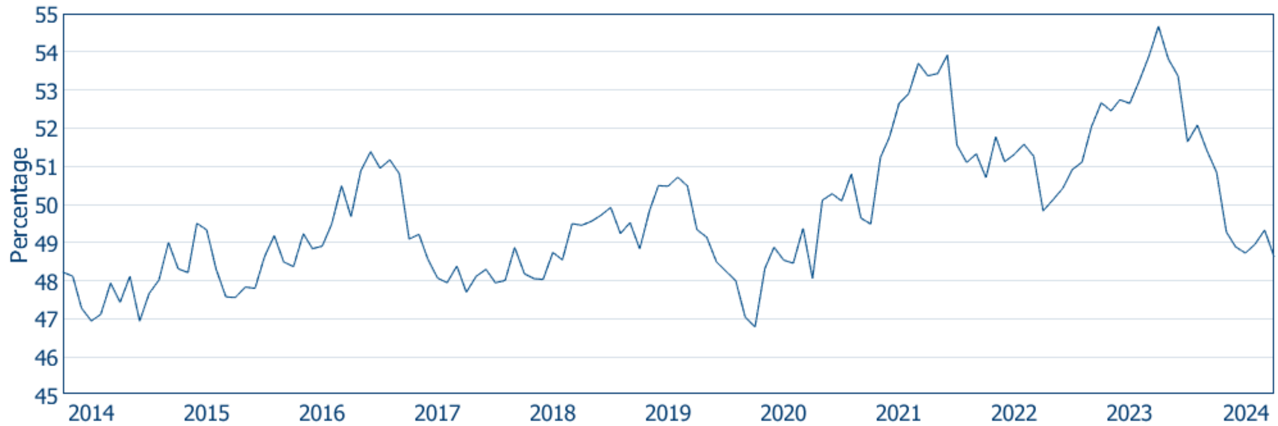
Who is financing Hungary?

Noémi Öhschläger - Károly Beke, ÁKK

Institutional HUF government securities including Hungarian government bonds and discount Treasury bills represent the majority of Hungarian government debt, exceeding retail and FX debt. Consequently, relevant questions include: which investors hold these government securities, what motivates them to invest, and what drives their investment decisions. This knowledge enables easier modelling and planning of debt financing, and the identification of market development opportunities to increase demand and the efficiency of the institutional HUF market.

The largest part of Hungarian central government debt

The stock of institutional HUF government securities stood at nearly HUF 27 trillion - the largest part of Hungarian central government debt - equalling roughly the outstanding amount of retail government securities and foreign currency-denominated government debt combined.



Source: ÁKK

Figure 1.Share of the institutional HUF securities in the central government debt

Thus, when analysing the institutional HUF market, the biggest slice of Hungarian central government debt is in question. Hence, it is imperative to understand who the most important investors in this market are, what motivates them and what factors influence their decisions.

We distinguish two basic types of institutional HUF government securities. Discount Treasury bills (T-Bills) are government securities with a maturity of maximum one year, currently sold with three-, six- and twelve-month tenors. Hungarian government bonds (HGBs) are sold at regular auctions with maturities ranging between 3 and 30 years.

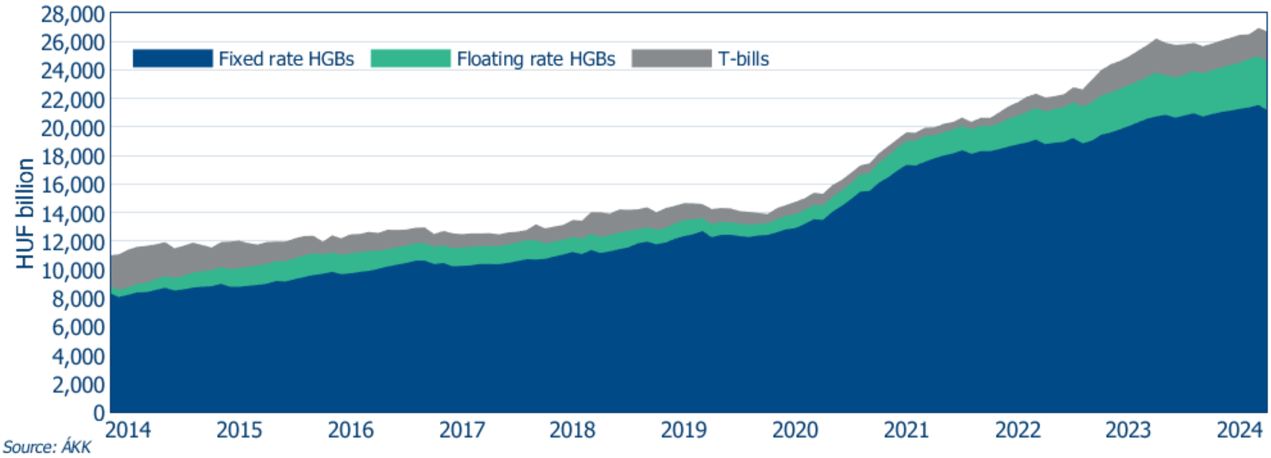


Figure 2. Evolution of institutional HUF market between 2014 and 2024. Note: The T-Bills are calculated on weighted issuance price whereas HGBs on nominal value.

Institutional HUF government securities are the backbone funding within the different market segments debt management, with HGBs accounting for the largest part, whereas T-bills are primarily used for short-term adjustments and liquidity management. The retail government securities programme complements the above, being able to cover a significant part of net financing need in normal market environment. Each market segment has a distinct role in the debt management strategy. Retail and institutional HUF markets finance the majority of the budget deficit whereas the FX market can cover additional financing needs, for example increased deficit during the pandemic. FX market issuances can still cover around 30% of the deficit, but no further increase in FX exposure is planned. It is important to highlight that primarily **the institutional HUF market is able to provide financing flexibility**.

Room to manoeuvre on the institutional HUF market has become a priority with the emerge of the retail market since 2012, as retail demand is less flexible and shows strong seasonality aligned to the savings rate. Consequently, other areas of debt management need to adapt. ÁKK strives to develop a stable primary market in addition to a liquid secondary market in order to facilitate the above. **ÁKK is able to adapt to investor demand via its flexible issuance policy**, supported by the full range of tools at its disposal. In addition to classic auctions, ÁKK successfully uses non-competitive auctions, and is able to smooth the maturity profile through buy-back and switch auctions, avoiding maturity peaks. ÁKK supports secondary market liquidity by providing standby-repo facility to dealers. The primary dealer system also adds to the successful debt management, the current system evolved through continuous market negotiations.

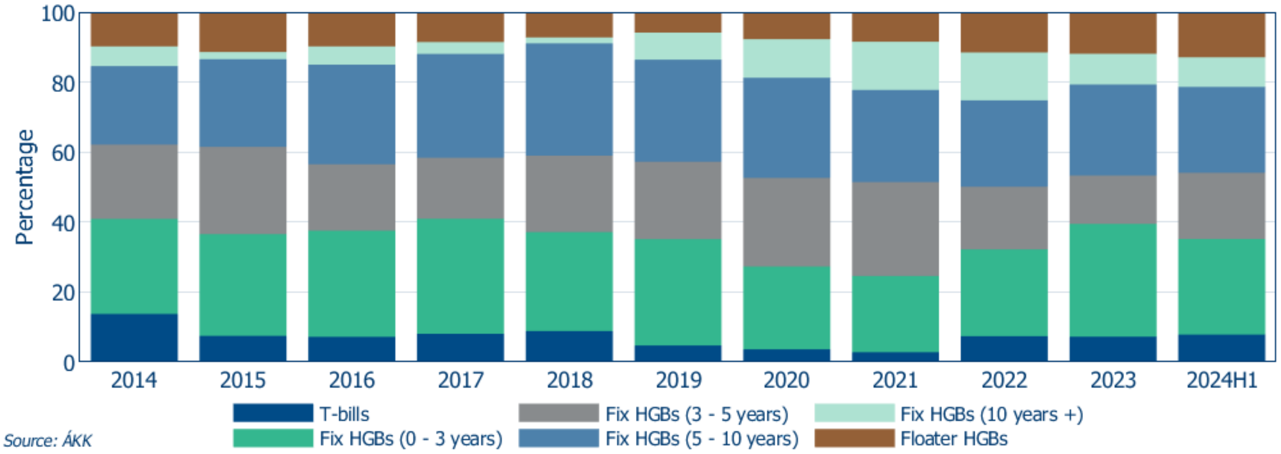


Figure 3. Composition of institutional HUF market between 2014 and 2024. Note: The T-Bills are calculated on weighted issuance price, whereas HGBs are on nominal value.

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Who owns institutional HUF securities?

Participants of government securities market can be classified in several ways. However, the below classification reflects that of the National Bank of Hungary's (NBH) with minor changes. Accordingly, the players in the Hungarian institutional HUF market are the following:

Financial institutions:

Monetary financial institutions

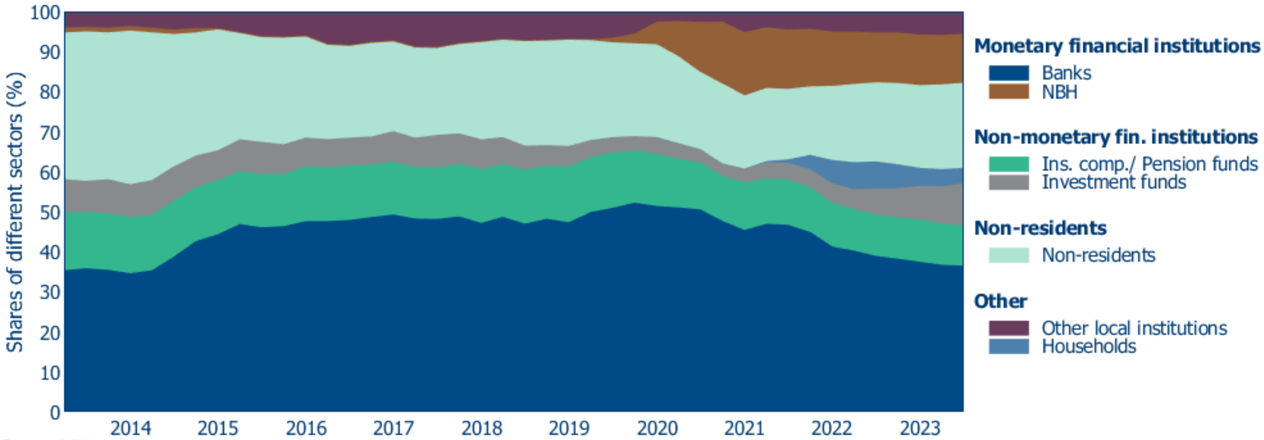
- Banks
- NBH

Non-monetary financial institutions

- Insurance companies and pension funds
- Investment funds[1]

Non-financial institutions:

- Households
- Other local[2] institutions
- Non-residents[3]



Source: NBH

Figure 4. Breakdown of investor sectors in the institutional HUF market until end of June 2024. Data prior to 2020 were derived from the NBH's public securities statistics, assuming HUF government securities held by households were exclusively retail products prior 2020, since household holdings of T-Bills and HGBs were negligible.

Different investor sectors exhibit different motives and behaviour on the sovereign debt market, understanding these motivations is essential for successful debt management.

Financial institutions, including **monetary financial institutions** are the most important investors on the **institutional market**; holding around 50% of institutional HUF government securities at the end of 2023. However, recent data shows a declining trend in their share, whereas **non-monetary financial institutions** have increased their share, albeit at a slow pace. The adjustment to the 2023 regulation on investment funds contributed to this significantly, the share of government securities held by investment funds was higher in the third quarter of 2023, and rose further in the following six months. Banks' investment books, insurance companies and pension funds typically

[1] NBH classifies investment funds as other financial intermediaries, within it investment funds constitutes the vast majority. Money market funds are classified as a separate section in the NBH statistics. We re-classify money market funds as part of our category investment funds in addition to other financial intermediaries of NBH statistics.

[2] The group of other local institutions includes non-profit institutions serving households, non-financial corporations, non-financial corporates, local governments, financial auxiliaries and central government.

[3] More detailed data on foreign investors is not available.

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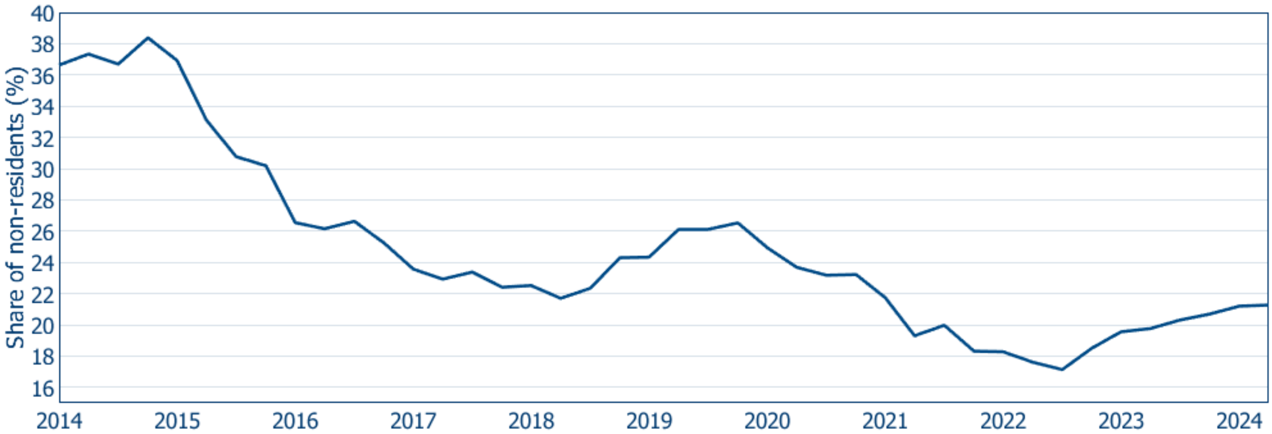
hold a significant proportion of government securities in their portfolios until maturity, while asset management tends to be more active in case of investment funds.

Central banks do not normally enter the market as buyers. In recent years, however, extraordinary situations called for extraordinary economic policy responses, central banks on developed markets lead the way in government securities purchases. However, the room for manoeuvre for smaller countries is more limited. NBH, for example, used quantitative easing only temporarily in 2020-2021. Central banks entering the secondary market as buyers was only temporary, government securities are usually held until maturity (similar to NBH), though in some cases they reinvest maturing amounts withdrawing from the market gradually. The international practice of central bank asset purchases will be shown later in more detail.

Retail investors' portfolio should be divided into two parts. The majority of retail investors hold retail government securities to maturity and typically reinvest the coupon payments received. According to a survey commissioned by ÁKK, and conducted at the end of 2023, 46% of retail government securities holders said they would continue to invest their savings in retail products after maturity assuming no change in conditions; furthermore, 78% of respondents would also invest the interest received in retail government securities. Recent years' experience suggests that retail demand for institutional HUF securities surges occasionally, as rising short yields temporarily turned them into a competitive investment alternative.

Besides the financial sector, **foreign investors** own a significant amount of HGBs. Extremely high share of foreign investors is risky in general and can increase vulnerability on the institutional HUF market. Consequently, the downward trend until 2022 was favourable, with the share falling below 20%. Although it started to rise in late 2022 in a high yield environment, the growth dynamics slowed down relatively fast with the share of foreign investors currently at around 21.5%, a share not considered high and risky at all.



Source: NBH

Figure 5. Share of institutional HUF government securities held by foreign investors relative to the total institutional market between 2014 and the first half of 2024. Data prior to 2020 were derived from the NBH's public securities statistics, assuming HUF government securities held by households were exclusively retail products prior 2020, since household holdings of T-Bills and HGBs were negligible.

The most important investors of fixed-rate government bonds are banks and foreign investors. Banks' holdings mostly stagnated recently, whereas the stock of HBGs held by foreigners has been growing, albeit at a slow pace. Previous asset purchases by the central bank are the main reason for high NBH holdings; the market share of the central bank's bond holdings has been declining since the central bank stopped the purchases.

Investment funds' participation on the fixed-rate government bond market has increased in recent quarters and their share reached 6% by now. While the upward trend is fundamentally positive, the gap between investment funds' holdings of institutional HUF government securities and foreign

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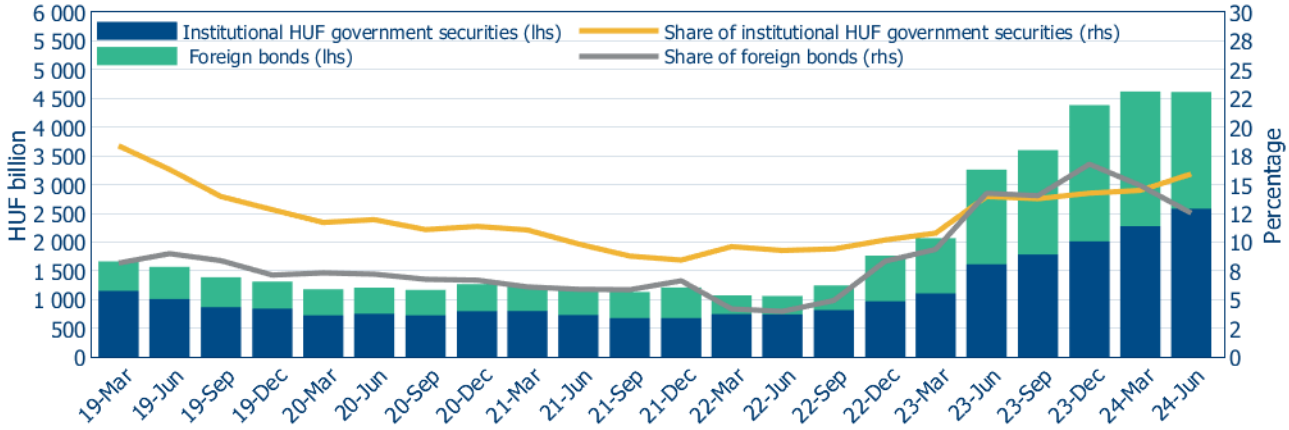
bonds, which was prevalent in 2023 and now appears to be disappearing, clouds the picture. According to NBH statistics, **17% of open-ended mutual funds' assets were invested in foreign bonds at end-2023, while 14.3% of net asset value was invested in institutional HUF government securities.** This difference of around 3 percentage points compares with 2 percentage points a year earlier – but in favour of institutional HUF government securities back then. In addition, according to the Association of Fund Managers and Asset Managers (BAMOSZ), HUF 949 billion was invested in domestic bank deposits and HUF 1,438 billion was invested in foreign bank deposits at the end of 2023. Consequently, the foreign dominance is apparent in case of these assets. A year earlier domestic bank deposits amounted to HUF 1,831 billion, while foreign bank deposits only amounted to HUF 830 billion. This shift towards foreign (typically short-term) assets was a characteristic of the year 2023. **As market environment and yields normalises, investments in short-term foreign assets can be expected to be rotated into institutional HUF government securities. Actually, this process has already started in the first quarter of 2024, and by end-June 2024 the share of institutional HUF government securities and foreign bonds relative to total assets of open-ended mutual funds was 16% and 12.5% respectively.**



Source: NBH

Figure 6. Hungarian government securities and foreign securities holdings on the balance sheet of mutual funds and their share relative to total assets

Although the share of the government securities held by **insurance companies** stands below the largest of investor categories, the vast majority of their government bond holdings consist of fixed rate HGBs, and that the sector's holdings tend to be stagnant. Furthermore, the share of institutional HUF government securities relative to insurers' total assets has declined in recent years, while the share of mutual fund shares has increased, overtaking that of government securities at the end of 2023, and the gap widened further in the first half of 2024, according to balance sheet of insurers statistics published by the central bank. Moreover, the stock of foreign investment fund shares has consistently exceeded that of Hungarian investment fund shares.

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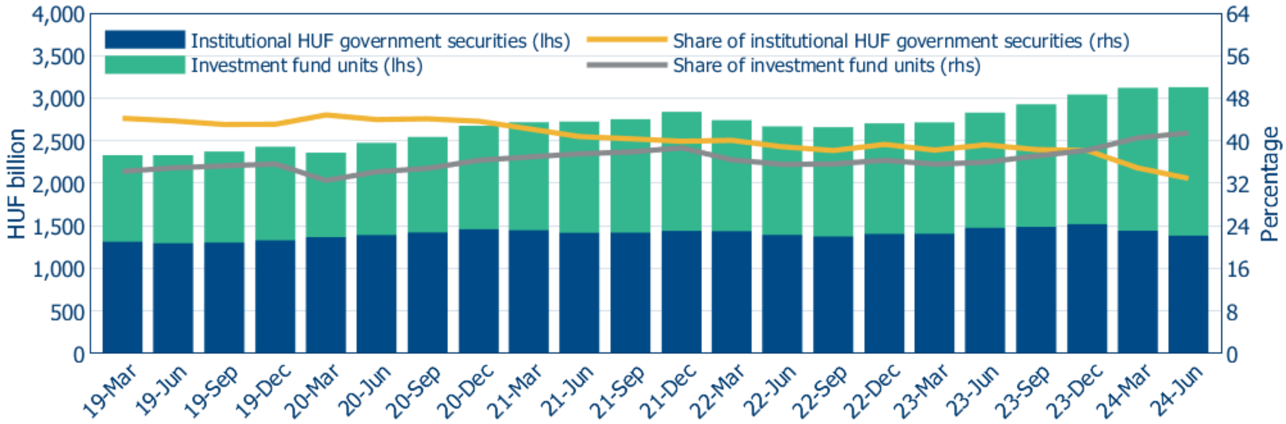

Source: NBH

Figure 7. Holdings of government securities and investment fund shares and units on insurance companies' balance sheets and their share relative to total assets

The significant share of mutual funds shares is the result of unit-linked products. At the second half of 2022, the share of assets related to unit-linked type insurances in the insurance sector reached 50% and remained at this level until the end of 2023. Analysing the insurers income leads to a similar result, with more than half of Hungarian life and pension insurance contracts linked to investment products, according to the 2023 annual report of the Association of Hungarian Insurers (MABISZ). These insurance contracts reduce the demand for longer-term government bonds allowing insurers to invest a larger proportion of funds into foreign investment fund shares, similar to the investment decisions of fund managers.

Institutional HUF government securities had a share of 13.7% in assets behind Unit-linked type insurances at the end of 2023, while collective investment undertaking shares accounted for 75% of total assets. Assuming that the share of institutional HUF government securities in investment funds shares linked to unit-linked type insurances is similar to their share in investment funds assets (14.3%) imply an additional (indirectly held) government securities portfolio of HUF 187 billion. Consequently, the share of government securities relative to total assets related to unit-linked insurance can only be estimated at 24% (taking into account directly and indirectly held government securities). The same adjustment for non-unit-linked products makes no significant difference: Government securities (held directly) amounted to 77% of total assets at the end of 2023. Assuming a 14.3% share in case of investment funds shares, government securities (taking into account directly and indirectly held government securities) represented 78% of assets, equivalent to HUF 1,721 billion, with only a HUF 7 billion of indirectly held government securities.

90% of **pension funds'** holdings of government securities were in fixed-rate HGBs at the end of the first half of 2024. These government securities holdings represent a significant share of pension fund assets. The small market share on the institutional HUF market is a result of the sector’s underdevelopment in Hungary. To channel more funds from this sector into government securities the development of the pension sector is inevitable.

Banks were the hallmark investors of **floating rate HGBs** at the end of the first half of 2024. 65% of all floating rate HGBs were in banks' portfolios and 22% of their total institutional HUF government securities holdings were in floating rate HGBs. While lagging behind banks, the size of the investment fund sector was significant in this market segment, expanding since the end of 2021, reaching an 18% share in the floating rate bond segment at the end of June 2024, compared to 13% at the end of 2022 and only 9% at the end of 2021. As a result of high short-term yields, these products have become competitive relative to retail (fixed-rate) products and households were net buyers, nevertheless the decreasing inflation and interest rate environment is expected to revert savings from this segment back into retail products.

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The **T-bills market** had reduced significantly from its previous size by 2021, from a total amount of more than HUF 2,500 billion at the end of Q1 2014 calculated on weighted issuance price, to around HUF 600 billion. Since 2022, a dynamic expansion began leading to a total amount of HUF 2,000 billion, currently. The growth was largely driven by a significant increase in the short side of the yield curve, temporarily **turning T-Bills into the most important competitor to retail government securities**. Households entered the T-Bills market and quickly became the largest investors in the second half of 2022. However, as the yield curve started to decrease towards the end of 2023, an outflow from T-Bills began by households. Beginning of the second half of 2023, regulations affecting investment funds led to a rise their T-Bills' holdings, but this dynamic growth slowed down after the initial adjustment. By the end of the first half of 2024, T-Bills' holdings of investment funds amounted to about 38% of total outstanding. ÁKK strived to flexibly support compliance with the new regulation by reforming the T-Bill issuance calendar and introducing T-Bill switch auctions.

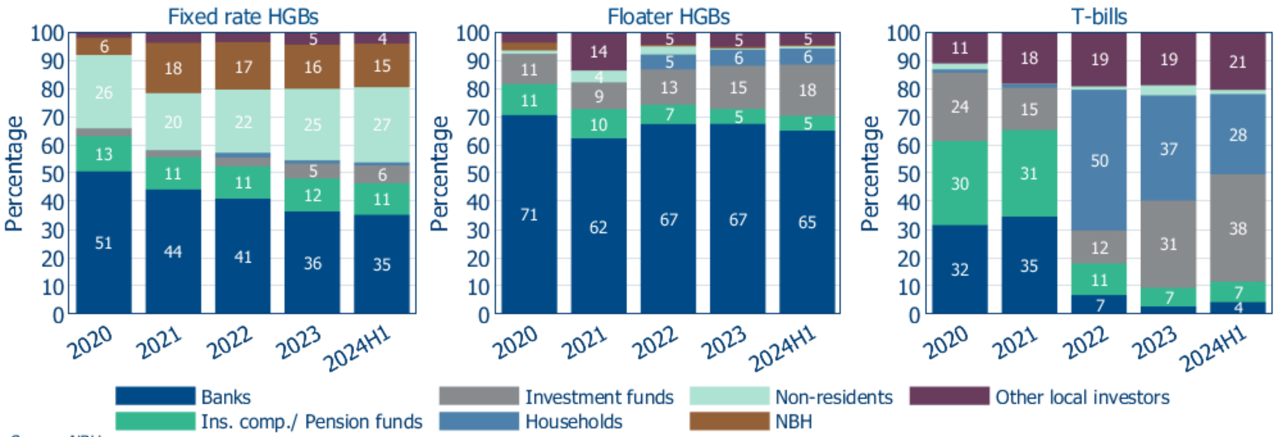

Figure 8. Composition of the institutional HUF market by the types of investors

How does it compare to other EU sovereigns?

Comparing institutional investors across sovereigns is problematic because of different data reporting practices. Central banks typically report on total government securities holdings without distinguishing between market segments. In most cases, central banks report on investor sectors in the financial accounts statistics, but under this methodology government debt securities cover those issued by not only by central governments, but also by institutions classified in the general government sector. To ensure comparability, we turned to statistics of the European Central Bank (ECB), which provides a sectoral breakdown for general government debt covering a broader range of instruments compared to the Hungarian data presented above. (Regarding the United Kingdom, we used statistics published by the UK DMO, providing a sectoral breakdown for central government bonds, that is also a narrower asset range than the previously discussed Hungarian data.)

In Hungary, financial institutions are the most relevant investors on the institutional HUF market, accounting for the largest share of total debt. This stands true in case of government bond market in the countries surveyed in general. Based on data by the end of 2023, this sector's share within the general government debt portfolio was the lowest in Hungary and Romania within the region, significantly below the Czech and Polish ratio and the EU average. Notice, however, that general government debt includes retail products, and their weight is salient in Hungary.

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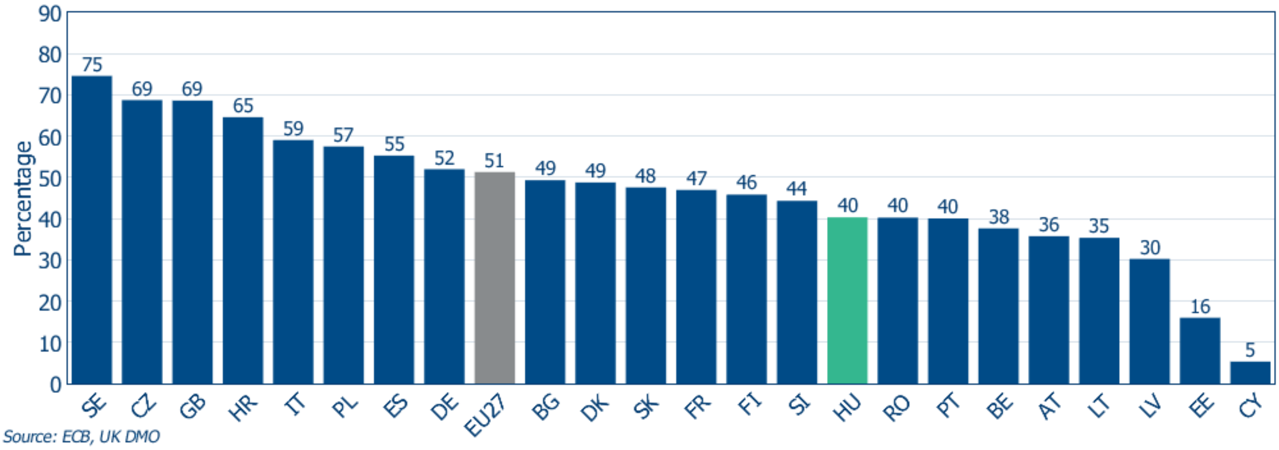
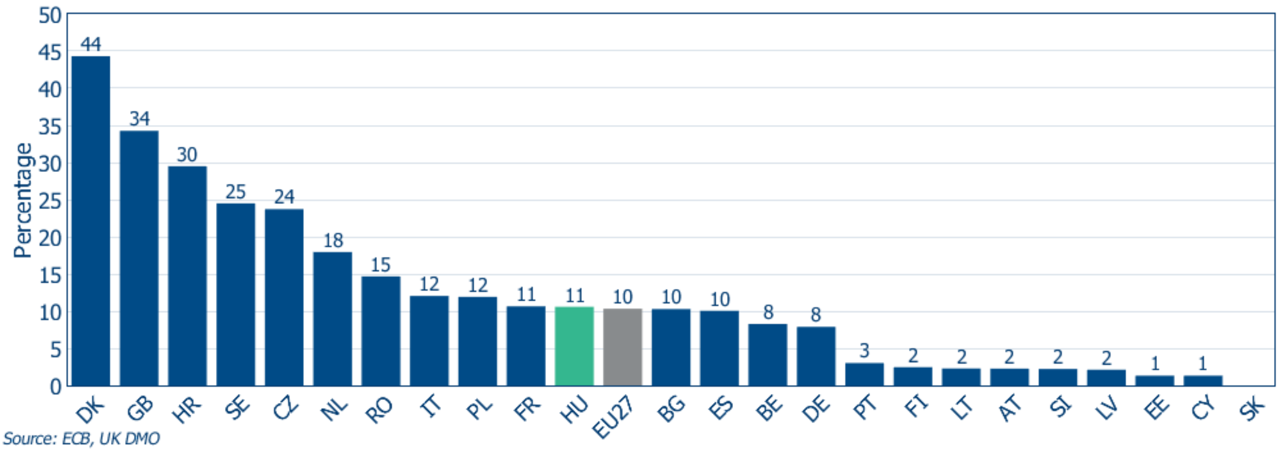


Source: ECB, UK DMO

Figure 9. Share of financial institutions in general government debt in the EU countries and central government bonds in case of the UK at the end of 2023.

International comparisons confirm that the market share of insurance and pension funds public debt in Hungary is low, although pension and life insurance funds could be long-term and durable investors in the long-end of the HGB market, supporting the sustainability of long-term yields and reducing their volatility. The lag relative to Czechia and Romania is particularly striking. Due to the small size of the domestic pension fund market, no significant additional funding can be expected from this sector until it grows in size. For the insurerance sector, however, the predominance of unit-linked type insurances is the primary reason for the low market share.



Source: ECB, UK DMO

Figure 10. Share of the non-monetary financial institutions in general government debt in the EU countries and central government bonds in case of the UK at the end of 2023.

The role of central banks on the government bond market has increased in recent years thanks to central banks' asset purchases. These asset purchases typically started after the 2008 financial crisis and then intensified with the economic and financial difficulties caused by the pandemic. Central banks have been active all across Europe, their weight in the market is notable, and Hungary is no exception. In the region, Romanian, Bulgarian and Czech national banks hold less government securities than the Hungarian, but the ratio is higher in Poland.

Regarding the asset purchase practices of the European Central Bank (ECB), the central bank of the euro area bought government bonds from banks from March 2015 until the summer of 2022 with a short interruption, and reinvested all or part of the interest received and the maturity amount until July this year thus retreating from the market incrementally. This affects Eurozone countries sharing the single currency, the safety net provided by the ECB's greater financial power is proving increasingly effective in times of crisis and market uncertainty.

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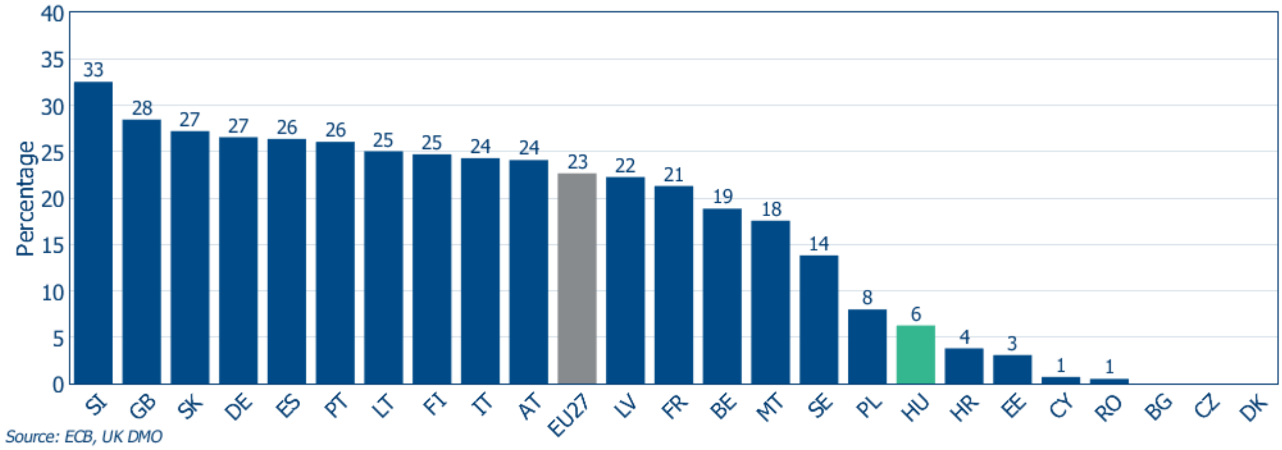
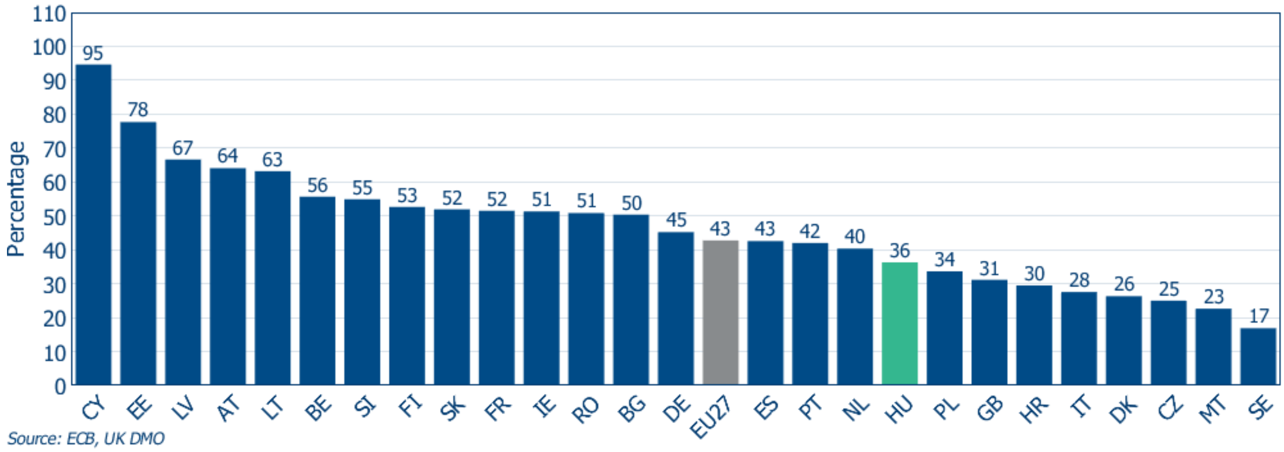


Source: ECB, UK DMO

Figure 11. Share of the central banks in general government debt in the EU countries and central government bonds in case of the UK at the end of 2023.

The share of foreign investors on the sovereign debt market is an important risk factor, a high proportion can cause vulnerabilities in sovereign debt management. In case of Hungary, this ratio is higher than in Poland and the Czech Republic, but significantly lower than in Romania. Notice that this indicator includes foreign currency bonds, which are typically held by foreign institutions. Consequently, the ratio is much higher than the figure of around 20% in case of institutional HUF market discussed earlier.



Source: ECB, UK DMO

Figure 12. Share of foreign investors in general government debt in the EU countries and central government bonds in case of the UK at the end of 2023.

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