

# MNB GREEN PROGRAM

11 February 2019





*In order to support the sustainable convergence of Hungary the MNB has up to this point primarily focused on the areas of economy, finance, and society. As the next step – in the ecological dimension of sustainable convergence – the MNB wishes to contribute to different domestic and international initiatives in the framework of a Green Program with the aim to fight climate change that poses severe ecological, economic and financial risks also to Hungary, and to contribute to the development of Hungary.*





## Introduction

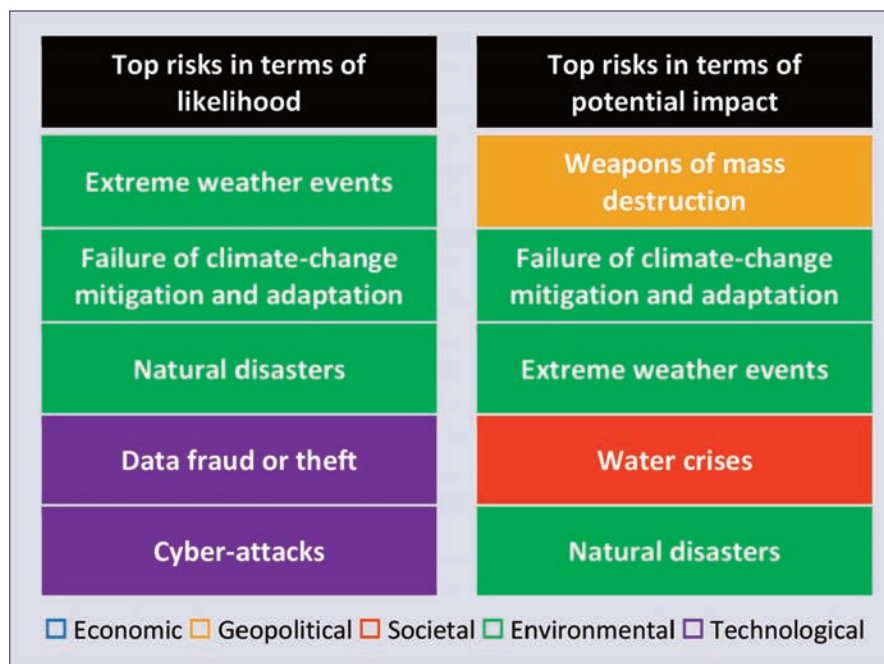
Today we have a comprehensive and scientifically proven picture of the serious damages Earth's ecosystem services have suffered and of the increasingly severe environmental anomalies. This data shows that in certain areas humanity is clearly and dangerously beyond Earth's carrying capacities.<sup>1</sup> One of the most important environmental anomalies is greenhouse gas emission, the main cause of climate change.

According to the latest report of the Intergovernmental Panel on Climate Change (IPCC) of the United Nations global mean temperature increase must be stopped at 1.5 °C above pre-industrial level.<sup>2</sup> Temperature increase beyond this level would result in extremely massive, extensive and irreversible damages that would affect the population, the economy and the environment alike. As warming has already reached the 1 °C level, significantly stronger and more urgent measures have to be implemented compared to current plans. Humanity has to switch to zero carbon-dioxide emission by 2050.

As such climate change and the connected ecologic problems are among the most important external risk factors for societies and economies, and consequently possibly pose a considerable risk to the stability of the financial intermediary system. The severity of social and economic hazards of ecologic origin are becoming generally recognized. For example, based on the latest global risk assessment of World Economic Forum the interviewed economic and political decision makers and researches tended to select environment related risks as having the highest possibility and highest potential effect. It is telling, however that although participants recognized the importance of these risks, they also mentioned the failure of climate-change mitigation as a top risk (Figure 1).<sup>3</sup>

*"Once climate change becomes a clear and present danger to financial stability it may already be too late to stabilise the atmosphere at two degrees." (Mark Carney Governor of the Bank of England)\**

Figure 1: Top risks according to The Global Risks Report of World Economic Forum



Source: World Economic Forum (2019)

<sup>1</sup>For more details, see for example: [www.millenniumassessment.org](http://www.millenniumassessment.org); Steffen et al (2015): Planetary boundaries: Guiding human development on a changing planet. Science, 13 February 2015; Vol. 347, Issue 6223;

<sup>2</sup>For more details, see: <https://www.ipcc.ch/assessment-report/sr/>

<sup>3</sup>World Economic Forum (2019): The Global Risks Report 2019

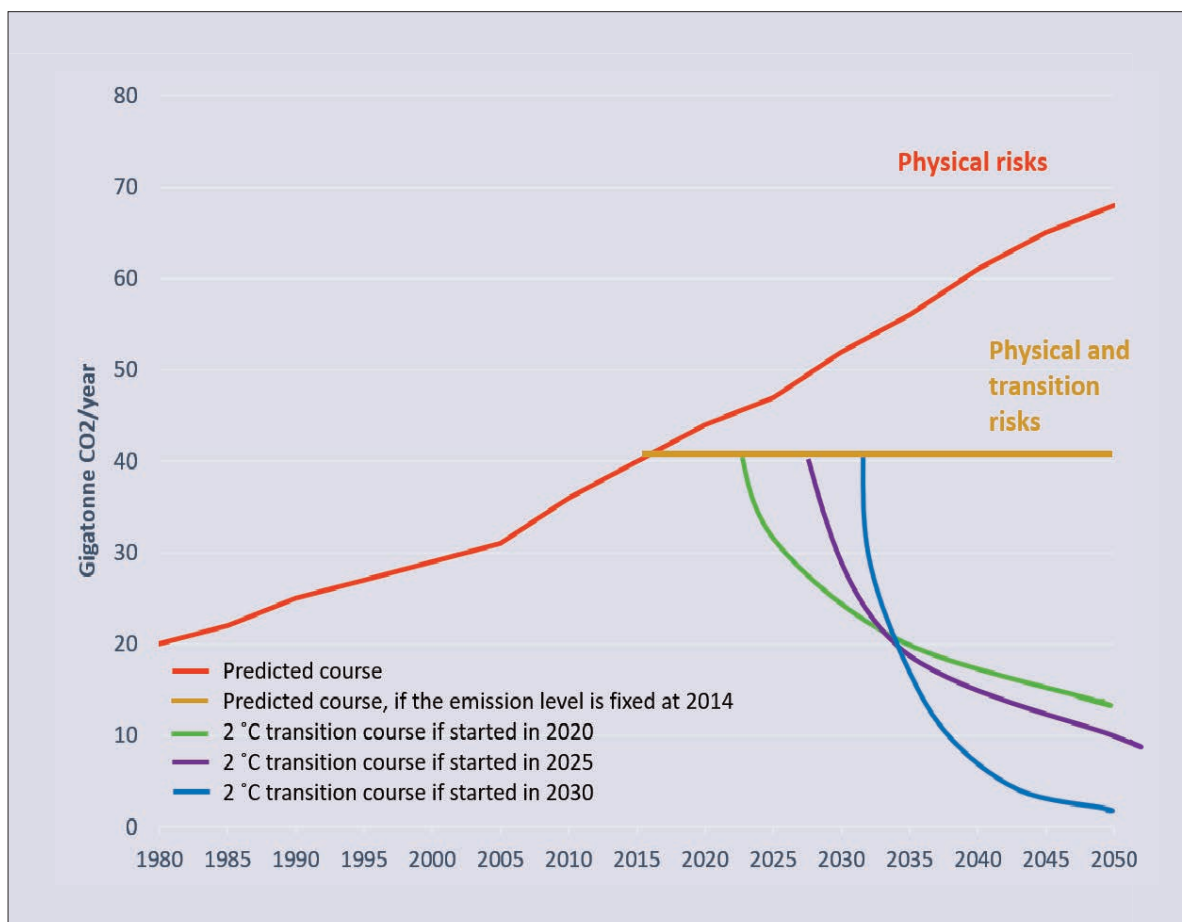


In case of a failure of climate-change mitigation or adaptation physical impacts will be felt considerably stronger and will be increasingly severe. The most important physical impacts will include reoccurring and lengthy droughts, heat waves, fires and decrease of the productivity of workforce due to negative health effects. Extreme weather events may damage infrastructure and production facilities. Credit rating agencies have been including these impacts in their long term forecasts for years.<sup>4</sup>

Climate change and its physical impacts may only be mitigated by implementing deep, structural changes in the economy. However, this involves considerable transition impacts and risks. This includes radical environmental policy related restrictions (emission control or taxation, ban on certain polluting technologies) and the related swift technology changes necessary to the transition to a climate-friendly, zero or near zero emission economy. Demand and swiftly changing consumer preferences will (hopefully) also adjust to these impacts. While these changes are fundamentally favourable and desirable for the society, late (and as such necessarily radical) implementation poses considerable risks to the systems of economy and finance.

Consequently, if the efforts to reduce greenhouse gas emission fail, it is the physical effects of climate change that will dominate. However, if strong climate protections measures are implemented late, the economic adaptation will have a shock effect and as such transition effects will dominate (see Chart 2). These economic effects will of course also impact the “balance sheet” of the financial intermediary system through the assets and liabilities of banks, insurance companies and investment service providers.

Figure 2: The impact of different greenhouse gas emission scenarios on the economy and the financial sector



Source: Bank of England (2017)

<sup>4</sup>For more details, see for example: STANDARD & POOR'S (2014): Climate Change Is A Global Mega-Trend for Sovereign Risk.





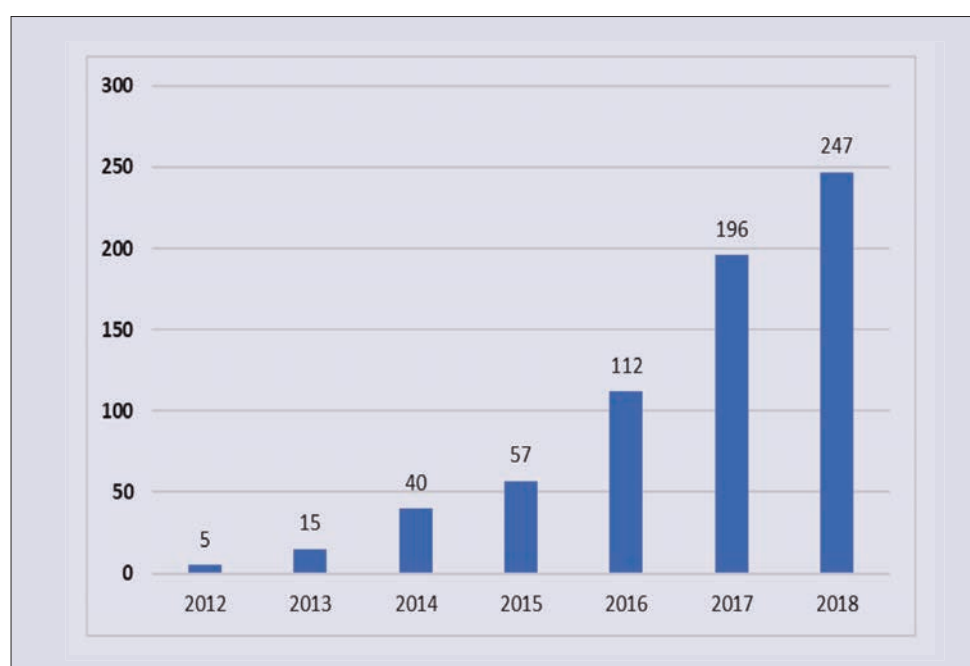
## Dynamic Growth of Green Finance

However, besides risks climate change may also open business opportunities – certain stakeholders may profit from the physical or transition effects. From the financial sector's perspective it is important to highlight that the transition to a sustainable economy generates an investment need that is practically impossible to meet using public funds due to the financial constraints of the individual states. According to a 2014 estimate infrastructure investment requirements for a climate-friendly economy would amount to USD 93,000 billion until 2030.<sup>5</sup> Thus it is inevitable that financial institutions direct more capital towards green developments and investments.

In recognition of this business opportunity numerous financial institutions have founded a green finance line of business worldwide. In this framework loans, investments and other products are tied to an environmentally relevant goal. The range is extremely wide from simple loans to finance solar panel purchases to derivatives to cover the risks of carbon emission rights trade – a large selection of often highly innovative products are available in the market.

Volumes grow rapidly, albeit from a very low base. Green bonds<sup>6</sup> serve as one of the most important segments of green finance. Annual issued amount increased by almost 500% in the last three years (Figure 3).<sup>7</sup>

Figure 3: Sustainability related global bond issues (USD billion)<sup>8</sup>



Source: BloombergNEF, Bloomberg L.P., Brief.com

As we have seen climate change and environmental anomalies are important for the financial sector for numerous reasons. On the one hand it is a megatrend that we have a relatively limited knowledge of and that has a strong effect on the economy as a whole and particularly to certain sectors (the target group of loans and investments, and also financiers). On the other hand it is the catalyst and driving force behind a rapidly growing financial segment, namely green finance.

<sup>5</sup>Source: New Climate Economy (2015): Catalyzing International Cooperation for Growth and Climate Action. Global Commission on the new Climate Economy.

<sup>6</sup>Green bonds are bonds the issuer of which commits to use funds for an environmentally beneficial investment.

<sup>7</sup>It is important to note though that the accumulated worth of USD 250 billion in 2018 is a fragment of the multiple billion dollars volume of the global bonds market.

<sup>8</sup>The category of sustainability related bonds includes green and other bonds, but green bonds play the most significant role.



## Increasing Engagement of Supervisory Authorities and Central Banks

Consequently supervisory authorities and also the Magyar Nemzeti Bank (MNB) as an integrated central bank performing supervisory duties have to treat climate change and in general environmental sustainability as a strategic priority.

An increasing number of supervisory authorities consider green finance and ecological risks to be important issues. The Financial Stability Board of the supervisory authorities and central banks of G20 countries has taken a major interest in climate related risks in recent years. The organization published its detailed recommendations in 2017 calling enterprises and large financial institutions to conduct a deeper, more sophisticated analysis of the risks and to disclose relevant data.<sup>9</sup> Based on FSB recommendations and similarly to the Sustainable Finance legislative proposals of the EU it is expected that numerous national or international legislations will be introduced.<sup>10</sup>

*“A changing climate affects us not only as inhabitants of this planet, but also as bankers and supervisors. Fortunately, many authorities have realised we need to do more in this field, but work is still in the early stages.” (Sabine Lautenschläger, Vice-Chair of the Supervisory Board of the ECB)\*\**

With regard to the individual countries, in Europe the central banks of the UK, France, and the Netherlands are in the forefront of conducting climate change risk analysis and promoting green finance. The supervisory bodies and central banks of China, Japan, and other Asian countries were also among the first to recognize the importance of this area. Moreover, in recent years remarkable green finance initiatives were reported from various countries in South America. These international examples provide relevant and useful insights for the MNB's Green Program.

### Green Financial Supervisor Practices – Foreign Examples

In the Netherlands the central bank with supervisory mandate (DNB) founded the Sustainable Finance Platform in 2016. This involves the cooperation of businesses, supervisor authorities and the government to strengthen green finance, among others by sharing best practices and experience. Recently the DNB requested banks and insurance companies to strengthen the element of planning for the future in their risk management schemes and try to take into consideration the future effects of climate change in their present business and risk related decisions to the highest extent by performing stress tests and sensitivity analysis. DNB has also started the development of its own stress test with a focus on the transitional risks of climate change.

In Indonesia it has been compulsory for decades to perform an environmental impact analysis as a part of the decision process on large loans; banks also have to evaluate the steps the client made to protect the environment. In 2015 the government and the supervisory authority developed a Sustainable Finance Roadmap with numerous elements. It contains a comprehensive umbrella regulation and new supervisory guidelines. Additionally training programmes were started for financial firms and supervisors about environmental sustainability.

In Brazil the central bank performing supervisory duties introduced new requirements in 2014 to have banks include environmental and social risks to their “normal” risk management processes, building on the sustainability self-regulation of the Bank Union of Brazil. According to the Basel III framework the Internal Capital Adequacy Assessment Process (ICAAP) requires the inclusion of environmental risks, and financial institutions report regularly on the loans and investments directed to green economy.

<sup>9</sup>FSB Task Force on Climate Related Disclosures (2017):

<sup>10</sup>For more detail, see: [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en)



## The Green Program of the MNB

Through the Green Program (in line with its statutory obligation) the MNB supports the maintenance of the stability of the financial sector, the enhancement of its resilience and its sustainable contribution to economic growth, and the MNB supports the economic policy of the government using the instruments at its disposal.

The Second National Climate Protection Strategy passed by the Parliament in Autumn 2018 highlights that Hungary is one of the most vulnerable countries in Europe with regard to the possible consequences of climate change. Hungary is rich in water resources, arable, woods and has a diverse wildlife. Protecting these is part of the national strategy, but in order to meet the challenges of climate change and other environmental problems it is essential to implement coordinated and long-term concepts.<sup>11</sup> In line with the Climate Protection Strategy Hungary will perform a gradual transition to a low carbon dioxide emission economy. The plan suggests that decarbonisation will not limit the competitiveness of Hungarian economy. In fact, through innovation and the development of green economy it may contribute to the modernization of production industries and the reindustrialization of Hungary.<sup>12</sup>

The MNB built its Green Program on three pillars based on the National Climate Protection Strategy, international best practices and its own analysis, priorities and mandate.



### Pillar 1: Financial sector related program points

**Analysis of ecological and financial risks:** From the perspective of the MNB as a financial supervisory authority the investigation of the risks that climate change (and other ecological anomalies) and the megatrend of the connected deep social and economic effects pose to financial institutions and their clients is among the most important tasks and responsibilities. These risks have been practically out of risk management and business planning scope of authorities and financial organizations (naturally except for the insurance sector and insurance supervision that have been dealing with physical impacts for a long time).

<sup>11</sup>OGY Resolution 23/2018. (X. 31.), pp. 6–9.

<sup>12</sup>OGY Resolution 23/2018. (X. 31.) pp. 14–15.



This is due to the fact that climate change (and generally environmental anomalies) shows its effects in several decades. The time constraints and maturity of decisions on loans, investments and other deals in the financial sector are shorter than the time span of such risks, and consequences are very hard to model. Moreover, there are several uncertainties regarding international environmental policy interventions, restrictions, and climate protection efforts and these are still present to a considerable extent even after the Paris climate agreement.

As such the supervisor and the financial sector must analyse different scenarios. We must prepare for the possible failure of managing climate change, and also for the scenario in which real economy will successfully perform a transition to a climate-friendly mode, but this will occur late and as such suddenly, instead of gradually. Research therefore must include the deeper analysis of the sectors affected by the physical (for example agriculture, tourism) or transitional (energy production, traditional automotive industry etc.) implications of climate change. The MNB impact assessments may provide the basis for implementing the steps listed in the Green Program, implementing measures to mitigate any risks identified and also to change directives if necessary.

**Greening financial services, mobilizing funds for green goals:** The system of financial intermediation could contribute to the ecologically sustainable convergence greatly by channelling funds to a “green” direction. This flow and restructuring of capital ideally has to occur with maintaining the existing level of prudential risk and financial risks taken by consumers (possibly even decreasing the level of such risks). Consequently, the MNB will analyse more deeply the “green” products offered by financial institutions – such products are predominantly represented by investment funds at the moment.

Naturally, to serve both financial stability and ecological purposes, the ideal situation would be if the investors of (increasingly) high financial and environmental awareness would be provided with adequate information on the financial risks and environmental usefulness of green products so that their investment could serve the expected purpose while taking a deliberate risk.<sup>13</sup> In order to do this the MNB wishes to support green finance product related best practices, and expects corrections if faults are detected.

Beyond the analysis of existing green products, as a part of the Green Program the MNB will investigate if environmental considerations may take greater precedence in the decisions (of financial institutions) and product parameters of “normal” loans and other financial services. It is increasingly useful both from a risk management and ecological perspective if creditors consider environmental impact (for example the risk of pollution or the transition effects with respect to climate change) adequately when making the decision on granting a loan. Some financial institutions have best practices in this areas – an example are those who employ Equator Principles.

Naturally, this approach can be employed not only in banking, but also in other branches of the financial sector, including the insurance industry. As a part of the Green Program framework the MNB will investigate for example if it is practical and reasonable to encourage insurance products to orient resources to a green direction. Currently CASCO insurance of an electric vehicle or the

### **Equator Principles**

*Banks that sign the Equator Principles undertake the obligation to involve experts to prepare a thorough environmental effects study before certain (high value) project loans are granted and that if the project has an adverse effect on the environment measure are taken to minimize or compensate for these effects – in a transparent manner, publishing annual standards. The list of signatory banks does not include any Hungarian credit institutes, but it is also true that the Hungarian banking system grants a very limited number of project loans that would involve EP. Nevertheless, EP as an international best practice needs to be mentioned in the Green Program of the Hungarian financial system.*

<sup>13</sup>Naturally there are investors who seek climate change related financial instruments from profit reasons only, without regard to the expected positive environmental effects, but these investors also need reliable information on the underlying investments.





insurance of a house equipped with solar panels is typically higher compared to a “traditional” vehicle or house of the same parameters due to higher value.

It is important to note that recent proposals concerning international financial policies have included employing prudential incentives (for example more favourable capital requirements) to orient banks, insurance companies and other financial service providers towards supporting the cause of climate protection and other green issues. The MNB takes part in the professional and strategic discussions of these initiatives. It will use effect analysis performed by itself and its counterparts, seeking a solution that will strengthen financial stability and environmental sustainability.

*“The challenge, before developing economies like us is to mainstream green finance so as to incorporate the environmental impact into commercial lending decisions (...)”\*\*\* (R.S. Gandhi, Vice President of the Reserve Bank of India)*

The MNB is considering further steps to strengthen the green finance segment. In order to do this it is necessary to take a detailed investigation of the balance of demand (green investment needs) and supply (currently available forms and volumes of financing). This investigation would help to identify if there is a market gap, and give orientation to the promising new type of financial instruments such as green bonds.

**Encouraging financial institutions' greener operations:** Although the activities of financial institutions regarding granting loans, making investments, performing agent and other duties have a considerably greater influence on the environment compared to their operative processes, it is reasonable to extend the Green Program to this area too. It is evident that a financial institution may only include environmental considerations to its financial services if it is able to measure and control its environmental impact. The MNB plans to employ multiple methods to facilitate green operation.

On the one hand the MNB plans to create an award to recognise the best environmental performance in the financial sector. Participants will have to hand in an application for the prizes. The call for applications is planned to be published in Spring 2019. The award aims to facilitate environmentally conscious operation by its prestige. On the other hand the MNB as an authority will review the directives to see if there are improvement possibilities to facilitate the greener operation of financial institutions. In line with the digitalization efforts of businesses there is a positive trend that led to increasingly paperless bank administration. As a part of the Green Program the MNB will investigate if there is a possibility to improve directives to take further steps towards a more paperless operation with a smaller ecological footprint.

## Pillar 2: Social, international relations

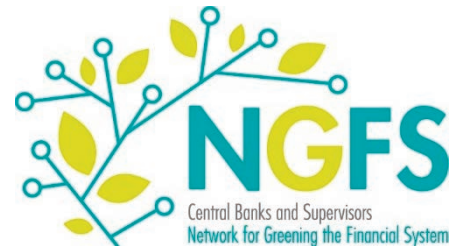
**Deeper cooperation with domestic partners:** the MNB plans to implement the Green Program in close cooperation with those domestic stakeholders of the government, the market and the society that are relevant for climate change and green finance. Ministries, governmental and non-governmental organizations active in the field of climate change, climate protection and the protection of the natural environment, development policy stakeholders, and the businesses of the financial sector all have special roles, knowledge and capacities that offer a synergy with the financial authority power of the MNB. The partnership with the world of academia is extremely important and as such it has a separate subsection in the Green Program (see below).

**Raising awareness, trainings on green finance:** For a long-term and comprehensive effect it is important to raise awareness among businesses, analysts and the general public regarding the connections of the financial and ecological risks and trends. Therefore as a part of the Green Program the MNB will help to include green finance in the trainings of the Budapest Institute of Banking and in the syllabus of university level



Economics courses. The MNB plans to launch a dedicated website to collect and share the continuously extending knowledge.

**Active involvement in international efforts regarding climate risks and green finance:** For the success of the Green Program of the MNB it is extremely important to build international relationships in order to share national experience on climate risks and green finance. As such the MNB (as the first authority from Central Europe) joined the global, central bank/supervisory body initiative Central Banks and Supervisors Network for Greening the Financial System in January 2019. The MNB joined all three work areas of the organization. Beyond the investigation of the microprudential (focusing on the individual stability of financial institutions) and macro financial dimensions of climate change and ecological issues, it is also involved in international efforts to make the financial system greener.



### ***Network for Greening the Financial System (NGFS)***

*The organization was established at the Paris “One Planet Summit” in December 2017 by eight central banks and supervisors. The Network’s purpose is to help strengthening the global response required to meet the goals of the Paris agreement and to enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development. Sharing experiences, analytical and research results, and promoting best practices to be implemented within and outside of the Membership of the NGFS is among the top priorities of the organization. NGFS published its first Progress Report on 11 October 2018 summarizing current green initiatives of supervisory bodies and central banks. NGFS is growing steadily with members representing all continents, including the central banks and authorities of the following: Europe (for example the UK, Germany, France, the Netherlands), Asia (for example China, Japan, Singapore), America (Mexico), Africa (Morocco), Australia, and New Zealand.*

The MNB is an active participant of the work performed by the European regulatory authorities regarding the details of the different draft EU legislations (the first of these is the Sustainable Finance package currently in discussion).

## **Pillar 3: Green transition of the operation of the MNB**

**Efforts to further decrease the ecological footprint of the MNB:** As a basic condition of the credibility and as such the success of the Green Program the MNB must be able to demonstrate that it is in the forefront of the implementation of environmentally sustainable operation. Although the MNB is actively working on making its operations environmentally-friendly and has an externally audited, advanced eco-management and audit system<sup>14</sup> it plans to introduce further green measures along with the involvement and interactive training of employees. The MNB also wishes to obtain and keep the Green Office certification as part of the Green Office campaign.

**Efforts to further increase environmental disclosures of MNB:** It is a common indicator of the commitment of an organization for environmental sustainability to measure its ecological footprint and to publish the corresponding data in an easy to understand format. International financial directives urge major banks and enterprises to publish more detailed and deeper data with regard to climate change. The MNB (already

<sup>14</sup>For more detail, see: <https://www.mnb.hu/a-jegybank/informaciok-a-jegybankrol/a-felelos-jegybank/kornyezetiranyitasi-rendszer>



publishing data with regard to its environmental performance today) wishes to show an example also in this respect. Consequently it will extend its environmental communications in its annual report.

**The Green Program of the MNB is a live, organic initiative that is constantly reviewed and extended with new elements. As such the MNB will publish further news and details of the Green Program as the project progresses. Please send your suggestions and feedback about the Program to the following email address: [zold.penzugyek@mnb.hu](mailto:zold.penzugyek@mnb.hu).**

#### Sources of quotes:

\*Mark Carney (2018): A Transition in Thinking and Action. Speech at the International Climate Risk Conference for Supervisors, De Nederlandsche Bank, Amsterdam, 6 April 2018. Link: <https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/a-transition-in-thinking-and-action-speech-by-mark-carney.pdf>

\*\*Sabine Lautenschläger (2018): Ten years after the crisis – risks, rules and supervision. Speech at the 13th ASBA-BCBS-FSI High-Level Meeting on Global and Regional Supervisory Priorities in Nassau, Bahamas, 30 October 2018. Link: <https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181030.en.html>

\*\*\*R. S. Gandhi (2017): Green finance - early initiatives. Keynote speech at the launch of the Final UNEP India Inquiry Report titled "Delivering a Sustainable Financial System in India", Mumbai, 29 April 2016.