HUNGARY
ÁKK – INVESTOR PRESENTATION

July 2022

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KEY FACTS AND FIGURES ON HUNGARY

Area: ~93,000 sq. kilometres

Capital: Budapest

Population: 9.7m (2022)

Life expectancy at birth: 74.1 years (2021)

Currency: Forint (HUF)

Exchange rate (2021): 358.52 HUF = 1.00 EUR[1]

Nominal GDP (2021*): HUF 55,257 billion

Real GDP growth (2021*): 7.1%

Public debt (2021): HUF 40,697 billion

Public debt denominated in foreign currency (2021):
HUF 8,395 billion (approximately EUR 23 billion)

Sovereign ratings: Fitch: BBB Moody's: Baa2 S&P: BBB
Stable outlook for Fitch and Moody's, negative outlook for S&P

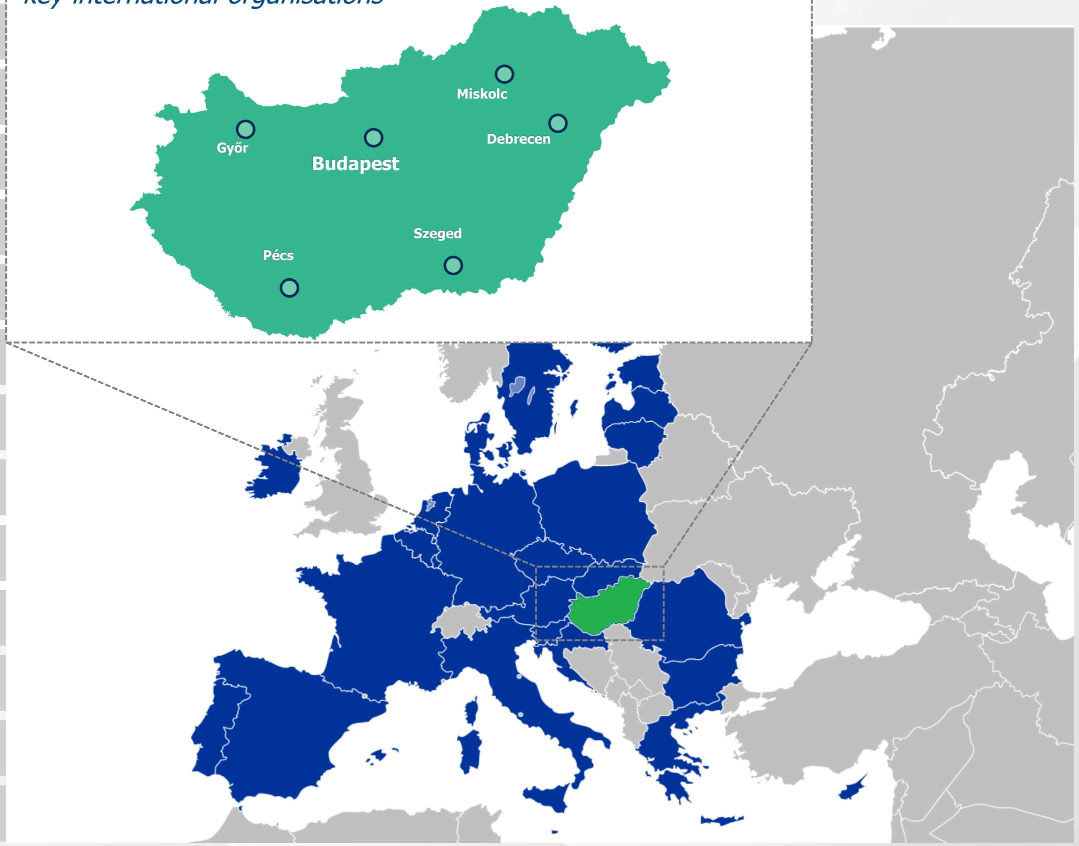
Government: parliamentary republic

EU member country since: 2004

Schengen area member since: 2007

Key economic sectors: manufacturing; wholesale and retail trade; automotive; education and health

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 2021. /*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 IN STRONG POSITION TO FACE CURRENT CHALLENGES

Strong and resilient economy	▪ **Hungary was one of the fastest growing economies in Europe with real GDP growth of 4.6% in 2019** (2.5 times higher than the EU average), **GDP dropped by 4.5% in 2020** (lower than EU average of 5.9%), **grew by 7.1% in 2021** (higher than EU average of 5.3%) by 8.2% in the first quarter of 2022 and 6.5% in the second quarter of 2022 ▪ **The economy benefits from strong investment** dynamics, enjoying the highest investment rate in Europe in 2021 ▪ **The level of unemployment is low,** amounting to 4.1% in 2021 and 3.3% in June 2022
Fiscal policies supporting growth and stability	▪ **The fiscal deficit had consistently been below the EU ceiling of 3% between 2012-2019**. ▪ The ESA deficit for 2020 was 7.8% of GDP (compared to the original 1.0% target) and 6.8% of GDP in 2021 in response to COVID-19 ▪ As a result of the pandemic, the debt ratio has increased to 79.6% by the end of 2020 ▪ **In 2021, the debt ratio declined to 76.6% of GDP** and the government remains committed to fiscal consolidation and reduction of public debt ▪ In 2022, a fiscal consolidation package was enacted in the amount of 3.1% of GDP to achieve the 4.9% deficit rate target
Tightening monetary policy	▪ In 2021, the inflation rate increased above the upper bound of the central bank target band and the **Monetary Council started an interest rate hike cycle to contain inflationary pressure** ▪ By the end of 2021, NBH terminated the liquidity enhancing measures introduced previously to mitigate the effects of the pandemic ▪ **During 2022, the inflation rate reached double-digit territory and the Monetary Council accelerated the interest rate hike cycle to subdue inflationary pressure**
Manageable external position	▪ **External debt indicators were close to historical lows pre-pandemic** ▪ Hungary enjoyed a **positive net international lending** position between 2009 and 2020 ▪ In 2021, the current account posted EUR 4.9 billion deficit and the net lending position turned into negative in the amount of EUR 1.0 billion ▪ Foreign direct investments amounted to EUR 2.6 billion in 2021 and covered the net financing need of the country ▪ **International reserves reached EUR 35.8 billion on 31 July 2022**
Effective debt management	▪ **Hungary is an Investment Grade country** ▪ **In spite of the pandemic, Moody's upgraded Hungary in September 2021; the outlook is stable as assessed by all major rating agencies except for Standard&Poor's** ▪ **The structure of public debt is favourable** with a contained share of FX debt, increasing average term to maturity, tapping the green bond market on a regular basis and a highly diversified, deep and liquid domestic market ▪ **The development of the retail market has been a key driver of the expansion of the domestic investor base**

II. STRONG AND RESILIENT ECONOMY

HUNGARY CONTINUES TO BUILD ON SOLID ECONOMIC GROWTH SINCE 2013

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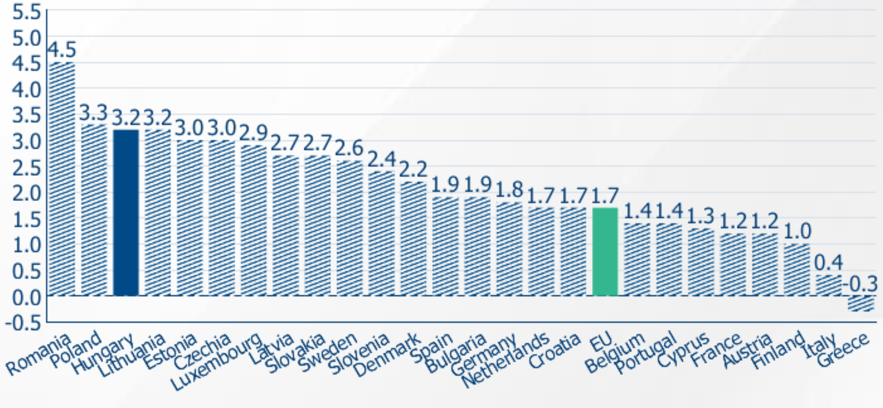
Key highlights

- **Hungary's GDP growth has been among the fastest in Europe between 2014 and 2019**, as evidenced in the chart on the right
- **Growth has been partly driven by the turnaround in employment** that happened in the wake of the structural reforms implemented after the economic crisis, including the tax regime
  - Unemployment decreased to a historic low of 3.3% in 2019 allowing the **Hungarian economy to grow by 4.1% on average between 2014 and 2019, while the EU average was 2.1%**
- **In 2020, real GDP decreased by 4.5%,** lower than the EU average of 5.9%
  - The unemployment rate increased to 4.1% in 2020 but remained at this level in 2021
- **In 2021, real GDP grew by 7.1%,** exceeding the EU average of 5.4% and the decrease of 4.5% in 2020, consequently the economy has already recovered from the shock caused by the COVID-19
- **In the first quarter of 2022, real GDP grew by 8.2%** according to preliminary data
- **In the second quarter of 2022, real GDP grew by 6.5%** according to the flash estimate of HCSO
  - In spite of the ongoing war in Ukraine, GDP grew by 2.1% in the first and by 1.1% in the second quarter of 2022 relative to the previous quarter according to data adjusted for seasonal effects

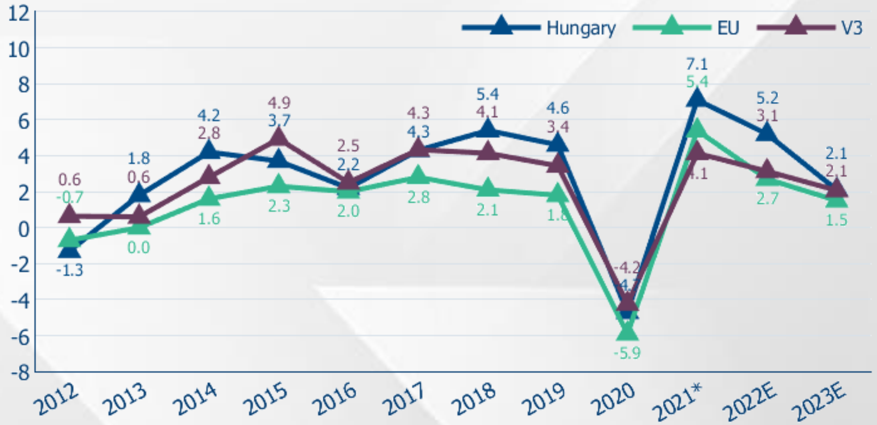
Third highest GDP growth among EU countries 2014-2019*



*Source: Eurostat | *excluding Ireland and Malta*

Real GDP Growth - European Commission Forecast

(YoY, %)



*Sources: Eurostat, European Commission 2022 Summer Economic Forecast; Note: Unadjusted data /*Preliminary data*

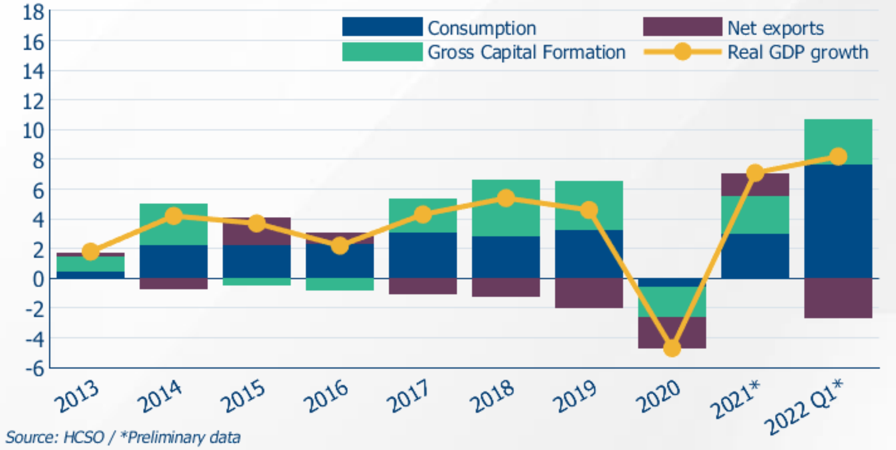
GROWTH IS DRIVEN BY BOTH CONSUMPTION AND INVESTMENT

Key highlights

- Growth in Hungary has been consistently supported by strong household consumption prior to 2020
- Investment activity picked up significantly between 2017 and 2019
- **All major sectors and components of GDP contracted in 2020. The contraction in 2020 was mainly a result of the COVID-19**
- **All major sectors (except agriculture) increased in 2021 and the first quarter of 2022.**
- In 2021 and the first quarter of 2022, the growth contribution was positive in the case of consumption, investments, but the positive growth contribution of net exports in 2021 turned negative in the first quarter of 2022

Contribution to GDP growth by expenditure

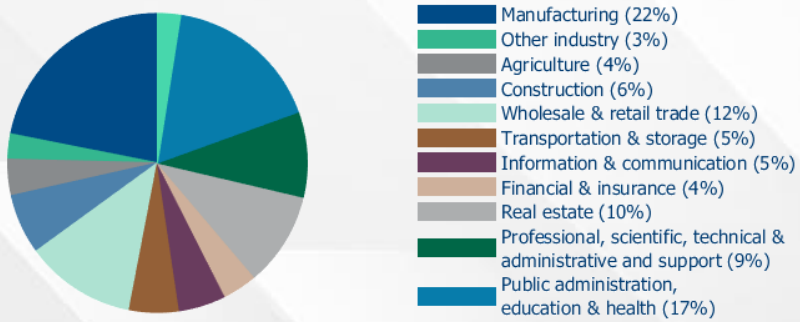
(percentage points)



*Source: HCSO / *Preliminary data*

Nominal GDP breakdown by sector

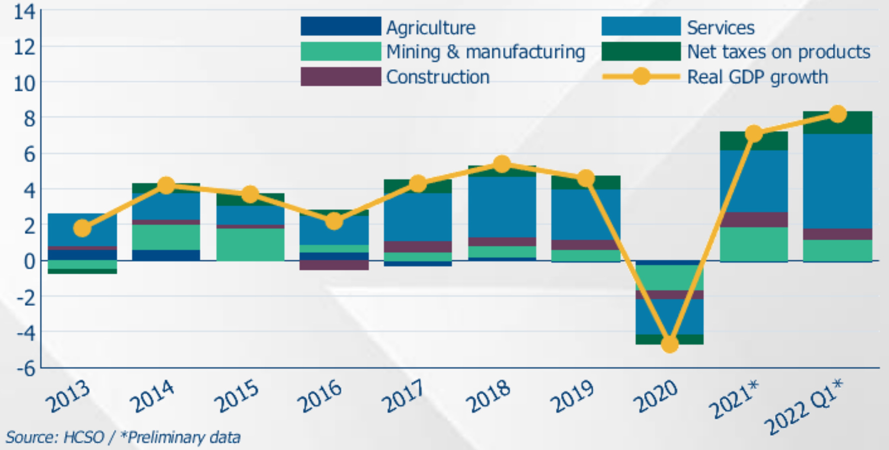
(2021*, % of total GDP excluding taxes less subsidies on products)



*Source: HCSO / *Preliminary data*

Contribution to GDP growth by sector

(percentage points)



*Source: HCSO / *Preliminary data*

ROBUST SHORT-TERM GROWTH MOMENTUM

Key highlights

- **Industrial production reached a high level**
  - According to seasonally adjusted data, production dropped temporarily in March and April but resumed to growth in May and June growing by 0.9% and 0.8% relative to the previous month, respectively
- **Retail sales soften**
  - Dynamic growth during 2021
  - The volume of retail sales peaked in March 2022 mainly due to one-off factors including PIT refunds
  - Since March 2022, the volume decreased by 2.5% in April, 0.3% in May and by 0.5% in June compared to the previous month, respectively
- **Unemployment rate contained**
  - In January 2022 the rate jumped to 4.2% from 3.7% in December 2021, but retreated to 3.3% in June 2022

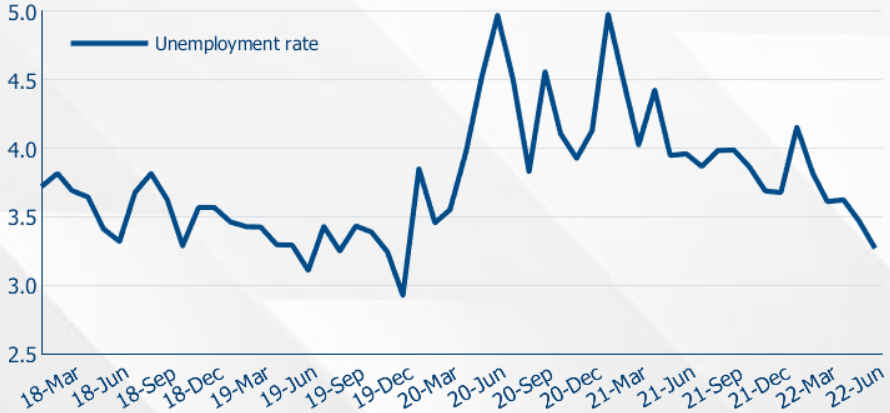
Industrial production

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

Source: HCSO

Unemployment rate

(%, population aged 15-74)



Source: HCSO

Retail sales

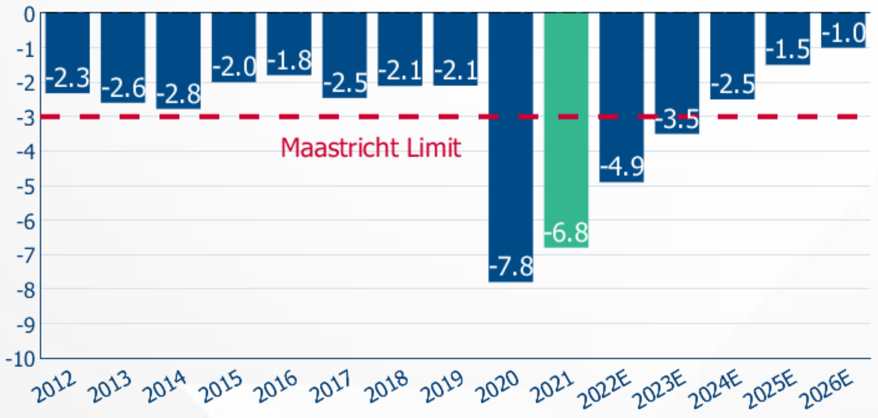
(volume indices adjusted for calendar and seasonal effects, average month of 2015 = 100)

Source: HCSO

III. FISCAL POLICIES SUPPORTING GROWTH AND STABILITY

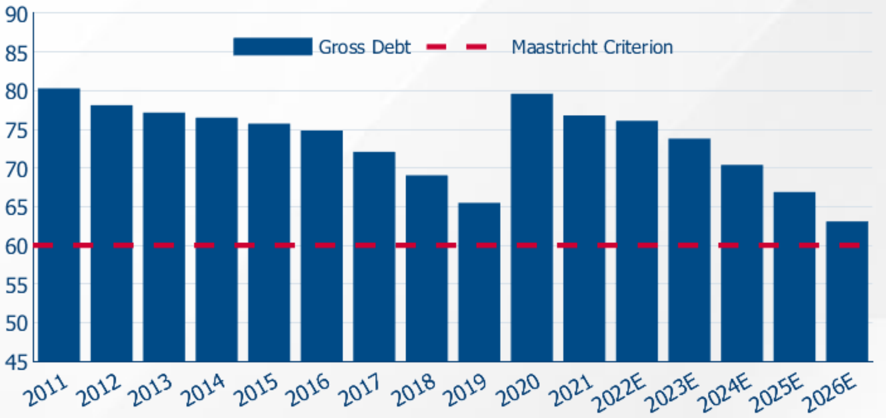
PUBLIC FINANCES ARE STRONG AND SUPPORT DEBT SUSTAINABILITY WITH DEBT-TO-GDP STEADILY DECLINING

Evolution of Hungary's fiscal deficit
(% of GDP)



Source: HCSO, MoF; Note: Latest (May 2022) forecast

Evolution of Hungary's general government debt
(% of GDP)



Source: NBH, MoF

Key highlights

- **Budget deficit remained below the 3% Maastricht threshold between 2012-2019,** demonstrating the authorities' commitment to fiscal consolidation
- **The government originally aimed to achieve fiscal balance by 2020.** The authorities originally set the 2020 ESA budget deficit target to a historic low of 1.0% of GDP. However due to the COVID-19 pandemic the ESA deficit amounted to 7.8% of GDP in 2020
- The deficit in 2021 was 6.8% of GDP according to preliminary data, exceeding the original planned deficit of 2.9%. The fiscal situation deteriorated due to the effects of the 2020 economic downturn and associated recovery measures; looking ahead, significant improvement is expected
- According to the latest analysis by the Ministry of Finance, **the Government expects the budget deficit to GDP ratio to be 4.9% in 2022, 3.5% in 2023, 2.5% in 2024, 1.5% in 2025 and 1.0% in 2026**

- **Under Hungary's Fundamental Law, reducing state debt is one of the main objectives of the Government**
  - As long as the debt of the government exceeds 50% of GDP, only budgets which provide for a reduction of the government debt-to-GDP ratio can be adopted
- **Authorities strictly comply with this rule**
  - Fiscal consolidation and prudent debt management have supported a reduction in Hungary's debt-to-GDP ratio. The country has enjoyed a rapid decrease in government debt-to-GDP ratio of 14.8 percentage points between 2011 and 2019
  - **In 2019, the debt rate declined to 65.5%**, but in 2020 the debt rate increased to 79.6% as a result of the pandemic. In a State of Danger, such as COVID-19 pandemic, a special rule allows for a temporary debt increase
  - **In 2021, the debt rate declined to 76.6%. The Government expects the debt-to-GDP ratio at 76.1% in 2022, 73.8% in 2023, 70.4% in 2024, 66.9% in 2025 and 63.1% in 2026**

HANDLING BUDGETARY RISKS WHILE MAINTAINING THE DEFICIT TARGETS BOTH IN 2022 AND IN 2023

In response to increasingly expensive costs of financing and broader economic risks driven by a number of factors, including but not limited to inflationary pressures, increasing energy prices and supply chain disruptions, on 31 May 2022, the Government announced a set of measures to **enhance budgetary resilience and strengthen the fiscal balance of Hungary**, aimed at restoring fiscal resilience and stabilizing the budget performance to meet the fiscal targets in 2022 and 2023:

1) Of the fiscal balance enhancement measures, **expenditure cuts represent nearly 60%**, while **approximately 40% is attributed to higher revenues**
2) The **financing of the budget deficit predominantly relies on domestic sources** whilst maintaining investors' confidence to keep interest expenditures at a moderate level
3) The majority of the revenue-side fiscal consolidation measures aim to **tax unexpected windfall profits**, while expenditure-cutting measures are driven by the **postponement of certain public investment projects**
4) As a response to the current geopolitical instabilities in the region, **Hungary intends to further strengthen its defensive capabilities**. Total defence-related expenditures are expected to amount to 2% of GDP in 2023
5) In response to the continuously increasing energy and utilities costs, **Hungary intends to form a Utilities Protection Fund** to support and protect the financial stability of Hungarian households

Budgetary risks	Handling risks	Outcome
Increasing energy prices **Inflationary pressures** **Russian aggression on Ukraine**	**Fiscal adjustment measures across budget revenues and expenditures to manage risks**	**Reaffirming the fiscal deficit target of 4.9% for 2022 and 3.5% for 2023**

NEARLY 60% OF THE TOTAL FISCAL ADJUSTMENTS ARE EXPENDITURE SIDE MEASURES

As per the announced Fiscal Consolidation Plan, a comprehensive package of fiscal adjustment measures is expected to be implemented, with majority of balancing expected to come from the budget expenditures recalibration.
The summarized list of the balancing relief measures, shown as estimated percentage of the projected GDP in 2022

Balance Relief Measures – Summary Breakdown	**2022** % of projected GDP
Revenue-side measures	**1.34%**
Special taxes on windfall profits	1.14%
Duties, taxes on company cars and public health taxes	0.15%
Formal sector widening and employability simplifying measures	0.05%
Expenditure-decreasing measures	**1.7%**
Economising and efficiency increase at ministries, budgetary authorities, and government programs	1.0%
Rescheduling and preplanning of public investment projects	0.5%
Utilisation of revenues from feed-in tariffs (KÁT) in universal services	0.2%
Sum Total	**3.1%**

Note: Due to rounding, the summed data might differ from the sum of the detailed data. Link to the press release: https://abouthungary.hu/news-in-brief/government-remains-committed-to-enhancing-budgetary-resilience-and-strengthening-the-fiscal-balance

NBH IS TIGHTENING MONETARY POLICY CONDITIONS THE BANKING SECTOR IS RESILIENT

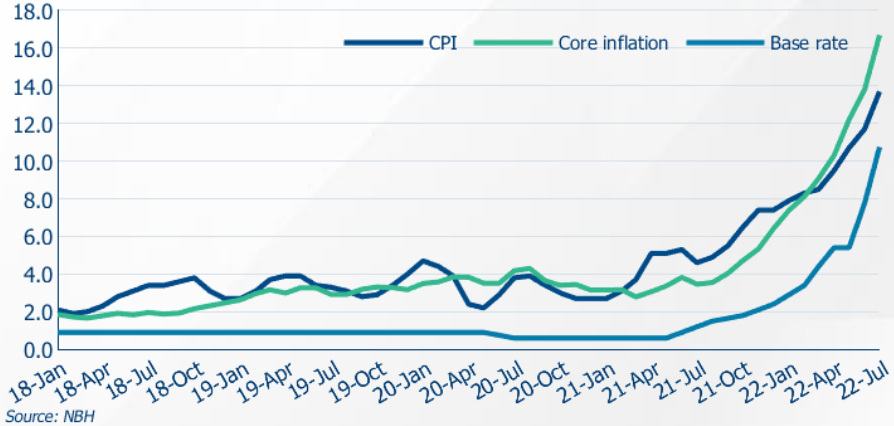
Key highlights

- **The NBH's primary statutory objective is to maintain price stability**
  - Policy rate has been increased to 2.40% during 2021; the quantitative easing programmes were terminated
  - Subsequently, the central bank base rate was increased to 11.75% until August 2022 to combat inflation
  - According to the assessment of the Monetary Council, inflation is expected to return to the central bank tolerance band at the end of 2023
  - The central bank is determined to bring down inflation
- **The banking sector is well capitalized and the quality of loans has improved since the end of 2015**
  - The banking sector is well prepared to cope with the consequences of an economic slowdown and a monetary tightening

Source: HCSO, NBH

Central bank base rate and inflation rates

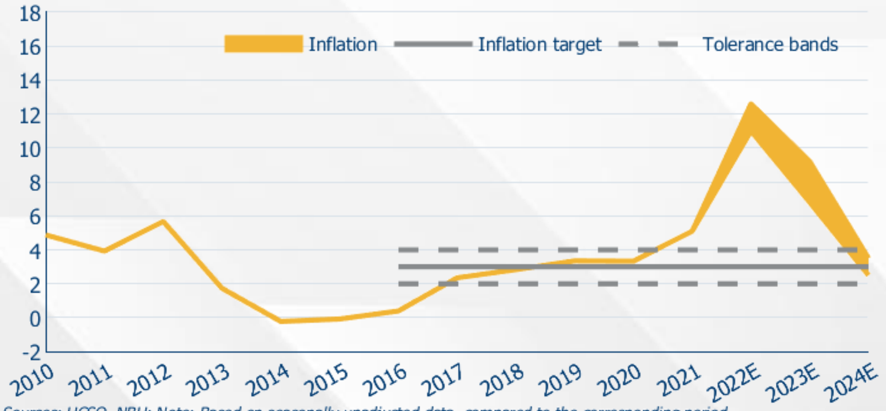
(core and headline, %)



Source: NBH

Inflation vs inflation targets

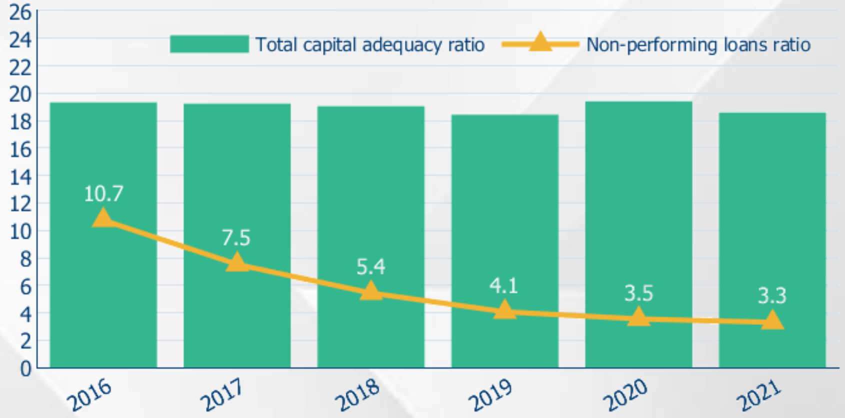
(yearly average data, %)



Sources: HCSO, NBH; Note: Based on seasonally unadjusted data, compared to the corresponding period of the previous year; forecasts after 2021

Total capital adequacy and non-performing loans ratios

(%)

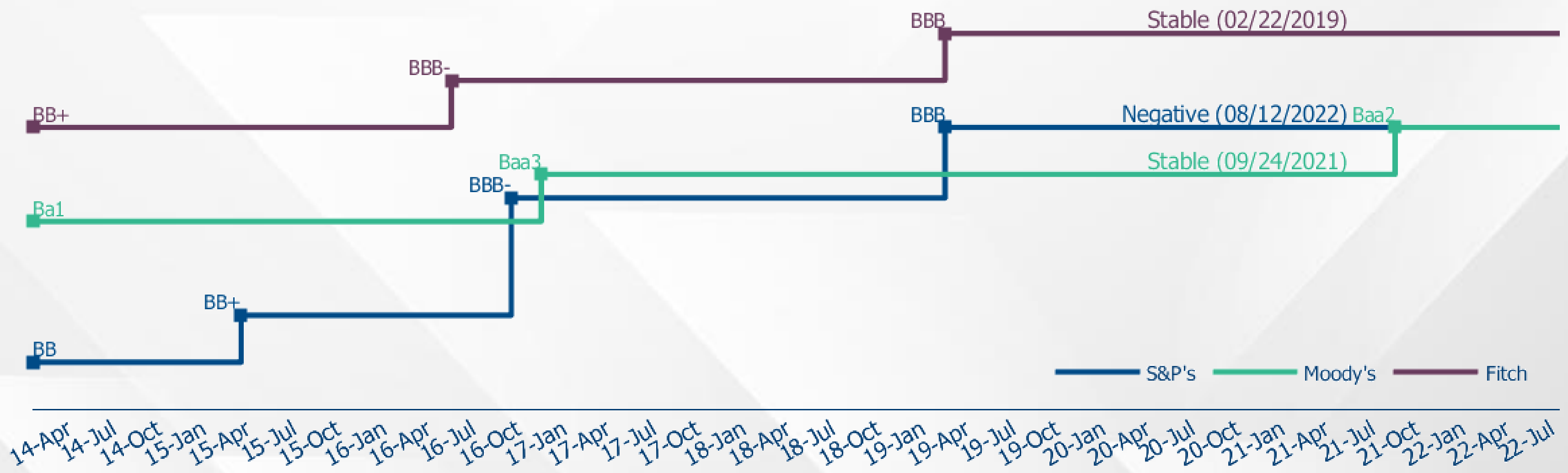


Source: NBH; Note: NPLs are loans at least 90 days overdue

IMPROVING FUNDAMENTALS LEADING TO REDUCED HUNGARY RISK PREMIUM AND LOWER COST OF FINANCING

Evolution of Hungary's ratings [1]

- **Hungary's credit ratings have improved since 2014,** in line with the improvement in the macro-economic fundamentals
  - Hungary has benefitted from multiple rating upgrades since 2014
  - It is currently rated BBB/Baa2/BBB with a stable outlook for Fitch and Moody's; negative outlook in case of Standard&Poor's
- **Financing conditions have thus become increasingly supportive,** with Hungary also benefitting from the reduction of ratings-implied risk premium



Source: NBH

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.

IV. FAVOURABLE EXTERNAL POSITION

HUNGARY ENJOYS HEALTHY EXTERNAL ACCOUNTS

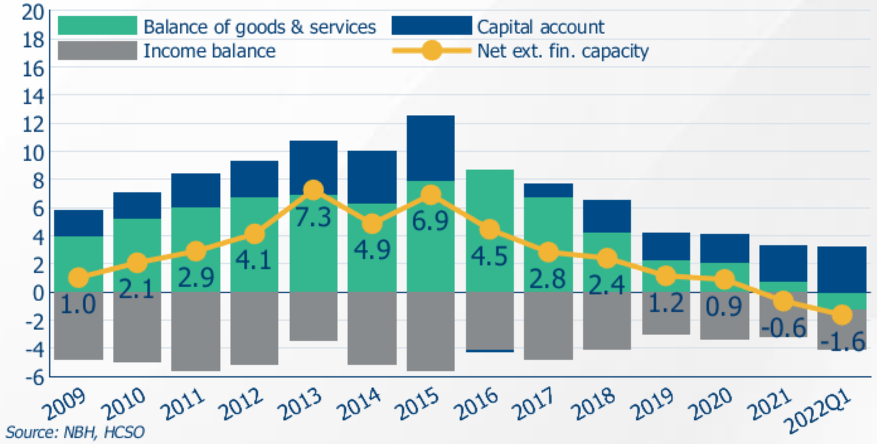
Key highlights

- **Hungary's net external lending position is manageable**
- **The current account posted a surplus** between 2009 and 2019
- **In 2019 and 2020, the current account balance turned into a deficit but the surplus of the capital account covered the shortfall**
  - Hungary's net international lender position subsisted
- **In 2021 and the first quarter of 2022, the current account deficit exceeded the surplus of capital account** in the amount of EUR 1.0 billion in 2021 and EUR 0.6 billion in the first quarter of 2022, respectively
- **In 2021, net foreign direct investments amounted to EUR 2.6 billion covering the net financing need of the country**

Source: NBH, HCSO

Net external lending components and position

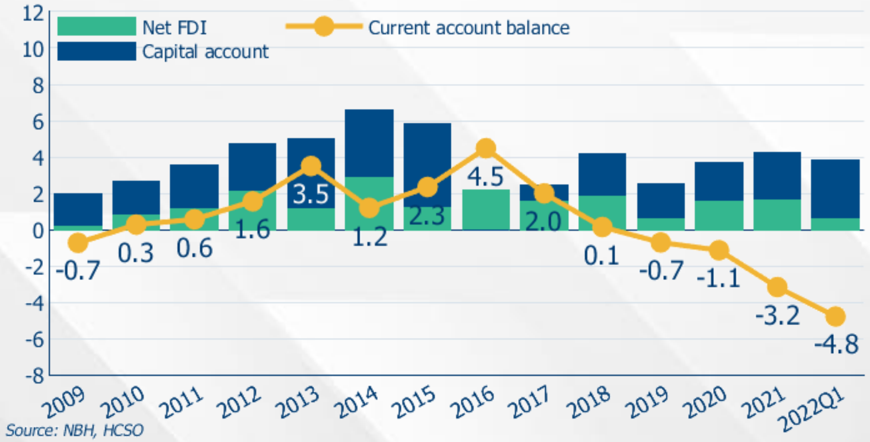
(% of GDP)



Source: NBH, HCSO

Net external lending position

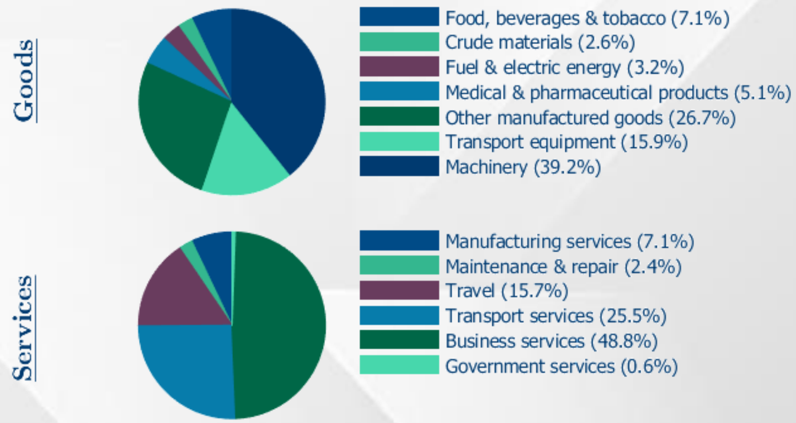
(% of GDP)



Source: NBH, HCSO

2021 export - structural breakdown

(%)



Source: HCSO

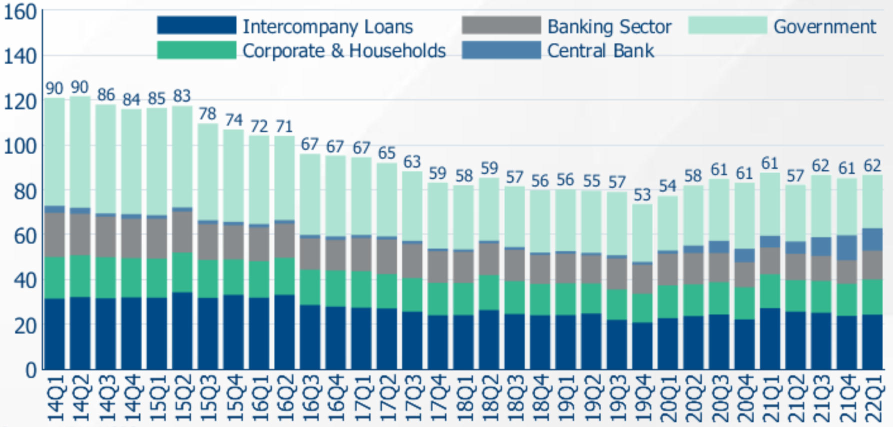
EXTERNAL DEBT HAS DECLINED WHILE FX RESERVES HAVE INCREASED

Key highlights

- **External debt indicators improved significantly compared to 2012**
  - Hungary's gross external debt decreased substantially between 2012 and 2019, notably on the back of active public debt management
  - The external debt has increased since early 2020 mainly as a result of the pandemic
  - The net external debt of Hungary also improved between 2012 and 2019 and has deteriorated since early 2020
- **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 Q2 2012
  - FX reserves amounted to EUR 35.8 billion on 31 July 2022

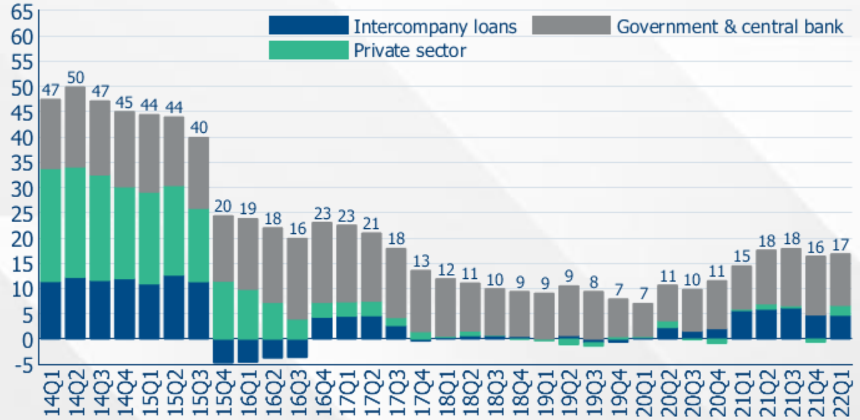
Source: NBH

Gross external debt
(% of GDP, excluding special purpose entities)



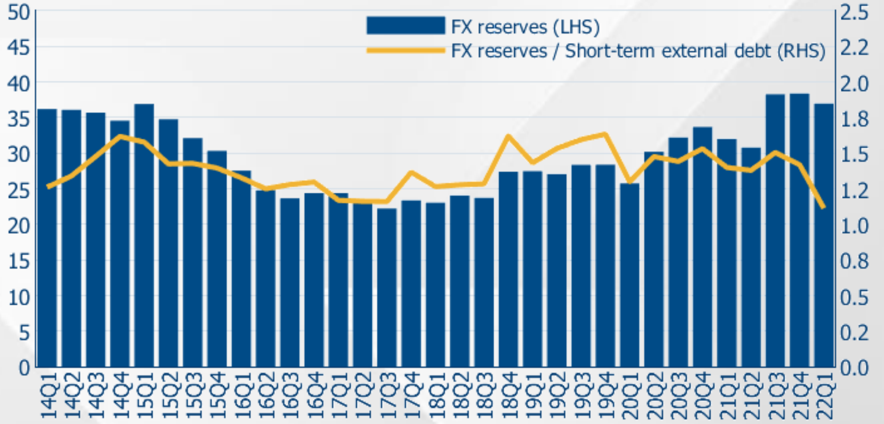
Source: NBH, HCSO

Net external debt
(% of GDP, excluding special purpose entities)



Source: NBH, HCSO

International reserves level
(EUR billions)



Source: NBH

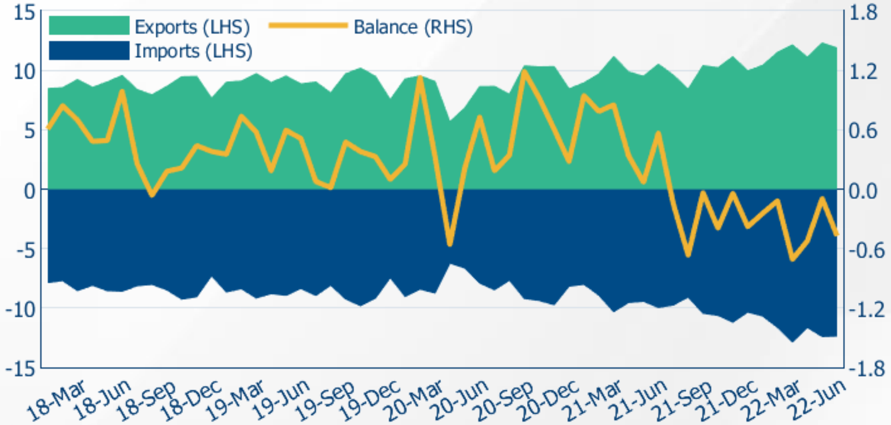
**Note: The Guidotti–Greenspan rule states that a country's reserves should equal short-term external debt (one-year or less maturity), implying a ratio of reserves-to-short term debt of 1*

EXTERNAL TRADE
HIGH ENERGY PRICE LEVEL TAKES ITS TOLL

Key highlights

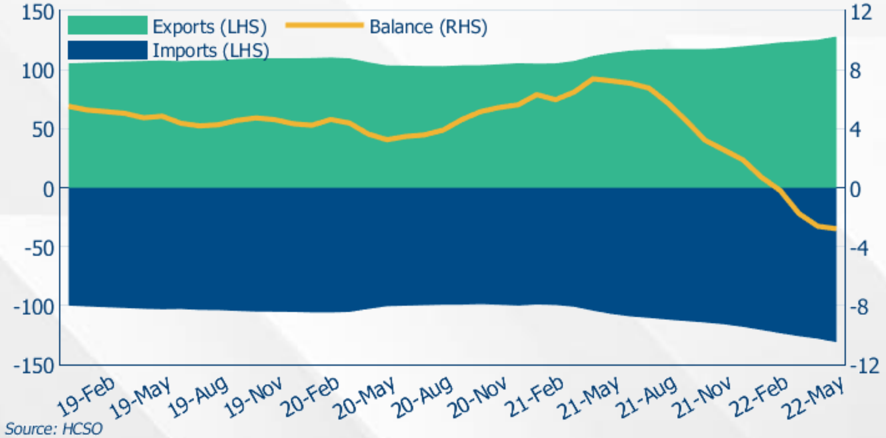
- **Surplus in trade balance has turned into a deficit**
  - Exports and imports both exhibited strong momentum during the past twelve months
  - The growth of imports outpaced the growth of exports
  - In Spring 2022, the surplus turned into a deficit based on twelve-month rolling data
- **Deterioration of external trade balance is driven mainly by fuel and energy**
  - Deficit in case of fuel and energy doubled between Autumn 2021 and Spring 2022 according to twelve-month rolling data

External Trade Balance
(Monthly data, EUR millions)



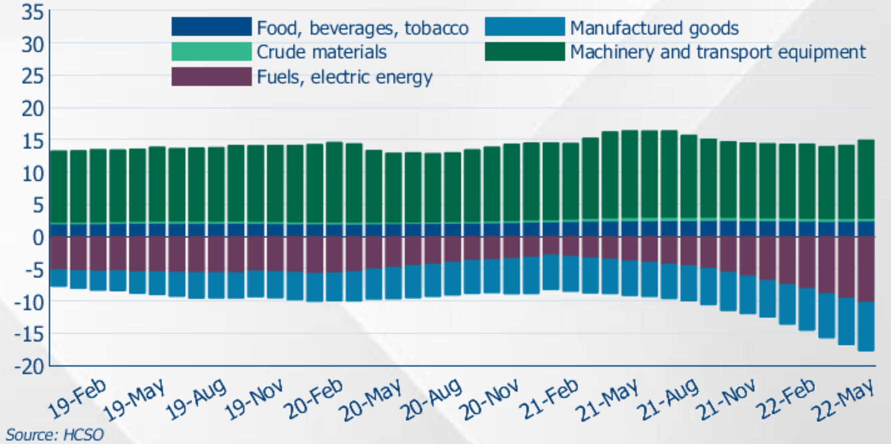
Source: HCSO

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



Source: HCSO

External Trade Balance Breakdown
(Twelve-month rolling data, EUR billions)



Source: HCSO

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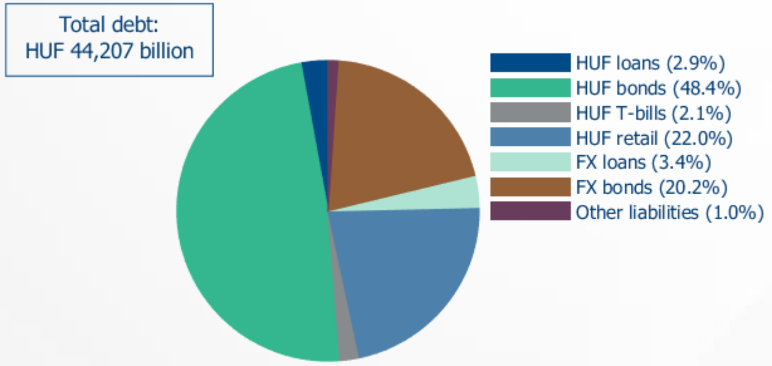
V. EFFECTIVE DEBT MANAGEMENT

HUNGARY BENEFITS FROM A FAVOURABLE DEBT PROFILE

Hungary's government debt breakdown
(31 July 2022, % of total)

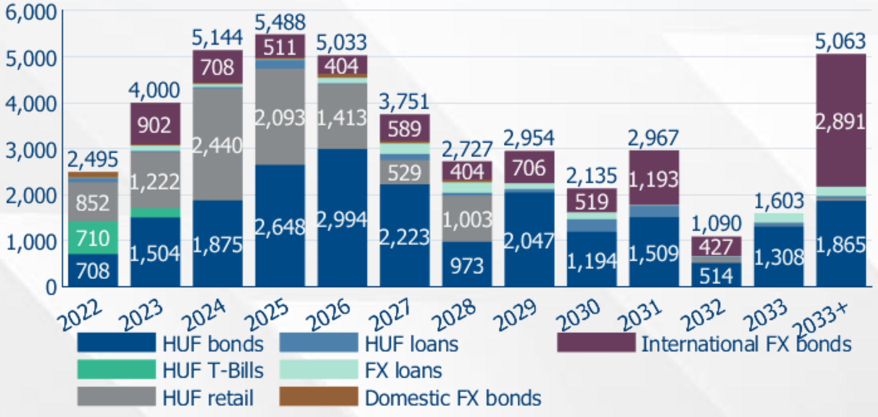


Key targets and characteristics of Hungary's government debt[1]

	2022 benchmark targets		31 July, 2022 figures[2]
Share of FX debt	Between 10% and 25%	✓	22.5%
Currency mix of the FX debt (after swaps)	100% in EUR (with a 5% deviation allowed)	✓	99.9%
Average time to maturity of domestic debt	Minimum 4.5 years	✓	5.0 years
Average time to re-fixing of domestic debt	Minimum 4 years	✓	4.2 years
Share of domestic and FX debt with a fixed coupon	Domestic: 70%-90% FX: 70%-90%	✓	74.4% 86.7%
Share of retail debt			21.9%
Share of green bonds			2.6%

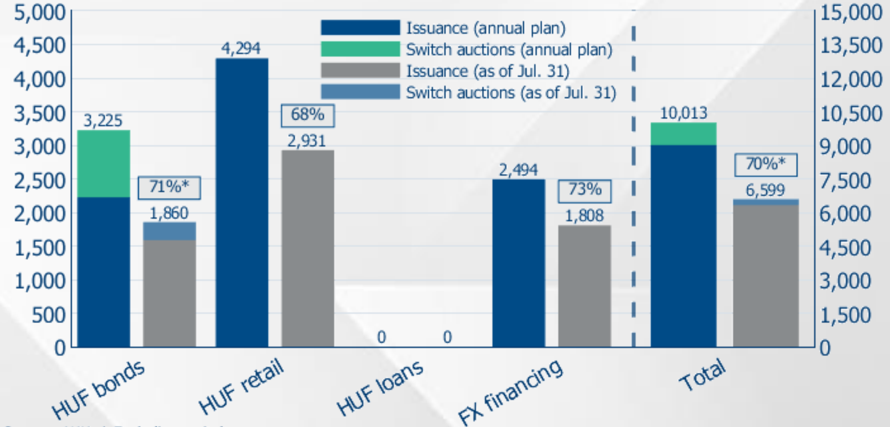
Source: AKK; Note: 1. Central government debt 2. 90-day moving average

Hungary's government debt redemption profile
(31 July 2022, HUF billion)



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

2022 issuance vs 2022 financing plan published in June 2022
(31 July 2022, HUF billion)



*Source: AKK * Excluding switches*

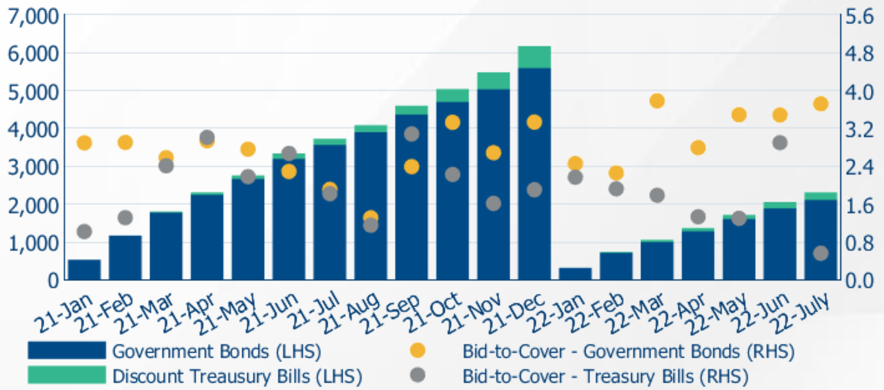
STRONG MARKET DEMAND AND INCREASING YIELDS ON THE LOCAL WHOLESALE MARKET

Key highlights

- **To ensure simplicity and transparency, AKK issues standard debt instruments according to a fixed annual calendar published in advance**
- **Primary auctions are implemented as well as switch and buyback operations** to support a balanced government bond issuance pattern, to manage the redemption profile and to reduce refinancing risk
- **Hungary's local yields decreased between 2014-2020, but increased significantly subsequently as a consequence of monetary policy tightening of the NBH to fight inflation**
  - During 2021, short-term yields increased by 1.9-3.2 percentage points; long-term yields grew by 2.3-3.5 percentage points
  - During the first seven months of 2022, the increase of yields accelerated; short-term yields increased by 6.2-6.5 percentage points; long-term yields grew by 2.9-6.2percentage points

Source: AKK, NBH

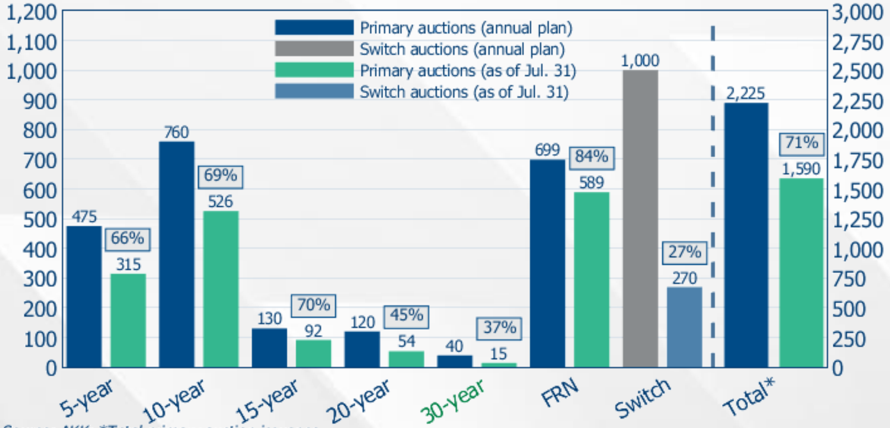
Cumulative monthly debt securities issuance and the ratio relative to the planned amount (HUF billion, %)



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

Government bond issuance on auctions by tenor

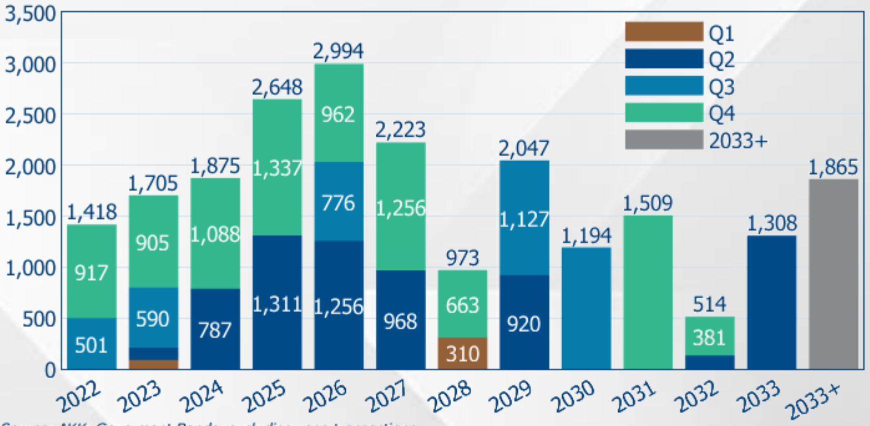
(2022 issuance vs 2022 financing plan published in June excluding municipal bond sales, HUF billion)



*Source: AKK; *Total primary auction issuance*

Redemption profile of wholesale government securities

(as of 31 July 2022, HUF billion)



Source: AKK; Goverment Bonds, excluding repo transactions

LOCAL RETAIL MARKET IS AN IMPORTANT DIVERSIFICATION TOOL

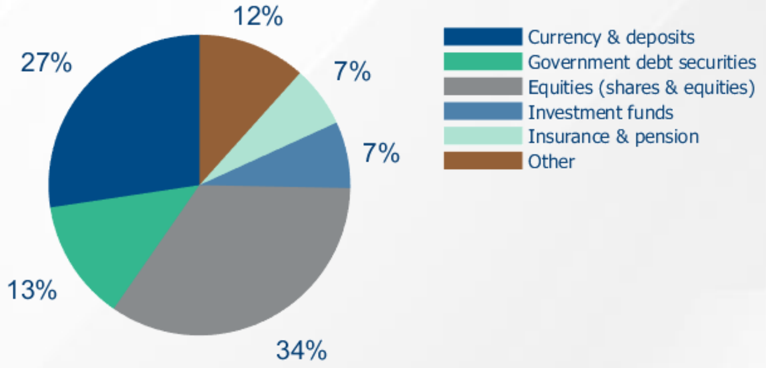
Key highlights

- **The retail debt programme constitutes an important financing channel for the Government**
- The outstanding amount of government retail securities represents HUF 9,731 billion as of 31 July 2022, 22% of the total debt
- Maturities range from 1 to 19 years, securities have step-up (MÁP Plus), fixed (1MÁP) or inflation-linked coupon (PMÁP, Baby Bond) and besides dematerialized securities there are physical securities (Treasury Savings Bill)
- AKK is regularly buying back retail securities from market makers to provide liquidity
- **Main distribution channels for retail securities are the Hungarian State Treasury, post offices, banks and investment service providers**
- Using retail government bonds as collateral is not permitted in Hungary

Source: AKK

Households asset structure

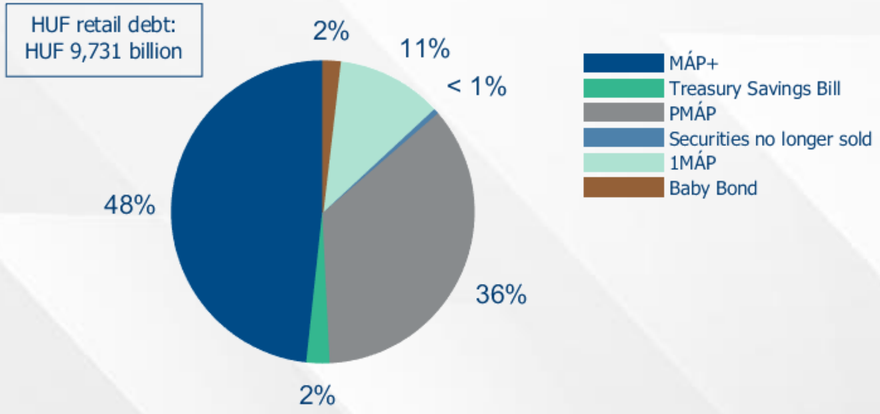
(Q2, 2022, % of total)



Source: NBH

HUF retail portfolio by instrument

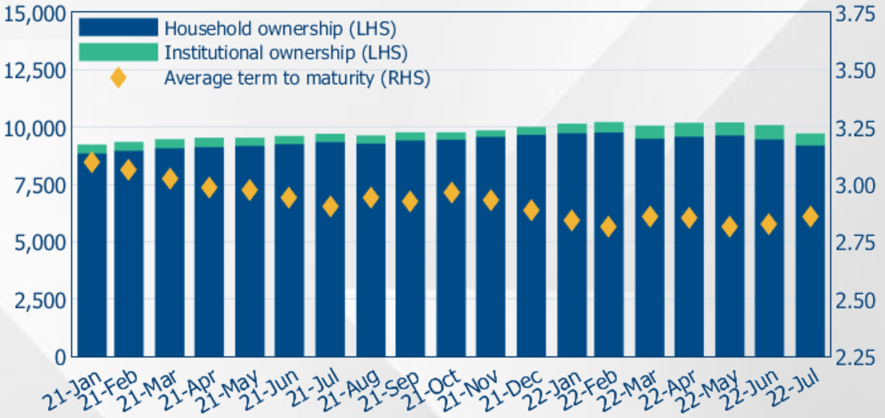
(31 July 2022, % of total)



Source: AKK

HUF retail securities

(HUF billion and years)



Source: AKK

HUNGARY'S EXPOSURE TO INTERNATIONAL MARKETS IS CAREFULLY MANAGED

GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.
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Key highlights

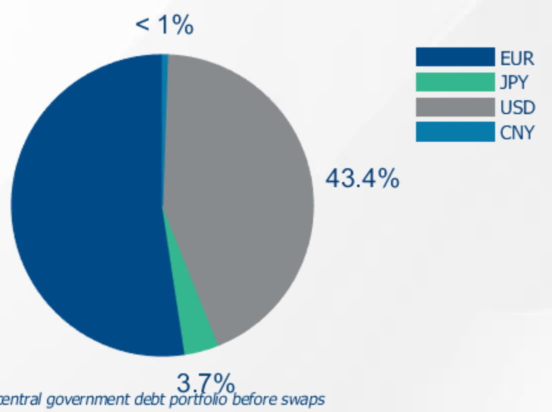
- **The share of Hungary's government debt in foreign currency is contained**
- Hungary strives to keep the share of FX exposure between 10% and 25% of total debt, but Hungary would also like to maintain its presence on the international capital markets to ensure diversification of funding sources
- **The FX debt is mainly denominated in EUR and USD, and is converted into EUR using cross-currency swaps**
  - 100% of FX debt is denominated in EUR after swaps as of May 31, 2022, in line with AKK debt management target to mitigate exchange rate risk
- **Hungary issued green bonds denominated in EUR (in June 2020), in JPY (in September 2020 and February 2022) and in CNY (in December 2021)**
- **Hungary issued conventional bonds denominated in JPY (in February 2022) in EUR and USD (in June 2022)**

Source: AKK

FX debt composition by currency before swaps

(July 31, 2022, % of total)

Total FX debt[1]: EUR 27.6 billion

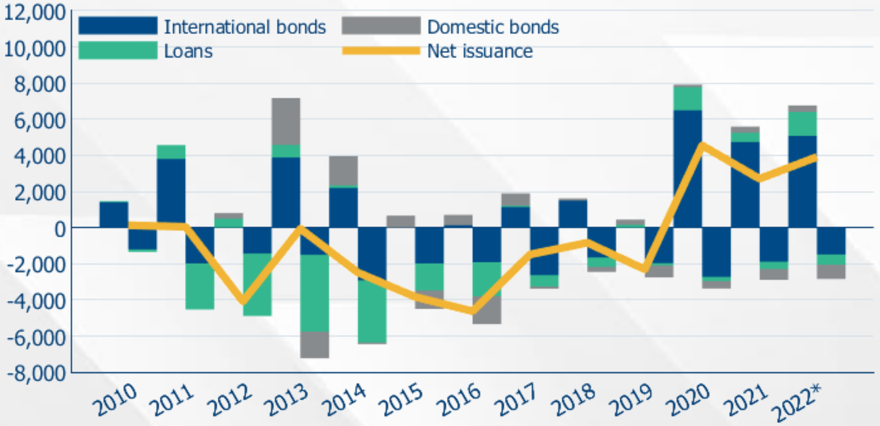


Source: AKK; Note: composition of the FX central government debt portfolio before swaps

[1] Excluding CCIR swaps; total FX debt including CCIR swaps amounted to EUR 25.8 billion

FX Redemption, Issuance & Net Issuance

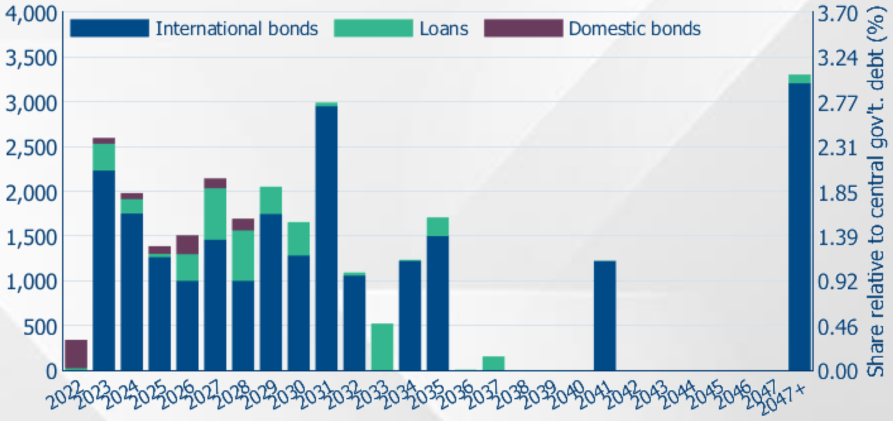
(EUR million)



*Source: AKK; Note: Central government debt; * According to the 2022 Financing Plan*

Maturity profile of FX debt

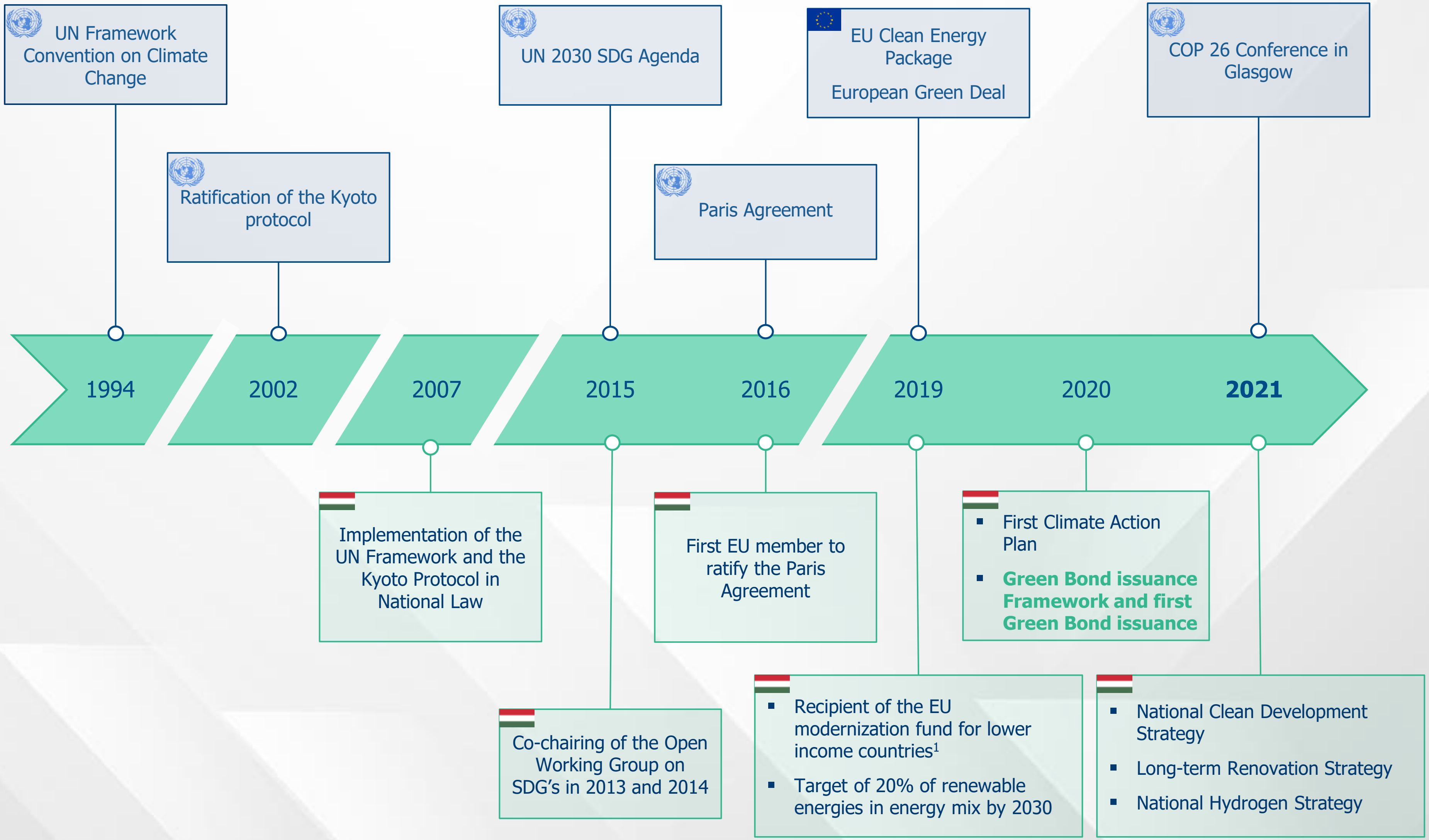
(July 31, 2022, EUR million)



Source: AKK; Note: Central government debt

VI. ESG

HUNGARY'S ENVIRONMENTAL COMMITMENTS, INCEPTION OF GREEN FINANCE



Notes: 1. c. €1bn over 2021 - 2030
Sources : *European Union; Government of Hungary; UN Treaties; UNFCCC*

NATIONAL STRATEGY TO ACHIEVE CLIMATE NEUTRALITY AND THE SDG

Hungary's strategies to mitigate climate change

Long term

National Clean Development Strategy
- 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)

Short term

National Climate Change Strategy
- 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

Milestones and achievements – Climate change

39% GHG reduction	Hungary reduced its greenhouse gas emissions by 39%[1] between 1990 and 2020
Highest share in solar electricity	Hungary achieved a share of 11% of solar PV in electricity output[3], the highest in the EU (2021)
Low emissions per capita	GHG emission per capita is 87% of the EU average[1]: the 12th lowest value in the EU (2020)
Ambitious decarbonisation targets	The Government targets a share of 90% of carbon-free electricity production by 2030[2]

Achievements of the SDGs

Index Score 2022	78.85%[4]	% of SDG achievement measuring progress towards the 17 SDGs
Index Rank 2022	21 / 165[4]	Country ranking relative to SDG achievements

Notes: ***1.*** *Eurostat* ***2.*** *Law on Climate Protection (2020) ,* ***3.*** *Hungarian Energy and Public Utility Regulatory Authority (MEKH), Annual Electricity Market Report (2021, Hungarian)* ***4.*** *Sustainable Development Rankings, 2022*
Sources : *AKK; SDG rankings: https://dashboards.sdgindex.org/rankings; Annual Electricity Report on MEKH webpage: http://mekh.hu/arampiac-eves-riport-2021; Eurostat*

GREEN BOND FRAMEWORK

Hungary's strategies to mitigate climate change

Related principles and organizations

Main features

- Hungary adopted a **green financing framework** in May 2020
- Aligned with **ICMA Green Bond Principles**
- Also taken into consideration:
  - Japanese Ministry of Environment Green Bond Guidelines[1]
  - Guidelines on Green Note of Non-Financial Enterprise published by the Chinese National Association of Financial Market Institutional Investors ("NAFMII")[2]

Green expenditures Categories

- **6 green expenditure categories**:
  - Renewable Energy
  - Energy Efficiency
  - Land Use and Living Natural Resources
  - Waste Water Management
  - Clean Transportation
  - Adaptation
- **Excluded to be financed under the framework**
  - Nuclear power
  - Armament and defence
  - Fossil fuel production and power generation

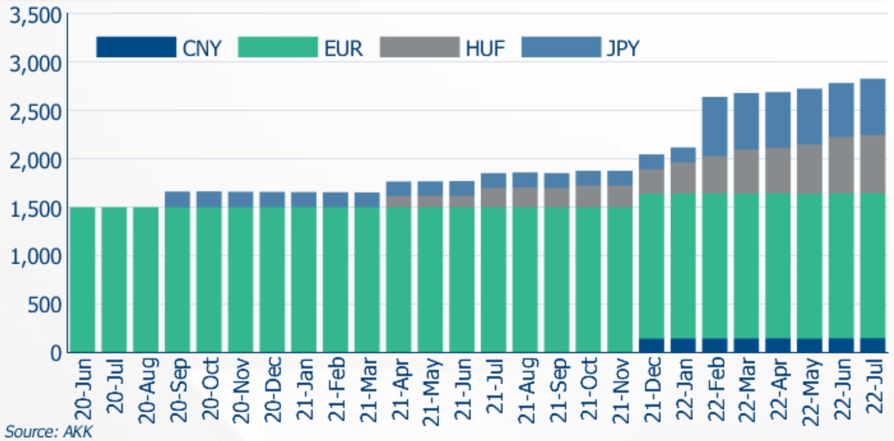
Second party opinion[3]

- Hungary's Green Bond Framework is aligned with **Green Bond Principles**
- **CICERO Shades of Green** finds the governance procedures in Hungary's framework to be Good
- Framework is rated **CICERO Medium Green**

Sources: *1: http://www.env.go.jp/policy/guidelines_bond_version.pdf*
2: http://www.nafmii.org.cn/english/lawsandregulations/selfregulatory_e/201801/t20180110_67080.html;
3: https://akk.hu/download?path=740f16c7-d9dd-4be7-8f3c-de41debb82bc.pdf

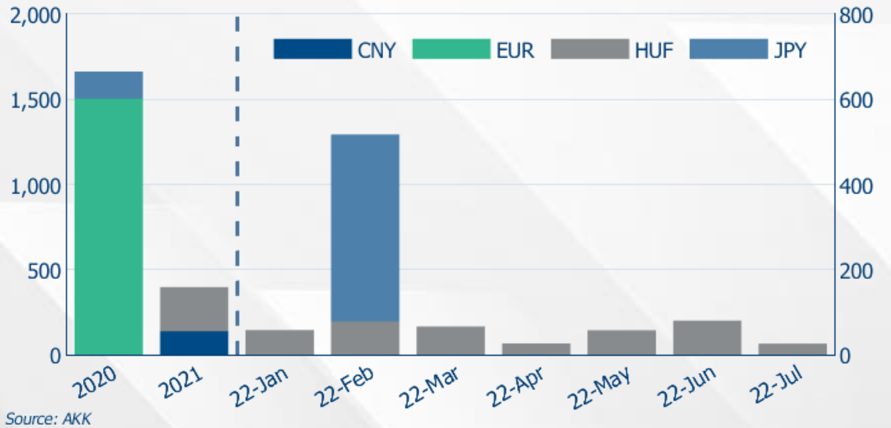
GREEN ISSUANCE SINCE 2020

Amount of green finance instruments of Hungary (EUR million)



Source: AKK

Green bond issuances (EUR million)



Source: AKK

Issuance history

Hungary has issued several green bonds in both local and foreign currencies since June 2020

Date	Type of Bond	Currency	Total Issued Amount[1]	Tenor
February 2022	Green Samurai Bond	JPY	59.3bn	5Y, 7Y, 10Y
January 2022[2]	Green Bond	HUF	132.9bn	10Y
December 2021	Green Panda Bond	CNY	1bn	3Y
April 2021[2]	Green Bond	HUF	109.8bn	30Y
September 2020	Green Samurai Bond	JPY	20bn	7Y, 10Y
June 2020	Green Eurobond	EUR	1.5bn	15Y

[1] As of 31 July, 2022
[2] Date of first issuance

GREEN BOND ACHIEVEMENTS AND AREAS WHERE HUNGARY EXCELS IN GHG EMISSION REDUCTIONS

GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.
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Awards

2022

Most **impressive CEE issuer** for low interest, long-term dollar, euro and green bonds

GlobalCapital

2021

Sovereign **Green Market Pioneer Award**

Climate Bonds Initiative

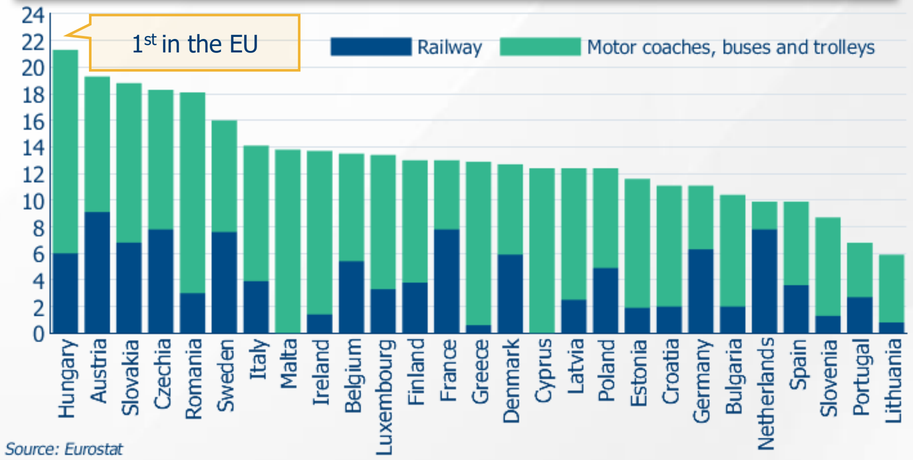
Sustainable Finance Award

RIEF Sustainable Finance Awards

2020

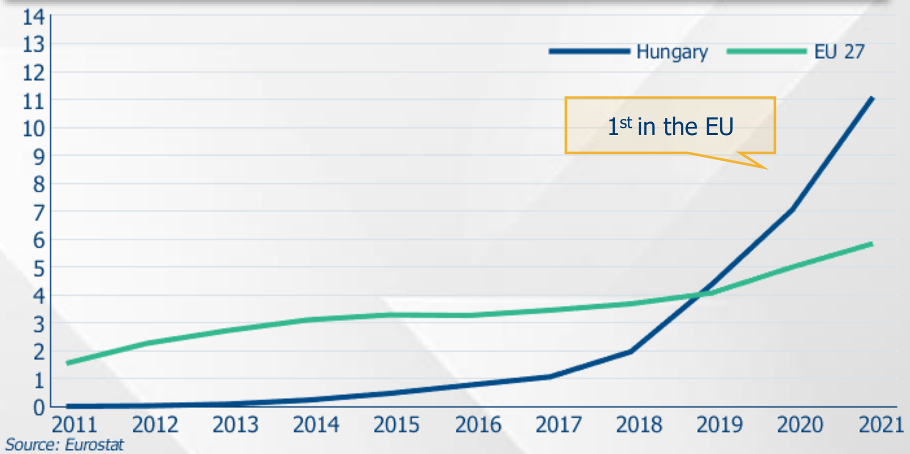
1st foreign **Sovereign issuer on the JPY green bond market** (Special Award)

Modal split of passenger transport in 2020, percent



Source: Eurostat

Solar PV share in electricity output, percent

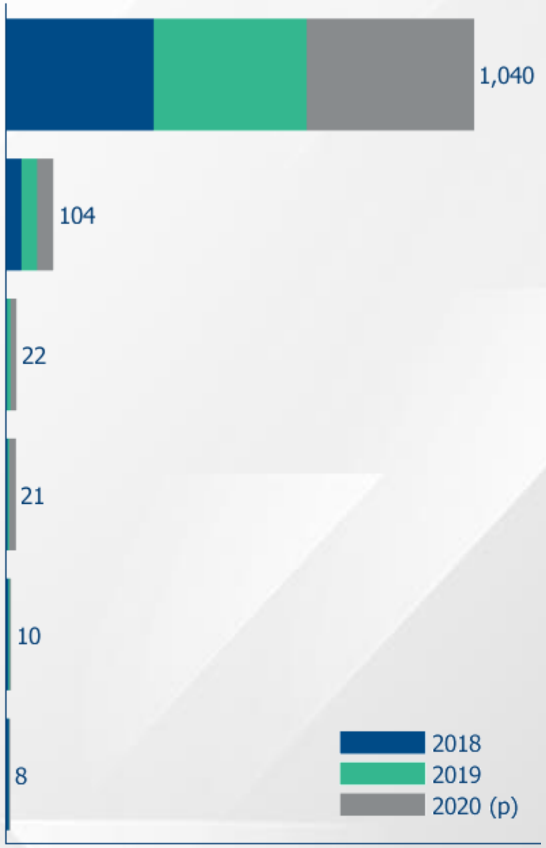


Source: Eurostat

ALLOCATION AND IMPACT – NOTABLE SAVINGS IN GHG EMISSIONS, FOSTERING SUSTAINABILITY

UN SDGs		Positive impacts on the environment	
13 CLIMATE ACTION	**Clean Transportation**	**1,106**	**Kilotons of CO_2** saved
15 LIFE ON LAND	**Land Use and Living Natural Resources**	**120k**	**Projects** supporting sustainable agricultural areas **covering 794,438 hectares**
6 CLEAN WATER AND SANITATION; 13 CLIMATE ACTION	**Adaptation**	**1.8%**	**Decrease in air pollutant** particular matter (PM10) between 2018 and 2019
7 AFFORDABLE AND CLEAN ENERGY	**Energy Efficiency**	**49.5**	**Kilotons of CO_2** saved
6 CLEAN WATER AND SANITATION; 11 SUSTAINABLE CITIES AND COMMUNITIES	**Waste and Water Management**	**761**	**Meters per kilometres increase in length of sewage system** of drinking water system
7 AFFORDABLE AND CLEAN ENERGY	**Renewable Energy**	**8.2**	**Kilotons of CO_2** saved

Allocated amounts (HUF billions)



Source: AKK

Sources: *2020 Green Bond Allocation Report : https://akk.hu/download?path=d8776dc8-62b1-4f60-8ae4-4a2727529d02.pdf*
2020 Green Bond Impact Report: https://akk.hu/download?path=53c5ef43-3d10-4a42-897a-c77bb21e5e89.pdf
The 2021 Allocation and Impact Report (integrated) will be released towards the end of 2022.

THANK YOU FOR YOUR ATTENTION!

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