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MNB's green bond portfolio achieved a significant positive environmental impact again

The Central Bank of Hungary ('Magyar Nemzeti Bank – MNB') started to build its [dedicated green bond portfolio in 2019](#), and thus incorporated environmental sustainability aspects in its reserve management. Beyond managing the portfolio, tracking the positive environmental impacts generated by the investments is also of utmost importance. Taking this into account, the MNB also monitors the yearly positive contribution of the portfolio and publishes it for the third year in a row with the aim of transparency and setting a good example. In 2022, the positive impact was 73 thousand tons of CO₂ emission avoidance/reduction which corresponds approximately to the carbon footprint of a Hungarian town with 15 thousand residents. The green bond portfolio reflects MNB's active role in the sustainability market segment in alignment with its mandate, whilst the primary goals of reserve management (liquidity, safety, return) are not compromised at all.

MNB is among the pioneers in greening the FX reserves

MNB started to build its dedicated green bond portfolio in 2019. The size of the green bond portfolio within the reserves mirrors the relative size of the global green bond market (~1-2%), which is justified predominantly by liquidity aspects. Due to the intended purpose of green investments, the risk-return characteristics of the portfolio differs only in the slightly longer target duration from similar FI investments in the reserve, as these instruments typically finance longer-term investments.

Monitoring the expected or materialized positive environmental impacts of the investments is also of paramount importance in managing a green bond portfolio. Obtaining impact information on the issuer level enables the analysis of the portfolio not only financially, but also from an achieved CO₂ emission reduction/avoidance perspective, while maintaining the primary financial goals of focusing on return/risk.

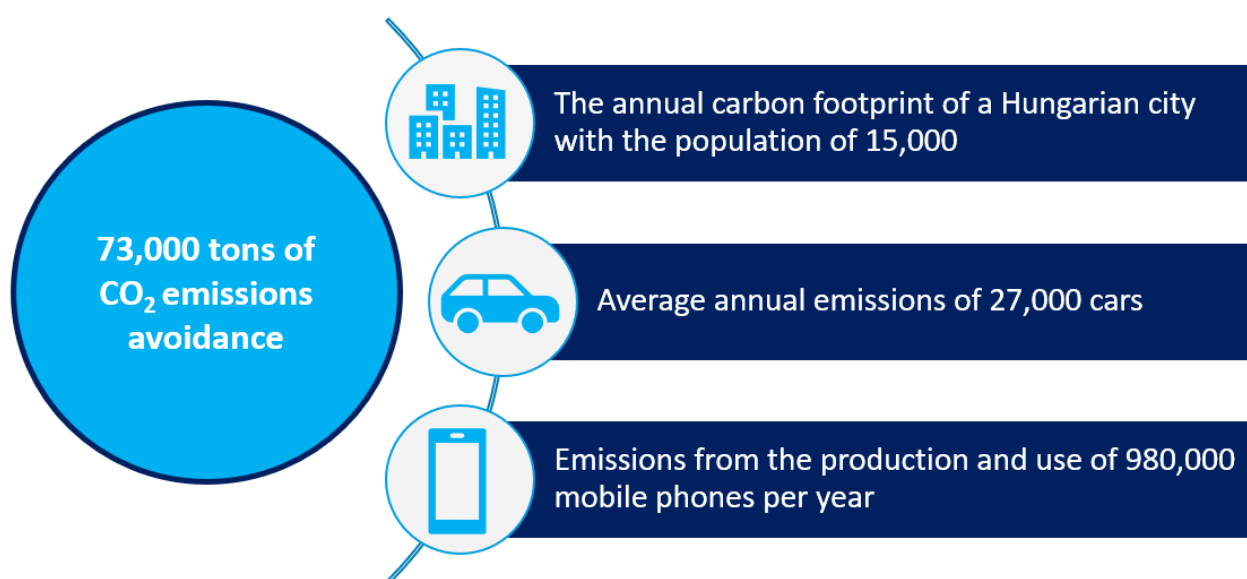
The positive environmental impact of the projects financed by green bonds should be interpreted primarily in relation to a given emission benchmark: this represents the hypothetical emission level and other environmental burdens that would have been materialized in the absence of the green projects. As a result, the positive impact of the green projects can be predominantly captured as an avoided CO₂ emission. Emission benchmarks are based on several assumptions, varying across regions and project types, therefore, in longer term, the comparison of the actual and previously expected positive environmental effects at the aggregate level will be an essential element. Naturally, additional absolute indicators are also published for many of the issuers, such as the size and expected annual production of the financed renewable capacities, the MNB also monitors these diverse data.

It is essential to point out that green bonds should ideally fit into the given issuers' comprehensive green strategy: the specific materialized green projects should mean a building block in the firm's credible emission mitigation strategy. In case at a later stage the bonds do not fulfil the expectations from a green perspective, MNB may decide to sell the specific bonds, thereby supporting the integrity of the portfolio, the green bond market in a broader sense, and the possible reduction of the risk of greenwashing.

A medium-sized Hungarian city - Environmental impacts of MNB's green bond portfolio

Once the green bond portfolio has been built, it is also crucial to monitor the positive environmental impact generated by those investments. With this in mind, MNB has carried out – for the third time – an environmental impact analysis on its green bond portfolio, showing that the impact of the green bond portfolio is equivalent to the CO₂ emissions avoidance of approximately 73,000 tonnes per year¹. This impact is equal to the carbon footprint of a Hungarian city of 15,000 inhabitants², and to the average annual CO₂ emissions of 27,000 cars, or the emissions of 980,000 mobile phone production and one year usage³ (Chart 1).

Chart 1: Impact of MNB's green bond portfolio



Source: MNB

¹ In addition to CO₂ emissions avoidance, other positive environmental effects could be captured, but the availability and quality of the data do not currently allow to reliably quantify them. In parallel with the development of the reports of green bond issuers, MNB also strives to conduct the most comprehensive impact analysis possible in the future.

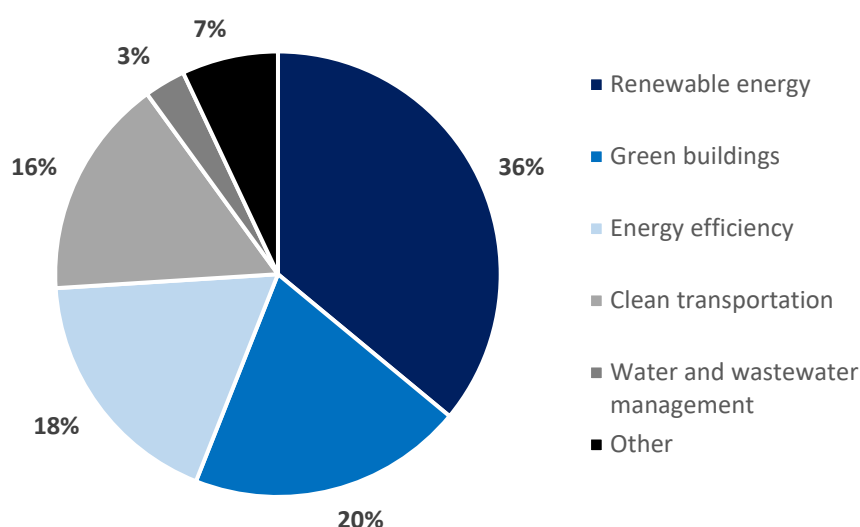
² In Hungary, per capita GHG emissions are approximately five tons.

³ In the case of cars, we calculated an average consumption of 7 liters per 100 km and took an annual mileage of 16,000 km. In the case of mobile phones, we calculated an average of 75 kg of CO₂ emissions from production and use per year.

Compared to the [94,000 tons of CO₂ emissions avoided in the previous year](#), the reduction experienced stems from several factors, among which the rebalancing of the bonds within the green bond portfolio can be highlighted. As we have already emphasized, the management of the green bond portfolio does not differ from the management of other portfolios in terms of financial and other traditional reserve management goals (such as following benchmarks). As a result, the level of environmental impacts generated by green bonds is not directly targeted per se, but a consequence. Thus, it may happen that the sale of bonds with a higher environmental impact (for example, financing renewable projects) is followed by the purchase of covered bonds with a lower environmental impact (for example, financing energy-efficient buildings). However, all types of projects can play an important role in the green transformation, so a one-dimensional optimization of environmental impacts – for example, only along emission reduction/avoidance effects – would not be appropriate even if decisions were not primarily driven by financial considerations. A further difference in the size of the saved carbon footprint can be caused by the emissions-baseline hypothesis already mentioned above, which can generate different environmental effects for each region and emitter, even in the case of similar projects.

The relative proportions of the types of projects financed are in line with the overall market distribution. More than 60 percent of the projects financed by the green bond portfolio are related to renewable energy and green buildings (Chart 2). It is important, that MNB does not run the risk of the specific projects, but as by conventional bonds the credit risk of the highly rated – in many cases 'AAA' – issuers.

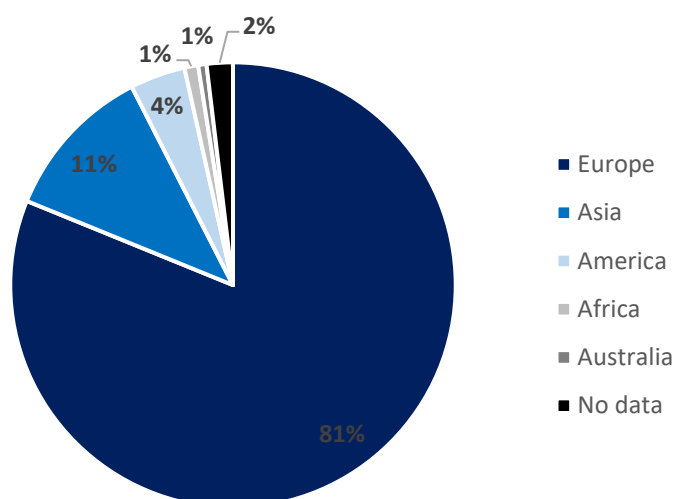
Chart 2: Distribution by type of financed green projects



Source: Bond issuers' reports

The green bond portfolio is denominated in euro, this is reflected in the predominance of European issuers and the geographical distribution of green projects realized. However, projects in Africa and Asia have also been financed, mainly thanks to projects by supranational issuers, which in many cases generate an even higher overall green 'return' due to the green investments that have replaced often more polluting operations in these countries (Chart 3).

Chart 3: Geographical distribution of financed green projects



Source: Bond issuers' reports

In their reports, bond issuers usually name which UN Sustainable Development Goals (SDGs) are targeted and reached by their projects. By definition, out of the 17 SDGs, the purchased green bonds primarily promote goals related to climate change, energy efficiency and clean energy (Chart 4).

Chart 4: SDGs supported by projects financed by MNB's green bond portfolio



Source: Bond issuers' reports

In 2022, the positive impact of the MNB's green bond portfolio was 73 thousand tons of CO₂ emission avoidance/reduction which corresponds approximately to the carbon footprint of a Hungarian town with 15 thousand residents. Overall, via its green bond portfolio, MNB is an active player in the market segment supporting sustainable growth, simultaneously ensuring the primary objectives of FX reserve management (liquidity, safety, return).