

MACRO MONITOR

May 2023

Századvég

Konjunktúrakutató Zrt.



Table of Contents

1. Summary	2
2. Overview of the economy	3
2.1 External environment.....	3
2.2 SZIGMA indicators.....	4
2.3 The real economy.....	7
2.4 External balance.....	16
2.5 Fiscal outlook	17
2.6 Monetary developments	20
3. Századvég's forecast	26

DISCLAIMER

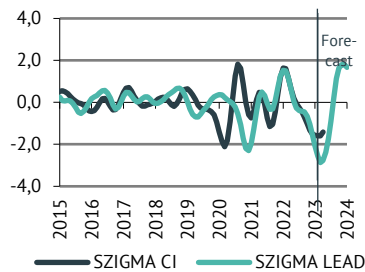
This publication is the intellectual product of Századvég Konjunktúrakutató Zrt., and has been produced for the information of its partners on the basis of data provided by external parties. Accordingly, the findings and forecasts in this publication are not intended to serve as professional or other advice, and Századvég Konjunktúrakutató Zrt. assumes no responsibility for the effectiveness of any decisions based on them.

1. Summary

IN MAY, THE MNB DID NOT CHANGE THE BASE RATE, BUT CUT THE EFFECTIVE INTEREST RATE BY 100 BASIS POINTS

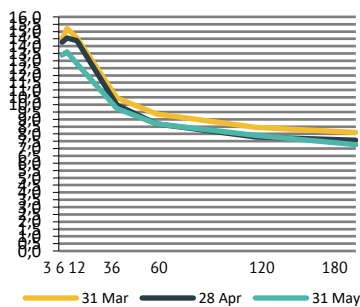
In Q1 2023, the Hungarian economy's seasonally adjusted output declined by 1.1% year on year and by 0.2% quarter on quarter.

SIGMA indicators



Source: Századvég

Forint yield curve (%)



Source: Refinitiv

Forecast (20.03.2023)	2023
Change in the GDP (%)	0.6
Inflation (annual average, %)	17.5
EUR/HUF (annual average)	391.9

At its meeting in May, the Monetary Council of the central bank did not change the base rate (13%) but started to cut the policy rate. The central bank cut its effective rate, the overnight deposit facility rate, cut by 100 basis points to 17.0%. This is the first time since the end of the interest rate hiking period in October that the Magyar Nemzeti Bank has significantly changed monetary conditions.

Raw data show that retail sales decreased by 12.6%, while calendar-adjusted data show that it decreased by 13.1% in March 2023, compared to the same period of the previous year. Within this, sales increased by 10.3% in specialised and non-specialised food shops and by 9.6% in non-food shops. The lifting of the fuel price cap in December led to a sharp 29.3% drop in petrol station sales.

In May 2023, the SZIGMA CI indicator, which provides a snapshot of the current state of the Hungarian economy, showed a reversal in the trend of economic growth until April 2023. The growth rate has started to approach the historical trend rate.

The other indicator, SZIGMA LEAD, is a short-term indicator for the future of the Hungarian economy, continues to point to stronger economic growth, which may stall between December 2023 to January 2024.

In an environment of higher interest rates and higher inflation, the trend towards a preference for premium Hungarian government bonds with above-inflation yields over those with fixed yields continued.

2. Overview of the economy

2.1 External environment

In the European Union, GDP expanded by 1.2% year on year and 0.2% month on month in Q1 2023.

In both the European Union and the euro area, growth in gross domestic product was subdued in Q1 2023. Seasonally adjusted data show that year-on-year growth was 1.2% in the European Union

and 1.3% in the euro area. Quarter on quarter, the same rates were 0.2% and 0.1%, respectively.

Compared to Q1 2022, the strongest GDP growth was in Cyprus (3.4%), Romania (2.8%) and Portugal (2.5%). In comparison, Lithuania (-3.6%) shows a significant decline, and only three other countries are in negative territory. Besides Hungary, GDP fell, albeit marginally, in the Czech Republic (-0.2%) and Germany (-0.1%).

Quarter on quarter, the results are mixed, with the strongest growth in Poland (3.9%) and Portugal (1.6%) compared to Q4 2022. Again, the vast majority of countries have not seen a decline, with only five countries showing a decrease.

Overall, the macroeconomic environment, which has been steadily deteriorating since the outbreak of the war, appears to be stabilising and in many cases improving, which could lead to a positive shift in growth expectations for 2023.

2.2 SZIGMA indicators

The growth rate of the Hungarian economy remains below trend.

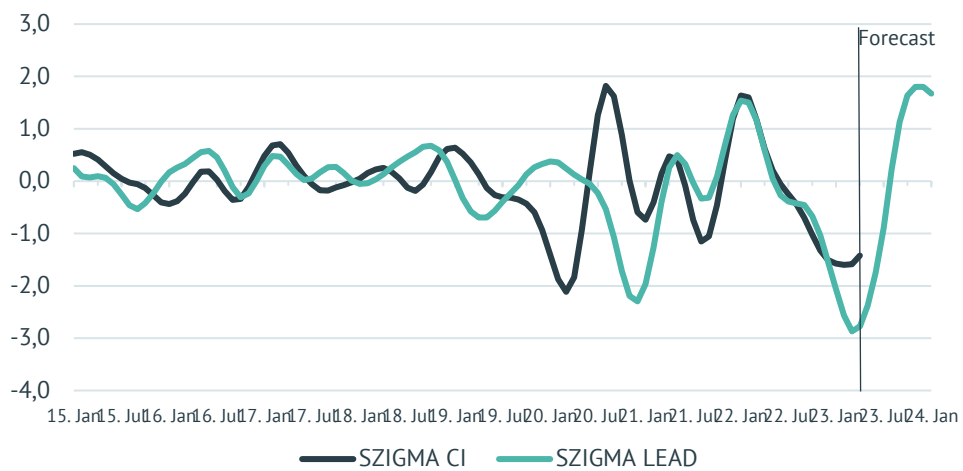
In May 2023, the SZIGMA CI indicator, which reflects the current state of the Hungarian economy, was still in negative territory until April 2023, meaning that the growth rate of the Hungarian economy is below its historical trend rate. At the same time, this lower growth rate has reached a turning point, as the rate of economic growth is no longer moving away from trend but is starting to approach it. The current below-trend economic growth is part of a longer period that started in June 2022 and has gradually moved further away from the historical trend each month until March this year. It then reversed and started to approach the trend value. This could continue to be driven by the adverse international and domestic economic environment and its negative effects. In March 2023, **construction** output on a fixed basis, seasonally and working-day adjusted, fell by 9.9% year on year and by 1.2% month on month. However, it should be noted that this value (155.3%) is still a relatively high level, on a par with the pre pandemic value; for example, the same indicator was 156.2% in March 2019. The fixed-base volume index of month-end stock of construction contracts (237.7%), which declined both month on month (2.7%) and year on year (27.9%), is related to the current construction output. The same period of the previous year, March 2022, was part of an overheated period from January 2022 to June 2022, when the above indicator fluctuated between 305.4% and 329.8%. The number of new non-residential building projects in March 2023 (384 projects) was up 12.3% from the previous month, showing an initial bounce back from the extra weak January 2023. On an annual basis, the number of new non-residential building projects fell by 21.3%, partly reflecting a strong base effect. Looking at **industry** indicators for March 2023, both production volume and sales volume declined on an annual basis. However, month on month, there is already a difference, with production stagnating while sales have contracted slightly. More specifically, fixed-base seasonally and working-day adjusted industrial output fell by 3.8% year on year, while the 0.2% month-on-

month gain can be seen as essentially stagnating. Fixed-base seasonally and working day adjusted total industrial sales fell by 0.9% month on month, driven by an increase in domestic sales (2.7%) and a decrease in export sales (0.5%). Year on year, fixed-base seasonally and working day adjusted total industrial sales fell by 6.9%, driven by a significant decline in domestic sales (16.2%) and a small increase in export sales (0.8%).

In May 2023, our short-term forecasting indicator, the SMALL LEAD indicator, continues to point to a trend reversal in the growth rate of the Hungarian economy. According to the April 2023 forecast of the SZIGMA LEAD indicator, the Hungarian economy's below-trend growth will still bottom out in April 2023, after which it will turn around and start to converge towards its historical trend rate, which it may reach in August this year. At that point, the growth rate of the Hungarian economy will reach the historical trend rate and will continue to grow above the historical trend rate thereafter. A strong growth cycle is expected until November 2023, but this will come to a halt in December 2023 and start to decline in January 2024. Although the growth rate of the Hungarian economy will still be above the historical trend rate, it will start to decline. In sum, a stronger economic growth is expected in the near term, which may slow down and stall in the period December 2023 – January 2024. Looking at the future outlook for **industry**, it is positive that the fixed-base stock of (all) *new industrial sales orders* in March 2023 increased both month on month (21.1%) and year on year (6.3%). Year-on-year growth was supported by an increase in new export industrial sales orders (10.2%); however, it was slowed by a 13.4% decline in new domestic industrial sales orders. Both export (22.5%) and domestic new industrial sales orders (13.4%) contributed to the month-on-month increase in new industrial sales orders. The April 2023 Ifo Business Climate Index, which **measures the change in business sentiment in the German economy**, stood at 93.4 index points, up 0.2 index points from the previous month, due to the business climate. This is the sixth month of continuous improvement in this index. German businesses' concerns have eased, but firms have assessed their current situation as slightly worse. **Eurostat's** consumer

confidence index continued to strengthen slightly in April 2023, improving to 32.8 index points from 34.1 index points in the previous month. However, it is still far from the pre-war index point of -10.2 (February 2022) and the index point of -22.0 measured in the month of the war (March 2022). Overall, the indicator improved by 1.3 index points month on month and weakened by 9.7 index points year on year, which could improve further as consumer confidence recovers.

FIGURE 1: CURRENT (CI) AND FORECASTING (LEAD) SZIGMA INDICATORS



Source: Századvég

2.3 The real economy

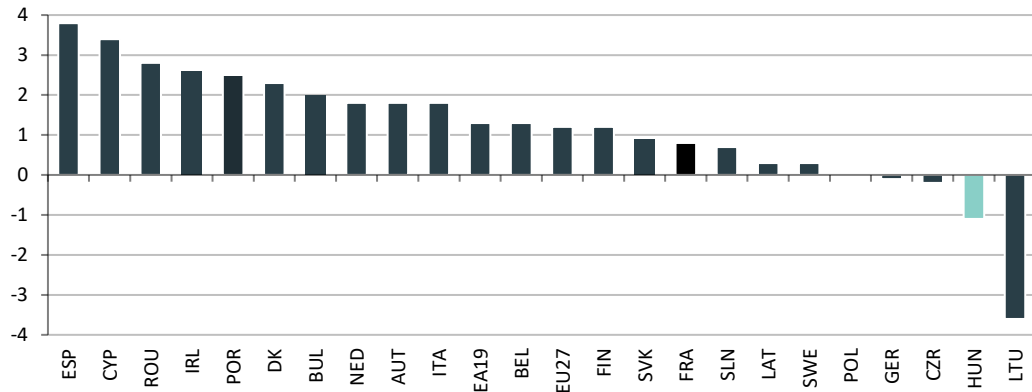
Hungarian GDP fell on both an annual and quarterly basis.

According to the first estimate of the Hungarian Central Statistical Office (KSH), the annual gross domestic product (GDP) of the Hungarian economy decreased by 0.9% in Q1 2023 based on raw data and by 1.1% based on seasonally and calendar-adjusted data. In addition, compared with the previous quarter, the Hungarian economy's performance declined by 0.2% on a seasonally adjusted and balanced basis. According to preliminary data, Q1 2023 GDP was mainly boosted by a strong output from agriculture and services, while the performance of industry held it back. Within services, the health sector strengthened in particular, approaching pre-coronavirus levels.

On an international comparison, seasonally adjusted data show that Hungary's Q1 2023 year on year GDP growth rate (-1.1%) was the second to last in the EU rankings. Lithuania came last, with a 3.6% drop in GDP. The EU average (EU27) was 1.2%, while in the euro area (EA19) GDP grew by 1.3% year on year. In Q1 2023, Spain achieved the highest economic growth rate on an annual basis (3.8%). Quarter on quarter GDP figures for Q1 2023 show a different picture. For the European Union as a whole, the EU economy grew by 0.2% quarter on quarter. In the euro area, GDP grew by 0.1% quarter on quarter. Quarter on quarter Hungarian GDP growth in Q1 2023 was slightly better in the EU rankings than Hungary's annual GDP growth. Quarter on quarter, four other countries performed below the performance of the Hungarian economy (-0.2%), namely: Austria (-0.3%), the Netherlands (-0.7%), Ireland (-2.7%), Lithuania (-3.0%). Quarter on quarter, Ireland recorded the largest decline compared to Q4 2022. In Q4 2022, Ireland's GDP growth rate was 0.3%, which has now become 2.7% in Q1 2023. A similar economic contraction occurred in Lithuania (Q4 2022: -0.5%, Q1 2023: -3.0%). The highest GDP growth rate was recorded in Poland, where GDP growth in Q4 2022 was -2.3%, while the Q1 2023 GDP growth rate was 3.9% quarter on quarter. The Hungarian

economy showed a slight improvement in quarter-on-quarter GDP growth, as Hungarian GDP improved from -0.6% in Q4 2022 to -0.2% in Q1 2023.

FIGURE 1: EU Q1 2023 GDP GROWTH (YEAR/YEAR, %)



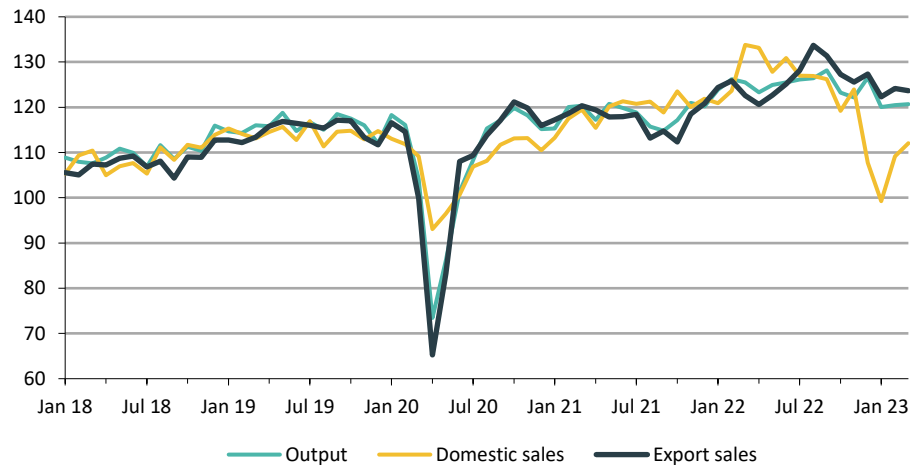
Remark: Seasonally and calendar adjusted indices. Preliminary estimate.

Source: Eurostat

Industrial production slowed further in March.

Compared with the same period of the previous year, industrial production fell by 4.1% year on year according to raw data and by 4.0% according to working-day adjusted data in March 2023. Month on month, compared to February 2023, seasonally and working day adjusted industrial output increased by 0.2%. In March 2023, total industrial sales declined by 7.5% year on year, driven by a 17.0% decline in domestic sales and a 0.4% increase in export sales.

FIGURE 2: CHANGES IN INDUSTRIAL OUTPUT AND SALES
(2015 MONTHLY AVERAGE = 100%)



Remark: Seasonally and calendar adjusted indices.

Source: Hungarian Central Statistical Office, Századvég

Returning to industrial production, in March 2023, manufacturing continued to account for the largest share (95.6%) of industrial production among the three industrial sectors, with output falling by 2.9% year on year. Of the remaining share, the energy sector (electricity, gas and steam supply and air conditioning) contributed 4.0% and mining and quarrying 0.4% to industrial production in March 2023. Volumes in all three sectors fell year on year. Output in manufacturing, which accounts for 95.6% of the total, fell by 2.9%, while energy, which accounts for 4.0%, declined by 25.1% and mining and quarrying, which accounts for 0.4%, fell by 22.6%. Within manufacturing, output fell in all but three sectors (electrical equipment manufacturing, automotive manufacturing and machinery and equipment manufacturing). The largest contributor to manufacturing output in March 2023 (26.4%) was automotive manufacturing. Two sectors follow slightly behind: Food with 12.0% and electrical equipment manufacturing with 11.2%. Of these, automotive manufacturing (up 23.5%) and electrical equipment manufacturing (up 23.1%) significantly increased their performance compared to the same period last year. At the

same time, production in the food sector fell by 13.3% compared to the same period last year.

In March 2023, the total stock of sales orders in the manufacturing industries monitored by the HCSO increased by 7.5% year on year. This was driven by a 7.5% increase in export sales orders and a 7.6% increase in domestic sales orders. For exports, despite the high base, export sales orders increased year on year in three sectors: computer, electronic and optical products manufacturing (up 17.6%), machinery and equipment (up 14.1%) and automotive manufacturing (up 7.2%). The base effect did not play a role in the 138.6% increase (neither low nor high) in pharmaceutical production. For domestic sales orders, despite the high year-on-year base, electrical equipment manufacturing increased its sales orders by 38.6% and pharmaceutical production by 111.1%. However, compared to the same period of the previous year, the low base led to an increase in the domestic sales orders of automotive manufacturing (9.0%) and the metals industry (32.5%).

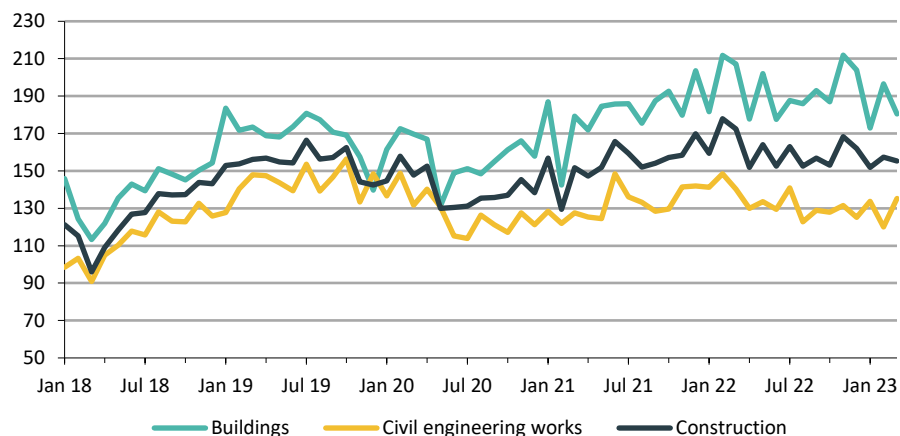
In March 2023, new sales orders in the priority manufacturing industries increased by 6.3% year on year, driven by a 10.2% increase in new export sales orders and a 13.4% decline in new domestic sales orders. For new domestic sales orders, the stock of new sales orders fell in all sectors except automotive manufacturing, machinery and equipment manufacturing and electrical equipment manufacturing. The largest decline was in the chemical industry (36.4%). New export sales orders increased in paper products (13.1%), pharmaceuticals (107.0%), electrical equipment manufacturing (15.1%), machinery and equipment manufacturing (28.1%) and automotive manufacturing (21.5%), while the other sectors saw a decline. The last two industries have seen stronger growth from a low base, while the first three have seen significant growth in new export sales orders, despite the strong base effect.

The construction sector continues to

Construction output fell by 9.8% year on year in March 2023, according to raw data. In construction,

buildings fell by 13.2% and civil engineering works by 1.6%. Seasonally and working day adjusted construction output decreased by 1.2% month on month (February 2023). The main building groups (buildings and civil engineering works) show the opposite effect in terms of output and the stock of contracts and new contracts. While construction output fell more in buildings, for civil engineering works, the stock of contracts fell. At the end of March 2023, construction sales orders were down by 27.9% year on year. Looking at the main building groups (buildings and civil engineering works), the month-end stock of contracts for civil engineering works showed a sharper decline, as the year-on-year decline in the month-end stock of contracts was 9.0% for buildings and 39.4% for civil engineering works. As regards future prospects of construction, the stock of new contracts for civil engineering works has fallen sharply. In March 2023, the stock of new construction contracts fell by 31.8% year on year. Of these, the stock of new construction contracts for buildings contracted by 3.6% and the stock of new contracts for civil engineering works contracted by 54.1%.

FIGURE 3: CHANGES IN THE CONSTRUCTION INDUSTRY (MONTHLY AVERAGE FOR THE YEAR 2015 = 100%)



Remark: Seasonally and calendar adjusted indices.

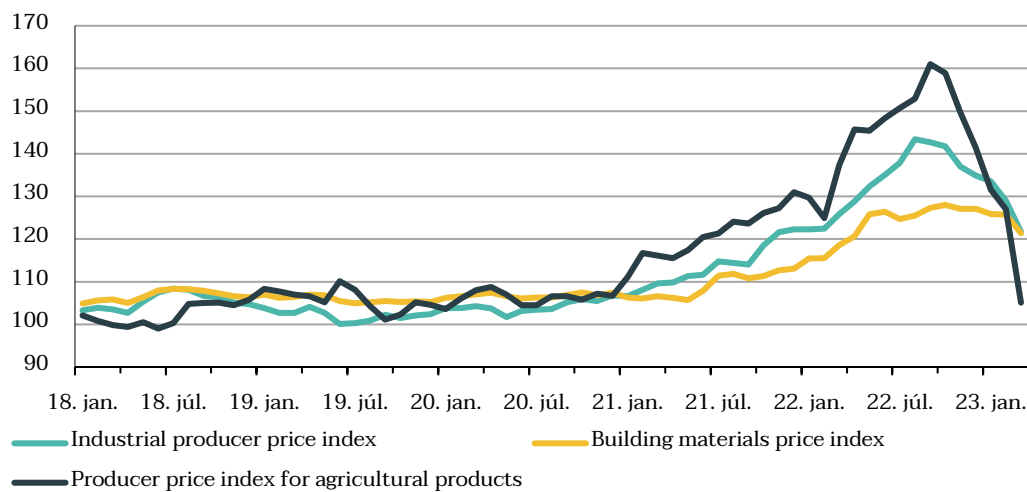
Source: Hungarian Central Statistical Office, Századvég

In March, agricultural producer price growth fell sharply.

In March 2023, the growth rates of all three price indices examined (industrial producer price index, construction materials price index, agricultural producer price index) fell

significantly. The sharpest decline was again in the rate of increase in agricultural producer prices. In March 2023, **industrial** producer prices increased by 21.7% year on year. While this is still high, it is 7.3 percentage points lower than the annual increase recorded in the previous month. The slowdown is shown by the fact that industrial producer prices fell by 1.2% compared to the previous month. The growth rate of industrial producer prices peaked at 43.4% in August 2022 and then began a slow decline. In general, higher raw material prices and the weakening of the forint also contributed to the increase in industrial producer prices. Looking at **construction**, in March 2023, construction materials price growth fell sharply (by 4.3 percentage points), so that annual price increases now stood at 21.4%. In addition, construction producer prices increased by 24.1% year on year in Q1 2023. In March 2023, the rate of increase in agricultural producer prices fell sharply, as they rose by only 5.1% in March 2023 compared with the same period of the previous year. This is a decrease of 21.9 percentage points compared to the previous month. Looking back, agricultural producer prices peaked at 61.0% year on year in September 2022, followed by an intense decline.

FIGURE 4: INDUSTRIAL PRODUCER PRICE INDEX, CONSTRUCTION INPUT PRICE INDEX, AGRICULTURAL PRODUCER PRICE INDEX (SAME PERIOD OF PREVIOUS YEAR = 100%)



Source: Hungarian Central Statistical Office, Századvég

Retail sales contracted by 13.1%.

Raw data show that retail sales decreased by 12.6%, while calendar-adjusted data show that it decreased by 13.1% in March 2023, compared to the same period of the previous year. The significant decline in retail sales is due to the record high inflationary environment: people are increasingly forced to rationalise consumption even for basic goods, and their disposable income is also decreasing significantly, in addition to basic spending.

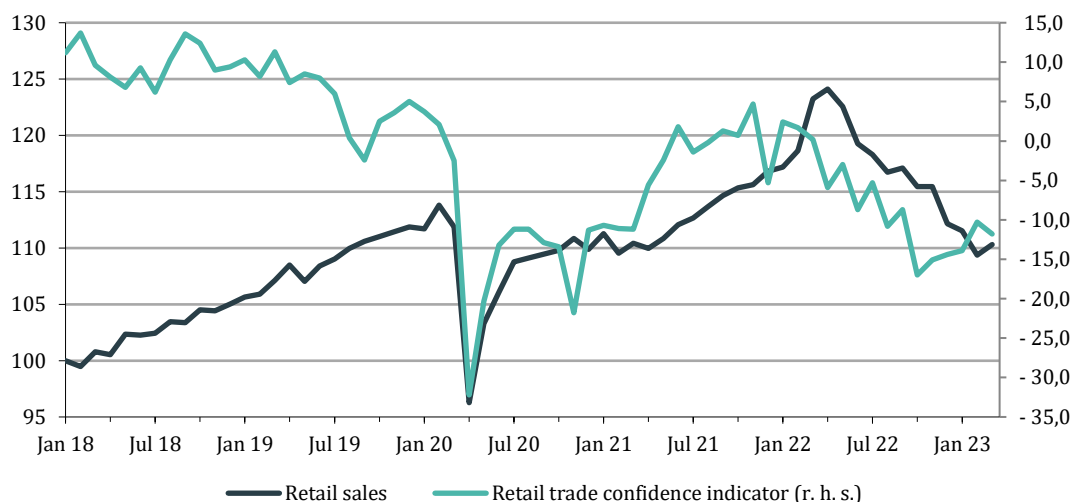
The lifting of the price cap on fuels has a similar negative impact on retail sales, with higher fuel prices also holding back demand. The sharp fall in demand is forcing retailers seeking to maximise profits to step up promotions and cut prices permanently, which could lead to a positive turnaround in retail sales on a monthly basis in the coming period.

In March 2023, turnover in specialised and non-specialised food shops decreased by 10.3%, while turnover in non-food shops also decreased by 9.6%. In fuel retailing, sales fell significantly by 29.3% in March compared to the same month last year, driven by a number of factors. For one thing, the base effect is becoming increasingly pronounced: official pricing applied last year continuously increased demand, and for another, market

fuel prices are reducing demand, with some car owners looking for alternatives.

On a calendar-adjusted basis, food, beverages and tobacco declined by 4.8%, while foodstuffs fell by an even larger 11.9%. In non-food retailing, sales of parcel delivery and web shops fell by 13.5%, furniture and electric goods by 21.4% and computer and other manufactured goods by 3.0% compared to the same period last year. In contrast, the biggest sales increase (11.1%) was in second-hand goods. In addition, sales of books, newspapers and stationery also increased (7.2%). If we look at retail sales excluding the volume of fuel sales, we see that, on an annual basis, there was a 9.5% decline in the month.

**FIGURE 5: RETAIL SALES AND RETAIL CONFIDENCE INDEX
(JANUARY 2018 = 100%)**



Remark: Seasonally and calendar adjusted indices.

Source: Hungarian Central Statistical Office, Eurostat, Századvég

The unemployment rate was 4.0% in

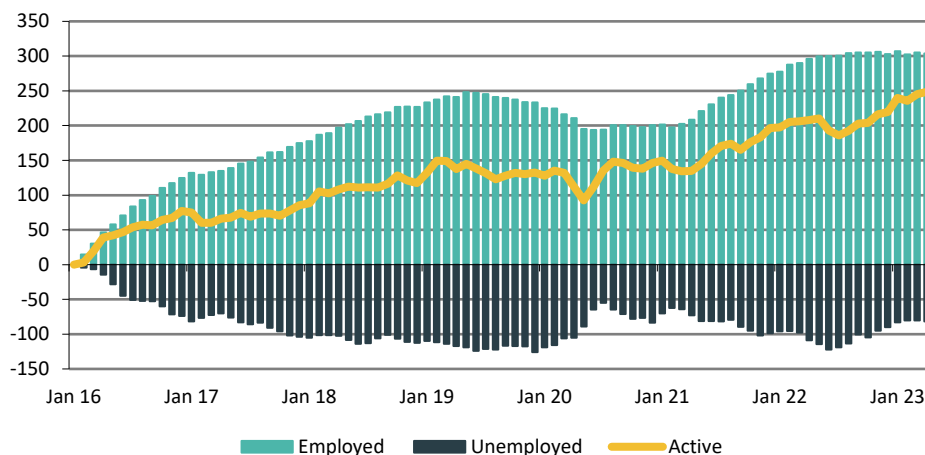
In April 2023¹, the seasonally adjusted activity rate of the population aged 15-74 was 67.2% (4,915,000 persons), which means a labour market growth of 41,000 compared to the same period of the last year. In the period under review, the seasonally adjusted number of employees was around

¹ Three-month moving average

4,702,000, an increase of 7,600 and 13,500 respectively compared to the previous quarter and the same period of the previous year. The increase in unemployment observed in previous months has come to a halt, with 197,000 people unemployed, an increase of 1,500 compared to the previous quarter and 27,200 compared to the previous year.

In March, the seasonally adjusted number of employees increased by 400 from February, while it increased by 13,700 compared to the same period of the previous year. The most significant increase in the number of employees was in the competitive sector, with 36,500 more working in enterprises having at least 5 employees compared to 2022, up by 8,300 compared to February. The number of employees in the non-profit sector and the public sector also stagnated during the month.

FIGURE 6: CHANGES IN THE LABOUR MARKET (JANUARY 2016 = 0, THOUSAND EMPLOYEES)



Remark: Seasonally and calendar-adjusted indices

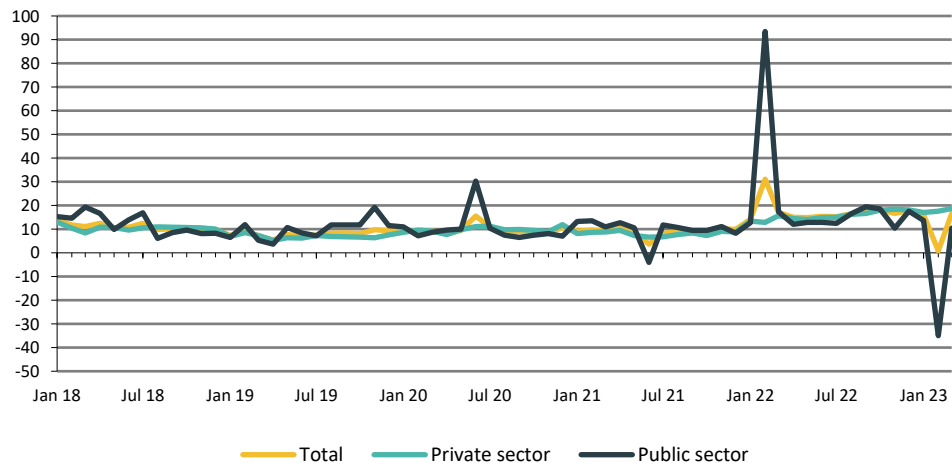
Source: Hungarian Central Statistical Office, Századvég

Real wages continued to fall in March.

In March, the average gross monthly wage in the national economy was HUF 577,900, up 16.6% compared to the same period last year. The highest average gross monthly wage was recorded in the competitive sector, at HUF 599,100. The average net monthly wage including benefits was HUF 398,000,

an annual increase of 16.5%. The average regular gross monthly wage, excluding bonuses, rewards and one-off benefits, increased by 15.7% in March 2023 compared to a year earlier, to an estimated HUF 520,600. Inflation, which is still exceptionally high at 25.2% in March, caused real earnings to fall by 6.9%. The median gross monthly wage was HUF 440,700.

FIGURE 7: CHANGES IN GROSS WAGES (ANNUAL CHANGE, %)



Remark: Seasonally and calendar-adjusted indices
Source: Hungarian Central Statistical Office, Századvég

2.4 External balance

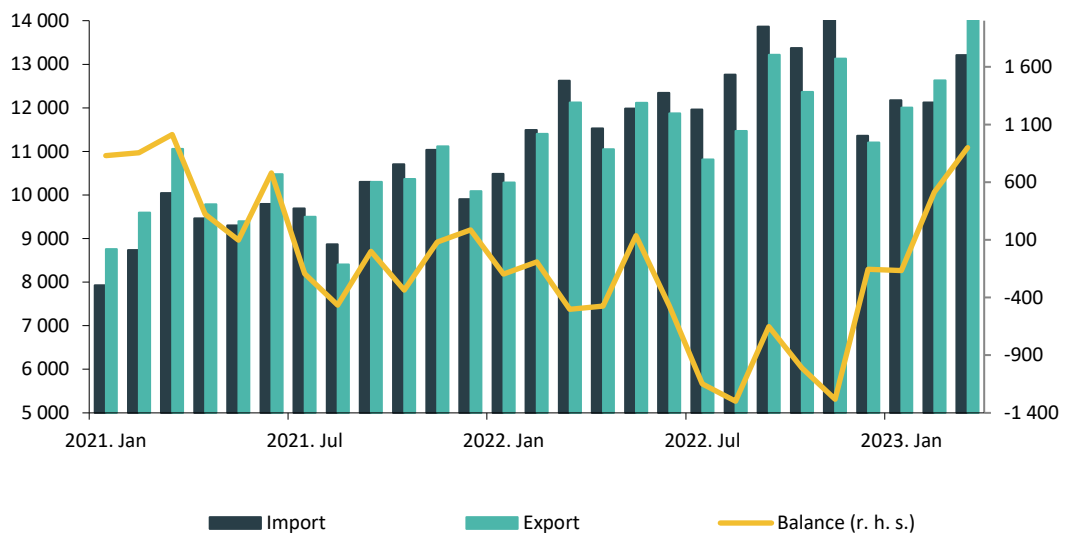
In February, the EUR value of product exports increased by 12.0%, and the EUR value of product imports increased by 4.3% year on year. This brought the foreign trade surplus to EUR 581.2 million, an improvement of EUR 817 million compared to the previous year.

In February, the import volume of food products, beverages and tobacco increased by 5.7%, and their export volume decreased by 6.5% year on year. As for energy carriers, imports decreased by 21.0% and exports by 15.0%. As for processed products, imports decreased by 2.4%, and exports by 1.1% year on year. As for machinery and transport equipment, imports increased by 8.4%, and exports by 13.0%.

The foreign trade balance improved.

In March 2023, the EUR value of exports was 16.0% higher and the EUR value of imports was 2.1% higher than a year earlier. This brought the foreign trade surplus in goods to EUR 898 million, which is EUR 1 718 million better than a year earlier.

FIGURE 8: FOREIGN TRADE BALANCE (EUR MILLION)



Remark: The March 2023 figures are from the first estimate.

Source: Hungarian Central Statistical Office, Századvég

2.5 Fiscal outlook

Fiscal revenues increased by 16% and expenditure by 13% in the first four months of the year.

By the end of April 2023, the central budgetary subsystem had accumulated a deficit of HUF 2,708.5 billion, which is 79.7% of the annual deficit target. This deficit consisted of the HUF 2,671.6 billion deficit of the central budget, the HUF 77.4 billion deficit of social security funds and the HUF 39.3 billion surplus of extra-budgetary funds.

In the first three months of the year, central government revenue was 15.8% higher and expenditure was 13.0% higher than in the same period of the previous year.

Payments from business organisations were 33.3% higher than in the same period of 2022. Within payments by business organisations, corporate tax, the largest revenue generator, was 21% (HUF 29.2 billion) higher than in the first three months of the previous year. Mining royalties and energy sector payments increased significantly by HUF 57.1 billion and HUF 119.1 billion respectively compared to the same period last year, with the latter two items being driven by the temporary introduction of special taxes in 2022.

Revenues from consumption-related taxes were 7.2% (HUF 200.1 billion) higher than a year earlier. VAT receipts were HUF 124.5 billion (5.5%) higher than at the end of April in the previous year. Excise tax revenue was HUF 44.1 billion (11.7%) more than in the first four months of 2022. Tobacco products had the strongest increase (HUF 43.3 billion), while fuel-related revenues decreased by HUF 8.6 billion.

Personal income tax revenues increased by HUF 808.4 billion compared to January-April 2022. The increase is mainly attributable to the low base caused by family tax rebates last year and, to a lesser extent, to wage increases. Receipts from social contribution tax and social insurance contributions increased by 12.2% (HUF 247.9 billion) compared to the same period of the previous year, also caused by wage increases.

Revenue from EU programmes up to April was HUF 603.2 billion, HUF 317 billion more than in 2022 and representing more than double the increase. In contrast, expenditure on EU programmes amounted to HUF 1,151.2 billion, HUF 442.7 billion (27.8%) less than the previous year.

Among significant expenditure items, expenditure on specific and normative subsidies, housing subsidies, expenditure on public property and interest expenditure were higher than a year earlier.

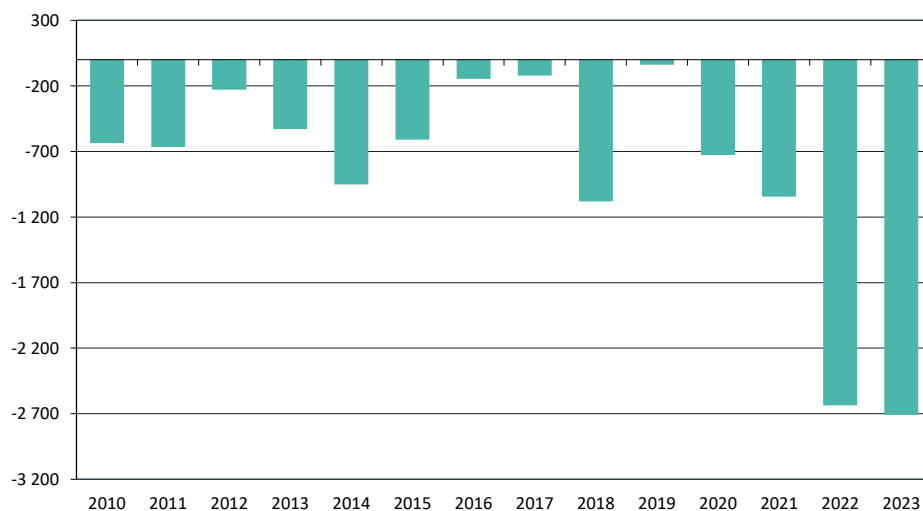
The amount spent on specific and normative subsidies was HUF 1,085.1 billion higher than in April 2022. The most significant item of the increase was HUF 848.5 billion in expenditure to maintain discount household utility prices.

Expenditure on state property increased by HUF 206.3 billion compared to the same period last year. Expenditure on housing subsidies was HUF 106.4 billion higher than in the same period last year, due to the carry-over effect of the end of the home renovation subsidy at the end of last year.

Compared to the first four months of the previous year, expenditure on chapter-administered professional appropriations decreased significantly, by HUF 664.5 billion.

In the January–April 2023 period, expenditure on retirement benefits amounted to HUF 2,136.2 billion, up HUF 456.7 billion (27.2%) compared to the same period in 2022. During the same period, the Health Insurance Fund spent HUF 1,306.3 billion, an increase of HUF 83.3 billion (6.8%) compared to the base period. Within this, expenditure on medical and preventive care, which accounts for more than half of the Fund’s expenditure, increased by 4.7%.

FIGURE 9: CENTRAL SUBSYSTEM BALANCE, 2010–2023 (JANUARY–APRIL RESULTS, HUF BILLION)



Source: Ministry of Finance, Századvég

2.6 Monetary developments

In April, prices rose by 24.0% on average.

In April 2023, consumer prices increased by 24.0% on average, compared to the same period of the previous year. Over the past year, the highest increases were for food (37.9%) and household energy (41.8%), the latter due to changes in household utility discounts. Consumer prices rose by 0.7% on average over a month. The seasonally adjusted core inflation rate showed a year-on-year increase of 24.8%.

The more significant contributors to the 37.9% average increase in food prices were the 63.5% increase in the consumer prices of dairy products, the 61.6% increase in the consumer prices of bread and the 62.1% increase in the consumer prices of butter and buttercream. The average inflation of 61.9% for pastries, 47.6% for dry pasta and 45.4% for cheese also outpaced average food inflation for the month. In contrast, pork prices rose at a below-average rate (15.8%), while edible oil (3.4%) inflation was also below average. The main drivers of the 20.5% average inflation in spirits and tobacco were primarily the 39.6% increase in beer prices.

The 18.0% increase in new car prices played a particularly important role in the 9.3% average increase in the prices of consumer durables. The prices of heating and cooking appliances also increased at an above-average rate, by 15.7%, while kitchen and other furniture prices rose by 16.1% compared to the same period last year. Consumer durables inflation is moderated by a 4.6% increase in the prices of computers, cameras and telephones, and a 0.6% decrease in the prices of televisions. It is also important to highlight the improving trend in second-hand cars: inflation for new and second-hand cars has recently correlated and hovered around 20%, but in April, second-hand cars were only 0.4% more expensive than a year earlier.

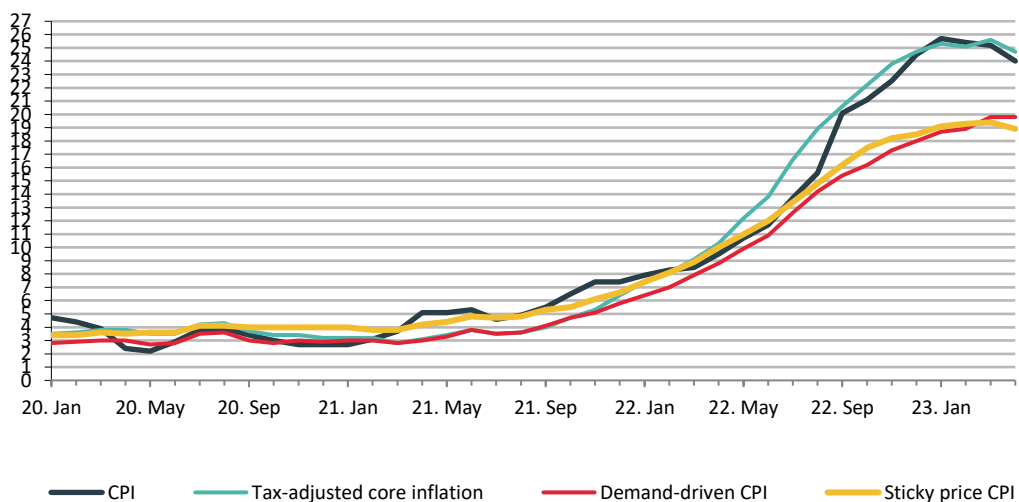
The average increase in household energy prices was 41.8% in April as compared to the same period of the previous year. Within household energy, the price of piped natural gas increased by 62.8%, electricity by 27.6% and cylinder natural gas by 59.4% over the past year. Despite the price boom on the world market, the discount household utility prices

remained stable until July. From August, they remained the same up to average consumption. Above average consumption, however, consumers have to pay a higher price, which is calculated by the KSH in the billing month. The increase in energy prices will result in an inflation surplus of around 2.5-3% each month, a trend that is expected to continue until September 2023, when the base effect will take effect.

In April, prices of services rose by an average of 14.1%, with vehicle repair and maintenance up 23.4%, tickets to sports events and museums up 27.9% and taxi up 36.2%. Domestic holiday prices also increased significantly, by 28.0%. The average price increase of services was moderated by, among other things, no change in the prices of sanitation, water and sewerage (100.0%) and a 9.2% increase in rents and housing services. In contrast to the other main groups, services have not started to decline in annualised inflation, but rather to increase.

Compared to the previous month, food prices remained unchanged on average, with the most significant increase being for chocolate and cocoa (3.5%). The price of services rose by 1.7% month on month, while the price of household energy fell by 0.8% compared with the previous month, thanks to the mild weather and rationalised consumption.

FIGURE 10: THE EVOLUTION OF INFLATION (ANNUAL CHANGE IN PERCENTAGE)



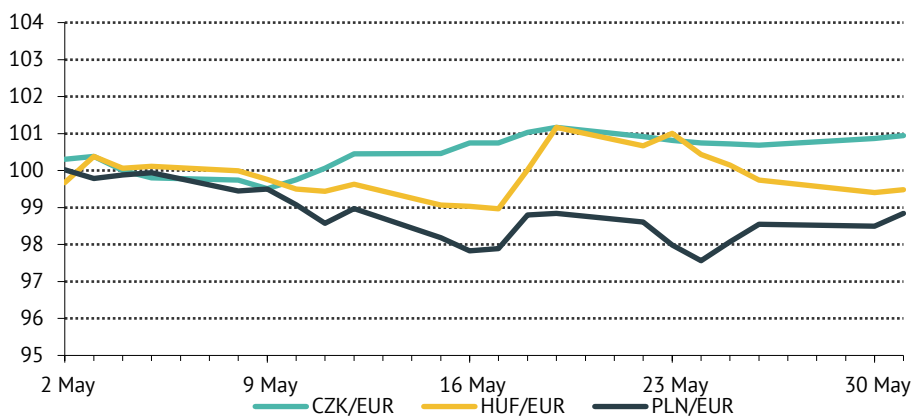
Source: MNB, Századvég

Among the core inflation indicators published by the MNB, in April, the seasonally adjusted core inflation rate was 24.8%, the core inflation rate net of indirect taxes was 24.7%, and the sticky price inflation rate was 18.9%. Core inflation excluding processed food was 19.8% in April 2023.

Both the Czech koruna and the Polish zloty strengthened against the euro.

In May, exchange rates in the region showed a mixed picture in relation to the euro. The Czech koruna weakened by 0.64%, while the Polish zloty strengthened by 1.18% against the euro over the period. Government bond yields moved in the opposite direction over the period: the Czech 10-year government bond yield closed 5 basis points lower at 4.46%, while the Polish 10-year yield closed 22 basis points higher at 6.04%.

**FIGURE 11: CHANGES IN EXCHANGE RATES IN THE REGION
(BASELINE VALUE = 100%)**



Source: Refinitiv, Századvég

The forint showed a mixed performance against major currencies.

Hungarian money and foreign exchange market indicators have been very positive in the recent period, but there is now a slight slowdown. The HUF strengthened by 0.19% against the Euro and weakened by 1.2% against the Swiss Franc and by 2.7% against the US

Dollar. This means that at the end of May 2023, one euro was worth 371 forints, one US dollar was worth 348 Forints and one Swiss franc was worth 382 forints. Sovereign debt held by foreigners decreased by HUF 89.2 billion to HUF 7,204 billion in the past month.

The central bank started monetary easing at its May

At its meeting in May, the Monetary Council of the central bank did not change the base rate (13%) but started to cut the policy rate. The Monetary Council left the overnight deposit interest rate at 12.5%, but also lowered the upper limit of the interest rate corridor by 100 basis points to 19.5%, together with the policy rate. The central bank cut its effective rate, the overnight deposit facility rate, to 17.0%. This is the first time since the end of the interest rate hiking period in October that the Magyar Nemzeti Bank has significantly changed monetary conditions.

In the government bond market, yields for shorter maturities varied between -157 basis points and -88 basis points on the secondary yield curve in May. This means that the 3-month yield was 13.39%, the 6-month yield was 13.61% and the 1-year yield was 12.8% on 31 May. The 3-year yield fell by 25 basis points to 9.73%. There was no change in the 5-year time horizon, while the 10-year time horizon showed an 11 basis point increase and the 15-year time horizon showed a 30 basis point decrease in yields compared to the previous month. These three yields changed, therefore, to 8.69%, 7.89%, and 7.27%, respectively.

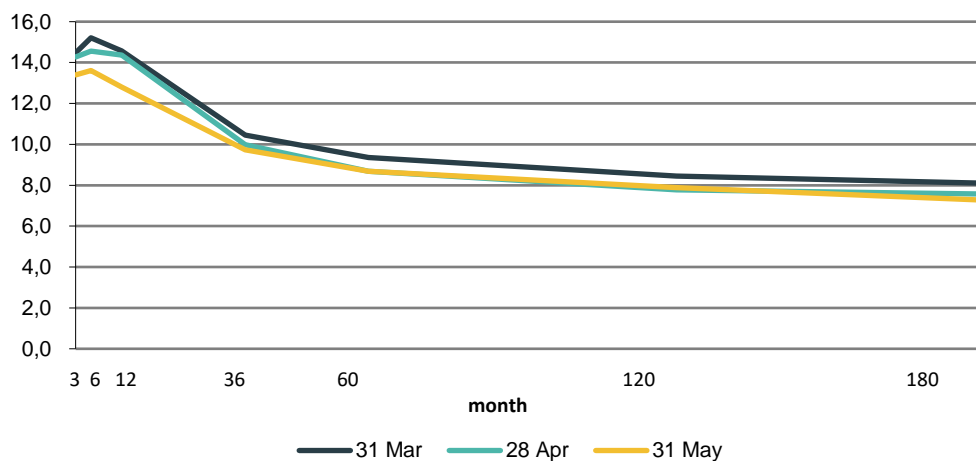
On 31 March 2023, the total value of “MÁP Plusz” government securities held by retail investors was HUF 1,586.1 billion after a HUF 848.4 billion decrease from the HUF 2,434.5 billion level at the end of December 2022. The main reason for this is that in a high inflation environment, households prefer to buy the inflation-tracking Premium Hungarian Government Bond (PMÁP), whose cumulative value has risen to HUF 5,319.7 billion, an increase of HUF 998.0 billion compared to the end of 2022. For PMÁP, the GDMA currently maintains the interest rate

premium on the 7-year government bond at 1.5 percentage points, while the interest rate premium on the 4-year government bond at 0.75 percentage points. In an environment of significantly higher interest rates, the total stock of government securities held by retail investors was HUF 8,819.4 billion, or HUF 265.7 billion higher at the end of March 2023, compared with HUF 8619.4 billion at the end of 2022.

The share of foreign currency debt in the sovereign debt changed to 25.14% in April (i.e. decreased by 0.56 percentage point), which is in the range (maximum 30%) specified in the financing plan for 2023 of GDMA. In the first four months of 2023, average foreign currency debt averaged 25.75%, down by more than 1.5% compared to the first month of 2023.

At the end of May, Hungary’s sovereign debt rating remained at Baa2 with a stable outlook at Moody’s, BBB with a negative outlook at S&P and BBB with a stable outlook at Fitch. Thus, all three major international credit rating agencies have a risk rating for Hungarian treasury securities that is one category above the lowest grade that is still recommended for investment.

FIGURE 12: CHANGES IN THE HUF YIELD CURVE (%)



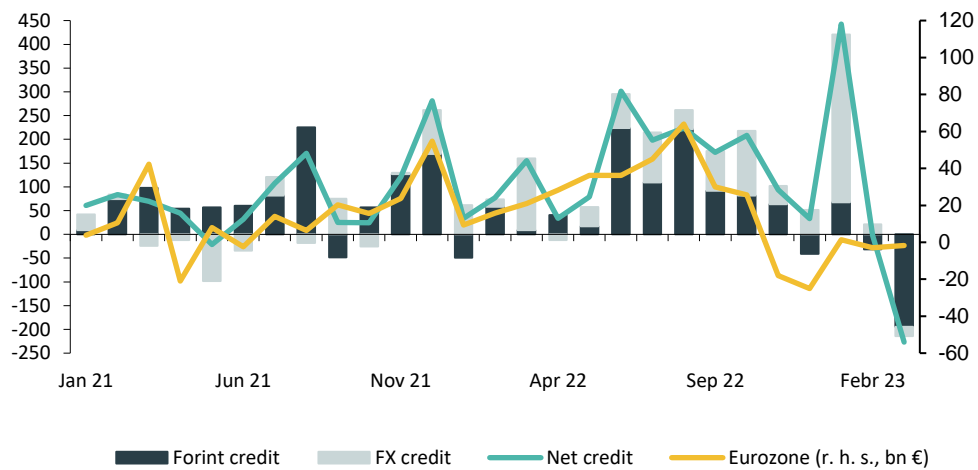
Source: GDMA, Századvég

Corporate credits have significantly decreased.

Seasonally adjusted data show that the net repayment of HUF loans in the business sector was HUF 194.8 billion in March 2023. Net

foreign currency loans also decreased, with repayments amounting to HUF 19.1 billion in March 2023. Declining foreign currency loans also have a positive impact on companies' exposure to foreign exchange risk. This means that, based on seasonally adjusted data, total net borrowing was HUF -226.7 billion in February. Corporate loan repayment in the euro area was EUR 1.7 billion in February 2023.

FIGURE 13: CORPORATE BORROWING (HUF BILLION)



Source: MNB, ECB, Századvég

3. Századvég's forecast²

1. TÁBLÁZAT: 2023 Q1 FORECAST

	2022	2023	2024
Gross domestic product (volume index)	4.6	0.6	3.4
Internal market demand (volume index)	4.8	-1.4	1.6
Export volume index (based on national accounts)	10.3	1.8	4.5
Import volume index (based on national accounts)	9.5	-1.0	2.6
Balance of international trade in goods (EUR billion)	-8.5	-6.5	-5.5
Consumer price index (%)	14.4	17.5	4.5
Central bank base interest rate at the end of the period (%)	13.0	10.7	7.8
Unemployment rate (%)	3.6	3.9	3.6
Current account balance as a percentage of GDP	-7.5	-4.0	-2.2
Net lending as a percentage of the GDP	-4.8	-1.7	0.0
ESA balance of public finances as a percentage of GDP	-6.1	-3.9	-2.5
Sovereign debt as a percentage of GDP	73.5	69.7	67.6

Source: MNB, KSH, Századvég's calculation

2. TÁBLÁZAT: QUARTER-ON-QUARTER CHANGE OF OUR FORECAST

	2023			2024		
	12.2022	03.2023	change	12.2022	03.2023	change
Gross domestic product (volume index)	1.9	0.6	-1.3	4.9	3.4	-1.5
Internal market demand (volume index)	0.0	-1.4	-1.4	4.4	1.6	-2.8
Export volume index (based on national accounts)	0.8	1.8	1.0	7.4	4.5	-2.9
Import volume index (based on national accounts)	-0.9	-1.0	-0.1	6.3	2.6	-3.7
Balance of international trade in goods (EUR billion)	-6.8	-6.5	0.3	-5.5	-5.5	0.0
Consumer price index (%)	19.3	17.5	-1.8	9.6	4.5	-5.1
Central bank base interest rate at the end of the period (%)	13.0	10.7	-2.3	12.1	7.8	-4.3
Unemployment rate (%)	4.2	3.9	-0.3	4.4	3.6	-0.8
Current account balance as a percentage of GDP	-4.1	-4.0	0.1	-3.1	-2.2	0.9
Net lending as a percentage of the GDP	-1.9	-1.7	0.2	-1.1	0.0	1.1
Balance of public finances as a percentage of GDP	-5.0	-3.9	1.1	-2.6	-2.5	0.1
Sovereign debt as a percentage of GDP	73.0	69.7	-3.3	69.5	67.6	-1.9

Source: Századvég's calculation

² Date of preparation: 20 March 2023