Markets Authority (ESMA) in 2020. This Committee deals with central securities depositories, including the preparatory works aiming at the formulation or amendment of EU regulations within its mandate. The EU's CSDR³⁹ Regulation, which regulates the central securities depositories as well, and experts' related decision preparation work were the most important topics in 2020, also taking account of the current events in the market, including the impacts of the pandemic.

With the entry into force of the amendment of the EMIR⁴⁰ in early 2020 (EMIR 2.2), new ESMA committees were set up in 2020, expressly dealing with central counterparties: the CCP⁴¹ Supervisory Committee and the Policy Committee. The MNB, as an authority that has a right of supervision over central counterparties with an EMIR authorisation, has a right to vote and is represented at the expert level in the committees. The CCP Supervisory Committee handles matters related to supervisory issues of central counterparties. The CCP Policy Committee deals with the creation and revision of regulatory technical standards

³⁸ <https://www.esma.europa.eu/about-esma/working-methods/standing-committees-and-other-bodies#title-paragraph-13>

³⁹ CSDR: Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012

⁴⁰ EMIR: Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories

⁴¹ CCP: central counterparty

made necessary by EMIR 2.2 and complementing the EMIR, as well as with the formulation of ESMA opinions and proposals designed to facilitate supervisory convergence.

The CCP Recovery and Regulation Task Force, the last meeting of which was held in 2018, was re-established in 2020 Q4; its necessity is related to the Regulation on a framework for the recovery and resolution of central counterparties (RRR),⁴² which is to enter into force soon. The Task Force deals with the drafting of the implementing regulations being prepared for the RRR. The most important subjects include recovery plans, the introduction of the second additional guarantee capital, the process of appraisal in the case of resolution and establishing the orders of compensation.

Implementation of the ESMA Guidelines

In 2020 H1, the MNB implemented two guidelines⁴³ issued by ESMA on the subject of KELER KSZF Központi Szerződő Fél Zrt. (KELER KSZF), the central counterparty operating in Hungary. The Guidelines provide further basis for the interpretation of the EU's EMIR Regulation and the related implementing regulation. The subjects of the two implemented guidelines include the handling of conflicts of interest at the central counterparty as well as the provisions of the EMIR regarding margin requirements against procyclicality and its measures addressed to the central counterparty. The former and the latter were implemented as MNB recommendations by the MNB on 30 March 2020⁴⁴ and 4 May 2020,⁴⁵ respectively.

Closing the comprehensive supervisory inspection conducted at KELER KSZF

The MNB closed its comprehensive supervisory inspection conducted at KELER KSZF for the period between 2 August 2018 and 31 March 2019 with a resolution in September 2020. Pursuant to Article 64 a) of the MNB Act,⁴⁶ the MNB must launch a comprehensive supervisory inspection every year. As KELER KSZF has an EMIR authorisation, the comprehensive inspection simultaneously constitutes its comprehensive inspection pursuant to the EMIR as well. During the comprehensive inspection conducted in 2020 for

2018 and 2019, the MNB found shortcomings in connection with business continuity, participation requirements and expectations regarding risk management, and included them in the resolution points. A deadline of 31 December 2020 was set for KELER KSZF to take adequate measures, and it implemented most of them. With regard to the measures not yet implemented, the institution requested an extension of the deadline, which was granted by the MNB following acceptable justification. Implementation is checked by the MNB within the framework of follow-up inspections in each case, thus ensuring compliance with the legal provisions.

College meeting of KELER KSZF

The annual college meeting of KELER KSZF pursuant to Article 21 of the EMIR took place in the form of a video conference on 16 October 2020. In addition to ESMA and the MNB, the national authorities supervising the institutions whose contributions to the guarantee funds of KELER KSZF are the highest as well as the national authorities supervising the markets of the services of KELER KSZF are invited to the college meeting. Accordingly, members of the College include ESMA, the Central Bank of Ireland, the National Bank of Belgium, the Hungarian Energy and Public Utility Regulatory Authority and the Bank of Italy. At the meeting, they presented the supervisory activity of the previous year and the supervisory plan for the next year. KELER KSZF was also given an opportunity to report on its previous year and its plans for the coming year to the College.

Authorisation procedures of KELER KSZF conducted in 2020

In 2020, KELER KSZF implemented two modifications in its operation that are subject to authorisation procedure.⁴⁷ One of the procedures concerned the risk management methodology of KELER KSZF. The MNB classified the changes as significant, and thus they had to go through the procedure pursuant to Article 49 of the EMIR, and following validation by ESMA, the College of KELER KSZF also approved the modifications, and thus the institution was able to introduce them. The other procedure concerned the

⁴² RRR: Proposal for a Regulation of the European Parliament and of the Council on a framework for the recovery and resolution of central counterparties and amending Regulations (EU) No 1095/2010, (EU) No 648/2012, and (EU) 2015/2365 (not in force yet)

⁴³ List of ESMA Guidelines: <https://www.esma.europa.eu/convergence/guidelines-and-technical-standards>

⁴⁴ Recommendation No 5/2020 (III. 30.) of the Magyar Nemzeti Bank on CCP conflict of interest management: <https://www.mnb.hu/letoltes/5-2020-osszeferhetlenseg-kezelese.pdf> (in Hungarian only)

⁴⁵ Recommendation No 6/2020 (V. 04.) of the Magyar Nemzeti Bank on EMIR Anti-Procyclicality Margin Measures for Central Counterparties: <https://www.mnb.hu/letoltes/6-2020-emirprociklikussagkszf.pdf> (in Hungarian only)

⁴⁶ MNB Act: Act CXXXIX of 2013 on the Magyar Nemzeti Bank

⁴⁷ Procedure according to Articles 15 or 49 of the EMIR

settlement bank services of KELER KSZF, as the operation of KELER KSZF was complemented by three new settlement banks during the year. Following discussions with KELER KSZF and own risk analyses, the MNB classified the changes as insignificant amendments, informing the members of the College accordingly, and thus there was no need to conduct the procedure.

KELER obtained CSDR authorisation

In the European Union, one precondition of the operation of central securities depositories is the CSDR authorisation, the obtaining of which was of key importance for KELER as well. The documentation required for the authorisation was completed at end-June 2020. This is when the supervisory process could start. The MNB established that KELER complied with the CSDR regulation and granted the authorisation. At present, there are 24 central securities depositories in the European Union that have a CSDR authorisation, including the Hungarian central securities depository.

Miscellaneous information

Publications related to payments and payment systems

The March issue of the Central Bank Payments News⁴⁸ contains two articles that discuss the development of payment services in Hungary and the successful launch of the domestic instant payment system. In addition, the March issue of the *Financial and Economic Review*⁴⁹ contained a study on the analysis of the regional differences in payments by card found in Hungary.

The MNB published its *Payment Systems Report* for the ninth time on 9 July 2020. In publishing this report, the MNB wishes to contribute to enhancing the transparency of its activities in relation to financial market infrastructures

and the execution of payments, while also endeavouring to enhance financial literacy and thus raise awareness about payment-related issues. The report established that the domestic financial infrastructure overseen by the MNB operated efficiently and safely in 2019 as well, supporting the functioning of the financial and capital markets with its high availability and thus helping strengthen financial stability. The electronic payments infrastructure continued to develop and digitalisation continued to gain further ground in 2019 as well, resulting in another considerable increase in the number of electronic payment transactions, which further reduces the share of cash transactions. The successful launch of the instant payment service on 2 March 2020, marking the start of a new era in payments in Hungary, may contribute strongly to further supporting of the above trend.

One study presents the impact of the outbreak of the pandemic on payments and the resulting changes observed in domestic payment habits. While the first part⁵⁰ of this analysis discusses developments related to cash in circulation, the second part⁵¹ focuses on electronic payments.

On 14 December 2020, the MNB released its publication entitled *Dimenzióváltás a pénzforgalomban: Az azonnali fizetés bevezetésének története*⁵² (Change of dimensions in payments: The history of the introduction of instant payment) (see 3.16).

Conferences, professional presentations and consultations

On 25 February 2020, the MNB held a background discussion to present current issues related to the launch of the instant payment system on 2 March 2020 and to answer questions arising in connection with the newly available service, helping media representatives to inform and prepare the public as precisely and as completely as possible.

⁴⁸ https://cbpaymentsnews.com/assets/CBPN_Volume3/CBPN_Mar2020-Vol3.3.pdf

⁴⁹ <https://en-hitelintezetiszemle.mnb.hu/letoltes/fer-19-1-st3-kajdi-nemecsko.pdf>

⁵⁰ <https://www.mnb.hu/letoltes/a-koronavirus-jarvany-hatasa-a-keszpenzallomany-valtozasara-2020-januar-augusztus-folyaman.pdf> (in Hungarian only)

⁵¹ <https://www.mnb.hu/letoltes/the-impact-of-the-covid-19-pandemic-on-changes-in-electronic-payments-during-january-june-2020-in-hungary.pdf>

⁵² <https://www.mnb.hu/en/publications/mnb-book-series/new-dimensions-in-payments-the-history-of-the-introduction-of-instant-payments-in-hungary>

In the subject of PSD2, in the extraordinary situation that evolved as a result of the pandemic, the MNB held various professional presentations and training courses as well as several consultations in cooperation with the Banking Association online as well.

3.6 FOREIGN EXCHANGE RESERVE MANAGEMENT

The MNB's international reserves increased by around EUR 5.3 billion in 2020, with holdings at the end of December 2020 amounting to EUR 33.7 billion. During the year, the level of foreign exchange reserves was raised by the ÁKK's foreign currency bond issuances, inflows of EU transfers from the European Commission and the rise in deposits placed by domestic financial institutions. At the same time, disbursements by the state to repay debt, foreign exchange expenditures of the Treasury and the change in the central bank's forint liquidity providing FX swap holdings mitigated the increase. For financing the euro liquidity providing swap tenders over year-end, the MNB used its framework agreements concluded with international organisations.

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

In terms of transaction goals, servicing the management of government debt continued to be the most important objective in 2020. In addition, the continuous provision of foreign currency to cover the needs of budgetary institutions should also be mentioned. The transfers received from the European Union also flow through the MNB, and as in previous years, they boosted the foreign exchange reserves in 2020. The aforementioned transaction goals were met smoothly in 2020 as well.

The MNB regularly reviews the desirable level of reserves and, if necessary, takes measures – within the permitted limits – to reach the adequate level. Throughout 2020, international reserves of the MNB exceeded the reserve indicators followed by the central bank and investors as well. Of these indicators, the MNB pays special attention to the Guidotti–Greenspan rule, on the basis of which the reserves considerably exceed the level of short-term external debt.

Reserve size

The level of Hungary's international reserves rose by nearly EUR 5.3 billion in 2020 and amounted to EUR 33.7 billion at the end of the year.

New foreign currency bonds issued by the state had the largest reserve increasing impact in the period under review. In April, the Government Debt Management Agency (ÁKK) issued 6-year and 12-year government securities series with nominal values of EUR 1 billion each, followed by a 15-year green bond with a nominal value of EUR 1.5 billion in June, a Samurai bond series with a total nominal value of JPY 62.7 billion and maturities of 3, 5, 7 and 10 years in September, as well as 10-year and 30-year bond issues with nominal values of EUR 1.25 billion each in November.

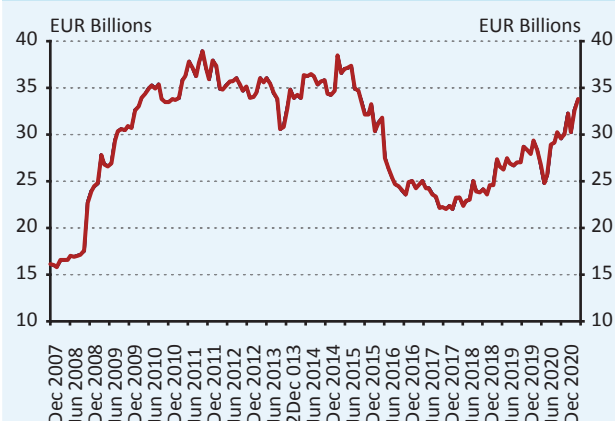
The EU transfers received from the European Commission in a net amount of EUR 4.3 billion and an increase of EUR 215 million in deposits placed by domestic financial institutions also contributed to the growth in the reserves.

These items were partly offset by the bond redemptions with original nominal values of USD 2 billion in January and EUR 1 billion in February, the Panda bond maturity worth RMB 1 billion in July as well as by the bond buybacks amounting to nearly USD 1 billion that took place in January and the foreign exchange expenditures of the Hungarian State Treasury.

The increase was further mitigated by the flows related to the FX pillar of the third phase of the Funding for Growth Scheme and by the change in a total value of EUR 2.3 billion in the central bank's forint liquidity providing FX swap holdings.

For financing the euro liquidity providing swap tenders announced in the second half of the year, the MNB used its framework agreements concluded with international organisations.

Chart 10
Developments in the size of foreign exchange reserves



Financial performance and risks of foreign exchange reserves

In carrying out its core tasks as stipulated in the MNB Act and especially in the management of the country's international reserves, the MNB inevitably faces financial risks. The basic principle followed by the central bank is 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 possible yield level while continuously keeping the risks at a pre-defined low level and maintaining the necessary liquidity.

As is the case with the other core duties of the central bank, the Monetary Council of the MNB is 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 of the MNB, 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 the 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 reserve management, the MNB also considers the foreign currency liquidity requirement of the monetary policy instruments.

In the course of foreign exchange reserve management, the MNB employs 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 repo transactions regulated by GMRA (Global Master Repurchase Agreement), the prescribed margin also helps to limit the risks. In the case of foreign exchange transactions, in accordance with international best practices, the MNB settles its transactions in the CLS system, thus minimising its settlement risks.

In the first years following the global financial crisis that erupted in 2008, in view of the declining yield environment and the resulting typical rise in the prices of bonds held in central bank portfolios, most central banks realised profits on the FX reserves. With government bonds and other bonds generally featuring high credit ratings in its portfolios, the MNB also benefited from this process through the revaluation of the positions, as a result of the decreasing yield environment. In

the ensuing interest rate 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 period immediately prior to 2020, several central banks ended or slowed down their easing measures in the field of monetary policy, but as a result of the coronavirus crisis this trend stopped in 2020, and central banks clearly shifted towards easing again. Fiscal and monetary policy decision-makers introduced measures of various types and degrees to mitigate the negative economic impacts of the coronavirus. In March 2020, at its two extraordinary meetings the Federal Reserve reduced the base rate by 50 and 100 basis points, respectively, into the band of 0–0.25 percent, and increased its assets purchases within the framework of its announced crisis mitigation and liquidity expansion programmes. The ECB left the policy rate unchanged, but at the same time it also increased its asset purchases further through its various programmes.

As a result, a major decline in yields was observed in many of the markets relevant in terms of reserve management in 2020. During the reporting period, there was a parallel downward shift in the yield curve in the euro area: yields in the segment within one year declined to different degrees by maturity, but typically fell by 5–10 basis points, whereas they dropped by 10–50 basis points in the segment over one year. Yields were in negative territory for all relevant maturities at the end of the year. Yields on US government securities fell by 1.5 per cent, with close-to-zero yield at short maturities. Volatility increased as a result of the crisis, and swap spreads expanded significantly in March before normalising.

Credit rating agencies downgraded several issuers, which only affected the MNB's foreign exchange reserves to a minimal degree due to the conservative investment principles. In addition, the price of gold increased significantly during the year in view of geopolitical uncertainties, the rise in central bank demand and the coronavirus crisis. In 2020 H2, the price of gold in USD reached a peak unseen for years. As for the EUR/USD exchange rate, a continuous weakening of the US dollar was observed in 2020 (from 1.12 to 1.23).

In early 2020, the MNB was prepared to manage the intense uncertainty caused by the pandemic. The level of FX reserves significantly exceeded the value of relevant indicators. In addition, the MNB created an international safety net consisting of bilateral swap and repo agreements, representing additional FX liquidity (foreign exchange liquidity may be increased by as much as EUR 10 billion within a short time) and expanding the leeway of the central bank, while maintaining the safe level of international reserves:

- repo agreement with the European Central Bank,
- repo agreement with the Bank for International Settlements,
- access to the repo facility announced by the Federal Reserve,
- currency swap agreement concluded with the People's Bank of China (PBoC) in 2013 and renewed several times.

Continuously monitoring the developments representing a risk to 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 2020 and took steps to reduce other risks related to foreign exchange reserves.

- In January 2020, the MNB decided to create a Central Eastern European government securities portfolio, which contains Czech and Polish government securities. Government securities issued in the given country's own currency may be purchased in the portfolio. Following its creation, the portfolio continues to be managed in a passive style.
- In 2020, the MNB paid special attention to the developments resulting from Brexit, taking account of the central bank's GBP exposure and the wide range of partners located in London and used in reserve management. Applying a proactive approach – limiting the execution of transactions with entities in London – from early 2019 the central bank initiated the novation of GMRAs as well as ISDA and CSA agreements with UK business partners and also other service provision contracts related to reserve management (portfolio management systems, futures account management, securities lending, MBS asset management activity and trading platforms) to entities in continental Europe. While continuously monitoring developments, the MNB took the necessary steps to minimise the related risks.

In 2020, the MNB basically managed foreign exchange reserves in 8 currencies (EUR, USD, JPY, GBP, AUD, RMB, PLN, CZK), in a variety of portfolios. The MNB assumes exchange rate exposure basically 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 greater diversification and, in the case of the US dollar, the higher liquidity available. Altogether, the MNB actively manages 8 portfolios in euro, US dollar, British

pound, renminbi and Australian dollar. The MNB manages the Japanese yen, the Czech koruna and the Polish zloty portfolios, containing government securities only, as index-linked portfolios 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 creation of the green bond portfolio containing green investments which was launched in 2019 within the framework of the MNB's Green Programme to facilitate the achievement of its related social responsibility and environmental strategy objectives was completed in 2020. Similarly to previous years, the strategic average duration of the reserve portfolios was around 1 year, but at the same time the interest rate sensitivity of the MBS exposure declined. 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. The safe haven asset role of gold strengthened in the economic recession that evolved. The MNB stores its gold reserves of 31.5 tons in physical form in Budapest. 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 were avoided.

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 represents the most substantial item in the reserves, where – along with the investment portfolio – the considerable proportion of the agency MBS exposure deserves special mention.

Short-run market developments were favourable from the perspective of the MNB, as it achieved a return of 0.64 per cent on the gold and foreign exchange reserves in 2020. The performance of 91 basis points by the bond portfolios in domestic currency exceeded the benchmark by 25 basis points, corresponding during the year to a yield of 51 basis points expressed in euro, adjusted for the cost of funds due to hedging for euro. In the short run, the decline in interest rate levels increased the profits on bond portfolios, but in the long run it is disadvantageous in terms of the expected

return on reserves due to the lower level of expected yields. In other words, over the medium term, central banks face an even acuter risk of decreasing reserves. The MNB realised a significant positive result on the gold position, while a loss was incurred on the other FX exposure.

In respect of the future performance of the foreign exchange reserves, the risk remains 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 would undermine reserve performance over the short run, due to the revaluation loss arising from the depreciation of bonds in positions. At the same time, due to the short average residual maturity of the reserves, a yield rise already has a positive medium-term impact on the performance, as the maturing reserve components can be reinvested at higher yields.

3.7 CASH LOGISTICS ACTIVITY

On 31 December 2020, the total currency in circulation amounted to HUF 7,164.4 billion, representing a 10-per cent increase of HUF 634 billion compared to the end of the previous year. By end-2020, the annual percentage growth rate excluding the one-off effect of the pandemic situation declined to a three-year low. Accordingly, the expansion in domestic cash holdings is decelerating, which was affected by the pandemic only as a temporary, one-off effect in 2020.

In 2020, the MNB managed cash turnover for its clients, i.e. credit institutions and the Hungarian Post, in the total amount of HUF 3,354 billion; within that, it distributed 246 million banknotes to its clients, while 202 million banknotes were delivered to the central bank.

The degree of the counterfeiting of forint banknotes remained low, with the number of counterfeit forint notes removed from circulation amounting to just 271 in 2020. In 2020, the number of counterfeit banknotes per one million genuine banknotes in circulation per year was 0.5, an extremely favourable value by international standards.

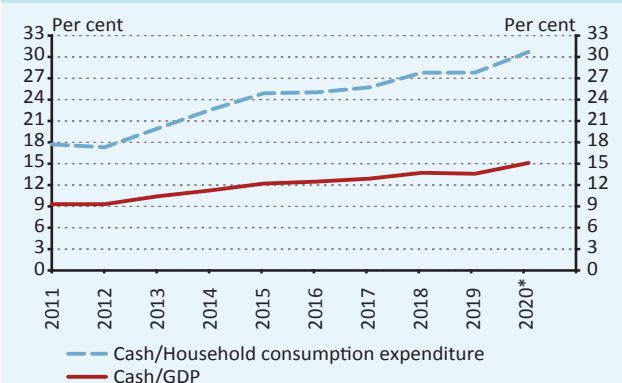
During 2020, the central bank issued 25 commemorative coins in 13 subjects. Two of the coins were made of gold, 10 were made of silver and 13 were made of non-ferrous metals. In addition, a commemorative version the 50-forint circulation coin as well as commemorative versions of the 10- and 20-forint circulation coins were put into circulation.

Currency in circulation

On 31 December 2020, the total currency in circulation amounted to HUF 7,164.4 billion, representing a 10-per cent increase of HUF 634 billion compared to the end of the

previous year.⁵³ During 2020, as a result of the impact of the pandemic, the dynamics of banknote demand changed in a volatile manner, but evaluating 2020 as a whole it can be established that the intensive growth rate in forint cash demand seen since 2012 decelerated considerably in 2019 and 2020.

Chart 11
Cash/GDP and cash/household consumption expenditure



*The 2020 GDP figure and the household consumption expenditure data are MNB estimates.

Source: MNB.

The change in the denomination varies by denomination. The 20,000-forint note continues to account for the largest share in turnover; its expansion of 12 per cent in 2020 was still considerable. The volume of 10,000-forint notes increased to a much lesser degree, by a mere 5 per cent. It is also worth noting that the volume of 1,000-forint notes grew by 4 per cent. Compared to end-2019, the volume of 500-forint notes in circulation rose 7 per cent, with this increase mainly attributable to the effect of the banknote replacement. By contrast, the stock of 2,000-forint and 5,000-forint notes declined slightly (by 4 per cent).

Chart 12
Breakdown of banknotes in circulation by quantity at the end of 2020

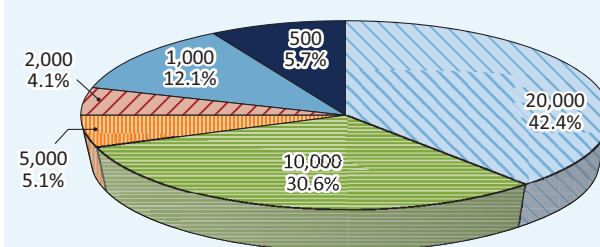


Table 4
Banknotes and coins in circulation⁵⁴

(figures as at 31 December 2020 and 31 December 2019)

Banknotes	2020				2019			
	Volume	Value	Ratio (per cent)		Volume	Value	Ratio (per cent)	
	Million pieces	Billion HUF	Volume	Value	Million pieces	Billion HUF	Volume	Value
20,000 forint	249.4	4,988.0	42.4	70.5	221.8	4,436.8	40.4	68.9
10,000 forint	179.8	1,797.6	30.6	25.4	171.5	1,714.7	31.2	26.6
5,000 forint	29.9	149.4	5.1	2.1	31.0	155.0	5.6	2.4
2,000 forint	24.2	48.5	4.1	0.7	25.3	50.6	4.6	0.8
1,000 forint	71.4	71.4	12.1	1.0	68.9	68.9	12.5	1.1
500 forint	33.5	16.8	5.7	0.3	31.3	15.7	5.7	0.2
Total	588.2	7,071.5	100.0	100.0	549.8	6,441.6	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
	Million pieces	Billion HUF	Volume	Value	Million pieces	Billion HUF	Volume	Value
200 forint	171.0	34.2	8.1	41.9	164.9	33.0	8.2	42.1
100 forint	214.5	21.5	10.2	26.3	206.2	20.6	10.2	26.3
50 forint	209.2	10.5	9.9	12.8	199.8	10.0	9.9	12.8
20 forint	384.6	7.7	18.2	9.4	363.5	7.3	18.1	9.3
10 forint	430.4	4.3	20.4	5.3	410.5	4.1	20.4	5.2
5 forint	701.2	3.5	33.2	4.3	667.1	3.3	33.2	4.3
Total	2,111.0	81.6	100.0	100.0	2,011.9	78.3	100.0	100.0

⁵³ 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.

⁵⁴ 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.

The two largest banknote denominations still play a dominant role in cash turnover: at the end of 2020 they jointly accounted for 73 per cent of the volume and 96 per cent of the value of all banknotes in circulation.

Compared to the end of previous year, the volume of forint coins in circulation expanded by 5 per cent on average.

Impact of the coronavirus pandemic on money in circulation in Hungary

Starting from 12 March 2020, in connection with the emergency ordered by the Hungarian Government due to the pandemic, cash outflows from the MNB were extremely high. In 8 working days in the period ending 25 March, the value of cash in circulation increased by some HUF 250 billion, i.e. by 3.9 percent, corresponding to a 5–7-month normal rise on the basis of previous trends. A smaller adjustment was observed in the following months; in April and May the cash demand of the economy was more than HUF 60 billion below the average from previous years.

The extremely high demand in March was primarily for the 10,000-forint and 20,000-forint notes, although the amount of lower-value banknotes also increased considerably, corroborating the impact of household accumulation on cash in circulation. No increase similar to that observed in the demand for banknotes occurred in the case of forint coins: in both March and April the circulation was well below the average from previous years.

Cash circulation consolidated in all respects during the summer months, as the relevant statistical indicators typically reached or approached the values observed in the pre-pandemic period. Available data suggest that the impacts of the second, autumn wave of the pandemic were much milder; compared to the same period of previous years the outflow of cash did not increase significantly at the time of the repeated announcement of the emergency in November, but the drastic fall in the demand for coins observed in the spring as well repeated itself between September and November to a similar degree.

Although – in view of the outflow shock during the first wave of the pandemic in 2020 – annual growth in forint cash in circulation exceeded the degree of expansion seen in 2019, in an international comparison it is considered moderate compared to both the currencies of neighbouring countries (e.g. Polish zloty, Czech koruna) and to the most important currencies (euro, US dollar). By end-2020, the annual percentage rate of growth excluding the one-off

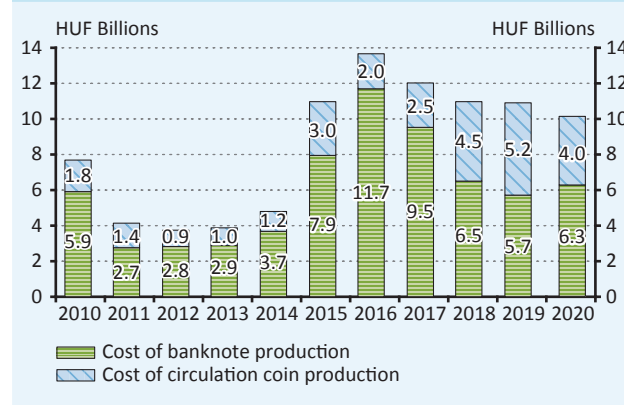
effect of the pandemic situation declined to a three-year low. Accordingly, the expansion in domestic cash holdings is decelerating, and this was only affected by the pandemic as a temporary, one-off effect in 2020.

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 10.3 billion in 2020, which was HUF 0.6 billion less than in the previous year.

Chart 13
Banknote and circulation coin manufacturing
(gross expenditure)



Distribution of cash

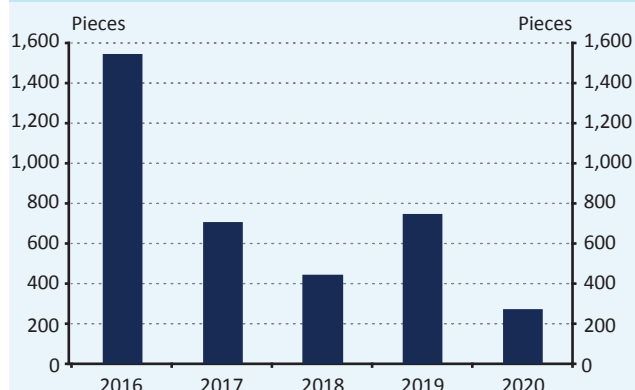
In 2020, the MNB managed cash turnover for its clients, i.e. credit institutions and the Hungarian Post, in the total amount of HUF 3,354 billion; within that it distributed 246 million banknotes to its clients, while 202 million banknotes were delivered to the central bank.

In 2020, the MNB removed from circulation 51 million end-of-life banknotes, and replaced them with new, high quality means of payment. Removal mainly affected the smaller denominations, which play a transaction role.

Prevention and reduction of counterfeiting

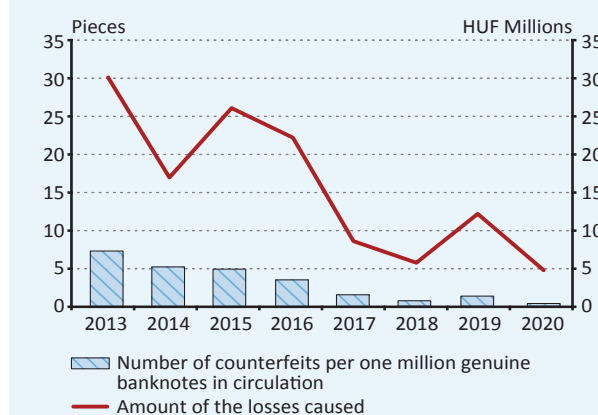
In line with previous years' trends, the degree of the counterfeiting of forint banknotes has remained low, and the number of counterfeit forint notes removed from circulation was only 271 in 2020.

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



The number of counterfeit banknotes per one million genuine banknotes in circulation per year was 0.5, 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



In addition to the MNB's information materials available in printed form and through the Internet as well provided within the framework of its free educational activity related to banknotes, the MNB's experts trained nearly 600 retail cashiers on the features of banknotes in 2020.

As in previous years, the counterfeiting of higher denominations (mainly the 10,000-forint and 20,000-forint banknotes) remained most typical in 2020, accounting for 98 per cent of counterfeit forint notes.

Table 5
Denomination breakdown of forint banknote counterfeits discovered in 2020

Denominations	500	1,000	2,000	5,000	10,000	20,000
Breakdown (Per cent)	0.0	0.7	0.0	1.1	17.0	81.2

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 experts of the central bank identified 7,883 various currency counterfeits in 2020. Within that, the number of counterfeit euro banknotes was 7,747. The increase that took place in the number of euro banknotes withdrawn from circulation is attributable to two incidents, and thus examining the domestic cash circulation as a whole, it is still true that the occurrence of counterfeit currencies is insignificant.

100-forint coin made of new base material is in circulation

The 100-forint coin made of new base material, issued in a legal sense on 1 October 2019 with a decree of the Governor of the MNB, was put into circulation on 1 July 2020. 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 MNB allowed a nine-month preparation period for 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 use in circulation of the coin made of the new base material is smooth. The old 100-forint steel coins will remain in circulation.

Withdrawn old banknotes can be exchanged following the banknote replacement as well

In the period between 2014 and 2019, the MNB renewed the banknote series that had been in circulation before, and issued redesigned, enhanced banknotes that better 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. Withdrawn forint banknotes do not lose their value for a long time, because they can be exchanged for legal tender – of the same denomination – in bank branches and post offices for three years and in the MNB's retail cash office for twenty years following the withdrawal deadline.

The withdrawal deadline was 31 July 2017 for the earlier versions of the 2,000- and 5,000-forint banknotes, whereas the old 20,000-forint^o banknotes issued before 2015 were withdrawn on 31 December 2017. Accordingly, following 31 July 2020 and 31 December 2020, respectively, bank branches and post offices are no longer obliged to exchange these banknotes free of charge, although in their own internal regulations they may decide to continue accepting these banknotes - while charging a fee or imposing other conditions (such as using a service or having an account) - 3.8 million of the old 2,000-forint notes, 2.2 million of the old 5,000-forint notes and 2.1 million of the old 20,000-forint notes were not yet returned to the central bank by 31 December 2020.

Banknote and Coin Decrees amended

The increase in the number of credit institution branches without a cash office warranted the amendment of the MNB decrees on cash distribution and processing (Banknote and Coin Decree).⁵⁵ Although the machines suitable for the acceptance of banknote deposits and for banknote dispensing (e.g. ATMs) may allow certain cash transactions even in branches without a cash office, the decline in the number of credit institutions' cash offices may considerably reduce people's access to cash services. The above was taken into account in the amendment of the banknote and coin decrees⁵⁶ in 2020 by determining the minimum level of mandatory retail cash services to be provided by credit institutions and the Hungarian Post.

With the entry into force of the new rules, the denomination exchange of forint banknotes and coins as well as the exchange of banknotes and coins withdrawn from circulation and of hard-to-recognise and damaged ones became mandatory not only for credit institution branches and post offices with a cash office, but also for ones that do not have a cash office. If in a settlement a credit institution or the Hungarian Post operates only a branch or office without a cash office, it can also use the services of an intermediary for the performance of the

denomination exchange or exchange transactions. The new rules determine the conditions of using an intermediary as well as the related rules of providing information for customers.

Taking account of the time for preparation needed for the compliance with the new rules, the date of entry into force of the amendment of the Banknote and Coin Decree was 1 March 2021.

Cash distribution administrative inspections

In 2020, the MNB inspected compliance with the provisions of the MNB Act pertaining to cash issuance⁵⁷ as well as with the provisions of the Banknote Decree⁵⁸ and of the MNB decrees on central bank data reporting⁵⁹ at 9 credit institutions, 1 EEA credit institution branch, 3 cash-in-transit organisations and 1 payment institution. The purpose of the cash 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 2020, the MNB launched 9 inspection procedures in total against 5 credit institutions, 1 EEA credit institution branch and 3 cash-in-transit organisations. Of these procedures, 5 were closed in 2020, 2 in early 2021, and 2 procedures are going on. Measures were implemented in 3 of the 5 procedures closed in 2020. These measures meant warning letters containing calls for the organisation of training, amendment of internal rules and full compliance in the future with the MNB Act and the Banknote Decree. One inspection procedure was closed with an order, without applying a measure, and another procedure was also closed with an order due to the withdrawal upon the request of the inspected institution's cash processing licence in the meantime. In the course of continuous supervision, the MNB inspected the assessment of the operational risks of cash distribution and compliance with the rules regarding the handling of emergencies in the case of a further 4 credit institutions and 1 payment

⁵⁵ 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; and MNB Decree No. 20/2019 (V. 13.) on the processing and distribution of coins, and on technical tasks relating to the protection of coins against counterfeiting

⁵⁶ MNB Decree No. 38/2020 (X. 21.) amending 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 and MNB Decree No. 39/2020 (X. 21.) amending MNB Decree No. 20/2019 (V. 13.) on the processing and distribution of coins, and on technical tasks relating to the protection of coins against counterfeiting

⁵⁷ Subtitle 16 of Act CXXXIX of 2013

⁵⁸ 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 (hereinafter: old Banknote Decree), and, as of 15 July 2019, 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 (hereinafter: new Banknote Decree), and the two decrees jointly (hereinafter: Banknote Decree)

⁵⁹ MNB Decrees No. 37/2019 (XI. 19.) and No. 38/2018 (XI. 14.) on the data reporting obligations to the central bank's information system primarily to enable the MNB to carry out its basic duties

institution designated on the basis of their role in cash circulation, the size of their respective branch networks and their nationwide coverage.

Of the inspections launched in 2019, 3 procedures were closed in 2020, and the MNB found shortcomings and omissions at all the inspected institutions. The institutions were called upon in a warning letter to correct the non-compliance.

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 exchange of forint banknotes qualifying as legal tender but unfit for circulation.⁶⁰ The most frequent infringements included the violation of provisions concerning ATM loading, the handling of incomplete and damaged banknotes as well as non-compliance with certain rules pertaining to the operation of banknote handling machines.

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 also issues a non-ferrous metal version of all precious metal collector coins with a view to promote the collector coins' value conveying, attention-raising and educational roles in a wider circle. This purpose is also served by the MNB's decision regarding the distribution of collector coins at face value, namely, the silver collector coins are available at face value for 3 months, while non-ferrous metal collector coins are available at face value for 1 year after issuance at the primary distributor of collector coins, Magyar Pénzverő Zrt.

Based on statutory powers and in the sense of the sales policy in place since 2014, in 2020 the central bank issued

25 commemorative collector coins in 13 topics. Of these, 2 were gold coins, 10 were silver coins and 13 were non-ferrous metal collector coins (of which 2 coins had an independent theme, and 11 coins were issued as the non-ferrous metal versions of precious metal coins). In addition, 50-forint circulation coin commemorative versions were issued in one topic, as well as commemorative versions of the 10- and 20-forint circulation coins in a separate subject were put into circulation.

The MNB's 2020 collector coin issuance programme started with the most valuable piece. As the sixth element of the series 'Medieval Hungarian Gold Florins', the collector coin 'Golden Florin of Vladislaus I' was issued in a gold version with a face value of HUF 50,000 (1 ducat – 3.491 g – and 4 ducats versions, the later with edge lettering) and in a non-ferrous metal version with a face value of HUF 2,000 on 14 January 2020.

Silver collector coins with an especially high face value of HUF 30,000 and non-ferrous metal collector coins with a face value of HUF 3,000, both named '30 Years of Freedom', were issued on 2 May 2020 to honour the 30th anniversary of the first meeting of the National Assembly elected freely for the first time in Hungary. These commemorative coins, with larger diameter than usual (59.75 mm), wish to call public attention to the significance of the political transition and the process how the free, independent and democratic Hungary came into being.

Silver and non-ferrous metal collector coins with face values of HUF 10,000 and HUF 2,000, respectively, were issued on 4 May 2020 in honour of the '150 Years of Organised Fire Departments in Hungary'. For this important occasion, 2 million of the commemorative version of the 50-forint circulation coin were also put into circulation.

On 29 May 2020, for the 100th anniversary of the birth of János Harsányi, a Hungarian Nobel Memorial Prize laureate in Economic Sciences, silver and non-ferrous metal collector coins with face values of HUF 10,000 and HUF 2,000, respectively, were issued by the MNB.

On 21 June 2020, for the 30th anniversary of the re-establishment of the Budapest Stock Exchange, the MNB issued silver collector coin with a face value of HUF 10,000 and its non-ferrous metal version with a face value of HUF 2,000 to honour this key occasion in the Hungarian economic history.

⁶⁰ Article 23(8) of MNB Act; Article 5(2), Article 19(1) and (2), Article 20(4), Article 22(1) of the old Banknote Decree; Article 4(2) and (4), Article 5(3) and (6), Article 9(1), Article 21(5) and (7) and Point a) of Article 22(2) of the new Banknote Decree

On 4 July 2020, the central bank issued a silver collector coin of HUF 10,000 and its non-ferrous metal version with a face value of HUF 2,000 to pay tribute the 175th anniversary of the birth and 100th anniversary of the death of Pál Szinyei Merse, a pioneering, seminal figure in modern Hungarian painting.

On 14 July 2020, the MNB issued 2 million commemorative versions of the 10-forint and 2 million commemorative versions of the 20-forint circulation coin named 'Respect for the heroes' as an acknowledgement for our compatriots (those working in public health care, trade, public sanitation, and logistics) for their self-sacrificing work in fighting the coronavirus pandemic. These coins serve as a symbol of respect towards them.

On 2 September 2020, a new element was added to the series presenting national parks in Hungary. On the 45th anniversary of the establishment of the Kiskunság National Park, which was the second national park established in Hungary, special, silver and non-ferrous metal collector coins with a standing rectangle shape and face values of HUF 10,000 and HUF 2,000, respectively, were issued as the fifth piece in this thematic series.

The 2020 commemorative coin issue programme continued with a unique issue. On 25 September 2020, for the 150th anniversary of the establishment of the Hungarian Meteorological Service, silver and non-ferrous metal collector coins with face values of HUF 10,000 and HUF 2,000, respectively, were issued by the central bank. The uniqueness of these commemorative coins is that they are the first square shaped silver coins issued in the more than half-century history of central bank issues, while the non-ferrous metal versions are considered exceptional because of their large size.

On World Animal Day – 4 October 2020 – the MNB continued the non-ferrous metal commemorative coin series that depicts Hungarian shepherd and hunting dogs with the second piece of the series, the 'Komondor' collector coin with a face value of HUF 2,000.

On the 30th anniversary of the Constitutional Court of Hungary, silver and non-ferrous metal collector coins with face values of HUF 10,000 and HUF 2,000, respectively, were issued by the central bank. The Constitutional Court was set up as one of the fundamental institutions of the democratic transformation in 1989–1990, i.e. the revolution of the rule of law. Its most important task has been the protection of the rule of law and fundamental rights.

The central bank issued a silver collector coin 'State Audit Office' with a face value of HUF 10,000 and a non-ferrous metal version with a face value of HUF 2,000. These coins were issued on 21 October 2020, honouring the 150th anniversary of the establishment of the organisation and the 30th anniversary of the relaunch of independent audits by the State Audit Office of Hungary.

As the seventh piece of the series presenting national memorial sites, the brass collector coin 'Debrecen, Reformed Great Church and College' was issued with a face value of HUF 2,000 on 18 November 2020.

The MNB completed the 2020 commemorative coin programme by issuing silver and non-ferrous collector coins with face values of HUF 10,000 and HUF 2,000, respectively, to honour the 125th anniversary of the foundation of the Hungarian Olympic Committee. The special, silver collector coin with its golden edge and its non-ferrous metal version, both issued on 2 December 2020, also commemorate the outstanding results in the history of Hungarian sports, including the first Hungarian gold medals in Summer and Winter Olympics.

3.8 STATISTICAL SERVICES

Following an intensive, two-year preparatory period, with the involvement of the credit institutions sector and the Hungarian Banking Association, a uniform central bank credit register reporting standard was formulated. This register conforms with the data collection models that represent a strategic direction internationally and contains micro data with a wide range of uses. In February 2020, the first reports of the central bank credit register (HITREG) data reporting, which contains individual-level credit data, were successfully received, and thus one of the most detailed data reporting of this type in Europe was launched.

The migration of data reports into the MNB's new data collection system started during the year. As a result, credit institutions' supervisory data supplies, the reports ordered by the EBA and certain statistical data are already received in the new, uniform system.

The renewal of the MNB's statistical data releases continued in 2020. Accordingly, press releases and other publications are being gradually renewed, and the infrastructure handling the website is also becoming more modern.

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 2020, the MNB issued five decrees related to data reporting in 2021. One of these primarily contains data reporting ordered for the fulfilment of the MNB's basic tasks,⁶¹ supplemented by four decrees ordering data reporting primarily necessary for the fulfilment of supervisory tasks.⁶² In 2020, the effective 2020 MNB decrees related to data reporting were amended on four occasions during the year in view of the changes in the domestic legislative environment, the extraordinary situation related to the pandemic and – with 1 July 2021 as the date of entry into force – the new data requirements related to the central bank credit register (HITREG).⁶³

Results of the MNB's credit institution data collection projects

Following an intensive, two-year preparatory period, with the involvement of the credit institutions sector and the Hungarian Banking Association, the first reports of the HITREG data reporting, which contains individual-level credit data, were successfully received in February 2020.

The examination of the data quality of the granular credit data base received every month and containing more than four hundred credit features is of key importance in terms of data utilisation. Therefore, in addition to the thousands of verification rules upon receipt, following the first data receipt, systematic verification of data quality started immediately in early 2020, with the involvement of the MNB's business user areas that use the data.

The HITREG data reporting introduced in 2020 will be expanded in several respects starting from 2021 Q3, with the amending decree issued in November 2020.⁶⁴ Pursuant to the amendment extending the data reporting to groups of financial enterprises, in addition to credit institutions, the sector coverage of the debtors shown in HITREG is increasing, the report covers all loans with the exception of interbank loans, and is expanded to include analysts' data needs set forth in the ESRB recommendation concerning the monitoring of real estate financing and with other analysts' data needs. With support from the Hungarian Banking Association, the MNB provided wide-ranging information for the financial enterprises sector as well – just as it did for credit institutions.

Supervisory statistics

In 2020, both pre-planned and extraordinary tasks due to the pandemic were accomplished in line with the expectations.

Following several years of preparations, within the framework of the STAFIR project aimed at the integration of statistical and supervisory IT systems, the change-over to receiving supervisory data based on EBA implementing technical standard (ITS) provided by credit institutions and investment firms in XBRL format was successfully completed in October. Simultaneously with that, credit institution supervisory data collection was also taken over by the MNB's new, integrated data collection system, with a large portion of the statistical data already migrated in the first half of the year.

Due to the pandemic, many extraordinary tasks arose requiring the co-operation of many organisations and short deadlines. The MNB introduced coronavirus-related extraordinary data reporting for various supervised sectors, and the guidelines elaborated by the EBA related to reporting in connection with the pandemic (EBA/GL/2020/07) were also implemented within a short time.

In the case of the insurance sector, significant international work occurred within the framework of the 2020 review of Solvency II. The document summarising the findings of the review and containing the proposal of EIOPA was submitted

⁶¹ MNB Decree No 41/2020 (XI. 18.)

⁶² MNB Decrees No 42/2020 (XI. 19.), No 43/2020 (XI. 19.), No 44/2020 (XI. 20.) and No 45/2020 (XI. 20.)

⁶³ The amendments concerned MNB Decree No. 32/2019 (XI. 25.) on data reporting obligations regarding certain data related to payment service provision for the central bank information system, MNB Decree No. 35/2018 (XI. 13.) on the data reporting obligations to the central bank's information system in respect of certain data of credit transactions as well as the MNB decrees ordering data reporting for the fulfilment of the MNB's basic and supervisory tasks [MNB Decrees No. 37/2019 (XI. 19.), 38/2019. (XI. 20.), 39/2019 (XI. 20.), 40/2019 (XI. 21.) and 41/2019 (XI. 21.)].

⁶⁴ MNB Decree No 46/2020 (XI. 20.)

to the European Commission at end-2020. The work continued in 2021 with the transposition of amendment proposals regarding the ITS.

Changes in MNB publications

The press release on the MNB's preliminary statistical balance sheet was first published in an interactive form in February 2020. During the year, the publication was expanded on several occasions in order to allow a better understanding of the impact of the MNB's measures related to the pandemic on the balance sheet. In June 2020, the publication of investment funds was complemented with the detailed balance sheet data of the funds. As a result, the interactive publication contains the most detailed asset and liability data available from the MNB's data collection, which had been obtainable only indirectly, from the data of other publications.

In February 2020, the MNB provided the new statistical data on the pension fund sector to the ECB, for 2019 Q4, for the first time. The report contains stock and flow data of domestic voluntary, private and occupational pension funds in line with the relevant regulation of the ECB.

Pursuant to MNB Decree No. 32/2019 (IX. 25.), data reporting with the new structure regarding payment service provision was received for the first time with a deadline of 30 October 2020. The significant widening of the data reporting spectrum was an extraordinary task for both the sector as a whole and the MNB during the year. The new structure of data collection and the ordering of data content that is more detailed than before ensures compliance with the expanding international reporting requirements, wider use of the collected data through the transfer of data to the HCSO and other domestic organisations as well as a deeper analysis of the general development trends in payments. The publication compiled of the data in the new structure was published on the MNB's website on 15 December 2020.

Closer cooperation with the Hungarian Central Statistical Office

As a result of the pandemic, starting from the spring of 2020, the availability of administrative and statistical data sources necessary for the compilation of statistics became more uncertain, while demand for statistics on the state of the economy, the general government and the financial intermediary system increased. Realising this, the MNB intensified its cooperation with the HCSO. The deadlines related to the transfer of data required for the production of the quarterly national accounts and the balance of

payments became shorter, data exchanges became more intensive and were complemented with additional information that help the two statistical authorities maintain the quality of statistical products as well as to satisfy new user demands.

In spite of the pandemic, the implementation of the third phase of the household wealth survey (*Household Finance and Consumption Survey, What do we live from?*) coordinated by the ECB and carried out in Hungary with the cooperation of the HCSO and the MNB progressed as planned. Households were successfully contacted and asked in the last four months of 2020, and the first results are expected by end-2021.

In 2020, the Hungarian statistical organisations became involved in the international renewal process of the system of national accounts (SNA) and the Balance of Payments Manual (BPM). The new standards are expected to be completed during 2024 and 2025, and will have to be applied in international statistics starting from 2029.

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.

Data quality, administrative inspections

As part of its continuous evaluation of compliance with the reporting requirements set forth in the MNB decree on data reporting, including timely fulfilment and adequate data quality, in 2020 the MNB imposed penalties for failures to meet the reporting requirements or for delays 49 times on 43 reporting entities (totalling HUF 14.3 million), in addition to the warnings and the resolutions imposing measures and notices.

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

Based on the social responsibility strategy announced in line with the fundamental values and vision set out in its Statutes, the MNB considers serving the public good and providing support for the implementation of value creating objectives of the society as a whole without jeopardising the fulfilment of its basic tasks and to the debit of its sustainable profit as its mission. The main elements of the strategy are the reinforcement of financial literacy, the renewal and enhancement of the system of education (primarily higher education), the training of economists and financial training, supporting scientific activity, the preservation and protection of national cultural values as well as contributions to charitable initiatives. The 2020 achievements in the central bank's social responsibility activity contributed significantly to meeting these strategic objectives.

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 and 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 are partly realised through partnerships with participating institutions.

Higher education programmes and cooperation

As part of implementing the MNB's corporate social responsibility strategy, the MNB has announced, for the fifth time, the MNB Scholarship of Excellence for students of economics participating in bachelor and master programmes relevant to the central bank's activity, for the 2020/2021 academic year. In the 2020/2021 academic year, 541 students at 25 Hungarian higher education institutions were granted this scholarship.

In 2020, the MNB renewed its cooperation with the priority partner universities (Corvinus University of Budapest, Budapest University of Technology and Economics, University of Debrecen) for the 2020/2021 academic year. Regular academic competitions for the students of the partner universities were announced.

The cooperation between the MNB and the Corvinus University of Budapest (CORVINUS) has been continuous since 2015 and has become the central bank's largest education programme over time. The most significant results of this cooperation include the MNB Department, which has been continuing its operation as an independent institute, as the MNB Institute since the summer of 2020 and the Economic Geography, Geoeconomics and Sustainable Development Department operating within the organisation of the Institute for International, Political and Regional Studies.

Similarly to the cooperation with Corvinus, cooperation aimed at implementing various educational projects with prestigious institutions of Hungarian higher education, the Budapest University of Technology and Economics (BME) and the University of Debrecen (DE) continued during the 2020/2021 academic year. Within the framework of the cooperation with BME, two large professional workshops were established in the first support period: the Digitalisation, Artificial Intelligence and Data Era Workshop as well as the Green Finance and Green Economy Workshop, within the framework of which joint research projects and curriculum development were implemented with the involvement of teachers from BME and experts from the MNB. In the 2019/2020 academic year, within the cooperation with DE, two subjects with renewed content were introduced with great success.

The transformation of the MNB's higher education cooperation with institutions other than the priority partners into a horizontal programme is in progress under the title 'University network for sustainable development'.

The MNB is actively involved in the 'Eastern Opening' policy announced by the Government of Hungary, and assists the settlement of the Fudan University in Hungary. In order to strengthen these efforts, Chinese research groups in Hungary and priority actors were supported by the MNB, and a cooperation agreement was concluded in 2020 between the 'Modern Far East Research Group' operating at the Pázmány Péter Catholic University and the MNB. The primary objective of the operation of the Oriental Business and Innovation Center (OBIC) founded by the MNB and the Budapest Business School is to support the training of young professionals (economists, international relations experts) who speak Eastern Asian languages and know the culture and economy of Eastern Asian countries and regions.

In cooperation with John Von Neumann University and as a dual corporate partner, the MNB participates in the training of students in Business Management courses. In

this scheme, 45 students completed their traineeship at various functional areas and subsidiaries of the MNB.

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 2019/2020 academic year 53 university students (including 5 PhD students) and 20 high-school students won scholarships, while in the autumn semester of the 2020/2021 academic year 54 university students (including 6 PhD students) and 24 high-school students won scholarships.

Financial education for the public

The MNB created its Financial Navigator information system to develop the financial awareness of the adult population. The objective of the wide range of instruments is to reach the highest possible number of people and call attention to typical situations of financial decision-making as well as the aspects and risks to be considered. The Financial Navigator information contents are accessible via financial consumer protection websites, search algorithms and calculators assisting the selection of products, short films, mobile applications as well as a series of printed booklets. The advisers of the Financial Navigator Advisory Office Network are at the public's disposal with tailor-made, free advice in 18 county seats.

Financial Navigator website and mobile application

The Financial Navigator website presents the features of various financial services and products, emphasising the importance of gathering information and comparing products and service providers in hundreds of articles. In 2020, a comprehensive revision of the contents published on the website resulted in the updating of some 190 website articles. In addition, a new menu item – Family Green Finance – was also added to the website. With the help of the ecological footprint calculator available there, it is possible to calculate the impact of a given household's consumption habits on the environment, i.e. its individual ecological footprint. To reduce this footprint, the website offers various pieces of practical advice and useful information.

Well-informed decisions as well as comparisons of products and service providers are assisted by the product search features and calculators available free-of-charge on the

Financial Navigator website, including country-wide branch and ATM search, bank account selector, credit calculator, deposit calculator, household budget calculator, loan and lease selector, deposit selector applications, etc.

A large portion of the Financial Navigator contents is easy to use, can be tailored to individual needs and is available on a mobile application as well that can be run on both iOS and Android systems. The Financial Navigator mobile application facilitates the comfortable, fast collection of information, among other things, with the latest news and exchange rate data, the embedded versions of online search engines and calculators, a customer service appointment reservation function and a financial dictionary. In the spirit of edutainment, the MNB published financial educational questions on the web and mobile application platform of a popular Hungarian online strategic quiz in 2020 as well.

Financial Navigator Papers

A continuously expanding series of thematic booklets consisting of 38 parts, which were renewed both in terms of content and graphics in 2020, is available for those who gather information from printed publications. The free Financial Navigator Papers are available at the MNB's customer service, branches of banks and mutual savings banks, the customer service offices of insurance companies and cooperating Government Customer Service Offices as well as from cooperating civil society organisations, in a network of more than 100 institutions in total. Based on preliminary assessment of needs, more than 1.7 million copies of the revised publications were produced. The publications are available in digital format as well on the MNB's Financial Navigator website.

Financial Navigator Advisory Office Network

In order to enhance the public's financial culture, the MNB operates the Financial Navigator Advisory Office Network (FNAON) in 18 county seats. The offices are operated by civil society organisations, which are independent of financial institutions and service providers. The advisers give unbiased, professional and free financial advice for consumers in person, on the phone as well as electronically and by post. The objective of the advisory service, which is under the MNB's continuous professional control, is to allow consumers to request an independent expert opinion before their financial decisions as well as to receive assistance in drafting and submitting official documents, applications and complaint letters. In order to prevent and reduce the risks of the coronavirus, from 13 March 2020 until 8 June 2020 the MNB suspended personal advising in the Financial Navigator Advisory Offices as well as the

organisation of external counselling events and – in view of the worsening pandemic – it reintroduced the extraordinary measures from 30 November 2020. In the aforementioned periods and at present as well, the advisers receive queries exclusively by phone, electronically or by post. In 2020, the experts handled more than 23,000 queries from customers and held external counselling events on more than 200 occasions.

Sponsoring

In addition, within the constraints of available resources, the MNB participated, via strategic agreements or ad-hoc grants, in value creation, the preservation of national values, intellectual and cultural heritage (e.g. Andrassy Gyula Foundation, Virtuózok Hungary Nonprofit Kft.) and supported scientific activities and financial literacy (e.g. Hungarian Economic Association, Polgári Szemle Foundation). It contributed to improving the quality of life and equal opportunities of disadvantaged groups and to alleviating the difficulties arising from extraordinary life situations, which were often related to the coronavirus pandemic, with charitable grants (e.g. Hungarian Interchurch Aid, Hungarian Charity Service of the Order of Malta).

3.10 THE MNB'S ENVIRONMENTAL SUSTAINABILITY ACTIVITY

In 2020, within the framework of its Green Programme launched in 2019, the central bank took further steps to reduce the risks associated with climate change and other environmental problems and to expand green financial services in Hungary. The MNB has been active in all three pillars of the Green Programme, i.e. in activities targeting 1) the financial sector, 2) the development of its own social and international relations, and 3) the further 'greening' of its operational activities. In connection with its operational activities, the MNB has developed an environment protection strategy for the period 2020-2022 to continue reducing its own ecological footprint. To further green its own operations (Pillar 3 of the Green Programme), it has decided to make ambitious carbon footprint reductions, while since 2021, it has been fully offsetting its carbon dioxide emissions with a habitat restoration project.

The MNB's Green Programme

In the first pillar of the Green Programme, the central bank wishes to strengthen the integration of environmental considerations into the financial system via ecological and environmental risk analyses – such as climate stress testing – and incentives to support financing, among other

things. Due to the increased borrowing uncertainty caused by the pandemic, the terms of the green housing capital requirement allowance announced at the end of 2019 were modified, and thus the central bank decided to ease the programme. As a result, the capital requirement allowance has been extended by one year, until the end of 2024. In addition to the existing interest allowance, the allowance can now also be 'passed on' to clients in the form of fees linked to loans.

In 2020 H2, the MNB also announced a capital requirement allowance programme for green corporate and municipal lending. As part of this, it waives some or all of the capital requirements for corporate and municipal exposures in a given year under Pillar 2 of the capital regulation, if the investment concerns the financing of renewable energy production and the purchase of green bonds by banks. Later, the allowance is expected to be extended to other 'green' credit purposes as well.

One notable development for both the domestic corporate bond market and green finance is that the first domestic green corporate bond issuance under the BGS took place in the summer of 2020. Green corporate bonds account for more than 10 per cent of the MNB's corporate bond holdings purchased under the BGS. However, without the incentive and supportive actions of the central bank and other regulators, it is unlikely that the issuance of corporate, bank and possibly municipal green bonds can proceed to the desired extent at the beginning, and thus the MNB is constantly looking for ways to stimulate the market in order to improve the financing conditions for green investments through those actions. In September 2020, the MNB published an analysis on the ideas, entitled '*Opportunities for jump-starting the Green Bond Market in Hungary*'.

In autumn 2020, with the support of the European Commission's Structural Reform Support Service, in cooperation with the EBRD and a domestic consultancy firm, the National Sustainable Capital Markets Strategy was launched as a work programme, by way of which the central bank intends to identify further green capital market development opportunities.

In the spirit of strengthening the green capital market, the MNB considers it important to expand the green mortgage bond market and, through this, to encourage green mortgage lending. To this end, the Monetary Council decided in November 2020 to further develop the mortgage bond purchase programme which was relaunched in April 2020. In line with the decision, in the future the central bank will purchase green mortgage bonds that support environmental sustainability and prioritise financing for

improving energy efficiency, preparations for which began at the end of 2020.

In the second pillar of the Green Programme, the MNB – as a supporting party – signed the UN Principles for Responsible Banking in February 2020 to encourage domestic credit institutions to make public and accountable sustainability commitments in the area of sustainable, green economy funding. Another important international development was that the central bank, in cooperation with the EBRD, held its second International Green Finance Conference in October 2020. This time, due to the pandemic situation, the event took place online. In addition to assessing the negative economic impacts of climate change, the conference focused on discussing the possibilities for a 'green' recovery from the pandemic, with an emphasis on renewable energy production and financing energy efficiency investments. As a follow-up to the conference, the MNB also organised a professional workshop on sustainable finance with the financial supervisory bodies of ten Central European countries and other important international organisations.

In 2020, the EUR-denominated green bond portfolio, which is part of the foreign exchange reserve, reached the target size set in 2019. Renewable energy investments, energy-efficient real estate investments and transport-related developments serve as the backbone of the projects financed by green bonds.

The central bank not only intends to ensure the aspect of environmental sustainability by greening financial institutions, but also considers it important to disseminate financial knowledge to the Hungarian population and to broaden the scope of conscious consumer awareness-raising. To support this, the Family Green Finance programme has been launched, with the aim of drawing attention to the fact that conscious management of finances can be put at the service of the environment.

At the end of the year, the MNB published its draft green recommendation to financial institutions for social consultation. In addition to the expectations related to climate change and the management of environmental risks, the document seeks to promote the integration of environmental sustainability considerations into business decisions. Moreover, to further green its own operations (Pillar 3 of the Green Programme), it has decided to make ambitious carbon footprint reductions, and since 2021, it has been fully offsetting its carbon dioxide emissions with a habitat restoration project.

Energy indicators

The MNB's direct environmental impact is mainly due to energy consumption, within which energy consumption related to the operation of buildings makes a key contribution. 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 in 2020, due to the epidemiological measures, the consumption of electricity and fuel for the motor vehicle fleet decreased. It is important to note that much of the energy required to operate the buildings is independent of the number of people working in the building. Energy consumption for heating increased in 2020. The increase was due to the fact that the average temperature during the heating period (from October to April) was 1.95°C lower than in the same period of the previous year.

As a result of the above, total energy consumption per capita increased by 2.3 per cent at the end of 2020.

Waste management

There was no significant change in the separate waste collection system in 2020. In early 2020, the separate collection of aluminium-based coffee capsules and Tetra

Table 6
Total energy consumption

Total energy consumption (kWh)	2019				2020				Change (%)
	Head Office Building	MNB Logistics Centre	Krisztina Boulevard Building	Total	Head Office Building	MNB Logistics Centre	Krisztina Boulevard Building	Total	
Electricity consumption	3,029,944	2,905,561	1,226,449	7,161,954	2,826,738	2,862,215	1,065,473	6,754,426	-5.7
Heating, hot water energy consumption	1,718,809	1,117,020	1,265,495	4,101,324	2,171,613	1,412,731	1,308,219	4,892,563	19.2
Fuel energy consumption		453,299		453,299		357,467		357,467	-21.1
Total energy consumption				11,716,577				12,004,456	2.5
Unit energy consumption (kWh/person)				8,927				9,133	2.3

Pak cartons was introduced, further reducing the amount of waste going to landfill. In 2020, the modified work schedule because of the pandemic reduced the presence of employees in the office, with a related reduction of 41 tonnes of municipal waste in 2020. All of the scrapped electronic devices and equipment were donated to charity organisations for recycling purposes in 2020. The proportion of hazardous waste in total waste was just 1.1 per cent.

Water management

Due to the lower office occupancy rate, drinking water consumption decreased by 24.7 per cent in 2020. In the summer months of 2020, the overall average temperature was 0.5 °C lower, resulting in a 41.8 per cent decrease in the amount of well water used for irrigation.

Evolution of the carbon footprint of the MNB's operational activities

One important objective for the 2020-2022 strategic period is to refine the carbon footprint calculation model and to revise and update the emission factors used. In 2020, the range of elements causing environmental pressures resulting from operational activities was expanded, and factors from the Clim'Foot database, also proposed by the WWF, were used in the model. The carbon footprint related to electricity consumption decreased by 35.9 per cent in 2020. This was partly due to lower energy consumption

and partly due to the provision of 20-per cent renewable electricity for the Head Office and the Logistics Centre.

The decline in business travel emissions was significant; the smaller number of conferences and other events and their online delivery, even with a 20-per cent increase in emissions from taxi use, showed a decline of almost 80 per cent. The carbon footprint per capita decreased by 32.3 per cent in 2020.

3.11 FACTORS SHAPING THE COMMUNICATION OF THE MNB

In 2020, 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 held 35 press conferences and published 270 press releases. In addition, during the year it published 142 professional articles in the print press, on online economic portals and on its website in order to maintain the reputation created by the MNB's high quality professional work and to reinforce positive public opinion. The central bank sought to increase the financial awareness of the corporate sector and the public through its social responsibility, supervisory, market surveillance and consumer protection activities and communication actions. The MNB also organised international conferences important for the management of its reputation abroad,

Table 7
Evolution of the carbon footprint of operational activities

Carbon footprint/cause	MNB's carbon footprint (CO ₂ emission in tons)		
	2019	2020	Change %
Electricity	4092	2624	-35.9
Natural gas and district heating	848	966	13.9
Vehicles fleet	123	104	-15.1
Total carbon footprint from energy use	5,063	3,694	-27.0
Air travel	945	201	-78.7
Car travel abroad	2.4	0.4	-83.5
Domestic car travel	7.8	1.9	-75.6
Taxi usage	2.6	3.2	20.9
Total business travel	958	207	-78.4
Refrigerants	-	5	-
Banknote briquettes for energy purposes	-	18	-
Recycled office paper	-	2	-
Waste	-	156	-
Total other emissions	-	181	-
Total carbon emissions (tons)	6,021	4,082	-32.2
Specific carbon footprint (tons/person)	4.6	3.1	-32.3

and published professional articles in English on its website, which it distributed to interested foreign audiences through its social media platforms.

In 2020, despite the pandemic that negatively affected normal business operations, the MNB considered it an important task to present the central bank's activities, achievements, reports and proposals continuously and transparently. In order to supply comprehensive information and continuous updates on its technical work, the MNB held 35 press conferences and published 270 press releases. From March on, press briefings took place in the online space, in line with the distancing rules imposed due to the pandemic.

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 and financial stability. Accordingly, 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, including those responsible for the infringements which were found. Warnings about the necessary precautions to identify risk related to financial operations also formed part of the supervisory communication in 2020.

The publication of professional articles was also smooth. The articles were 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. In 2020, more than 140 publications appeared, and the MNB was assisted in this by reputable news and economic websites. The professional articles, analyses and summaries were also posted on the mnb.hu website in order to maintain the reputation created by the central bank's high quality professional work, to strengthen positive public opinion and to increase the number of visitors of the website.

The central bank sought to increase the financial awareness of the corporate sector and the public through its social responsibility, supervisory, market surveillance and consumer protection activities and communication actions. Increasing consumers' knowledge was a focus area in the central bank's communication in 2020 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, mainly

domestically due to travel restrictions, while the online and print content pointed out the importance of responsible borrowing before the Christmas holidays. Moreover, the central bank paid special attention to broadening the range of Certified Consumer-Friendly Products: in addition to housing loans, some home insurance policies and personal loans already have the Certified Consumer-Friendly Trademark, so the active communication on these also began in 2020.

In February and March, the MNB's key communication topics included the preparation and launch of the Instant Payment System and the first experience reports. The central bank's proposals and decisions in March and April, which helped the country recover quickly from the economic crisis caused by the pandemic, were the subject of great interest: the proposal to introduce a moratorium on repayments, the launch of the FGS Go!, the extension of its applicability and financial framework, the expansion of the conditions of the BGS and the support for the operation of banks in a business environment changed by the pandemic were all important communication topics. During the year, the MNB made proposals (consisting of 50 points) to address the economic impacts of the pandemic, and also paid particular attention to the positive media response.

The distancing caused by the pandemic shifted the focus of communication to the online space, creating a special situation. In response to this, the MNB launched a video blog series in the summer of 2020, which was complemented with a podcast series. In addition to informing the public and raising its financial awareness, the main purpose of producing this content was to highlight professional achievements. During the year, a large amount of audio-visual content was published on the MNB website and on all its social media channels.

In 2020, communication on expired banknotes and coins made of new base material continued, as well as the MNB's commemorative coin programme, in parallel with which the central bank issued special commemorative circulation coins as a tribute to the self-sacrificing work of the 'Respect for the heroes', the health, trade, public sanitation and logistics workers. Professional communication on strengthening the importance of green finance and FinTech and digitalisation developments also remained in focus.

In addition, the MNB has placed great emphasis on communication on the social media platforms: with nearly 90,000 followers, the social media side of the central bank is able to provide a large number of contact points. The central bank also organised international conferences important for the management of its reputation abroad

and published professional articles in English on its website. Related information was typically and mainly communicated to international economic actors via the Twitter interface, which also allowed for continuous and direct interaction. During the year, the MNB continuously updated the public on the international activities of the central bank and its executives. There was also active communication about the foreign visits of Hungarian delegations as well as the international meetings and conferences organised in Hungary.

3.12 THE MNB'S INCOME IN 2020

The MNB generated a profit of HUF 255.4 billion in 2020. This was due in part to the interest income, which remained positive even though it was lower than in 2019, along with the realised exchange rate gain that was higher than in 2019. Foreign exchange sales due to the state's expenditures on protection against the pandemic contributed to the rise in the exchange rate gain. The MNB paid HUF 250 billion as a dividend from its retained earnings to the central budget in 2020.

In 2020, the MNB recorded a profit of HUF 255.4 billion. During the year, 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, and 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, as well as with the evolution of the central bank's liquidity and growth support instruments;
- monetary policy instruments to support the liquidity and lending activities of the banks (collateralised loan facility, FGS) and the BGS aimed at diversifying the fundraising of the corporate sector and increasing the liquidity of the corporate bond market;
- central bank asset purchase programmes (government security and mortgage bond purchase programmes);
- changes in forint interest rates and international foreign exchange interest rates; and
- changes in exchange rates.

Net interest and interest-related income generated a profit of HUF 40.7 billion, which was HUF 8.7 billion lower than the outcome in 2019. Both forint and foreign exchange interest incomes showed profits, but the decline in forint interest income exceeded the improvement in foreign exchange interest income. In 2020, due to the central bank's measures taken to mitigate the negative economic and financial impacts of the pandemic, the balance sheet total increased significantly, and the stock of interest-bearing forint assets and liabilities increased substantially.

Table 8
Abbreviated income statement and individual balance sheet items of the MNB
(HUF billions)

No.	Description (P/L line)	2019	2020	Change
1	Net interest and interest-related income (I+II)-(X+XI)	49.4	40.7	-8.7
2	Net forint interest and interest-related income (I-X)	30.6	10.7	-19.9
3	Net foreign exchange interest and interest-related income (II-XI)	18.8	30.0	11.2
4	Realised gains/losses arising from financial operations (IV-XIV)	7.3	5.1	-2.2
5	Income arising from exchange rate changes (III-XII)	229.1	286.1	57.0
6	Other constituents of net income* (V+VI+VII+VIII)-(XIII+XV+XVI+XVII+XVIII)	-31.1	-76.5	-45.4
7	Profit/loss for the year (1+4+5+6)	254.7	255.4	0.7
8	Selected items of equity in the balance sheet			
	Retained earnings	198.2	202.9	4.7
9	Revaluation reserves due to unrealised foreign exchange gain/loss	187.8	586.4	398.6
10	Revaluation reserves due to changes in the market value of the foreign currency securities	32.2	58.0	25.8

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

Net interest and interest-related income in forint showed a gain of HUF 10.7 billion, i.e. the profit decreased by HUF 19.9 billion compared to the previous year. As a result of the new and expanded old central bank programmes (provision of collateralised loans, purchase of mortgage bonds, government securities and corporate bonds), interest income increased, but at the same time this was outweighed by the increase in interest expenditures related to the absorption of forint liquidity (one-week deposit, preferential deposit) and the increase in interest paid on forint deposits of the central government. Interest paid on the preferential deposit with a banded (4-per cent) interest rate related to the FGS Go! and the Bond Funding for Growth Scheme accounted for a growing share of interest expenditures, as the take-up of the programmes increased. The decrease in forint interest and interest-related profit was also due to the fact that, as a consequence of market forint interest rates being higher on average than in the previous year, the profit on interest rate swaps concluded with credit institutions was lower.

Foreign exchange interest and interest-related income amounted to HUF 30 billion, which was HUF 11.2 billion higher than in 2019. The slight decline in interest income on international reserves in the low, partly negative international interest rate environment was more than offset by the favourable evolution of the income of forward transactions concluded to cover the risk of reserves and the decrease in foreign exchange interest expenditures.

Realised gains from financial operations contain, for the most part, gains and losses arising from changes in the market price of securities realised on the sale of securities. In 2020, a profit of HUF 5.1 billion was realised on financial operations, largely due to the decline in US dollar yields in the first half of the year; this was HUF 2.2 billion lower than the profit in 2019.

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. In 2020, foreign currency sales – which were high compared to the previous years – were related to the debt management operations of the Government Debt Management Agency, the state's expenditures on protection against the pandemic and the management of international reserves. In addition, due to the weakening of the forint, the difference between the official exchange rate and the cost rate increased. Compared to 2019, the realised income from exchange rate changes increased by HUF 57 billion to HUF 286.1 billion.

Other income factors include banking operating incomes, costs and expenditures, costs of issuing banknotes and coins, accounting for provisions and impairment, incomes from supervisory activities, and income/expenses from fees and commissions and other income/expenses. Net expenditures resulting from these items amounted to HUF 76.5 billion in 2020, an increase of HUF 45.4 billion compared to the previous year. This increase is mainly due to the impairment created for monetary forint securities on the basis of prudential considerations, as well as to the rising operating costs.

The MNB's equity amounted to HUF 1,112.7 billion on 31 December 2020. Based on the decision of the Executive Board, the MNB paid a dividend of HUF 250 billion from its retained earnings to the state budget in 2020, which reduced the amount of equity, while at the same time the revaluation reserves and the developments in the profit/loss for the year increased it.

The positive difference between the official forint exchange rate and the average cost rate widened compared to the end of 2019, causing the revaluation reserves due to forint exchange rate changes to grow by HUF 398.6 billion, coming in at HUF 586.4 billion on 31 December 2020.

On 31 December 2020, unrealised gains on foreign currency securities marked to market amounted to HUF 58 billion, which exceeds the previous year's level by HUF 25.8 billion.

3.13 THE MNB'S FINANCIAL MANAGEMENT IN 2020

Actual operating costs in 2020 amounted to HUF 47,974 million, which is 2.5 per cent below the approved budget (excluding central reserves) and 14.8 per cent above the expenditures incurred in 2019. The increase compared to the previous year was principally observed in general operating (mostly other) costs, mainly related to the communication on central bank measures taken to mitigate the economic impacts of the coronavirus, as well as to the ramp-up of the FGS Go! and BGS campaign activities.

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.

Table 9
Operating costs of the MNB in 2020

Description	Actual data for 2019	Budget for 2020	Actual data for 2020	Index (2020 actual / 2020 budgeted)	Index (2020 actual / 2019 actual)
	HUF millions			Per cent	
Staff expenditures	24,850	26,344	26,058	98.9	104.9
General operating costs	16,954	22,855	21,916	95.9	129.3
Total	41,804	49,199	47,974	97.5	114.8

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.

Simultaneously with the worldwide outbreak of the pandemic and the global health emergency declaration by WHO, the MNB started preparing to minimise the impacts of the pandemic on the MNB in order to protect the health of its employees and ensure the continuity of business operations. During the first wave of the pandemic, the MNB took the necessary decisions, and then, in the summer of 2020, normal business operations were restored. Based on the measures taken and the experience of the period that had ended, possible directions for further development of the preparation phase were formulated during the summer in order to improve the MNB's resilience to a possible subsequent wave of the pandemic, which did occur in the autumn of 2020. In summary, on the basis of international examples and practices, the MNB's emergency management and the measures taken were outstanding.

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 2020 amounted to HUF 47,974 million, which was 2.5 per cent below the approved budget (excluding central reserves) and 14.8 per cent above the expenditures incurred in 2019.

The increase versus the previous year was principally observed in general operating (mostly other) costs, mainly related to the 2020 communication activities approved by the MNB's Executive Board. Within personnel costs in 2020, it was mainly the wage costs of staff members and the non-wage benefits (SZÉP Card) implemented in the legislative framework that increased, while representation costs and contributions decreased.

Personnel costs

In 2020, personnel costs (HUF 26,058 million) exceeded the previous year's figure by 4.9 per cent (HUF 1,208 million).

The decisive factor behind this deviation was that, pursuant to the decision of the MNB's Executive Board, the 2019 wage bill was raised by 5 per cent with effect from 1 January 2020, in order to ensure and retain highly qualified employees over the long run. In addition, the Executive Board of the MNB decided to provide employees with a one-time net extraordinary SZÉP Card benefit of HUF 350,000 in accordance with the provisions of the Government Decree on tax relief measures required to mitigate the economic impacts of the pandemic. At the same time, the social contribution tax rate decreased in 2020, and in connection with the SZÉP Card benefit, this public burden was waived entirely from 22 April 2020, which reduced personnel costs. At the same time, the statistical average headcount rose by 1.2 per cent, mainly as a result of filling vacant positions in functional areas.

In the reporting period, there were no material changes in the wage structure compared to the previous year, but the MNB phased out the former optional non-wage benefits system as of 1 January 2020 and, alongside it, established a new non-wage benefits system, in which, while introducing new elements, retained some of the former benefits in a restructured form.

In addition to the aforementioned, representation costs in 2020 decreased by more than one half compared to 2019, as most of the MNB's internationally significant events were cancelled or were held online due to the pandemic.

General operating costs

In 2020, general operating costs (HUF 21,916 million) were 29.3 per cent higher than in 2019 (up HUF 4,963 million); the changes in the components can be attributed to the following reasons.

IT costs increased by HUF 605 million (19.4 per cent) compared to the same period of the previous year, mainly due to the additional costs of the already implemented IT investments (functional extensions, higher availability levels). The MNB continues to pay special attention to enhancing IT security, which has also been accompanied by rising expenditures. Due to price increases and the purchase of new subscriptions, the costs of news services were also higher than in the previous year, while the costs of IT expertise and consulting services fell as a result of the decrease in the relevant user demand.

Compared to 2019, *operating costs* increased by HUF 528 million (8.8 per cent), which was mainly due to the increase in the rent of the building at 39 Krisztina krt. and the outsourcing of bank security technicians and receptionists to MNB Biztonsági Zrt. (the latter also meant savings in wages). Furthermore, the costs of maintenance and upkeep of property protection systems in the buildings used by the MNB increased. However, the start of the replacement of banknote handling machines resulted in a temporary reduction in the maintenance costs of cash logistics machines.

The *depreciation* of tangible and intangible assets in 2020 was 27.6 per cent (HUF 1,012 million) higher than the amortisation costs in the previous year. This is mainly due to the investments made in 2019 and 2020, within which IT and banking security developments were predominant (the useful lifespan of hardware and software is usually shorter than that of other assets, i.e. their gross value is written off earlier).

Other expenses increased by 63.0 per cent (HUF 2,787 million) in 2020 relative to the previous year, particularly as a result of a considerable increase in the costs of communication services. Firstly, this was due to fact that communication concerning the measures taken by the central bank in 2020 to mitigate the economic impacts of the coronavirus and the ramp-up of the Funding for Growth Scheme Go! campaign activities involved significant expenditure. Secondly, some parts of the major communication campaigns planned for 2019 (e.g. Instant Payment System) were only implemented in 2020. Furthermore, credit ratings and their review fees also contributed to the increase in other costs. Mainly in connection with the pandemic, mission-related travel, non-personnel and accommodation costs, education and further training costs, fees for legal expertise and advice as well as costs of producing issues and publications in support of professional work, etc. were lower than in 2019.

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 in year-on-year terms. This primarily stems from the fact that the related cost transfer could not take place due to the lack of income from the reimbursement of training and conference participation fees.

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 2020 amounted to HUF 11,737 million. During 2020, a total of HUF 6,371 million was paid in connection with capital expenditures.

The majority of capital expenditures in 2020 were related to software development projects for various IT systems and the purchase of other software products/licenses and IT hardware devices.

As part of the real estate-related capital expenditures, the major ones carried out the mechanical and other alteration works of the Logistics Centre building. Also in 2020, the replacement of high-performance banknote processing machines operating in the cash logistics area was realised.

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, in addition to the high-level work. Through it all, in line with the interests of the institution, the individual interests of the colleagues can be promoted as well.

The MNB is an exceptional and attractive organisation in the labour market, characterised by its special legal status, its specific and wide-ranging tasks and the financial and moral esteem of its staff. The combined effect of all this is

already evident in the labour market, as according to the PwC Employee Preference Survey, the MNB ranked 3rd in 2019 and 2nd in 2020 in the financial sector.

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 objectives of the organisation. One of the key human resources strategic goals of the MNB is to employ employees loyal to the institution, who enable it 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 and 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 at the bank.

In 2020, the human resource area continued 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.

The MNB phased out the optional non-wage benefits system as of 1 January 2020 and, at the same time, while retaining or restructuring some forms of the non-wage benefits already provided under the system, it also introduced new elements. Thus, in 2020, it provided an even wider range of benefits to its employees 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, and to the self-care of its child-raising employees. 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 acknowledgement of its Child-focus and Family-Friendly Programme – in 2020, the MNB was awarded the title of 'Family-Friendly Workplace' by the Ministry of Human Capacities for the sixth consecutive time. With this title, the Ministry honoured the efforts, programmes, initiatives and system-level solutions voluntarily undertaken by the central bank, in order to support employees with family and children. Over the past six years, the MNB has enriched its Family-Friendly Programme with a number of new programmes and allowances.

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. Due to the pandemic, there was no call for applications for the Silver certificate in 2020, but since having obtained the Bronze

certificate, the MNB has added several new elements to its Family-Friendly Programme, which is a prerequisite for the Silver certificate. When invitations to apply for the Silver certificate are issued, the MNB intends to submit its material in order to obtain the Silver certificate of the certification.

Changes in staff number

The headcount of the MNB in 2020 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, 143 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, 198 persons were recruited and added to the MNB's statistical headcount in 2020.

As the combined balance of the decreases and increases, the closing headcount of 2020 was 1,507, exceeding that of 2019 by 55 persons.

In 2020, the average staff number of the MNB was 1,469.7 employees, exceeding that of the previous year by 17.2 persons.

A total of 45 students took part in dual internship at the MNB.

The average age of employees at the end of 2020 was 41.2 years.

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 2020 resulted in a total of 911 procedures. The total value of the successful

procedures amounted to HUF 26,483.3 million based on the signed contracts.

In connection with the procurement procedures launched and carried out in 2020, in three cases legal remedial action was taken, in one of which the contract was concluded, together with an imposition of fine, and in two cases the procedure did not identify any deficiencies. The MNB performed the task in compliance with the deadlines, with due transparency and keeping in mind the good reputation and prestige of the institution.

Operational risk management and business operation continuity

Due to the spread of the pandemic, the World Health Organisation (hereinafter: WHO) declared a global health emergency at the end of January 2020. Simultaneously with the worldwide outbreak of the pandemic and the global health emergency declaration by WHO, the MNB started preparing to minimise the impacts of the pandemic on the MNB in order to protect the health of its employees and ensure the continuity of business operations. During the first wave of the pandemic, the MNB made the necessary decisions, and then, in the summer of 2020 the transition back to normal business operations was executed. The first phase of treating the epidemiological situation was then completed. Based on the measures taken and the experience of the period that had ended, possible directions for further development of the preparation phase were formulated during the summer in order to improve the MNB's resilience to a possible next wave of the pandemic, which did occur in the autumn of 2020. In summary, on the basis of international examples and practices, the MNB's emergency management and the measures taken – as detailed below – were outstanding.

– *Preparing for the first wave:* The pandemic preparedness of the MNB was already adequate prior to this emergency, as the MNB had a Pandemic Action Plan, in which the allocation of responsibilities and tasks was defined. Where real events did not occur according to the preliminary, theoretical scenario, the MNB took the necessary steps. For example, at the beginning of the emergency, it assessed the range of critical-activity workers and updated the activity priority list.

– *Managing the first wave of the health emergency:* In January 2020, that is, even before the official governmental decisions were made, the MNB started analysing the epidemiological situation related to the coronavirus. The first official decisions of the MNB were

made already when the pandemic began to unfold in Hungary, i.e. in February and March 2020.

- During the emergency, the MNB – in the spirit of the measures taken by the Government of Hungary and on the basis of its instructions – took the necessary measures, and therefore it was able to perform its daily tasks properly, completely and on time and could protect its employees from the impacts of the pandemic.
- From March to June, the vast majority of MNB employees performed their tasks in home office (by virtue of the extraordinary creation of a general opportunity to work from home and the establishment of the conditions for it).
- The level of service remained unchanged in terms of basic tasks, with employees sometimes carrying out their tasks from home with an increased workload.
- The associated operational risks increased in some cases, justified by the need to manage the pandemic (prior to the pandemic, only allowing access to critical systems operating directly from the internal network in the context of home working, for which appropriate controls were developed).
- In several areas, the MNB put in place the conditions to properly manage another emergency. The most important task was to build IT background capacity for a large number of home workers. Means of disinfection, masks, gloves and body temperature gauges were purchased.
- In a special section on the intranet interface, the MNB continuously informed its employees about the measures that were introduced and taken, the standards of conduct to be applied during the pandemic and the health care-related instructions.
- *Transition:* In June, the MNB carried out smooth transition and without any problems. During both the transition period and the second wave, the COVID work group continuously monitored the international and domestic evolution of the pandemic. Following the end of the first wave of infections, it returned to its original working schedule in line with the decision taken by the Hungarian Government.
- *Managing the second wave of the health emergency:* Once challenges have been successfully addressed, it is appropriate to review the experience gained in real-life situations and to incorporate the established practices into instructions and procedures. As the second wave

began to unfold, proposals were made to introduce further restrictions or to ease decisions were taken earlier, taking into account government measures and the international pandemic situation. Due to the significantly increased health risks, the MNB introduced new measures and rules, and took additional precautionary measures in order to protect employees.

During the pandemic, the MNB was in constant contact with the central banks of the European Union as a member of a working group set up for this situation in order to share emergency management experience. After the final end of the pandemic, the emergency period will be evaluated under the leadership of the COVID work group, and the necessary amendments to the action plans and regulations will be implemented.

3.14 INTRODUCTION OF THE ESCB COMMITTEES

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. The senior executives and relevant experts of the MNB play an active role in the work of these committees and in the activities of the committees' working groups.

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 2020, 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):

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

In 2020, the results of research conducted at the MNB were published in a total of 14 international academic journals or working paper series, and domestic economic journals also published a total of 40 studies written by MNB authors.

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.

In 2020, the September 2020 issue of one of the best-known and most influential top economic journals, *American Economic Review*, included a study co-authored by an MNB researcher on the real economic impacts of foreign currency lending to households in the event of exchange rate depreciation. Furthermore, a study written by an MNB co-author was published in the March 2020 issue of the *Journal of Macroeconomics*, which considers the factors determining the impacts of fiscal policy on real economy; also in March 2020, *Economic Systems* published an MNB study on the impact of EU subsidies on small and medium-sized enterprises in Hungary; and in September 2020, *Environment and Planning A* published a study written by an MNB co-author on the differences in the use of the financial sector by households in Hungary and in the United States. In addition, in 2020 the *Journal of Banking and Finance* accepted an MNB study to be published in January 2021, which investigates the impact of the Funding for Growth Scheme (FGS) on small enterprises; and *Economic Modelling* also accepted a study, written by an MNB co-author, to be published in February 2021, on the impact of monetary policy on income inequality. Besides these, the *Journal of Money, Credit and Banking* accepted an MNB study on the relationship between fiscal policy and nominal interest rates for publication in 2021 (at a date to be determined); and the *International Journal of Forecasting* also accepted a study, written by an MNB co-author, for publication in 2021, which examines the use of questionnaire surveys in economic forecasts. Finally, in 2020, five additional international journals accepted MNB studies for conditional publication after revision ('*Revise&Resubmit*'); some of these are expected to be actual international publications in 2021 or 2022.

In addition to international journals, studies by MNB researchers and analysts also appeared in publications of foreign central banks, international institutions and universities. The *ECB Working Papers* series published a study written by an MNB co-author in March 2020, which examined the expected real economic impacts of the coronavirus; a slightly modified version of the same study was published in the Spanish central bank's *Working Papers* series, in the influential *Discussion Papers* series of the London-based Centre for Economic Policy Research (CEPR) as well as in its online newspaper *VoxEU*. Furthermore, the Ukrainian central bank's *Working Papers* series published a study, written by an MNB co-author, on the equilibrium level of household lending in Ukraine; and the *Working*

Papers series of the Vienna University of Economics and Business in Vienna also included an analysis, prepared with the assistance of an MNB author, of the macrofinancial impacts of trend inflation.

Among Hungarian journals, the *Financial and Economic Review* published thirteen studies, two essays, nine book reviews and five conference reports by MNB experts in its 2020 issues. In addition, the *Hungarian Economic Review* (*Közgazdasági Szemle*) published two studies, written by MNB authors, on the estimation of the liquidity demand function of the Hungarian banking system and on the ethical explanation of financial crises. Numerous applied research results were also published in the MNB's internal publications. Seven studies on topics of relevance to central banking were published in the *MNB Working Papers* series, and two in the publication *MNB Occasional Papers*. In addition to its Hungarian and English language issues, *Financial and Economic Review* also released a special issue in Chinese in 2020.

3.16 PUBLICATIONS AND CONFERENCES ORGANISED BY THE MNB

Four new publications were added to the MNB's series of economic and monetary policy textbooks launched in 2015: the second, revised edition of Economic balance and growth 2010-2019. From the last to the first by György Matolcsy, 10 x 10 years in numbers – The economic history of Hungary for the last 100 years, Long-term sustainability and the euro – How to rethink the Maastricht criteria? and a commemorative publication entitled New dimensions in payments: The history of the introduction of instant payments in Hungary. The MNB's publication portfolio was expanded with several new reports: for the first time, the Productivity Report, the FinTech and Digitalisation Report and – by merging two previous periodicals – the Report on Insurance, Funds, Capital Market Risk and Consumer Protection were published. New publications are the Environmental Statement and the booklet entitled Corporate Bond Issuance Guide for the MNB's Bond Funding for Growth Scheme.

The MNB remains committed to organising high-quality, highly professional international conferences as part of its international engagement. Although the pandemic significantly hampered this effort in 2020, it was an achievement that the key flagship events were successfully organised partly in physical form and partly in the virtual space.

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.

Productivity Report

The *Productivity Report*, published once a year, helps to understand the drivers, characteristics, distribution and dynamics of the key factor of economic growth and catching-up, and thus brings us closer to the formulation and implementation of productivity reforms. The *Report* does this in a complex manner, examining a wide range of efficiency indicators, including labour productivity as well as innovation, digitalisation and ecological productivity.

Housing Market Report

The MNB's semi-annual *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 property market and 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 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.

Macprudential Report

The purpose of the annual *Macprudential 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 measures and assesses Hungary's competitiveness in 12 areas, using more than 150 indicators – 95 per cent of which are objective – in comparison to the European Union and countries of the Visegrád region.

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. Hungary's progress in competitiveness is assessed every autumn, based on the 330 recommendations in the Competitiveness Programme published in 2019. The monitoring system uses both descriptive and analytical methods for evaluating the implementation of the central bank's recommendations.

FinTech and Digitalisation Report

The purpose of the annual FinTech and Digitalisation Report is to provide insight into domestic and international trends of development in financial innovation, digitalisation and their underlying technologies, which are becoming increasingly dominant in the Hungarian financial markets. In this way, the MNB intends to contribute to strengthening the digitalisation level of the domestic financial system, a process in which it intends to continue playing a key supporting role.

Report on Insurance, Funds, Capital Market Risk and Consumer Protection

The publication presents key characteristics and risks of insurance companies, funds, intermediaries, non-banking group entities and markets of capital market participants. The purpose of the *Report*, which is published annually, is to inform the public and the institutions of the financial system in respect of current prudential and consumer protection issues, thereby enhancing the risk awareness of stakeholders and also maintaining and strengthening confidence in the financial system. Official activities to identify and reduce risks, as well as the information and educational activities of the central bank, and its efforts to enhance Hungarian financial literacy all contribute to making the information necessary for decisions concerning financial institutions and products available to stakeholders, thus strengthening the stability of the financial system as a whole.

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 and 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 developments in the budget 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 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 in accordance with the Accounting Act.

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

The *Semi-annual Report* is published once a year in September with contents in line with the *Annual Report*. The report is the central bank's business report and financial statements pertaining to the first half of the year (unaudited).

Interim Report: Quarterly Report on the MNB's Activities

The Interim Report is published twice annually, 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 workplan based on the audit universe. The *Supervisory Board Report* is a presentation of the Supervisory Board's activity.

Environmental Statement

The fight against and the adaptation to climate change as well as environmental issues that are generally becoming increasingly severe have significant impacts on the economy as a whole and thus also on the financial intermediary system. In view of this, the MNB launched its Green Programme in 2019, which is aimed at reducing the risks associated with climate change and other environmental issues, expanding green financial services in Hungary, widening the related Hungarian and international knowledge base and further mitigating its own ecological footprint and that of other financial actors. The MNB is at the forefront of international practices in continuously reducing the environmental impact of its operations. In accordance with the requirements of the environmental management system, the so-called EMAS (Eco-Management, and Audit Scheme), regulated by Regulation (EC) No 1221/2001 of the European Parliament and of the Council and Regulation (EU) No 2017/1505, the certified Environmental Statement is published annually. The publication presents stakeholders with information on the institutional efforts to improve environmental performance and the results achieved.

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. The journal has been edited and published quarterly by the MNB in separate volumes in Hungarian and in English. 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

Corporate Bond Issuance Guide for the MNB's Bond Funding for Growth Scheme

To increase the liquidity of the corporate bond market, the MNB launched the Bond Funding for Growth Scheme (BGS) on 1 July 2019. Under the scheme, the central bank purchases bonds with good credit ratings issued by non-financial corporations. This publication is aimed at providing companies with guidance on the bond issuance process, summarising the role of key partners required for issuance, the relevant legal and audit tasks, as well as providing instructions on how to participate in the BGS.

Budapest Institute of Banking (BIB)

No competitive financial system can 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 covering a broad spectrum, supplemented with modern financial and economic information.

Financial Navigator Papers

The thematic booklet series targeting financial consumers helps provide information to the public and prepare 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 language used remains clear and easy-to-understand, the MNB regularly updates the contents of the booklets and expands their topics. The renewed booklets reached more than 100 partners (mainly financial service providers) and through them an increasing number of the general public.

MNB books

The MNB considers the development of financial literacy in Hungary as one of its priority tasks; hence, relying on the available means, it intends to facilitate education in the field of economics as well as the widening and enhancement of financial literacy. An essential element of this is the book series on economics and monetary policy, which was expanded to include four more publications in 2020.

In January, the volume *Long-term sustainability and the euro – How to rethink the Maastricht criteria?*, edited by Barnabas Virág, was published, followed by the book *10 x 10 years in numbers – The economic history of Hungary for the last 100 years* in August.

Two more volumes were published in December. The second, revised edition of György Matolcsy's book *Economic balance and growth 2010-2019. From the last to the first*, provides a detailed presentation of all the new economic policy concepts, innovations and instruments that resulted in the success of the Hungarian economy after 2010, which was significant from the aspect of economic history as well. Fiscal and financial stabilisation and the reform of central bank policy together created the basic conditions for sustainable growth, as a result of which Hungary embarked on a sustained catching-up path.

The last volume of the year was published by the MNB under the title: *New dimensions in payments: The history of the introduction of instant payments in Hungary*. With the successful launch of the instant payment service on 2 March 2020, a new era in domestic banking began. The introduction of the Hungarian model, unique on the

international scene, required the implementation of an extraordinary development project, as a result of which consumers could continuously benefit from the advantages of transfer transactions performed in 5 seconds, on any day of the year. The most remarkable development of domestic payments so far was preceded by several years of hard work and preparation involving all actors of the domestic payments market. Countless institutions worked to achieve this goal: from the central bank and GIRO Zrt., which handles interbank settlements, through a wide range of state actors, such as the Hungarian State Treasury and the National Tax and Customs Administration, to banks and other payment service providers as well as the IT development companies that served them. This wide-ranging cooperation put domestic payments on a new footing, thus helping to improve the competitiveness of the sector and, more broadly, the national economy as a whole. The purpose of this publication is to create a worthy memorial to the massive project of implementing the introduction of the Hungarian instant payment system by gathering the recollections of key actors involved in the joint work.

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 reaches 200-300 guests. The international conferences are primarily held in the building of the MNB. 2020, however, created a new situation for the events, and thus they were organised in virtual form for most of the year.

The most important international conference events organised in 2020 were as follows:

Lámfalussy Lectures Conference

The objective of this annual event under the name '*Lámfalussy 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 seventh time in January 2020, the conference was dedicated to discussing the new challenges of long-term sustainable convergence in two sections (Europe and Asia). Contributors and presenters at the conference included Peter Praet, former Chief Economist and former member of the Executive Board of the ECB; Robert Holzmann, Governor of the Oesterreichische Nationalbank; Poul M. Thomsen, then Director of the IMF's European Department; Barry Eichengreen, Professor of Economics and Political Science at the University of California, Berkeley; Debora Revoltella, Chief Economist at the European Investment Bank; Iain Begg, Professorial Research Fellow at the London School of Economics; Olivier Garnier, Chief Economist and Director General for Statistics, Economics and International Affairs at the Banque de France; Serey Chea, Assistant Governor and Director General of the National Bank of Cambodia; Hoe Ee Khor, Chief Economist of the ASEAN+3 Macroeconomic Research Office; Bernard Yeung, President of the Asian Bureau of Finance and Economic Research (ABFER) and Professor at the National University of Singapore; Eduardo Pedrosa, Secretary-General of the Pacific Economic Cooperation Council; and Harris Kim, Director of the Inflation Research Division at the Bank of Korea.

The 2020 conference was held again at an external location in Budapest and was attended by more than 400 guests.

International Green Finance Conference

The MNB, in cooperation with the European Bank for Reconstruction and Development (EBRD) and other international organisations, organised its International Green Finance Conference for the second time on 12 October 2020. In view of the epidemiological situation, the event was held online and it featured lecturers including – among others – the President of WWF International, the Special Adviser to the Governor of the People's Bank of China, the President of the GARP Institute as well as the Managing Director of the EBRD and the Director for

Country Engagement and Partnership at the International Renewable Energy Agency. The conference focused on the assessment and quantification of the adverse economic impacts of climate change and the funding of renewable energy production and energy efficiency investments to achieve a 'green recovery' from the coronavirus pandemic. At the conference, a solution was presented to compensate for the carbon footprint of the Green Finance Conference itself, which is based on an ecological investment in habitat restoration in Hungary.

Budapest Eurasia Forum 2020 E-Conference

On 27 October 2020, the MNB organised the Budapest Eurasia Forum for the second time, with this occasion held online in accordance with epidemiological restrictions. In line with the concept of the Forum, the aim was again to review the most topical issues of transcontinental relations, thus contributing to the professional dialogue to ensure long-term sustainable growth and promote the strengthening of Hungary's international role. The virtual event entitled '*Eurasian cooperation in the post-pandemic era*' featured high-profile and well-known lecturers from China, France, Singapore, South Korea and several European countries, who shared their thoughts on Eurasian cooperation and long-term sustainable growth issues of the world order following the coronavirus pandemic. In line with the main directions set in 2019, the Forum's professional programme covered key topics such as geopolitics and multilateral cooperation, economy and finance as well as technology, connectivity and education. At the opening ceremony of the conference, in addition to György Matolcsy (Governor, MNB), the speakers included: Xiaochuan Zhou (Vice Chairman, Boao Forum for Asia, former Governor, People's Bank of China); Péter Szijjártó (Minister of Foreign Affairs and Trade); and Hongbo Wu (Special Representative of the Chinese Government on European Affairs, former

Under-Secretary-General, United Nations Department of Economic and Social Affairs).

World FinTech Festival in Budapest

The *World FinTech Festival in Budapest* took place for the first time between 8-9 December 2020, organised jointly by the MNB and the Singapore FinTech Festival (SFF). In view of the pandemic situation, the Singapore FinTech Festival, the largest financial digitalisation event of the global FinTech community, was carried out online this year. As a partner of the SFF, Budapest hosted the joint event which discussed key topics such as modern financial infrastructures, cyber security, financial inclusion and green and sustainable finance.

The event was opened by Anikó Szombati, Executive Director for Digitalisation and FinTech Development of the MNB, followed by the speeches of Dr Mihály Patai, Deputy Governor of the MNB; László Palkovics, Minister for Innovation and Technology; Péter Szijjártó, Minister of Foreign Affairs and Trade; and Sopnendu Mohanty, Chief FinTech Officer at the MAS, the central bank of Singapore. Speakers at the event included – among others – Kristo Käärmann, CEO of TransferWise; Raj Samani, Chief Researcher at McAfee; Robert Wardrop, Executive Director of the Cambridge Centre for Alternative Finance; and Miklós Dietz, Managing Partner of Vancouver Office at McKinsey.

At the event, the MNB and the MAS signed a Cooperation Agreement to strengthen cooperation in FinTech innovation between the two countries, and on the occasion of the half-century anniversary of the establishment of diplomatic relations between Singapore and Hungary, a souvenir coin issued by the MNB, symbolising the shared values of the two countries, was also presented.

4 Additional information on the supervisory activity of the MNB in 2020

4.1 INSTITUTION OVERSIGHT

As of 31 December 2020, the MNB conducted the oversight of 1,381 institutions according to the breakdown in Table 10.

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 following criteria are considered:

- 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 in consideration of other individual characteristics of the institutions concerned; and
- the available resources.

The number of inspections and their breakdown by sector and inspection type are summarised in Tables 11-13.

Table 10	
Number of institutions supervised as of 31 December 2020	
Money market	766
Non-financial institution	483
Electronic money issuer	1
Independent intermediary	471
Payment service provider	11
Financial institution	282
Credit institution	32
Bank	22
Specialised credit institution	10
Financial enterprise	249
Financial enterprise equivalent to credit institution	2
Other financial enterprise	247
Financial holding company	1
Organiser (NOK)	1
Insurance	435
Insurance institutions	33
Insurance association	12
Insurance company	21
Insurance intermediaries	401
Insurance broker	363
Insurance multiple agent	38
Advocacy	1
Funds	56
Private pension fund	4
Voluntary fund	51
Voluntary healthcare fund	3
Voluntary pension fund	34
Voluntary mutual fund	2
Voluntary healthcare and mutual fund	12
Occupational pension provider	1
Capital market	124
Investment fund manager	96
Investment firm	14
Trust (Fiduciary asset manager)	10
Clearing house	1
Central counterparty	1
Stock exchange	2
Total	1,381

Table 11**Number of inspections conducted at credit institutions, financial enterprises and payment institutions**

Type of institution	Type of inspection	Closed in 2020		Started in 2020	In progress on 31 Dec 2020
		Started in 2019	Started in 2020		
Credit institution (and Bank branch)	Comprehensive audit	10	1	8	7
	Targeted audit	7	4	7	3
	Thematic audit	2	0	3	3
	Follow-up audit	2	0	0	0
	ICAAP	3	6	8	2
	Validation	5	4	9	7
	ILAAP	8	0	16	16
	Supervisory inspection	6	6	6	0
Financial enterprise	Comprehensive audit	0	0	0	0
	Targeted audit	5	1	3	2
	Follow-up audit	0	0	0	0
Payment service provider	Comprehensive audit	1	1	1	1
	Targeted audit	2	0	0	0

Table 12**Number of inspections conducted at insurance companies, funds and intermediaries**

Type of institution	Type of inspection	Closed in 2020		Started in 2020	In progress on 31 Dec 2020
		Started in 2019	Started in 2020		
Insurance company	Comprehensive audit	9	2	5	4
	Targeted audit	3	0	0	1
	Follow-up audit	3	0	0	0
Fund	Comprehensive audit	8	5	10	8
	Targeted audit	0	1	4	4
	Follow-up audit	1	2	2	1
Intermediary	Targeted audit	4	0	2	2
	Thematic audit	0	0	2	2

Table 13**Number of audits and administrative inspections conducted at capital market institutions**

Type of institution	Type of inspection	Closed in 2020		Started in 2020	In progress on 31 Dec 2020
		Started in 2019	Started in 2020		
Investment fund manager (excl. venture capital fund managers)	Comprehensive audit	9	0	8	8
	Supervisory inspection	0	1	1	0
Trading platform	Targeted audit	0	1	1	0
	Follow-up audit	1	0	0	0
	Supervisory inspection	0	1	1	0
Investment firm	Comprehensive audit	8	2	7	4
	Targeted audit	10	0	1	1
	Thematic audit	1	0	1	1
	Follow-up audit	0	0	1	1
	Supervisory inspection	1	9	9	0
	Other	0	1	1	0

4.3 LICENSING AND LEGAL ENFORCEMENT

The licensing and legal enforcement activity of the MNB comprises the entire spectrum of 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 Tables 14–17, broken down by sector.

Table 14

Measures taken in the financial market sector

(Pieces)

Prudential measures

Resolutions closing supervisory proceedings	47
of which: resolutions imposing fines	39
Other prudential measures, resolutions	468
Rulings	24
Total amount of fines (million HUF)	544.3

Authorisation resolutions/rulings

Authorisation of the operation of payment service provider	3
Authorisation of the foundation and operation of financial enterprises	6
Refusal of the foundation and operation of financial enterprises	1
Authorisation of the operation of financial enterprise equivalent to credit institution	3
Withdrawal of authorisation of the foundation and the operation of financial enterprises	3
Resolutions concerning the amendment of the scope of activities	12
Authorisation of the election of senior executives	210
of which: credit institutions' senior executives	92
Refusal of the election of senior executives	1
Approval of the amendment of agency contract	183
Authorisation of multiple agents	12
Authorisation of brokers	1
Authorisation of the employment of intermediaries	7
Resolution withdrawing the activity license of intermediaries	33
Authorisation of the amendment of the bylaws	12
Authorisation of other regulations	15
Authorisation of the acquisition of qualifying holdings	45
Refusal of the acquisition of qualifying holdings	1
Authorisation of merger and division	1
Authorisation of the transfer of client accounts	12
Resolutions issued under CRR	22
Other resolutions	141
Substantive rulings	66
Total number of resolutions and rulings	1,329

Table 15**Measures taken in the capital market sector***(Pieces)***Prudential measures**

Resolutions closing supervisory proceedings	21
of which: resolutions imposing fines	18
Other prudential measures, resolutions	12
Rulings	26
Total amount of fines (million HUF)	93.7
Authorisation resolutions/rulings	
Authorisation for activities	10
Authorisation of activities' amendments	13
Withdrawal of authorisation for operations	2
Authorisation of regulations	15
Authorisation of senior executives	149
Registration of intermediaries	137
Cancellation of intermediaries	207
Other resolutions	72
Substantive rulings	50
Total number of resolutions and rulings	714

Table 16**Number of customer inquiries and requests in a sectoral and monthly breakdown***(Pieces)***Prudential measures**

Resolutions closing supervisory proceedings	19
of which: resolutions imposing fines	18
Other prudential measures, resolutions	446
Rulings	8
Total amount of fines (million HUF)	377.3
Authorisation resolutions/rulings	
Authorisation of executive officers	57
Authorisation of professional executives	16
Withdrawal of authorisation for operations	18
Other resolutions	32
Authorisation of activities closely related to insurance activities	2
Authorisation of the activities of insurance intermediaries	6
Interlocutory decision	0
Rulings	29
Total number of resolutions and rulings	633

Table 17	
Measures taken in the funds sector	
<i>(Pieces)</i>	
Prudential measures	
Resolutions closing supervisory proceedings	16
of which: resolutions imposing fines	15
Other prudential measures, resolutions	38
Rulings	30
Total amount of fines (million HUF)	44.4
Authorisation resolutions/rulings	
Authorisation of executive officers	5
Authorisation of professional executives	0
Withdrawal of authorisation for operations	1
Other resolutions	19
Rulings	5
Total number of resolutions and rulings	114

4.4 MARKET SURVEILLANCE AND ISSUERS SUPERVISION

The summary data on measures required within the framework of the MNB's market surveillance activity in 2020 are presented in Tables 18-19.

Table 18	
Market surveillance and issuers supervision	
<i>(Pieces)</i>	
Market surveillance and supervisory measures	
Resolutions related to market surveillance	25
of which: resolutions imposing fines	24
Rulings related to market surveillance	322
Resolutions related to issuers supervision	37
Rulings related to issuers supervision	11
Other resolutions and rulings	0
Fines - market surveillance (million HUF)	1864.2
- related to unauthorised and unreported activities	1559.5
- related to insider dealing and unlawful market manipulation	264.7
- related to compliance with company takeover rules	40
Fines - supervisory (million HUF)	54.6
- related to issuers supervision	44.6
Total amount of fines (million HUF)	1918.8
Total number of resolutions and rulings	395

Table 19**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	10
- stock	2
- bonds and mortgage bonds	8
Number of resolutions related to issuers	696
Number of rulings	453
- number of resolving discrepancies	382
Total number of resolutions and rulings	1,149

4.5 CUSTOMER SERVICE

Tables 20–21 show the main data related to the activity of the Financial Consumer Protection Centre.

Table 20**Distribution of customer inquiries and requests received by channel of submission**

Incoming channels of customer inquiries	No.	Per cent
Letter	1,732	6.7
E-mail	5,243	20.3
Personal	1,263	4.9
Phone	17,642	68.2
Total	25,880	100.0

Table 21**Customer inquiries and requests broken down by sectors**

Customer inquiries and requests by sector	No.	Per cent
Money market	15,057	58.2
Insurance	5,341	20.6
Fund	257	1.0
Capital market	865	3.3
Non-sectorial	4,189	16.2
Institutions providing cross-border services	168	0.6
Branch of Hungarian institutions	1	0.0
Representations of foreign institutions	2	0.0
Total	25,880	100.0

5 Explanation of abbreviations and terms specific to central banking

Abbreviations

APRC: Annual Percentage Rate of Charge

BGS: Bond Funding for Growth Scheme

BIB: Budapest Institute of Banking (BIB)

BIS: Bank for International Settlements

BISZ Zrt.: BISZ Central Credit Information Plc.

BPM: Balance of Payments Manual

BSE: Budapest Stock Exchange

CCFHI: Certified Consumer-Friendly Home Insurance

CCFHL: Certified Consumer-Friendly Housing Loans

CCFPL: Certified Consumer-Friendly Personal Loans

CCIS: Central Credit Information System

CCyB: Countercyclical Capital Buffer

CFD: Contract for Differences

CMID (KKTA): Central MTPL Itemised Database

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

EMIR: Unified Monitoring and Information System

EMU: Economic and Monetary Union

ESCB: European System of Central Banks

ESMA: European Securities and Markets Authority

ESRB: European Systemic Risk Board

FEER: Foreign Exchange Coverage Ratio

FGS: Funding for Growth Scheme

FNAON: Financial Navigator Advisory Office Network

FSC: Financial Stability Council

GIRO: Giro Clearing House Ltd.

HCSO: Hungarian Central Statistical Office

ICAAP: Internal Capital Adequacy Assessment Process

IFRS: International Financial Reporting Standards

ILAAP: Internal Liquidity Adequacy Assessment Process

IMF: International Monetary Fund

ISDA: International Swaps and Derivatives Association

KELER: KELER Central Clearing House and Depository Ltd.

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

MFAR: Mortgage Funding Adequacy Ratio

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

MNB: Magyar Nemzeti Bank

MOF (PM): Ministry of Finance

MTPL: Compulsory motor third-party liability insurance

NPL: Non-Performing Loans

OECD: Organisation for Economic Co-operation and Development

O-SII: Other Systemically Important Institutions

SNA: System of National Accounts

SPPI: Solely Payments of Principal and Interest

SRB: Single Resolution Board

SSM: Single Supervisory Mechanism

SyRB: Systemic Risk Buffer

TREA: Total Risk Exposure Amount

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 services to customers.

AMI-SeCo NSG: Advisory Group on Market Infrastructures for Securities and Collateral

AML/CFT (Anti Money Laundering and Combating the Financing of Terrorism): Combating of Money Laundering and Terrorist Financing

Anti-money Laundering Act: Act LIII of 2017 on the Prevention and Combating of Money Laundering and Terrorist Financing

API (Application Programming Interface): With the help of a public API, it is possible to use the services of a programme system without having to know its internal operation.

Breaches in connection with payment-related administrative procedures:

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.

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

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.

CSDR (Central Securities Depositories Regulation): Regulation (EU) No 909/2014 of the European Parliament and of the Council on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012

CIRS (Currency Interest Rate Swap): 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.

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.

FEER (Foreign Exchange Coverage Ratio): A ratio, expressing the open foreign exchange position within the balance sheet relative to the balance sheet total.

Fintech: FinTech is a technology driven financial innovation that can result in new business models, applications or products, and can have a significant impact on financial markets and institutions, and on the financial services themselves.

FFAR (Foreign Exchange Funding Adequacy Ratio): 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 exchange 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

IFR (Interbank Funding Ratio): The weighted amount of liabilities based on denomination and time to maturity,

which are originated from all financial corporations, divided by the balance sheet total (excluding own funds).

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 Rights).

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

MAR (Market Abuse Regulation): Regulation (EU) No 596/2014 of the European Parliament and of the Council on market abuse

MIFID II (Markets in Financial Instruments Directive): Directive 2014/65/EU of the European Parliament and the Council on markets in financial instruments.

MIFIR (Market in Financial Instrument Regulation): Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments

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

MREL: Minimum requirement for own funds and liabilities eligible for write-down and conversion

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

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.

P2G: Pillar 2 capital guidance is a supervisory recommendation for maintaining additional capital over SREP capital requirement (TSCR) and the combined buffer requirement.

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, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC

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).

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.

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, SEPA covers the 28 EU Member States, Iceland, Liechtenstein, Norway, Switzerland and Monaco.

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: quantitative requirements, qualitative requirements and public disclosure. It is a European standard based on which the supervisory authorities can create uniform 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 is yet to become valid and applicable – and the Prospectus directive (Directive 2003/71/EC of the European Parliament and of the Council).

SREP: Supervisory Review and Evaluation Process

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

T2S (TARGET2-Securities): Pan-European settlement infrastructure platform for the settlement of securities

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.

TSCR: Total SREP capital requirement

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

To the Owner of Magyar Nemzeti Bank

Opinion

We have audited the financial statements of Magyar Nemzeti Bank (the „Bank”) for the year 2020 which comprise the balance sheet as at December 31, 2020 – which shows an equal amount of total assets and total liabilities of HUF 20.303.203 million and profit for the year of HUF 255.424 million –, 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, 2020 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 Company 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 (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (the IESBA Code), 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 2020. 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 2020 corresponds to the financial statements of the Bank for 2020 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, April 23, 2021

The original Hungarian version has been signed.

Molnár Gábor
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: 007239

2 Balance sheet of the Magyar Nemzeti Bank

HUF millions

Note	Assets	31 Dec 2019	31 Dec 2020	Change
1	2	3	4	4-3
	I. RECEIVABLES DENOMINATED IN FORINT	1,995,333	6,812,269	4,816,936
4.3.	1. Receivables from the central government	39,178	1,113,627	1,074,449
4.7.	2. Receivables from credit institutions	1,749,826	5,144,510	3,394,684
4.10.	3. Other receivables	206,329	554,132	347,803
	II. RECEIVABLES DENOMINATED IN FOREIGN CURRENCY	10,082,066	13,128,310	3,046,244
4.9.	1. Gold and foreign exchange reserves	9,360,769	12,273,939	2,913,170
4.4.	2. Receivables from the central government	0	0	0
4.8.	3. Receivables from credit institutions	7,829	63,779	55,950
4.10.	4. Other receivables	713,468	790,592	77,124
	III. BANKING ASSETS	109,918	221,431	111,513
4.12.	of which: invested assets	108,759	220,438	111,679
4.14.	IV. PREPAID EXPENSES/ACCRUED INCOME	160,551	141,193	-19,358
	V. TOTAL ASSETS (I+II+III+IV)	12,347,868	20,303,203	7,955,335
Note	Liabilities and equity	31 Dec 2019	31 Dec 2020	Change
1	2	3	4	4-3
	VI. LIABILITIES DENOMINATED IN FORINT	9,452,741	14,944,087	5,491,346
4.5.	1. Central government deposits	599,542	1,728,666	1,129,124
4.7.	2. Deposits by credit institutions	2,253,265	5,084,832	2,831,567
	3. Banknotes and coins in circulation	6,530,351	7,164,366	634,015
4.11.	4. Other deposits and liabilities	69,583	966,223	896,640
	VII. LIABILITIES DENOMINATED IN FOREIGN CURRENCY	2,027,735	4,050,607	2,022,872
4.5.	1. Central government deposits	743,025	1,161,653	418,628
4.8.	2. Deposits by credit institutions	43,732	164,359	120,627
4.11.	3. Other deposits and liabilities	1,240,978	2,724,595	1,483,617
4.13.	VIII. PROVISIONS	703	1,009	306
	IX. OTHER BANKING LIABILITIES	101,463	132,379	30,916
4.14.	X. ACCRUED EXPENSES/DEFERRED INCOME	82,294	62,428	-19,866
4.15.	XI. EQUITY	682,932	1,112,693	429,761
	1. Share capital	10,000	10,000	0
	2. Retained earnings	198,210	202,909	4,699
	3. Valuation reserves	0	0	0
4.16.	4. Revaluation reserves due to exchange rate changes	187,801	586,408	398,607
4.16.	5. Revaluation reserves of foreign currency securities	32,222	57,952	25,730
	6. Profit/Loss for the year	254,699	255,424	725
	XII. TOTAL EQUITY AND LIABILITIES (VI+VII+VIII+IX+X+XI)	12,347,868	20,303,203	7,955,335

23 April 2021, Budapest

Dr György Matolcsy
Governor of the Magyar Nemzeti Bank

3 Income statement of the Magyar Nemzeti Bank

HUF millions

Note	Income	2019	2020	Difference
1	2	3	4	4-3
4.18.	I. INTEREST AND INTEREST-RELATED INCOME DENOMINATED IN FORINT	40,765	55,805	15,040
	1. Interest on receivables from the central government	16	8,064	8,048
	2. Interest on receivables from credit institutions	9,998	22,321	12,323
	3. Interest on other receivables	795	8,318	7,523
	4. Interest-related income	29,956	17,102	-12,854
4.18.	II. INTEREST AND INTEREST-RELATED INCOME DENOMINATED IN FOREIGN CURRENCY	307,746	299,503	-8,243
	1. Interest on foreign exchange reserves	79,820	77,781	-2,039
	2. Interest on receivables from the central government	2	0	-2
	3. Interest on receivables from credit institutions	3	-40	-43
	4. Interest on other receivables	0	0	0
	5. Interest-related income	227,921	221,762	-6,159
4.19.	III. INCOME ARISING FROM EXCHANGE RATE CHANGES	238,730	294,151	55,421
4.18.	IV. REALISED GAINS ARISING FROM FINANCIAL OPERATIONS	12,424	14,936	2,512
4.21.	V. OTHER INCOME	28,637	23,189	-5,448
	1. Fees and commissions	1,337	1,358	21
4.22.	2. Income other than fees and commissions	13,784	1,961	-11,823
4.23.	3. Income from supervisory activities	13,516	19,870	6,354
4.13.	VI. PROVISIONS RELEASED	579	556	-23
4.13.	VII. IMPAIRMENT RELEASED	1,568	209	-1,359
4.24.	VIII. OPERATING INCOME	241	278	37
	IX. TOTAL INCOME (I+II+III+IV+V+VI+VII+VIII)	630,690	688,627	57,937
Note	Expenses	2019	2020	Difference
1	2	3	4	4-3
4.18.	X. INTEREST AND INTEREST-RELATED EXPENSES DENOMINATED IN FORINT	10,108	45,172	35,064
	1. Interest on central government deposits	738	6,249	5,511
	2. Interest on deposits by credit institutions	5,083	30,015	24,932
	3. Interest on other deposits	40	53	13
	4. Interest-related expenses	4,247	8,855	4,608
4.18.	XI. INTEREST AND INTEREST-RELATED EXPENSES DENOMINATED IN FOREIGN CURRENCY	288,956	269,475	-19,481
	1. Interest on central government deposits	-1,779	-2,425	-646
	2. Interest on deposits of credit institutions	-83	-177	-94
	3. Interest on other liabilities	7,502	3,713	-3,789
	4. Interest-related expenses	283,316	268,364	-14,952
4.19.	XII. EXPENSES RESULTING FROM EXCHANGE RATE CHANGES	9,665	8,002	-1,663
4.20.	XIII. COST OF ISSUING BANKNOTES AND COINS	11,393	10,989	-404
4.18.	XIV. REALISED LOSSES ARISING FROM FINANCIAL OPERATIONS	5,151	9,815	4,664
4.21.	XV. OTHER EXPENSES	6,002	5,108	-894
	1. Fees and commissions	1,615	1,842	227
4.22.	2. Expenses other than fees and commissions	4,387	3,266	-1,121
4.13.	XVI. PROVISIONS CHARGED	614	862	248
4.13.	XVII. IMPAIRMENT	1,593	34,954	33,361
4.24.	XVIII. OPERATING COSTS AND EXPENSES	42,509	48,826	6,317
	XIX. TOTAL EXPENSES (X+XI+XII+XIII+XIV+XV+XVI+XVII+XVIII)	375,991	433,203	57,212
	XX. PROFIT/LOSS FOR THE YEAR (IX-XIX)	254,699	255,424	725

23 April 2021, 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 MNB has been a member of the European System of Central Banks (ESCB) 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 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).

The following sections present a brief description of the MNB's accounting system 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, in particular foreign exchange sales and purchases. Spot foreign currency transactions which involve foreign exchange conversions are recorded in the books on the transaction date. 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 2021.

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 Gábor Molnár (Deloitte Kft.), Chamber membership number: 007239.

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.

Receivables from credit institutions

Mortgage bonds and securities issued by credit institutions with government guarantees 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.

Interest-free refinancing loans within the framework of the Funding for Growth Scheme (FGS) and the base rate fixed collateralised 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.

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 accordance 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'.

Valuation of receivables

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

'Receivables from credit institutions' and 'Other receivables' are tested for impairment and if the book value of the receivable is higher than its expected recovery, an impairment loss is recorded, in line with the MNB's impairment policy. This does not apply to receivables with market valuation and the collateralised monetary policy receivables.

With the exception of government bonds and bonds issued with government guarantees, securities that are denominated in forint and purchased for monetary policy purposes are tested for impairment in line with the corresponding rules, and impairment is recorded in proportion to the risk of losses. Other forint-denominated securities held for monetary policy purposes (mortgage bonds, corporate bonds) are tested for impairment separately for each portfolio (held-for-sale portfolio, held-to-maturity portfolio).

With regard to the held-for-sale portfolio, the appropriate amount of impairment for each ISIN code is defined as the negative difference between the book value and the market value, provided that such difference (loss) appears to be a permanent, significant amount. With regard to the held-to-maturity portfolio, the appropriate amount of impairment for each ISIN code is defined as the negative difference between the nominal value and the expected recovery from the nominal value.

In the course of 2020, the impairment methodology for the other monetary policy securities was reviewed in relation to credit risks, resulting in changes to the held-to-maturity portfolio. The new methodology calculates the amount of impairment more conservatively, retaining the risk of non-performance and the related expected loss as a basis, but no longer applying the significance criteria.

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 sales 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*Per cent*

Description	31 Dec 2020
Concessions, licences and similar rights	14.5–17
Trademarks patents and similar assets	10–50
Owned and managed buildings	2–3
Vehicles*	20
Telecommunication devices, office equipment, machines	10–50
Office equipment	5–50
Computer hardware	13–33
Emission machinery	5–33
Instruments	20
Bank security devices	2–33
Other equipment and devices	3–50

* 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 2020 BALANCE SHEET AND INCOME STATEMENT OF THE MAGYAR NEMZETI BANK

In 2020, the MNB recorded a profit of HUF 255.4 billion. The most significant profit item was once again income from exchange rate changes. The balance sheet total according to Hungarian Accounting Standards (HAS) as of 31 December 2020 amounted to HUF 20,303.2 billion, reflecting an increase of HUF 7,955.3 billion (more than 64 per cent) compared to the end-2019 balance. This increase resulted from the central bank's actions to mitigate the negative economic and financial impacts of the coronavirus pandemic, within the framework of which the MNB restructured and expanded its set of monetary policy instruments.

On the assets side, the newly launched collateralised loans with 3-year and 5-year maturity, the government securities and mortgage bonds purchase programme, the new FGS Go! facility, the broadening of the BGS limit and the rise in gold and foreign currency reserves all contributed to the increase in the balance sheet total. On the liabilities side, the volume of forint deposits by credit institutions rose to the largest extent. In addition to the new one-week deposits, the amount of preferential deposits rose with the use of the FGS Go! and BGS. The forint deposits of the central government also increased significantly. At the end of the year, other deposits and liabilities in foreign currency rose as a result of the repos drawn from international organisations (BIS and ECB). The MNB's equity also increased: it was boosted by the revaluation reserve and the profit for the year and reduced by the dividend paid.

The net interest and interest-related result yielded a gain of HUF 40.7 billion, down HUF 8.7 billion compared to the gain in 2019. The forint interest result amounted to HUF 10.7 billion, declining by HUF 19.9 billion compared to the previous year, as the increase in interest income resulting from the new programmes launched by central bank was exceeded by the rise in interest expenses related to liquidity absorption (one-week deposits, preferential deposits) and interest paid on the forint deposits of the central government. A gain of HUF 30 billion was registered in FX interest income, marking an increase of HUF 11.2 billion compared to 2019. Interest income on gold and foreign exchange reserves fell slightly, but the result of derivative transactions for hedging the risk of foreign exchange reserves improved and interest expenses denominated in foreign currency were also lower.

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 – continued to be a significant profit item in 2020. Realised net gains on exchange rate changes increased by HUF 57 billion to HUF 286.1 billion in 2020. Contributing factors in this regard included the weaker forint exchange rate, along with the transactions of the Government Debt Management Agency (ÁKK), foreign exchange expenditures related to pandemic control measures and transactions related to 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

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	Government bonds maturing within 1 year	0	0	0
	Government bonds maturing within 1 to 5 years	0	1,954	1,954
	Government bonds maturing over 5 years	39,178	1,111,673	1,072,495
I.1.	Total receivables from the central government	39,178	1,113,627	1,074,449

The balance of forint receivables from the central government increased to HUF 1,113.6 billion by the end of 2020. Government bonds acquired under the government securities purchase programme starting in May 2020 caused this significant growth in stocks. In addition to the variable-rate Government Debt Bond with a face value of HUF 39.2 billion, which was already part of the stock at end-2019, the stock expanded to include Hungarian Government Bonds. Except for a bond with a face value of HUF 2 billion which matures in 2025, the latter have a maturity over 5 years, and almost 90 percent of the total balance has a maturity more than 10 years.

4.4 FOREIGN CURRENCY RECEIVABLES FROM THE CENTRAL GOVERNMENT

Neither at end-2019 nor at end-200 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 2019	31 Dec 2020	
	Single Treasury Account (KESZ)	599,082	1,727,352	1,128,270
	Deposit by Government Debt Management Agency (ÁKK Zrt)	402	404	2
	Public sector instant payment accounts	0	852	852
	Other	58	58	0
VI.1.	Forint deposits of the central government	599,542	1,728,666	1,129,124

The total amount of forint deposits of the central government increased considerably, rising by HUF 1,129.1 billion. The change mainly occurred in the KESZ account, with the foreign currency bonds issued by the Government Debt Management Agency during the year contributing to this development, to the extent that the Government Debt Management Agency converted some of the foreign currency generated from these issues into HUF at the MNB. The balance of the instant payment account rose to HUF 0.9 billion in connection with the launch of the instant payment system in March 2020.

Foreign currency liabilities of the central government

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	Foreign currency deposits of the central government	343,044	1,012,114	669,070
	Currency swaps with the central government	399,981	149,539	-250,442
VII.1.	Foreign currency liabilities of the central government	743,025	1,161,653	418,628

The balance of the foreign currency deposits currency swaps of the central government was HUF 1,161.7 billion on 31 December 2020, reflecting an increase of HUF 418.6 billion compared to the end of 2019. The increase of HUF 669 billion in foreign currency deposits was driven by the debt management activities of the Government Debt Management Agency. Among the hedging transactions concluded with the central government, only the EUR/USD currency swaps showed an outstanding amount at end-2019 and end-2020. The HUF 250.4 billion decline was explained to almost equal degrees by the transaction effect and exchange rate changes.

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

HUF millions

B/S line	Remaining maturity	Balance		Change
		31 Dec 2019	31 Dec 2020	
	- within 1 year	400,635	1,072,851	672,216
	- within 1 to 5 years	303,385	63,365	-240,020
	- over 5 years	39,005	25,437	-13,568
VII.1.	Foreign currency liabilities of the central government	743,025	1,161,653	418,628

4.6 NET POSITIONS VIS-À-VIS THE CENTRAL GOVERNMENT

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
I.1.—VI.1.	Net forint position	-560,364	-615,039	-54,675
II.2.—VII.1.	Net foreign currency position	-743,025	-1,161,653	-418,628
	Total	-1,303,389	-1,776,692	-473,303

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 2019	31 Dec 2020	
	FGS refinancing loans	967,064	2,152,180	1,185,116
	Covered mortgage bonds	393,853	682,879	289,026
	Collateralised loans	387,851	2,263,480	1,875,629
	Securities issued with government guarantees	0	49,142	49,142
	Other receivables	6,557	5,378	-1,179
	Total receivables from credit institutions in gross value	1,755,325	5,153,059	3,397,734
	Impairment loss for receivables from credit institutions	-5,499	-8,549	-3,050
I.2.	Total receivables from credit institutions	1,749,826	5,144,510	3,394,684

Forint receivables from credit institutions totalled HUF 5,144.5 billion at the end of 2020, which is almost three times the figure from the end of 2019. This material change can be ascribed to the appearance of central bank instruments adopted by the MNB to mitigate the negative consequences of the financial market distortions caused by the coronavirus pandemic. The stock of the new, fixed-rate collateralised credit instrument, which was introduced at the end of March 2020, gradually expanded to HUF 2,263.5 billion by the end of 2020. (During the year, banks received collateralised loans with maturities of 3 and 5 years, the majority of the portfolio consists 5-year loans.) At the same time, demand for O/N loans fell and there was no stock at the end of 2020. Therefore, loans collateralised by securities and corporate loans increased by a total of HUF 1,875.6 billion. FGS refinancing loans rose by a net amount of HUF 1,185.1 billion, of which HUF 1,194.4 billion was from the newly introduced FGS Go! scheme and HUF 121.6 billion from recourse to FGS fix, while the HUF 130.9 billion negative difference was due to maturing loans. Starting from October 2020, the MNB may also purchase securities from credit institutions that have been issued with government guarantees: their stock amounted to HUF 49.1 billion at end-2020. To improve the banking system's access to long-term funds, the MNB resumed its mortgage bond purchase programme in May 2020, as a result of which mortgage bonds increased by HUF 289 billion by the end of December. 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 2019	31 Dec 2020	
- matured	6,557	5,378	-1,179
- within 1 year	418,178	157,066	-261,112
- within 1 to 5 years	722,214	3,772,111	3,049,897
- over 5 years	608,376	1,218,504	610,128
Total receivables from credit institutions in gross value	1,755,325	5,153,059	3,397,734

Forint liabilities of credit institutions

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	Current accounts	897,768	1,860,596	962,828
	O/N deposits	1,355,457	84,742	-1,270,715
	One-week deposits	0	3,049,000	3,049,000
	Instant payment accounts	40	90,494	90,454
VI.2.	Deposits of credit institutions	2,253,265	5,084,832	2,831,567

The item 'Deposits of credit institutions' mainly contains the liquidity-absorbing instruments, which are pegged to the base rate and mature within one year. The balance of deposits more than doubled compared to the end-2019, amounting to HUF 5,084.8 billion on 31 December 2020. On 1 April 2020, the Monetary Council decided to introduce another instrument, the one-week deposit, which amounted to HUF 3,049 billion by the end of the year. The balance of current accounts increased by HUF 962.8 billion, of which the stock of preferential deposits was HUF 1,107.7 billion higher than at the end of 2019. The balance of the instant payment account also increased due to the launch of the instant payment system in March 2020. O/N deposits changed in the opposite direction, with the stock falling by HUF 1,270.7 billion to HUF 84.7 billion by end-2020.

4.8 NET POSITIONS VIS-À-VIS CREDIT INSTITUTIONS

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
I.2.—VI.2.	Net forint position	-503,439	59,678	563,117
II.3.—VII.2.	Net foreign currency position	-35,903	-100,580	-64,677
	Total	-539,342	-40,902	498,440

Net liabilities to credit institutions decreased overall, improving this item by HUF 498.4 billion.

Within this, the net forint position showed an improvement of HUF 563.1 billion, with its balance shifting from a net liability at end-2019 to a net receivable by end-2020 (see Section 4.7.).

Net foreign currency liabilities to credit institutions rose HUF 64.7 billion compared to end-2019, amounting to HUF 100.6 billion on 31 December 2020. The higher balance of foreign currency deposited in interest-bearing accounts at the MNB by domestic credit institutions and the aggregate change in the balance of foreign currency swaps both worsened the foreign currency position. By contrast, the increase in credit institutions' foreign currency deposits 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 2019	31 Dec 2020	
	- within 1 year	8	44,922	44,914
	- within 1 to 5 years	167	284	117
	- over 5 years	7,654	18,573	10,919
II.3.	Foreign currency receivables from credit institutions	7,829	63,779	55,950
	- within 1 year	43,732	164,359	120,627
	- within 1 to 5 years	0	0	0
	- over 5 years	0	0	0
VII.2.	Foreign currency liabilities to credit institutions	43,732	164,359	120,627
II.3.-VII.2.	Net foreign currency position	-35,903	-100,580	-64,677

4.9 GOLD AND FOREIGN EXCHANGE RESERVES OF THE CENTRAL BANK

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	Gold reserve	454,851	570,550	115,699
	Reserve position in the IMF	121,965	128,159	6,194
	Foreign currency deposits	1,517,954	3,161,631	1,643,677
	Foreign currency securities	7,234,099	8,412,142	1,178,043
	Foreign currency repo transactions	31,900	1,457	-30,443
II.1.	Gold and foreign exchange reserves	9,360,769	12,273,939	2,913,170

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.

Excluding accrued interest, foreign exchange reserves amounted to HUF 12,273.9 billion on 31 December 2020, exceeding the figure for end-2019 by HUF 2,913.2 billion. In the course of 2020, foreign exchange reserves were increased by EUR transfers from the European Commission, transactions concluded with international institutions and other foreign partners, and the debt management and other activities of the Government Debt Management Agency. The FX swaps tenders providing euro liquidity which were announced at the end of 2020 and the repurchase agreements drawn down both had a positive effect on the growth in reserves. The level of reserves was reduced by the overall effect of the net balance of the Hungarian State Treasury's foreign currency inflows and payments mainly related to pandemic control measures, as well as by the maturity of the fine-tuning FX swaps providing forint liquidity to credit institutions. As a result of these factors, the stock of foreign exchange reserves denominated in euro rose by EUR 5.3 billion to EUR 33.7 billion by end-2020.

The end-2020 balance of foreign currency securities contained the securities which are managed by an external trustee based on a mandate amounting to HUF 871.9 billion (10.4 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 2019	31 Dec 2020	
	Total other receivables in HUF in gross value	215,814	595,313	379,499
	Impairment loss for other receivables	-9,485	-41,181	-31,696
I.3.	Other forint receivables	206,329	554,132	347,803

The aggregated balance of other forint receivables in gross value amounted to HUF 595.3 billion on 31 December 2020, of which more than 97 per cent was accounted for by the central bank's purchases of securities as part of the monetary policy instruments. The balance of receivables from supervisory activities amounted to HUF 9.9 billion at end-2020, and an impairment loss was recognised for 98.5 per cent of this, in line with the MNB's regulations. The item 'Impairment loss for other receivables' also contains impairments on securities. The total amount of personal loans and preferential property loans granted by the MNB to its employees rose to HUF 5 billion as of 31 December 2020.

Other foreign currency receivables

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	Forint payment of IMF quota	668,741	702,705	33,964
	Foreign hedging transactions*	44,716	87,396	42,680
	Other	11	491	480
II.4.	Other foreign currency receivables	713,468	790,592	77,124

* 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 5.1-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.

4.11 OTHER DEPOSITS AND LIABILITIES

Other forint liabilities

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	International financial institutions' forint deposits	50,847	954,119	903,272
	Other legal entities' bank accounts	17,769	9,505	-8,264
	Other legal entities' instant payment accounts	0	1,452	1,452
	Other liabilities	967	1,147	180
VI.4.	Other forint deposits and liabilities	69,583	966,223	896,640

On the whole, the forint deposits of the European Commission and other international financial institutions increased the total amount of other forint liabilities, while the decline in the bank accounts of other domestic and foreign legal entities reduced such liabilities to a small degree.

Other foreign currency liabilities

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	Repo transactions	0	1,398,448	1,398,448
	IMF deposit	1,072,674	1,127,152	54,478
	Foreign deposits	148,078	118,298	-29,780
	Hedging transactions*	20,065	79,997	59,932
	Other liabilities	161	700	539
VII.3.	Other foreign currency liabilities	1,240,978	2,724,595	1,483,617

* 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 1,483.6 billion to HUF 2,724.6 billion as of 31 December 2020. The change was mainly related to repo calls from international organisations (BIS and ECB), the total value of which was HUF 1,398.4 billion at end-2020, and only lasted a few days. The stock of the IMF deposit rose by HUF 54.5 billion, due to the official revaluation and exchange rate changes. The item 'Hedging transactions' includes the net credit balance of swap and forward transactions with non-resident counterparties concluded by the MNB. Owing to a decline in the accounts reflecting changes in the market value of hedging transactions and a reduction in the deposit of the European Commission, the amount of foreign deposits fell by HUF 29.8 billion.

Other foreign currency liabilities by remaining maturity

HUF millions

B/S line	Remaining maturity	Balance		Change
		31 Dec 2019	31 Dec 2020	
	- within 1 year	837,045	2,265,205	1,428,160
	- within 1 to 5 years	0	17,762	17,762
	- over 5 years	0	17,180	17,180
	- without maturity	403,933	424,448	20,515
VII.3.	Other foreign currency liabilities	1,240,978	2,724,595	1,483,617

The item 'Liabilities without maturity' includes the liabilities of SDR 991.1 million, which 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 2019	31 Dec 2020	
- EUR	-79,369	1,572,780	1,652,149
- USD	327	-74,786	-75,113
- JPY	0	60,614	60,614
- SDR	466,591	521,070	54,479
- Other	833,364	564,920	-268,444
Other foreign currency liabilities	1,220,913	2,644,598	1,423,685

Most of the item 'Other' amounting to HUF 564.9 billion on 31 December 2020 consists of the forint coverage of the IMF quota adjusted by revaluation.

4.12 INVESTED ASSETS

In addition to intangibles, tangibles and capital expenditure (HUF 35.8 billion), invested assets also include shares in investments (HUF 11.2 billion in foreign investments and HUF 173.5 billion in domestic investments).

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 2019	17,606	1,314	14,544	18,205	11,456	244	1,018	64,387
Commissioning/ acquisition	3,652	-561	209	2,823		3	397	6,523
Acceptance of assets free of charge				3	1			4
Other addition/ reclassificaion	39							39
Retirement	-39	-86		-747			-13	-885
Selling	-1			-1	-1			-3
Transfer free of charge				-334				-334
Other disposal/ reclassification				-60		-2		-62
31 Dec 2020	21,257	667	14,753	19,889	11,456	245	1,402	69,669
Details of depreciation								
31 Dec 2019	13,687	0	5,683	10,971	0	0	0	30,341
Ordinary depreciation	1,853		432	2,399				4,684
Other addition due to reclassificaion	13							13
Derecognition	-39			-1,101				-1,140
Decrease due to reclassification				-13				-13
31 Dec 2020	15,514	0	6,115	12,256	0	0	0	33,885
Balance								
31 Dec 2019	3,919	1,314	8,861	7,234	11,456	244	1,018	34,046
31 Dec 2020	5,743	667	8,638	7,633	11,456	245	1,402	35,784
Change	1,824	-647	-223	399	0	1	384	1,738

The net book value of state-owned, managed buildings (3 buildings and 2 plots of land) was HUF 57.8 million at 31 December 2020.

Foreign investments and dividends from investments

HUF millions

Description	Ownership share (%)		Book value		Dividends received	
	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	2019	2020
BIS	1.43	1.43	8,192	8,846	833	0
SDR millions			10	10		
CHF millions			14	14		
European Central Bank	1.33	1.55	1,791	2,296	-	-
EUR thousands			5,418	6,287		
SWIFT	0.03	0.03	15	17	0	0
EUR thousands			46	46		
Total investments			9,998	11,159	833	0

Ownership distribution in the ECB at 31 December 2020

National Central Banks (NCBs)	Subscribed capital	Paid-up capital	Capital key
	EUR thousands		%
Nationale Bank van België/ Banque Nationale de Belgique	320,745	276,291	2.9630
Deutsche Bundesbank	2,320,817	1,999,160	21.4394
Eesti Pank	24,800	21,363	0.2291
Central Bank of Ireland	149,082	128,420	1.3772
Bank of Greece	217,767	187,585	2.0117
Banco de España	1,049,820	904,319	9.6981
Banque de France	1,798,120	1,548,908	16.6108
Banca d'Italia	1,495,637	1,288,347	13.8165
Central Bank of Cyprus	18,944	16,318	0.1750
Latvijas Banka	34,304	29,550	0.3169
Lietuvos banka	50,953	43,891	0.4707
Banque centrale du Luxembourg	29,000	24,981	0.2679
Central Bank of Malta	9,234	7,954	0.0853
De Nederlandsche Bank	515,941	444,434	4.7662
Oesterreichische Nationalbank	257,678	221,965	2.3804
Banco de Portugal	206,054	177,496	1.9035
Banka Slovenije	42,391	36,516	0.3916
Národná banka Slovenska	100,824	86,850	0.9314
Suomen Pankki – Finlands Bank	161,715	139,302	1.4939
Subtotal for euro area NCBs	8,803,826	7,583,650	81.3286
Bulgarian National Bank	106,431	3,991	0.9832
Česká národní banka	203,445	7,629	1.8794
Danmarks Nationalbank	190,423	7,141	1.7591
Hrvatska narodna banka	71,391	2,677	0.6595
Magyar Nemzeti Bank	167,658	6,287	1.5488
Narodowy Bank Polski	653,127	24,492	6.0335
Banca Națională a României	306,229	11,484	2.8289
Sveriges riksbank	322,477	12,093	2.9790
Subtotal for non-euro area NCBs	2,021,181	75,794	18.6714
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 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 rising to 1.5488 per cent and its subscribed capital increasing to EUR 167.7 million.

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 6.3 million (HUF 2.3 billion) in the MNB's balance sheet as at 31 December 2020.

Domestic investments and dividends from investments

HUF millions

Description	Ownership share (%)		Book value		Dividends received	
	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	2019	2020
Pénzjegynyomda Zrt. 1055 Budapest, Markó utca 13–17.	100.0	100.0	11,827	11,827	900	690
Magyar Pénzverő Zrt. 1239 Budapest, Európa u. 1.	100.0	100.0	575	1,309	425	0
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	-	577	-	0	-
MNB-Biztonsági Zrt. 1123 Budapest, Alkotás utca 50.	100.0	100.0	740	1,317	0	0
GIRO Zrt. 1054 Budapest, Vadász utca 31.	100.0	100.0	9,779	14,779	0	0
MNB-Ingatlan Kft. 1054 Budapest, Szabadság tér 9.	100.0	100.0	28,960	132,008	0	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	2,133	0
KELER KSZF Zrt. 1074 Budapest, Rákóczi út 70–72.	0.1	0.1	7	7	0	0
Total investments			64,713	173,495	3,458	690

Participations of domestic investments

HUF millions

Description	Participations		
	Name Headquarter	Ownership share (%)	Share capital (HUF millions)
		31 Dec 2020	
Pénzjegynyomda Zrt.	DIPA Diósgyőri Papírgyár Zrt. 3535 Miskolc, Hegyalja út 203/1.	100.0	4,196
GIRO 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	50
	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
MNB-Ingatlan Kft.	Optimum-Gamma Ingatlanbefektetési Kft. 1013 Budapest, Döbrentei utca 2.	100.0	4

Pénzjegynyomda Zrt. (Hungarian Banknote Printing Plc.) produces forint banknotes, secure documents in paper and plastic card format, banderole, 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. The company has stabilised its presence in the production and personalisation of important domestic documents for the contracting period until 2022. In line with this, the production of improved banknotes and the fulfilment of civil orders for personalised documents had high priority in 2020. Pénzjegynyomda Zrt.'s subsidiary, **DIPA Diósgyőri Papírgyár Zrt.** (DIPA Zrt., Diósgyőr Papermill Plc.), is 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 papers, DIPA Zrt. produces papers 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. The coronavirus pandemic and the declared state of emergency affected both companies, in terms of personalised document and export orders not materialising. The companies took it as a priority to offset these shortfalls, introducing actions and tailored solutions to reorganise the work to prevent the spread of the virus. Despite the pandemic, they remained profitable, with stable operations and adequate liquidity.

On the basis of the MNB's orders, the primary duty of **Magyar Pénzverő Zrt.** (Hungarian Mint Plc.) 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, circulation coin series and other packaged products, 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 accordance with the shareholder's strategy, the investment programme for capacity replacement and expansion was completed in 2020: state-of-the-art technology was installed, ensuring a suitable manufacturing basis for the central bank's coin issuing activity. The company maintained its operations during the coronavirus pandemic and complied with the safety requirements to prevent infections. The

pandemic impacted demand for circulation coins and thus the production of these coins was reduced. The issuance of certain commemorative coins was rescheduled. The company's share capital increased by HUF 734 million to HUF 1,309 million from 20 November 2020, in order to provide financing for the security reserves of raw materials for coins and for raw materials used in connection with the growing annual commemorative coin programmes.

Pénzügyi Stabilitási és Felszámoló Nonprofit Kft. (PSFN Kft., Financial Stability and Liquidator Non-profit Ltd.) is a company exercising public service functions with the exclusive right to perform the liquidation or winding-up proceedings of financial institutions and to phase out venture capital funds. It participates in the resolution process of financial institutions and performs supervisory commissioner work for financial institutions with suspended authorisation for operations. When assigned to a financial institution as a supervisory commissioner, PSFN Kft.'s main duty is to perform tasks related to administration and operational management. If, despite the supervisory measures by the MNB or the designation of supervisory commissioners, the prudent and legal operation of the financial institution is not ensured, the company performs the liquidation or winding-up proceedings for the institution following the withdrawal of its authorisation for operations by the MNB, in the interests of a smooth exit from the market. The primary purpose of these procedures is to enforce creditors' interests and to satisfy their claims, prior to the end of the termination proceedings. PSFN Kft. performs its functions for the public good, protecting the interests of the customers of financial services. Its express objective is to carry out the termination of financial institutions in accordance with a uniform approach and methodology, emphasising prudence and transparency, to complete resolution as quickly as possible, keeping in mind the complex nature of the undertaking and the interests of customers, and to maximise creditors' recovery.

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 central bank with personal and property protection guards, along with the accompaniment of consignments that require security surveillance. Since 2017, MNB-Biztonsági Zrt. performs evaluative-analytical and advisory activities related to the guarding and security tasks to be performed by the central bank and helps the MNB prepare preventive measures. Since 1 April 2020, the company provides IT security and security technical support for the central bank and also performs tasks related to reception and call centre operation. MNB-Biztonsági Zrt. provides certain services for the MNB's subsidiaries as well. Since 1 January 2020, MNB-Biztonsági Zrt. operates the buffets at workplaces and provides catering services for the MNB and its employees. The company does not provide services to other parties. As of 1 January 2020, the book value of the investment increased by HUF 577 million to HUF 1,317 million due to merger with the **MNB-Jóléti Kft.**

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 system which, starting from 2 March 2020, ensures the settlement of electronic payments up to HUF 10 million within 5 seconds 24 hours a day, each day of the year. Based on the data of the central infrastructure, 94 million interbank transactions were completed in 2020, for amount of HUF 14,414 billion in total. 99.9 per cent of the transactions were successfully executed within 20 seconds. 99.2 per cent of the total transactions were settled within 5 seconds as required by the regulation, while 95.4 per cent were processed within 2 seconds. The launch of the instant payment service marks a new era in Hungarian payments. The scope of the innovative payment solutions based on the central infrastructure provided by GIRO and the MNB is constantly expanding, offering better and better service quality in more and more payment situations to customers. GIRO's share capital increased by HUF 5 billion from 22 July 2021 to ensure financing for these new services and payment solutions.

MNB-Ingatlan Kft. (MNB-Real Estate Ltd.) leases and operates real estate, and provides real estate management and development service for the MNB and its subsidiaries. The company owns the Bölcs Vár and the Buda Palota and is in the process of acquiring ownership rights to the KR55 Irodaház. The ongoing real estate development of the Buda Palota involves renovation of the property and the construction of an underground parking garage, primarily to serve the MNB's supervisory customer service and provide office space for employees. This building will also host the central bank's Money Museum and Visitor Centre. Due to the gradual increase of the capital and reserves by a total of HUF 103 billion, the book

value of the investment amounted to HUF 132 billion as at 31 December 2020. The capital and reserves were increased to provide financing for the purchases and developments related to the real estate investments, for acquiring works of art and, related to the real estate development service for the MNB, for the acquisition of shares in **Optimum-Gamma Ingatlanbefektetési Kft.** (Optimum-Gamma Real Estate Investment Ltd.) that owns real estate in Balatonakarattya.

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, as a developed capital market and diversified financial intermediary system forms the basis for competitive economy and sustainable growth. BÉT celebrated the 30th anniversary of its re-foundation in 2020. BÉT's strategic policy through to 2020 included successful public listings on the stock exchange, renewal of the market structure, strengthening relations with investors and international partners, and deepening government support in relation to these aspects. This strategy also helped establish a healthier structure for the financial system, improved interest rate transmission and facilitated suppression of the shadow economy by ensuring transparency among listed companies. In 2020, BÉT focused on maintaining and developing the previously introduced platforms and programmes. New companies joined the standard market and the Xtend platform. The number of companies participating in the ELITE programme rose to 47, while the number of marketable corporate bonds on the XBond platform increased to 43. This alternative platform, which supports the objectives of the Bond Funding for Growth Scheme (BGS), offers simplified conditions and lower costs compared to the standard regulated market. ESG investments which take into consideration environmental, social and governance factors are becoming increasingly important on the Budapest Stock Exchange. As part of this, BÉT signed a long-term, 5-year strategic cooperation agreement with the MVM Group. BÉT also organised a professional conference on sustainable investments on 29 July 2020. The company has a minority interest 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 holds a strategic share in the KELER Group as well. As the operator of the back-office infrastructure of the Hungarian securities market, the KELER Group settles, guarantees and clears BÉT stock exchange transactions and transactions with any dematerialised securities issued in Hungary. After the end of the year, BÉT sold its subsidiary Első Értékpapírosítási Tanácsadó Zrt. and the new owner was registered on 26 February 2021.

KELER Zrt. (KELER Plc.) provides central depository services in the Hungarian capital market and acts as a specialised credit institution. KELER is the issuer of Hungarian ISIN codes and participates as a provider in all domestic securities issues. In December 2020, the company received a CSDR licence from the MNB, in accordance with the European regulation on central depositories. Previously, at the beginning of 2017, the company entered the TARGET2-Securities (T2S) securities settlement platform operated by the ECB, 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.

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, it also guarantees that the transactions are completed. In addition to the capital market segment, transactions with electricity and natural gas trading also became significant 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 2020			
Pénzjegynyomda Zrt.	11,827	6,647	413	18,887
Magyar Pénzverő Zrt.	1,309	1,783	290	3,382
Pénzügyi Stabilitási és Felszámoló Nonprofit Kft.	50	3	0	53
MNB-Biztonsági Zrt.	1,066	250	-38	1,278
GIRO Zrt.	7,496	10,098	273	17,867
MNB-Ingatlan Kft.	13	130,904	-103	130,814
Budapesti Értéktőzsde Zrt.	541	7,475	131	8,147
KELER Zrt.	4,500	19,591	1,064	25,155
KELER KSZF Zrt.	2,623	5,965	517	9,105

MNB's receivables from and liabilities to affiliated companies

HUF millions

Investment	Receivables	Liabilities
	31 Dec 2020	
Pénzjegynyomda Zrt.	69	468
Magyar Pénzverő Zrt.	407	22
Pénzügyi Stabilitási és Felszámoló Nonprofit Kft.	0	898
MNB-Biztonsági Zrt.	0	72
GIRO Zrt.	0	9
MNB-Ingatlan Kft.	35	0
Budapesti Értéktőzsde Zrt.	0	3
KELER Zrt.	20	13
KELER KSZF Zrt.	5	0
Total	536	1,485

Receivables from Pénzjegynyomda Zrt. arose from employee real estate loans, while the receivables from Magyar Pénzverő Zrt. mostly stemmed from the financing of materials for the production of circulation coins. Receivables from MNB-Ingatlan Kft. resulted from deposits related to rent, while receivables from KELER Zrt. and KELER KSZF Zrt. were related to the collateral required for BÉT trading. Liabilities to Pénzjegynyomda Zrt. and Magyar Pénzverő Zrt. derived from the invoicing of banknotes produced, circulation and commemorative coins, while liabilities to MNB-Biztonsági Zrt. resulted from invoices mostly for guarding and protection activities. The liabilities to PSFN Kft. were related to the subsidy agreed to finance the company's operation in 2021; the amount was paid and recorded as expenditure in January 2021.

The table presents short-term receivables and liabilities, except receivables from KELER Zrt. and KELER KSZF Zrt., which will exist until the end of the MNB's clearing membership; and receivables from MNB-Ingatlan Kft. and Pénzjegynyomda Zrt., which will be settled in accordance with the conditions of the related contracts.

4.13 PROVISIONS AND IMPAIRMENT LOSSES

HUF millions

Kapcsolódó B/S line	Description	31 Dec 2019	Interim changes		31 Dec 2020
		Impairment losses / provisions	Increase	Use / Reversal	Total impairment losses / provisions
1	2	3	4	5	3+4+5
I.2.	Forint receivables from credit institutions	5,499	3,258	-208	8,549
I.3.	Other forint receivables	9,485	31,696		41,181
III.	Invested financial assets	3,472		-353	3,119
III.	Other receivables	73		-2	71
VIII.	Off-balance sheet liabilities	703	862	-556	1,009
	- litigation related liabilities	80	818	-66	832
	- FGS+ refinancing loans	133			133
	- derivatives	490	44	-490	44
	Total	19,232	35,816	-1,119	53,929
	Use of impairment losses			354	
	Effect of the recognition of impairment losses/provisions on the profit/loss (VI.+VII.)-(XVI.+XVII.)		-35,816	765	-35,051

On 31 December 2020, the cumulated balance of provisions and impairment losses stood at HUF 53.9 billion, due to the increase during the year.

In relation to forint receivables (B/S line I.2. and I.3.), an impairment loss totalling HUF 34.9 billion was recognised in 2020, due to the increasing balance of monetary policy securities and the new impairment policy.

In relation to invested financial assets, the previously recorded impairment loss of HUF 353 million for the investment in MNB-Jóléti Kft. was used as part of the book value of the investment at the beginning of 2020, upon the company's merger into MNB-Biztonsági Zrt.

In connection with litigation-related contingent liabilities, a provision of HUF 0.8 billion was recorded in 2020, based on the expected recovery.

The provision created for the negative market value of the open derivative transactions decreased by HUF 0.5 billion at end-2020, due to maturity of the related transactions.

4.14 PREPAID EXPENSES/ACCRUED INCOME AND ACCRUED EXPENSES/DEFERRED INCOME

HUF millions

B/S line	Description	Balance		Change
		31 Dec 2019	31 Dec 2020	
	Due to banking transactions	159,306	138,209	-21,097
	Due to internal operation	1,245	2,984	1,739
IV.	Prepaid expenses/accrued income	160,551	141,193	-19,358
	Due to banking transactions	81,874	61,943	-19,931
	Due to internal operation	420	485	65
X.	Accrued expenses/deferred income	82,294	62,428	-19,866

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 2019	2020.12.31	Change
XI.1.	Share capital	10,000	10,000	0
XI.2.	Retained earnings	198,210	202,909	4,699
XI.3.	Valuation reserves	0	0	0
XI.4.	Revaluation reserves due to exchange rate changes	187,801	586,408	398,607
XI.5.	Revaluation reserves of foreign currency securities	32,222	57,952	25,730
XI.6.	Profit/loss for the year	254,699	255,424	725
XI.	Equity	682,932	1,112,693	429,761

The share capital consists of a single registered share with a nominal value of HUF 10 billion.

The increase of HUF 4.7 billion in retained earnings is the net effect of the transfer of the 2019 profit of HUF 254.7 billion and the payment of HUF 250 billion as dividend to the state budget in April, 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 2019	2020.12.31	Change
XI.4.	Revaluation reserves due to exchange rate changes	187,801	586,408	398,607
XI.5.	Revaluation reserves of foreign currency securities	32,222	57,952	25,730
	Total revaluation reserves	220,023	644,360	424,337

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 the revaluation reserves due to exchange rate changes, with the balance changing by HUF 398.6 billion to HUF 586.4 billion. The MNB undertook foreign exchange rate exposure mainly in the euro: as at 31 December 2020, the exchange rate was EUR/HUF 365.13, and the average cost rate was EUR/HUF 336.81.

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 58 billion as at 31 December 2020.

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 2019			31 Dec 2020		
		Receivables	Liabilities	Net market value	Receivables	Liabilities	Net market value
1.	Interest rate swap transactions	3,122,223	3,122,223	56,719	2,639,105	2,639,105	69,792
	- IRS facility of monetary policy (MIRS)	1,099,617	1,099,617	22,390	1,099,617	1,099,617	21,263
	- IRS contracted with domestic credit institutions	919,910	919,910	26,941	358,830	358,830	13,432
2.	Futures	97,236	16,969	-342	109,331	22,263	-3
3.	FX swap, FX futures and forward transactions	7,116,887	7,122,273	-5,327	8,669,557	8,617,794	48,031
	- Forint liquidity providing FX swaps	2,499,053	2,503,358	-9,944	1,622,161	1,658,420	-47,508
	- EUR liquidity providing FX swaps	0	0	0	1,098,676	1,089,970	8,927
4.	Currency swap transactions (including transactions without capital replacement)	4,299,412	4,567,579	-343,523	3,372,710	3,544,754	-217,374
	- Currency swap transactions linked to FGS	137,649	129,825	11,824	129,511	110,636	22,271
5.	Total hedging transaction (1+2+3+4)	14,635,758	14,829,044	-292,473	14,790,703	14,823,916	-99,554
6.	Options	999	1,001	1	0	0	0
7.	TBA transactions	72,117	44,995	61	191,077	41,863	705
8.	Futures	260,972	0	-599	94,084	0	-13
9.	Total derivative transactions for purposes other than hedging (6+7+8)	334,088	45,996	-537	285,161	41,863	692
10.	Total (5+9)	14,969,846	14,875,040	-293,010	15,075,864	14,865,779	-98,862

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 arising from cross-rate fluctuations and from interest rate changes and support the creation of the benchmark foreign currency structure.

Nearly one half of the interest rate swap transactions are transactions with foreign partners for hedging purposes linked to specific bond issuance, which are concluded with the aim of achieving the interest structure deemed desirable by the MNB. 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-2019 remained unchanged at end-2020. 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 (forint liquidity providing FX swaps) and EUR liquidity providing FX swaps are for monetary policy purposes; the MNB provides their tenders on an ad hoc basis, depending on 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-2020 balance, 22 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 2019	31 Dec 2020	
- within 1 year	8,342,302	9,864,128	1,521,826
- within 1 to 5 years	5,081,844	3,676,762	-1,405,082
- over 5 years	1,404,898	1,283,026	-121,872
Liabilities from hedging transactions	14,829,044	14,823,916	-5,128

Other off-balance sheet liabilities

HUF millions

Description	Balance		Change
	31 Dec 2019	31 Dec 2020	
FGS credit facilities	53,190	301,685	248,495
Credit facilities to subsidiaries	0	1,031	1,031
FGS+ related contingent liabilities	133	133	0
Litigation-related contingent liabilities	357	1,563	1,206
Guarantees	1,806	1,822	16
Other off-balance sheet liabilities	11	11	0
Total	55,497	306,245	250,748

The contracts concluded but not yet disbursed in the framework of FSG *fix* and FSG *Go!* are reported as off-balance sheet liabilities, as credit facilities.

Credit facilities to subsidiaries include the funds still available from the contracted amount for employee housing loans of Pénzjegynyomda (Hungarian Banknote Printing Plc.) and Pénzverő (Hungarian Mint Plc.).

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 2020, the increase in the balance was caused by exchange rate changes.

Recording off-balance sheet securities transactions

HUF millions

Description	Balance		Change
	31 Dec 2019	31 Dec 2020	
Face value of securities lent - automatic securities lending	3,998	6,357	2,359
Face value of securities lent - agency securities lending	371,471	216,668	-154,803
Purchase cost of the non-cash hedge arising from security lending transactions	12,395	18,987	6,592
Purchase cost of investment of cash hedge arising from security lending transactions	367,963	205,179	-162,784
Market value of investment of cash hedge arising from security lending transactions	367,963	205,179	-162,784
Face value of securities bought under repo transactions	31,489	1,412	-30,077
Face value of securities sold under reverse repo and blocked to ECB repo transactions	0	1,394,246	1,394,246

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	2019	2020	Change
(I.1.+II.2.)—(X.1.+XI.1.)	Central government	1,059	4,240	3,181
(I.2.+II.3.)—(X.2.+XI.2.)	Credit institutions	5,001	-7,557	-12,558
(I.3.+II.1.+II.4.)— (X.3.+XI.3.)	Other	73,073	82,333	9,260
	Net profit/loss from interest	79,133	79,016	-117
	Forint securities	-3,404	-8,659	-5,255
	Foreign currency securities	-24,918	-35,142	-10,224
	Derivative transactions for hedging and other purposes*	-1,425	5,424	6,849
	Other	61	22	-39
(I.4.+II.5.)—(X.4.+XI.4.)	Net interest-related profit/loss	-29,686	-38,355	-8,669
(I.+II.)—(X.+XI.)	Net interest and interest-related income	49,447	40,661	-8,786

* For details on derivative transactions for hedging and other purposes, see the related table in this section.

In 2020, the MNB recorded a net interest and interest-related profit of HUF 40.7 billion, representing a decline of HUF 8.8 billion compared to the figure for end-2019.

Net interest income decreased by HUF 0.1 billion versus end-2019, as a combined effect of the following:

The main positive factors in net interest income were:

- an increase in interest income on loans to credit institutions and mortgage bonds in the amount of HUF 12.3 billion, as a result of the new collateralised loans with long-term maturity and of the mortgage bond purchase programme (at the same time, the amortised net purchase price loss, recognised among net interest-related expenses, rose by HUF 0.9 billion in 2020);
- forint interest received from the central government was HUF 8 billion higher compared to 2019, resulting from the larger stock of government bonds (which was, however, reduced by the amortised net purchase price loss of HUF 1.9 billion, recognised among net interest-related expenses);

- an increase of HUF 7.5 billion in interest income on other forint receivables, compared to the previous year, as a result of the corporate bonds purchased under the Bond Funding For Growth Scheme (at the same time, the amortised net purchase price loss, recognised among net interest-related expenses, increased in 2020 by HUF 2.4 billion);
- a decline of HUF 3.8 billion in interest paid on the other deposits denominated in foreign currency, originating in the lower interest paid on the SDR allocation owing mainly to the lower US dollar interest rates.

The main negative factors in net interest income were:

- an increase of HUF 24.9 billion in interest expenses on the forint deposits of credit institutions, stemming from the rise in the amount of deposits and from the shift towards deposits with higher interest rates (preferential deposit facility bearing tiered interest, one-week deposit);
- an increase of HUF 5.5 billion in interest paid on the higher forint deposits of the central government;
- a decrease of HUF 2 billion in interest income on foreign exchange reserves arising from the depreciation in foreign exchange market returns.

Net interest-related income fell by HUF 8.7 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	2019		2020	
		Total	of which: Negative sums for interest	Total	of which: Negative sums for interest
	INCOME				
II.	Interest and interest-related income denominated in foreign currency	307,746	-24,046	299,503	-22,803
II. 1.	Interest on foreign currency reserves	79,820	-5,211	77,781	-6,765
II. 3.	Interest on receivables from credit institutions	3	0	-40	-40
II. 5.	Interest-related income	227,921	-18,835	221,762	-15,998
	EXPENSES				
X.	Interest and interest-related expenses denominated in forint	10,108	-544	45,172	-145
X. 2.	Interest on deposits by credit institutions	5,083	-783	30,015	-145
X. 4.	Interest-related expenses	4,247	239	8,855	0
XI.	Interest and interest-related expenses denominated in foreign currency	288,956	-6,642	269,475	-7,722
XI. 1.	Interest on central government deposits	-1,779	-1,994	-2,425	-2,481
XI. 2.	Interest on deposits by credit institutions	-83	-91	-177	-178
XI. 3.	Interest on other liabilities	7,502	-391	3,713	-784
XI. 4.	Interest-related expenses	283,316	-4,166	268,364	-4,279

Note: Table includes only P&L lines affected by negative sums for interest.

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 on income from derivative transactions for hedging and for purposes other than hedging represented in interest-related income

HUF millions

Description	2019	2020	Change
Interest margin on interest rate swaps	23,284	23,611	327
Net interest result of currency swaps	-20,198	-17,613	2,585
Net interest result of FX swaps, FX futures and forward transactions	-9,785	-4,826	4,959
Net interest result of futures transactions	-1,963	-21	1,942
Net interest-related result of swap and option transactions	273	-2,131	-2,404
Net interest and interest-related result of other transactions	6,964	6,404	-560
Net result of derivative transactions	-1,425	5,424	6,849

The increase of HUF 0.3 billion in interest income on interest rate swaps resulted from the fact that the rise in the interest margin on interest rate swaps concluded with foreign partners exceeded the contraction of those concluded with foreign partners.

Currency swap transactions include derivative transactions concluded with the Government Debt Management Agency, 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 2020, the average amount of transactions concluded with the Government Debt Management Agency and with foreign partners was also lower compared to the previous year. Net interest income on currency swaps reflected a loss of HUF 17.6 billion, which was HUF 2.6 billion lower compared to the loss for 2019.

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 decreased by HUF 5 billion, which was mainly related to the higher interest income on forint liquidity providing FX swaps.

Net interest on hedge futures transactions increased by HUF 1.9 billion, due to higher net interest income on bond futures transactions.

Net interest-related income on hedge transactions includes the exchange rate gains or losses on swap transactions and the option fee of option transactions. In 2020, this item included the exchange rate gains and losses arising from the termination of currency swaps concluded with the Government Debt Management Agency and with foreign partners.

Net interest and interest-related income on other transactions decreased by HUF 0.6 billion resulting from bond futures transactions other than hedging and from TBA transactions.

Realised gains/losses from financial operations

HUF millions

P/L line	Description	2019	2020	Change
	Realised gains on covered mortgage bonds	0	1	1
	Realised gains on coupon-bearing bonds denominated in foreign currency	12,424	14,935	2,511
IV.	Realised gains from financial operations	12,424	14,936	2,512
	Realised losses on coupon-bearing bonds denominated in foreign currency	5,151	9,815	4,664
XIV.	Realised losses from financial operations	5,151	9,815	4,664
IV.-XIV.	Net financial gains/losses	7,273	5,121	-2,152

In 2020, net realised gains from financial operations arose mainly from sales of bonds denominated in foreign currency, owing to the decline in US dollar market returns. Net income decreased by HUF 2.2 billion relative to 2019.

4.19 COMPONENTS OF INCOME FROM THE REVALUATION OF FOREIGN EXCHANGE HOLDINGS

HUF millions

Description	2019	2020
Net income from exchange rate changes (realised and conversion spread)*	229,065	286,149
Change in revaluation reserves in the balance sheet** (due to unrealised revaluation net income)	18,200	398,607
Total effect of exchange rate changes	247,265	684,756
* P/L line: III.-XII.		
** Revaluation reserves due to exchange rate changes (balance sheet line XI.4.).		

In 2020, the total net exchange rate change effect was a gain of HUF 684.8 billion. The MNB realised a gain of HUF 286.1 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 398.6 billion during the year. Foreign currency sales occurred in 2020 in relation to the debt management transactions of the Government Debt Management Agency, to the state expenditures on coronavirus containment measures and to the management of gold and foreign currency reserves.

For more details on revaluation reserves, see Section 4.16.

4.20 COST OF ISSUING BANKNOTES AND COINS

HUF millions

P/L line	Description	2019	2020	Change
	Cost of banknote production	5,712	6,261	549
	Cost of coin production	5,217	3,959	-1,258
	Cost of production of commemorative and collector coins	464	769	305
XIII.	Cost of issuing banknotes and coins	11,393	10,989	-404

The total cost of issuing banknotes and coins amounted to HUF 11 billion in 2020, down HUF 0.4 billion compared to the figure for 2019.

The cost of banknote production was HUF 6.3 billion, with an increase of HUF 0.5 billion compared to the previous year. The cost of coin production amounted to HUF 4 billion, down HUF 1.3 billion compared to 2019. This significant decline resulted from falling demand for coins.

The cost of producing commemorative and collector coins amounted to HUF 0.8 billion, reflecting an increase of HUF 0.3 billion versus the previous year. The collector coin issuing programme for 2020 was impacted by the coronavirus pandemic, and therefore 3 themes were rescheduled for 2021; nonetheless, the number of issues still exceeded that of 2019. The increase in volume as well as commodity prices contributed to the increase in costs. Demand for commemorative coins continues to grow.

4.21 OTHER INCOME/EXPENSES

HUF millions

P/L line	Description	2019	2020	Change
V.1.	Income from fees and commissions	1,337	1,358	21
XV.1.	Expenses of fees and commissions	1,615	1,842	227
	Net income from fees and commissions	-278	-484	-206
V.2.	Income from other than fees and commissions	13,784	1,961	-11,823
XV.2.	Expenses of other than fees and commissions	4,387	3,266	-1,121
	Net income from other than fees and commissions	9,397	-1,305	-10,702
V.3.	Income from supervisory activities	13,516	19,870	6,354
V.-XV.	Other net results	22,635	18,081	-4,554

Net income from fees and commissions includes the balance of income from and expenses on fees and commissions linked to payment services, income from fees related to account management and to account turnover, as well as expenses on fees related to holding foreign currency reserves. The increase in expenses on commissions in 2020 was mainly caused by the rise in the latter fees connected to safe custody.

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	2019	2020	Change
	Profit from the withdrawal of notes and coins	7,377	0	-7,377
	Dividends from investments	4,291	690	-3,601
	Income related to coins and commemorative coins	645	879	234
	Recommitment of financial money transfer	313	139	-174
	Income from assets assigned free of charge	33	24	-9
	Other income	1,125	229	-896
V.2.	Income from other than commissions and charges	13,784	1,961	-11,823
	Expenses related to coins and commemorative coins	599	792	193
	Financial money transfer	3,556	2,435	-1,121
	Expenses related to public proceedings	140	7	-133
	Expenses from assets assigned free of charge	72	11	-61
	Other expenditures	20	21	1
XV.2.	Expenses from other than commissions and charges	4,387	3,266	-1,121
V.2.-XV.2.	Net income/expenses from other than commissions and charges	9,397	-1,305	-10,702

Dividends from investments fell by HUF 3.6 billion compared to 2019. In 2020, among the domestic investments, Pénzjegynyomda Zrt. paid a dividend of HUF 0.7 billion to the MNB. Due to the circumstances of the coronavirus pandemic, the Annual General Meeting of the BIS decided to postpone the dividend payment.

Net income related to coins and commemorative coins depends on the commemorative coin programme and arises mainly from the difference between the 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 Magyar Pénzverő Zrt. at face value, except when the production cost exceeds the face value (the latter is typical for gold coins). In 2020, net income arose mainly from the issue of the gold commemorative coin 'Golden Florin of Vladislaus I'.

The item 'Financial money transfer' includes donations to professional organisations and foundations, as well as to organisations for charitable and other purposes. In 2020, the MNB gave HUF 2.4 billion as donations. This was HUF 1.1 billion lower than in the previous year. The two highest amounts were related to PSFN Kft. and to Pénziránytű Alapítvány (the foundation for financial education). For the operation of PSFN Kft. in 2020 HUF 0.9 billion was paid, based on the approved financial plan of the company, and HUF 0.6 billion was paid back in December as an unused donation, while HUF 0.4 billion was disbursed to Pénziránytű Alapítvány.

Other income and other expenditures usually include fines, penalties, compensations received or paid. The largest part of 'Other income' in 2020 arose from the penalty interest paid by credit institutions as sanctions related to FGS loan contracts.

4.23 INCOME FROM SUPERVISORY ACTIVITIES

HUF millions

P/L line	Description	2019	2020	Change
	Supervisory fee and default interest	11,336	16,642	5,306
	Received penalties and reimbursement from public proceedings	1,748	3,047	1,299
	Administrative servicing fee from public proceedings	417	172	-245
	Late payment surcharge for supervisory claims	7	3	-4
	Other income arising from administrative procedures	8	6	-2
V.3.	Income from supervisory activities	13,516	19,870	6,354

The main component in income from supervisory activities is supervisory fees received from the supervised institutions obliged to pay such fee. In 2020, the income arising from the assessment of the minimum charges for the entire year and of the variable-rate fees due quarterly amounted to HUF 16.6 billion, while in 2019 the determined obligation amounted to HUF 11.3 billion. The reason for the increase was mainly that the rates of fees were changed in January, causing a rise in variable-rate fees for banking activity. Income from penalties imposed by the MNB and from reimbursements totalled HUF 3 billion.

4.24 OPERATING INCOME AND EXPENSES

HUF millions

P/L line	Description	2019	2020	Change
	Income from assets and inventories	19	11	-8
	Income from subcontracted services	50	132	82
	Income from invoiced services	146	115	-31
	Other income	26	20	-6
VIII.	Total operating income	241	278	37
	Expenses of materials	13,721	17,687	3,966
	Cost of materials	479	486	7
	Services contracted	13,204	17,167	3,963
	- Maintenance, operation and rent of properties	2,384	2,852	468
	- Postal and telecommunication services	725	885	160
	- Consultancy services	1,338	1,500	162
	- IT systems services	2,485	2,975	490
	- Membership fees	775	877	102
	- Guarding services, transport of banknotes and coins	2,520	2,425	-95
	- Advertisements, market research	866	4,244	3,378
	- Other, non-significant services*	2,111	1,409	-702
	Other services	38	34	-4
	Personnel-related costs	24,850	26,058	1,208
	Depreciation	3,671	4,684	1,013
	Transfer of costs of other activities	-438	-455	-17
	Total operating costs	41,804	47,974	6,170
	Expenses incurred on assets and inventories	26	111	85
	Expenses incurred on subcontracted services	47	127	80
	Expenses incurred on invoiced services	144	115	-29
	Other expenses	488	499	11
	Total operating expenses	705	852	147
XVIII.	Total operating costs and expenses	42,509	48,826	6,317
VIII.-XVIII.	Net operating expenses	-42,268	-48,548	-6,280

* In particular, 'Other, non-significant services' contains maintenance of equipment, preparation of publications, travel and hotel services, services for education, translation and audit, as well as distribution of commemorative coins.

In 2020, net operating expenses amounted to HUF 48.5 billion, an increase by HUF 6.3 billion (14.9 percent) compared to 2019.

Operating expenses in 2020 rose by HUF 6.2 billion (14.8 percent) versus the previous year. Expenditures were increased mainly by expenses of materials, but the amount of personnel-related costs and depreciation also rose compared to 2019.

Expenses of materials in 2020 exceeded the expenses incurred in 2019 by HUF 4 billion (28.9 percent).

Within expenses of materials, the increase in cost of services contracted was the major factor, in particular expenses for 'Advertisements, market research'. In addition, costs of 'IT systems services' as well as 'Maintenance, operation and rent of properties' increased. At the same time, costs arising from 'Other, non-significant services' decreased.

- The cost of communication services within 'Advertisements, market research' costs increased from HUF 0.3 billion to HUF 3.7 billion, as communication campaigns planned 2019 were implemented in 2020. (e.g. instant payment system). Furthermore, advertising for central bank measures to mitigate the economic effects of the coronavirus pandemic and the "FGS Go!" campaign caused significant expenditures in 2020.
- The increase in the costs of 'IT systems services' is basically the effect of the additional costs due to the previously implemented IT investments (functional expansion, higher availability levels) and of the maintenance and support contracts concluded in previous years. In addition, the MNB continued to pay special attention to maintaining and increasing IT security, which was also accompanied by rising expenditures.
- The cost of 'Maintenance, operation and rent of properties' increased, because of higher rental fee mainly based on the modified leasing contract of building at Krisztina körút 39. In addition to this, the maintenance costs of property security systems and the property maintenance costs for buildings used by the MNB also increased.
- The costs of 'Other, non-significant services' decreased compared to 2019, mainly resulting from the pandemic: delegation traveling and accommodation costs, training costs, as well as production expenses of publications.
- The cost of financial statements and audit (due diligence based on accounting documents, occasional financial, accounting analysis, consulting) also declined compared to previous year. They amounted to HUF 41 million, of which the MNB's annual audit fee was HUF 25 million in 2020.

Personnel-related costs increased by HUF 1.2 billion (4.9 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 2020, in order to secure and retain highly skilled employees. Over and above this, in addition to savings correlated to pandemic, extra Széchenyi Recreation Card payments with preferential taxation based on government decision on economic recovery, also had an effect on personnel-related costs. The average headcount rose by 1.2 per cent, due to the filling of vacant positions. In 2020, the social contribution tax was decreased, lowering this cost compared to the previous year. Representation costs were significantly lower than 2019, as in most cases major international events were cancelled or organised online owing to the pandemic.

Relative to the previous year, depreciation of tangible and intangible assets rose by HUF 1 billion (27.6 percent) in 2020. This is mostly due to the investments made in 2019 and 2020, which were predominantly bank security and IT equipment acquisitions and developments.

Transfer of cost is intended to ensure that the total amount of operating expenses reflects only actual expenses incurred by the MNB and some specified costs are required by the MNB decree to be accounted as other expenditure. Due to decrease in revenue from the refunding of training and conference participation fees, the related cost transfer could not be realised in 2020. At the same time, one new cost transfer was the fee for the collateral security monitoring service of the instant payment system, which, similar to VIBER cost, is an expense directly related to the payment system and therefore is accounted as other expenditure.

4.25 INFORMATION ON WAGES AND NUMBER OF STAFF

HUF millions

Description	2019	2020	Change (%)
Payroll costs incurred on staff	16,839	18,275	8.5
Other staff costs*	741	646	-12.8
Payroll	17,580	18,921	7.6
Other payments to personnel	3,200	3,352	4.8
Social contribution tax	3,691	3,378	-8.5
Contribution to vocational training	278	297	6.8
Contribution to rehabilitation	91	99	8.8
Sick-allowance	10	11	10.0
Taxes on personnel-related payments	4,070	3,785	-7.0
Payments to personnel	24,850	26,058	4.9
* 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	2019	2020	Change (%)
Average number of staff	1,452	1,470	1.2

Remuneration of executive officers

HUF millions

Bodies	2020
Monetary Council*	480
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 2020	Maturity	Rate of interest
	HUF millions			
Monetary Council	50	30	01 Jun 2023	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 MAJOR EVENTS AFTER THE REPORTING PERIOD AFFECTING 2020

The MNB plays a significant role in the Hungarian economy as the institution responsible for implementation of monetary policy and supervision of the financial intermediary system, as well as the central factor of cash supply system and the payment systems. Accordingly, based on the operational risk management and business continuity management strategy, as well as on the pandemic action plan and the decisions made following the declaration of the state of emergency, the MNB is prepared to ensure business continuity at the expected high-quality level and to operate the vital systems during the coronavirus period as well.

At the same time as WHO declared a health emergency, the MNB began preparations to minimise the effects of the pandemic on the MNB, in order to protect the health of its employees and ensure business continuity. During the first and second waves of the pandemic, the MNB took the necessary decisions.

The MNB responded to the economic challenges caused by the coronavirus with a coordinated series of steps and targeted measures, as part of which it restructured and broadened its set of monetary policy instruments. The measures taken by the central bank in the first and second stages of protection against the coronavirus strengthened the foundations of the Hungarian economy, provided the necessary liquidity for economic operators and mitigated the adverse economic effects of the pandemic. The MNB remained committed maintaining price stability during the coronavirus pandemic, and inflation moved within the tolerance band in almost every month during 2020.

23 April 2021, 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

©MAGYAR NEMZETI BANK

H-1054 BUDAPEST, SZABADSÁG SQUARE 9.