HUNGARY
ÁKK – INVESTOR PRESENTATION

January 2025

DISCLAIMER

These materials may not be copied, published, distributed, transmitted or used in any other way without attribution to the source.

This communication is provided for information purposes only. The information and opinions herein are believed to be reliable and have been obtained from sources believed to be reliable, but no representation or warranty, express or implied, of whatsoever nature, is made with respect to the fairness, correctness, accuracy, reasonableness or completeness of the information and opinions. There is no obligation to update, modify or amend this communication or to otherwise notify the recipient if information, opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate.

This presentation contains forward looking statements, including statements about the beliefs and expectations of Hungary (“Hungary"). These statements are based on Hungary's current plans, estimates and projections, as well as its expectations of external conditions and events. Forward-looking statements involve inherent risks and uncertainties and may be valid only as of the date they are made. As a result of these risks, uncertainties and assumptions, undue reliance should not be placed on these forward-looking statements. A number of important factors could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements. Hungary is not obliged to, and does not intend to, update or revise any forward-looking statements made in this presentation whether as a result of new information, future events or otherwise.

The recipient is strongly advised to seek its own independent advice in relation to any investment, financial, legal, tax, accounting or regulatory issues discussed herein. Analyses and opinions contained herein may be based on assumptions that if altered can change the analyses or opinions expressed. Nothing contained herein shall constitute any representation or warranty as to future performance of any financial instrument, credit, currency, rate or other market or economic measure. Furthermore, past performance is not necessarily indicative of future results. Hungary disclaims liability for any loss arising out of or in connection with a recipient’s use of, or reliance on, this communication.

This communication is not for publication or distribution, directly or indirectly, in or into the United States or in any other jurisdiction in which such publication or distribution would be prohibited by applicable law.

This presentation does not constitute an offer or invitation to sell, or any solicitation of any offer to subscribe for or purchase, any securities to any person in any jurisdiction and nothing contained herein shall form the basis of any contract or commitment whatsoever. Any offering of securities will be made by means of an offering circular or similar applicable documentation, which will contain detailed information, as requested by applicable law. Neither this communication nor any information herein nor the fact of its distribution shall form the basis of, or be relied on in connection with, any contract or commitment or investment decision whatsoever.

KEY FACTS AND FIGURES ON HUNGARY

Area: ~93,000 sq. kilometres

Capital: Budapest

Population: 9.6m (1 January 2024)

Life expectancy at birth: 76.5 years (2023)

Currency: Forint (HUF)

Exchange rate (2023): 381.95 HUF = 1.00 EUR[1]

Nominal GDP (2023*): HUF 75,087 billion

Real GDP growth (2023*): -0.9%

Public debt (2023*): HUF 50,865 billion

Public debt denominated in foreign currency (2023):
HUF 13,678 billion (approximately EUR 36 billion)

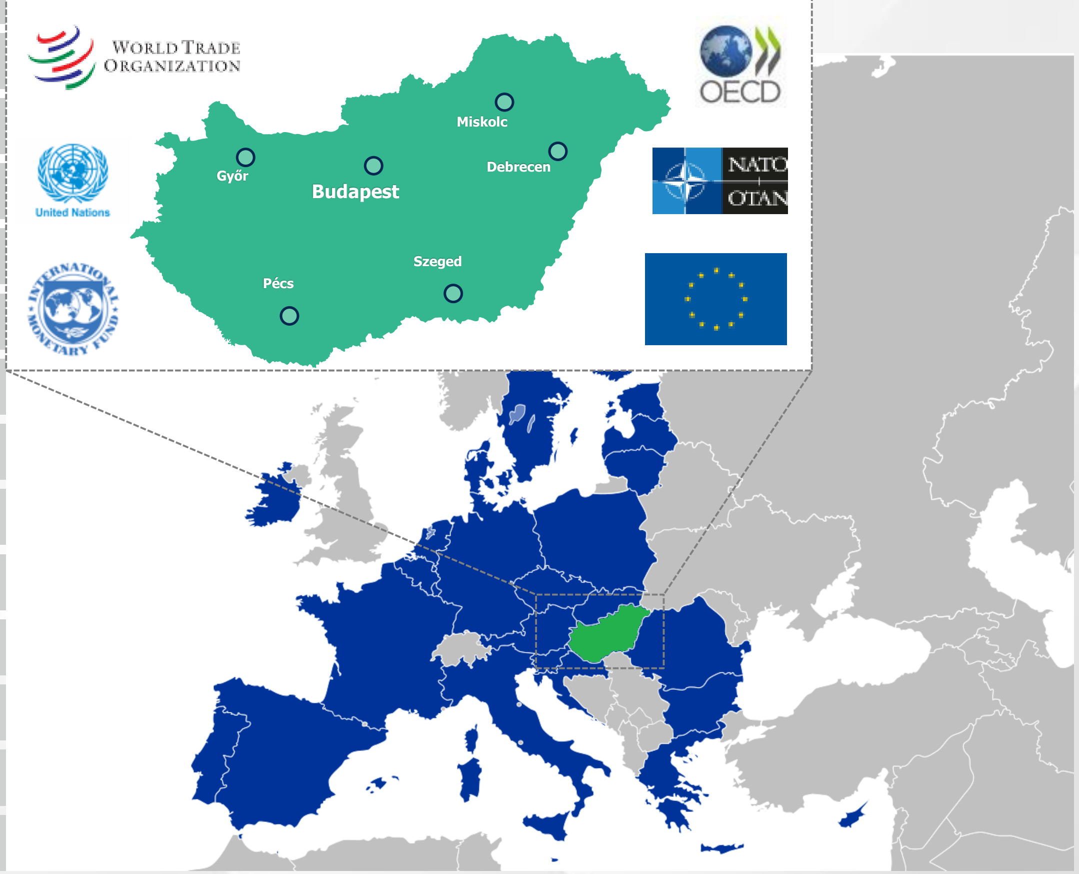
Sovereign ratings:
Baa2 (Negative) by Moody's; BBB- (Stable) by S&P; BBB (Stable) by Fitch

Government: parliamentary republic

EU member country since: 2004

Schengen area member since: 2007

A high income economy with a strategic location at the centre of Europe and memberships in key international organisations



*Note: 1. Average exchange rate in 2023. /*Preliminary data*
Sources: Government Debt Management Agency of Hungary (AKK), Hungarian Central Statistics Office (HCSO), HIPA, Magyar Nemzeti Bank (the central bank of Hungary) (NBH), World Bank, Bloomberg, European Commission

HUNGARY IS RESILIENT IN THE FACE OF ONGOING GLOBAL CHALLENGES

GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.

Á K K

Resilient economy	▪ **GDP growth** of 0.6% over Q1-Q3 2024 vis-à-vis the same period last year, hence reverting to positive territory relative 2023's 0.9% GDP fall[1]. ▪ **Investments** accounted for 25% of GDP in 2023 dropped by 17.1% in 2023 and by 8.8% in the first three quarters of 2024 ▪ **Unemployment rate** one of the lowest rates in the EU, amounted to 4.1% in 2023 and increased to 4.5% in October 2024 ▪ **Households net savings** accelerated, reaching 7.3% of GDP in the four-quarter period ended September 30, 2024
Growth & stability-enabling fiscal policies	▪ **Debt affordability**: Deficit-to-GDP ratio expected to improve to 4.5% in 2024 relative to 6.7% in 2023, primary balance consolidation 2.2% of GDP. The Government is committed to a medium-term fiscal consolidation track to further compress the deficit down to 3.7% in 2025, 2.9% in 2026, 2.2% in 2027 and 1.5% in 2028 ▪ **Indebtedness**: After the Covid-19 induced increase in the debt stock of 2020, debt-to-GDP gradually decreased to 73.4% in 2023
Cautious monetary policy containing inflation	▪ **NBH base rate**: In September 2023, the central bank base rate became the main monetary policy instrument. Since then, the central bank base rate was cut from 13.00% to 6.50% as of end of September 2024 ▪ **Exchange rate**: HUF weakened versus the euro during the course of the current year
Improving external position	▪ **Current account** turned into a surplus of EUR 1.4 billion in 2023 after posting a deficit in 2022. In the first three quarters of 2024, the current account posted a significant surplus of EUR 5.2 billion ▪ **Net FDI** was positive posting a significant net inflow of EUR 1.0 billion in 2023 ▪ **International reserves** reached EUR 46.3 billion on 30 November 2024, comfortably covering short-term liabilities
Sustainability at the core of Hungary's economy	▪ **Paris Agreement**: 1st EU member to ratify the Agreement in 2016 ▪ **Green bond framework**: Regular framework revamping (latest in 2023) ▪ **Reporting**: Annual reporting about the allocation and impact of the green bond proceeds, since 2021 in a form of an Integrated Green Bond Report ▪ **EU taxonomy**: In the Integrated Green Bond Report published in December 2024, 93.5% of green bond proceeds were partially aligned with the EU taxonomy and 6.5% were fully aligned
Effective debt management	▪ **Debt portfolio**: Well diversified composition comprising local wholesale bonds, retail securities and international bonds. ▪ **FX debt**: The share of FX debt was 29.4%[2] of total central government debt. Maturity profile is well-balanced with less than EUR 2 billion maturing in 2025 & 2026 ▪ **Maturity profile**: Average time to maturity (ATM) of the total debt portfolio amounted to 5.8 years[2] ▪ **Retail debt**: 21.0%[2] of total central government debt

Note: 1. According HCSO (and Eurostat) preliminary data
2. 90-day moving average data as of December 31, 2024.

I. RESILIENT ECONOMY

HUNGARIAN ECONOMIC GROWTH REVERTED BACK TO POSITIVE TERRITORY IN Q1-Q3 2024

Key highlights

- **In 2023, GDP decreased by 0.9%** relative to the previous year
  - Consumption stagnated, investments decreased, growth contribution of net exports was positive
- **During the first three quarters of 2024, GDP increased by 0.6% relative to the corresponding period of the previous year**
- **Sectoral breakdown for the first three quarters of 2024:**
  - Agriculture and industry decreased by 9.1% and 3.6%, respectively
  - Construction and services increased by 0.6% and 2.1%, respectively,
- **Expenditure approach for the first three quarters of 2024:**
  - Consumption increased by 2.3%, gross capital formation fell by 8.8%
  - Exports and imports decreased by 3.2% and 4.7%, respectively
- In the first quarter of 2024, GDP grew by 0.4% relative to the previous quarter. In the second and third quarters of 2024, GDP decreased by 0.2% and 0.7%, respectively.

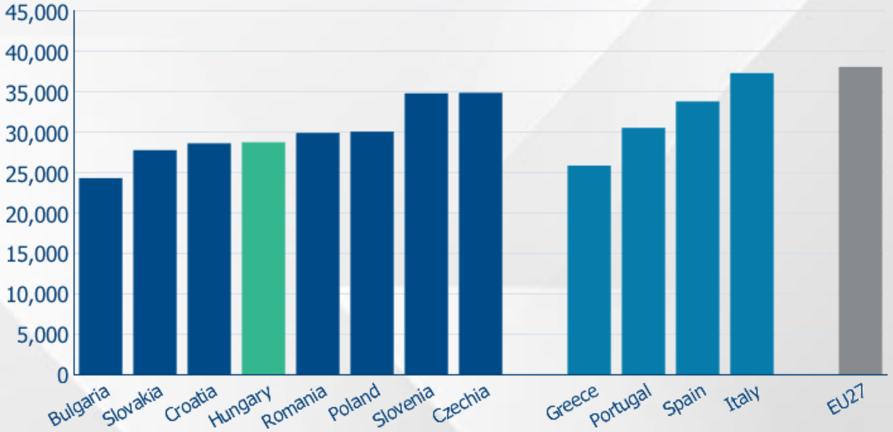
Real GDP growth - European Commission forecast

(YoY, %)

Sources: Eurostat, European Commission 2024 Autumn Economic Forecast
*Note: Unadjusted data /*Preliminary data*

GDP per capita compared to several EU member states

(purchasing power standards, 2023)



Source: Eurostat

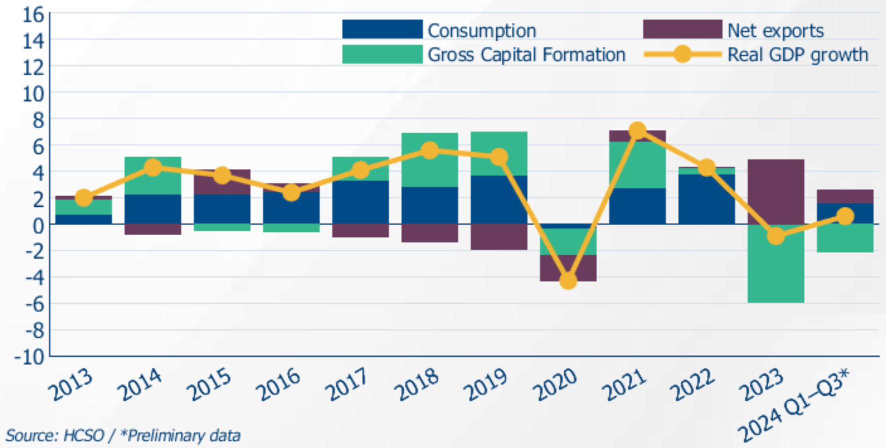
HUNGARIAN ECONOMY IS WELL DIVERSIFIED

Key highlights

- **All major sectors (except agriculture) decreased in 2023**
  - A heavy drought in 2022 resulting in a low base contributed to the growth of the agricultural sector in 2023
- In 2023, the growth contribution was zero in the case of consumption, negative in case of investments and positive in case of net exports
- In the first three quarters of 2024**, the growth contribution was positive in the case of consumption and net exports** but negative in case of investments
- **The growth contribution** was negative in case of agriculture and industry (-0.3 percentage points and – 0.7 percentage points, respectively), zero in case of construction and **positive (+1.2 percentage points) in case of services sector**

Contribution to GDP growth by expenditure

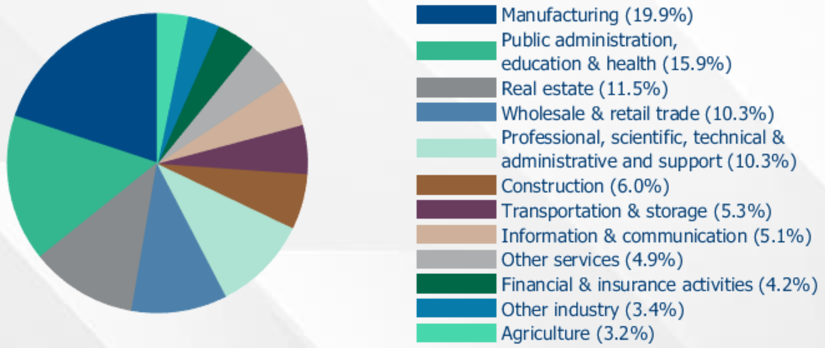
(percentage points)



*Source: HCSO / *Preliminary data*

Nominal GDP breakdown by sector

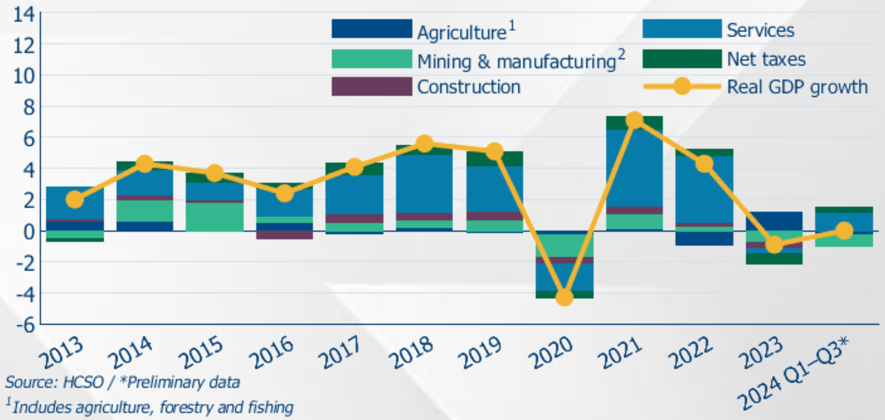
(2023, % of total GDP excluding taxes less subsidies on products)



Source: HCSO / Note: Preliminary data

Contribution to GDP growth by sector

(percentage points)



*Source: HCSO / *Preliminary data*

[1] Includes agriculture, forestry and fishing

[2] Includes mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply

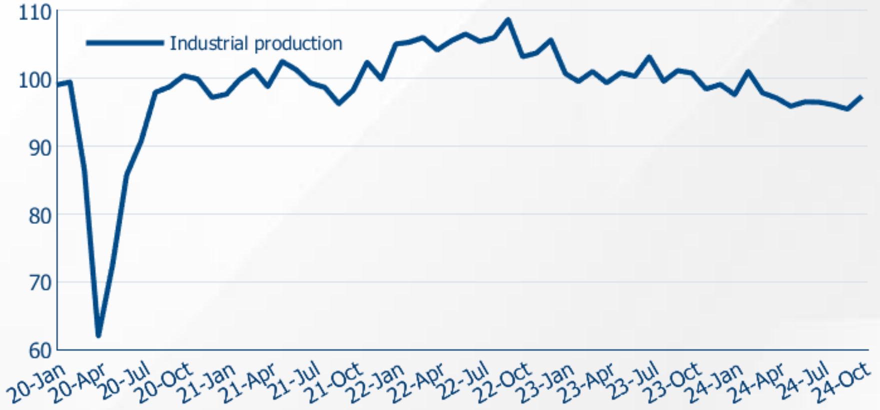
LATEST SHORT-TERM ECONOMIC INDICATORS

Key highlights

- **Industrial production**
  - According to seasonally adjusted data, production stagnated in July 2024, decreased by 0.4% in August 2024 and by 0.6% in September 2024 and increased by 2.0% in October 2024 (the latest data) relative to the previous month
- **Retail sales**
  - The volume increased by 0.8% in August 2024, decreased by 1.4% in September 2024 and grew by 1.2% in October 2024 (the latest data) compared to the previous month
- **Unemployment rate contained**
  - The unemployment rate amounted to 4.4% in August 2024, 4.5% in September 2024 and 4.5% in October 2024 (the latest available data); activity rate stood at 68.2% in October 2024, close to the historic high of 68.4% measured in July 2024

Industrial production

(seasonally and working-day adjusted volume indices, average month of 2015 = 100)



Source: HCSO

Unemployment rate and employed persons

(%, population aged 15-74, thousand persons)

Source: HCSO

Retail sales

(volume indices adjusted for calendar and seasonal effects, average month of 2015 = 100)

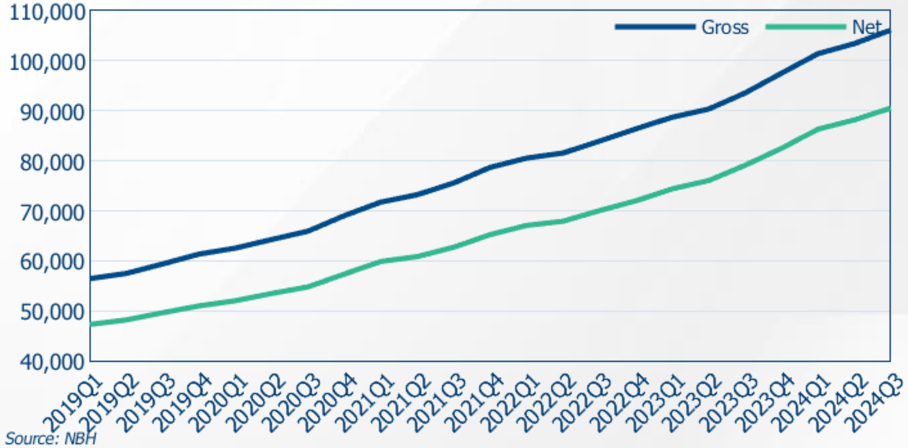
Source: HCSO

HOUSEHOLD SAVINGS ARE ACCELERATING ON THE BACK OF REAL EARNINGS GROWTH

Key highlights

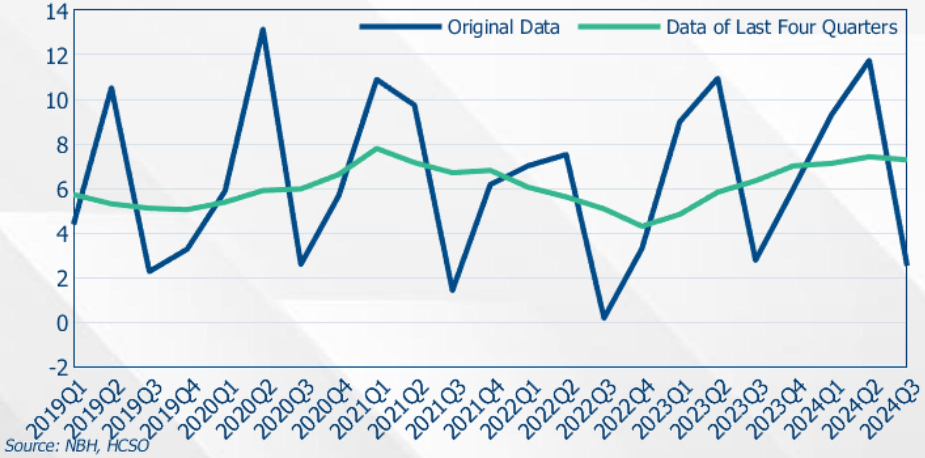
- **Financial assets of households are growing consistently**
  - Financial assets of households amounted to HUF 106.1 trillion as of September 30, 2024 equalling 133% of GDP
- **Net savings of households reached HUF 5,809 billion in the four quarters ended September 30, 2024** (the latest data)
  - Of the HUF 5,809 billion net savings, net buying of financial assets amounted to HUF 6,990 billion
- **Households' net savings amounted to 7.3% of GDP in the four quarters ended September 30, 2024** (the latest data) exceeding the long-term average of ca. 6% significantly
  - Savings dynamics have been supported by **growth in real earnings**; real wage growth was 9.4% in October 2024 (the latest available data)

Financial assets of households
(Consolidated data, HUF billions)



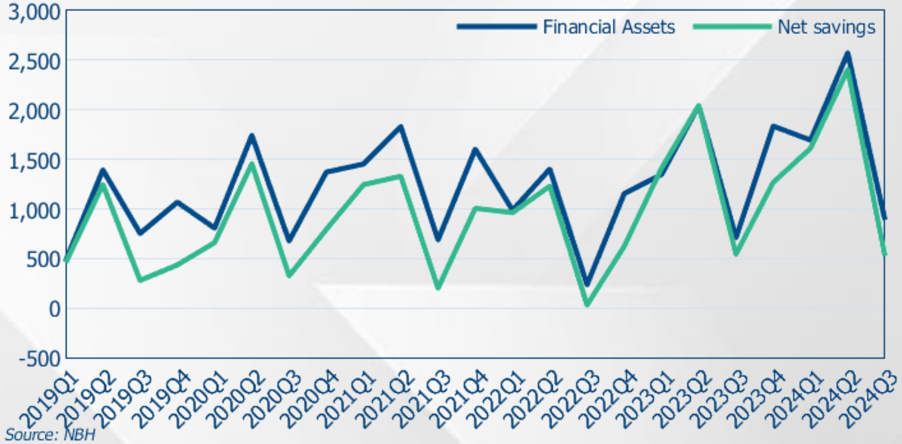
Source: NBH

Net savings of households
(Consolidated data, percent of GDP)



Source: NBH, HCSO

Net savings of households
(Consolidated data, HUF billions)



Source: NBH

II. ECONOMIC POLICIES SUPPORTING GROWTH AND STABILITY

THE GOVERNMENT IS COMMITTED TO A RAPID FISCAL CONSOLIDATION TRAJECTORY

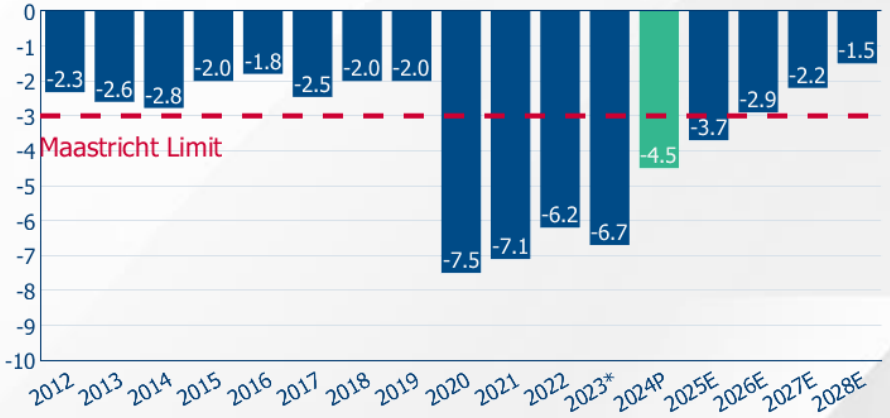
ÁKK

Key highlights

- **Overview**: Budget deficit stood at 6.7% of GDP in 2023 due to a globally pressuring economic context. Budget deficit is projected at 4.5% in 2024 and the target for 2025 and 2026 is set at 3.7% and 2.9% respectively
- **The Government's fiscal consolidation efforts are supported by an institutional set-up which supports continued debt reduction**:
  - As long as public debt exceeds 50% of GDP, Hungary's Constitution only allows for Government Budgets that achieve debt reduction
  - Public debt is already on a gradual reduction path. Following the Covid-19 induced increase of the debt stock in 2020, debt-to-GDP decreased to 76.2% in 2021, 73.8% in 2022 and 73.4% in 2023. The Government expects further reductions to 73.2% in 2024 and 72.6% in 2026
- **Several measures have already been implemented to achieve a lower fiscal deficit for 2024**
  - In April, HUF 675 billion of 2024 investments were postponed to the following years to meet the 4.5% deficit target
  - In July, new revenue and expenditure side measures were announced by the Government, resulting in a total of HUF 400 billion additional balance improvement for the budget in 2024
- **The submission of the 2025 budget was postponed by the Government to autumn 2024 in order to better apprehend external risks and benefit from the latest macroeconomic projections available**
- **In line with the EU legislation, the Government remains committed to a deficit below 3% by 2026**

Evolution of Hungary's fiscal deficit

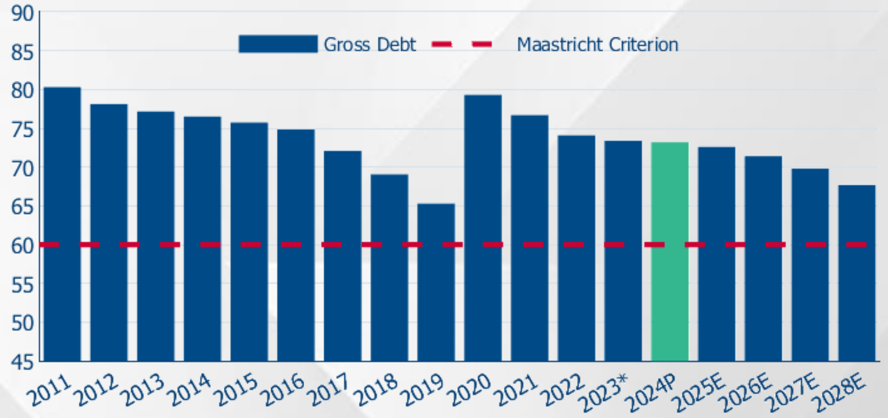
(% of GDP)



*Source: HCSO, Ministry for National Economy (MNE); Note: Latest (December 2024) forecast / *Preliminary figure*

Evolution of Hungary's general government debt

(% of GDP)



*Source: NBH, MNE / *Preliminary figure*

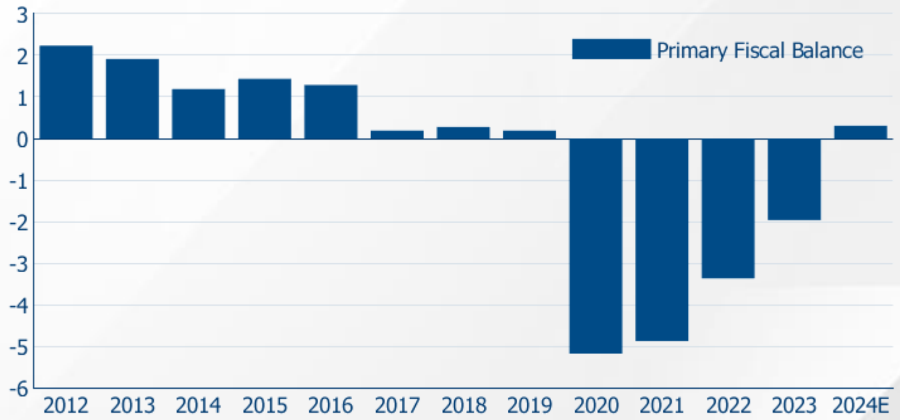
HUNGARY'S PRIMARY FISCAL BALANCE IMPROVED SIGNIFICANTLY

Key Highlights

- The primary fiscal balance was positive between 2012 and 2020
- **In 2020, the primary fiscal balance turned into a deficit mainly as a result of fiscal measures related to the pandemic.** Since 2020, the primary fiscal balance improved each year
- **The primary fiscal balance to revert to surplus in 2024**
- **The general government deficit ratio to improve by 2.2% relative to 2023**
  - Savings in operational and investment expenditures will improve the deficit ratio by 2.1%, savings in energy subsidies (driven by lower energy prices) by 0.5% and increase in tax revenues (driven by dynamic wage growth and new tax measures) by 0.4%
  - Wage increases (mainly in education and health) will increase the ratio by 0.6%, interest expenditures (peaking in 2024) and other factors by 0.1% each

Evolution of Hungary's primary fiscal balance

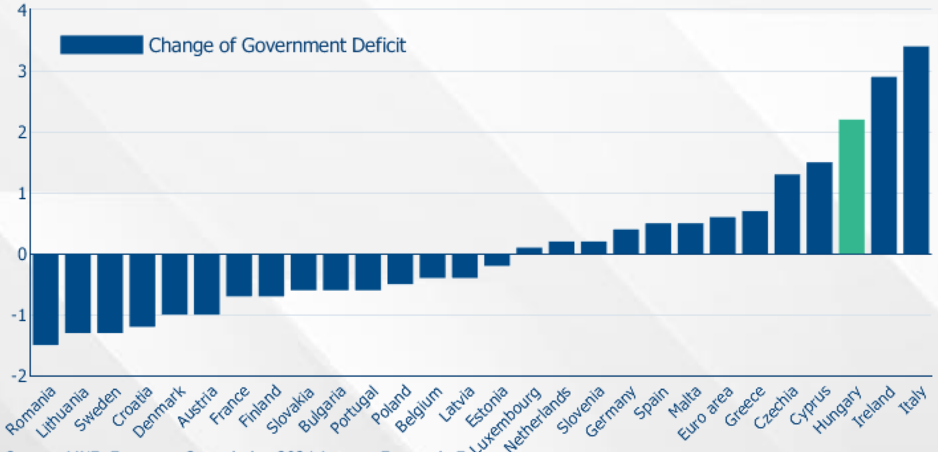
(% of GDP)



Source: HCSO

Change of general government deficit in EU countries

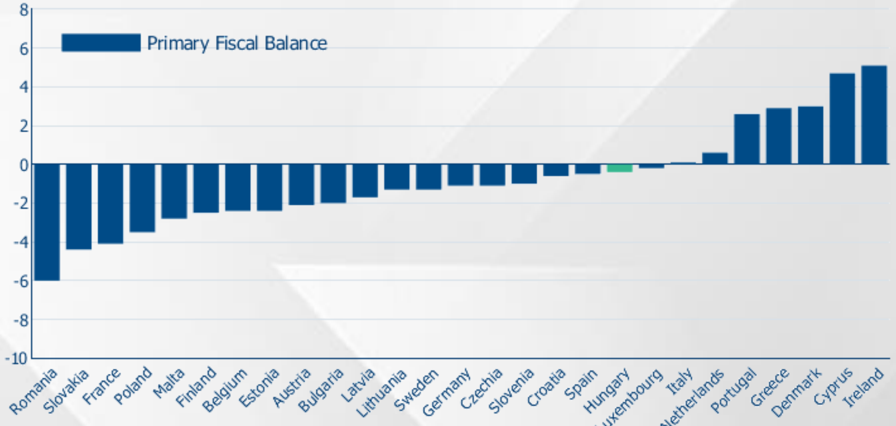
(EU Commission's Autumn Forecast for 2024 minus 2023 preliminary; % of GDP)



Source: MNE; European Commission 2024 Autumn Economic Forecast

Primary fiscal balance of EU countries

(EU Commission's Autumn Forecast for 2024; % of GDP)



Source: European Commission 2024 Autumn Economic Forecast

HUNGARY IS ON TRACK TO ACHIEVE THE RELEASE OF SUSPENDED EU FUNDS

Timeline of discussions with the EU

15 December 2022

The **Council of the European Union adopted Hungary's RRP** and **lowered the rate of funding suspension** of three operative programmes **from 65% to 55%** (**EUR 6.3 billion** instead of the EUR 7.5bn previously proposed) as part of the conditionality procedure

22 December 2022

The European Commission adopted the Partnership Agreement for EU cohesion funds with Hungary, worth almost EUR 22 billion for the period 2021-2027. For the implementation and release of the funds, Hungary must comply with enabling conditions

1 June 2023

The justice reform package agreed upon with the Commission entered into force, implementing enabling conditions and super milestones on judicial independence

8 December 2023

The Council approved the amended Hungarian RRP. With the additional funding requested via the amendment, total approved RRF funding for Hungary amounts to **EUR 10.4 billion**

13 December 2023

The Commission concluded that the enabling condition has been fulfilled as regards judicial independence, unlocking **EUR 10.2 billion** of suspended Cohesion Policy funding

28 December 2023

The Commission disbursed the first instalment of pre-financing available to Hungary under REPowerEU, amounting to **EUR 779.5 million** in RRF loans

January 2024

The Commission disbursed from the 2021-2027 Cohesion Policy envelope EUR 445 million on 2 January 2024 and EUR 140 million in grants as part of pre-financing relating to the REPowerEU funds under the RRF on 15 January 2024

February 2024

The Commission accepted two thematic enabling conditions. Consequently, an additional EUR 2.03 billion of the EUR 21.73 billion Cohesion Policy Envelope became accessible

September 2024

12 out of 16 enabling conditions fulfilled, EUR 12.77 billion cohesion funding available.

Source: MNE

A MAJORITY OF EU FUNDS ARE AVAILABLE TO HUNGARY, WITH THE REMAINING PART TO BE UNLOCKED SOON

Breakdown of remedial measures

- **Funds available for Hungary in the 2021-2027 programming period amount to almost EUR 48.5 billion, with approximately 60% available to Hungary**
- **Significant progress on the 27 „super milestones"[1] has been achieved, with the unlocking of EUR 10 billion in December 2023**
  - **21 milestones** relate to remedial measures as part of the EU conditionality procedure. 16 super milestones are considered fulfilled by the EU. Remaining milestones should be closed in the coming months
  - **4 milestones** relate to judicial reforms, which have all been fulfilled in December 2023, supporting the c. EUR 10 billion fund release
  - **2 milestones** relate to the implementation of audit and monitoring mechanisms as part of the RRP. The relevant audit procedure of the EU Audit Authority (EUTAF) is completed
- **Summary of procedures affecting the remaining suspended EU funds**
  - **Conditionality procedure**: Blocking 55% of 3 operative programmes as part of the Cohesion Policy Funding envelope
  - **27 "super milestones"**: Blocking the RRF and RePowerEU funds
  - **Selected thematic enabling conditions**: Affecting part of the Cohesion Policy Funding envelope. Already 12 out of these 16 thematic enabling conditions have now been fulfilled

EU funds affected by suspensions

(EUR millions)

	Allocation	Currently available	Already received
Cohesion Policy Funding	21,730	12,770	1,806
RRF Funding	5,811	0	0
RePower EU grants[2]	701	0	140
RePower EU loan[3]	3,918	0	780

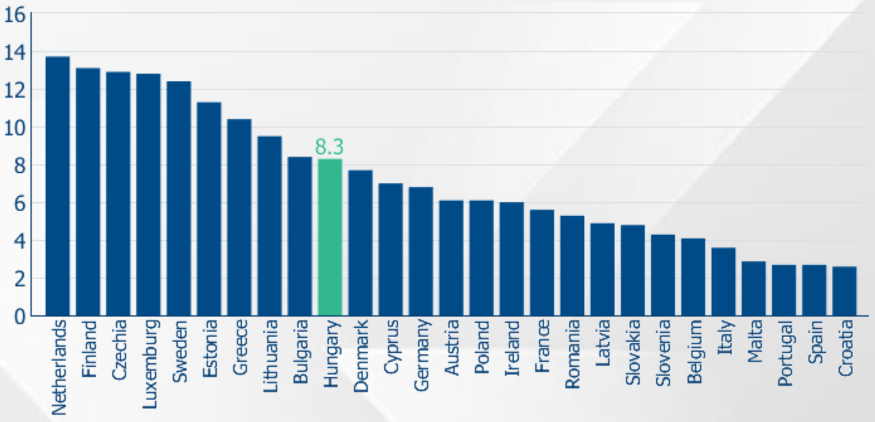
Source: MNE

2. Note: The EUR 0.14 billion provided in January 2024 was a grant advance payment.

3. Note: The EUR 0.8 billion provided in December 2023 was a loan advance payment.

2021-2027: Cohesion Policy EU payments by country

(as of 23 December 2024, % of net prefinancing and net interim payments relative to total EU allocation)



Source: European Commission

1. The 27 "super milestones" were included in Hungary's recovery plan and must be fulfilled before Hungary is deemed eligible to submit its first payment request under the RRF

MONETARY POLICY CONDITIONS ARE STILL TIGHT

Key highlights

- **The NBH's primary statutory mandate is to maintain price stability**
- Overnight deposit quick tenders yield was gradually cut from 18.00% in October 2022 to 13.00% in September 2023
- Since September 2023, the central bank base rate became the main monetary policy instrument and it was gradually reduced reaching 6.50% by end-September 2024
- **No change in the central bank base rate since September 2024**
- 12-months inflation rate decreased from 25.7% in January 2023 to 5.5% in December 2023, and to 3.7% in November 2024

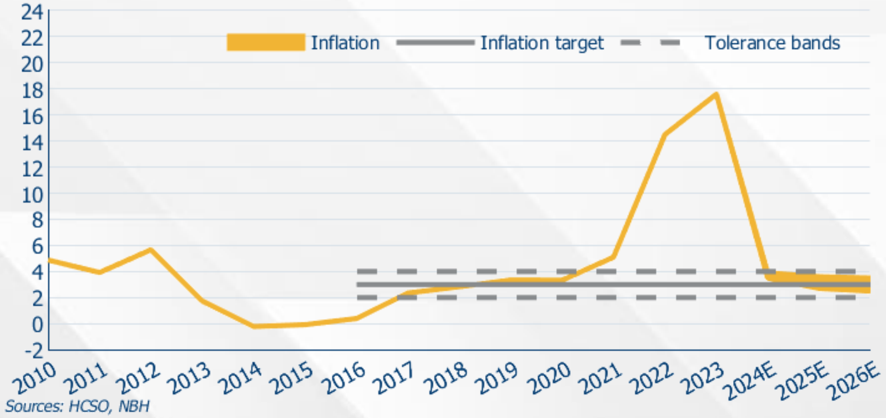
Foreign exchange rate

(end-of-month data, HUF / 1 EUR)

Source: NBH

Inflation vs inflation targets

(yearly average data, %)

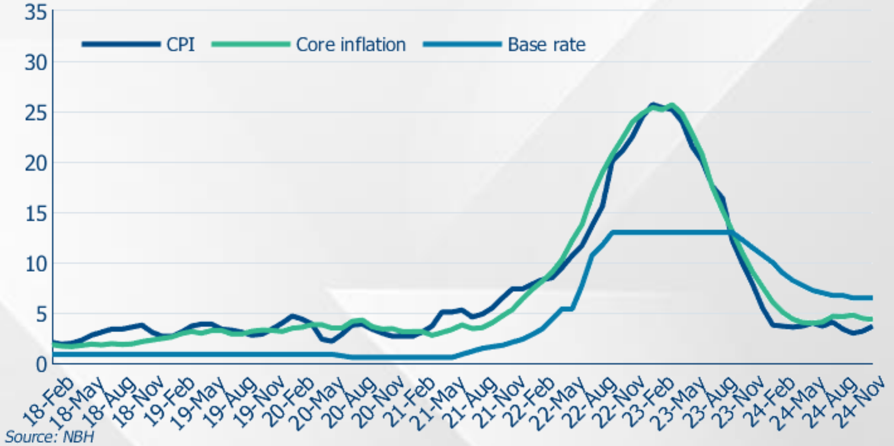


Sources: HCSO, NBH

Note: Based on seasonally unadjusted data, compared to the corresponding period of the previous year; forecasts after 2023

Central bank base rate, inflation rates

(end-of-month data, %)



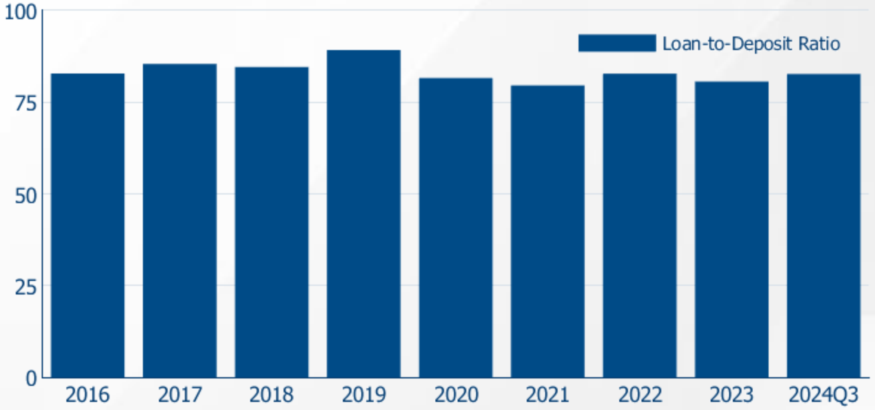
Source: NBH

BANKING SECTOR IS RESILIENT

Key highlights

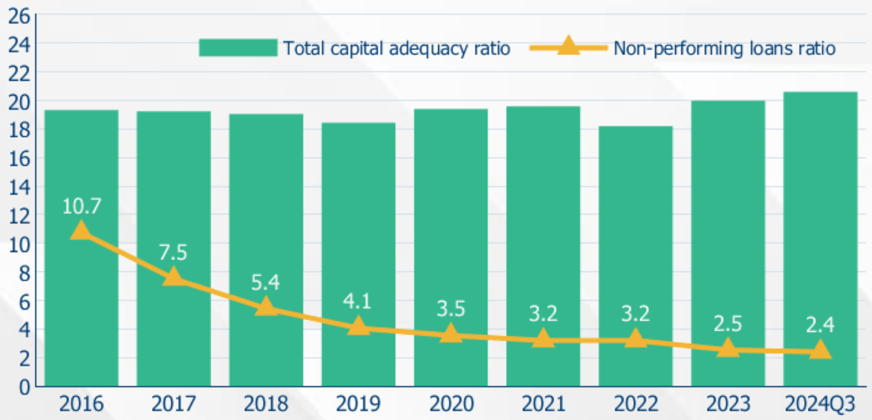
- **Hungarian banking system is among the strongest in the EU**, underpinned by robust capital and liquidity ratios
- **The quality of Hungarian banks' loan portfolios has been steadily improving since 2016**, as evidenced by a historically low NPL ratio of 2.4% in September 2024
- **Lending activities are projected to rise** from 2025 onward on the back of revived consumer and corporate confidence, falling interest rates and improving growth outlook

Loan-to-deposit ratio
(end of period, %)



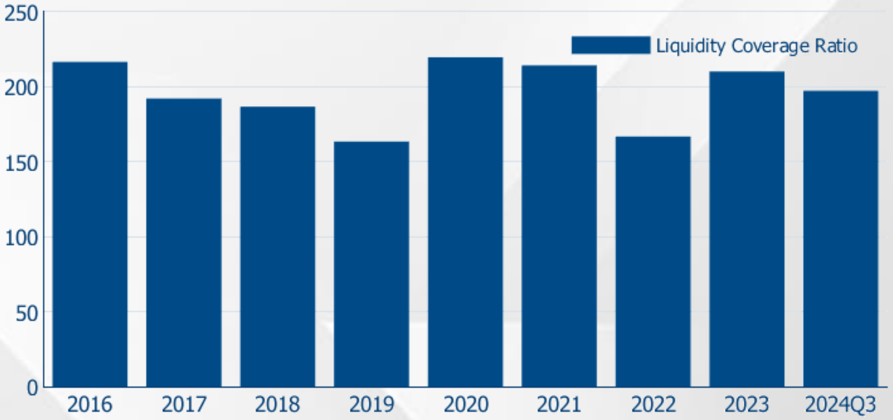
Source: NBH

Total capital adequacy and non-performing loans ratios
(end of period, %)



*Source: NBH / *Preliminary data / Note: NPLs are loans at least 90 days overdue*

Liquidity coverage ratio
(end of period, %)

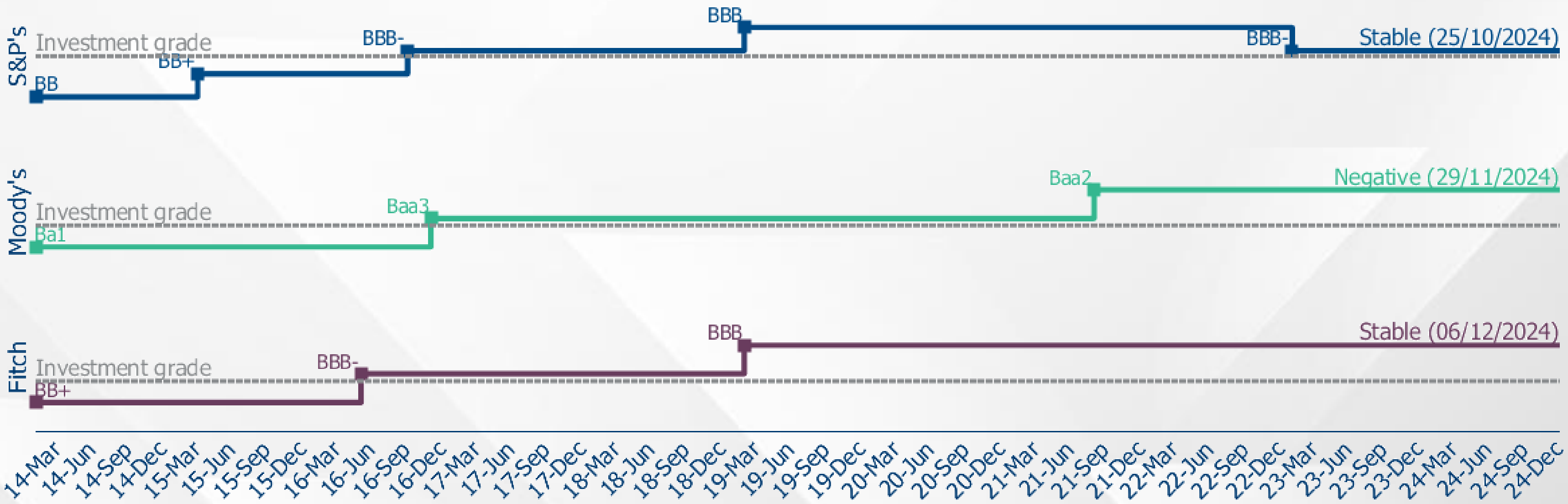


Source: NBH

STRONG FUNDAMENTALS CATALYSED HUNGARY'S RESILIENCE IN THE FACE OF GLOBAL BACKDROPS

Evolution of Hungary's ratings [1]

- **Since 2014, Hungary's credit ratings have improved substantially across all 3 agencies and reverted to investment grade territory**
- **Robust fundamentals have allowed Hungary to remain in the investment grade territory** throughout the Covid-19 crisis and ongoing global macroeconomic pressures arising from the Ukraine – Russia conflict
- In 2024, Moody's has revised Hungary's outlook from stable to negative while **Fitch revised Hungary's outlook from negative to stable**
- Hungary's ratings currently stand at BBB- (stable) by S&P, Baa2 (negative) by Moody's, and BBB (stable) by Fitch



Source: NBH / Note: Investment grades are from the broken lines

Note: 1. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organisation. Similar ratings for different types of issuers and on different types of securities do not necessarily mean the same thing. The significance of each rating should be analysed independently from any other rating.

III. EXTERNAL POSITION

HUNGARY'S EXTERNAL ACCOUNTS – RAPID IMPROVEMENT IN EXTERNAL BALANCE AMID RESILITENT FDI FLOWS

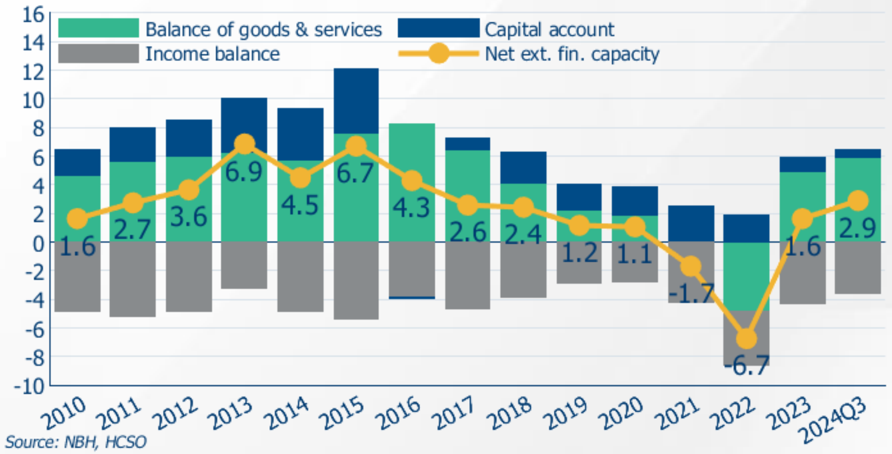
Key highlights

- **The current account posted a surplus of EUR 1.4 billion in 2023**
  - Energy trade deficit decreased to EUR 9.2 billion in 2023
  - The improvement in the external balance position has been driven by significantly lower energy prices compared 2022, the adjustment of energy consumption, declining import intensity and growing value of exports
- **The current account posted a surplus of EUR 5.2 billion in the first three quarters of 2024**
  - Energy trade deficit dropped from EUR 7.0 billion in the first three quarters of 2023 to EUR 5.0 billion in the corresponding period of 2024

Source: NBH, HCSO

Net external lending components and position

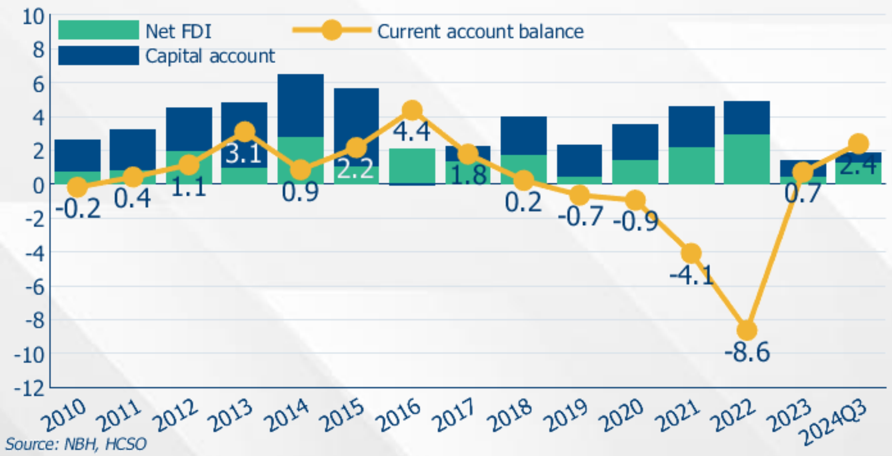
(% of GDP, four quarter rolling data)



Source: NBH, HCSO

Net external lending position

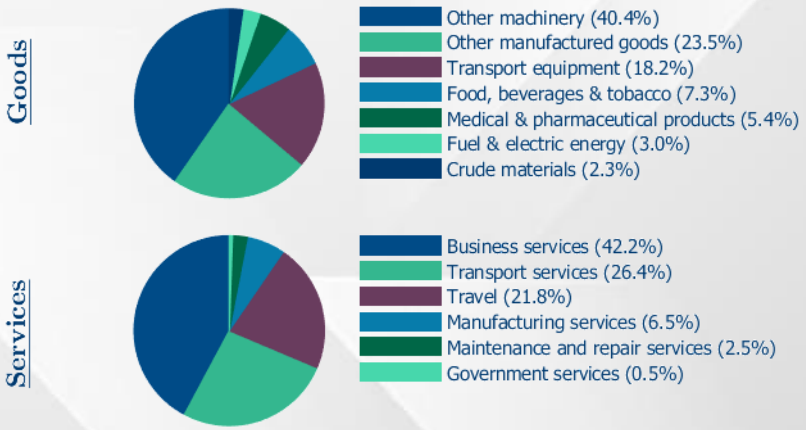
(% of GDP, four quarter rolling data)



Source: NBH, HCSO

2023 export - structural breakdown

(EUR millions)



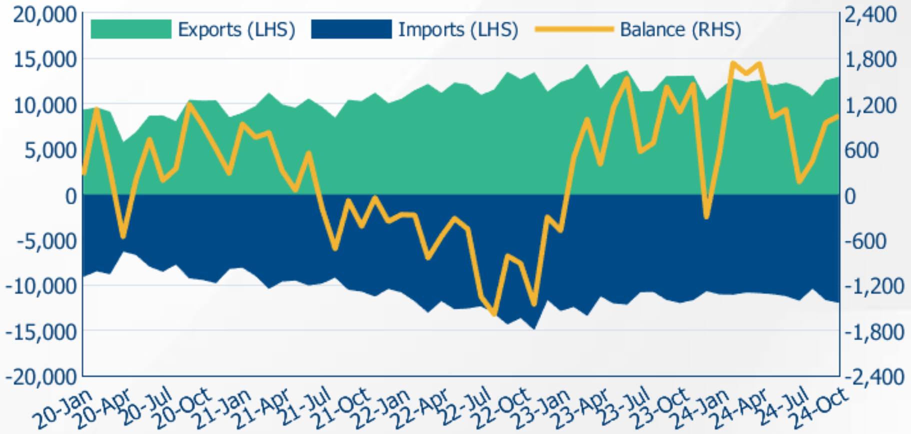
Source: HCSO

EXTERNAL TRADE POSTING A SIGNIFICANT SURPLUS

Key highlights

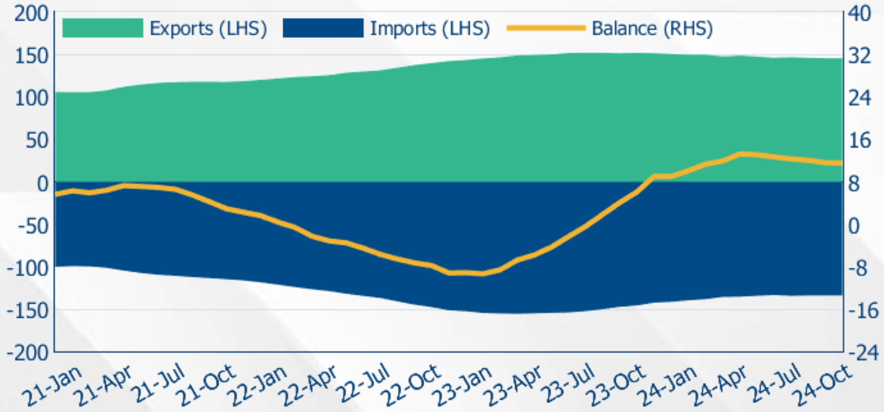
- **In 2023, external trade posted a surplus**
  - External trade posted a surplus of EUR 9.0 billion during 2023; the deficit in case of fuels and electric energy amounted to EUR 9.2 billion
- **The external trade surplus amounted to EUR 10.4 billion in the first ten months of 2024**
  - External trade deficit in case of fuels and electric energy amounted to EUR 5.6 billion in the first ten months of 2024

External trade balance
(Monthly data, EUR millions)



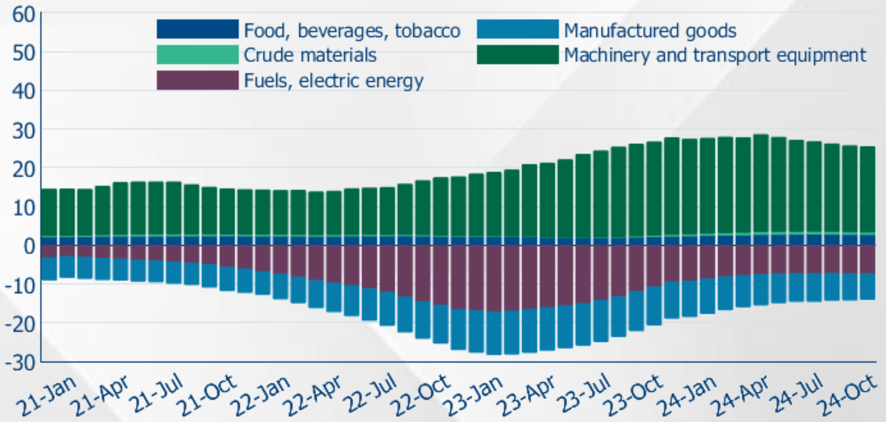
Source: HCSO

External trade
(Twelve-month rolling data, EUR billions)



Source: HCSO

External trade balance breakdown
(Twelve-month rolling data, EUR billions)



Source: HCSO

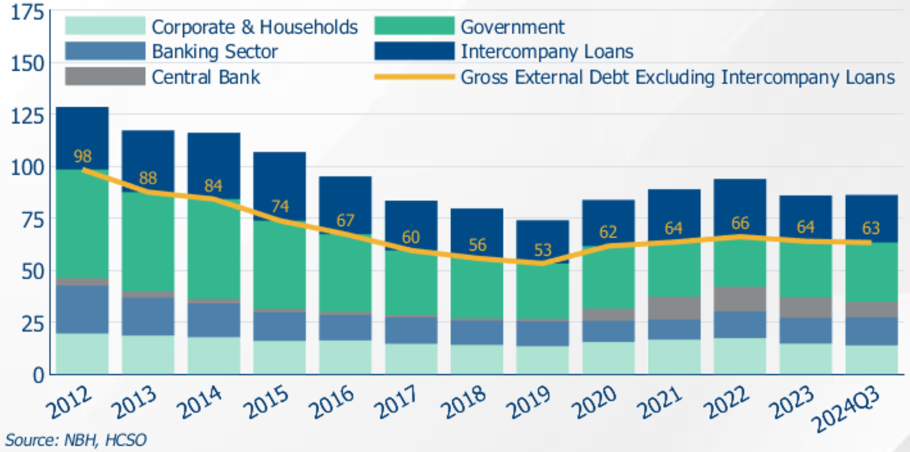
FAVOURABLE EXTERNAL DEBT AND FX RESERVES PROFILE

Key highlights

- **External debt indicators**
  - Gross external debt excluding intercompany loans amounted to 53% of GDP in 2019
  - Increased to 66% in 2022
  - Decreased to 63% as of September 30, 2024 (the latest available data)
- **International reserves remain high and continue to considerably exceed the level considered safe under the Guidotti-Greenspan rule***
  - Hungary's FX reserves to short-term debt ratio has been above 1.0x since 2012
  - FX reserves amounted to EUR 46.3 billion on 30 November 2024

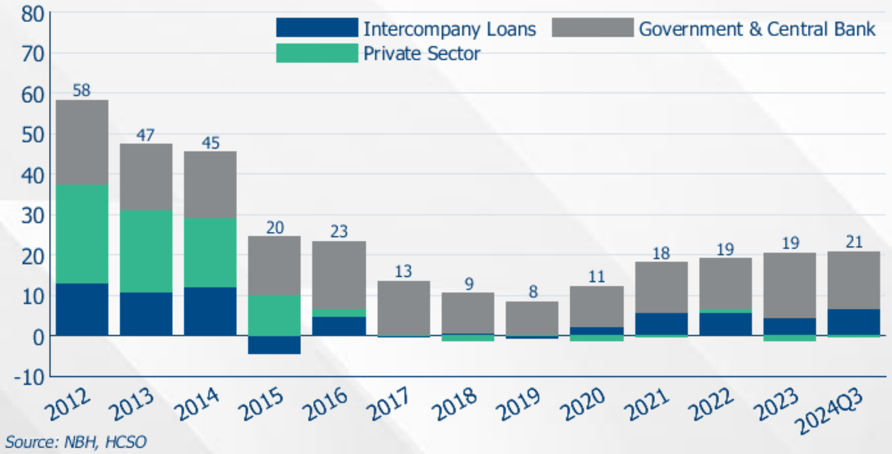
*Source: NBH *Note: The Guidotti–Greenspan rule states that a country's reserves should equal short-term external debt (one-year or less maturity), implying a ratio of reserves-to-short term debt of 1*

Gross external debt
(% of GDP, excluding special purpose entities four quarter rolling data)



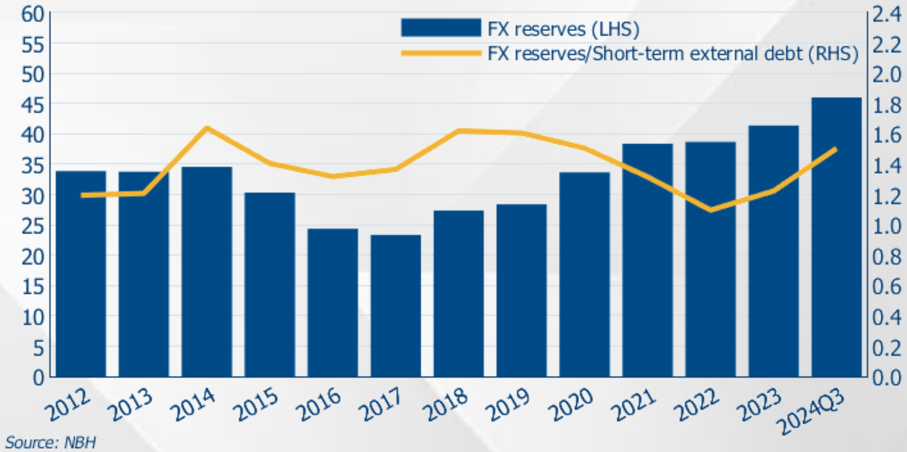
Source: NBH, HCSO

Net external debt
(% of GDP, excluding special purpose entities, four quarter rolling data)



Source: NBH, HCSO

International reserves level
(EUR billions)



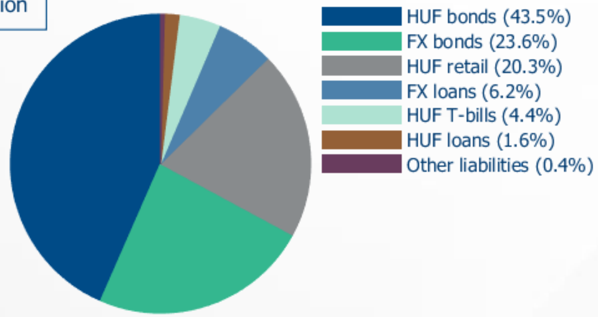
Source: NBH

IV. EFFECTIVE DEBT MANAGEMENT

HUNGARY BENEFITS FROM A FAVOURABLE DEBT PROFILE

Hungary's central government debt breakdown
(31 December 2024, % of total)

Total debt:
HUF 55,479 billion



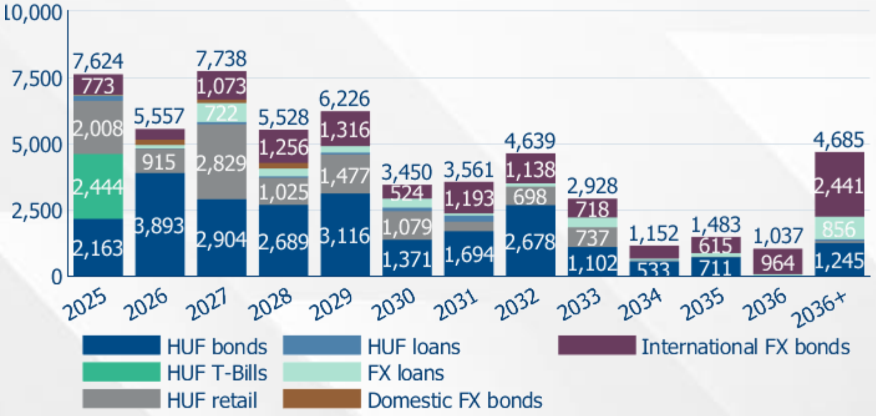
Source: AKK; Note: Central government debt, including MTM and Repo deals

Key targets and characteristics of Hungary's government debt

	2024 benchmark targets		31 December, 2024 figures
Share of FX debt	Maximum 30%	✓	29.4%
Currency mix of the FX debt (after swaps)	100% in EUR (with a 5% deviation allowed)	✓	100.0%
Average time to maturity	Minimum 5.5 years	✓	5.8 years
Average time to re-fixing	Minimum 4 years	✓	4.7 years
Share of debt with a fixed coupon	Between 60% and 80%	✓	67.8%
Share of retail debt	Between 20% and 25%	✓	21.0%
Share of green bonds			4.5%

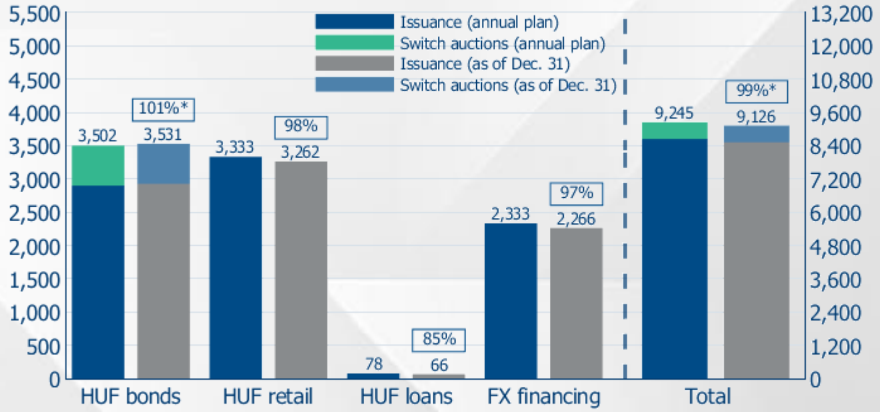
Source: AKK; Note: Central government debt; Benchmark values are 90-day moving averages

Hungary's government debt redemption profile
(31 December 2024, HUF billion)



Source: AKK; Note: Central government debt, excluding MtM, swap and Repo deals

2024 issuance vs current 2024 financing plan
(31 December 2024, HUF billion)



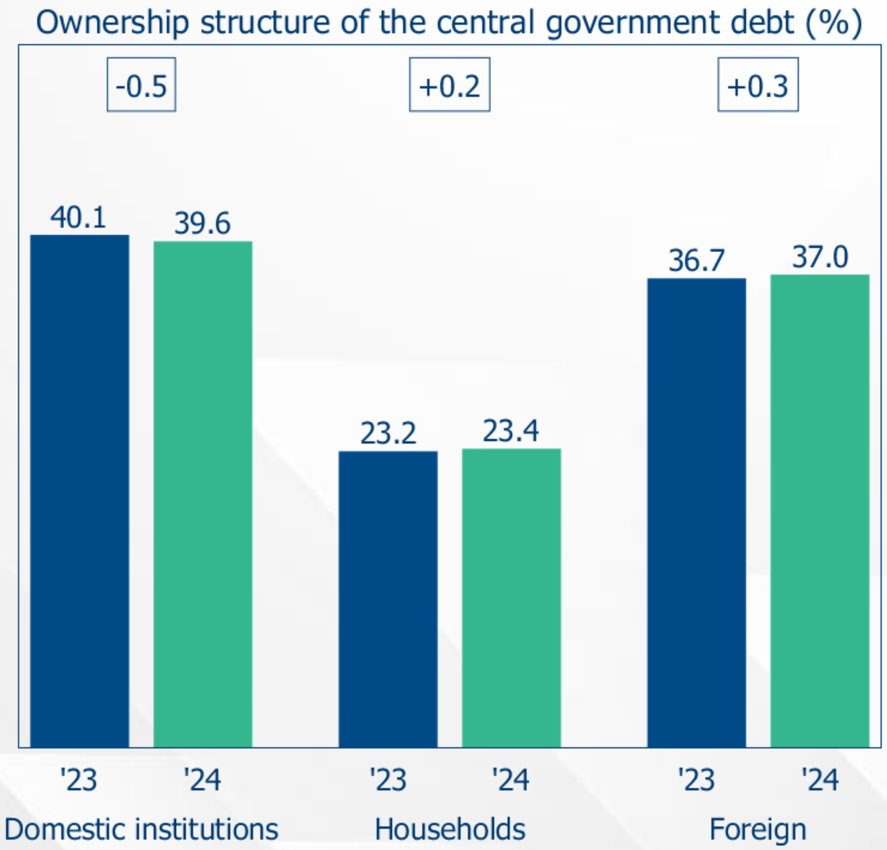
*Source: AKK / Note: Excluding T-bills and ECP. * Excluding switches*

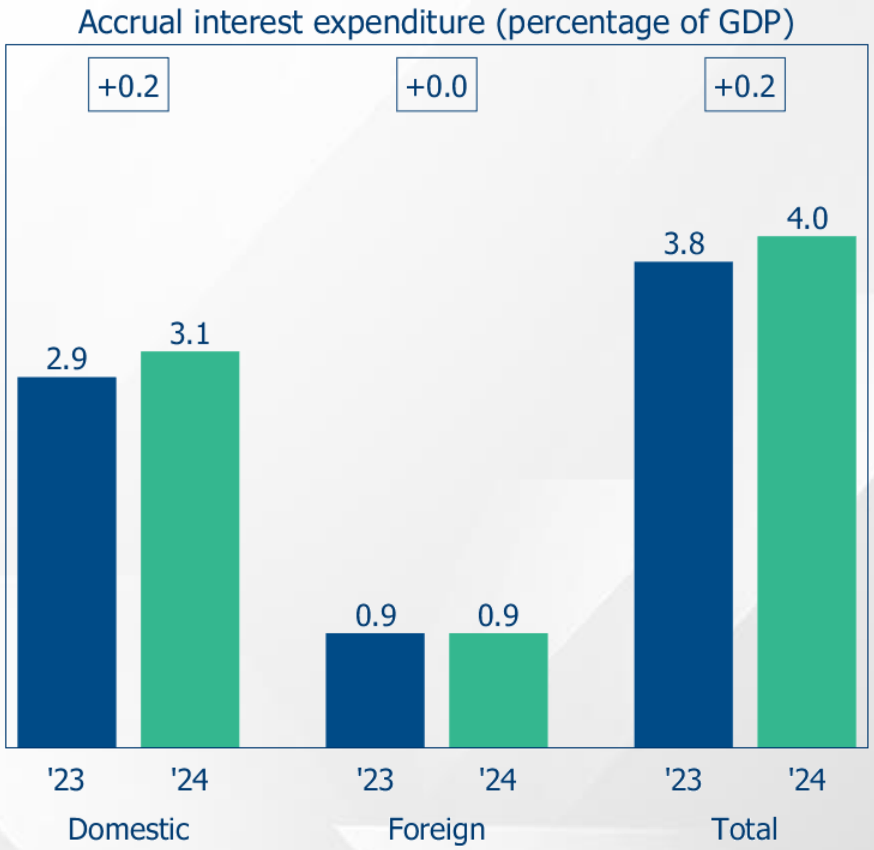
GOVERNMENT DEBT MANAGEMENT IN 2024

HUF Institutional Market	▪ Net positive institutional HUF government bond issuance due to strong market demand. The average term-to-maturity of HUF bond auctions was 7 years. ▪ HUF 603 billion switch auction bond issuance, HUF 316.5 billion switch auction T-Bill issuance at the newly introduced T-Bill switch auctions. ▪ The number of HGB series decreased from 25 to 23, the number of T-Bill series from 18 to 8.
Retail Market	▪ Development of the online sales platforms Webkincsár and Mobilkincstár. The share of online sales increased by 3.3 percentage points in the Hungarian State Treasury (to 66.8%), and increased by an average of 2.3 percentage points in the banks (to 21.6%). ▪ Introduction of the 3-year fixed interest rate Fix Hungarian Government Security and the 5-year Bonus Hungarian Government Security with a loyalty premium; Re-pricing of the Hungarian Government Security Plus; discontinuation of the 1-year Hungarian Government Security. ▪ The number of accounts of retail government securities holders in the Hungarian State Treasury increased by 37,000, while it decreased by a total of 40,500 in the banks. ▪ Net retail financing is expected to be 1.5% of GDP, compared to the target of 2% of GDP.
FX	▪ Successful USD bond issuance amounting to USD 2.5 billion (with a bid-to-cover ratio of 2.2), and a green EUR bond issuance amounting to EUR 1.5 billion (with a bid-to-cover ratio of 3.5) in January. ▪ Successful issuance of Samurai bonds amounting to JPY 39.6 billion in September. ▪ Reduced FX financing compared to plan in the second half of the year with respect to the 30% FX benchmark ratio.
ESG	▪ Refinanced green expenditures meet the EU Taxonomy's substantial contribution criteria in the published 2023 Green Bond Integrated Report. ▪ Issuance of HUF 114 billion of green Hungarian government bonds.

Note: *Data presented on this slide reflect latest available data therefore may differ from data presented in Hungary's 2025 Financing Plan: https://akk.hu/content/path=FINPLAN2025.*

INCREASING INTEREST EXPENDITURES, MOSTLY PAID TO DOMESTIC INVESTORS

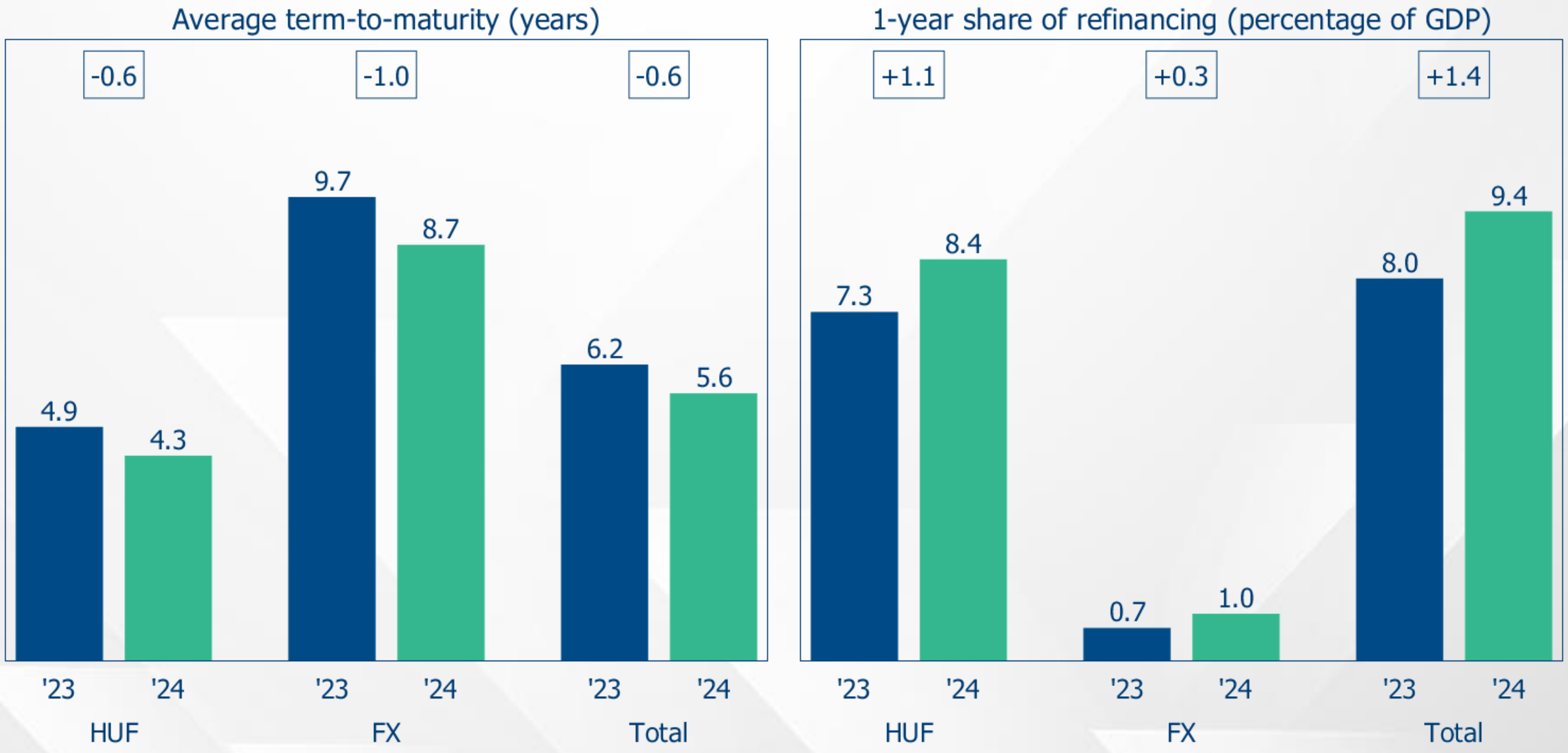




Source: AKK, NBH; Note: Interest expenditure - Factual end-2023 and end-2024 values; Ownership structure - end-2023 and end-2024 values

Note: *Data presented on this slide reflect latest available data therefore may differ from data presented in Hungary's 2025 Financing Plan: https://akk.hu/content/path=FINPLAN2025.*

DECREASING TIME TO MATURITY, INCREASING SHARE OF REFINANCING



Source: AKK; Note: Factual end-2023 and end-2024 values

Note: *Data presented on this slide reflect latest available data therefore may differ from data presented in Hungary's 2025 Financing Plan: https://akk.hu/content/path=FINPLAN2025.*

DEMAND ON THE LOCAL WHOLESALE MARKET IS STEADILY STRONG

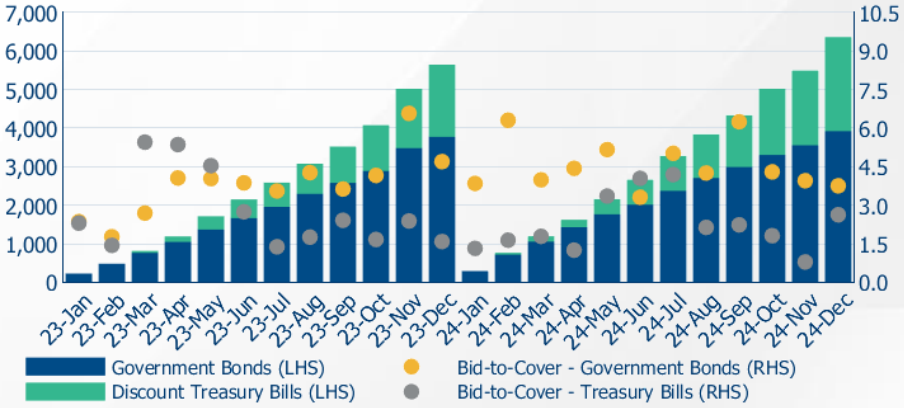
ÁKK

Key highlights

- To ensure simplicity and transparency, AKK issues standard debt instruments according to a fixed annual calendar published in advance
- **Primary auctions, as well as switch and buyback operations, help support a balanced bond issuance pattern,** manage the redemption profile and reduce refinancing risk
  - In 2024, HUF 600 billion switch auction programme with the goal of smoothing maturity profile
- **Switch auctions for T-bills starting mid-May 2024**
- Decreasing the number of outstanding series of institutional HGBs and T-Bills by 2 and 10, respectively in 2024
- **New HUF Institutional Government Bond Strategy** was introduced in 2024 with the aim of supporting secondary market liquidity and extending the maturity of debt portfolio

Source: AKK

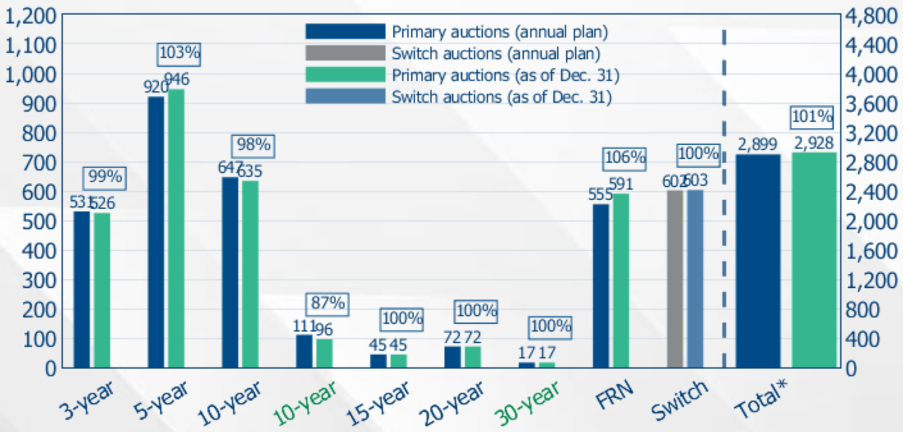
Cumulative monthly debt securities issuance and the ratio relative to the planned amount (left-hand scale: HUF billion)



Source: AKK; Note: Government Bonds excluding repo transactions, Discount Treasury Bills according to OECD methodology

Government bond issuance on auctions by tenor

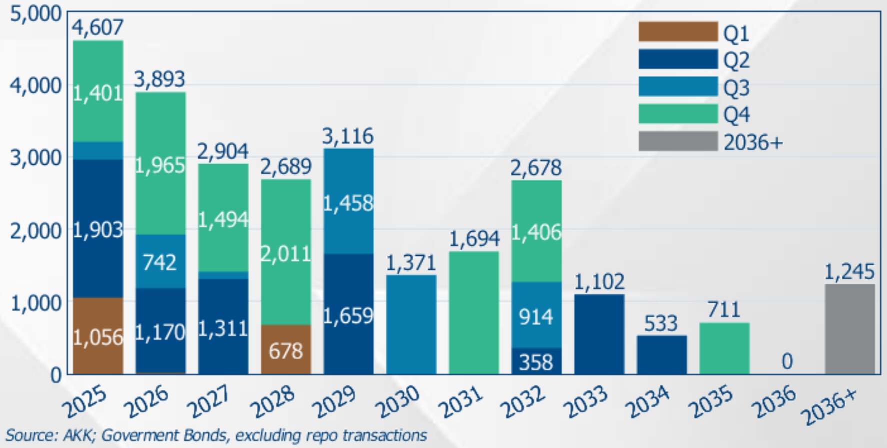
(2024 issuance vs current 2024 financing plan excluding municipal bond sales, HUF billion)



*Source: AKK; *Total primary auction issuance*

Redemption profile of wholesale government securities

(as of 31 December 2024, HUF billion)



Source: AKK; Goverment Bonds, excluding repo transactions

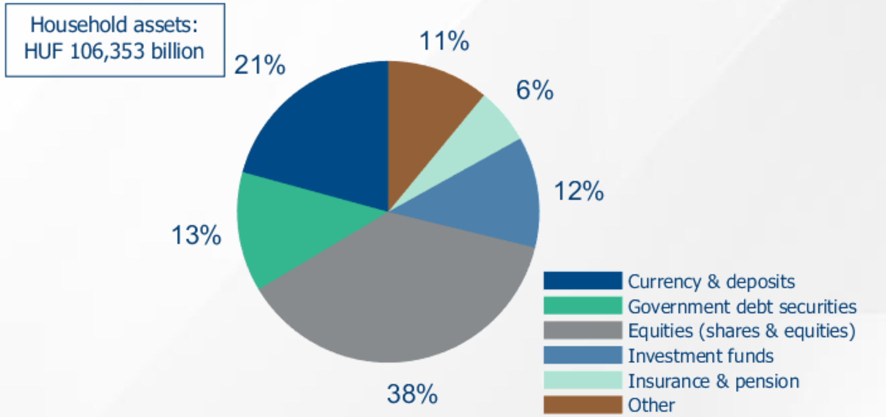
LOCAL RETAIL MARKET IS AN IMPORTANT FUNDING TOOL

Key highlights

- **The retail debt programme is an important financing channel for the** Government, with an outstanding amount of HUF retail securities at HUF 11,263 billion as of 31 December 2024, and a share of 21% within the total debt
- **PMÁP** (inflation-linked retail security) **became the flagship product over 2023 consequently to the elevated inflation rates**
- In 2024**, FixMÁP (3-year, fixed coupon security) complemented the retail portfolio** and gained high popularity
- The **Retail Government Securities Strategy was updated** in 2024, with the aim of **maintaining 20-25% market share, increasing the number of retail customers and enhancing financial awareness**
- AKK continuously monitors market conditions and takes them into account when pricing retail securities and determining the sales cap applied to retail securities in order to meet strategic goals

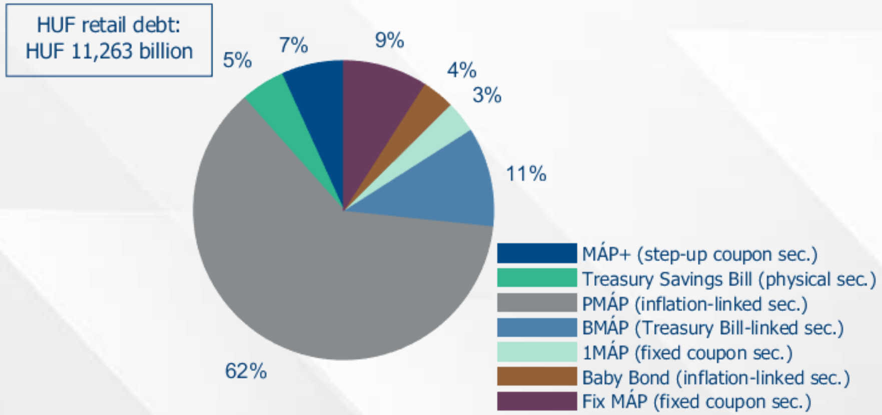
Source: AKK

Households asset structure
(Non-consolidated data, Q3, 2024, % of total)



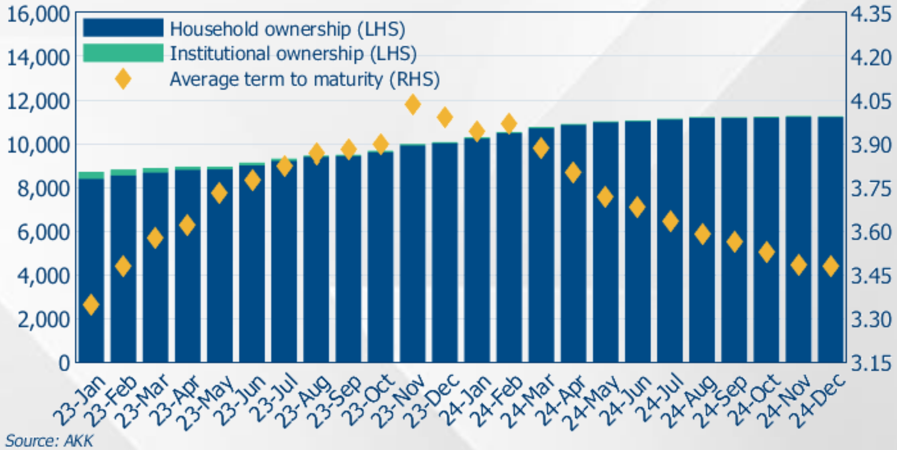
Source: NBH

HUF retail portfolio by instrument
(31 December 2024, % of total)



Source: AKK

HUF retail securities
(HUF billion and years)



Source: AKK

HUNGARY'S EXPOSURE TO INTERNATIONAL MARKETS IS CAREFULLY MANAGED

ÁKK GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.

Key highlights

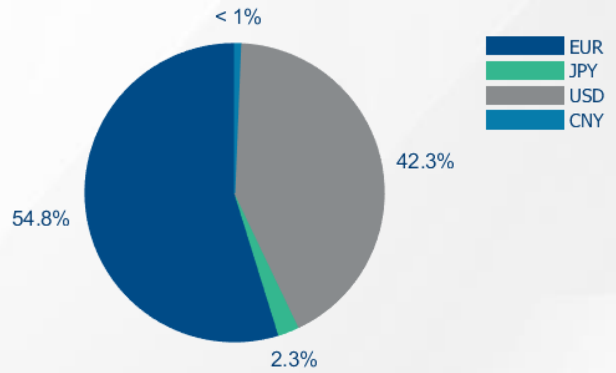
- **The share of Hungary's government debt in foreign currency remains contained.** Hungary intends to maintain its presence on international capital markets to ensure diversification of funding sources
- **FX debt is mainly denominated in EUR and USD,** and all non-EUR proceeds are swapped into EUR, resulting in a 100% EUR FX debt portfolio
- **Effective debt management has led to record low amounts of FX bonds maturing in 2025 and 2026** partially thanks to buybacks of short-term USD bonds through tenders and OTC transactions
- **Hungary issued FX green bonds in key foreign currencies**
- **Besides project finance and revolving facilities, Hungary established a Euro Commercial Paper Programme** in July 2023 to manage short-term FX liquidity

Source: AKK

FX debt composition by currency before swaps

(31 December 2024, % of total)

Total FX debt[1]: EUR 41.3 billion

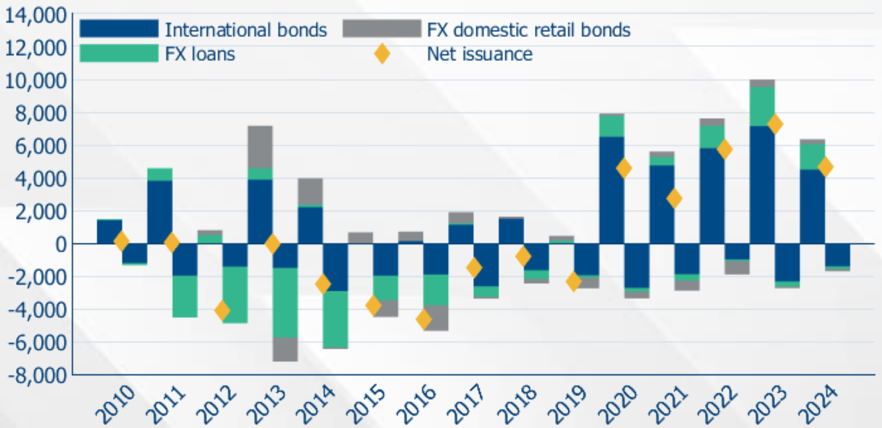


Source: AKK; Note: composition of the FX central government debt portfolio before swaps

[1] Excluding CCIR swaps; total FX debt including CCIR swaps amounted to EUR 40.4 billion

FX redemption, issuance & net issuance

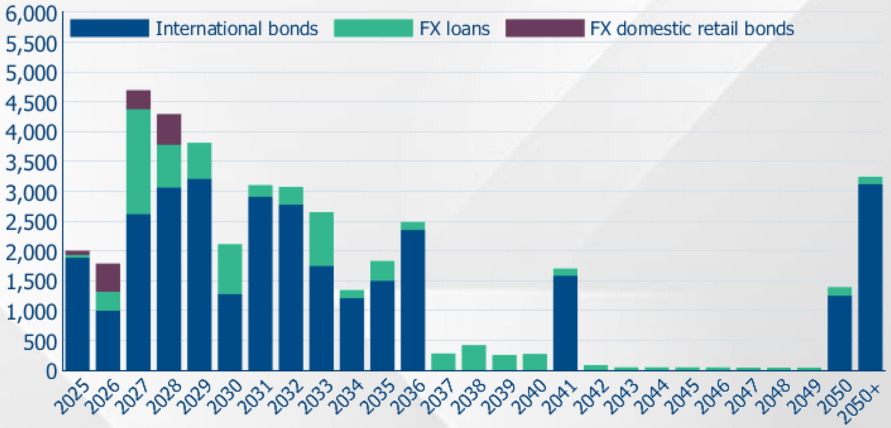
(31 December 2024, EUR million)



Source: AKK; Note: Central government debt

Maturity profile of FX debt

(31 December 2024, EUR million)



Source: AKK; Note: Central government debt

V. FINANCING PLAN

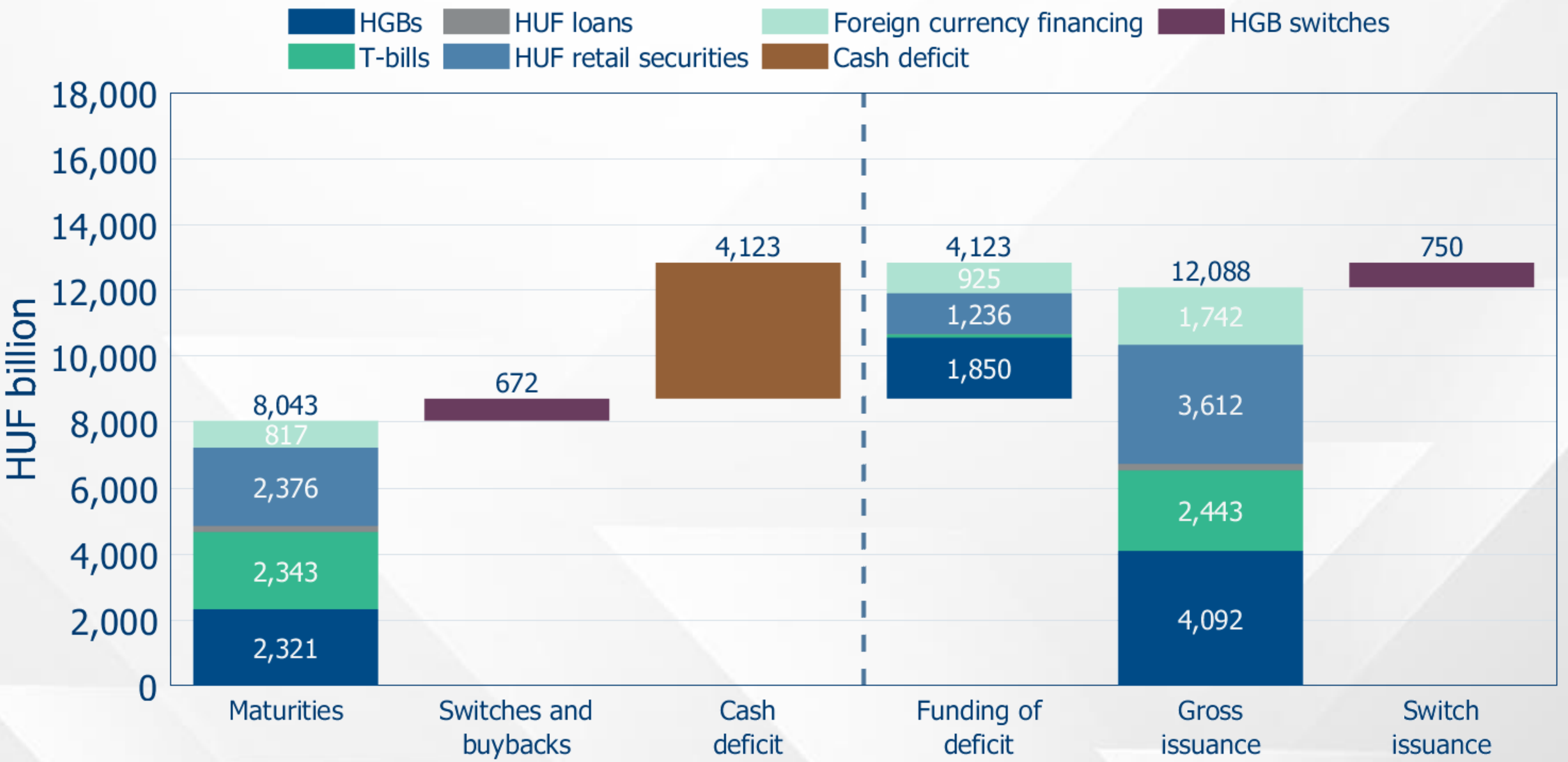
GOALS OF GOVERNMENT DEBT MANAGEMENT IN 2025

In 2025, the total net financing requirement of the central budget is HUF 4,123 billion based on the submitted and approved 2025 Budget. The gross government security issuance and borrowing is expected to be HUF 12,838 billion (including switch auctions) compared to the HUF 13,630 billion average gross government borrowing volume in the last 5 years. Net issuance is expected to be HUF 4,123 billion.

Benchmark Targets	▪ The benchmark indicators regarding the composition of government debt remain unchanged for 2025.
HUF Institutional Market	▪ HUF 1,850 billion net institutional bond issuance with an average term-to-maturity of 7.5 years. ▪ HUF 750 billion switch auction programme. ▪ Supporting secondary market liquidity by further reducing the number of outstanding institutional government bond series. ▪ Flexible auction calendar: additional bond series announced every two weeks based on market demand.
Retail Market	▪ Increasing the number of retail customers. ▪ Further increasing the share of online account openings and online sales, especially in banks. ▪ Introduction of a government securities switch function on the Webkincstár and Mobilkincstár platforms. ▪ Net retail financing equal to 1.5% of GDP.
FX	▪ International FX bond issuance of up to EUR 2.5 billion, of which EUR 1 billion is in green format. ▪ Panda bond issuance on the Chinese market.
ESG	▪ Issuance of HUF 200 billion green Hungarian government bonds and EUR 1 billion green Eurobonds. ▪ Broadening the investor base, securing and strengthening international market presence.

Note: *Data presented on this slide reflect latest available data therefore may differ from data presented in Hungary's 2025 Financing Plan: https://akk.hu/content/path=FINPLAN2025.*

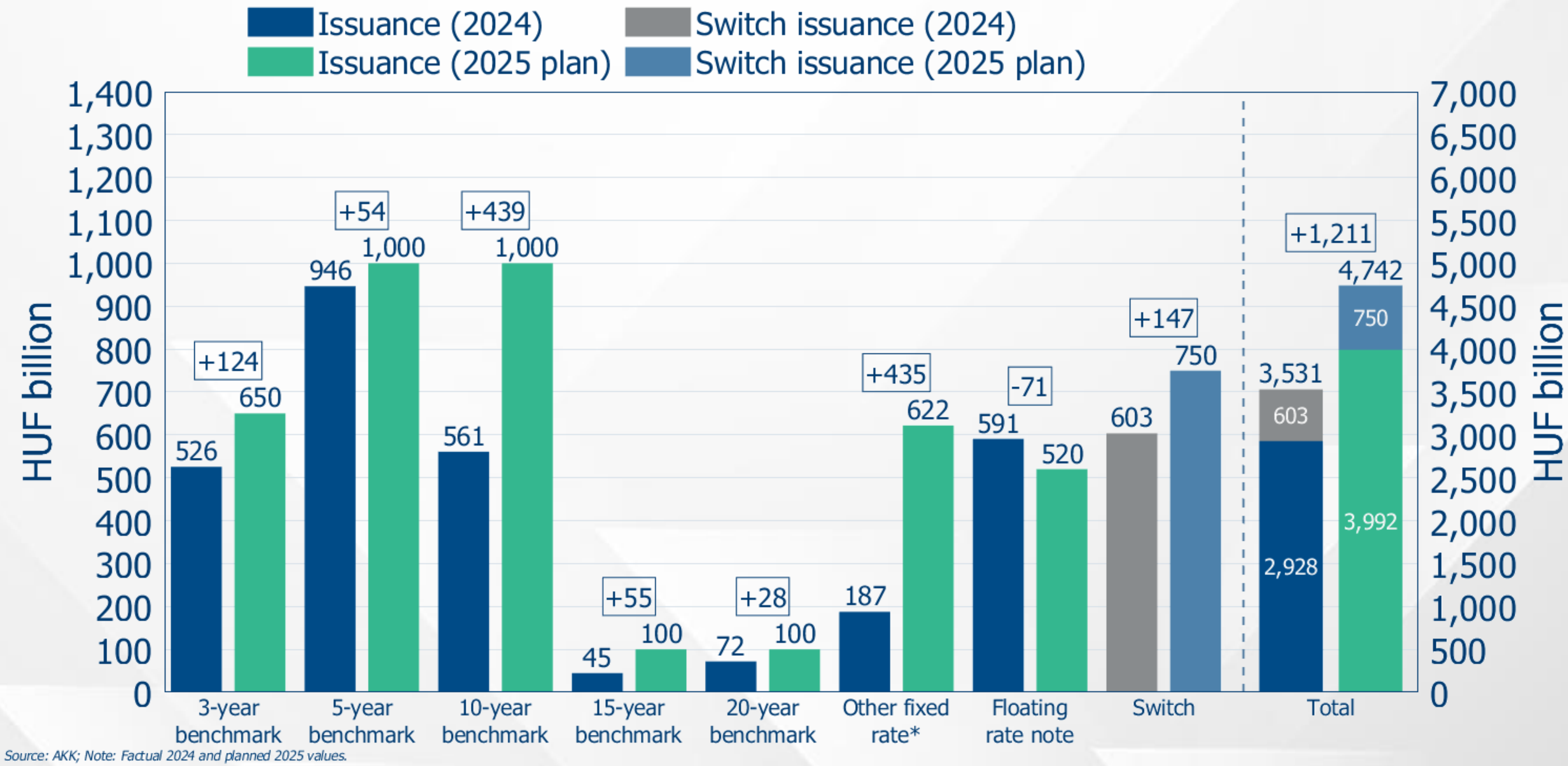
2025 FINANCING PLAN



Source: AKK; Note: transactions based on nominal values

The total net financing requirement in 2025 is HUF 4,123 billion, financed by a net issuance of HUF 4,123 billion. The total net issuance of retail government securities is HUF 1,323 billion, of which HUF 87 billion is in the foreign currency financing category.

PLANNED VOLUME OF HUF WHOLESALE BOND ISSUANCES

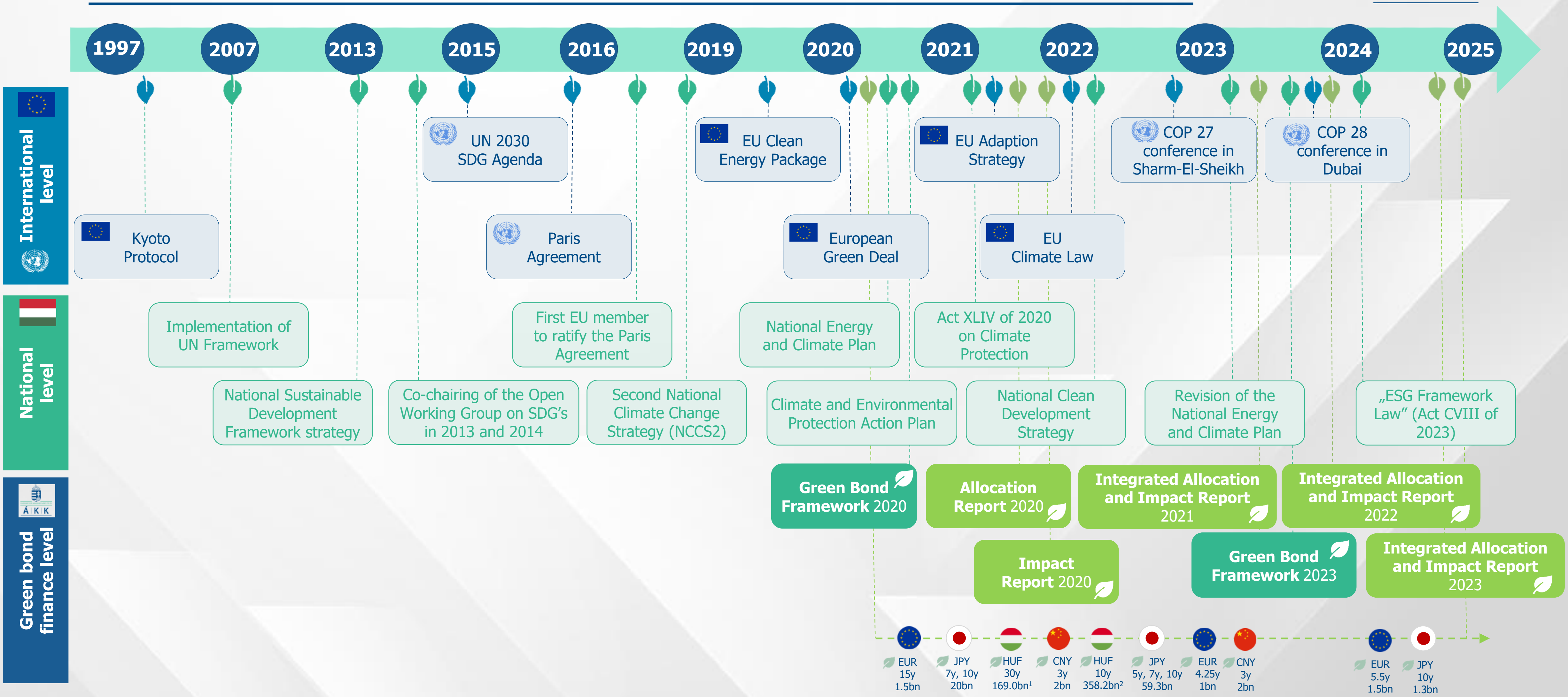


Source: AKK; Note: Factual 2024 and planned 2025 values.
*Other fixed rate: additional bond series announced every two weeks based on market demand (including even green bonds or non-benchmark bonds).

Note: *Data presented on this slide reflect latest available data therefore may differ from data presented in Hungary's 2025 Financing Plan: https://akk.hu/content/path=FINPLAN2025.*

VI. ESG

PROTECTING THE ENVIRONMENT IN ACCORDANCE WITH INTERNATIONAL AND NATIONAL REGULATIONS



Notes:

1: Total outstanding HUF (as of 31/12/2024). Date of first issuance in 28/04/2021. Tapped on multiple auctions between 28/04/2021 – 31/12/2024.

2: Total outstanding HUF (as of 31/12/2024). Date of first issuance in 26/01/2022. Tapped on multiple auctions between 26/01/2022 – 31/12/2024.

Hungary ESG profile: https://akk.hu/download?path=5da68682-3856-411d-a5aa-95e4024f7bbc.pdf

COMMITMENTS TO REACH THE EU AND INTERNATIONAL ENVIRONMENTAL TARGETS

National Clean Development Strategy

Long term goal

- This strategy aims to achieve **climate neutrality by 2050**
- To achieve this target, the additional annual investment need accounts for 4.8% of the GDP (early action scenario)

National Climate Change Strategy (NCCS2)

Near term goal

- This strategy consists in a **comprehensive framework** of **targets and policies** on climate and green economy development
- Focuses on 4 pillars for the 2018 – 2030 period

Four key pillars	
Decarbonisation	▪ Replacement of fossil fuel energy carriers ▪ Increase in energy efficiency ▪ Reducing natural resources consumption
Analysis of climate vulnerability	▪ Development of vulnerability methodologies ▪ Promoting climate-related research projects
Adaptation	▪ Preservation of natural resources ▪ Adaptation of vulnerable regions and sectors
Partnership for climate	▪ Horizontal integration in public administration ▪ Awareness-raising in the Education

Other relevant strategies

- **National Energy and Climate Plan**
- **National Energy Strategy 2030**
- **Climate and Environmental Protection Action Plan**
- **Long Term Renovation Strategy**
- **National Hydrogen Strategy**
- **National Forest Strategy**
- **3rd National Biodiversity Strategy**
- **Jenő Kvassay Plan (JKP) – National Water Strategy**
- **5th National Environmental Protection Program**

HUNGARY'S PATHWAY TO CLIMATE NEUTRALITY

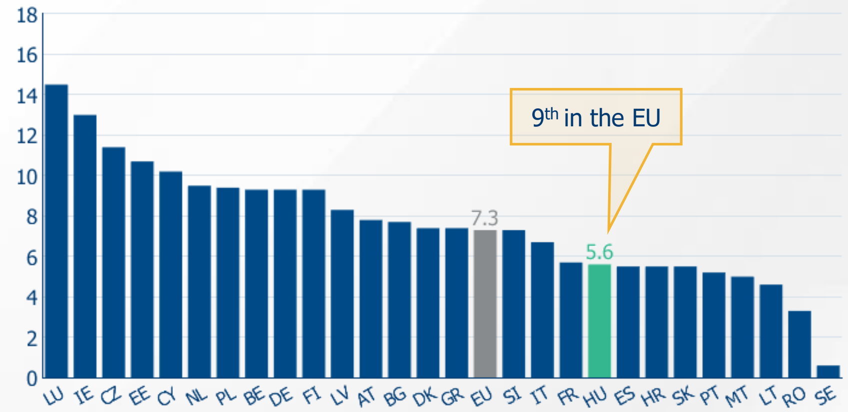
GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.
ÁKK

Key highlights

- Hungary was **among the first countries globally to turn its 2050 emissions target into a legal commitment** with the adoption of the Climate Protection Law in 2020
- As part of the EU's 2030 Climate and Energy Framework, by 2030, **Hungary's plans to reduce its overall GHG emissions by 50%**
- In 2022, Hungary's **GHG emission rate** (t/capita) was **below the EU average** (**9th lowest** in the EU)
- Hungary **reduced** its **greenhouse gas emissions** (t/capita) by **37%** between 1990 and 2022 (excluding LULUCF)
- In 2022, the highest contribution to net GHG emissions in Hungary came from **transport sector**, followed by the **building sector**, and the **energy sector**

Net greenhouse gas emission

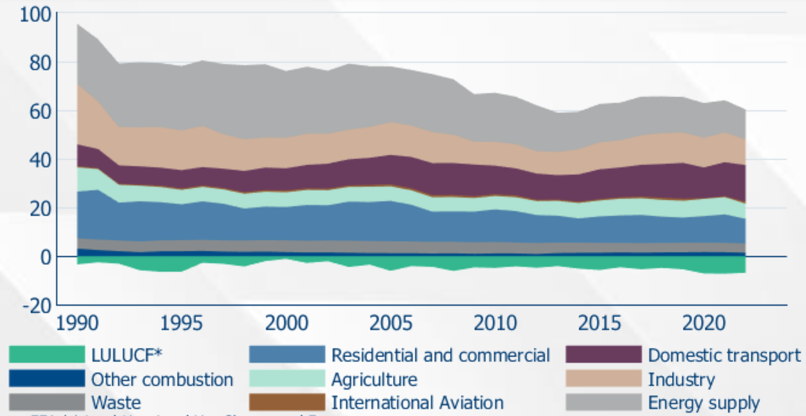
(t/capita), 2022



Source: Eurostat

GHG emission by sector

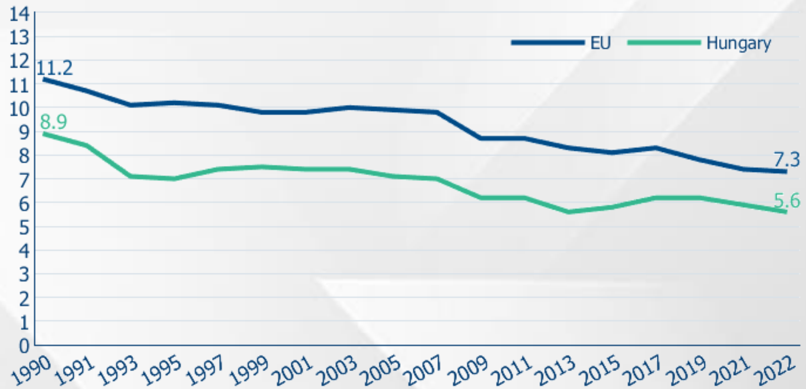
(million tonnes, CO_2 equivalent), 1990-2022



*Source: EEA / * Land-Use, Land-Use Change and Forestry*

Historical net greenhouse gas emission

(t/capita), 1990-2022



Source: Eurostat

Source: *Climate Action Progress Report 2023*

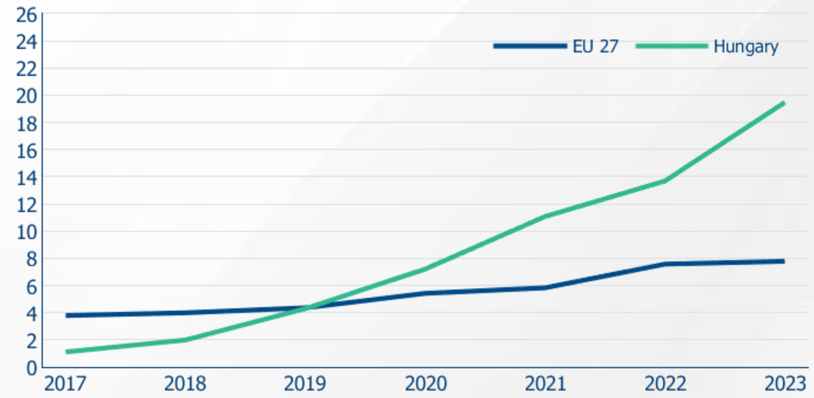
AMBITIOUS PLANS AND ACHIEVEMENTS IN THE ENERGY SECTOR TO REACH CLIMATE NEUTRALITY

Key highlights of energy sector

- The **National Energy Strategy 2030** with an outlook to 2040 and the **National Energy and Climate Plan (NECP)** aims to reduce the import of fossil fuels and to strengthen Hungary's energy independency
- **REPowerEU** and other **programmes** (e.g. KEHOP Plus, TOP plus) contribute to achieve these objectives
- In 2024, **Hungary reached 6,000 MW** (previously targeted for 2030) **of total solar energy capacity,** new target for 2030 is **12,000 MW**
- **Leadership** in the EU regarding solar **PV share** in electricity output
- Since 2000, **the share of renewables in primary energy consumption has increased significantly**
- The change in the energy mix represents the **first results of the Government's ambitions to** increase the share of renewables in power and heat generation and to decrease natural gas consumption

Solar PV share of net total electricity generation

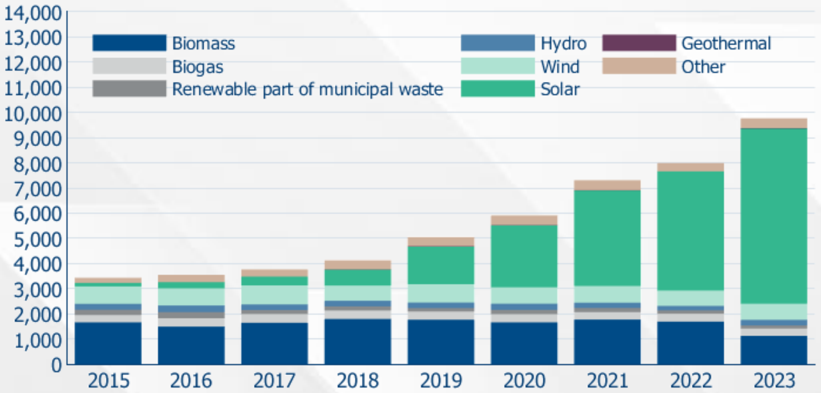
(gigawatt-hour), 2017-2023



Source: Eurostat

Gross renewable electricity production

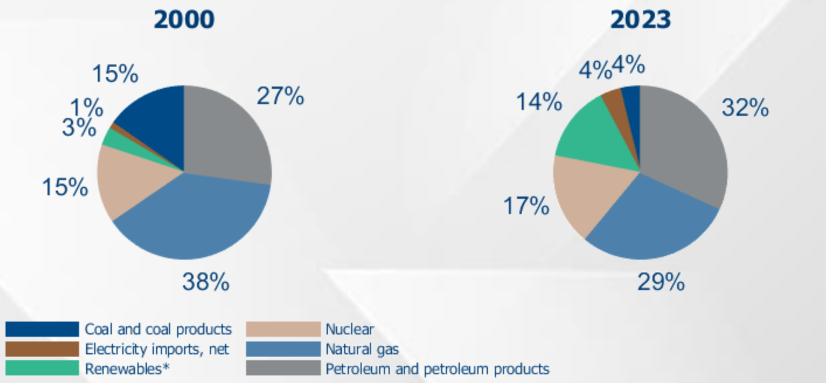
(gigawatt-hour), 2015-2023



Source: HCSO / Note: Preliminary data for 2023

Structure of primary energy consumption

(percentage)



*Source: HCSO / *Ind. combustible and non-combustible renewables, wastes, wind and hydro. Note: Preliminary data for 2023*

Source: *National Energy and Climate Plan, Ministry of Energy*

HUNGARY IS DIVERSIFYING ITS SOURCES OF NATURAL GAS SUPPLY FOR ENERGY INDEPENDENCE AND SAFETY

ÁKK – Government Debt Management Agency Pte Ltd.

Key highlights

- Natural gas used in Hungary is approx. **8-9 bn m³/year**
  - approx. **75% originates from Russia**
  - approx. **1.5-2 billion m³/year** can be covered from domestic production
- Transmission pipeline system exceeds **5,800 km**
- **5.9 bn m³** of **gas storage** in 2024 October compared to 5.8 bn m³ 2019-2023 average
- **Natural gas interconnectors with all neighbouring countries** (except Slovenia)

Gas consumption

Final consumption of gas by sector in 2022 (%)

- Residential – **52%**
- Industry – **23%**
- Commercial and public services – **17%**
- Non-energy use – **6%**
- Agriculture/forestry/fishing/other non-specified – **2%**

Structure of imported gas

Mainly Russian source

- Serbian-Hungarian interconnectors

Alternative sources

- Croatian-Hungarian interconnectors
- Romanian-Hungarian interconnectors

Capacities

Contracts, agreements, cooperation

- **Hungarian-Russian** long-term gas purchase contract
- **Hungarian-Azerbaijani** gas purchase contract and LNG purchase agreement
- **Hungarian-Croatian** LNG purchase contract
- **Hungarian-Turkish** natural gas transport agreement
- **Hungarian-Qatari** natural gas purchase agreement
- **Hungarian-Turkmen** energy cooperation

Risk mitigation

Increasing energy independence

- **Reduce natural gas in energy mix** (alternatives)
- **Develop electricity production** and **electricity grid**

Diversification of gas supply

- **Hungary can import natural gas** from Slovakia, Austria, Croatia, Serbia, Romania and Ukraine
- The current and planned (Hungarian-Slovenian interconnector) **natural gas pipelines** with neighbouring countries **create opportunities to involve alternative sources** (Azeri, Qatari, Croatian)

Efforts to acquire additional natural gas

- On 25 April 2023, Azerbaijan (SOCAR), Bulgaria (Bulgartranszgaz), Hungary (FGSZ), Romania (Transgaz) and Slovakia (Eustream) signed a memorandum in Bulgaria on the delivery of Azerbaijani natural gas to Central Europe under the **Solidarity Ring** framework
- Based on preliminary assessments, capacity can be upgraded to up to **5 billion m³/year of natural gas** in the short run

Alternative gas sources

- Exploit **alternative natural gas supplies** (domestic production, LNG, other diversified sourcing routes) and utilization of **biogas, biomass, waste and hydrogen** in the energy mix

Source: *Ministry of Energy, HCSO, IEA – International Environmental Agency*

GREENING THE TRANSPORT SECTOR IN ORDER TO CONTRIBUTE TO A GREENER FUTURE

GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.
ÁKK

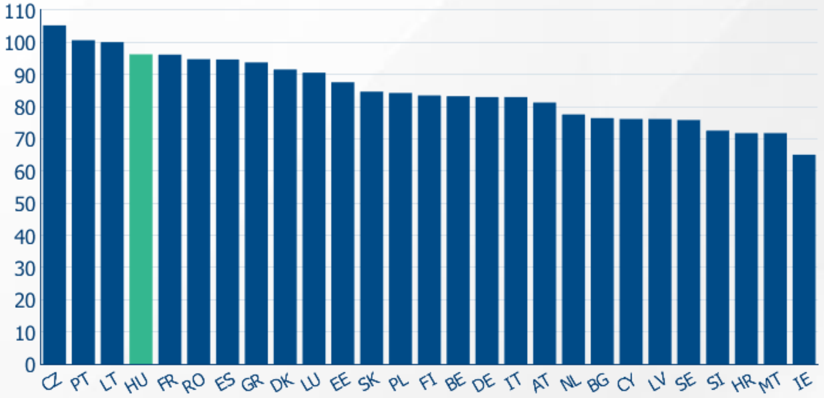
Key highlights of transport sector

- Further **modal shift from passenger cars and freight transport to public transport is encouraged**, which underpins high share of spending from proceeds obtained by issuing Green Bonds
- The country promotes the use of **alternative** (e.g. electric) **vehicles**
- According to the **National Energy and Climate Plan**: „To reduce increasing energy consumption in transport, it is essential to develop and increase the use of public transportation"
- The **Green Bus Program** aims to integrate electric buses into local transport with the implementation of Pilot Projects
- **As of 2023, 45.5%* of the operated railway network was electrified,** which is expected to further increase in the future years

*Source: HCSO, National Energy and Climate Plan; * Note: preliminary data for 2023*

Volume of passenger transport relative to GDP

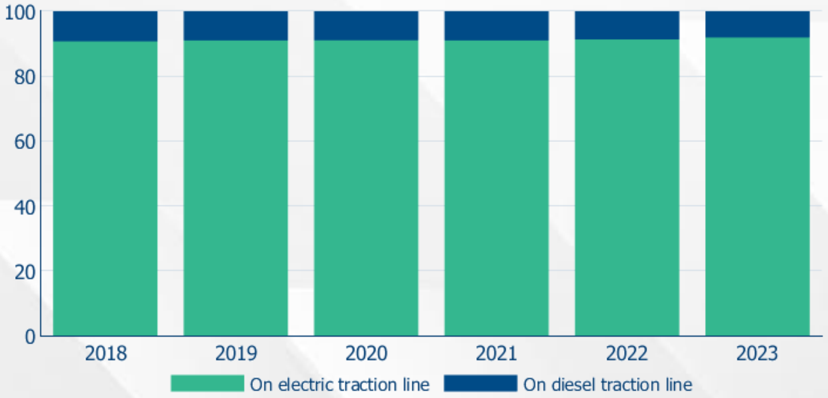
(percentage, index 2015=100), 2022



Source: Eurostat

Passenger-kilometre on the operated rail network

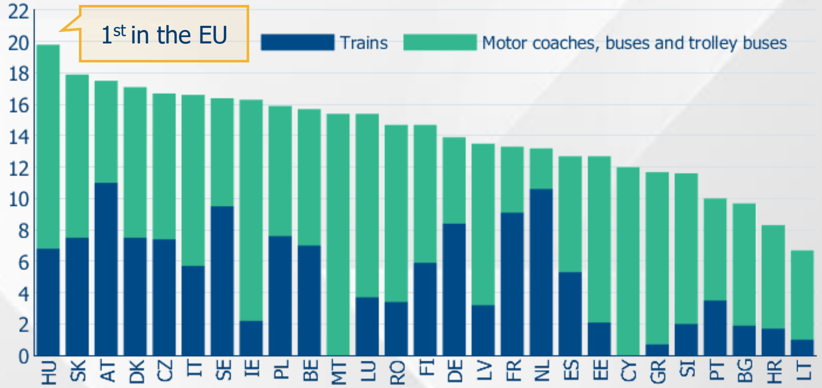
(%), 2018-2023



Source: MÁV-START Zrt., GYSEV Zrt.

Modal split of inland passenger transport

(percentage), 2022



Source: Eurostat

FOSTERING SUSTAINABILITY IN INDUSTRY AND IN RESIDENTIAL AND COMMERCIAL SECTOR

Key highlights of industry sector

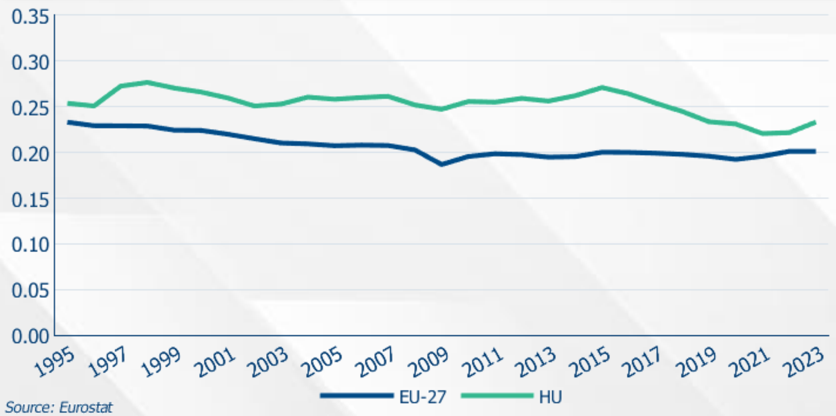
- Total industrial sales are dominated by manufacturing
- Approaches to reduce GHG emission include:
  - Primarily **energy efficiency investments** and technological shift (to electric power)
  - Application of **low-carbon** or **green hydrogen** in energy-intensive sectors, where electrification is challenging (e.g. chemical, steel)
  - Additionally Hungary plans to adopt technologies focusing on **carbon capture storage (CCS)** in the future
- The **Baross Gábor Capital Program** or the **Factory Rescue Program** provides support for industrial companies to improve **energy efficiency** and **green developments and resilience towards excessive energy prices increases**
- The **Just Transition Fund** supports regions and **carbon-intensive industries** in transitioning to climate neutrality

Key highlights of residential and commercial sector

- Approximately **2.6 million** residential properties require some level of energy modernization
- About **42%** of **primary energy consumption** derives from buildings according to National Building Energy Strategy (NÉeS)
- **Three-quarters of the energy** used in Hungarian households is related to heating, which is primarily produced by **natural gas**
- With modernization and alternative heating methods, about **2 billion m³ natural gas consumption** could be avoided annually
- The **Long Term Renovation Strategy** (HTFS) aims to achieve **20% reduction** in energy consumption of domestic residential buildings by 2030, a **60% decrease** in CO_2 emission related to the energy use of buildings by 2040 compared to the average between 2018-2020 and **90%** of **buildings meeting** the nearly-zero energy building performance **(NZEB)** by 2050

Share of industry in Gross Value Added

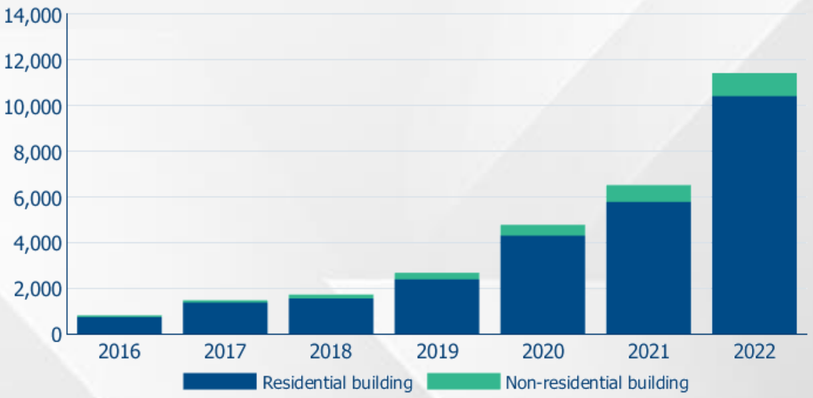
(percent), 1995-2023



Source: Eurostat

Number of near to zero-energy buildings in use

(pcs), 2016-2022



Source: HCSO

Source: *National Building Energy Strategy (NÉeS), National Energy and Climate Plan*

IMPLEMENTING ENVIRONMENTAL PRACTICES IN AGRICULTURE, LULUCF AND WASTE SECTOR

Key highlights of agriculture and LULUCF* sector

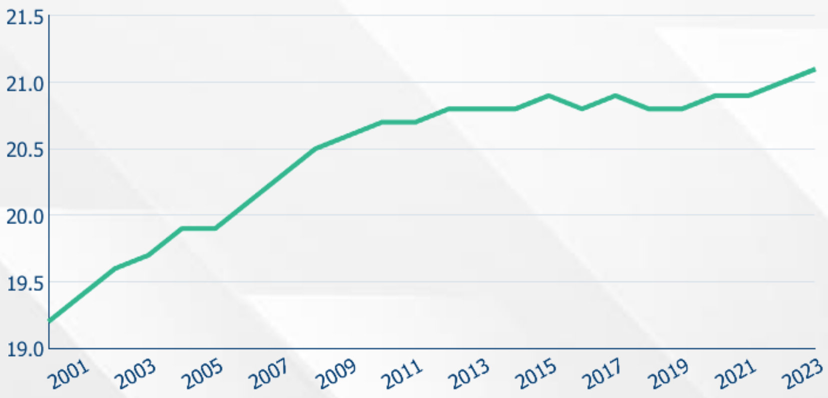
- The Hungarian **CAP Strategic Plan** 2023-2027 aims to:
  - Cut GHG emissions in agriculture, boost **carbon sequestration** the LULUCF sector by reducing GHG and ammonia emission in the livestock sector, using **forestry measures** to decrease GHG and gases, investing in **renewable energy** production and improve **soil** and **ecosystem carbon sequestration**
- The **Agroecology Program** (AÖP) offers an optional annual support for producers who voluntarily adopt climate-friendly farming practices
- The **Soil Protection Action Plan** will ensure the attitude formation and training of farmers in order to implement sustainable agricultural land use
- According to the **National Forest Strategy**, the continuous increase of forest areas is planned – fostered by the **National Afforestation Program (NEtP) -** in order to increase **CO_2 absorption capacity**

Key highlights of waste sector

- The **National Waste Management Plan 2021-2027** (with the **National Prevention Program** and **Action Program** being its integral component) sets ambitious objectives including:
  - The quantity of **municipal waste** recycled and prepared for reuse must reach **55%** by 2025 (with a derogation 50%)
  - Regarding packaging waste, the **minimally required recycling rate** should increase to **70%** without derogation by 2030
- The government introduced the **Deposit Return System** and a new **concession-based system** where the **waste management responsibilities**, including municipal waste collection and pre-treatment will be delegated to the concessionaire
- Additionally, various programs, such as the **nationwide asbestos removal program** support legal waste disposal and eradicate illegally dumped waste

Forest area coverage of the country's total land area

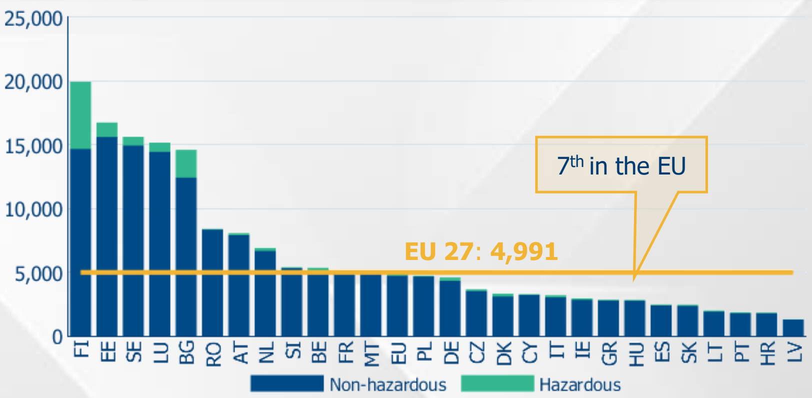
(percentage), 2000-2023



Source: HCSO

Waste generation

(kg per capita), 2022



Source: Eurostat

Source: *National Energy and Climate Plan, Waste Management Program, Hungary 2023 National Annual Reform Program ; * Note: Land-Use, Land-Use Change and Forestry*

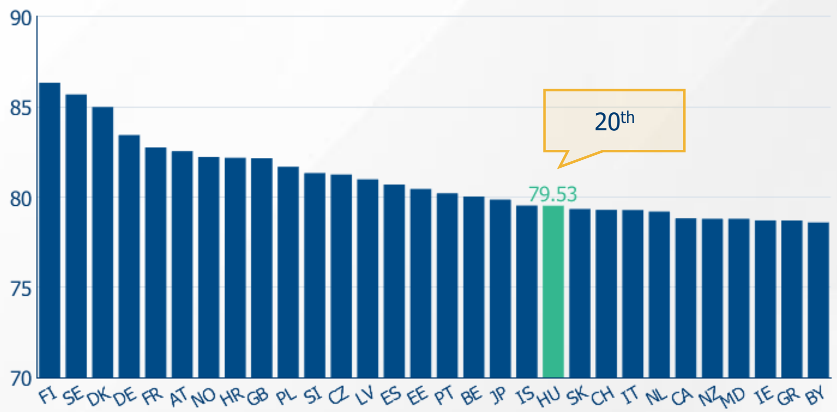
HUNGARY'S ESG POSITION

Key highlights

- **Overall:**
  - Hungary is ranking **20th** among all 193 UN Member States regarding the percentage of its **SDG achievement**
  - Largest Central Eastern European green bond issuer
  - Hungary intends to issue more green bonds in the future and **continue it's path on sustainable finance**

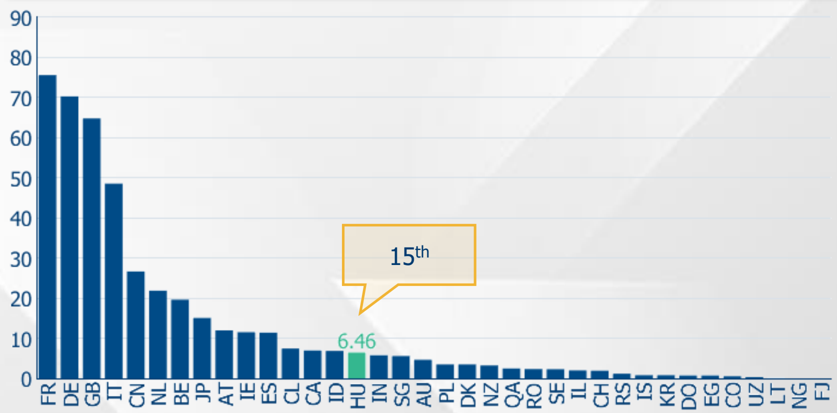
- **Green Bond finance:**
  - Hungary successfully issued Green Bonds on the domestic (HUF) and international (EUR, JPY, CNY) markets for a total amount of **HUF 2,477 billion** (as of 31/12/2024) between 2020 and 2024
  - In **2023 July**, Hungary published its **renewed Green Bond Framework**
  - **EU Taxonomy assessment** was part of the new Framework
  - **37 activities** were assessed for **Substantial contribution** and **Minimum Safeguards** criteria
  - **20 activities** were assessed for **DNSH** criteria including the Clean Transportation, Energy efficiency (incl. Green buildings), Renewable energy

Hungary's SDG ranking globally[1] (top 30 countries), 2024



Source: Sustainable Development Report 2024

Hungary's green bond issuance compared to sovereign issuers[2] (Amount issued USD bn.), 2024

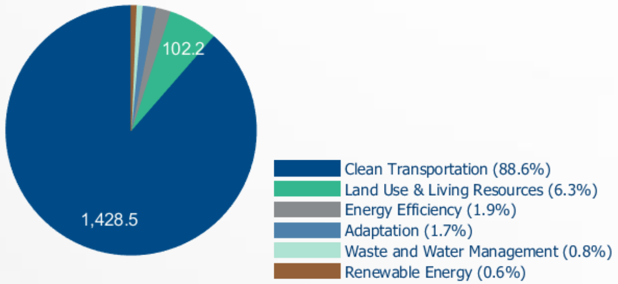


Source: ICMA Group, based on their own calculation

Source:
__1:__ The SDG Index and Dashboards combines data and analyses produced by international organizations, civil society organizations, and research centres.
Note that this report was prepared voluntarily. Reference: Sachs, J.D., Lafortune, G., Fuller, G. (2024). The SDGs and the UN Summit of the Future. Sustainable Development Report 2024. Paris: SDSN, Dublin: Dublin University Press.doi:10.25546/108572
__2:__ ICMA Group's methodology and database of bonds that are published in the LGX DataHub and declared by the issuer and/or an external reviewer to be aligned with the Green Bond Principles

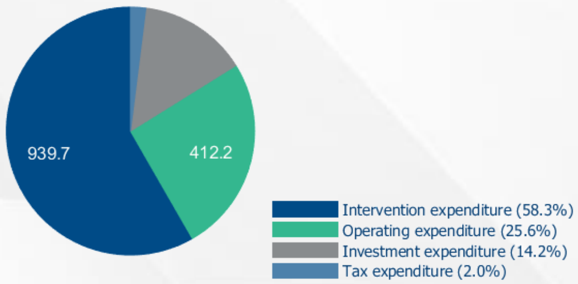
ACHIEVEMENTS UNDER THE GREEN BOND FRAMEWORK 2020 (JUNE 2020 – MAY 2023)

Allocated amount by green category
(%, HUF Billions), 2018-2021



Source: Ministry for National Economy

Allocated amount by green category
(%, HUF Billions), 2018-2021



Source: Ministry for National Economy

Green categories and UN SDGs		Positive impacts of each green category	
Clean Transportation	13 Climate Action; 11 Sustainable Cities and Communities	**3,103**	**Kilotons of CO_2eq** saved
Land Use and Living Natural Resources	15 Life on Land	**1.3m**	**Hectares** of forest and agricultural areas under Natura 2000 supported by compensation payments
Energy Efficiency	7 Affordable and Clean Energy	**365**	**Kilotons of CO_2eq** saved
Adaptation	6 Clean Water and Sanitation; 13 Climate Action	**11**	**Developments** supported the **implementation of the Water Framework Directive**
Waste and Water Management	6 Clean Water and Sanitation; 11 Sustainable Cities and Communities	**787**	**Metres** increase in the length of the sewage system per kilometre of drinking water system
Renewable Energy	7 Affordable and Clean Energy	**10.5**	**Kilotons of CO_2eq** saved

Note: *Based on issuances between May 2020 – May 2023. The results of energy savings, renewable energy production and emission avoided are cumulated since as per the projects baseline. The baseline is determined as the year of financing granted and investments occurred. In case of the tax exemption projects, data is summarized based on the year that beneficiaries use the tax exemptions. Where the ratio of the green bond support was clearly determined, the impact results were adjusted as per their share.*

Source: *Integrated Report on the Allocation and Environmental Impact of Hungary's Green Bond Proceeds, 2022: https://www.akk.hu/content/path=integrated_report_2022 ; Integrated Report on the Allocation and Environmental Impact of Hungary's Green Bond Proceeds, 2021: https://www.akk.hu/content/path=integrated-report ; Allocation report 2020: https://www.akk.hu/content/path=Allocation-report*

HUNGARY'S GREEN BOND FRAMEWORK WAS UPDATED AS RECENTLY AS IN 2023

Principles, standards	▪ **ICMA Green Bond Principles** version **2021** (with June 2022 Appendix 1) ▪ **The Climate Delegated Act of the EU Taxonomy** and the upcoming **EU Green Bond Standard** to the extent possible ▪ 2022 version of **Japan's Green Bond Guidelines** and the **China's Green Bond Principles**
1. Use of Proceeds	▪ Investment expenditures, intervention expenditures, tax expenditures and selected operating expenditures, expenditures towards government agencies and other public sector entities, provided that these entities do not raise any Green funding themselves ▪ Budget expenditures, which already obtain dedicated funding (e.g. EU funding, EU ETS allowances) have been excluded ▪ **8 eligible green categories** defined based on ICMA Green Bond Principles, **including 2 new categories:** ➢ **Pollution prevention & control category** (the Sustainable water & wastewater management category was split) and **Research, innovation & awareness raising** ▪ **3 exclusion criteria:** nuclear power, armament and defence sector, fossil fuel production and power generation
2. Project Evaluation and Selection	▪ **Ministry for National Economy with ÁKK is in charge of coordinating the process** ➢ Inter-Governmental Working Group (IWG) evaluates potential green expenditures ➢ Steering Committee approves Eligible Green Expenditure
3. Management of Proceeds	▪ **Ministry for National Economy is in charge of Green Bonds proceeds management** ▪ IWG monitors the level of Eligible Green Expenditures ▪ Steering Committee approves the proceeds allocation Eligible Green Expenditures can include expenditures from the **2 previous year** (prioritizing **n-1** year), the **current year** and **2 future years** (prioritizing **n+1** year)
4. Reporting	▪ **Integrated Report** including an Allocation and Impact chapter ▪ Reporting on the **EU Taxonomy alignment**
External review	▪ Second-Party Opinion by **Morningstar Sustainalytics** on Hungary's Green Bond Framework ▪ **Mandatory review on Integrated report** (including Allocation and Impact)

Source: *Green Bond Framework Hungary 2023: https://akk.hu/content/path=green-bond-framework-2023-item-en*

HIGHLIGHTS OF GREEN BOND USE OF PROCEEDS (1/2)

Green Category	Eligible Green Expenditures Overview	SDG goals	EU objectives
Clean Transportation	**Eligible expenditures aimed at reducing dependence** ▪ Railway and road passenger transportation ▪ Light-duty vehicles ▪ Infrastructure	7 Affordable and clean energy; 11 Sustainable cities and communities; 13 Climate action	**I.** Climate change mitigation
Land use & living natural resources	**Eligible expenditures for sustainable land use and protection, as well as promotion of biological diversity** ▪ Sustainable agriculture according to national legislation or EU legislation ▪ Sustainable forest management according to national legislation ▪ Protection and restoration of biodiversity and ecosystems	13 Climate action; 14 Life below water; 15 Life on land	**I.** Climate change mitigation **II.** Climate change adaptation **VI.** The protection and restoration of biodiversity and ecosystems
Energy efficiency (incl. Green buildings)	**Eligible expenditures to promote the development of energy efficient buildings and projects that increase energy savings and energy efficiency** ▪ Energy efficient buildings ▪ Energy efficiency measures	7 Affordable and clean energy; 11 Sustainable cities and communities; 13 Climate action	**I.** Climate change mitigation
Renewable energy	**Eligible expenditures to accelerate the development of renewable energies** ▪ Renewable energy infrastructure for electricity generation and production of heating/cooling, ▪ Enabling assets promoting the deployment of renewable energy technologies	7 Affordable and clean energy; 13 Climate action	**I.** Climate change mitigation

Note: *Abstract of the Use of Proceeds. Hungary's Green Bond Framework 2023 contains the complete and detailed Eligible Green Expenditure description and examples.*

Source: *Green Bond Framework Hungary 2023: https://akk.hu/content/path=green-bond-framework-2023-item-en*

HIGHLIGHTS OF GREEN BOND USE OF PROCEEDS (2/2)

Green Category	Eligible Green Expenditures Overview	SDG goals	EU objectives
Pollution prevention & control	**Eligible expenditures related to fostering of pollution reduction and the development of a circular economy** ▪ Waste Management ▪ Remediation and restoration of contaminated land	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	**I.** Climate change mitigation **IV.** Pollution, prevention and control
Sustainable water & wastewater management	**Eligible expenditures related to the promotion of sustainable management of water and wastewater** ▪ Infrastructure and technologies for clean and wastewater treatment ▪ Construction or maintenance of water collection and urban drainage infrastructure including storm water management and sewer separation	6 CLEAN WATER AND SANITATION	**I.** Climate change mitigation **IV.** Sustainable use and protection of water and marine resources
Climate adaptation	**Eligible expenditures aimed to enhance adaptation and foster climate resilience** ▪ Measures supporting enhancing resiliency and managing risks ▪ Measures supporting the monitoring and prediction ▪ Measures supporting community monitoring of climate change	13 CLIMATE ACTION	**II.** Climate change adaption **IV.** Sustainable use and protection of water and marine resources
Research, innovation and awareness raising	**Eligible expenditures aimed at enhancing and facilitating knowledge and innovation about climate and environmental topics** ▪ Sustainable agriculture ▪ Sustainable forestry ▪ Promotion of the use of renewable energy and energy efficiency	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION; 15 LIFE ON LAND	**I.** Climate change mitigation **II.** Climate change adaptation

Note: *Abstract of the Use of Proceeds. Hungary's Green Bond Framework 2023 contains the complete and detailed Eligible Green Expenditure description and examples.*

Source: *Green Bond Framework Hungary 2023: https://akk.hu/content/path=green-bond-framework-2023-item-en*

INTEGRATED REPORT ON THE ALLOCATION AND ENVIRONMENTAL IMPACT OF HUNGARY'S GREEN BOND PROCEEDS, 2023 (1/2)

Key highlights

- Proceeds raised: **HUF 46.3 billion** between **1 June 2023 – 31 December 2023**
- Allocation year: **2022** (n-1 year)
- Indicators: **8 core**, **3 other** in line with ICMA Handbook - Harmonised Framework for Impact Reporting (June 2024 edition), **4 own**
- The **first report based on Hungary's Green Bond Framework (2023)**, and thus eligible green expenditures have been revised accordingly
- Projects included in the report were **assessed according to the EU Taxonomy**
- The report received an **External Review** by Morningstar Sustainalytics

Main developments from the previous reports

- Green bond proceeds were allocated to expenditures that are **aligned with at least the EU Taxonomy's substantial contribution and minimum safeguards criteria**
- The projects were mapped against **five economic activities** under two **EU Taxonomy objectives**: **climate change mitigation** (CCM), and **protection and restoration of biodiversity and ecosystems** (BIO)
- Regarding **rail transport**, only the **operation related to electrified railway infrastructure** and **railway passenger transport with electrically powered trains** is supported

Source: *Integrated Report on the Allocation and Environmental Impact of Hungary's Green Bond Proceeds, 2023*

INTEGRATED REPORT ON THE ALLOCATION AND ENVIRONMENTAL IMPACT OF HUNGARY'S GREEN BOND PROCEEDS, 2023 (2/2)

Green categories	UN SDGs	Allocation (billion HUF)	EU Taxonomy activities	EU Taxonomy alignment (% of the allocated amount)	Impacts
Clean transportation	11 SUSTAINABLE CITIES AND COMMUNITIES 13 CLIMATE ACTION	**46.18**	**CCM 6.14.** Infrastructure for rail transport	**9.3%** aligned **90.7%** partially aligned	GHG emissions avoided: **67,139 tCO2eq** (2022)
			CCM 6.5. Transport by motorbikes, passenger cars and light commercial vehicles	**100%** partially aligned	Length of renovated or new railway lines: **49.3 km** (2022-2023)
			CCM 6.1. Passenger interurban rail transport	**5.5%** aligned **94.5%** partially aligned	Length of renovated metro line: **17.3 km** (2022-2023)
Land use & living natural resources	15 LIFE ON LAND	**0.06**	**BIO 1.1** Conservation, including restoration, of habitats, ecosystems and species	**100%** partially aligned	Number of projects supported: **243** (2022)
Pollution prevention & control	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	**0.04**	**CCM 5.9.** Material recovery from non-hazardous waste	**100%** partially aligned	Number of projects supported: **7** (2022)

Source: *Integrated Report on the Allocation and Environmental Impact of Hungary's Green Bond Proceeds, 2023*

THANK YOU FOR YOUR ATTENTION!

GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.

ÁKK