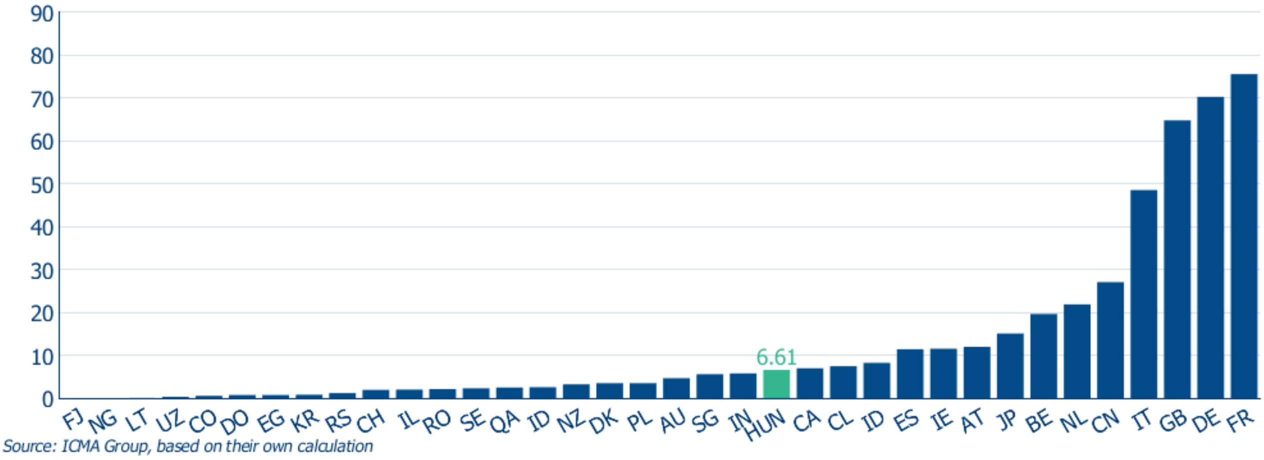
How did Hungary use proceeds from green bond issuances?

Károly Beke, Bence Lukács ÁKK

Environmental awareness is increasing within the financial sector: a growing number of investors are taking sustainability considerations into account when making investment decisions, looking for instruments with the "green label". Hungary has developed the Green Bond Framework and issued its inaugural green bond in 2020. Since then, green bonds have became a significant part of the Hungarian debt management. But why is it beneficial for Hungary to issue such bonds? What are the investments green bonds have contributed to so far?

Green bonds are becoming increasingly popular

As the significance of environmental awareness grows, financial instruments – such as sovereign green bonds – are becoming increasingly popular. By now, green finance on its own has become a separate area within the investment market.

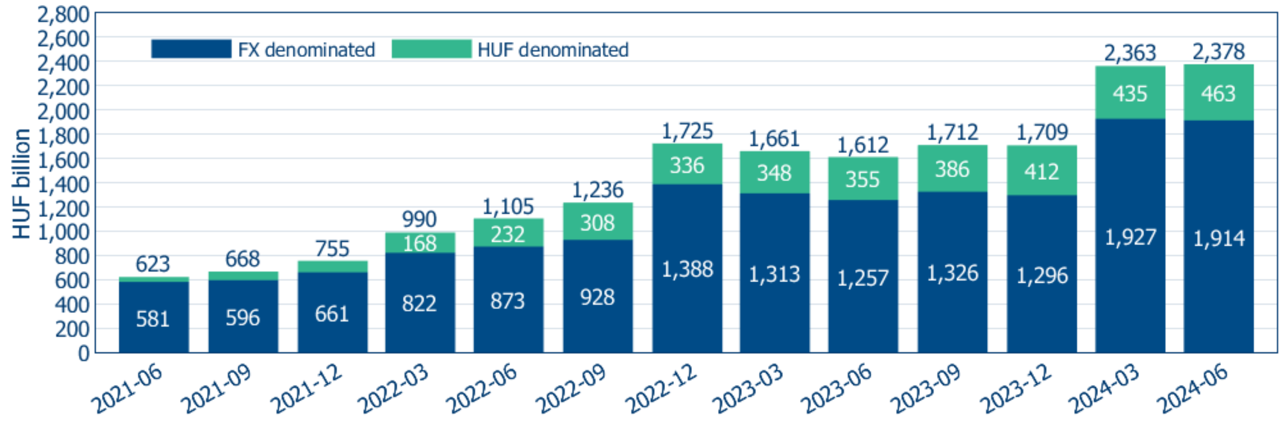


Source: ICMA Group, based on their own calculation

Figure 1: Outstanding amount of green bonds worldwide (USD bn)

The first Hungarian green bond issueance took place in June 2020, when ÁKK issued EUR 1.5 billion green Eurobonds. In September 2020, ÁKK became the first sovereign issuer to enter the Japanese green bond market with two green Samurai bonds. On 22 April 2021, ÁKK held its first Green Hungarian Government Bond (HGB) auction on Earth Day with a tenor of 30-years (series 2051/G), and since January 2022, ÁKK has also been selling a 10-year Green Government Bond (series 2032/G).

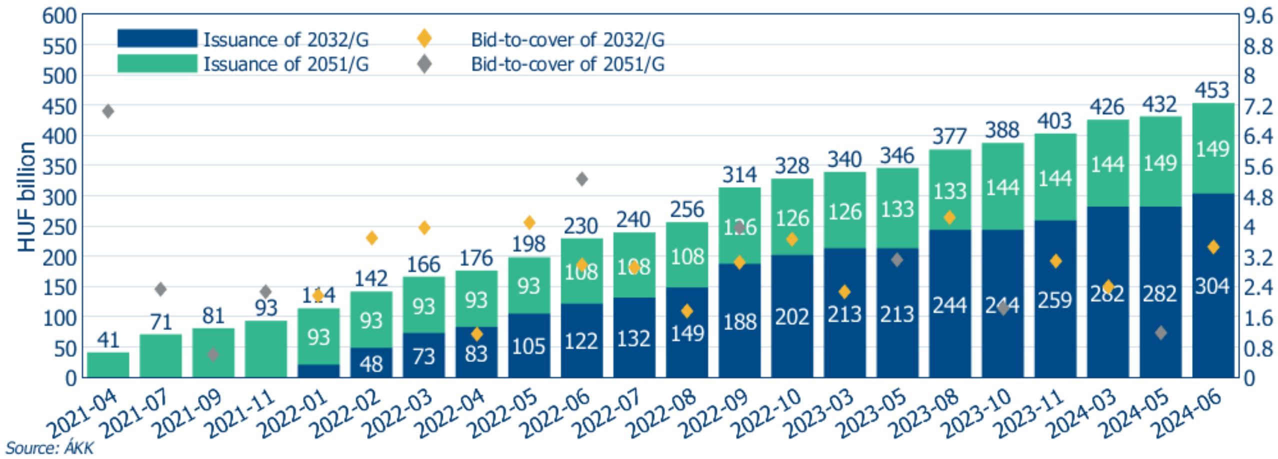
Hungary successfully issued green bonds both on the domestic (HUF) and international markets (EUR, JYP, CNY) between 2020 and 2024. As a result, in June 2024, the total amount of green bonds outstanding **reached HUF 2,378 billion**, **close to 4.3 percent** of the total central government debt.



Source: NBH

Figure 2: Outstanding amount of Hungarian green bonds

Hungary usually experiences oversubscription on green HGBs auctions and foreign currency (FX) issuances in green format as there is significant investor demand for labelled bonds. Figure 3 shows that the demand for HUF institutional green bonds (series 2032/G and 2051/G) is typically several times higher than the offered amount on the primary market.



Source: ÁKK

Figure 3: Issuance and bid-to cover ratio of the 2032/G and 2051/G series

The total amount of HUF-denominated green bond series 2032/G and 2051/G outstanding – available for both institutional and retail investors – exceeded HUF 453 billion in June 2024, which is nearly twenty percent of the total amount of green bonds issued by Hungary. Series' 2032/G and 2051/G are mostly held by foreign investors, followed by insurance companies, pension funds, banks and investment funds. Over the last two years households increased ninefold, whereas insurance companies and pension funds quintupled and investment funds tripled their share in Green HGBs.

FX issuances has seen similarly strong demand. In January 2024, ÁKK issued EUR 1.5 billion of five-year green bonds, which were oversubscribed by almost 3.5 times. A similar oversubscription of 4.5 was observed for green Eurobonds in November 2022, even though it was considered a volatile period for the market. This proves that there is evidently strong interest for labelled securities.

The Green Bond Framework has been a clear success story for Hungary so far, as evidenced by the strong investor interest. International trend also plays a role, as sustainable finance has steadily gained traction in recent years, with a growing number of fund managers and institutional investors setting up dedicated green funds, which include labelled bonds or stocks with a favourable ESG

H-1013 Budapest, Krisztina tér 2. | Postal address: H-1253 Budapest, PO BOX. 85.
E-mail: strategia@akk.hu | Registered at the Budapest Capital City Court (Hungary), Registration No.: 01-10-044549

rating. Assets under management in ESG funds (including green investment funds, green unit-linked life insurance and green voluntary pension funds) exceeded HUF 328 billion in Hungary by the end of 2023, which was an increase of approximately 80% compared to 2022, according to the Green Finance Report 2024 published by the National Bank of Hungary.

The success of the green bond issuances are also reflected in the international market recognitions that the Hungarian Green Bond Framework and the green bond reports have received in recent years. For example, Hungary's green bond integrated report 2022 – which includes the use of the green funds raised between January 2022 and May 2023 and their environmental impact – has been awarded the **impact report of the year for issuers** by Environmental Finance journal in April 2024. Subsequently, in June, Hungary was ranked the **Most Impressive ESG issuer in CEEMEA** region at the Global Capital magazine awards.

How can the proceeds from green bond issuances be used?

International guidelines set strict requirements for the allocation of green bond proceeds. When issuing such a security, it needs to be ensured that the proceeds are going to be used for green purposes. This is exactly why ÁKK publishes annually the Integrated Report on the Allocation and Environmental Impact of Hungary's Green Bond Proceeds, including an allocation and an impact chapter, which details the use of the green bond proceeds and the related environmental impact. The Green Bond Framework and the annual integrated green bond reports are regularly subject to an external review by international experts at the issuer's request, in line with market standards.

The importance of green financial products is on the rise since the funding requirements of environmental investments need to be covered from multiple sources. In order to meet long-term climate targets, significant fundraising is required. The capital required can be raised from the private sector, EU funds, carbon sales, loans from international financial institutions (such as the European Investment Bank - EIB) or green government bonds.

Proceeds from green bond issuances under the Green Bond Framework, renewed in 2023, will be used to finance or refinance, in full or in part, expenditures within Hungary's central government budget that falls within one of the following green categories and meets the criteria defined in the framework:

- Clean transportation
- Land use & living natural resources
- Energy efficiency (including green buildings)
- Renewable energy
- Pollution prevention & control
- Sustainable water and wastewater management
- Climate adaptation
- Research, innovation & awareness raising

It is important to note that, in line with international practice, the Framework explicitly excludes allocating green bond proceeds to three categories: nuclear power, the armament and defence sector, and the fossil fuel production and power generation.

An important restriction in the Framework is that the proceeds from green bonds can refinance or finance Eligible Green Expenditures two years preceding or succeeding the issuance year or expenditures made in the same year as the issuance. So far, green bonds have fully or partially refinanced certain green expenditures of the two budgetary years preceding their issuance.

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Hungary allocated more than eighty percent of the green bond proceeds to expenditures that fall under the clean transportation category in the Green Bond Framework. A significant part of the funds has covered rail expenditure, supporting, for example, the electrification of railway lines, the purchase of rolling stocks besides refinancing operational expenditures.

The Green Bond Framework has several benefits from a debt management perspective. It has the potential to strengthen international market presence, to broaden the investor base, which can ultimately contribute to the sustainability of the debt portfolio through investor diversification and increase the average term to maturity of central government debt. The share of green bonds in the central government debt is still relatively low, mainly due to the constraints on the amount of eligible green expenditures in the state budget. However, it has been steadily rising over the past years.

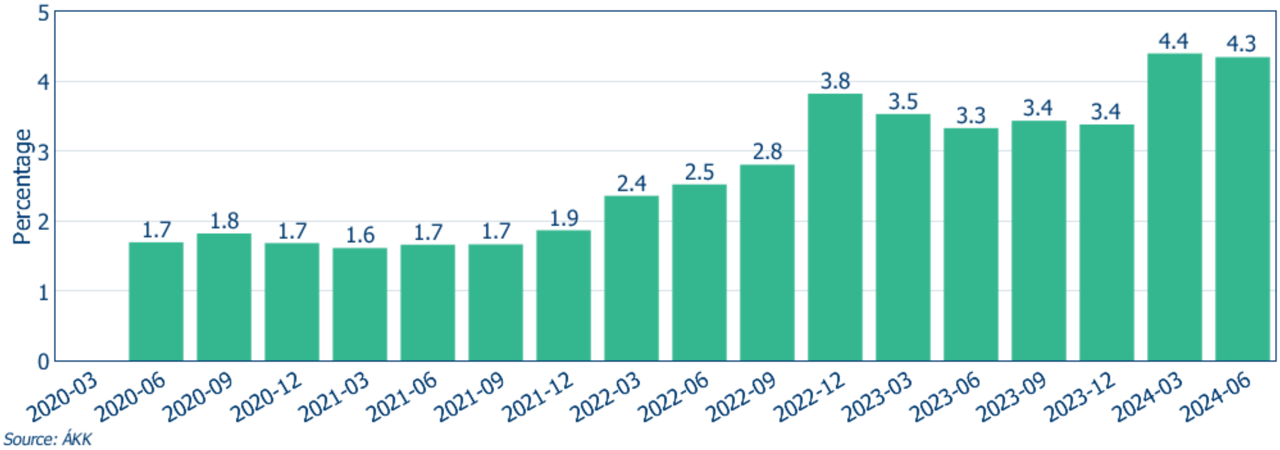

Figure 4: Share of the green bonds in the central government debt

Modern vehicles, less emissions

Green bond issuances have already yielded tangible results, as they contributed to the reduction of greenhouse gas emissions, the production of renewable energy and the decrease of energy consumption.

Below, we highlight some specific projects that were covered in full or in part by the proceeds of the green bonds.

The main objective of green bond proceeds refinancing **clean transportation** is to attract more people to public transportation via modernisation or efficiency improvements. Passengers choosing environmentally friendly alternatives over vehicles with significant GHG emissions like passenger cars leads to GHG emission avoidance. Several projects, including the electrification and upgrade of the railway lines, railway electric traction system, IT system installation, bridge reconstruction and the maintenance of rail transportation have been refinanced through green bonds. The modernisation of the Sopron-Szentgotthárd railway line and its connection to the European Train Control System (ETCS2), the electrification of the Szabadbattyán-Balatonfüred, Mezőzombor-Sátoraljaújhely and Budapest-Esztergom railway lines, and the modernisation of two major railway lines - Szombathely-Kőszeg and Püspökladány-Debrecen - between 2020 and 2022 are all examples of projects refinanced by green bonds. In addition to the modernisation and electrification of railway lines, new rolling stocks - electric vehicles, InterCity carriages - has also been refinanced.

Other clean transportation activities, such as the purchase of electric buses to improve public transport in the cities of Paks and Pécs, the extension of tram line of the Etele Square, the upgrade

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of metro line 3 in Budapest and tax exemptions for the purchase of environmentally friendly vehicles (electric cars) under the Ányos Jedlik Plan have also been refinanced through the Green Bond Framework.

Proceeds raised from green bond issuances have also contributed to the **collection, sorting and disposal of waste** on the Upper Tisza from areas bordering the country, contributing to the remediation of waterways and to the more efficient operation of the Kisköre water step. After the waste has been collected, it is sorted both manually and mechanically in the intervention sites and, where possible, transferred for processing and recycling, thus cleaning the Upper Tisza Region and the Water steps of Kisköre of thousands of cubic metres of waste every year. Green bonds has also supported the **transition to a circular economy** through refinancing the increase of waste treatment capacities in SMEs, the collection, pre-treatment, processing and recycling of packaging waste, plastic waste, waste tyres and electronic waste, the modernisation of waste treatment machineries and the purchase of new measuring equipment and machinery. Under the Irinyi Plan, support was provided for SMEs with a special focus on green technologies, mainly on the development and optimisation of technologies related to waste management, the utilization of different waste items to generate valuable products and the development of reusable packaging materials.

Green bonds proceeds have also been used to refinance various projects promoting **climate adaptation**, such as the water level rehabilitation of the Moson-Danube, the remediation of the Gyálai Holt-Tisza, and the improvement of infrastructural conditions for sustainable water management in the Ancient Drava Programme, the development and establishment of the environmental monitoring and information system on the lake Balaton, and the meteorological activities and projects related to HungaroMet (formerly OMSZ) (e.g. HungAIRy).

ÁKK will continue to support climate protection through green bond issuances in HUF and in foreign currency, using the proceeds of these issuances according to the renewed Green Bond Framework, which applies much stricter requirements than the previous one. The proceeds will continue to finance or refinance, in full or in part, green expenditures within Hungary’s central government.

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