# MACRO MONITOR

## March 2023

Századvég
Konjunktúrakutató Zrt.

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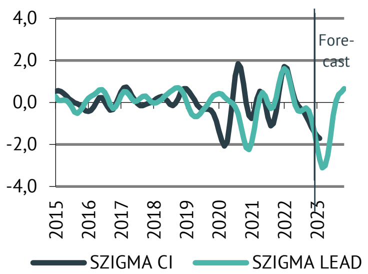
## DISCLAIMER

# 1. Summary

**UNTIL MARCH THIS YEAR, THE MNB DID NOT CHANGE THE BASE RATE OR THE EFFECTIVE INTEREST RATE**

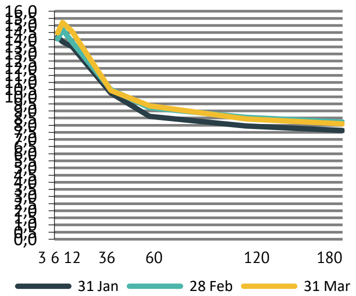
**In Q4, economic output was 0.4% higher than a year earlier, and, on a quarterly basis, it shrank by 0.4%.**

**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 |

International macroeconomic events in March were dominated by the failures of the US Signature Bank and Silicon Valley Bank. The problem lies mainly in the weaknesses in risk management and the banks' business models.

The US Federal Reserve raised its benchmark interest rate by only 25 basis points this time in order to maintain stability in the financial markets, and no further rate hikes are forecast. Despite the banking panic, the ECB raised the base rate by 50 basis points in March, as expected.

The March 2023 forecast of the SZIGMA LEAD indicator, which expresses expectations for the Hungarian economy's future performance in the short term, projects that at the end of the short-term (9-month) forecast horizon, the Hungarian economy will grow slightly above its historical trend.

The high inflation environment forced central banks to raise interest rates. Currently, Hungary has the highest effective interest rate (overnight (O/N) deposit rate: 18.0%) in the region, following the October move by the Hungarian central bank.

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

**The European banking system is resilient and has a strong capital and liquidity position.**

International macroeconomic events in March were dominated by the failures of the US Signature Bank and Silicon Valley Bank. The problem lies mainly in the weaknesses in risk management and the banks' business models. In the case of Silicon Valley Bank, almost half of the balance sheet total was made up of held-to-maturity mortgage bonds, which do not need to be carried at fair value as banks hold them to maturity, but the realisable value of mortgage bonds has been significantly reduced by rising US interest rates. The problem was exacerbated by the fact that Silicon Valley Bank's customers are mostly start-ups, which had difficulties in finding new funding in the downturn and were forced to liquidate their deposits, forcing the bank to liquidate long-term assets at a significant loss. The risk management problems were exacerbated by the panic among depositors, which, together with the phenomena already mentioned, led to the failure of Silicon Valley Bank.

The panic has also reached European banks, which operate under stricter regulation than in the US: the share price of Credit Suisse, one of the largest Swiss banks, has fallen by more than 60% since mid-March. In order to avoid an even bigger banking panic, UBS, with the help of the Swiss central bank, launched a takeover of its competitor.

The US Federal Reserve raised its benchmark interest rate by only 25 basis points this time in order to maintain stability in the financial markets, and no further rate hikes are forecast. Despite the banking panic, the ECB raised its key interest rate by 50 basis points in March, as expected, and the central bank's president Christine Lagarde verbally confirmed that the European banking system is resilient and has a strong capital and liquidity position.

## 2.2 SZIGMA indicators

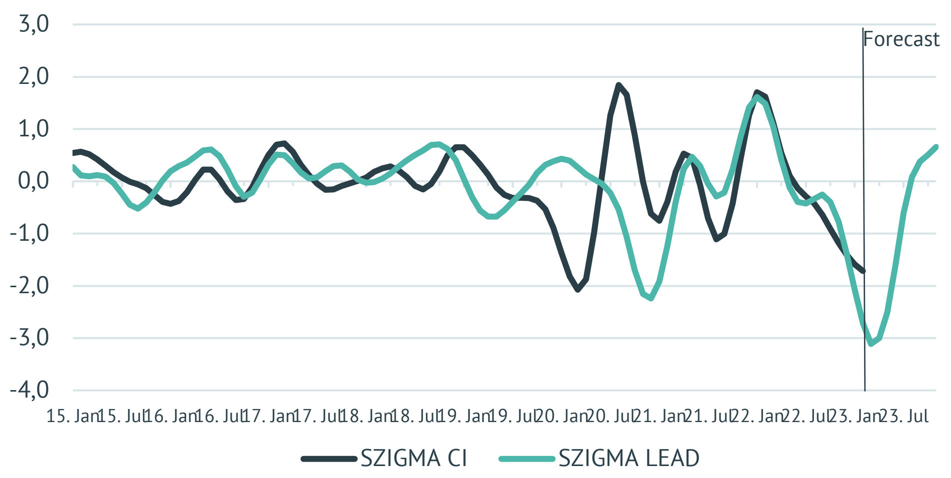
**We expect a trend reversal in the growth rate of the Hungarian economy.**

In March 2023, the SIGMA CI indicator measured until February 2023 was still in negative territory. The indicator provides feedback on the current state of the Hungarian economy. Accordingly, in February 2023, the Hungarian economy grew at a rate below the historical trend. Moreover, at present, even this growth rate is gradually moving away from the historical trend. However, our forecast suggests that this divergence will soon change. We will discuss this in more detail in the next section. 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. This may have reflected the adverse international and domestic economic environment and its negative effects.

Industrial and construction output has fallen. In January 2023, the month-end stock of **construction** contracts on a fixed basis fell by 18.2% year on year. At the same time, the month-end stock of contracts increased by 11.7% month on month compared to December 2022. The slowdown in construction is likely to continue, given that the number of new non-residential building projects is down by 16.7% month on month and 26.1% year on year. Taking seasonality into account, the number of new non-residential building projects fell sharply from November 2022. While this figure has fluctuated between 300 and 400 per month in recent years, it fell to 276 in December 2022 and 230 in January 2023. While the number of new non-residential building projects generally tends to increase in December, the number of new non-residential building projects fell significantly in December 2022. The January number of new non-residential building projects is typically lower than in the rest of the year. The current January 2023 figure (230) is lower than before the COVID-19 pandemic (256 in January 2020) and during the pandemic (256 in January 2021). Domestic demand in **industry** continued to contract and exports also declined. On a seasonally and working-day adjusted fixed basis, domestic industrial sales fell by 8.3% month on month and by 18.0% year on year. Industrial export sales decreased by 4.0% month on month and by 1.8% year on year. Not surprisingly, industrial output on a seasonally and working-day adjusted fixed basis also fell, by 5.0% month on month and by 2.9% year on year.

In March 2023, the February 2023 forecast of the SZIGMA LEAD indicator, which measures expectations for the Hungarian economy's future performance in the short term, projects a turnaround in the Hungarian economy's growth in the near future. The Hungarian economy is still forecast to reach its trough of below-trend growth in April 2023 and from then on to reverse and start to converge towards its historical trend. According to the current forecast, the SZIGMA LEAD indicator will reach its trend value in August 2023, when the growth rate of the Hungarian economy will reach its historical trend value and will then exceed this historical trend value until the end of the 9-month time horizon (November 2023). In summary, economic growth is expected to strengthen in the near term. However, in the first half of 2023, adverse economic developments such as high interest rates, high inflation, shrinking domestic demand and uncertain energy prices are expected to persist. The outlook for the industry is mixed. New industrial sales orders on a fixed basis in January 2023 fell by 39.4% month on month, thanks to the strong base in December 2022; however, they increased slightly (0.9%) year on year. The high month-on-month base was due to exports, so naturally *new industrial export sales orders* on a fixed basis fell by 42.7% month on month; however, they increased by 3.0% year on year. New domestic industrial sales orders on a fixed basis showed the opposite effect, increasing by 4.1% month on month and decreasing by 10.7% year on year. The February 2023 Ifo Business Climate Index, which measures the change in business sentiment in the German economy, continued to show improving economic sentiment. The index improved by 0.9 index points month on month to 91.1, above the 90.5 index points recorded in the month of the war (March 2022). However, it is still far from the pre-war index point of 98.6 (February 2022). In February 2023, Eurostat's consumer confidence index continued to rise month on month. Therefore, it improved from -45.8 index points in the previous month to -41.1 index points. 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). Therefore, the year-on-year weakening remains significant (30.9 index points), which could be improved as consumer confidence recovers.

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




*Source: Századvég*

## 2.3 The real economy

**Hungarian GDP grew by 0.4%.**

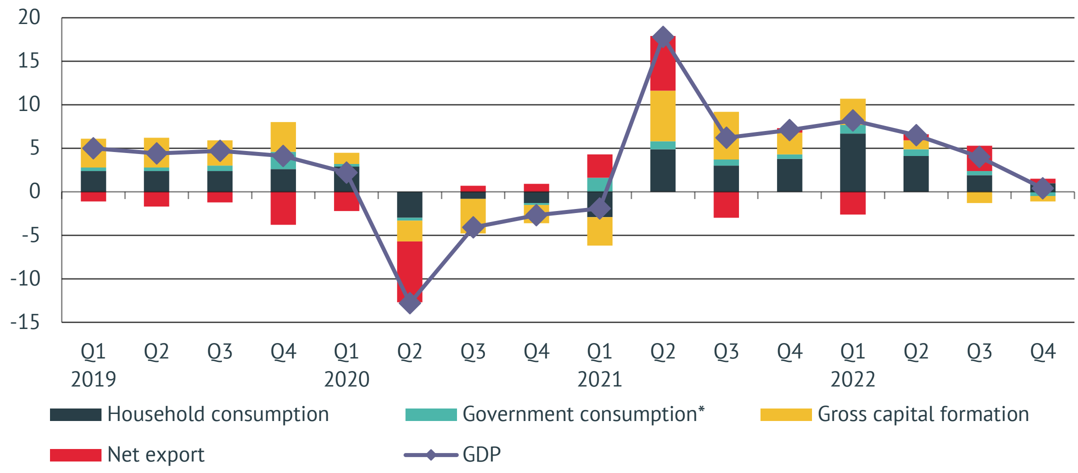
The Hungarian Central Statistical Office's second estimate for Q4 2022 showed a 0.4% increase in gross domestic product compared with a year earlier. Based on the seasonally and calendar-adjusted data of the second estimate, the GDP grew by 0.8% year on year, while it was 0.4% lower quarter on quarter.

On the production side, the added value generated by industry rose by 2.7%, including manufacturing by 3.3%, compared to Q4 2021. The added value generated by the construction industry in the quarter in question was 0.9% higher, that of services was 2.8% higher than one year before. Agricultural output fell by 32.3% year on year, mainly as a result of the severe drought. Agriculture moderated GDP growth by 1.0 percentage points, while services contributed 1.7 percentage points and industry 0.5 percentage points. Construction is roughly stagnating (up 0.1 percentage points).

In terms of consumption, household final consumption expenditure increased decreased by 2.1%, but the volume of collective consumption fell by 4.5% relative to Q4 2021. Gross fixed capital formation fell by 8.6% compared to the same period of the previous year.

In Q4 2022, the volume of exports was 9.8% higher than in the same period of the previous year, while the volume of imports was 9.2% higher. Hence, the foreign trade balance increased GDP growth by 0.5 percentage points. Within exports, exports of services rose by 15.6% and exports of goods by 8.5% on an annual basis. Within imports, imports of services increased by 15.4% and imports of goods by 8.3% compared to the same period last year.

**FIGURE 2: CONTRIBUTION TO ANNUAL GDP GROWTH (CONSUMPTION SIDE, %)**



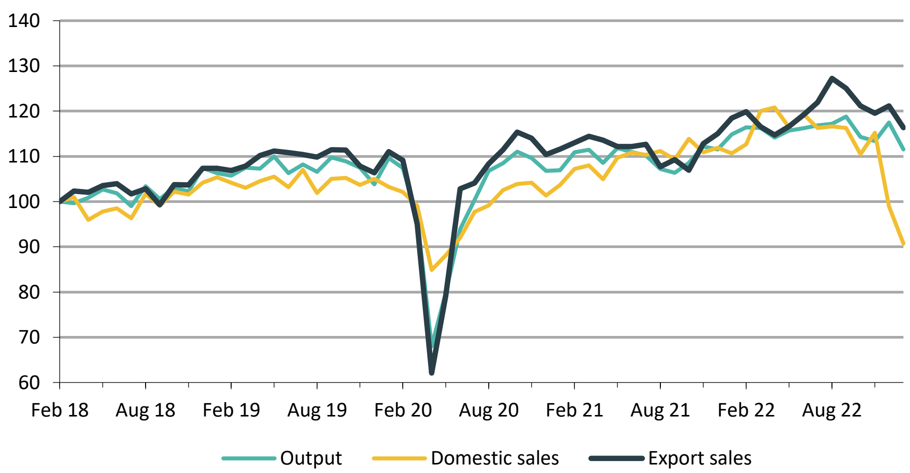

**Including social benefits in kind.*

*Source: Hungarian Central Statistical Office*

## Industrial output shrank in January 2023.

Compared to the same period of the previous year, industrial output decreased by 0.2% in raw data terms and by 3.2% in working-day adjusted data terms in January 2023. On a monthly basis, compared to December 2022, seasonally and working day-adjusted industrial output decreased by 5.1%. January 2023 (total) industrial sales fell by 7.8% year on year, driven by a 16.5% decline in domestic sales and a 0.2% decline in export sales.

**FIGURE 3: CHANGES IN INDUSTRIAL OUTPUT AND SALES (JANUARY 2018 = 100%)**



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

Returning to industrial production, the manufacturing sector continued to account for the largest share (96.3%) of industrial production in January 2023, with an annual increase of 1.2%. Of the remaining share, the energy sector (electricity, gas and steam supply and air conditioning) contributed 3.4% and mining and quarrying 0.3% to industrial production in. Volumes in the latter two sectors fell year on year. The volume of energy production, which accounts for 3.4%, fell by 19.5%, and the volume of production in the mining and quarrying sector, which accounts for 0.3%, fell by 16.6%. Automotive manufacturing continued to contribute to manufacturing output in January 2023. Compared to the same period of the previous year, automotive manufacturing, which weighed in at 25.0%, expanded by 20.3%, the second largest volume increase in manufacturing output. In terms of contribution to manufacturing output, three sectors followed significantly behind automotive manufacturing: food production with a share of 12.1%, electrical equipment manufacturing with a share of 11.2% and computer, electronic and optical products with a share of 11.1%. Of these, the output of food production contracted by 12.2% year on year. At the same time, output in the electrical equipment manufacturing sector, which accounts for 11.2% of the total, grew by 43.5% year on year, the largest volume increase in manufacturing output. Output in the computer, electronic and optical products manufacturing sector, which accounts for 11.1% of the total, expanded by 10.8%.

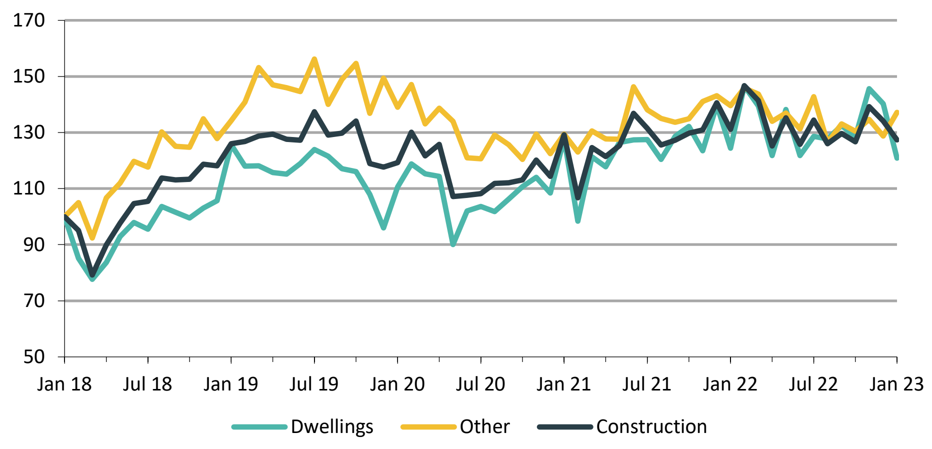
The stock of sales orders, which determines current and future trends in industrial production and sales, was as follows in January 2023: The total stock of sales orders in the manufacturing industries monitored by the HCSO increased by 3.4% year on year. This was driven by a 3.4% increase in export sales orders and a 4.1% increase in domestic sales orders. Two sectors showed a significant increase in exports year on year. Stocks of sales orders increased in pharmaceuticals (77.9%) and computer, electronic and optical products (17.8%). While in pharmaceuticals the very low base also played a role in the outstanding growth, the other sector saw a significant increase in sales orders despite the high base. In terms of the stock of domestic sales orders, five sectors saw a meaningful year-on-year increase: pharmaceuticals (89.1%), metals (20.2%), machinery (47.9%), computers, electronics and optical equipment (15.2%) and electrical equipment manufacturing (52.4%). For these five sectors, the low base was also reflected in the growth of the metals and machinery industries. However, for computer, electronic and optical product manufacturing and electrical equipment manufacturing, domestic sales orders increased significantly despite the high base.

New sales orders in priority manufacturing industries increased by 1.0% in January 2023. This was driven by a 3.1% increase in new export sales orders and a 10.7% drop in new domestic sales orders. Among new domestic sales orders, new sales orders fell in all but two priority manufacturing sectors year on year. The two sectors with growth were electrical equipment manufacturing, where new domestic sales orders increased by 19.5%, and machinery and equipment manufacturing, where new domestic sales orders increased by 17.9%. In terms of new export sales orders, two sectors showed significant year-on-year growth: pharmaceuticals (38.8%) and electrical equipment manufacturing (52.2%).

**The construction sector is gradually slowing down.**

In January 2023, construction output shrank both month on month (5.0%) and year on year (3.6%). On an annual basis, output decreased in both main construction categories, buildings shrank by 4.0% and civil engineering works by 2.1%. At the end of January 2023, construction sales orders were down by 18.20% year on year. Looking ahead, in January 2023, new construction contracts decreased by 28.0% year on year. This was driven by a decrease in new construction contracts for both buildings (23.2%) and civil engineering works (36.2%).

**FIGURE 4: CHANGES IN THE CONSTRUCTION INDUSTRY (JANUARY 2018 = 100%)**




*Remark: Seasonally and calendar adjusted indices.*

*Source: Hungarian Central Statistical Office, Századvég*

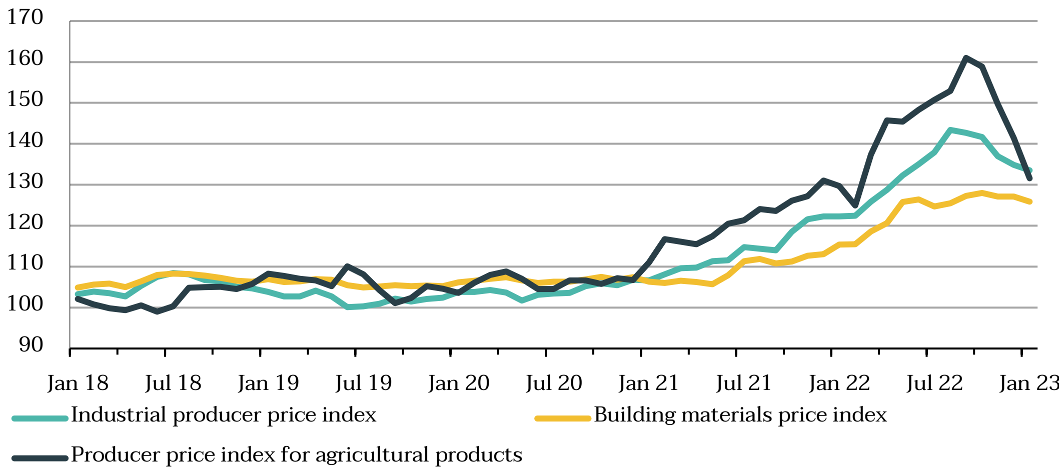
**The increase rate of agricultural producer prices has fallen significantly.**

In January 2023, the rate of increase in producer prices for industrial and agricultural goods continued to fall, positively affecting consumer price developments and new industrial sales orders.

**Industrial** producer price increases continued to slow, albeit slightly. While producer prices increased by 34.9% year on year in December 2022, they rose by 33.5% in January 2023. This annual increase, taking into account the previous months and their base effect, shows a downward trend. As can be seen from the fixed-base industrial producer price indices, the decline in the rate of industrial producer price increase started in October 2022 and continued in January 2023. **Construction** also saw price increases slow in January 2023. The building materials price index rose by 25.9% year on year. **Agricultural** producer price increases **fell sharply** in January 2023. This could have a further positive impact on food price increases. Year on year, agricultural producer prices increased by 31.6% in January 2023. While this is still high, it is much more favourable when looking back over the previous few months: in October 2022 it was 58.9%, in November 2022 49.7% and in

December 2022 41.4% on a broadly similar base. So, the rate of the monthly decline was not just due to the base effect.

**FIGURE 5: INDUSTRIAL PRODUCER PRICE INDEX, CONSTRUCTION INPUT PRICE INDEX, AGRICULTURAL PRODUCER PRICE INDEX (SAME PERIOD OF PREVIOUS YEAR = 100%)**



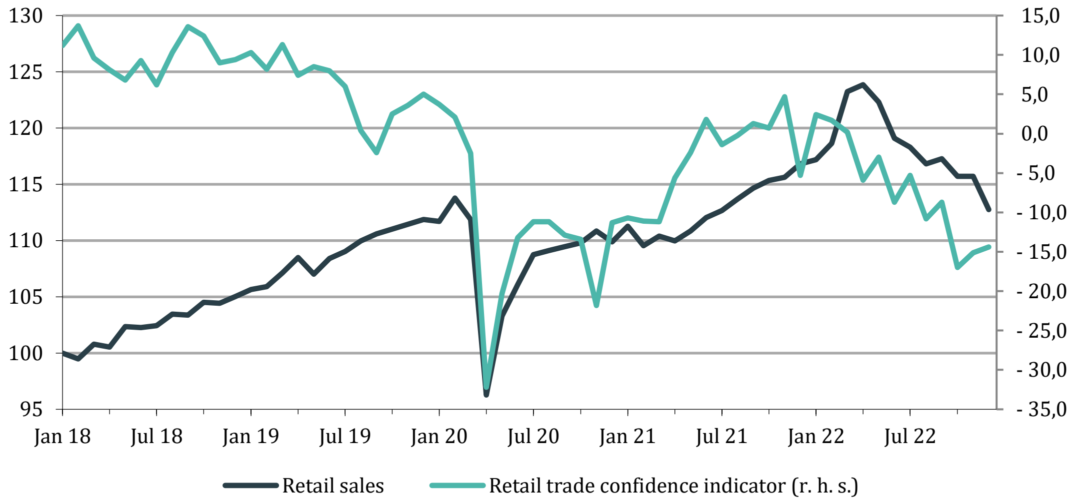

*Source: Hungarian Central Statistical Office, Századvég*

**Retail sales contracted by 4.5%.**

In January 2023, retail sales decreased by 3.9% on a raw basis and by 4.5% on a calendar-adjusted basis compared with the same period of the previous year. The slowdown in sales is caused by high energy costs, productivity problems in agriculture and the volatile forint exchange rate, which are generating increasing inflationary pressures in the economy, which, combined with rising interest rates, are encouraging households to rationalise consumption and increase their propensity to save. In January 2023, turnover in specialised and non-specialised food shops decreased by 4.8%, while turnover in non-food shops also decreased by 1.5%. In fuel retailing, sales fell significantly by 9.7% in January compared to the same month last year, driven by a number of factors. For one thing, the base effect is becoming increasingly pronounced due to the official pricing applied last year, and for another, market fuel prices are reducing demand, with some car owners looking for alternatives.

Calendar-adjusted data show an increase of 0.3% in food, beverages and tobacco, while foodstuffs showed a significant decrease of 6.7%. In non-food retail, the sales of medicinal products fell by 2.7%, that of furniture and electric goods by 6.5% and that of parcel and internet services by 7.6% compared to the same period last year. In contrast, the largest increase in sales volume (13.4%) was recorded in textile products, clothing and footwear. In addition, increases were recorded for books, newspapers and stationery (4.1%) and computer and other manufactured goods (6.0%) compared to January last year. If we look at retail sales excluding the volume of fuel sales, we find that the year-on-year decline in the current month is smaller (3.4%) than in the previous three months.

**FIGURE 6: RETAIL SALES AND RETAIL CONFIDENCE INDEX (JANUARY 2018 = 100%)**




*Remark: Seasonally and calendar adjusted indices.*

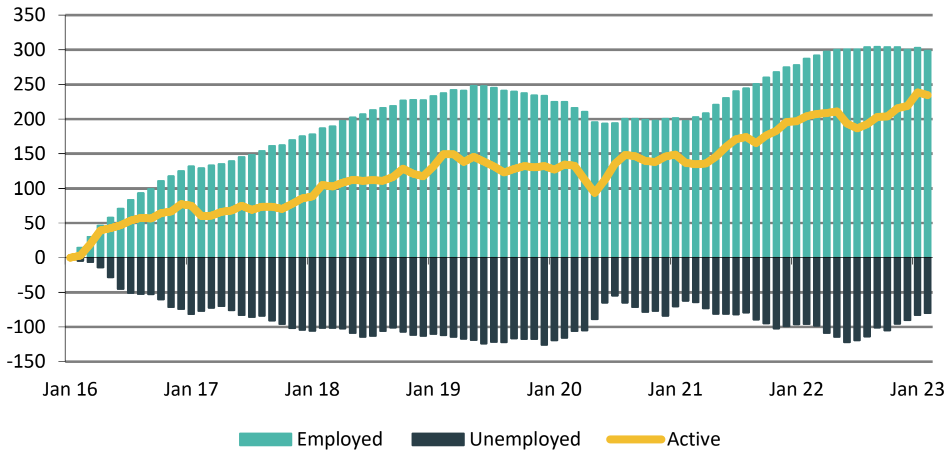
*Source: Hungarian Central Statistical Office, Eurostat, Századvég*

## Unemployment rate at 4.1% in February

Between December 2022 and February this year, the seasonally adjusted activity rate of the population aged 15-74 was 67.0% (4,901,000 persons), which means an increase of 30,000 in the labour market compared to the same period of the previous year. In the period under review, the seasonally adjusted number of employees was around 4,702,000, an increase of 3,300 and 14,700 respectively compared to the previous three months and the same period of the previous year. On the other hand, unemployment has also risen slightly, with the number of the unemployed reaching 199,100, an increase of 15,400 compared to the previous quarter and 15,600 compared to the previous year.

In January, the seasonally adjusted number of employees decreased by 2,000 compared to December, while it increased by 18,600 compared to the same period of the previous year. The most significant increase in the number of employees was in the competitive sector, with 48,000 more people working in enterprises with at least 5 employees compared to 2022, and 15,000 fewer compared to December. The number of non-profit employees rose by a few hundred over the month, while the number of public sector employees stagnated.

**FIGURE 7: CHANGES IN THE LABOUR MARKET (JANUARY 2016 = 0, THOUSAND EMPLOYEES)**



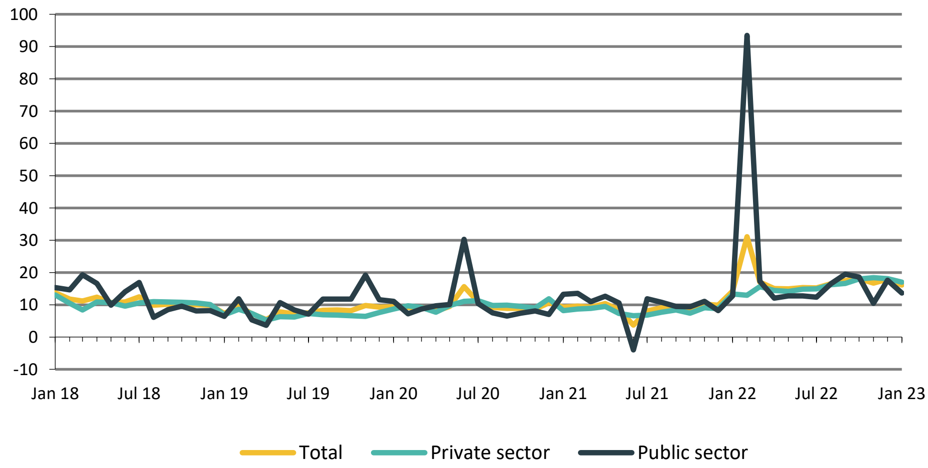

*Remark: Seasonally and calendar-adjusted indices*

*Source: Hungarian Central Statistical Office, Századvég*

## Real wages fell in January

In January, the average gross monthly wage in the national economy was HUF 528,000, up 16.1% compared to the same period last year. The highest average gross monthly wage was recorded in the competitive sector, at HUF 538,400. The average net monthly wage including benefits was HUF 363,900, an annual increase of 16.0%. The average regular gross monthly wage, excluding bonuses, rewards and one-off benefits, increased by 17.3% in January 2023 compared to a year earlier, to an estimated HUF 502,900. Real wages fell by 7.6%, reflecting accelerating inflation, which was 25.7% in January. The median gross monthly wage was HUF 422,400.

**FIGURE 8: CHANGES IN GROSS WAGES (ANNUAL CHANGE, %)**




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

## 2.4 External balance

In December, the EUR value of product exports increased by 12.0%, and the EUR value of product imports increased by 9.8% year on year. The trade balance deficit was, therefore, EUR 168 million, EUR 190 million less than in the previous year.

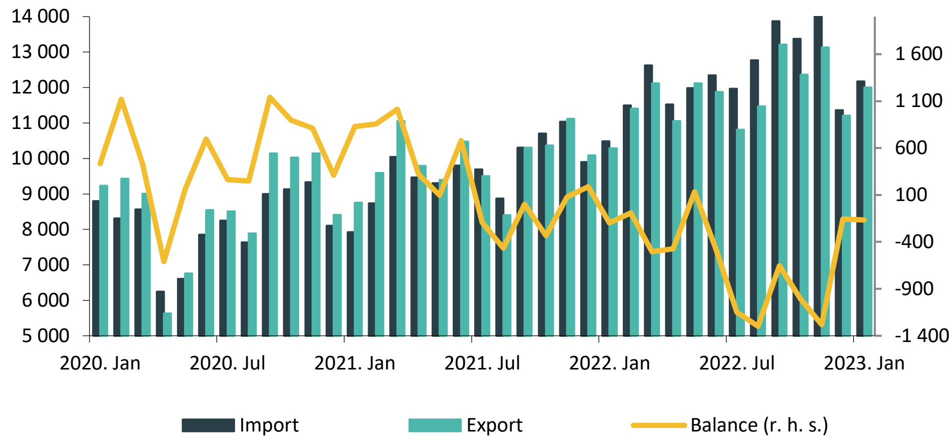
In December, the volume of food product imports increased by 5.5%, and food product exports decreased by 7.9% year on year. As for energy carriers, imports increased by 24.0%, and exports decreased by 27.0%. As for processed products, imports decreased by 7.6%, and exports by 0.2%

year on year. As for machinery and transport equipment, imports increased by 1.0%, and exports by 15.0%.

**The foreign trade balance deteriorated.**

In January 2023, the EUR value of exports was 15.0% higher and the EUR value of imports was 14.0% higher than a year earlier. Therefore, the trade balance deficit in goods amounted to EUR 165 million, which is EUR 78 million better than a year earlier.

**FIGURE 9: FOREIGN TRADE BALANCE (EUR MILLION)**




*Remark: The January 2023 figures are from the first estimate.*

*Source: Hungarian Central Statistical Office, Századvég*

## 2.5 Fiscal outlook

**Payments by business organisations increased by 42.4% in the first two months of the year.**

In February 2023, the central budgetary subsystem closed with a deficit of HUF 1,525.1 billion. This deficit consisted of the HUF 1,532.6 billion deficit of the general government budget, the HUF 50.6 billion deficit of social security funds and the HUF 58.1 billion surplus of extra-budgetary funds.

Central government revenue in the first two months of the year was 15.8% higher than in the same period of the previous year.

Payments from business organisations were 42.4% higher than in the same period of 2022. Within payments from business organisations, corporate tax receipts, the most significant item, were 26.8% (HUF 24.8 billion) higher in the first two months of the previous year. Mining royalties and energy sector payments increased significantly by HUF 32.5 billion and HUF 65.8 billion respectively compared to the same period last year, largely due to the temporary introduction of extra taxes in 2022.

Revenues from consumption-related taxes were 11.4% (HUF 139.4 billion) higher than a year earlier. VAT receipts were HUF 77.6 billion (8%) higher than at the end of February in the previous year. Excise tax revenue was HUF 41.2 billion (22.9%) more than in the first two months of 2022. The most significant increase (HUF 37.6 billion) was observed for tobacco products, driven by an increase in turnover due to the stocking effect of the January 2023 tax rate increase.

Personal income tax revenues increased by HUF 721.2 billion compared to January-February 2022. The rise was partly due to wage increases and partly to a low base due to last year's family tax rebate. Receipts from social contribution tax and social insurance contributions increased by 14.5% (HUF 136.1 billion) compared to the same period of the previous year, also caused by wage increases.

Revenue from EU programmes up to February was HUF 208.4 billion, HUF 14.9 billion more than in 2022 and an increase of 7.7%. In contrast, expenditure on EU programmes amounted to HUF 313.3 billion, HUF 379.4 billion 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.

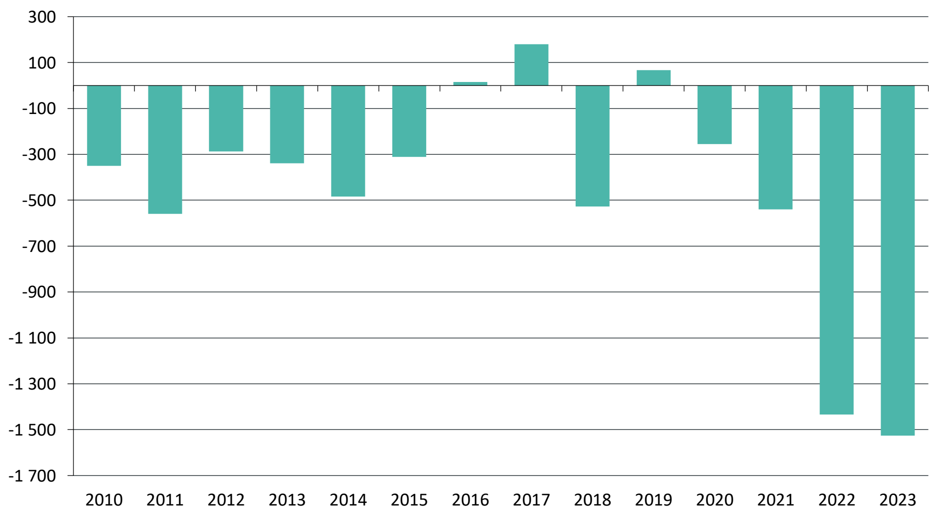
The amount spent on specific and normative subsidies was HUF 685 billion higher than at the end of February last year. The most significant item of increase was the HUF 563.9 billion in expenditure to maintain discount household utility prices, while the availability fees related to the expressway network and motorways were also HUF 66.9 billion higher than in the previous year.

Expenditure on public property increased to HUF 391.8 billion. The most significant group of expenditure, expenditure on companies, amounting to HUF 350 billion, is expected to cover the purchase of the state's stake in Vodafone in January 2023. Expenditure on housing subsidies was HUF 53.9 billion higher than in the same period of the previous year.

Compared to the same period last year, expenditure on chapter-administered professional appropriations decreased significantly, by HUF 554 billion.

In the January-February 2023 period, expenditure on retirement benefits amounted to HUF 1,279.3 billion, up 27.4% compared to the same period in 2022. During the same period, the Health Insurance Fund spent HUF 662.4 billion, an increase of 7.4% 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 5.4%.

**FIGURE 10: CENTRAL SUBSYSTEM BALANCE, 2010–2023 (JANUARY–FEBRUARY RESULTS, HUF BILLION)**




*Source: Ministry of Finance, Századvég*

## 2.6 Monetary developments

**In February, prices increased by 25.4%, on average.**

In February 2023, consumer prices increased by 25.4% on average relative to the same period of the previous year. Over the past year, the highest increases were for food (43.3%) and household energy (49.0%), the latter due to changes in household utility discounts. Consumer prices rose by 0.8% on average over a month. The seasonally adjusted core inflation rate showed a year-on-year increase of 25.2%.

The more significant contributors to the 43.3% average increase in food prices were the 71.1% increase in bread prices, the 72.1% increase in cheese prices and the 79.2% increase in egg prices. The average inflation of 68.6% for other confectionery products, 57.3% for dry pasta and 51.9% for pastries also outpaced average food inflation for the month. In contrast, pork prices rose at a below-average rate (29.3%), while edible oil inflation (3.4%) was also below average. The main drivers of the 18.8% average inflation in spirits and tobacco were primarily the 36.9% increase in beer prices.

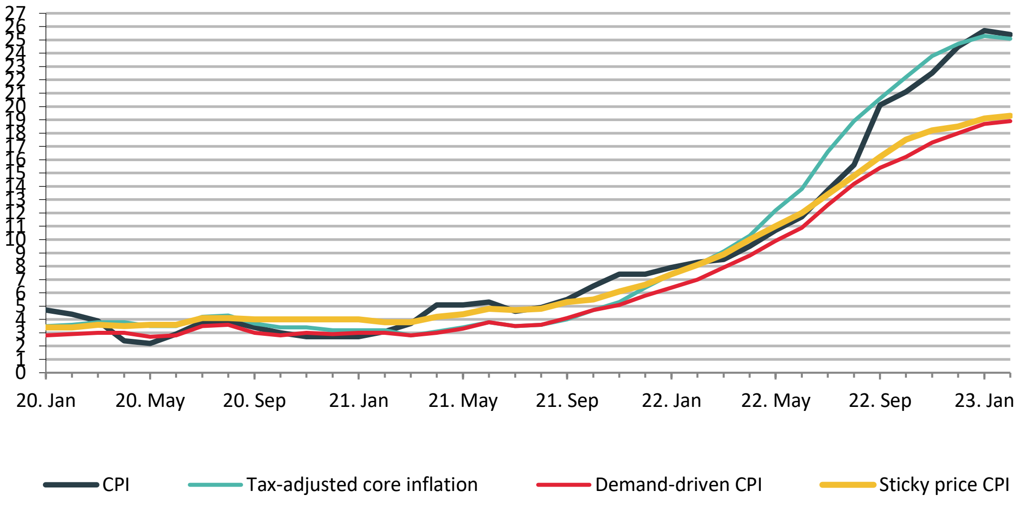
The 23.9% increase in new car prices played a particularly important role in the 12.6% average increase in the prices of consumer durables. The prices of heating and cooking appliances also increased at an above-average rate, by 20.2%, while kitchen and other furniture prices rose by 19.6% compared to the same period last year. Jewellery also saw an above-average price increase of 22.0% year on year in February. Consumer durables inflation is moderated by a 5.0% increase in the prices of computers, cameras and telephones, and a 0.1% decrease in the prices of televisions.

The average increase in household energy prices was 49.0% in February, compared to the same period of the previous year. Within household energy, the price of piped gas increased by 78.4%, electricity by 27.6% and cylinder gas by 52.0% 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. On the other hand, the mild winter and energy-saving measures have led to a third month of monthly (month-on-month) falls in household energy prices.

In February, prices of services rose by an average of 11.6%, with home repair and maintenance up 22.0%, vehicle repair and maintenance up 24.7% and taxi up 32.0%. The average price increase of services was moderated by, among other things, no change in the prices of sanitation, water and sewerage (100.0%), a 3.6% increase in the price of TV subscriptions and a 5.5% increase in the price of local public transport.

Compared with the previous month, food prices rose by an average of 1.7%, with the most significant increase being for seasonal foodstuffs (6.4%). The price of services rose by 1.0% on a monthly basis, while the price of household energy fell by 2.0% compared with the previous month, thanks to the mild winter.

**FIGURE 11: THE EVOLUTION OF INFLATION (ANNUAL CHANGE IN PERCENTAGE)**



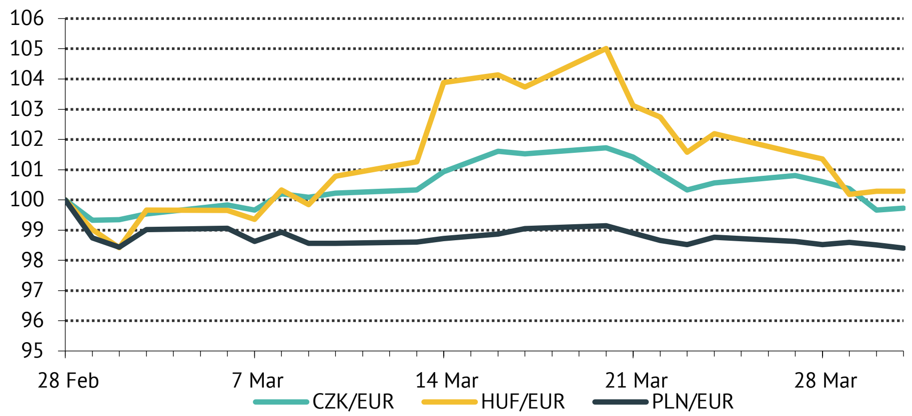

*Source: MNB, Századvég*

Among the core inflation indicators published by the MNB, in February, the seasonally unadjusted core inflation rate was 25.2%, the core inflation rate net of indirect taxes was 25.1%, and the sticky price inflation rate was 19.3%. Core inflation excluding processed food was 18.9% in the first month of the year.

**Both the Czech koruna and the Polish zloty strengthened.**

Exchange rates in the region were favourable against the euro. The foreign currency exchange rates for both the Czech koruna and the Polish zloty have strengthened against the Euro, by 0.27% and 1.6%, respectively. However, government bond yields fell: the Czech 10-year government bond yield was 32 basis points lower at 4.63%, while the Polish 10-year yield closed 52 basis points lower at 6.07%.

**FIGURE 12: CHANGES IN EXCHANGE RATES IN THE REGION (BASELINE VALUE = 100%)**




*Source: Refinitiv, Századvég*

**The Forint strengthened against the euro.**

Indicators of the Hungarian financial and foreign currency markets have shown a mixed picture in the past period. The 10-year government bond yield closed at 8.44%, dropping 11 basis points. The HUF weakened by 0.29% against the euro and by 1.26% against the Swiss franc, but it strengthened by 1.03% against the US dollar. This means that at the end of March 2023, one euro was worth 381 forints, one US dollar was worth 350 Forints and one Swiss franc was worth 382 forints. Sovereign debt held by foreigners in HUF has recently decreased by HUF 245 billion to HUF 6,578 billion.

**In March, the central bank did not change its effective interest rate.**

At its March meeting, the Monetary Council of the central bank left its key interest rate unchanged at 13.00%. The Monetary Council left the overnight deposit interest rate at 12.5% and the lending rate at 25.0%. The central bank's effective interest rate, the interest rate on overnight deposits, remained at 18.0%. The MNB has increased the effective interest rate by 1,740 basis points since the start of the rate hike cycle. The asymmetric interest rate corridor defines the limits of the overnight interbank market interest rate and the central bank overnight deposit interest rate.

Over the past month in the government bond market, changes of yields for shorter maturities varied between 42 basis points and 75 basis points on the secondary yield curve. This means that the 3-month yield was 14.48%, the 6-month yield was 15.21% and the 1-year yield was 14.57% on 31 March. The 3-year yield fell by 5 basis points to 10.45%. Yields are up 13 basis points over the 5-year horizon and are down 11 basis points over the 10-year horizon and 12 basis points over the 15-year horizon compared to the previous month. These three yields changed, therefore, to 9.36%, 8.44%, and 8.10%, respectively.

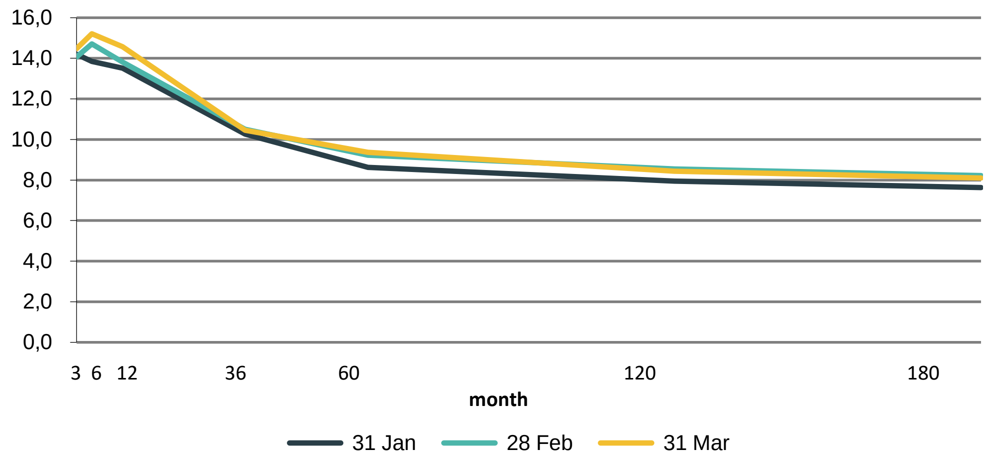
On 28 February 2023, the total value of "MÁP Plusz" government securities held by retail investors was HUF 1,777.6 billion after a HUF 656.9 billion decrease from the HUF 2,434.5 billion level at the end of December 2022. Given the high inflationary environment, the public prefers to hold government bonds with a fixed real interest rate, which are inflation-tracking, to the tune of HUF 5,045.1 billion (PMÁP as of 31 January: HUF 4,692.7 billion). 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 200.1 billion higher at the end of February 2023, compared with HUF 8619.4 billion at the end of 2022.

The share of foreign currency debt in the sovereign debt changed to 25.5% in February (i.e. decreased by 1.2 percentage points), which is in the range (maximum 30%) specified in the financing plan for 2023 of GDMA.

At the end of February, 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 13: CHANGES IN THE HUF YIELD CURVE (%)**

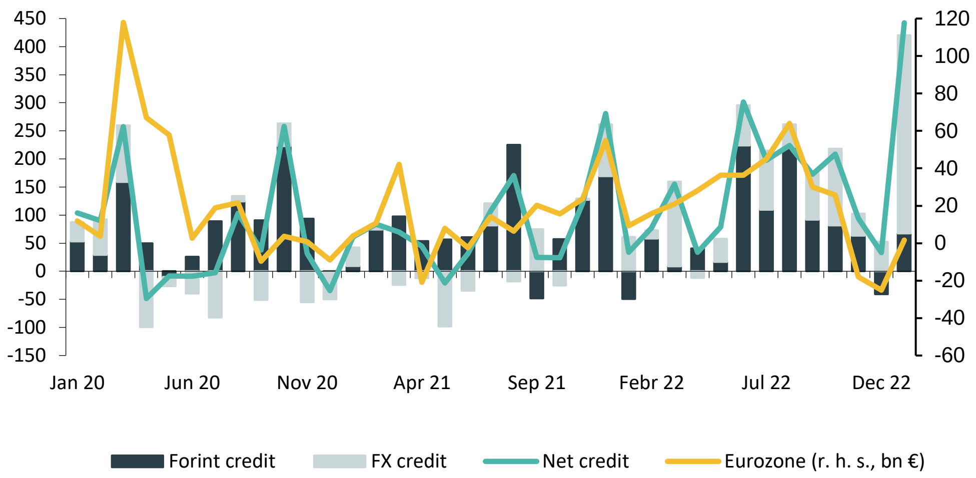



*Source: GDMA, Századvég*

**Corporate credits in foreign currencies have increased significantly.**

Seasonally adjusted data show that the net repayment of HUF loans in the business sector was HUF 67.7 billion in January 2023. The net borrowing of foreign currency loans was HUF 352.9 billion in January 2023; in other words, the aggregate value of foreign currency loans held by the business sector, i.e. exchange rate risk exposure, increased sharply. This means that, based on seasonally adjusted data, total net borrowing was HUF 442.5 billion in January. Corporate borrowing in the euro area was EUR 1.558 billion in January 2023.

**FIGURE 14: CORPORATE BORROWING (HUF BILLION)**




*Source: MNB, ECB, Századvég*

# 3. Macroeconomic forecast

Hungarian economic output grew by 4.6% in 2022, while we estimate that it will expand by 0.6% in 2023 and 3.4% in 2024. We have revised down our growth expectations since our previous forecast in December 2022. Downside risks include declining retail sales, uncertainties around EU funding and falling investment due to high interest rates.

In the global context, the main factor is the Russo-Ukrainian war, which has been going on for more than a year, and the sanctions, which have led to uncertain gas supplies in Europe and a substantial increase in energy prices. On the upside, supply difficulties, which initially caused uncertainty, did not lead to gas shortages in Europe. On the downside, energy prices are still subject to a high degree of uncertainty, while oil and gas prices have also declined in recent months. At the same time, inflation in the European Union and the euro area has risen at a slower rate in recent months. These factors could reduce external inflationary pressures in Hungary. Looking at domestic inflation developments, we expect inflation to peak in Q1 2023 and then fall. Therefore, by the end of the year, inflation could reach a level below 10%, estimated at 17.5% on an annual basis. Inflation could fall to 4.5% in 2024.

Monetary policy was tightened last year to tackle rising inflation, with the central bank gradually raising its base rate and overnight deposit interest rate, and increasing the reserve ratio. We expect that the overnight (O/N) deposit interest rate will continue to be the instrument that allows the central bank to react flexibly to rapidly changing market conditions, while the base rate is unlikely to rise in the future. The base rate or the policy rate may fall in line with the decline in inflation. We expect the central bank's inflation target to be reached after 2024.

Looking at economic trends, we expect growth to be 0.6% this year, up from 4.6% last year, followed by 3.4% in 2024. With real wages expected to fall and inflation expectations high, consumption is likely to fall in the beginning of the year. In addition, the uncertain economic outlook and the high interest rate environment may also keep private investment subdued this year. The slowdown in investment could be mitigated by a focus on energy modernisation projects and state-funded military developments. Taking these effects into account, we expect domestic demand to fall by 1.4% in 2023. The steepest decline is likely to occur in the first half of the year, but as the year draws to a close, we expect a gradual rise in domestic demand, with an annualised increase of 1.6% by 2024.

Following the fiscal adjustment announced at the end of last year, we expect, at the beginning of this year, a moderate increase in government spending. On an annual basis, however, government spending could increase by 1.3% in 2023 and 2% in 2024.

We currently expect the ESA general government deficit to reach 3.9% of GDP and the cash deficit to reach 4.5% of GDP in 2023, in line with government plans. Since the presentation of the draft budget in December, no significant divergence has emerged that would justify an alternative budget forecast. The government forecasts that gross government debt-to-GDP will fall to 69.7% by the end of the year.

In 2023, domestic export growth will be strongly affected by external demand and the high base effect from the previous year. Therefore, we expect exports to increase by 1.8% in 2023, while in 2024, exports could rise by 4.5%. Import dynamics are mainly affected by domestic demand and exports: Import volumes could fall by 1% in 2023 and increase by 2.6% in 2024.

# 4. Századvég's forecast[1]

**TABLE 1:2023 Q1 FORECAST**

| | 2022 | 2023 | 2023 |
|---|---|---|---|
| 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, Hungarian Central Statistical Office, Századvég's calculation*

**TABLE 2: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*

[1] Date of preparation: 20 March 2023